U.S. ARMY ENGINEER DIVISION
HUNTSVILLE, ALABAMA

00542
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FINAL
VOLUME II OF II

FEASIBILITY STUDY REPORT AT THE ASH LANDFILL SITE

DECEMBER 1996

APPENDIX C

ARAR Compliance

Table C-1
ARARs Summary for Source Control Remedial Action Alternatives
Seneca Army Depot Activity - Ash Landfill

ARARs	Alternative SC-1	Alternative SC-2	Alternative SC-3	Alternative SC-4	Alternative SC-5
CHEMICAL-SPECIFIC ARARS					
Air Quality					
40 CFR Part 50.8: Ambient Air Quality Standard for Carbon Monoxide.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 50.12: Ambient Air Quality Standard for Lead.	Not applicable	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 50.9: Ambient Air Quality Standard for Ozone.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 50.6: Ambient Air Quality Standard for PM-10.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 61: NESHAPS	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 58: Ambient Air Quality Surveillance.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
6 NYCRR subpart 257-1: Air Quality Standards General.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
6 NYCRR subpart 257-3: Air Quality Standards-Particulates.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
6 NYCRR subpart 257-4: Air Quality Standards for Carbon Monoxide.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply

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ARARs Summary for Source Control Remedial Action Alternatives
Seneca Army Depot Activity - Ash Landfill
(Con't)

ARARs	Alternative SC-1	Alternative SC-2	Alternative SC-3	Alternative SC-4	Alternative SC-5
6 NYCRR subpart 257-6: Air Quality Standards - Hydrocarbons (non methane).	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
NYSDEC Air Guide - 1: AGCs and SGCs for barium, copper, zinc, TCE, DCE, vinyl chloride	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
Water Quality					
40 CFR Part 131: Water Quality Standards.	Not Applicable	Not Applicable	Not Applicable	Will Comply	Not Applicable
40 CFR Part 131.12: Antidegradation Policy.	Will Not Comply	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 141: National Primary Drinking Water Regulations.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 141.11: Maximum Inorganic Chemical Contaminant Levels.	Not Applicable	Not Applicable	Not Applicable	Will Comply	Not Applicable
40 CFR Part 230; Section 404(b)(I)L: Guidelines for Specification for Disposal Sites for Dredged or FIll material	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 264 Subpart F: Releases from Solid Waste Management Units.	Will Not Comply	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 403: Pretreatment Standards	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Will Comply

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Seneca Army Depot Activity - Ash Landfill
(Con't)

ARARs	Alternative SC-1	Alternative SC-2	Alternative SC-3	Alternative SC-4	Alternative SC-5
6 NYCRR Chapter X: SPDES	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
6 NYCRR subparts 701 and 702: Water quality standards	Will Not Comply	Will Comply	Will Comply	Will Comply	Will Comply
6 NYCRR subpart 703: Groundwater standards	Will Not Comply	Will Comply	Will Comply	Will Comply	Will Comply
6 NYCRR subpart 375: Inactive hazardous waste disposal sites.	Will Not Comply	Will Comply	Will Comply	Will Comply	Will Comply
6 NYCRR subpart 373-2.6 and 373-2.11: Groundwater monitoring for releases from SWMUs	Will Comply	Will Comply	Will Comply	Will Comply	Will Comply
6 NYCRR subpart 373-2: Postclosure care and groundwater monitoring	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
10 NYCRR Part 5: Drinking water supplies.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
NYSDEC TOGS 1.1.1: Water quality standards and guidance	Will Not Comply	Will Comply	Will Comply	Will Comply	Will Comply
Soil Quality					
40 CFR Part 268: Land Disposal Restrictions.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR subpart S parts 264.552 and 264.533: Corrective Action	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
6 NYCRR subpart 375: Inactive hazardous waste disposal sites.	Will Not Comply	Will Comply	Will Comply	Will Comply	Will Comply

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Seneca Army Depot Activity - Ash Landfill
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ARARs	Alternative SC-1	Alternative SC-2	Alternative SC-3	Alternative SC-4	Alternative SC-5
LOCATION-SPECIFIC ARARS					
40 CFR Part 257.3-2: Endangered species	Will Comply	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 264.18: Location Standards for Hazardous Waste Facilities.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 241.202: Site selection	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
16 USC Part 469a-1: The Archaeological and Historic Preservation Act	Will Comply	Will Comply	Will Comply	Will Comply	Will Comply
36 CFR Part 800: Historic properties	Will Comply	Will Comply	Will Comply	Will Comply	Will Comply
ACTION-SPECIFIC ARARS					
Solid Waste Management					
40 part CFR 241.100: Land Disposal of Solid Wastes.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 241.204: Water Quality.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 241.205: Air quality	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 243.202: Transport	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
6 NYCRR Part 360: Subtitle D solid waste landfills	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
Hazardous Waste Management					

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Seneca Army Depot Activity - Ash Landfill
(Con't)

ARARs	Alternative SC-1	Alternative SC-2	Alternative SC-3	Alternative SC-4	Alternative SC-5
40 CFR 262.11: Generators	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 263.30 and 263.31: Release during transport.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 264: Hazardous waste management facility standards	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 270 subpart C: Permit conditions	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 270 subpart B: Permit applications	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Occupational Health and Safety Administration					
29 CFR Part 1910.50: Occupational Noise	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
29 CFR Part 1910.1000: Occupational Air Contaminants	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
29 CFR Part 1910.1200: Hazard communication	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
29 CFR Part 120: Employee training and medical monitoring.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
Transportation of Hazardous Waste					
49 CFR Part 171: Transport of hazardous material.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

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Seneca Army Depot Activity - Ash Landfill
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ARARs	Alternative SC-1	Alternative SC-2	Alternative SC-3	Alternative SC-4	Alternative SC-5
40 CFR Part 172: Hazardous materials table, special provisions, Hazardous Materials Communications, Emergency Response Information, and Training requirements.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
49 CFR Part 177: Carriage by Public Highway.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
6 NYCRR Chapter 364: New York Waste Transport Permit Regulation.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
EPA/DOT Guidance Manual on hazardous waste transportation	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Note: Final compliance with 16 USC Part 469a-1 and 36 CFR Part 800 depends on the results of the recent archeological survey, which has not yet been completed.

Table C-2
ARARs Summary for Migration Control Remedial Action Alternatives
Seneca Army Depot Activity - Ash Landfill

ARARs	Alternative MC-2	Alternative MC-3	Alternative MC-5	Alternative MC-6	Alternative MC-7
CHEMICAL-SPECIFIC ARARS					
Air Quality					
40 CFR Part 50.8: Ambient Air Quality Standard for Carbon Monoxide.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Compl
40 CFR Part 50.12: Ambient Air Quality Standard for Lead.	Not applicable	Will Comply	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 50.9: Ambient Air Quality Standard for Ozone.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 50.6: Ambient Air Quality Standard for PM-10.	Not Applicable	Will Comply	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 61: NESHAPS	Not Applicable	Will Comply	Will Comply	Will Comply	Will Compl
40 CFR Part 58: Ambient Air Quality Surveillance.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Compl
6 NYCRR subpart 257-1: Air Quality Standards General.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Compl

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ARARs	Alternative MC-2	Alternative MC-3	Alternative MC-5	Alternative MC-6	Alternative MC-7
6 NYCRR subpart 257-3: Air Quality Standards-Particulates.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
6 NYCRR subpart 257-4: Air Quality Standards for Carbon Monoxide.	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
6 NYCRR subpart 257-6: Air Quality Standards - Hydrocarbons (non methane).	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
NYSDEC Air Guide - 1: AGCs and SGCs for TCE, DCE, and vinyl chloride	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
Water Quality					
40 CFR Part 131: Water Quality Standards.	Will Comply	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 131.12: Antidegradation Policy.	Will Comply	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 141: National Primary Drinking Water Regulations.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
40 CFR Part 141.11: Maximum Contaminant Levels.	Will Comply	Will Comply	Will Comply	Will Comply	Will Comply

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ARARs	Alternative MC-2	Alternative MC-3	Alternative MC-5	Alternative MC-6	Alternative MC-7
40 CFR Part 264 Subpart F: Releases from Solid Waste Management Units.	Will Comply	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 403: Pretreatment Standards	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicab
6 NYCRR Chapter X: SPDES	Not Applicable	Will Comply	Will Comply	Will Comply	Will Comply
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10 NYCRR Part 5: Drinking water supplies.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

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NYSDEC TOGS 1.1.1: Water quality standards and guidance	Will Comply	Will Comply	Will Comply	Will Comply	Will Comply
LOCATION-SPECIFIC ARARS					
40 CFR Part 257.3-2: Endangered species	Will Comply	Will Comply	Will Comply	Will Comply	Will Comply
40 CFR Part 264.18: Location Standards for Hazardous Waste Facilities.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
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40 CFR Part 243.202: Transport	Not Applicable	Not Applicable	Will Comply	Will Comply	Will Comply
6 NYCRR Part 360: Subtitle D solid waste landfills	Not Applicable	Not Applicable	Will Comply	Will Comply	Will Comply
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40 CFR 262.11: Generators	Not Applicable	Not Applicable	Will Comply	Will Comply	Will Comply
40 CFR Part 263.30 and 263.31: Release during transport.	Not Applicable	Not Applicable	Will Comply	Will Comply	Will Comply
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Occupational Health and Safety Administration					
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Transportation of Hazardous Waste					
49 CFR Part 171: Transport of hazardous material.	Not Applicable	Not Applicable	Will Comply	Will Comply	Will Comply
40 CFR Part 172: Hazardous materials table, special provisions, Hazardous Materials Communications, Emergency Response Information, and Training requirements.	Not Applicable	Not Applicable	Will Comply	Will Comply	Will Comply
49 CFR Part 177: Carriage by Public Highway.	Not Applicable	Not Applicable	Will Comply	Will Comply	Will Comply
6 NYCRR Chapter 364: New York Waste Transport Permit Regulation.	Not Applicable	Not Applicable	Will Comply	Will Comply	Will Comply
EPA/DOT Guidance Manual on hazardous waste transportation	Not Applicable	Not Applicable	Will Comply	Will Comply	Will Comply

te: Final compliance with 16 USC Part 469a-1 and 36 CFR Part 800 depends on the results of the recent archeological surveys, which has n been completed.

APPENDIX D

Cost Backup

Cost Backup
for
Source Control Alternatives

Cost Backup
for
Alternative SC-2

Off-Site Disposal

ALTERNATIVE SC-2

Excavate Ash Landfill, Debris Piles, the "Bend-n-the-Road" and the Non-Combustible Fill Landfill (NCFL); Dispose in an off-site landfill.

Area of Excavation	Volume	Classification
"Bend-in-the-Road" Volume	23,126 CY	Hazardous Waste
Ash Landfill	12,356 CY	Non-Hazardous Waste
Debris Piles	770 CY	Non-Hazardous Waste
Non-Combustible Fill Landfill	32,422 CY	Non-Hazardous Waste

Total Hazardous Waste - 23,126 CY
Total Non-Hazardous Waste - 45,548 CY

Disposal Costs (includes excavation, transportation and disposal).

Hazardous Waste = 23,126 CY $460/CY = $10,640,000

Non-Hazardous Waste = 45,548 CY x $150/CY = $ 6,830,000

Total $17,470,000

OFF-SITE SUBTITLE D LANDFILL $/ton

ENGINEERING-SCIENCE, INC. Transport/Dispose

MEMORANDUM OF TELEPHONE CONVERSATION

	NAME	COMPANY	
WITH:	Rita Frost	Waste Management of NY High Acres Landfill 425 Perinton Parkway Fairport NY, 14450	JOB NO.: 720466-01023
			FILE NO.:
CLIENT:	U.S. Army Engineers		DATE: 11-29-93
PROJECT:	OBFS		TIME: 10AM
SUBJECT OF CONVERSATION:	Haul/dispose of soil		INITIATED BY: REM
			TEL. NO.: (716) 223-6132

DISCUSSION

Subtitle D landfill charges: soil $28/ton
solidif. soil $65/ton

Need one TCLP/1,000cy

Assumes 50% void space for solidif. product: $22/ton to transport

Total to trans./dispose of solidif. product
= 22+65 = $87/ton ≈ $90/ton

$\gamma_{SHALEFILL}$ = 1.5 ton/cy $135/cy

Say $150/cy

Response Requested __ Yes __ No
Date Requested

PARSONS

RUST REMEDIAL SERVICES INC.

100 Nassau Park Boulevard
Princeton, NJ 08540
Tel. (609) 243-7800

July 8, 1993

Mr. Michael Curry
Project Engineer
Engineering-Science, Inc.
Prudential Center
Boston, Massachusetts 02199

RE: ROMULUS, NEW YORK, PROJECT SITE

RRS Proposal No. 432387

Dear Mr. Curry:

RUST Remedial Services Inc. (RRS) is pleased to submit to Engineering-Science, Inc. this outline of estimated costs for project remediation activities at your client's site near Romulus, New York. These costs are being provided with the understanding that this is for budgetary purposes only and for your exclusive use with your client. These cost numbers cannot be used for any other purpose except by written permission from RRS.

The scope of work provided by you in a letter dated 15 June 1993 results in the following cost outline:

	Estimated Cost
Develop Work Plans and Health and Safety Plans for site activities	$5,000
Obtain necessary permits	$2,500
Develop Sampling Plans and implement sampling program to include analysis for disposal at CWM (Chemical Waste Management, Inc., Model City, NY)	$50,000
Site Mobilization of Personnel and Equipment to include site preparation and development	$175,000
Excavate 14,500 cubic yards of contaminated soil	$275,000
Ground water treatment and dewatering	$75,000

Printed on Recycled Paper.

	Estimated Cost
Transportation and Disposal $178*-$278*/ton for ~~14,500~~ 21,300 cu. yds. at 1.5 tons/cu. yd. or ~~21,750~~ 35,000 tons	$6,221,100 - $9,716,100 *~~$3,871,500-$6,046,500~~
Backfill to grade - site restoration	$215,000
Air monitoring	$150,000
Demobilization	$65,000
Estimated Total:	~~$4,884,000-$7,059,000~~ 7,233,600 - 10,728,600 $460/CY

*Note: Transportation and Disposal costs are dependent on sample analysis and approval at CWM, Model City, NY. These costs can be significantly reduced based on analytical data and sample evaluation.

To provide a very detailed operation plan and cost analysis it would be necessary to meet with your client and visit the project site to better understand your total scope of the project. Because we have not had this opportunity, the cost numbers provided may not represent the true accuracy necessary to provide advisement to your client.

RRS can provide a variety of capabilities to you and your client with respect to this project. Utilizing one company for all on-site activities in conjunction with providing transportation and disposal will be a cost saving advantage to you and reduce your client's environmental liabilities.

RRS offers a wealth of experience (see attached capabilities) as well as access to the resources of other RUST International Inc. companies, including:

- RUST Environment and Infrastructure (REI) with 80 years of environmental engineering and consulting experience;
- RUST Industrial Services with over 15 years of industrial services (including cleaning, demolition, marine construction and scaffolding) experience;
- RUST Construction Services, with 80 years of large-scale heavy construction experience in fields of energy systems, materials handling, chemical processing, metals, environmental and automation control;
- RUST Engineering, with 80 years of experience in architectural, electrical, control systems, mechanical, piping, structural, and civil engineering; and
- RUST Limited, the company's International Business Unit.

Please review these estimated costs and if questions develop please contact me at 716-754-0328 / 215-245-8100.

All correspondence should be forwarded to the RRS regional office at:

RUST Remedial Services Inc.
3220 Tillman Drive, Suite 200
Bensalem, Pennsylvania 19020

Phone 215-245-8100
FAX 215-245-8116

Thank you for considering RUST Remedial Services Inc. for your client's hazardous waste and remediation requirements.

Sincerely,
RUST Remedial Services Inc.

Art Pethybridge Jr

Arthur Pethybridge
Business Development Manager

cc: Dana Kaas
Mike Warminsky
Lauren Sionko (CWM)

RUST REMEDIAL SERVICES INC. CAPABILITIES

- On-site Innovative Technologies
  - Low-temperature thermal desorption
  - X*TRAX™ thermal organics extractor
  - LT*X™
  - PY*ROX™ High-temperature incineration of RCRA and PCB wastes
  - In-situ and ex-situ bioremediation
  - MAG*SEP™ metals removal water treatment system
  - ACT*DE*CON™ actinides removal chemical treatment system
  - Soil vapor extraction
  - Chem*Matrix℠ and MEC*Tool™ ex-situ and in-situ stabilization and solidification systems
  - De*Chlor™ chemical dechlorination system
  - Groundwater, surface water, and wastewater treatment
    - PO*WW*ER™ organics separator
    - Pumping and extraction
    - Injection wells
    - Air stripping
    - UV oxidation
    - Modeling
    - Feasibility studies
    - Carbon phase filtration
    - Filter pressing
    - Fuel recovery
    - Chemical neutralization, reduction, and stabilization
    - Oil/water separation
    - Biodegradation/bioreclamation
    - Ion exchange
- Engineered controls
  - Slurry trench cut-off walls
  - Landfill/impoundment closures
  - Permeable and impermeable caps
  - Subsurface drains
  - Grout curtains
  - Sheet piling cut-off walls
  - Injection barriers and flow control
  - Waste site bottom sealing
  - Dikes and levees
  - Revegetation
  - Grading contouring
- Media monitoring and sampling
- Air pollution controls
  - Gas collection and venting
  - Dust suppression
  - Wind screens
- Nuclear waste treatment and disposal
- Excavation and off-site disposal of contaminated materials

Cost Backup
for
Alternative SC-3

Consolidation and Capping of the NCFL

ALTERNATIVE SC-3

Excavate Ash Landfill and Debris Piles, consolidate in Non-Combustible Fill Landfill, Cap Non-Combustible Fill Landfill.

Basis

Excavation volume = 12,356 + 770 + 23,300 = 36,426
3-foot clay cap
2-foot topsoil cap
Revegetate site
Clean fill excavation
Cap area = 180,000 ft^2 (20% increase over Non-Combustible Fill Landfill)
8 monitoring wells to be installed

Cost Basis

Clay = \$13/yd^3 - installed
Clean Fill = \$10/yd^3 - installed
Revegetation = \$2,000/acre
Monitoring wells = \$3,000/well
Excavation/consolidation = \$5/yd^3

Capital Costs

1.	Excavate, consolidate 36,426 yd^3 x \$5/yd^3	\$ 182,130
2.	Install clay cap 180,000 ft^2 x 7 yd^2/9 ft^2 x 1 yd x \$13/yd^3	\$ 260,000
3.	Install topsoil & clean fill [(20,000 yd^2 x 0.67 yd) + 36,426 yd^3] x \$10/yd^3	\$ 498,260
4.	Revegetate 6 acres x \$2,000/acre	\$ 12,000
5.	Install monitoring wells - 8 wells x \$3,000/well	\$ 24,000
	Subtotal	\$ 976,390
6.	Engineering and permitting (10%)	\$ 97,600
7.	Site prep, mob, demob (5%)	\$ 48,800
8.	Project administration & management (5%)	\$ 48,800
9.	Contingency (20%)	\$ 195,200
		\$1,366,946

ANNUAL O&M COSTS FOR ALTERNATIVE SC-3

Cap Maintenance

Inspection	$1,500	10 hours labor & travel, subsistence
Clay cap repair	$ 300	
Mix. repairs	$ 300	
Administration	$1,000	
	$3,100	

Quarterly Sampling

Per Quarter

	8 Wells		16 Wells	
Labor:	$5,000	4 days x 2 people x 10 hours x $15/hr	$ 7,500	6 days
Substinence:	$ 720	4 days x 2 people x $40/day	$ 1,080	6 days
Travel:	$ 500	2 plane tickets at $250/each	$ 500	
Van:	$ 250	weekly rate	$ 250	
Materials & Supplies:	$ 200	ES experience	$ 300	
Equip. Rental:	$ 200	ES experience	$ 300	
Miscellaneous:	$ 200	ES experience	$ 1,000	
Analytical:	$ 500	ES experience	$ 1,500	
Reporting:	$1,000	ES experience	$12,730	
	$8,570			
Annual	$34,280		$50,290	
Rounded to	$35,000		$51,000	

Annual O&M Costs

Cap Maintenance	$ 3,100
Quarterly monitoring (8 wells)	$35,000
Eng., Oversight, Administration	$ 5,000
Contingency (20%)	$ 8,600
	$51,700
Rounded to:	$52,000

Present Worth of O&M Costs

Assume 30 years of Operation
Assume 10% interest

$$P = \$52,000 \quad \frac{(1.1)^{30} - 1}{0.1\,(1.1)^{30}}$$

$P = \$490,200$

Rounded to = 490,000

Present worth cost of Alternative SC-4 = $1,367,000 - Capital Cost
- 490,000 - O&M
1.86 million- Total Cost

($/cy) Price of NY Clay

ENGINEERING-SCIENCE, INC.

MEMORANDUM OF TELEPHONE CONVERSATION

NAME	COMPANY	
WITH: Jim Kyles	Engineering-Science Buffalo	JOB NO.: 720466
		FILE NO.:
CLIENT: U.S. Army Engineer Division		DATE: 11-30-93
PROJECT: OBFS		TIME: 2:30PM
SUBJECT OF CONVERSATION: Price of clay in NY state		INITIATED BY: REM
		TEL. NO.: (716) 854-0528

DISCUSSION

He said that ES-Buffalo is receiving bids on a landfill project in the range of $9 to $13/cy for clay in NY State.

Response Requested __ Yes _✓_ No
Date Requested

Richard E. Mumpton

PARSONS

Cost Backup
for
Alternative SC-4

Soil Washing and Solidification of Fines

ALTERNATIVE SC-4

Excavate all soils, soil washing, backfill course fraction, solidify fines, backfill, topsoil cap.

Basis

Volume to excavate and wash: 68,700 yd^3
Soil wash volume split: 70/30 (coars/fine)
Volume to solidify: (0.30)(68,700) = 20,600
Clean fill cover (2 feet): 13,400 yd^3
Revegetate site
Install 8 monitoring wells

Cost Basis

Excavation/soil washing:	300/yd^3 Bergman USA
Solidification:	\$150/yd^3 Silicate Technologies
Clean fill:	\$10/yd^3
Monitoring wells:	\$3,000/well
Revegetation:	\$2,000/acre

Capital Costs

1.	Excavation/soil washing 68,700 x \$300/yd^3		\$20,610,000
2.	Solidification 20,000 x \$150/yd^3		\$ 3,090,000
3.	Clean fill 13,400 x \$10/yd^3		\$ 134,000
4.	Revegetate 6 acres x \$2,000/acre		\$ 12,000
5.	Monitoring wells 8 wells x \$3,000/well		\$ 24,000
		Subtotal	\$23,870,000
6.	Engineering and permitting (5%)		\$ 1,193,500
7.	Site prep, mob, demob (2%)		\$ 477,400
8.	Project admin. & manage. (5%)		\$ 1,193,500
9.	Contingency (20%)		\$ 4,774,000
		Rounded to:	\$31,500,000

Annual O&M Costs

Annual O&M costs are the same as for SC-2.

Rounded to: $52,000

Present worth of O&M costs = $490,000

Present worth cost of Alternative SC-4 =	$31,500,000
	$ 490,000
	$11,290,000
Rounded to:	$32,000,000

ENGINEERING-SCIENCE, INC.

MEMORANDUM OF TELEPHONE CONVERSATION

	NAME	COMPANY	
WITH:	Richard Traver / Jan Limaye	Bergmann USA	JOB NO.: 720466-01023
			FILE NO.:
CLIENT:	U.S. Army Engineer Div.		DATE: 11-9-93
PROJECT:	OBFS		TIME: 9AM
SUBJECT OF CONVERSATION:	WASH $/cy ACID EXTRACT $/cy		INITIATED BY: REAM
			TEL. NO.: (615) 452-5500

DISCUSSION Basis

20,000 cy removal

Bergmann USA quotes a general price of $300/cy wash total ✓ 150TPD

$600/cy acid extract total 150TPD

→ 70% coarse, 30% fines in wash (wet separation)

→ 70% clean, 30% residual in acid extract

Richard E. Magill

Response Requested __ Yes __ No
Date Requested

PARSONS

($/ton) Price of Solidification

ES

ENGINEERING-SCIENCE, INC.

MEMORANDUM OF TELEPHONE CONVERSATION

NAME	COMPANY	
WITH: Lynn Cummings	Silicate Technology	JOB NO.: 720447
		FILE NO.:
CLIENT: SEDA		DATE: 11/22/93
PROJECT: OB Grounds FS		TIME: 1100
SUBJECT OF CONVERSATION: Solidification		INITIATED BY: O. Kelman
		TEL. NO.: 602/948-7100

DISCUSSION

ACTION BY AND DATE

We discussed Silicate Technologies experience in solidification of soils contaminated with heavy metals. Their capacity is approximately 400 - 500 yards per day. The cost is approximately $70 to $130 per ton. They can make cement and put the cement directly into bulk bags, which are loaded in flat beds for transport to a landfill. A recent site had 13,000 yds, and was completed in 5 weeks.

→ 450cy/day
675tpd
100tph

ρ_{SHALE} = 1.5 ton/cy

Dan Kelman

Response Requested __ Yes __ No
Date Requested

(70+130)/2 = $100/ton

(100)(1.5) = $150/cy

EPA SITE Demonstration of the BioTrol Soil Washing Process

Mary K. Stinson
U.S. Environmental Protection Agency
Edison, New Jersey

Herbert S. Skovronek and William D. Ellis
Science Applications International Corporation
Paramus, New Jersey

A pilot-scale soil washing process, patented by BioTrol, Inc., was demonstrated on soil contaminated by wood treating waste, primarily pentachlorophenol (PCP) and creosote-derived polynuclear aromatic hydrocarbons (PAHs). Although soil washing was the main object of this demonstration, the treatment train that was evaluated included two other BioTrol technologies for treatment of waste streams from the soil washer. The three technologies were:

- ***The BioTrol Soil Washer (BSW)—a volume reduction process, which uses water to separate contaminated soil fractions from the bulk of the soil.***
- ***The BioTrol Aqueous Treatment System (BATS)—a biological water treatment process.***
- ***The Slurry Bioreactor (SBR)—a BioTrol biological slurry treatment process conducted in an EIMCO BIOLIFT™ reactor.***

The sandy soil at the site, consisting of less than 10 percent of fines, was well suited for treatment by soil washing. The soil washer was evaluated in two tests on soil samples containing 130 ppm and 680 ppm of PCP, respectively.

The BSW successfully separated the feed soil (dry weight basis) into 83 percent of washed soil, 10 percent of woody residues, and 7 percent of fines. The washed soil retained about 10 percent of the feed soil contamination while 90 percent of the feed soil contamination was contained within the woody residues, fines, and process water.

The soil washer achieved up to 89 percent removal of PCP and 88 percent of total PAHs, based on the difference between their levels in the as-is (wet) feed soil and the washed soil. PCP concentrations of 14 ppm and 87 ppm in the washed soil were achieved from PCP concentrations of 130 ppm and 680 ppm in the feed soil. Concentrations of total PAHs were reduced from 247 ppm to 42 ppm and 404 ppm to 48 ppm, respectively, in the two tests.

The BATS degraded up to 94 percent of PCP in the process water from soil washing. PAH removal could not be determined due to low influent concentrations.

The SBR achieved over 90 percent removals of PCP and 70 to 90 percent removals of PAHs from the slurry of contaminated fines from soil washing. However, steady state operation was not achieved during the single test and the results were variable.

Cost of a commercial-scale soil washing, assuming use of all three technologies, was estimated to be $168 per ton of soil treated. Incineration of woody material accounts for 76 percent of the cost.

Soil washing is a water-based volume reduction process for mechanically scrubbing excavated soil to remove contaminants. It is applicable to soils contaminated with a variety of organics and heavy metals. For effective volume reduction, contaminated soil should contain less than 25 percent of fines (silt and clay). The process removes contaminants from soil by dissolving or suspending them in the wash solution and/or by simple particle size separation techniques, producing an apparent concentration of contaminants into a smaller volume of soil. Waste volume reduction by soil particle size separation works because most contaminants tend to bind, ei-

ther chemically or physically, to clay and silt soil particles which provide a high surface area for such binding but contribute relatively low mass in many soils.

The economic advantage of soil washing over other technologies is that it reduces the amount of waste requiring expensive treatment (e.g., incineration) and renders the bulk of the soil clean enough to be returned to the site. The small amount of waste requiring further treatment or disposal consists of the separated soil fraction with concentrated contaminants. The spent wash solution from soil washing also may require treatment or disposal. Soil washing is used extensively in Europe and has seen increasing interest and use in the United States. During 1986 to 1989, the technology was one of the selected source control remedies at eight Superfund sites.[1]

To encourage the development and use of soil washing in the U.S., a pilot-scale demonstration of the patented soil washing process of BioTrol, Inc. (BioTrol), of Chaska, Minnesota, was conducted under the U.S. Environmental Protection Agency's Superfund Innovative Technology Evaluation (SITE) program at the MacGillis and Gibbs Superfund site in New Brighton, Minnesota, near Minneapolis from September 25 to October 31, 1989. There are about 2000 wood preserving sites in the U.S. in need of remediation, of which 56 sites are on the National Priorities List (NPL). Demonstration of remediation technologies that are suitable for treating wood preserving wastes encourages their future use.

The MacGillis and Gibbs site, an active wood preserving facility, was placed on the NPL in 1983. Since the 1920s, the facility has been used for wood treatment with various preservatives, including creosote (1920 to 1950), pentachlorophenol (PCP) in fuel oil (late 1940s to 1970), and chromated copper arsenate (CCA) (1970s to the present). A Remedial Investigation/Feasibility Study (RI/FS) indicated that both the soil and underlying groundwater are contaminated with wood treating wastes. Contaminants present at the site include creosote, PCP, chromium, copper, arsenic, and traces of dioxins and furans. The site soil, part of the New Brighton Formation, is a silty sand, interlaid with organic matter and underlaid with localized lenses of silt and clay.[2]

One objective of this SITE demonstration was to test soil washing in conjunction with the BioTrol Aqueous Treatment System (BATS) and Slurry Bio-Reactor (SBR) biological technologies for treating the spent wash solution and the slurry of contaminated fines from the soil washer, as an example of an integrated treatment for the site soil. Another objective was to determine if the concentrations of PCP and creosote-fraction PAHs in the soil entering the BSW, in the water entering the BATS, and in the slurry entering the SBR could each be reduced by at least 90 percent in the respective effluents. In the evaluation of the soil washer, the fate of PCP and PAHs was determined by material balance calculations to assure that the measurements of reduction efficiencies were not affected by unaccounted material losses.

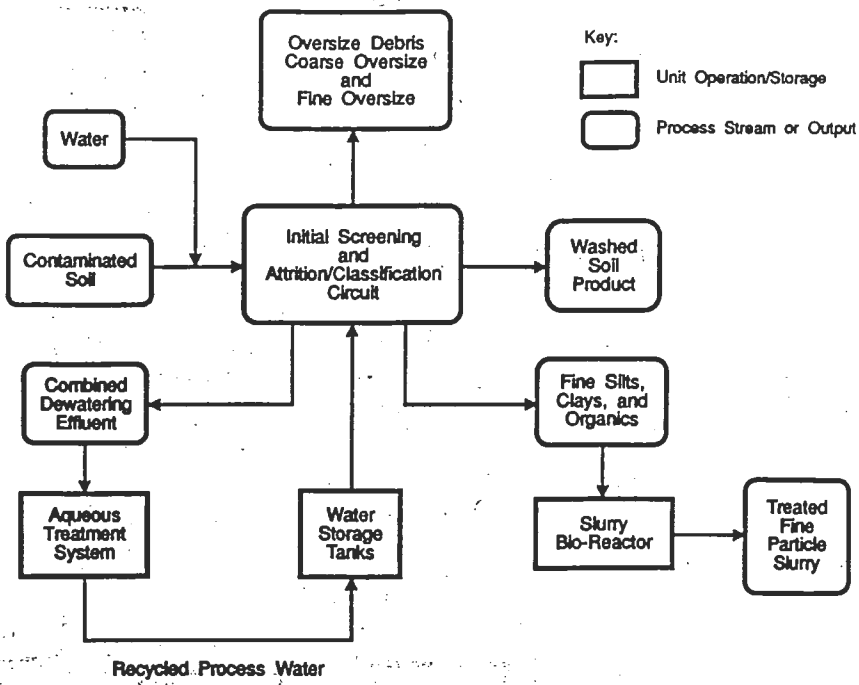

Figure 1. Flow diagram of the soil washing treatment train.

Description of Processes Used

The BioTrol Soil Washer (BSW) was demonstrated concurrently in a treatment train sequence with two other BioTrol technologies for treatment of waste streams generated by the soil washer (Figure 1).

The BioTrol Soil Washer (BSW)

The BSW is a patented process (U.S. Patent No. 4,923,125), that uses water in attrition/classification equipment to separate slightly contaminated coarse soil particles from heavily contaminated fine particles. At this site, the soil washer also separated contaminated woody debris. The mobile unit is assembled on a 13 m (42 ft) long semi-trailer using pilot-scale mineral processing equipment. Included on the trailer are a multicomponent feed system, a mixing trommel, vibrating screens, froth flotation cells, attrition machines, hydrocyclones, spiral classifiers, and dewatering equipment. As designed, the system has a nominal capacity of 225 kg/hr (500 lb/hr).

Outside the trailer, four 30,000 L (8,000 gal) tanks are used for temporary storage of process water. The process requires a water supply of about 40 L/min (10 gpm) to provide the approximate 5:1 weight ratio of water to soil or 5000 L/kkg (1200 gal/ton). The process flow diagram tailored to the site soil is shown in Figure 2.

Excavated soil is first processed through a 3-inch vibrating screen to remove large debris. The soil passing through the screen is fed automatically at a rate of 225 kg/hr (500 lb/hr) via a conveyer belt to a mixing trommel where the soil is mixed with water to form a slurry. The slurry flows from the mixing trommel across a #3/8 vibrating screen where coarse material (CO) is removed as oversize. The screen undersize product is fed to a flotation unit where hydrophobic constituents are removed in a froth phase.

The underflow from the flotation unit then enters a proprietary multistage, countercurrent washing circuit, which produces fine oversize material (FO), washed soil (WS), and a suspension of fine particles (silt, clay, organic matter) in process water. This suspension, along with the froth from the flotation unit, is fed to a thickener where a cationic polymer is added to

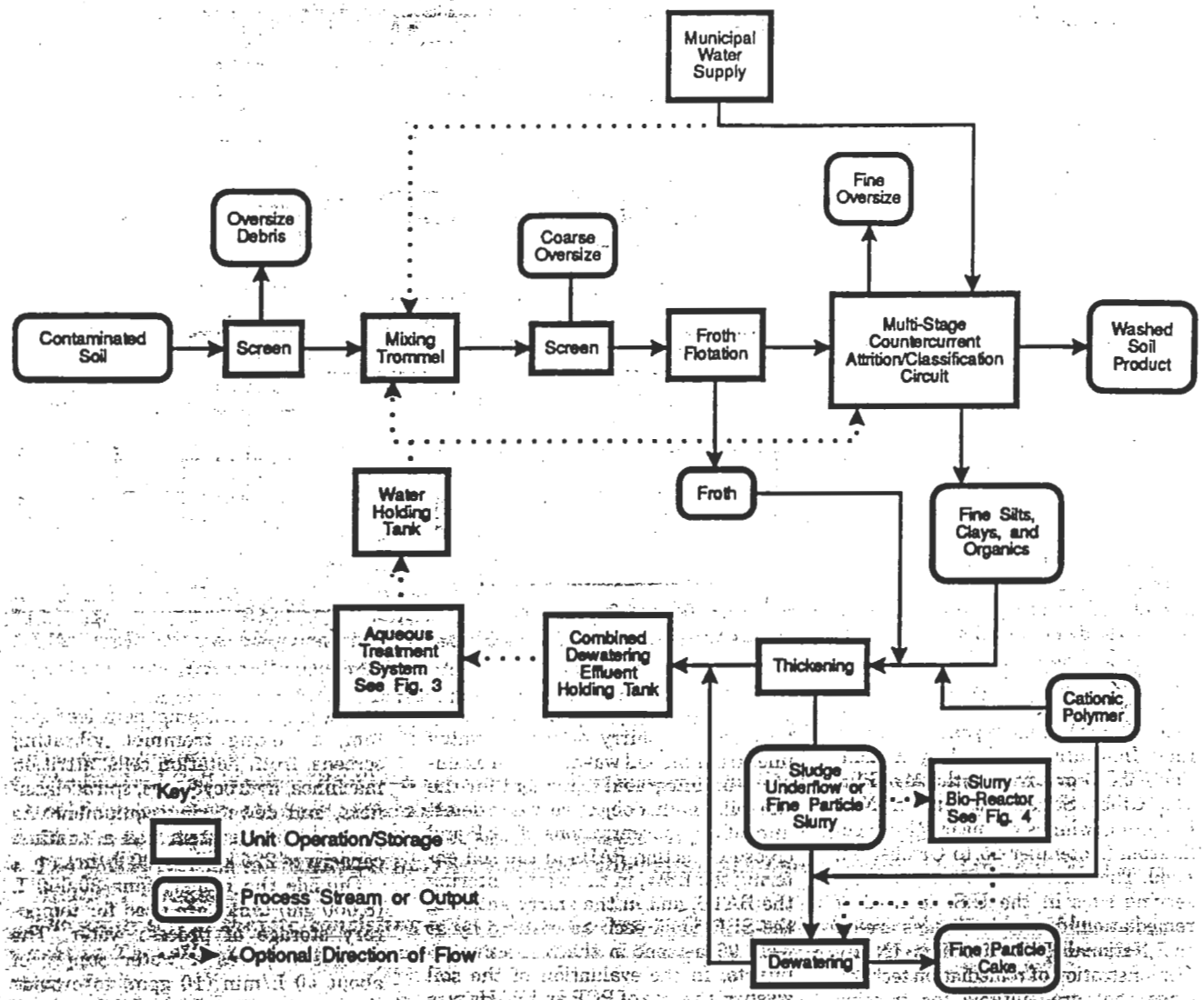

Figure 2. Flow diagram of the Biotrol Soil Washer (BSW).

aid settling of fines from the process water.

The thickened fines, as underflow, are then either sent to the SBR for treatment or are dewatered to form a fine particle cake (FPC). Spent process water consisting of the thickener overflow and other dewatered streams is the combined dewatering effluent (CDE). The CDE is sent to the BATS for treatment.

Thus, the soil washer produced five output streams: washed soil, either the slurry of fines or the FPC, coarse oversize, fine oversize, and CDE. The coarse and fine oversize contained considerable woody materials and, consequently, PCP and PAHs.

BioTrol Aqueous Treatment System (BATS)

The BATS biologically degrades PCP and PAHs in the BSW process water. The BATS was also demonstrated for removal of PCP from groundwater in a previous SITE project at the MacGillis and Gibbs site.[3] The mobile unit, with a nominal capacity of 38 L/m (10 gpm), is assembled on a 6 m × 2.5 m × 2.5 m (20 ft × 8 ft × 8 ft) enclosed trailer. The system consists of a conditioning or temper tank, a heater and heat exchanger, an aerobic three-cell fixed-film bioreactor, a blower, process pumps, and feed systems for nutrient and pH-adjusting chemicals. The process flow diagram is shown in Figure 3.

The biological growth containing a penta-degrading *Flavobacterium* is acclimated for one to two weeks by recirculating wastewater. Contaminated water is pumped to the tempering tank, where pH is adjusted and nutrients are added. The water then passes through a heat exchanger to adjust its temperature and then to the base of the first BATS bioreactor cell. Each cell is filled with a corrugated PVC medium as a substrate for microbial attachment. Air is supplied by a blower and injected at the base of each cell by a sparger tube system. The water flows upward from the base of each cell, contacts the fixed microbes, and flows to the base of the next cell. Air emissions from the reactor are vented through activated carbon.

Slurry Bio-Reactor (SBR)

The SBR unit was an EIMCO BIOLIFT™ reactor system with a nominal capacity of 1.4 L/hr (0.4 gpm) designed and constructed by the EIMCO Process Equipment Company, Inc. It consists of three 60-L, upright, continuously stirred, stainless steel reactors arranged in a cascading system to permit continuous gravity feed and flow. The SBR is intended to operate at steady-state by controlling the influent flow, temperature, dissolved oxygen concentration, gas flow rate, and rake arm speed. The SBR unit tested was much smaller in capacity than the BSW and BATS units. Thus, it was tested only on a portion of the fine particle

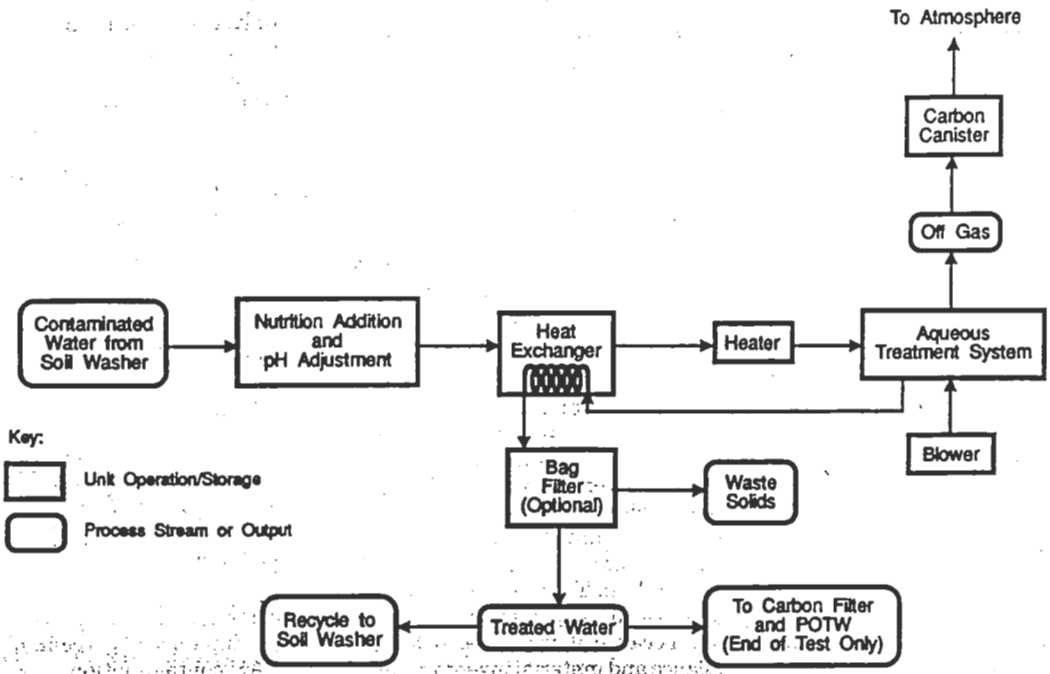

Figure 3. Flow diagram of Biotrol Aqueous Treatment System (BATS).

slurry from the BSW and was not fully integrated with the other two units.

The process used the BioTrol microbiological system to degrade PCP and PAHs absorbed in or adsorbed on the surface of the particles in the fine clay and silt slurry fraction from the BSW. The flow diagram of the SBR is shown in Figure 4. The slurry enters the first reactor where easily degraded contaminants are consumed by the pre-inoculated and acclimated microbial population. The more refractory contaminants are degraded in each successive reactor. Inside the reactors, flexible membrane diffusers mounted on rotating rake arms provide fine bubble aeration and turbulence for mixing. An agitator incorporating an airlift prevents the raked solids from settling. The reactors are sealed and all gases are vented through activated carbon.

Field Experiment Design

Two demonstration tests were conducted on site soils with different average PCP concentrations, 130 ppm and 680 ppm, respectively. Average total PAH concentrations in the feed soils were about 247 ppm and 404 ppm during the two tests. In preparation for the tests, feed soil was excavated from two areas of the site, screened, mixed, and placed in separate piles.

The first test was conducted on the low PCP concentration soil (130 ppm) and included two technologies: BSW and BATS. The BSW operated 50 hours at an average rate of 220 kg/hr (480 lb/hr), processing 11,000 kg of feed soil. The BATS operated for 3.5 days at a rate of 10 L/min (3 gpm) on CDE from the test, starting a day later than the BSW.

The second test was conducted on the high PCP concentration soil (680 ppm) and included all three technologies: BSW, BATS, and SBR. The BSW operated for 112 hours at a rate of 160 kg/hr (350 lb/hr), processing 18,000 kg (40,000 lb) of feed soil. The BATS operated 6.5 days at an average rate of 10 L/min (3 gpm) on CDE from the second BSW test.

On the fourth day of BSW operation, 2,000 L (500 gal) of fine particle slurry from the thickener was diverted to a holding tank as feed for the SBR. The SBR operated for 14 days at a rate of 1.4 L/hr (0.38 gph).

Mobilization and operation of all equipment was done by BioTrol. The U.S. EPA contributed to the experiment design, conducted sampling and analytical programs, and evaluated the performance of the three technologies. Science Applications International Corporation (SAIC) of McLean, Virginia, was the EPA contractor in this demonstration.

Sampling and Analytical Program

Field Sampling

During the tests, manual composites were collected of all input and output streams. For the BSW, the

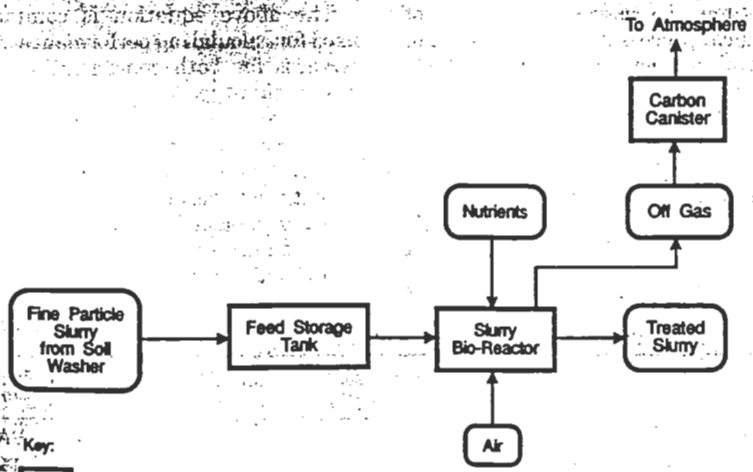

Figure 4. Flow diagram of the Slurry Bio-Reactor (SBR).

Table I. Analytical methods used in the site demonstration.

Analyte	Sample preparation (Aqueous/Soil)	Sample analysis *Aqueous/Soil)	Source Document	Ref. No.
PCP and PAHs	3520/3550	8270/8270	SW-846	7
PCDDs and PCDFs	8280/8280	8280/8280	SW-846	
Copper, Chromium	3010/3050	6010/6010	SW-846	
Arsenic	7060/3050	7060/6010	SW-846	
Total residue	—/—	160.3/3550	EPA-600	8
Total recoverable petroleum hydrocarbons	418.1/418.1	418.1/418.1	EPA-600	
Particle size analysis and chemical analysis of particle size fractions	—/D421	—/D422	ASTM	9

process streams sampled included four inputs: the contaminated feed soil, municipal water supply, the treated water from the BATS, and a cationic polymer solution. The five output streams included the washed soil, coarse oversize, fine oversize, fine particle cake, and combined dewatering effluent.

For the BATS, sampled streams included the untreated influent water, treated effluent water, and carbon canister. For the SBR, the influent slurry, effluent slurry, and carbon adsorption canister were sampled.

Grab samples were composited at irregular intervals, averaging 6 hrs apart for the BSW and BATS, and 24 hrs apart for the SBR. This was done to avoid any effect on the representativeness of sampling by undetected cyclic characteristics in the performance of the tested units, if any.

Field Measurements

Field measurements were made during the two tests to provide data for the BSW material balance, verification of proper operation of the tested units, and evaluation of treatment effectiveness. The mass of each process stream was measured either directly by weighing or was calculated from measurements of density, flow rate, volume, and time. To assess functioning of biological processes, measurements of pH and temperature were routinely made.

Laboratory Analyses

Analytical methods used in this SITE demonstration are presented in Table I. Because the BSW, BATS, and SBR were designed to treat PCP and PAHs, these contaminants were designated as critical in the evaluation of the technologies. Secondary critical contaminants were polychlorinated dibenzodioxins/dibenzofurans (PCDDs/PCDFs) and copper, chromium, and arsenic from the chromated copper arsenate (CCA) formulation. Total residue (TR) analysis was also a secondary critical parameter because it was needed for mass balance and material inventory calculations. In addition to the critical and secondary critical contaminants, selected samples were also analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH), and Particle Size Analysis and Chemical Analysis of Particle Size Fractions (PS).

Data Reduction

Treatment effectiveness of each of the three technologies, BSW, BATS, and SBR, was calculated as percent of contaminant reduction from mean concentrations of PCP and PAHs in influent and effluent streams using the following equation:

$$\text{Removal Efficiency (\%)} = \left[1 - \frac{\text{Effluent Concentration}}{\text{Influent Concentration}}\right] \times 100$$

The above equation is commonly used for calculating performance effectiveness for both concentration- and destruction-type technologies.[4]

To assess material balance for the BSW test, total mass was calculated for soil, water, and for each contaminant to determine if measured input equaled measured output. Material losses due to spills and sampling were quantified. For the BATS and SBR, only the material balance of soil and water were assessed.

Table II. Particle-size distribution in tested soils.

Soil fraction (Sieve range)	Mass fraction of soil retained on sieve (%)		Low PCP soil		High PCP soil	
	Low PCP soil	High PCP soil	PCP (ppm)	PAHs (ppm)	PCP (ppm)	PAHs (ppm)
Gravel & coarse sand (#3/8–#10)	25.2	9.3	240	212	1200	477
Medium sand (#20–#40)	52.8	36.0	42	72	250	135
Fine sand (#60–#200)	16.6	46.7	45	24	160	86
Fines (<#200)	5.5	8.0	240	352	1100	642

Discussion of Results[5,6]

Fluctuations in soil processing rates due to mechanical problems with the feed system of the soil washer were periodically encountered during both tests. In the course of the demonstration program, the BSW processed a total of 29 kkg (32 tons) of soil, the BATS treated a total of 148,000L (39,000 gal) of CDE from the BSW, and the SBR treated a total of 315 L (83 gal) of fine particle slurry from the BSW.

The feed soil was well suited for treatment by soil washing as shown in Table II by predemonstration particle-size and contaminant analyses of both feed soils. The fines fraction of the feed soil, constituting 5 to 8 percent of the combined output mass, contained approximately 50 percent of the PCP and PAH contamination.

It should be noted that, except for the fines fraction, the soil fractions in Table II do not correspond to the fractions produced as outputs of the soil washing. However, the above summary table gives an insight into the contaminant distribution among the particle-size fractions of the feed soils.

The BSW

The BSW successfully separated the feed soil (dry weight) into 83 percent of washed soil, 10 percent of woody residues, and 7 percent of fines. The washed soil retained only about 10 percent of the PCP contamination while 90 percent of the feed soil contamination was in the woody residues, fines, and process water. The washed soil retained about 15 to 18 percent of the PAHs probably due to their low solubility in the process water. All masses were flow weighted over the course of the tests in an effort to minimize the effect of the fluctuations in the feed soil rates during both soil washing tests. The soil washer achieved removal efficiencies of 89 and 87 percent for PCP as well as 83 percent and 88 percent for PAHs in Test 1 and Test 2, respectively.

The mass balance results for PCP and PAHs, the critical contaminants in the BSW evaluation, are presented in Tables III and IV. Since the distribution of contaminants on solid and liquid portions of each fraction is unknown, the data are presented on the as-is basis. This also is a more realistic presentation of the actual streams.

In both tests, the soil washer mass balance achieved a fairly good closure for solid and liquid waste streams and for the mass of PAHs in the outputs relative to the inputs. The PCP balance, however, was poor and showed a

40 to 50 percent gain in the outputs relative to the inputs. This increase in the total mass of PCP may have been caused by poor extraction recoveries (by sonication) of PCP during the analysis of the feed soil. Possibly a more aggressive laboratory extraction method, such as Soxhlet extraction (EPA Method 3540), would have produced more consistent results than the sonication extraction (EPA Method 3550). It is also possible that the aqueous contact, breakdown of particle aggregates, and abrasion during the soil washing may have freed PCP from the soil matrix, making it more extractable in the output samples. If indeed the PCP content in the feed soil was undervalued, then the calculated removal efficiency of PCP would also be low: the reported 87 and 89 percent could be 92 and 93 percent instead.

Results of the soil washing tests presented in Tables III and IV show an apparent several-fold concentration of contaminants in solid output streams that are of much smaller mass than the washed soil material. There is also a difference in the distribution of PCP and PAHs among the soil washing outputs. PCP is distributed almost equally (30 percent in each) among the woody residues (CO and FO), the fine particle cake (FPC), and the combined dewatering effluent (CDE). PAHs are concentrated primarily in the fine particle cake (50 to 60 percent) and in the woody residues (20 to 30 percent) while their concentration in the CDE (1 to 2 percent) is negligible, presumably due to their low solubility in water.

The BioTrol process was evaluated for its claimed ability to remove 90 percent of organic contamination from the feed soil, which has been achieved. The economic advantage of the BSW over other technologies depends on its ability to produce washed soil meeting the site-specific treatment goals for return to the site, which had not been set at the time of the tests. The soil washer was also effective in removing other contaminants, which were deemed noncritical in this process evaluation.

Polychlorodibenzo-p-dioxins and -furans (CDD/CDFs) were analyzed for those in the feed soil and in each output stream. The octachloro-dibenzodioxin (OCDD) isomer constituted about 65 percent of the congeners found at measurable concentrations and the ratios of congeners were essentially constant for all streams. Removal efficiencies for CDD/CDFs ranged from 92 to 97 percent, with most of the congeners concentrated in the fine particle cake (FPC). No 2,3,7,8-TCDD was found in any stream.

The Total Recoverable Petroleum Hydrocarbons (TRPH) exhibited up to 94 percent removal efficiency in the two tests.

Table III. Normalized results of the soil washing test on the low PCP concentration feed soil.

	As-is wt. kg	Solids %	PCP conc. ppm	PCP mass* mg	PCP %**	Total PAHs conc. ppm	Total PAHs mass mg	Total PAHs %
Input								
Feed soil	1.00	89	130	130	100	247	247	100
Municipal water	5.45	—	0	0	0	0	0	
Thickener solution	0.82	—	0	0	0	0	0	
Total	7.27			130			247	
Output								
Washed soil	1.18	73	14	16.5	9	42	49.7	18
Coarse oversize	0.14	69	170	23.8	13	309	44.9	16
Fine oversize	0.06	8	96	5.8	3	208	12.3	4
Fine part. cake	0.22	30	270	59.4	34	778	170	61
Comb. dewat. effl.	5.00	0.07	14	70.0	40	0.5	2.5	1
Total	6.60			175.5			279	
% Removal Efficiency (using output mass)			89	87 (91)		83	80 (82)	

* Mass refers to the mass of contaminant in the as-is weight of each fraction obtained from treatment of 1 kg of feed soil.
** Refers to percent of total input or output, respectively.

Removals of copper, chromium, and arsenic were in the range of 48 to 70 percent, though in this test the BioTrol process was not optimized for removal of metals. Most of the metals concentrated in the fine particle cake.

Comparison of contaminant levels in the feed soil versus the washed soil is shown in Table V.

The BATS

Demonstration of the BATS for treatment of the process water, the combined dewatering effluent (CDE), from both soil washing tests (Test 1 and Test 2) was fully successful. Calculated on the basis of flow-weighted mass data, the PCP concentrations in the CDE from the low-PCP soil washing (Test 1) decreased from about 14 mg/L to 1.3 mg/L, a removal of 91 percent. In the test on the CDE from the high-PCP soil washing (Test 2), influent PCP concentration of 44 mg/L was reduced to 3 mg/L, a 94 percent removal.

Non-detectable levels of PAHs precluded the calculation of removal efficiencies on the basis of these tests. Analyses of metals indicated that there was some decrease during the course of biotreatment. Since no removal was expected, it may be presumed that metals were adsorbed in/on the biomass in the reactor. BATS results are presented in Table VI.

The SBR

The SBR did not operate at its optimal conditions, partly because it did

Table IV. Results of the soil washing test on the high PCP concentration feed soil—Test 2.

	As-is wt. kg	Solids %	PCP conc. ppm	PCP mass* mg	PCP %**	Total PAHs conc. ppm	Total PAHs mass* mg	Total PAHs %
Input								
Feed soil	1.00	84	680	680	98.3	404	404	99.7
Municipal water	0.22	—	0	0	0	0	0	
Thickener solution	0.75	—	0	0	0	0	N/A	
BATS effluent	4.12	—	2.8	11	1.7	0.2	0.9	0.3
Total	6.09			691			405	
Output								
Washed soil	1.31	69	87	114	11	48	61.8	15
Coarse oversize	0.18	51	1400	252	24	535	92.2	22
Fine oversize	0.06	16	900	54	5	463	25.8	6
Fine part. cake	0.22	35	1300	286	27	1064	230.5	55
Comb. dewat. effl.	4.50	0.07	80	360	34	1.9	8.6	2
Total	6.27			1066			419	
% Removal Efficiency (using output mass)			87	83 (89)		88	85 (85)	

* Mass refers to the mass of contaminant in the as-is weight of each fraction obtained from treatment of 1 kg of feed soil.
** Refers to percent of total input or output respectively.

Table V. Reduction of contaminants in the soil washer.

Contaminant	Test No. 1 Feed soil mg/kg	Test No. 1 Washed soil mg/kg	Test No. 1 Reduction %
PCP	130	14	89
PAHs (carcinogenic)	20.4	3.9	80
PAHs (non-carcinog.)	227	38	83
Cr	17.0	8.8	48
As	13.5	5.0	63
Cu	14.7	5.6	62
Total CDD/CDF	1.37	0.11	92
TRPH	3,800	210.0	94
Contaminant	**Test No. 2 Feed soil mg/kg**	**Test No. 2 Washed soil mg/kg**	**Test No. 2 Reduction %**
PCP	680	87	87
PAHs (carcinogenic)	71.0	8.9	87
PAHs (non-carcinog.)	333.1	39.4	88
Cr	38.5	14.0	64
As	31.4	11.6	63
Cu	33.8	10.1	70
Total CDD/CDF	2.51	0.08	97
TRPH	8,900	690	92

not achieve full acclimation before the 14 day test period. Problems were encountered with the feed of slurry due to cold ambient temperatures, with variability of feed concentrations due to poor mixing in the storage tank, and with inadequate nutrient feed for the higher than expected PCP concentrations during the initial days of operation. Only toward the end of the test period were the anticipated PCP and PAH removal levels of 90 percent reached for both liquid and solid phases of the slurry.

The SBR treated a 7 percent slurry at 24 ml/min (0.38 gal/hr), which provided a retention time of about 5.2 days. When filtered, the solid phase of the slurry feed to the SBR contained an average of 2570 ± 506 mg/kg PCP while the liquid contained 59 ± 19 mg/L. PAHs were not detected in the liquid phase of the influent or effluent and even in the solid phase many PAHs were at or below detection limits. The high PCP concentrations in all samples contributed to the high detection limits for the PAHs. The results are presented in Table VII. For some of the PAHs the 90 percent level of removal was never reached and for others the highest removal levels were reached early in the treatment and then decreased over the course of the study. These anomalous results remain unexplained.

Table VI. Performance of the BioTrol Aqueous Treatment System (BATS) on the process water from the soil washing.

Test 1 Contaminant	Low PCP Concentration Soil Washing Influent mg/L	Effluent mg/L	Reduction %
PCP	15	1.3	91
PAHs	N/D	N/D	
Test 2 Contaminant	**High PCP Concentration Soil Washing Influent mg/L**	**Effluent mg/L**	**Reduction %**
PCP	44	3	94
PAHs	N/D	N/D	

N/D: not detected.

Table VII. Pentachlorophenol and PAH removals in the slurry bio-reactor.

Species	Avg. Conc.* Influent Solid Phase mg/Kg	Max. %	Removal Day of Test	Day 14 %
PCP	2571 ± 506	96	14	96
Acenaphthene	53 ± 44	89	7	75
Fluoranthene	277 ± 144	99	14	99
Pyrene	363 ± 121	94	14	94
Benzo(a)-anthracene	63 ± 41	87	14	87
Chrysene	89 ± 47	93	14	93
Benzo(b)-fluoranthene	69 ± 36	75	14	75
Benzo(a)pyrene	48 ± 41	80	6	71

* Includes measured and estimated values in averages.

Costs

Basic operating and equipment capital costs were provided by BioTrol. It has been assumed that the washed soil would meet the regulatory cleanup levels and be returned to the site, the fines fraction would be treated in a slurry bioreactor, the woody debris would be incinerated, and the process water would be treated in the BATS. Detailed discussion of costs is provided in EPA reports.[5,6] The cost to treat similarly-contaminated soil in an area such as the MacGillis and Gibbs site with an 18.2-metric ton/hr (20-ton/hr) commercial soil washer coupled with three 100-gpm BATS units operating in parallel and three parallel SBR trains capable of treating 23 gpm of slurry was estimated at about $168/ton of soil, including $128/ton of feed soil for incineration of the woody debris.

Conclusions

The demonstration test showed that the BioTrol soil washing process can be operated concurrently with two biological treatment processes for the major waste streams from the soil washing. Similar arrangement of treatment technologies should be applicable to other wood-preserving sites. For other types of sites, the BSW may be coupled with other treatment systems or even operated alone.

For soils containing 25 percent or less of fines, the BSW can segregate a large fraction of washed soil with low residual contamination while the contaminants are concentrated several-fold into the small fractions of the solid waste streams.

Based on the decrease in contaminants in the washed soil relative to the feed soil, contaminant removal efficiencies of 87 percent or higher can be achieved by the soil washing process for PCP, PAHs, and even dioxins.

Biodegradation of contaminated process water from the soil washer in the BATS can achieve over 90 percent

degradation of PCP. Because the levels of PAHs were below detection limits in the process water, their degradation in the BATS could not be determined.

While not conclusive, it appears that both the PCP and PAHs in the small fraction of fines can be biodegraded in a slurry bioreactor once steady-state conditions are achieved.

Cost-effectiveness of the soil washing process largely depends on achieving cleanup levels acceptable for return of the washed soil to the site. Utility of the slurry biodegradation also depends on achieving cleanup levels in the treated fines for their return to the site.

Acknowledgments

The authors are grateful to the following persons: J. McPherson and S. Roman of Science Applications International Corporation (SAIC) for conducting the field test and reducing the data: S. Valine, formerly of BioTrol, Inc. and T. Chresand and D. Chilcote of BioTrol, Inc. for their support and cooperation; D. Owens of EPA Region V and M. Lahtinen of the Minnesota Pollution Control Agency (MPCA) for their assistance; and A.J. Bumby of MacGillis and Gibbs Company for hosting this demonstration.

References

1. "Engineering Bulletin: Soil Washing Treatment," U.S. EPA, EPA/540/2-90/017, September 1990.
2. Twin City Testing Corp., "Remedial Investigation Report: MacGillis and Gibbs Company Site, New Brighton, Minnesota," Document No. 120-86-414 for Minnesota Pollution Control Agency, June 25, 1986.
3. Stinson, M. K.; Skovronek, H. S.; Chresand, T. J. "EPA SITE demonstration of BioTrol Aqueous Treatment System," *J. Air Waste Manage. Assoc.* **41:** 228 (1991).
4. "Summary of Treatment Technology Effectiveness for Contaminated Soil," U.S. EPA, EPA/540/2-89//053, June 1990.
5. U.S. EPA, "Technology Evaluation Report: SITE Program Demonstration Test. BioTrol Soil Washing System for Treatment of a Wood Preserving Site. (Vols. I and II)," U.S. Environmental Protection Agency, Draft Report.
6. U.S. EPA, "BioTrol Soil Washing System for Treatment of a Wood Preserving Site. Applications Analysis Report," U.S. Environmental Protection Agency, Draft Report.
7. SW-846 Test Methods for Evaluation of Solid Waste (EPA, 11/1986).
8. "Methods for Chemical Analysis of Water and Wastes" U.S. EPA, EPA/600/4-79/020 March 1979.
9. "Standard Methods D421-58 (Reapproved 1978) and D422-63 (Reapproved 1972)," American Society for Testing of Materials, Annual Book of ASTM Standards, Vol. 4.08.

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Current Status of the ADVACATE Process for Flue Gas Desulfurization

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Research Triangle Park, North Carolina

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Air and Energy Engineering Research Laboratory
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina

The following report discusses current bench- and pilot-plant advances in preparation of ADVAnced siliCATE (ADVACATE) calcium silicate sorbents for flue gas desulfurization. It also discusses current bench- and pilot-plant advances in sorbent preparation. Fly ash was ground in a laboratory scale grinder prior to slurrying in order to decrease the slurrying time needed for the sorbent to be reactive with SO_2. Reactivity of ADVACATE sorbents with SO_2 in the bench-scale reactor correlated with their surface area.

ADVACATE sorbents produced with ground fly ash were evaluated in the 50 cfm (85 m^3/h) pilot plant providing 2 s duct residence time. ADVACATE sorbent was produced by slurrying ground fly ash (median particle size of 4.3 μm) with $Ca(OH)_2$ at the weight ratio of 3:1 at 90°C (194°F) for 3 h to yield solids with 30 weight percent of initial free moisture. When this sorbent was injected into the duct with 1500 ppm SO_2 and at 11°C (20°F) approach to saturation, the measured SO_2 removal was approximately 60 percent at a Ca/S stoichiometric ratio of 2. Previously, when ADVACATE sorbent was produced at 90°C (194°F) and at the same fly-ash-to-$Ca(OH)_2$ weight ratio using unground fly ash, removal under the same conditions in the duct was approximately 50 percent following 12 h slurrying.The report presents the results of pilot-scale recycle tests at the recycle ratio of 2. Finally, the report discusses future U.S. Environmental Protection Agency plans for commercialization of ADVACATE.

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Cost Backup for Alternative SC-5

Off-site Disposal Debris Piles/Cover Ash Landfill and NCFL

ALTERNATIVE SC-5

Excavate Debris Piles, dispose off-site in Subtitle D Landfill, Vegetative Cover for Non-Combustible Fill Landfill and Ash Landfill.

Basis

Excavation Volume = Debris Pile A (120 yd^3)
Debris Pile B (90 yd^3)
Debris Pile C (560 yd^3)

Total = 770 yd^3

9" Topsoil Cover

Revegetate Site

Area of Ash Landfill = 83,400 ft^2
Area of NCFL = 145,900 ft^2
Total Area = 229,300 ft^2

Capital Costs

1. Excavate, transportation and Disposal:
   770yd^3 x 150/yd^3 = $115,500

2. Install topsoil: 229,300ft^2 x 0.75ft x 0.037yd^3/ft3
   = 6,363yd^3 x 10yd^3$ = $ 63,630

3. Revegetate: 229,300ft^2 x 2.3 x 10^{-5} acres/ft^2
   = 5.26 acres x $2000/acre = $ 10,520
   Subtotal = $189,650

4.	Project Administration and Management (5%)	=$ 9,483
5.	Contingency (20%)	=$ 37,930
	Total Est. Capitol Cost	=$237,063

ANNUAL O&M COSTS FOR ALTERNATIVE SC-5

Cap Maintenance

Inspection	$1,500	10 hours labor & travel, subsistence
Veg. Cover repair	$ 300	
Mix. repairs	$ 300	
Administration	$1,000	
	$3,100	

Quarterly Sampling

Per Quarter

	8 Wells		16 Wells	
Labor:	$5,000	4 days x 2 people x 10 hours x $15/hr	$ 7,500	6 days
Substinence:	$ 720	4 days x 2 people x $40/day	$ 1,080	6 days
Travel:	$ 500	2 plane tickets at $250/each	$ 500	
Van:	$ 250	weekly rate	$ 250	
Materials & Supplies:	$ 200	ES experience	$ 300	
Equip. Rental:	$ 200	ES experience	$ 300	
Miscellaneous:	$ 200	ES experience	$ 1,000	
Analytical:	$ 500	ES experience	$ 1,500	
Reporting:	$1,000	ES experience	$12,730	
	$8,570			
Annual	$34,280		$50,290	
Rounded to	$35,000		$51,000	

Annual O&M Costs

Cap Maintenance	$ 3,100
Quarterly monitoring (8 wells)	$35,000
Eng., Oversight, Administration	$ 5,000
Contingency (20%)	$ 8,600
	$51,700
Rounded to:	$52,000

Present Worth of O&M

Assume 30 years
Assume 10% interest

$$P = 52{,}000 \quad \frac{(1.1)^{30} - 1}{0.1\,(1.1)^{30}}$$

Rounded to P = 490,000

Present worth cost of Alternative SC-5 =	$ 237,063
	490,000
Total Est. Cost =	$ 727,063

Cost Backup Summary
for
Management of Migration Alternatives

MANAGEMENT OF MIGRATION ALTERNATIVES

Cost Basis Summary

I. Capital Costs

Unit Operation	Reference	Installed Cost Estimate ($)
Site preparation	CORA	$ 26,000
Surface water diversion	CORA	$ 38,000
Groundwater monitoring	CORA	$ 43,000
Interceptor trenches	ES	$ 60,000
Air sparging	ES	$100,000
Vapor-phase carbon-air sparging	CORA	$210,000
Equalization tank/piping	JMS/ES	$ 30,000
In-line filter	ES/Permutit	$ 15,000
Softener	ES/Permutit	$ 15,000
Air stripper	EPA	$ 41,000
UV oxidation	ES/Peroxidation	$ 50,000
Liquid phase carbon-primary	CORA	$150,000
Liquid phase carbon-secondary	ES/Hadley	$ 20,000
Surface water discharge	CORA	$100,000
Two-stage bioreactor	ES/Envirex	$180,000

II. Annual O&M Costs

Unit Operation	Reference	Installed Cost Estimate ($)
Site maintenance	ES	$ 5,000
Surface water diversion	CORA	$ 2,100
Groundwater monitoring	CORA	$ 60,000
Air sparging	ES	$ 10,000
Vapor phase carbon - air sparging	CORA	$130,000
Equalization tank/piping	ES	$ 1,000
In-line filter	ES/Permutit	$ 2,000
Softener	ES/Permutit	$ 11,000
Air stripper	EPA	$ 3,500
UV oxidation	ES/Peroxidation	$ 10,000
Liquid phase carbon-primary	CORA	$ 46,000
Liquid phase carbon-secondary	ES/Hadley	$ 6,000
Surface water discharge	CORA	$ 1,000
Two-stage bioreactor	ES/Envirex	$ 30,000

Cost Backup
for
Alternative MC-2

Natural Attenuation and Institutional Controls

SEDA ASH LANDFILL FEASIBILITY STUDY
PRELIMINARY COST ESTIMATES

Alternative: MC-2

Description: Natural Attenuation

Unit Operation	Capital Cost	Annual O&M Cost
Groundwater monitoring	$43,000	$60,000
Contingency Plan:		
Alternative Water Supply	$71,528	$200
Cost of Connecting to System		
Alternate Water Supply	--	
Subtotal	$114,528	$60,200
Contingency (20%)	$22,906	$12,040
Engineering/Oversight (20%)	$22,906	$12,040
Total	$160,339	$84,280
Present worth O&M cost		$794,500
Interest =	10%	
Years of Operation =	30	
Total present worth cost	$954,840	

12/12/96

Annual Cost of Town Water
(from Town of Romulus Water District)
Quarterly Costs

Operation and Maint. Fee	$20.00	
	$30.00	/up to 8000 gallons
	$0.18	/100 gallons above 8000 gallons
Minimum quarterly fee	$50.00	
Annual fee	$200.00	

Cost of Connecting to Existing Service

	Unit Cost		Volume		Total
Excavation (4'-6' deep)	$4.21	/LF	1167	LF	$4,913
Bedding (6")	$10.00	/CY	117	C	$1,170
Backfill	$1.45	LF	2100	LF	$3,045
Install 6" DI Push-on Joint Pipe (includes labor and materials)	$13.00	/LF	2400	LF	$31,200
Horizontal boring under railroad	$495.00	/LF	20	LF	$9,900
Total Cost					**$50,228**

Excavation =	1167	CY
Bedding (6") =	117	CY

Unit Cost from Means Building Construction Cost Data
Basis: Connecting to existing 6" DI Water Main on Ash Landfill
Length of connection approximately 2100 LF + 300 LF + 2400 LF
Nonhazardous work conditions.
Pipe must be at least 4' below ground surface.

12/12/96

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:04:50

CORA GROUNDWATER MONITORING COST MODULE (503)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Number of wells to install	10	CAPITAL COST	43,000
Average well depth (ft)	10	O & M COSTS	[redacted] 60,000
Protection during setup of drill rig & installation of above-grade piping	D		
Protection during drilling	D		
Average temp (degrees F)	50		
Confidence level	M		
Number of wells to monitor	40		
Monitoring frequency	4		
Monitoring requirements:			
24 Plasma Metals	Y		
Pest/PCB	N		
GC-BN	N		
GC-Acid	N		
HSLORG	N		
VOA GC/MS	Y		
Acid GC/MS	Y		
B/N GC/MS	Y		

NOTES:

Quarterly Monitoring

Cost Backup
for
Alternative MC-3

Air Sparging

SEDA ASH LANDFILL FEASIBILITY STUDY
PRELIMINARY COST ESTIMATES

Alternative: MC-3

Description: Air sparging

Unit Operation	Capital Cost	Annual O&M Cost
Groundwater monitoring	$43,000	$60,000
Site preparation	26,000	5,000
Surface water diversion	38,000	2,100
Interceptor Trenches	60,000	1,000
Air sparging equipment	100,000	10,000
Vapor-phase carbon	210,000	130,000
Subtotal	$477,000	$208,100
Contingency (20%)	95400	41620
Engineering/Oversight (20%)	95400	41620
Total	$667,800	$291,340
Present worth O&M cost		$1,790,158
Interest =	10%	
Years of Operation =	10	
Total present worth cost	$2,457,958	

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:04:50

CORA GROUNDWATER MONITORING COST MODULE (503)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Number of wells to install	10	CAPITAL COST	43,000
Average well depth (ft)	10	O & M COSTS	~~[illegible]~~ 60,000
Protection during setup of drill rig & installation of above-grade piping	D		
Protection during drilling	D		
Average temp (degrees F)	50		
Confidence level	M		
Number of wells to monitor	40		
Monitoring frequency	4		
Monitoring requirements:			
24 Plasma Metals	Y		
Pest/PCB	N		
GC-BN	N		
GC-Acid	N		
HSLORG	N		
VOA GC/MS	Y		
Acid GC/MS	Y		
B/N GC/MS	Y		

NOTES:

Quarterly Monitoring

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 10:56:43

CORA SITE PREPARATION COST MODULE

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS			RESULTS	
Parameter	Value	Prot. Level	Component	Total
Site clearing (acres)	15.0	D	SITE CLEARING	13,000
Tree removal (acres)	0.0		TREE REMOVAL	0
Dust control area (acres)	0.0		DUST CONTROL	0
Local util. connect.	Y		POWER CONNECTION	13,000
Distance to power pt.(ft)	500		GAS CONNECTION	0
Gas conn. req'd	N		WATER CONNECTION	0
Distance to gas conn.(ft)	0		ACCESS ROAD	0
Water conn. req'd	N		TEMPORARY STORAGE	0
Distance to wtr (ft)	0		BLDG DEMOLITION	0
Water flow (GPM)	0		FLOW EQUAL.&INVENTORY	[redacted]
Access rd - ft req'd	0			26,000
Acess road width (ft)	0		CAPITAL COSTS	[redacted]
Bldg. demolition (CY)	0		O&M (FLOW INV.)	1,100
Stored material (CY)	0			
Average temp. (deg. F)	60		BYPRODUCTS GENERATED	
Level of confidence	M		SOILS & ORGANICS (CY)	5,260

STREAM	FLOW (GPM)	RETENTION TIME (HRS)	IS PUMPING REQUIRED (Y/N)?	TOTAL TRANSFER PIPE LEN. (FT)	TRENCH IN CONTAM. MATERIAL (Y/N)?	# OF PUMP STATIONS	PROT. LEVEL (A,B, C,D,N)
1	30	6	Y	2000	N	2	D
2	0	0		0		0	
3	0	0		0		0	
4	0	0		0		0	
5	0	0		0		0	

*** Permanent utility connections are not included in technology modules with the exception of onsite incineration. Because of the specific high demand for this process, allowances have been made within the cost algorithm.

*** Equalization and inventory costs should not be confused with or used for stockpiling and rehandling costs between removal and disposal technologies. Stockpiling and rehandling costs are significant and site specific, requiring in-depth production and economic analysis beyond the scope of this conceptual resource.

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 10:59:36

CORA SURFACE WATER DIVERSION/COLLECTION COST MODULE (105)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Site on raised ground		CAPITAL COST	38,000
Length of site (ft)	2000	O & M COSTS	2,100
Width of site (ft)	1000		
25-yr, 24-hr rain (in.)	--	BYPRODUCTS FOR TRANSPORT/DISPOSAL:	
Protection level	D		
Average temp (degrees F)	50	EXCAVATED MATERIAL (CY)	
Confidence level	M	(SWELL FACTOR=1.25)	346

NOTES:

Run-on and Run-off Control

ES ENGINEERING-SCIENCE, INC.

Client Seneca Army Depot | Job No. 720489-01000 | Sheet 1 of ___
Subject Ash Landfill Removal Action | By DMK | Date 9/27/93
Dewatering Cost Estimate | Checked ___ | Rev. ___

Estimate Cost of Dewatering System

Data

2000 feet of trench
8-foot deep
3-feet wide

Trenching

From Means 6'-10' feet deep (1989)

cost is $4.26 per cubic yard

Volume = (2000)(8)(3) = 48,000 ft³ = 1800 yd³

Surface Area = (2000)(8) + (2000)(3) = 38,000 ft²

cost = $7600

add 4% per year inflation (1.17 multiplier)

cost = $8900 Use 2.0 multiplier to account for shoring and hazardous waste site ⇒ $17,800

Materials	Quantity	Unit Cost	Total Cost		
gravel	1800 yd3	10.80	$19,440	× 1.17 =	22,745
PVC pipe (6")	2000 feet	3.33	$6,660	× 1.17 =	7792
geotextile	4500 yd²	$1.50	6,750		6750
Riser pipe (10")	100 feet	5.85	$585	× 1.17 =	685
Pumps	4	400	1,600		1600
				total =	39,572

total 57,372

$60,000

BUILDING CONSTRUCTION COST DATA 1989

TD
BK.
16.23
1989/3
1989

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022 200 | Excav, Backfill, Compact

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P
204	1300	Dozer backfilling, bulk, up to 300' haul, no compaction	B-10B	1,200	.010	C.Y.		.20	.61	.81	.97
	1400	Air tamped	B-11B	240	.067			1.28	4.01	5.29	6.30
	1600	Compacting backfill, 6" to 12" lifts, vibrating roller	B-10C	800	.015			.30	1.02	1.32	1.57
	1700	Sheepsfoot roller	B-10D	750	.016			.32	1.12	1.44	1.71
	1900	Dozer backfilling, trench, up to 300' haul, no compaction	B-10B	900	.013			.27	.81	1.08	1.29
	2000	Air tamped	B-11B	235	.068			1.31	4.09	5.40	6.45
	2200	Compacting backfill, 6" to 12" lifts, vibrating roller	B-10C	700	.017			.34	1.16	1.50	1.79
	2300	Sheepsfoot roller	B-10D	650	.018			.37	1.29	1.66	1.97
212	0010	BORROW Buy and load at pit, haul 2 miles round trip									
	0020	and spread, with 200 H.P. dozer, no compaction									
	0100	Bank run gravel (16)	B-15	600	.047	C.Y.	3.67	.87	2.34	6.88	7.90
	0200	Common borrow		600	.047		3.15	.87	2.34	6.36	7.35
	0300	Crushed stone, 1-½"		600	.047		14	.87	2.34	17.21	19.25
	0320	¾"		600	.047		14.25	.87	2.34	17.46	19.55
	0340	½"		600	.047		14.70	.87	2.34	17.91	20
	0360	⅜"		600	.047		15.20	.87	2.34	18.41	21
	0400	Sand, washed, concrete		600	.047		12.95	.87	2.34	16.16	18.10
	0500	Dead or bank sand		600	.047		3.15	.87	2.34	6.36	7.35
	0600	Select structural fill		600	.047		6.80	.87	2.34	10.01	11.35
	0700	Screened loam		600	.047		14.65	.87	2.34	17.86	20
	0800	Topsoil, weed free		600	.047		11.10	.87	2.34	14.31	16.10
	0900	For 5 mile haul, add	B-34B	200	.040			.70	1.69	2.39	2.90
222	0010	COMPACTION Steel wheel tandem roller, 5 tons (18)	B-10E	8	1.500	Hr.		30	13.55	43.55	60
	0100	10 tons	B-10F	8	1.500	"		30	21	51	68
	0300	Sheepsfoot or wobbly wheel roller, 8" lifts, common fill	B-10G	1,300	.009	C.Y.		.19	.34	.53	.65
	0400	Select fill	"	1,500	.008			.16	.30	.46	.57
	0500	Terra Probe, deep sand, vibrating 30,000 C.Y., minimum	B-43	1,800	.027			.49	.37	.86	1.15
	0520	Maximum	"	1,100	.044			.80	.61	1.41	1.88
	0540	Mobilization and demobilization, minimum	B-8	.63	102	Total		1,900	2,775	4,675	5,875
	0560	Maximum	"	.48	133	"		2,500	3,650	6,150	7,725
	0600	Vibratory plate, 8" lifts, common fill	A-1	200	.040	C.Y.		.67	.26	.93	1.30
	0700	Select fill	"	216	.037	"		.62	.24	.86	1.20
230	0010	DRILLING ONLY 2" hole for rock bolts, average	B-47	395	.061	L.F.		1.14	1.19	2.33	3.02
	0800	2-½" hole for pre-splitting, average		540	.044			.83	.87	1.70	2.21
	1600	Quarry operations, 2-½" to 3-½" diameter		715	.034			.63	.66	1.29	1.67
234	0010	DRILLING AND BLASTING Only, rock, open face, under 1500 C.Y.	B-47	225	.107	C.Y.	1.25	2	2.09	5.34	6.70
	0100	Over 1500 C.Y.	"	300	.080		1.25	1.50	1.57	4.32	5.35
	0300	Bulk drilling and blasting, can vary greatly, average									3.50
	0500	Pits, average									18
	1300	Deep hole method, up to 1500 C.Y.	B-47	50	.480		1.25	9	9.40	19.65	25
	1400	Over 1500 C.Y.		66	.364		1.25	6.80	7.10	15.15	19.45
	1900	Restricted areas, up to 1500 C.Y.		13	1.850		1.25	35	36	72.25	93
	2000	Over 1500 C.Y.		20	1.200		1.25	23	24	48.25	61
	2200	Trenches, up to 1500 C.Y.		22	1.090		1.25	20	21	42.25	56
	2300	Over 1500 C.Y.		26	.923		1.25	17.30	18.10	36.65	47
	2500	Pier holes, up to 1500 C.Y.		22	1.090		1.25	20	21	42.25	56
	2600	Over 1500 C.Y.		31	.774		1.25	14.55	15.15	30.95	40
	2800	Boulders under ½ cy, loaded on truck, no hauling	B-10Q	80	.150			3.01	4.93	7.94	9.90
	2900	Drilled, blasted and loaded on truck, no hauling	B-47	30	.800		1.25	15	15.65	31.90	41
	3100	Jackhammer operators with foreman compressor, air tools	B-9	1	40	Day		690	115	805	1,175
	3300	Track drill, compressor, operator and foreman	B-47	1	24	"		450	470	920	1,200
	3500	Blasting caps				Ea.	1.68			1.68	1.85
	3700	Explosives				Lb	1.25			1.25	1.38
	3900	Blasting mats, rent, for first day				Ea	39			39	43
	4000	Per added day					22			22	24
	4200	Preblast survey for 6 room house, individual lot, minimum	A-6	2.40	6.670			130		130	195
	4300	Maximum	"	1.35	11.850			230		230	345

022 200 | Excav, Backfill, Compact

		CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
2200	5000' haul	B-33E	750	.019	C.Y.		.38	2.27	2.65	3.06	246
2300	Common earth, 1500' haul		1,030	.014			.28	1.65	1.93	2.23	
2350	3000' haul		790	.018			.36	2.15	2.51	2.90	
2400	5000' haul		650	.022			.44	2.61	3.05	3.53	
2500	Clay, 1500' haul		645	.022			.44	2.63	3.07	3.55	
2550	3000' haul		495	.028			.57	3.43	4	4.63	
2600	5000' haul		405	.035			.70	4.20	4.90	5.65	
2700	Towed, 10 C.Y., ¼ push dozer, sand & gravel, 1500' haul	B-33B	560	.025			.51	2.01	2.52	2.97	
2720	3000' haul		450	.031			.63	2.50	3.13	3.69	
2730	5000' haul		365	.038			.78	3.09	3.87	4.55	
2750	Common earth, 1500' haul		420	.033			.68	2.68	3.36	3.96	
2770	3000' haul		400	.035			.71	2.82	3.53	4.15	
2780	5000' haul		310	.045			.92	3.63	4.55	5.35	
2800	Clay, 1500' haul		315	.044			.90	3.57	4.47	5.30	
2820	3000' haul		300	.047			.95	3.75	4.70	5.55	
2840	5000' haul		225	.062			1.26	5	6.26	7.40	
2900	15 C.Y., ¼ push dozer, sand & gravel, 1500' haul	B-33C	800	.018			.35	1.41	1.76	2.08	
2920	3000' haul		640	.022			.44	1.76	2.20	2.60	
2940	5000' haul		520	.027			.55	2.17	2.72	3.20	
2960	Common earth, 1500' haul		600	.023			.47	1.88	2.35	2.77	
2980	3000' haul		560	.025			.51	2.01	2.52	2.97	
3000	5000' haul		440	.032			.65	2.56	3.21	3.78	
3020	Clay, 1500' haul		450	.031			.63	2.50	3.13	3.69	
3040	3000' haul		420	.033			.68	2.68	3.36	3.96	
3060	5000' haul		320	.044			.89	3.52	4.41	5.20	
0010	EXCAVATING, STRUCTURAL Hand, pits to 6' deep, sandy soil	1 Clab	8	1	C.Y.		16.85		16.85	25	250
0100	Heavy soil or clay		4	2			34		34	51	
0300	Pits 6' to 12' deep, sandy soil		5	1.600			27		27	41	
0500	Heavy soil or clay		3	2.670			45		45	68	
0700	Pits 12' to 18' deep, sandy soil		4	2			34		34	51	
0900	Heavy soil or clay		2	4			67		67	100	
1100	Hand loading trucks from stock pile, sandy soil		12	.667			11.25		11.25	16.90	
1300	Heavy soil or clay		8	1			16.85		16.85	25	
1500	For wet or muck hand excavation, add to above				%				50%	50%	
2000	Machine excavation, for spread and mat footings, elevator pits,										
2001	and small building foundations										
2035	Common earth, hydraulic backhoe, ¾ C.Y. bucket	B-12F	90	.178	C.Y.		3.63	4.78	8.41	10.65	
2040	1 C.Y. bucket	B-12A	108	.148			3.03	4.97	8	9.95	
2050	1-½ C.Y. bucket	B-12B	144	.111			2.27	4.44	6.71	8.25	
2060	2 C.Y. bucket	B-12C	200	.080			1.63	4.46	6.09	7.35	
2070	Sand and gravel, ¾ C.Y. bucket	B-12F	100	.160			3.27	4.31	7.58	9.60	
2080	1 C.Y. bucket	B-12A	120	.133			2.72	4.47	7.19	8.95	
2090	1-½ C.Y. bucket	B-12B	160	.100			2.04	4	6.04	7.45	
3000	2 C.Y. bucket	B-12C	220	.073			1.49	4.05	5.54	6.65	
3010	Clay, till, or blasted rock, ¾ C.Y. bucket	B-12F	80	.200			4.09	5.40	9.49	12	
3020	1 C.Y. bucket	B-12A	95	.168			3.44	5.65	9.09	11.30	
3030	1-½ C.Y. bucket	B-12B	130	.123			2.51	4.92	7.43	9.15	
3040	2 C.Y. bucket	B-12C	175	.091			1.87	5.10	6.97	8.40	
9010	For mobilization or demobilization, see div. 022-274										
9020	For dewatering, see div. 021-404										
9022	For larger structures, see Bulk Excavation, div. 022-238										
9024	For loading onto trucks, add								15%		
9026	For hauling, see div. 022-266										
9030	For sheeting or soldier beams & lagging, see div. 021-614 & 624										
9040	For trench excavation of strip footings, see div. 022-254										
0010	EXCAVATING, TRENCH or continuous footing, common earth										254
0020	No sheeting or dewatering included										

For expanded coverage of these items see *Means Site Work Cost Data 1989*

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			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
254	0050	1' to 4' deep, ⅜ C.Y. tractor loader/backhoe	B-11C	150	.107	C.Y.		2.05	1.16	3.21	4.35	254
	0060	½ C.Y. tractor loader/backhoe	B-11M	200	.080			1.54	1.35	2.89	3.79	
	0090	4' to 6' deep, ½ C.Y. tractor loader/backhoe	"	200	.080			1.54	1.35	2.89	3.79	
	0100	⅝ C.Y. hydraulic backhoe	B-12Q	250	.064			1.31	1.32	2.63	3.40	
	0110	¾ C.Y. hydraulic backhoe	B-12F	300	.053			1.09	1.44	2.53	3.20	
	0300	½ C.Y. hydraulic excavator, truck mounted	B-12J	200	.080			1.63	2.93	4.56	5.65	
	0500	6' to 10' deep, ¾ C.Y. hydraulic backhoe	B-12F	225	.071			1.45	1.91	3.36	4.26	
	0510	1 C.Y. hydraulic backhoe	B-12A	400	.040			.82	1.34	2.16	2.69	
	0600	1 C.Y. hydraulic excavator, truck mounted	B-12K	400	.040			.82	1.77	2.59	3.15	
	0610	1-½ C.Y. hydraulic backhoe	B-12B	600	.027			.54	1.07	1.61	1.98	
	0900	10' to 14' deep, ¾ C.Y. hydraulic backhoe	B-12F	200	.080			1.63	2.15	3.78	4.79	
	0910	1 C.Y. hydraulic backhoe	B-12A	360	.044			.91	1.49	2.40	2.99	
	1000	1-½ C.Y. hydraulic backhoe	B-12B	540	.030			.61	1.19	1.80	2.20	
	1300	14' to 20' deep, 1 C.Y. hydraulic backhoe	B-12A	320	.050			1.02	1.68	2.70	3.36	
	1310	1-½ C.Y. hydraulic backhoe	B-12B	480	.033			.68	1.33	2.01	2.48	
	1320	2-½ C.Y. hydraulic backhoe	B-12S	850	.019			.38	1.77	2.15	2.52	
	1400	By hand with pick and shovel to 6' deep, light soil	1 Clab	8	1			16.85		16.85	25	
	1500	Heavy soil	"	4	2			34		34	51	
	1700	For tamping backfilled trenches, air tamp, add	A-1	100	.080			1.35	.51	1.86	2.60	
	1900	Vibrating plate, add		90	.089			1.50	.57	2.07	2.89	
	2100	Trim sides and bottom for concrete pours, common earth		600	.013	S.F.		.22	.09	.31	.43	
	2300	Hardpan		180	.044	"		.75	.29	1.04	1.44	
	2400	Pier and spread footing excavation, add to above				C.Y.				30%	30%	
	3000	Backfill trench, F.E. loader, wheel mtd., 1 C.Y. bucket										
	3020	Minimal haul	B-10R	400	.030	C.Y.		.60	.52	1.12	1.46	
	3040	100' haul	"	200	.060			1.20	1.03	2.23	2.93	
	3080	2-¼ C.Y. bucket, minimum haul	B-10T	600	.020			.40	.67	1.07	1.33	
	3090	100' haul	"	300	.040			.80	1.34	2.14	2.67	
258	0010	EXCAVATING, UTILITY TRENCH Common earth										258
	0050	Trenching with chain trencher, 12 H.P., operator walking										
	0100	4" wide trench, 12" deep	B-53	800	.010	L.F.		.21	.25	.46	.58	
	0150	18" deep		750	.011			.22	.27	.49	.62	
	0200	24" deep		700	.011			.24	.29	.53	.67	
	0300	6" wide trench, 12" deep		650	.012			.25	.31	.56	.72	
	0350	18" deep		600	.013			.27	.34	.61	.78	
	0400	24" deep		550	.015			.30	.37	.67	.85	
	0450	36" deep		450	.018			.37	.45	.82	1.04	
	0600	8" wide trench, 12" deep		475	.017			.35	.42	.77	.98	
	0650	18" deep		400	.020			.41	.50	.91	1.17	
	0700	24" deep		350	.023			.47	.58	1.05	1.33	
	0750	36" deep		300	.027			.55	.67	1.22	1.56	
	1000	Backfill by hand including compaction, add										
	1050	4" wide trench, 12" deep	A-1	800	.010	L.F.		.17	.06	.23	.32	
	1100	18" deep		530	.015			.25	.10	.35	.49	
	1150	24" deep		400	.020			.34	.13	.47	.65	
	1300	6" wide trench, 12" deep		540	.015			.25	.10	.35	.48	
	1350	18" deep		405	.020			.33	.13	.46	.64	
	1400	24" deep		270	.030			.50	.19	.69	.96	
	1450	36" deep		180	.044			.75	.29	1.04	1.44	
	1600	8" wide trench, 12" deep		400	.020			.34	.13	.47	.65	
	1650	18" deep		265	.030			.51	.19	.70	.98	
	1700	24" deep		200	.040			.67	.26	.93	1.30	
	1750	36" deep		135	.059			1	.38	1.38	1.92	
	2000	Chain trencher, 40 H.P. operator riding										
	2050	6" wide trench and backfill, 12" deep	B-54	1,200	.007	L.F.		.14	.10	.24	.32	
	2100	18" deep		1,000	.008			.16	.12	.28	.38	
	2150	24" deep		975	.008			.17	.13	.30	.39	
	2200	36" deep		900	.009			.18	.14	.32	.42	

For expanded coverage of these items see *Means Site Work Cost Data 1989*

027 150 | Sewage Systems

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
164	3160	Steel, plain oval arch culverts, plain										164
	3180	17" x 13" 16 ga., 15" equivalent	B-22	225	.133	L.F.	6.87	2.65	.56	10.08	12.15	
	3200	21" x 15" 16 ga., 18" equivalent		175	.171		8.19	3.40	.73	12.32	14.90	
	3220	28" x 20" 14 ga., 24" equivalent		150	.200		13	3.97	.85	17.82	21	
	3240	35" x 24" 14 ga., 30" equivalent		108	.278		16.25	5.50	1.18	22.93	27	
	3260	42" x 29" 12 ga., 36" equivalent	B-13	108	.519		31.25	9.40	4.27	44.92	53	
	3280	49" x 33" 12 ga., 42" equivalent		92	.609		37.63	11.05	5	53.68	63	
	3300	57" x 38" 12 ga., 48" equivalent		75	.747		34.57	13.55	6.15	54.27	65	
	3320	End sections, 17" x 13"		22	2.550	Ea.	30	46	21	97	125	
	3340	42" x 29"		17	3.290	"	154	60	27	241	290	
	3360	Multi-plate arch, steel	B-20	1,690	.014	Lb.	.53	.27		.80	.99	
168	0010	PIPING, DRAINAGE & SEWAGE, POLYVINYL CHLORIDE										168
	0020	Not including excavation or backfill										
	2000	10' lengths, S.D.R. 35, 4" diameter	B-20	375	.064	L.F.	.57	1.23		1.80	2.48	
	2040	6" diameter		350	.069		1.22	1.32		2.54	3.33	
	2080	8" diameter		335	.072		1.75	1.38		3.13	4	
	2120	10" diameter	B-21	330	.085		2.80	1.67	.26	4.73	5.85	
	2160	12" diameter		320	.088		3.95	1.72	.26	5.93	7.25	
	2200	15" diameter		190	.147		6.15	2.90	.45	9.50	11.60	
172	0010	PIPING, DRAINAGE & SEWAGE, VITRIFIED CLAY, C700										172
	0020	Not including excavation or backfill, 4' & 5' lengths										
	4030	Extra strength, compression joints, C425										
	5000	4" diameter	B-20	265	.091	L.F.	.98	1.74		2.72	3.70	
	5020	6" diameter	"	200	.120		1.63	2.30		3.93	5.25	
	5040	8" diameter	B-21	200	.140		2.54	2.75	.42	5.71	7.40	
	5060	10" diameter		190	.147		4.22	2.90	.45	7.57	9.50	
	5080	12" diameter		150	.187		5.57	3.67	.56	9.80	12.25	
	5100	15" diameter		110	.255		10.36	5	.77	16.13	19.75	
	5120	18" diameter		88	.318		15.60	6.25	.96	22.81	28	
	5140	24" diameter		45	.622		29	12.25	1.88	43.13	52	
	5160	30" diameter	B-22	31	.968		33.80	19.20	4.10	57.10	71	
	5180	36" diameter	"	20	1.500		52	30	6.35	88.35	110	
	6000	3' lengths, add to above					30%					
	6020	2' lengths, add to above					40%					
	6040	For die cast slip joints compared to premium joints					90%					
	6060	For plain joints compared to compression joints					75%					
	7060	2' lengths, add to above					40%					
174	0010	SEWAGE PUMPING STATIONS Prefabricated steel, concrete										174
	0020	or fiberglass, 200 GPM	C-17D	.17	494	Total	23,300	11,000	3,100	37,400	45,700	
	0200	1,000 GPM		.07	200		34,450	26,800	7,525	68,775	86,500	
	0500	Add for generator unit, 200 GPM, steel		.34	247		17,800	5,500	1,550	24,850	29,600	
	0600	Concrete		.51	165		11,130	3,675	1,025	15,830	18,900	
	1000	Add for generator unit, 1,000 GPM, steel		.30	280		18,900	6,250	1,750	26,900	32,100	
	1200	Concrete		.38	221		15,900	4,925	1,375	22,200	26,400	
	1500	For wet well, if required, add	B-23	.50	80		4,560	1,375	955	6,890	8,150	
176	0010	SEWAGE TREATMENT Not incl. fencing or external piping										176
	0020	Steel packaged, blown air aeration plants										
	0100	1,000 GPD				Gal.					11.40	
	0200	5,000 GPD									7.50	
	0300	15,000 GPD									4.15	
	0400	30,000 GPD									4.05	
	0500	50,000 GPD									2.95	
	0600	100,000 GPD									2.70	
	0700	200,000 GPD									1.90	
	0800	500,000 GPD									2.10	
	1000	Concrete, extended aeration, primary and secondary treatment										
	1010	10,000 GPD				Gal.					8.65	

MIRAFI®
140N

SUBSURFACE DRAINAGE

Drainage Fabric

Good drainage is essential for soil stability. In order for drainage structures to be effective — along highways, in embankments, under airfields and athletic fields, or anywhere — they must have a properly designed protective filter.

Traditionally, graded-aggregate filter systems have been used with limited success to prevent soil particles from migrating into subsurface drainage structures. However, these aggregate drains have several inherent problems, including high cost and difficult installation.

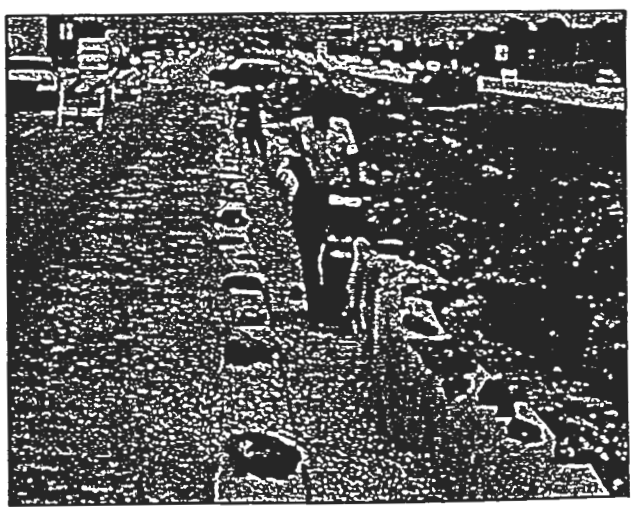
Mirafi **140N**, a nonwoven filter fabric, provides an effective, cost-efficient alternative to graded-aggregate filters. Among its design features are:

- Easily conforms to the ground or trench surface for fast and trouble-free installation;
- Creates a superior filter media because of its high water flow rate and excellent filtration properties;
- Meets severe stresses of installation with its high puncture and burst resistance.

Mirafi **140N** eliminates many of the problems associated with graded-aggregate filters, including:

- Determining the aggregate gradation required to match soil conditions;
- Finding a convenient and economical source of a specific aggregate gradation;
- Transporting and placing a graded aggregate;
- Assuring that the in-place aggregate gradation provides effective filter performance.

An additional benefit of Mirafi **140N** is that the drain size can often be reduced when Mirafi fabric is installed because the thick, graded-aggregate layer is eliminated. As a result, less excavation and less aggregate will be required.



Mirafi 140N Fabric Properties

Fabric Property	Unit	Test Method	Typical Values[1]
Grab Tensile Strength	lb	ASTM D-1682-64	120
Grab Tensile Elongation	%	ASTM D-1682-64	55
Burst Strength	psi	ASTM D-3786-80a[2]	210
Trapezoid Tear Strength	lb	ASTM D-1117-80	50
Puncture Strength	lb	ASTM D-3787-80[3]	70
Coefficient of Permeability, k	cm/sec	CFMC GET-2	0.2
Water Flow Rate	gal/min/sf	CFMC GET-2	285

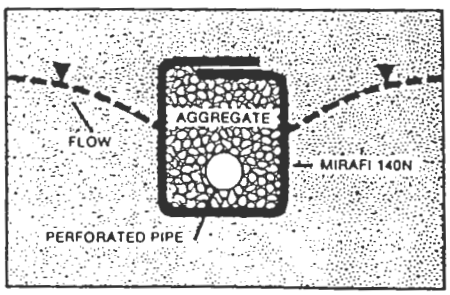
Mirafi 140N Packaging

Roll Width (ft.)	Roll Length (ft.)	Roll Wt. (lbs.)
15.0	360	185
12.5	360	175

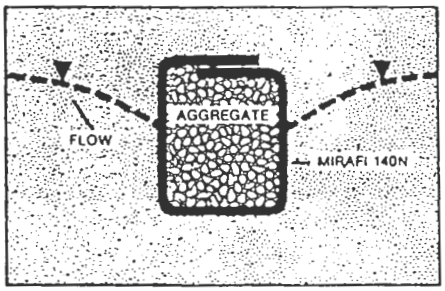
[1]The values listed are average values. Contact the Mirafi Technical Department for minimum certifiable values.
[2]Diaphragm Bursting Tester.
[3]Tension Testing Machine with ring clamp; steel ball replaced with a 5/16-inch diameter solid steel cylinder centered within the ring clamp.

To the best of our knowledge, the information contained herein is accurate. However, Mirafi, Inc. cannot assume any liability whatsoever for the accuracy or completeness thereof. Final determination of the suitability of any information or material for the use contemplated, of its manner of use, and whether the suggested use infringes any patents is the sole responsibility of the user.

Type of Fabric Wrapped Drains

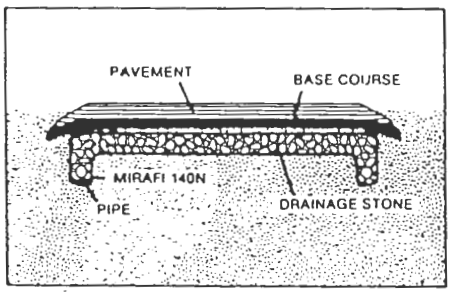


Conventional Drain (with pipe)

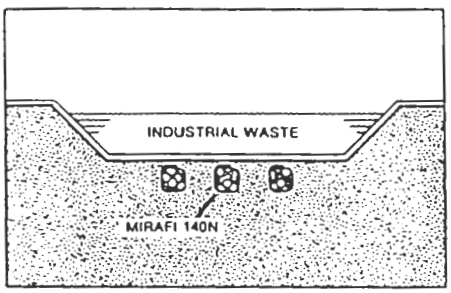


French Drain (without pipe)

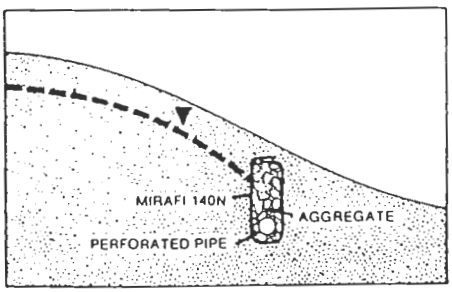
Typical Drain Applications



Blanket Drain & Edge Drain



Pond Underdrain



Interceptor Drain

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MIRAFI INC

CIVIL
ENGINEERING
FABRICS

February 1, 1988

FABRIC	WT/SY	ROLL SIZE	ROLL WT	PRICE*
DRAINAGE:				
Mirafi 140N	4.5 oz.	15' x 360'(600 sy)	184 lbs.	$.85/sy
Mirafi 140N	4.5 oz.	12.5' x 360'(500 sy)	153 lbs.	$.85/sy
Mirafi 140NL	3.5 oz.	15' x 420'(700 sy)	170 lbs.	$.75/sy
STABILIZATION:				
Mirafi 400X	3.5 oz.	12.5 x 576'(800 sy)	176 lbs.	$.75/sy
Mirafi 500X	4.0 oz.	12.5' x 432'(600 sy)	173 lbs.	$.80/sy
Mirafi 500X	4.0 oz.	17.5' x 309'(600 sy)	179 lbs.	$.80/sy
Mirafi 500X	4.0 oz.	25' x 216'(600 sy)	179 lbs.	$.85/sy
Mirafi 600X	6.0 oz.	12.5' x 360'(500 sy)	210 lbs.	$1.05/sy
Mirafi 600X	6.0 oz.	25' x 180'(500 sy)	210 lbs.	$1.10/sy
EROSION CONTROL:				
Mirafi 700XG	6.5 oz.	13' x 300'(433 sy)	200 lbs.	$1.30/sy
Mirafi 700X	6.5 oz.	6' x 300'(200 sy)	92 lbs.	$1.40/sy
Mirafi 700X	6.5 oz.	12' x 300'(400 sy)	184 lbs.	$1.42/sy
Mirafi 700X	6.5 oz.	18' x 150'(300 sy)	131 lbs.	$1.45/sy
Miramat2400	24.0 oz.	3.75' x 180'(75 sy)	135 lbs.	$.80/sf
Miramat1800	18.0 oz.	3.75' x 264'(110 sy)	135 lbs.	$.65/sf
SEDIMENT CONTROL:				
Envirofence		3' x 100'(100 lf)	35 lbs.	$1.50/lf
LANDSCAPE:				
Mirascape	3.0 oz.	3' x 300'(100 sy)	15 lbs.	$.75/sy
Mirascape	3.0 oz.	6' x 300'(200 sy)	28 lbs.	$.75/sy
Mirascape	3.0 oz.	9' x 300'(300 sy)	40 lbs.	$.75/sy
PREFABRICATED DRAINAGE SYSTEM:				
Miradrain 5000*		4' x 50'(200 sf)	50 lbs.	$1.50/sf
Miradrain 6000		10 panels/roll 4' x 8'(320 sf)	70 lbs.	$1.40/sf
Miradrain 6000		1 panel/roll 4' x 25'(100 sf)	25 lbs.	$1.40/sf
Miradrain 6000		1 panel/roll 4' x 50'(200 sf)	50 lbs.	$1.40/sf
Miradrain 9000		4' x 50'(200 sf)	50 lbs.	$1.60/sf

*Miradrain 5000 replaces Miradrain 4000

(OVER)

FABRIC	WT/SY	ROLL SIZE	ROLL WT	PRICE*
PAVEMENT OVERLAY:				
Mirafi 900N	4.0 oz.	12.5' x 360'(500 sy)	153 lbs.	$.75/sy
NON WOVEN (impermeable liner protection and railroad use):				
Mirafi 180N	8.0 oz.	13' x 300'(433 sy)	230 lbs.	$1.30/sy
Mirafi 180N	8.0 oz.	17.5' x 300'(583 sy)	310 lbs.	$1.30/sy
Mirafi 1120N	12.0 oz.	13' x 300'(433 sy)	310 lbs.	$1.75/sy
Mirafi 1120N	12.0 oz.	17.5' x 300'(583 sy)	410 lbs.	$1.75/sy
Mirafi 1160N	16.0 oz.	13' x 150'(217 sy)	230 lbs.	$2.60/sy
Mirafi 1160N	16.0 oz.	17.5' x 150'(292 sy)	315 lbs.	$2.60/sy
WOVEN (heavy weight, high performance):				
Mirafi 1000HP	10 oz.	15' x 240'(400 sy)	265 lbs.	$2.50/sy
Mirafi 1200HP	12 oz.	15' x 240'(400 sy)	315 lbs.	$2.90/sy
Mirafi 2100HP	21 oz.	12' x 105'(140 sy)	200 lbs.	$6.90/sy
SPECIALITY PRODUCTS:				
Mirafi coated fabric MCF 1212		12' x 300'(400 sy)	190 lbs.	$2.25/sy
Geonet 250		6.25' x 100'(625 sf)	80 lbs.	$.70/sf
Geonet 250 - with fabric		6.25' x 100'(625 sf)	80 lbs.	$.95/sf

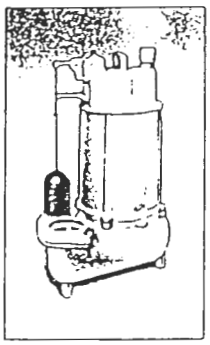
Manufacturers Representative: R. P. Martino and Company
2 Ledge Drive
Georgetown, MA 01833
617-352-2106

*Prices are for estimating purposes only. Call your local Mirafi representative or distributor for current prices and availability.

Fabric seaming available, price upon request.

Centrifugal Sewage Pumps

Submersible Automatic Sewage Ejector Pumps



- For 1¼" or 1½" solids
- Up to 9300 GPH capacities
- ½-HP motor

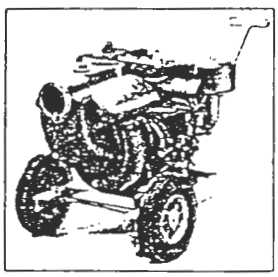
Continuous-duty pumps work tirelessly to pump sewage or other liquids containing solid matter. Built-in float switch provides automatic operation and has a quick-change feature for fast replacement if necessary. Pump also has a 10½-ft. power cord with 3-prong plug for manual use. Pumps have threaded flange connections, cast iron housing, and a 2-vane, ductile iron open impeller with a stainless steel shaft. Thermal overload-protected motor is ½ hp, 1750 rpm, 115 VAC, 60 Hz, 1 ph. Min. sump dia. is 13". Max. liquid temperature is 160° F. Pump height is 17⅜".

High-temperature (to 200° F) and 230 V models are available. Specify No. 9949K888, voltage, temperature, and discharge size. Prices on request.

PUMP PERFORMANCE					
Discharge	Head, Ft.	5	10	15	20
1½"	GPH	8220	6900	5400	3600
2"	GPH	8700	7500	6000	4200
3"	GPH	9300	8100	6480	4620

Discharge	Max. Dia., Solids	No.	NET EACH
1½"	1¼"	9949K19	$378.33
2"	1½"	9949K21	385.09
3"	1½"	9949K23	392.09

Solids Handling Pump



- For 1¾" solids
- 22,800 GPH capacity
- 10-HP engine

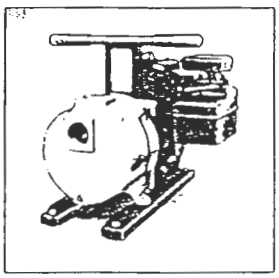
Extra heavy duty centrifugal unit gets the job done on hard-to-pump silt, rocks, sand, slurries, sludge, trash and sewage . . . handles large flows and solids up to 1¾" diameter. Self-priming pump performs suction lifts up to 25 feet. Pump has an aluminum housing with mechanical seals and a two-blade, nonclogging impeller. The 10-hp Briggs & Stratton, air-cooled, 3600 rpm, gasoline engine has recoil start and a 4-qt. fuel tank. Ports are 3" npt.

Pump is mounted on a heavy-duty steel frame with 10" pneumatic wheels and a handle for portability. Pump weighs 265 lbs.

PUMP PERFORMANCE				
Head, Ft.	25	40	60	90
GPH	22,800	18,420	13,500	4,500

No. 4388K22 ..... NET EACH $1612.68

Alumi-Lite Trash Pumps



- For 1" or 1½" solids
- Up to 20,400 GPH capacity

These self-priming pumps are constructed of lightweight aluminum, making them extremely portable but no less durable than heavier metals. Pumps are capable of suction lifts up to 25 feet. They welcome the dirty jobs, and really go into action to handle silt, rocks, sand, muddy water, sludge, trash and sewage.

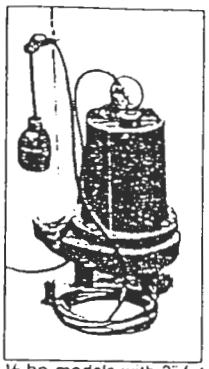
Impeller and volute are made of cast iron. Mechanical seal with a stainless steel shaft sleeve.

Powered by a Briggs & Stratton air-cooled, 4-cycle, 3600 rpm, gasoline engine with recoil start. Pumps include rubber foot mounts, a suction strainer, and a handy T-style handle for added portability.

PUMP PERFORMANCE					
Port	Head, Ft.	20	40	60	90
2"	GPH	10,800	9,240	7,200	3,120
3"	GPH	20,400	17,400	13,080	5,040

Port Size	Max. Dia., Solids	HP	Wt., Lbs.	No.	NET EACH
2"	1"	5	71	4338K46	$668.69
3"	1½"	8	105	4338K48	1024.21

Automatic High Head Sewage Pumps



- For 1½" solids
- Up to 8520 GPH capacity
- ⁵⁄₁₀- or ½-HP motor

Submersible, heavy-duty pumps make short work of waste, sewage, and solids up to 1½". Pumps have a mercury float control switch with piggyback plug to turn pump on and off automatically at levels you set. Switch mounts to discharge pipe with an adjustable stainless steel clamp.

Cast iron body and housing have a 416 stainless steel shaft. Thermal overload-protected motor is 115 VAC, 60 Hz, 1 ph. Furnished with 15-ft. grounded power cord. Minimum sump diameter is 14". Minimum sump depth is 30". Available in ⁵⁄₁₀- and ½-hp models with 2" fpt discharge. ⁵⁄₁₀-HP PUMP—Has a molded, glass-filled thermoplastic impeller and 1700 rpm motor. Max. temperature is 150° F. Pump ht. is 16½".

PUMP PERFORMANCE					
Head, Ft.	5	10	15	20	25
GPH	5400	4800	4080	3120	600

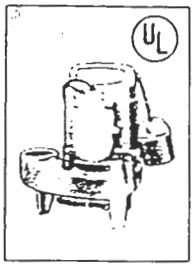
No. 5143K17 ..... NET EACH $307.83

½-HP PUMP—Has cast iron impeller and 1625 rpm motor. Maximum temperature is 160° F. Pump height is 19⅜". UL listed.

PUMP PERFORMANCE					
Head, Ft.	5	10	15	20	25
GPH	8520	7200	5400	3300	720

No. 5143K18 ..... NET EACH $414.29

UL-Listed Sewage Pumps



- For ½", ¾", or 2" solids
- Up to 6600 GPH capacity
- ½-, ⁵⁄₁₀-, or ½-HP motor

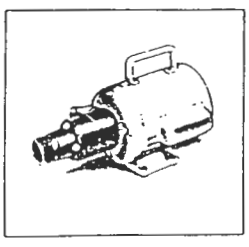
Move waste water and sewage out of collection areas to sewer or septic lines with these completely submersible, cast iron pumps. A float switch turns pump on and off automatically. You can set the pump to turn on at 9" to 14" and off at 2" to 6". Protective epoxy coating guards against rust and corrosion. Lifetime lubricated, thermal overload-protected motor is 115 VAC, 60 Hz, single phase. Furnished with 15-ft. power cord. Vortex impeller is nylon. Min. sump dia. is 18". Min. sump depth is 30". UL and CSA listed.

PUMP PERFORMANCE					
No.	Head, Ft.	5	10	15	20
42935K22	GPH	3000	2500	1600	—
42935K23	GPH	3120	2700	1980	—
42935K24	GPH	4800	3420	1440	—
42935K25	GPH	6600	5640	3900	840

HP	Discharge, FPT	Max. Dia., Solids	Ht.	No.	NET EACH
½	1½"	½"	10¼"	42935K22■	$131.21
⅓	1½"	¾"	8⅛"	42935K23■	177.23
⁵⁄₁₀	2"	2"	11¹³⁄₁₆"	42935K24	251.45
½	2"	2"	12¾"	42935K25	362.41

■ Effluent pump with 10-ft. power cord.

Compact Grinder Pumps



- Turns up to 1½" semi-solids into ¼" particles
- 1080 GPH capacity

An ideal solution to small waste-handling problems. Grind waste, tissue, and certain semi-solids down to a maximum particle size of ¼". Not recommended for handling hard objects and rags. Mount these self-priming pumps anywhere. Equipped with a flexible Nitrile impeller with stainless steel wear plate and a cast bronze grinder plate.

Pump motor is 115 VAC, 60 Hz, 1 phase, with overload protection. Outlet port has 1" ID hose barb. Inlet port is 1½" MPT.

PUMP PERFORMANCE (Based on Water)				
Head, Ft.	5	10	20	30
GPH	840	780	648	516

No. 6766K12 ..... NET EACH $406.25

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:24:49

CORA VAPOR PHASE CARBON COST MODULE (308)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: AIR SPARGING
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Loading (lbs/day)	1	CAPITAL COST	210,000
Air flow (CFM)	10000	O & M COSTS	130,000
Discount rate (%)	8.4		
Years in service	10.0		
Protection level	D		
Confidence level	L	CARBON USED (LB/YR)	33,521
Average temp (degrees F)	50		

*** Costs shown are for disposable system

NOTES:

Alternative MC-3
Slurry wall/air sparging

Cost Backup for Alternative MC-3a

Funnel-and-Gate/Iron Filings

SEDA ASH LANDFILL FEASIBILITY STUDY
PRELIMINARY COST ESTIMATES

Alternative: MC-3a

Description: Funnel-and-Gate/Iron Filings

Unit Operation	Capital Cost	Annual O&M Cost
Groundwater monitoring	$ 43,000	$60,000
Site preparation	26,000	5,000
Surface water diversion	38,000	2,100
Interceptor trenches	60,000	1,000
Sheet piling @ 15' depth (1,500 linear feet)	112,000	---
Iron aggregate (assumes 70 tons @ $325/ton)	23,000	2,000 (assumes 75% expended over 10 years)
Subtotal	$302,000	$ 70,000
Contingency (20%)	60,000	14,000
Engineering/Oversight (20%)	60,000	14,000
Total	$422,000	98,000
Present worth O&M costs		$601,622
Interest =	10%	
Years of Operation =	10	
Total present worth cost	**$1,023,622**	

Field Application of Reactive Iron Walls for In-Situ Degradation of Volatile Organic Compounds in Groundwater

Robert Focht • John Vogan • Stephanie O'Hannesin

Robert Focht is a project manager with EnviroMetal Technologies Inc. (ETI). He joined ETI in 1995 and has served as ETI's field engineer on several of the installations completed to date. John Vogan is Manager of ETI and has been involved in the planning and design of all of the commercial installations implemented by the firm. Mr. Vogan joined the firm in 1993 after several years of consulting in Ontario. Stephanie O'Hannesin is a research project manager at the University of Waterloo. In 1991 she undertook the initial in-situ field trial of the granular iron reactive wall technology. She has assisted ETI with various stages of technology application at commercial sites since the company was founded in 1992.

Reactive walls containing metallic iron have been installed at several commercial sites in the United States to degrade chlorinated organic compounds in groundwater. Although the results of laboratory studies conducted to determine reaction mechanisms have been widely disseminated, little information has been published on the full-scale application of this technology. This article describes the construction, implementation, and cost of in-situ reactive walls at three commercial sites.

In-situ permeable treatment zones containing granular iron are currently in use to remediate groundwater contaminated with dissolved chlorinated solvents at many private and government facilities in the United States. This method of treatment, developed from research initiated at the Institute for Groundwater Research, University of Waterloo, involves placing granular iron in in-situ permeable zones, across the path of groundwater containing VOCs. As the contaminated groundwater flows through the permeable zones, the chlorinated solvent reacts with the granular iron. Although the iron does not have to be replaced because of the reaction rate, it may have to be replaced because of hydraulics.

This passive treatment system offers many advantages over conventional pump-and-treat systems. In particular, the contaminants degrade to nontoxic chemicals, and with proper placement, only contaminated water is treated. Because the process is fully passive, substantial reductions in operation and maintenance costs are anticipated.

EnviroMetal Technologies Inc. (ETI) was founded in 1992 to implement this patented technology on a commercial scale. More than 40 treatability studies of the technology have been initiated in the past two years at private and government sites in the United States and Canada. Many of these have now reached various stages of field implementation. Full-scale in-situ treatment zones have been installed at two private industrial facilities in California and one in Belfast, Northern Ireland. Three

CCC 1051-5658/96/060381-14
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Exhibit 1. Compounds Evaluated during Treatability Studies

Compound	Successfully Degraded	
	Yes	No
Methanes		
tetrachloromethane	✓	
trichloromethane	✓	
dichloromethane		✓
Ethanes		
hexachloroethane	✓	
1,1,1-trichloroethane	✓	
1,1,2-trichloroethane	✓	
1,1-dichloroethane	✓	
1,2-dichloroethane		✓
chloroethane		✓
Ethenes		
tetrachloroethene	✓	
trichloroethene	✓	
cis-1,2-dichloroethene	✓	
trans-1,2-dichloroethene	✓	
1,1-dichloroethene	✓	
vinyl chloride	✓	
Propanes		
1,2,3-trichloropropane	✓	
1,2-dichloropropane	✓	
Other		
hexachlorobutadiene	✓	
1,2-dibromoethane	✓	
freon 113	✓	

results in clogging of the system and, possibly, coating of the granular iron surface. Clogging or coating inhibits the performance of the system, necessitating replacement or flushing of the granular iron every few years in areas where groundwater may have a high mineral content.

IMPLEMENTATION PROCEDURE

The initial phase in applying the technology at a site involves bench-

remain in contact with the granular iron (residence time) to enable sufficient degradation to meet treatment objectives. Degradation rates are typically expressed in terms of half-life, or the time needed to lower the concentration by 50 percent.

With this information, and knowing the groundwater velocity, the thickness of the reactive zone (the flow-through distance) can be calculated. For example, **Exhibits 3, 4,** and **5** present results of column tests conducted on groundwater from an industrial facility in New Jersey. **Exhibit 6** shows how the degradation rates were used to calculate the residence times required to meet the objectives for each compound. In this case, though cDCE had a much lower initial concentration than PCE, cDCE was the limiting parameter in the design of the reactor because of its larger half-life and because degradation of PCE resulted in an increase in the cDCE concentration. A small aboveground reactor designed from these data has been operating since November 1994.

Exhibit 3. Degradation of PCE, 100-Percent Iron

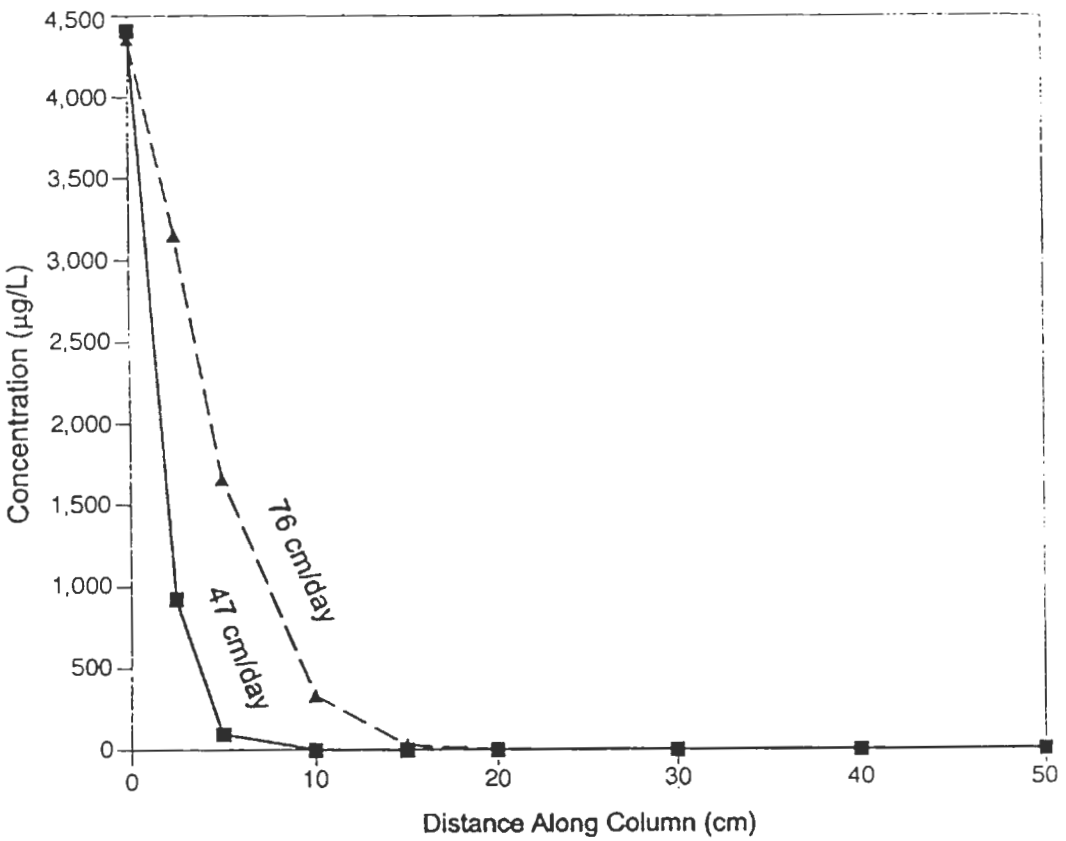
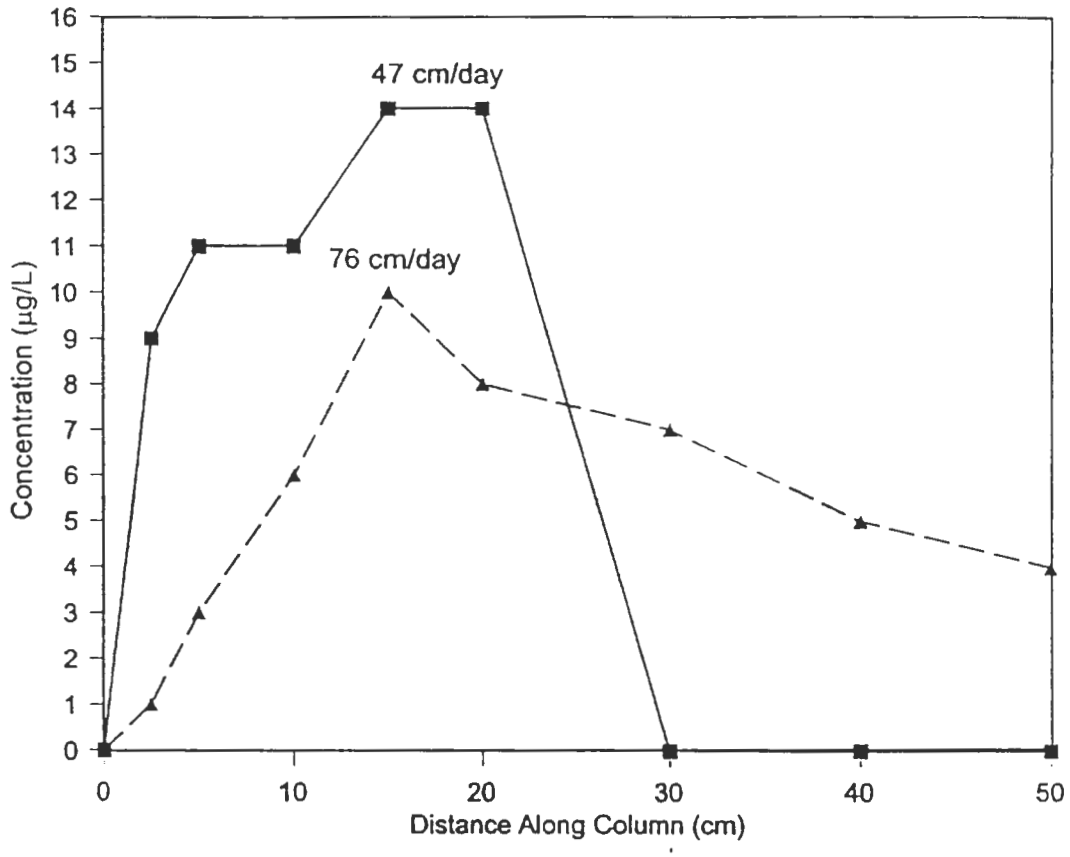
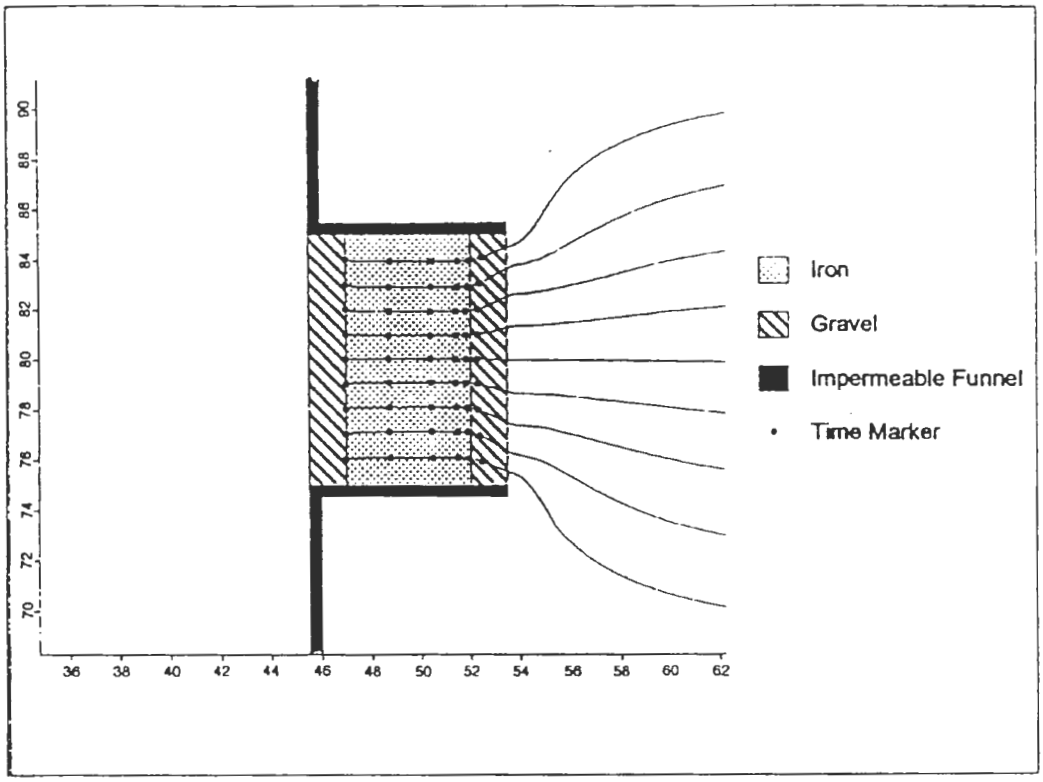


Exhibit 5. Degradation of VC, 100-Percent Iron



three-dimensional models are used, depending on aquifer characteristics and the configuration of the proposed system (Shikaze et al., 1995). Particle tracking routines in the groundwater model are used to determine residence times in a treatment zone (**Exhibit 7**) and the width of the upgradient aquifer captured by a treatment zone of given dimensions (**Exhibit 8**). Configurations of treatment systems containing granular iron may consist of a continuous permeable wall placed across the contaminant plume, or a "funnel and gate" system where impermeable funnel sections are used to direct groundwater toward permeable treatment zones. The choice of system configuration is based on several factors, including plume configuration and depth, construction costs and the potential for underflow of contaminated groundwater. Because the residence time determined in these models is highly sensitive to the groundwater velocity, the reliability of the modeling results depends on the accuracy of the measurements used to determine the hydrogeologic parameters. Thus, a thorough understand-

Exhibit 7. Groundwater Model Particle Tracking Routines Used To Determine Residence Time in the Treatment Zone



material to remove precipitate build-up, should the need arise. Continuous permeable wall systems involve placing the treatment zone perpendicular to the groundwater flow in a location that intercepts the downgradient edge of the plume. In funnel-and-gate systems, slurry walls or sheet piling is installed to direct groundwater flow through the treatment zone.

Five funnel-and-gate systems have been constructed and are currently operating in the United States. Although no full-scale continuous permeable wall systems have been constructed, one is planned at a site in North Carolina in 1996.

A system to monitor the performance of the system generally consists of long-screened wells placed across the vertical thickness of the iron on the downgradient side of the treatment zone gate. In addition, wells may be placed at various locations within the iron itself. VOC results from these wells, combined with the groundwater velocity, can be used to determine VOC degradation rates in the field. These data are extremely useful when results from a pilot-scale system, placed in a small part of the plume, are

(a large fibreglass canister) containing 50-percent iron and 50-percent sand by weight at a flow velocity of 4 ft/day for nine months. Influent concentrations, half-lives, and required residence times are presented in **Exhibit 9**. Measured degradation rates in Exhibit 9 are expressed in terms of half-life.

Following regulatory approval, a full-scale in-situ wall was installed in December 1994. The reactive zone is four feet wide, 40 feet long, and about 20 feet deep, and contains 100-percent granular iron. The permeable wall is flanked by slurry walls on either side, one 225 feet long and one 250 feet long, to direct groundwater flow toward the permeable section. Approximately 220 tons of iron were placed in the reactive zone. The total capital costs for the system, including the slurry walls, were about $720,000. Since the system was installed, no VOC concentrations exceeding maximum contaminant levels (MCLs) have been detected from downgradient monitoring wells.

As part of this design, hydrogen gas generation rates measured in the laboratory (Reardon, 1995) were used to evaluate the need for a hydrogen gas collection system. Based on an evaluation of microbial hydrogen gas consumption rates, no need for a gas collection system was indicated. Groundwater from within the field test canister was sampled for phospholipid fatty acid (PLFA) analysis to evaluate the potential for microbial growth in the reactive material. These results indicated that the reactive material did not encourage the development of a microbial population beyond the population observed in "background" groundwater. This has also been observed in groundwater samples taken from other in-situ installations.

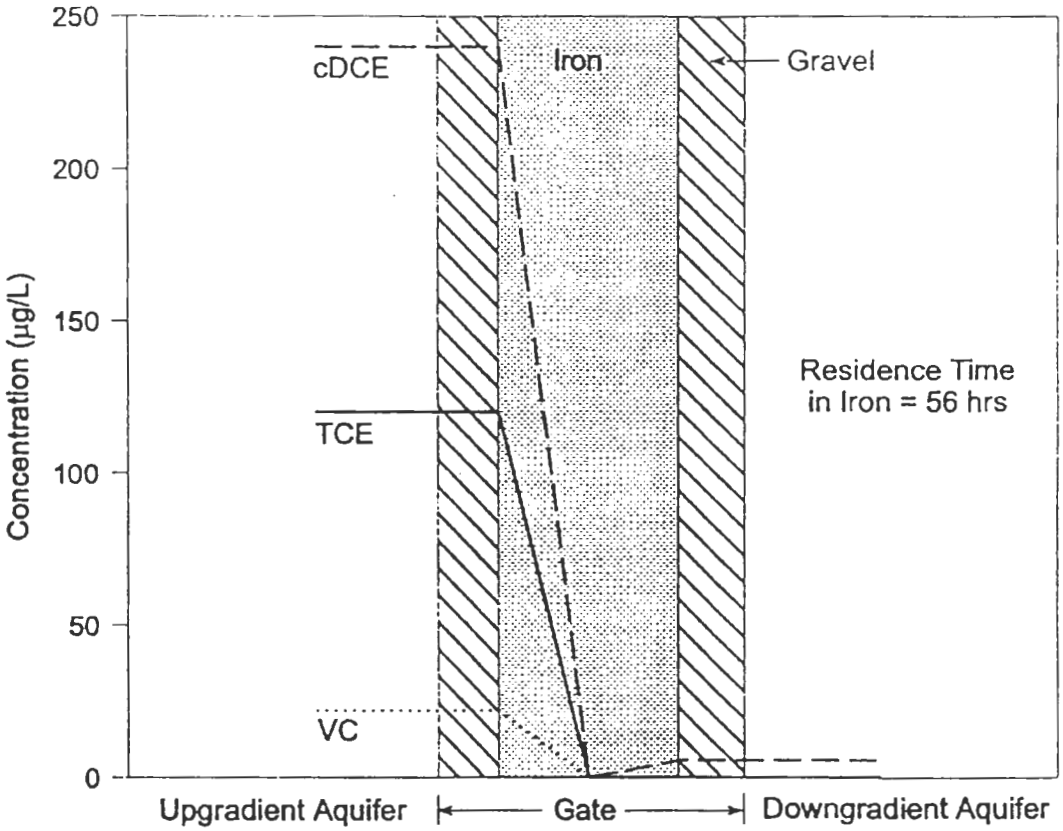
Industrial Facility, New York

Following successful bench-scale studies, a pilot-scale in-situ funnel and gate was installed in May 1995 to treat up to 300 ppb of TCE, up to 500 ppb of cDCE, and up to 80 ppb of VC present in a shallow aquifer at an industrial facility in New York. A 12-foot-wide, 3.5-foot-thick central

Exhibit 9. Field Canister Test Results Using 50-Percent Iron and 50-Percent Sand by Weight

VOC	Influent Concentration (ppb)	Half-Life (hrs)	Time to Reach MCLs (hrs)
TCE	210	1.7	10
cDCE	1.415	0.9	7
VC	540	4.0	43

Exhibit 10. Field VOC Concentrations Through 100-Percent Iron



occur in-situ will be significantly less than predicted from laboratory studies, due to the condition of groundwater used in the laboratory. Groundwater sampling and transport can shift the carbonate equilibrium, causing groundwater used in the laboratory tests to be supersaturated with calcium carbonate before it enters the reactive iron column. No significant precipitates were observed in the in-situ reactive wall at the University of Waterloo Borden test site almost four years after it was installed. This wall has now been performing consistently for 4.5 years. Data from in-situ systems installed in California and from other in-situ field trials will generate further inorganic data to better evaluate this issue.

Although the need for rehabilitation or replacement has yet to be demonstrated, the possibility should be recognized when evaluating the economic viability of a treatment system. Rehabilitation or replacement costs can be calculated by assuming that a percentage of the original iron costs will need to be spent every five to ten years. The percentage and

QUOTATION-ORDER

6442

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FAX: (617) 859-2043

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CITY, STATE, ZIP: BOSTON, MA.
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RESIDENTIAL Y N | CALL BEFORE Y N | COD Y N

DATE	SHIP DATE	SALESMAN	JOB NAME	DIVISION
4-9-96		JWL		M I (E)

TERMS: (PREPAYMENT) COD
PAYMENT: (CERTIFIED CHECK) WIRE TRANSFER
VISA / MC NUMBER
CARDMEMBER NAME
EXPIRATION

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
10001 L.F.	15 FT. SERIES 400 SHEET PILING	4 59	68,850 00
	1/4"		
	1/5'	3 35	50 250
			+ 3200
			[illegible]

INSTRUCTIONS

SUBTOTAL	68,850 00
FREIGHT	6,150 00
TOTAL	75,000 00

ACCEPTANCE - I have read both sides of this contract and accept the prices and conditions stated. I understand that upon signing, this **QUOTATION** becomes my **ORDER** and is a binding contract with Materials International.

Authorized Customer Signature | Date | Customer P.O.#

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SALESMAN SIGNATURE | DATE

APPROVAL SIGNATURE | DATE

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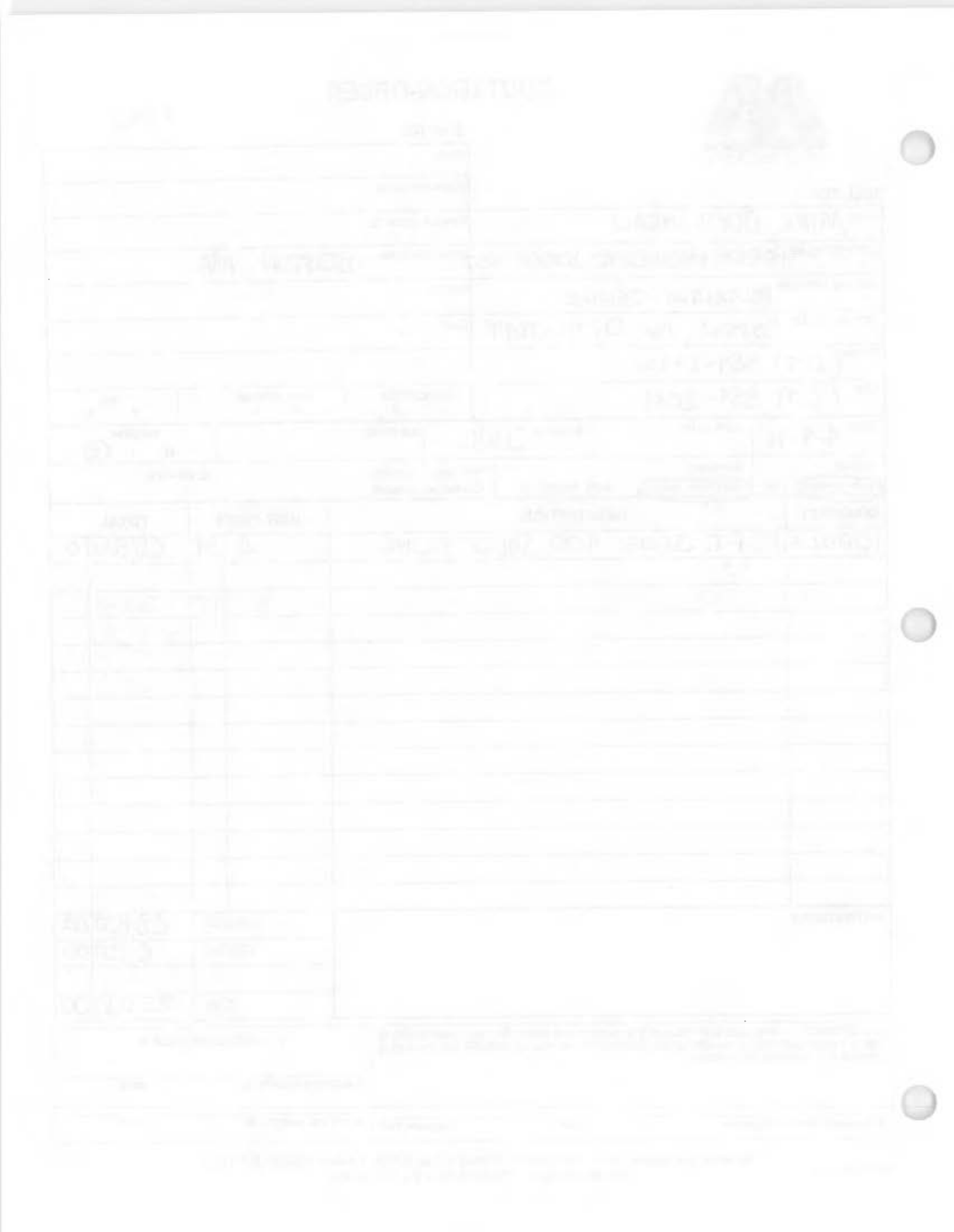


GeoGuard Applications

Industrial

1. Containment Dike Vertical Expansion
2. Channel Liners/Drainage Ditches
3. Reservoir Silt Fence/Divider Settling Curtain
4. Firewater/Cooling Water Capacity Upgrade

Environmental

1. Cut-off walls/curtain walls
2. Cut-off support for Bentonite Slurry
3. Funnel and Gate
4. Temporary excavation

Water and Waste Water

1. Baffle walls
2. Optimization of Reservoir Capacity
3. Fermentation Pits
4. Settling Ponds
5. Storm water runoff
6. Weirs
7. Detention/Retention Ponds

Civil/Geotechnical

1. Retaining Walls
2. Cut-off walls for locks, dams, and pump stations
3. Dike Core
4. Vertical Dike Expansion for Flood Control
5. Slope Stabilization
6. Stay-in-place concrete forms

Transportation

1. Noise Walls
2. Bridge Scour Protection
3. Bridge Decking
4. Subgrade Stabalization and Erosion Protection of Roadways

BID ANALYS. JMMARY

09- Client: U.S Army Corp- Requisition No.: Date: 10/9/95

B. Ford Budget: $ Description of Material: Groundwater Intercepter Trench

Bid Analysis

	AWI	S.L.C Construction	Session Trucking	I T Corp	F. G. Lich Const.	American
	Syracuse	Lockport, N.Y.	Waterloo, N.Y.	Rochester, N.Y.	Cincinnati, N.Y	Construction
e	8/11/95	Rebid - 8/23/95	6/23/95 → Reaffirmed 9/14/94 L.I	Bid - 6/22/95	No Response	Bid Form
	—	—	—	—		—
	—	—	—	—		—
on	—	—	—	—		—
	—	—	—	—		—
s	Spec. Terms	Spec. Terms	Spec. Terms	Spec. Term		Spec. T
						9/19/94 - 10/1/9 verbal (10/12/95
						11/24/95
	#46,971.00	#47,430.00	#78,000.00	#159,570.00	—	#44,000
	—	—	—	—		—
	—	—	—	—		—
	—	—	—	—		—
	#46,971.00	#47,430.00	#78,000.00	#159,570.00	No Response	#44,000

Justification of Award

urce: Am. Augers + D. Teching Co. Inc.

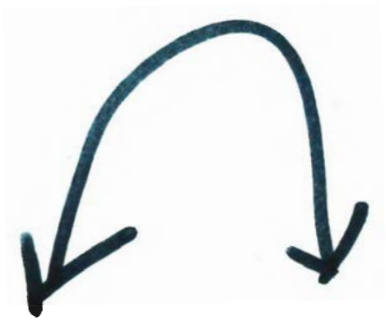
Remarks:

Responsive Bidder [ ] Delivery Schedule

table [ ] Other

	Date	Approval	Date	Approval	Date

bidana



Cost Backup
for
Alternative MC-4

Liquid Phase Carbon

SEDA ASH LANDFILL FEASIBILITY STUDY
PRELIMINARY COST ESTIMATES

Alternative: MC-4

Description: Liquid-phase carbon

Unit Operation	Capital Cost	Annual O&M Cost
Groundwater monitoring	$43,000	$60,000
Site preparation	26,000	5,000
Surface water diversion	38,000	2,100
Interceptor trenches	60,000	1,000
Equalization tank/piping	30,000	1,000
In-line filter	15,000	2,000
Water softener	15,000	11,000
Liquid-phase carbon	150,000	46,000
Surface water discharge	100,000	1,000
Subtotal	$477,000	$129,100
Contingency (20%)	95400	25820
Engineering/Oversight (20%)	95400	25820
Total	$667,800	$180,740
Present worth O&M cost		$1,703,821
Interest =	10%	
Years of Operation =	30	
Total present worth cost	$2,371,621	

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:04:50

CORA GROUNDWATER MONITORING COST MODULE (503)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Number of wells to install	10	CAPITAL COST	43,000
Average well depth (ft)	10	O & M COSTS	~~[illegible]~~ 40,000
Protection during setup of drill rig & installation of above-grade piping	D		
Protection during drilling	D		
Average temp (degrees F)	50		
Confidence level	M		
Number of wells to monitor	40		
Monitoring frequency	4		
Monitoring requirements:			
24 Plasma Metals	Y		
Pest/PCB	N		
GC-BN	N		
GC-Acid	N		
HSLORG	N		
VOA GC/MS	Y		
Acid GC/MS	Y		
B/N GC/MS	Y		

NOTES:

Quarterly Monitoring

***** VERSION 3.0 DRAFT *****

DATE: 01/06/94
TIME: 10:56:43

CORA SITE PREPARATION COST MODULE

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS			RESULTS	
Parameter	Value	Prot. Level	Component	Total
Site clearing (acres)	15.0	D	SITE CLEARING	13,000
Tree removal (acres)	0.0		TREE REMOVAL	0
Dust control area (acres)	0.0		DUST CONTROL	0
Local util. connect.	Y		POWER CONNECTION	13,000
Distance to power pt.(ft)	500		GAS CONNECTION	0
Gas conn. req'd	N		WATER CONNECTION	0
Distance to gas conn.(ft)	0		ACCESS ROAD	0
Water conn. req'd	N		TEMPORARY STORAGE	0
Distance to wtr (ft)	0		BLDG DEMOLITION	0
Water flow (GPM)	0		FLOW EQUAL.&INVENTORY	[illegible]
Access rd - ft req'd	0			
Acess road width (ft)	0		CAPITAL COSTS	[illegible],000
Bldg. demolition (CY)	0		O&M (FLOW INV.)	1,100
Stored material (CY)	0			
Average temp. (deg. F)	60		BYPRODUCTS GENERATED	
Level of confidence	M		SOILS & ORGANICS (CY)	5,260

STREAM	FLOW (GPM)	RETENTION TIME (HRS)	IS PUMPING REQUIRED (Y/N)?	TOTAL TRANSFER PIPE LEN. (FT)	TRENCH IN CONTAM. MATERIAL (Y/N)?	# OF PUMP STATIONS	PROT. LEVEL (A,B, C,D,N)
1	30	6	Y	2000	N	2	D
2	0	0		0		0	
3	0	0		0		0	
4	0	0		0		0	
5	0	0		0		0	

*** Permanent utility connections are not included in technology modules with the exception of onsite incineration. Because of the specific high demand for this process, allowances have been made within the cost algorithm.

*** Equalization and inventory costs should not be confused with or used for stockpiling and rehandling costs between removal and disposal technologies. Stockpiling and rehandling costs are significant and site specific, requiring in-depth production and economic analysis beyond the scope of this conceptual resource.

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 10:59:36

CORA SURFACE WATER DIVERSION/COLLECTION COST MODULE (105)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Site on raised ground		CAPITAL COST	38,000
Length of site (ft)	2000	O & M COSTS	2,100
Width of site (ft)	1000		
25-yr, 24-hr rain (in.)	--	BYPRODUCTS FOR TRANSPORT/DISPOSAL:	
Protection level	D		
Average temp (degrees F)	50	EXCAVATED MATERIAL (CY)	
Confidence level	M	(SWELL FACTOR=1.25)	346

NOTES:

Run-on and Run-off Control

ES ENGINEERING-SCIENCE, INC.

Client Seneca Army Depot | Job No. 720489-01000 | Sheet 1 of ___
Subject Ash Landfill Removal Action Dewatering Cost Estimate | By DMK | Date 9/27/93
Checked ___ | Rev. ___

Estimate Cost of Dewatering System

Data

2000 feet of trench
8-foot deep
3-feet wide

Trenchings

From Means 6'-10' feet deep (1989)

cost is $4.26 per cubic yard

volume = (2000)(8)(3) = 48,000 ft³ = 1800 yd³

Surface Area = 2[(2000)(8) + (2000)(3)] = 38,000 ft²

cost = $7600

add 4% per year inflation (1.17 multiplier)

cost = $8900 Use 2.0 multiplier to account for shoring and hazardous waste site ⇒ $17,800

Materials	Quantity	Unit Cost	Total Cost		
gravel	1800 yd³	10.80	$19,440	× 1.17 =	22,745
PVC pipe (6")	2000 feet	3.33	$6,660	× 1.17 =	7792
geotextile	4500 yd²	$1.50	6,750		6750
Riser pipe (10")	100 feet	5.85	$585	× 1.17 =	685
Pumps	4	400	1,600		1600
				subtotal =	39,572

total 57,372

$60,000

BUILDING CONSTRUCTION COST DATA 1989

BK.
16.23
1989/3
1989

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022 200 | Excav, Backfill, Compact

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P
204	1300	Dozer backfilling, bulk, up to 300' haul, no compaction	B-10B	1,200	.010	C.Y.		.20	.61	.81	.97
	1400	Air tamped	B-11B	240	.067			1.28	4.01	5.29	6.30
	1600	Compacting backfill, 6" to 12" lifts, vibrating roller	B-10C	800	.015			.30	1.02	1.32	1.57
	1700	Sheepsfoot roller	B-10D	750	.016			.32	1.12	1.44	1.71
	1900	Dozer backfilling, trench, up to 300' haul, no compaction	B-10B	900	.013			.27	.81	1.08	1.29
	2000	Air tamped	B-11B	235	.068			1.31	4.09	5.40	6.45
	2200	Compacting backfill, 6" to 12" lifts, vibrating roller	B-10C	700	.017			.34	1.16	1.50	1.79
	2300	Sheepsfoot roller	B-10D	650	.018			.37	1.29	1.66	1.97
212	0010	BORROW Buy and load at pit, haul 2 miles round trip									
	0020	and spread, with 200 H.P. dozer, no compaction									
	0100	Bank run gravel (16)	B-15	600	.047	C.Y.	3.67	.87	2.34	6.88	7.90
	0200	Common borrow		600	.047		3.15	.87	2.34	6.36	7.35
	0300	Crushed stone, 1-½"		600	.047		14	.87	2.34	17.21	19.25
	0320	¾"		600	.047		14.25	.87	2.34	17.46	19.55
	0340	½"		600	.047		14.70	.87	2.34	17.91	20
	0360	⅜"		600	.047		15.20	.87	2.34	18.41	21
	0400	Sand, washed, concrete		600	.047		12.95	.87	2.34	16.16	18.10
	0500	Dead or bank sand		600	.047		3.15	.87	2.34	6.36	7.35
	0600	Select structural fill		600	.047		6.80	.87	2.34	10.01	11.35
	0700	Screened loam		600	.047		14.65	.87	2.34	17.86	20
	0800	Topsoil, weed free		600	.047		11.10	.87	2.34	14.31	16.10
	0900	For 5 mile haul, add	B-34B	200	.040			.70	1.69	2.39	2.90
222	0010	COMPACTION Steel wheel tandem roller, 5 tons (18)	B-10E	8	1.500	Hr.		30	13.55	43.55	60
	0100	10 tons	B-10F	8	1.500	"		30	21	51	68
	0300	Sheepsfoot or wobbly wheel roller, 8" lifts, common fill	B-10G	1,300	.009	C.Y.		.19	.34	.53	.65
	0400	Select fill	"	1,500	.008			.16	.30	.46	.57
	0500	Terra Probe, deep sand, vibrating 30,000 C.Y., minimum	B-43	1,800	.027			.49	.37	.86	1.15
	0520	Maximum	"	1,100	.044			.80	.61	1.41	1.88
	0540	Mobilization and demobilization, minimum	B-8	.63	102	Total		1,900	2,775	4,675	5,875
	0560	Maximum	"	.48	133	"		2,500	3,650	6,150	7,725
	0600	Vibratory plate, 8" lifts, common fill	A-1	200	.040	C.Y.		.67	.26	.93	1.30
	0700	Select fill	"	216	.037	"		.62	.24	.86	1.20
230	0010	DRILLING ONLY 2" hole for rock bolts, average	B-47	395	.061	L.F.		1.14	1.19	2.33	3.02
	0800	2-½" hole for pre-splitting, average		540	.044			.83	.87	1.70	2.21
	1600	Quarry operations, 2-½" to 3-½" diameter		715	.034			.63	.66	1.29	1.67
234	0010	DRILLING AND BLASTING Only, rock, open face, under 1500 C.Y.	B-47	225	.107	C.Y.	1.25	2	2.09	5.34	6.70
	0100	Over 1500 C.Y.	"	300	.080		1.25	1.50	1.57	4.32	5.35
	0300	Bulk drilling and blasting, can vary greatly, average									3.50
	0500	Pits, average									18
	1300	Deep hole method, up to 1500 C.Y.	B-47	50	.480		1.25	9	9.40	19.65	25
	1400	Over 1500 C.Y.		66	.364		1.25	6.80	7.10	15.15	19.45
	1900	Restricted areas, up to 1500 C.Y.		13	1.850		1.25	35	36	72.25	93
	2000	Over 1500 C.Y.		20	1.200		1.25	23	24	48.25	61
	2200	Trenches, up to 1500 C.Y.		22	1.090		1.25	20	21	42.25	56
	2300	Over 1500 C.Y.		26	.923		1.25	17.30	18.10	36.65	47
	2500	Pier holes, up to 1500 C.Y.		22	1.090		1.25	20	21	42.25	56
	2600	Over 1500 C.Y.		31	.774		1.25	14.55	15.15	30.95	40
	2800	Boulders under ½ cy, loaded on truck, no hauling	B-10O	80	.150			3.01	4.93	7.94	9.90
	2900	Drilled, blasted and loaded on truck, no hauling	B-47	30	.800		1.25	15	15.65	31.90	41
	3100	Jackhammer operators with foreman compressor, air tools	B-9	1	40	Day		690	115	805	1,175
	3300	Track drill, compressor, operator and foreman	B-47	1	24	"		450	470	920	1,200
	3500	Blasting caps				Ea.	1.68			1.68	1.85
	3700	Explosives				Lb.	1.25			1.25	1.38
	3900	Blasting mats, rent, for first day				Ea.	39			39	43
	4000	Per added day					22			22	24
	4200	Preblast survey for 6 room house, individual lot, minimum	A-6	2.40	6.670			130		130	195
	4300	Maximum	"	1.35	11.850			230		230	345

022 200 | Excav, Backfill, Compact

		CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
2200	5000' haul	B-33E	750	.019	C.Y.		.38	2.27	2.65	3.06	246
2300	Common earth, 1500' haul		1,030	.014			.28	1.65	1.93	2.23	
2350	3000' haul		790	.018			.36	2.15	2.51	2.90	
2400	5000' haul		650	.022			.44	2.61	3.05	3.53	
2500	Clay, 1500' haul		645	.022			.44	2.63	3.07	3.55	
2550	3000' haul		495	.028			.57	3.43	4	4.63	
2600	5000' haul		405	.035			.70	4.20	4.90	5.65	
2700	Towed, 10 C.Y., ¼ push dozer, sand & gravel, 1500' haul	B-33B	560	.025			.51	2.01	2.52	2.97	
2720	3000' haul		450	.031			.63	2.50	3.13	3.69	
2730	5000' haul		365	.038			.78	3.09	3.87	4.55	
2750	Common earth, 1500' haul		420	.033			.68	2.68	3.36	3.96	
2770	3000' haul		400	.035			.71	2.82	3.53	4.15	
2780	5000' haul		310	.045			.92	3.63	4.55	5.35	
2800	Clay, 1500' haul		315	.044			.90	3.57	4.47	5.30	
2820	3000' haul		300	.047			.95	3.75	4.70	5.55	
2840	5000' haul		225	.062			1.26	5	6.26	7.40	
2900	15 C.Y., ¼ push dozer, sand & gravel, 1500' haul	B-33C	800	.018			.35	1.41	1.76	2.08	
2920	3000' haul		640	.022			.44	1.76	2.20	2.60	
2940	5000' haul		520	.027			.55	2.17	2.72	3.20	
2960	Common earth, 1500' haul		600	.023			.47	1.88	2.35	2.77	
2980	3000' haul		560	.025			.51	2.01	2.52	2.97	
3000	5000' haul		440	.032			.65	2.56	3.21	3.78	
3020	Clay, 1500' haul		450	.031			.63	2.50	3.13	3.69	
3040	3000' haul		420	.033			.68	2.68	3.36	3.96	
3060	5000' haul		320	.044			.89	3.52	4.41	5.20	
0010	**EXCAVATING, STRUCTURAL** Hand, pits to 6' deep, sandy soil	1 Clab	8	1	C.Y.		16.85		16.85	25	250
0100	Heavy soil or clay		4	2			34		34	51	
0300	Pits 6' to 12' deep, sandy soil		5	1.600			27		27	41	
0500	Heavy soil or clay		3	2.670			45		45	68	
0700	Pits 12' to 18' deep, sandy soil		4	2			34		34	51	
0900	Heavy soil or clay		2	4			67		67	100	
1100	Hand loading trucks from stock pile, sandy soil		12	.667			11.25		11.25	16.90	
1300	Heavy soil or clay		8	1			16.85		16.85	25	
1500	For wet or muck hand excavation, add to above				%				50%	50%	
2000	Machine excavation, for spread and mat footings, elevator pits,										
2001	and small building foundations										
2035	Common earth, hydraulic backhoe, ¾ C.Y. bucket	B-12F	90	.178	C.Y.		3.63	4.78	8.41	10.65	
2040	1 C.Y. bucket	B-12A	108	.148			3.03	4.97	8	9.95	
2050	1-½ C.Y. bucket	B-12B	144	.111			2.27	4.44	6.71	8.25	
2060	2 C.Y. bucket	B-12C	200	.080			1.63	4.46	6.09	7.35	
2070	Sand and gravel, ¾ C.Y. bucket	B-12F	100	.160			3.27	4.31	7.58	9.60	
2080	1 C.Y. bucket	B-12A	120	.133			2.72	4.47	7.19	8.95	
2090	1-½ C.Y. bucket	B-12B	160	.100			2.04	4	6.04	7.45	
3000	2 C.Y. bucket	B-12C	220	.073			1.49	4.05	5.54	6.65	
3010	Clay, till, or blasted rock, ¾ C.Y. bucket	B-12F	80	.200			4.09	5.40	9.49	12	
3020	1 C.Y. bucket	B-12A	95	.168			3.44	5.65	9.09	11.30	
3030	1-½ C.Y. bucket	B-12B	130	.123			2.51	4.92	7.43	9.15	
3040	2 C.Y. bucket	B-12C	175	.091			1.87	5.10	6.97	8.40	
9010	For mobilization or demobilization, see div. 022-274										
9020	For dewatering, see div. 021-404										
9022	For larger structures, see Bulk Excavation, div. 022-238										
9024	For loading onto trucks, add								15%		
9026	For hauling, see div. 022-266										
9030	For sheeting or soldier beams & lagging, see div. 021-614 & 624										
9040	For trench excavation of strip footings, see div. 022-254										
0010	**EXCAVATING, TRENCH** or continuous footing, common earth										254
0020	No sheeting or dewatering included										

022 200 | Excav, Backfill, Compact

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
254	0050	1' to 4' deep, ⅜ C.Y. tractor loader/backhoe	B-11C	150	.107	C.Y.		2.05	1.16	3.21	4.35	254
	0060	½ C.Y. tractor loader/backhoe	B-11M	200	.080			1.54	1.35	2.89	3.79	
	0090	4' to 6' deep, ½ C.Y. tractor loader/backhoe	"	200	.080			1.54	1.35	2.89	3.79	
	0100	⅝ C.Y. hydraulic backhoe	B-12Q	250	.064			1.31	1.32	2.63	3.40	
	0110	¾ C.Y. hydraulic backhoe	B-12F	300	.053			1.09	1.44	2.53	3.20	
	0300	½ C.Y. hydraulic excavator, truck mounted	B-12J	200	.080			1.63	2.93	4.56	5.65	
	0500	6' to 10' deep, ¾ C.Y. hydraulic backhoe	B-12F	225	.071			1.45	1.91	3.36	4.26	
	0510	1 C.Y. hydraulic backhoe	B-12A	400	.040			.82	1.34	2.16	2.69	
	0600	1 C.Y. hydraulic excavator, truck mounted	B-12K	400	.040			.82	1.77	2.59	3.15	
	0610	1-½ C.Y. hydraulic backhoe	B-12B	600	.027			.54	1.07	1.61	1.98	
	0900	10' to 14' deep, ¾ C.Y. hydraulic backhoe	B-12F	200	.080			1.63	2.15	3.78	4.79	
	0910	1 C.Y. hydraulic backhoe	B-12A	360	.044			.91	1.49	2.40	2.99	
	1000	1-½ C.Y. hydraulic backhoe	B-12B	540	.030			.61	1.19	1.80	2.20	
	1300	14' to 20' deep, 1 C.Y. hydraulic backhoe	B-12A	320	.050			1.02	1.68	2.70	3.36	
	1310	1-½ C.Y. hydraulic backhoe	B-12B	480	.033			.68	1.33	2.01	2.48	
	1320	2-½ C.Y. hydraulic backhoe	B-12S	850	.019			.38	1.77	2.15	2.52	
	1400	By hand with pick and shovel to 6' deep, light soil	1 Clab	8	1			16.85		16.85	25	
	1500	Heavy soil	"	4	2			34		34	51	
	1700	For tamping backfilled trenches, air tamp, add	A-1	100	.080			1.35	.51	1.86	2.60	
	1900	Vibrating plate, add		90	.089			1.50	.57	2.07	2.89	
	2100	Trim sides and bottom for concrete pours, common earth		600	.013	S.F.		.22	.09	.31	.43	
	2300	Hardpan		180	.044	"		.75	.29	1.04	1.44	
	2400	Pier and spread footing excavation, add to above				C.Y.				30%	30%	
	3000	Backfill trench, F.E. loader, wheel mtd., 1 C.Y. bucket										
	3020	Minimal haul	B-10R	400	.030	C.Y.		.60	.52	1.12	1.46	
	3040	100' haul	"	200	.060			1.20	1.03	2.23	2.93	
	3080	2-¼ C.Y. bucket, minimum haul	B-10T	600	.020			.40	.67	1.07	1.33	
	3090	100' haul	"	300	.040			.80	1.34	2.14	2.67	
258	0010	EXCAVATING, UTILITY TRENCH Common earth										258
	0050	Trenching with chain trencher, 12 H.P., operator walking										
	0100	4" wide trench, 12" deep	B-53	800	.010	L.F.		.21	.25	.46	.58	
	0150	18" deep		750	.011			.22	.27	.49	.62	
	0200	24" deep		700	.011			.24	.29	.53	.67	
	0300	6" wide trench, 12" deep		650	.012			.25	.31	.56	.72	
	0350	18" deep		600	.013			.27	.34	.61	.78	
	0400	24" deep		550	.015			.30	.37	.67	.85	
	0450	36" deep		450	.018			.37	.45	.82	1.04	
	0600	8" wide trench, 12" deep		475	.017			.35	.42	.77	.98	
	0650	18" deep		400	.020			.41	.50	.91	1.17	
	0700	24" deep		350	.023			.47	.58	1.05	1.33	
	0750	36" deep		300	.027			.55	.67	1.22	1.56	
	1000	Backfill by hand including compaction, add										
	1050	4" wide trench, 12" deep	A-1	800	.010	L.F.		.17	.06	.23	.32	
	1100	18" deep		530	.015			.25	.10	.35	.49	
	1150	24" deep		400	.020			.34	.13	.47	.65	
	1300	6" wide trench, 12" deep		540	.015			.25	.10	.35	.48	
	1350	18" deep		405	.020			.33	.13	.46	.64	
	1400	24" deep		270	.030			.50	.19	.69	.96	
	1450	36" deep		180	.044			.75	.29	1.04	1.44	
	1600	8" wide trench, 12" deep		400	.020			.34	.13	.47	.65	
	1650	18" deep		265	.030			.51	.19	.70	.98	
	1700	24" deep		200	.040			.67	.26	.93	1.30	
	1750	36" deep		135	.059			1	.38	1.38	1.92	
	2000	Chain trencher, 40 H.P. operator riding										
	2050	6" wide trench and backfill, 12" deep	B-54	1,200	.007	L.F.		.14	.10	.24	.32	
	2100	18" deep		1,000	.008			.16	.12	.28	.38	
	2150	24" deep		975	.008			.17	.13	.30	.39	
	2200	36" deep		900	.009			.18	.14	.32	.42	

For expanded coverage of these items see *Means Site Work Cost Data 1989*

027 150 | Sewage Systems

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
164	3160	Steel, plain oval arch culverts, plain										164
	3180	17" x 13" 16 ga., 15" equivalent	B-22	225	.133	L.F.	6.87	2.65	.56	10.08	12.15	
	3200	21" x 15" 16 ga., 18" equivalent		175	.171		8.19	3.40	.73	12.32	14.90	
	3220	28" x 20" 14 ga., 24" equivalent		150	.200		13	3.97	.85	17.82	21	
	3240	35" x 24" 14 ga., 30" equivalent		108	.278		16.25	5.50	1.18	22.93	27	
	3260	42" x 29" 12 ga., 36" equivalent	B-13	108	.519		31.25	9.40	4.27	44.92	53	
	3280	49" x 33" 12 ga., 42" equivalent		92	.609		37.63	11.05	5	53.68	63	
	3300	57" x 38" 12 ga., 48" equivalent		75	.747		34.57	13.55	6.15	54.27	65	
	3320	End sections, 17" x 13"		22	2.550	Ea.	30	46	21	97	125	
	3340	42" x 29"		17	3.290	"	154	60	27	241	290	
	3360	Multi-plate arch, steel	B-20	1,690	.014	Lb.	.53	.27		.80	.99	
168	0010	PIPING, DRAINAGE & SEWAGE, POLYVINYL CHLORIDE										168
	0020	Not including excavation or backfill										
	2000	10' lengths, S.D.R. 35, 4" diameter	B-20	375	.064	L.F.	.57	1.23		1.80	2.48	
	2040	6" diameter		350	.069		1.22	1.32		2.54	3.33	
	2080	8" diameter		335	.072		1.75	1.38		3.13	4	
	2120	10" diameter	B-21	330	.085		2.80	1.67	.26	4.73	5.85	
	2160	12" diameter		320	.088		3.95	1.72	.26	5.93	7.25	
	2200	15" diameter		190	.147		6.15	2.90	.45	9.50	11.60	
172	0010	PIPING, DRAINAGE & SEWAGE, VITRIFIED CLAY, C700										172
	0020	Not including excavation or backfill, 4' & 5' lengths										
	4030	Extra strength, compression joints, C425										
	5000	4" diameter	B-20	265	.091	L.F.	.98	1.74		2.72	3.70	
	5020	6" diameter	"	200	.120		1.63	2.30		3.93	5.25	
	5040	8" diameter	B-21	200	.140		2.54	2.75	.42	5.71	7.40	
	5060	10" diameter		190	.147		4.22	2.90	.45	7.57	9.50	
	5080	12" diameter		150	.187		5.57	3.67	.56	9.80	12.25	
	5100	15" diameter		110	.255		10.36	5	.77	16.13	19.75	
	5120	18" diameter		88	.318		15.60	6.25	.96	22.81	28	
	5140	24" diameter		45	.622		29	12.25	1.88	43.13	52	
	5160	30" diameter	B-22	31	.968		33.80	19.20	4.10	57.10	71	
	5180	36" diameter	"	20	1.500		52	30	6.35	88.35	110	
	6000	3' lengths, add to above					30%					
	6020	2' lengths, add to above					40%					
	6040	For die cast slip joints compared to premium joints					90%					
	6060	For plain joints compared to compression joints					75%					
	7060	2' lengths, add to above					40%					
174	0010	SEWAGE PUMPING STATIONS Prefabricated steel, concrete										174
	0020	or fiberglass, 200 GPM	C-17D	.17	494	Total	23,300	11,000	3,100	37,400	45,700	
	0200	1,000 GPM		.07	200		34,450	26,800	7,525	68,775	86,500	
	0500	Add for generator unit, 200 GPM, steel		.34	247		17,800	5,500	1,550	24,850	29,600	
	0600	Concrete		.51	165		11,130	3,675	1,025	15,830	18,900	
	1000	Add for generator unit, 1,000 GPM, steel		.30	280		18,900	6,250	1,750	26,900	32,100	
	1200	Concrete		.38	221		15,900	4,925	1,375	22,200	26,400	
	1500	For wet well, if required, add	B-23	.50	80		4,560	1,375	955	6,890	8,150	
176	0010	SEWAGE TREATMENT Not incl. fencing or external piping										176
	0020	Steel packaged, blown air aeration plants										
	0100	1,000 GPD				Gal.					11.40	
	0200	5,000 GPD									7.50	
	0300	15,000 GPD									4.15	
	0400	30,000 GPD									4.05	
	0500	50,000 GPD									2.95	
	0600	100,000 GPD									2.70	
	0700	200,000 GPD									1.90	
	0800	500,000 GPD									2.10	
	1000	Concrete, extended aeration, primary and secondary treatment										
	1010	10,000 GPD				Gal.					8.65	

MIRAFI®
140N

SUBSURFACE DRAINAGE

Drainage Fabric

Good drainage is essential for soil stability. In order for drainage structures to be effective — along highways, in embankments, under airfields and athletic fields, or anywhere — they must have a properly designed protective filter.

Traditionally, graded-aggregate filter systems have been used with limited success to prevent soil particles from migrating into subsurface drainage structures. However, these aggregate drains have several inherent problems, including high cost and difficult installation.

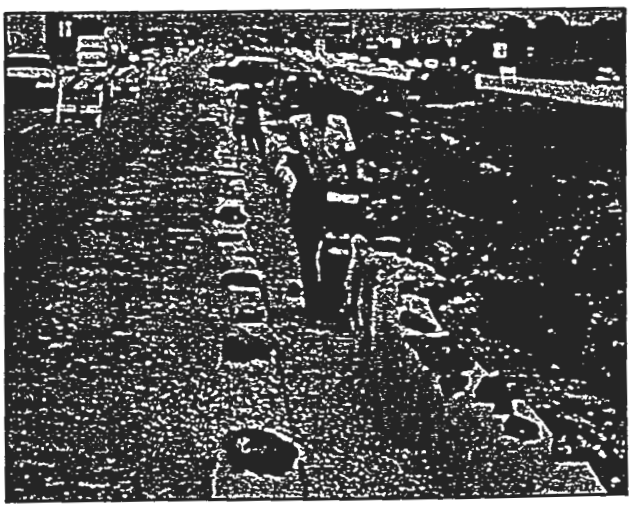
Mirafi **140N**, a nonwoven filter fabric, provides an effective, cost-efficient alternative to graded-aggregate filters. Among its design features are:

- Easily conforms to the ground or trench surface for fast and trouble-free installation;
- Creates a superior filter media because of its high water flow rate and excellent filtration properties;
- Meets severe stresses of installation with its high puncture and burst resistance.

Mirafi **140N** eliminates many of the problems associated with graded-aggregate filters, including:

- Determining the aggregate gradation required to match soil conditions;
- Finding a convenient and economical source of a specific aggregate gradation;
- Transporting and placing a graded aggregate;
- Assuring that the in-place aggregate gradation provides effective filter performance.

An additional benefit of Mirafi **140N** is that the drain size can often be reduced when Mirafi fabric is installed because the thick, graded-aggregate layer is eliminated. As a result, less excavation and less aggregate will be required.



Mirafi 140N Fabric Properties

Fabric Property	Unit	Test Method	Typical Values[1]
Grab Tensile Strength	lb	ASTM D-1682-64	120
Grab Tensile Elongation	%	ASTM D-1682-64	55
Burst Strength	psi	ASTM D-3786-80a[2]	210
Trapezoid Tear Strength	lb	ASTM D-1117-80	50
Puncture Strength	lb	ASTM D-3787-80[3]	70
Coefficient of Permeability, k	cm/sec	CFMC GET-2	0.2
Water Flow Rate	gal/min/sf	CFMC GET-2	285

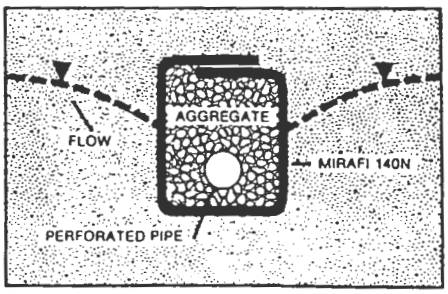
Mirafi 140N Packaging

Roll Width (ft.)	Roll Length (ft.)	Roll Wt. (lbs.)
15.0	360	185
12.5	360	175

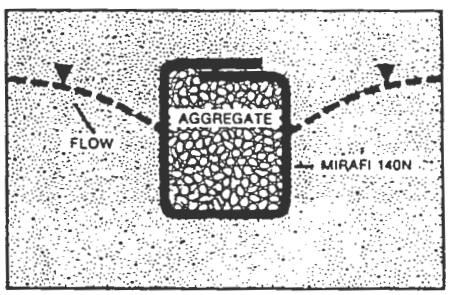
[1]The values listed are average values. Contact the Mirafi Technical Department for minimum certifiable values.
[2]Diaphragm Bursting Tester.
[3]Tension Testing Machine with ring clamp; steel ball replaced with a 5/16-inch diameter solid steel cylinder centered within the ring clamp.

To the best of our knowledge, the information contained herein is accurate. However, Mirafi, Inc. cannot assume any liability whatsoever for the accuracy or completeness thereof. Final determination of the suitability of any information or material for the use contemplated, of its manner of use, and whether the suggested use infringes any patents is the sole responsibility of the user.

Type of Fabric Wrapped Drains

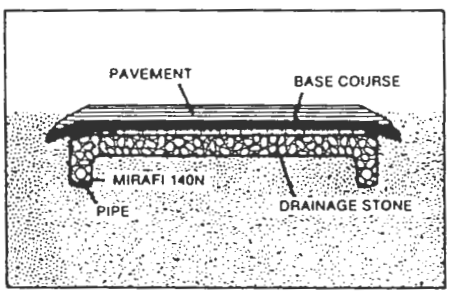


Conventional Drain (with pipe)

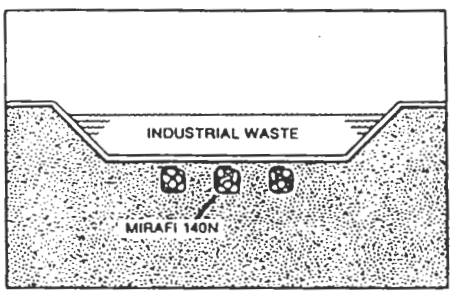


French Drain (without pipe)

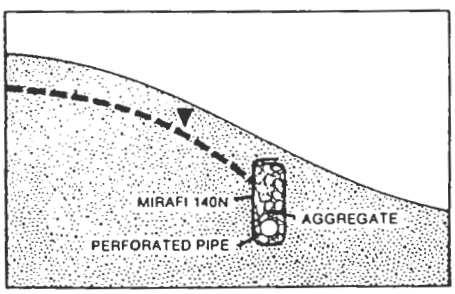
Typical Drain Applications



Blanket Drain & Edge Drain



Pond Underdrain



Interceptor Drain

MIRAFI INC

A member of the DOMINION TEXTILE group

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MIRAFI INC. P.O. BOX 240967/CHARLOTTE, N.C. 28224
(704) 523-7477 or (800) 438-1855/TELEX 216903 MRFI

TIRAFI INC

CIVIL
ENGINEERING
FABRICS

February 1, 1988

FABRIC	WT/SY	ROLL SIZE	ROLL WT	PRICE*
DRAINAGE:				
Mirafi 140N	4.5 oz.	15' x 360'(600 sy)	184 lbs.	$.85/sy
Mirafi 140N	4.5 oz.	12.5' x 360'(500 sy)	153 lbs.	$.85/sy
Mirafi 140NL	3.5 oz.	15' x 420'(700 sy)	170 lbs.	$.75/sy
STABILIZATION:				
Mirafi 400X	3.5 oz.	12.5 x 576'(800 sy)	176 lbs.	$.75/sy
Mirafi 500X	4.0 oz.	12.5' x 432'(600 sy)	173 lbs.	$.80/sy
Mirafi 500X	4.0 oz.	17.5' x 309'(600 sy)	179 lbs.	$.80/sy
Mirafi 500X	4.0 oz.	25' x 216'(600 sy)	179 lbs.	$.85/sy
Mirafi 600X	6.0 oz.	12.5' x 360'(500 sy)	210 lbs.	$1.05/sy
Mirafi 600X	6.0 oz.	25' x 180'(500 sy)	210 lbs.	$1.10/sy
EROSION CONTROL:				
Mirafi 700XG	6.5 oz.	13' x 300'(433 sy)	200 lbs.	$1.30/sy
Mirafi 700X	6.5 oz.	6' x 300'(200 sy)	92 lbs.	$1.40/sy
Mirafi 700X	6.5 oz.	12' x 300'(400 sy)	184 lbs.	$1.42/sy
Mirafi 700X	6.5 oz.	18' x 150'(300 sy)	131 lbs.	$1.45/sy
Miramat2400	24.0 oz.	3.75' x 180'(75 sy)	135 lbs.	$.80/sf
Miramat1800	18.0 oz.	3.75' x 264'(110 sy)	135 lbs.	$.65/sf
SEDIMENT CONTROL:				
Envirofence		3' x 100'(100 lf)	35 lbs.	$1.50/lf
LANDSCAPE:				
Mirascape	3.0 oz.	3' x 300'(100 sy)	15 lbs.	$.75/sy
Mirascape	3.0 oz.	6' x 300'(200 sy)	28 lbs.	$.75/sy
Mirascape	3.0 oz.	9' x 300'(300 sy)	40 lbs.	$.75/sy
PREFABRICATED DRAINAGE SYSTEM:				
Miradrain 5000*		4' x 50'(200 sf)	50 lbs.	$1.50/sf
Miradrain 6000		10 panels/roll 4' x 8'(320 sf)	70 lbs.	$1.40/sf
Miradrain 6000		1 panel/roll 4' x 25'(100 sf)	25 lbs.	$1.40/sf
Miradrain 6000		1 panel/roll 4' x 50'(200 sf)	50 lbs.	$1.40/sf
Miradrain 9000		4' x 50'(200 sf)	50 lbs.	$1.60/sf

*Miradrain 5000 replaces Miradrain 4000

(OVER)

FABRIC	WT/SY	ROLL SIZE	ROLL WT	PRICE*
PAVEMENT OVERLAY:				
Mirafi 900N	4.0 oz.	12.5' x 360'(500 sy)	153 lbs.	$.75/sy
NON WOVEN (impermeable liner protection and railroad use):				
Mirafi 180N	8.0 oz.	13' x 300'(433 sy)	230 lbs.	$1.30/sy
Mirafi 180N	8.0 oz.	17.5' x 300'(583 sy)	310 lbs.	$1.30/sy
Mirafi 1120N	12.0 oz.	13' x 300'(433 sy)	310 lbs.	$1.75/sy
Mirafi 1120N	12.0 oz.	17.5' x 300'(583 sy)	410 lbs.	$1.75/sy
Mirafi 1160N	16.0 oz.	13' x 150'(217 sy)	230 lbs.	$2.60/sy
Mirafi 1160N	16.0 oz.	17.5' x 150'(292 sy)	315 lbs.	$2.60/sy
WOVEN (heavy weight, high performance):				
Mirafi 1000HP	10 oz.	15' x 240'(400 sy)	265 lbs.	$2.50/sy
Mirafi 1200HP	12 oz.	15' x 240'(400 sy)	315 lbs.	$2.90/sy
Mirafi 2100HP	21 oz.	12' x 105'(140 sy)	200 lbs.	$6.90/sy
SPECIALITY PRODUCTS:				
Mirafi coated fabric MCF 1212		12' x 300'(400 sy)	190 lbs.	$2.25/sy
Geonet 250		6.25' x 100'(625 sf)	80 lbs.	$.70/sf
Geonet 250 - with fabric		6.25' x 100'(625 sf)	80 lbs.	$.95/sf

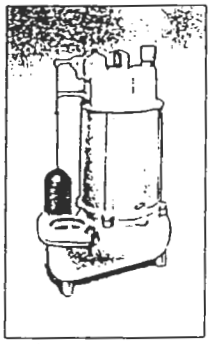
Manufacturers Representative: R. P. Martino and Company
2 Ledge Drive
Georgetown, MA 01833
617-352-2106

*Prices are for estimating purposes only. Call your local Mirafi representative or distributor for current prices and availability.

Fabric seaming available, price upon request.

Centrifugal Sewage Pumps

Submersible Automatic Sewage Ejector Pumps



- For 1¼" or 1½" solids
- Up to 9300 GPH capacities
- ½-HP motor

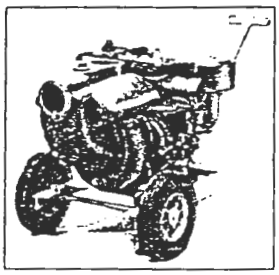
Continuous-duty pumps work tirelessly to pump sewage or other liquids containing solid matter. Built-in float switch provides automatic operation and has a quick-change feature for fast replacement if necessary. Pump also has a 10½-ft. power cord with 3-prong plug for manual use. Pumps have threaded flange connections, cast iron housing, and a 2-vane, ductile iron open impeller with a stainless steel shaft. Thermal overload-protected motor is ½ hp, 1750 rpm, 115 VAC, 60 Hz, 1 ph. Min. sump dia. is 13". Max. liquid temperature is 160° F. Pump height is 17⅜".

High-temperature (to 200° F) and 230 V models are available. Specify No. 9949K888, voltage, temperature, and discharge size. Prices on request.

PUMP PERFORMANCE					
Discharge	Head, Ft.	5	10	15	20
1½"	GPH	8220	6900	5400	3600
2"	GPH	8700	7500	6000	4200
3"	GPH	9300	8100	6480	4620

Discharge	Max. Dia., Solids	No.	NET EACH
1½"	1¼"	9949K19	$378.33
2"	1½"	9949K21	385.09
3"	1½"	9949K23	392.09

Solids Handling Pump



- For 1¾" solids
- 22,800 GPH capacity
- 10-HP engine

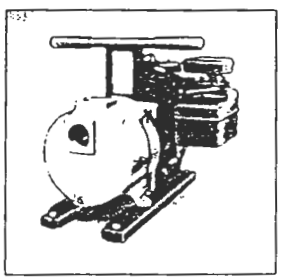
Extra heavy duty centrifugal unit gets the job done on hard-to-pump silt, rocks, sand, slurries, sludge, trash and sewage . . . handles large flows and solids up to 1¾" diameter. Self-priming pump performs suction lifts up to 25 feet. Pump has an aluminum housing with mechanical seals and a two-blade, nonclogging impeller. The 10-hp Briggs & Stratton, air-cooled, 3600 rpm, gasoline engine has recoil start and a 4-qt. fuel tank. Ports are 3" npt.

Pump is mounted on a heavy-duty steel frame with 10" pneumatic wheels and a handle for portability. Pump weighs 265 lbs.

PUMP PERFORMANCE				
Head, Ft.	25	40	60	90
GPH	22,800	18,420	13,500	4,500

No. 4388K22 ..... NET EACH $1612.68

Alumi-Lite Trash Pumps



- For 1" or 1½" solids
- Up to 20,400 GPH capacity

These self-priming pumps are constructed of lightweight aluminum, making them extremely portable but no less durable than heavier metals. Pumps are capable of suction lifts up to 25 feet. They welcome the dirty jobs, and really go into action to handle silt, rocks, sand, muddy water, sludge, trash and sewage.

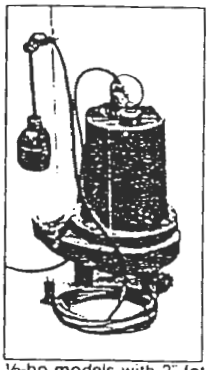
Impeller and volute are made of cast iron. Mechanical seal with a stainless steel shaft sleeve.

Powered by a Briggs & Stratton air-cooled, 4-cycle, 3600 rpm, gasoline engine with recoil start. Pumps include rubber foot mounts, a suction strainer, and a handy T-style handle for added portability.

PUMP PERFORMANCE					
Port	Head, Ft.	20	40	60	90
2"	GPH	10,800	9,240	7,200	3,120
3"	GPH	20,400	17,400	13,080	5,040

Port Size	Max. Dia., Solids	HP	Wt., Lbs.	No.	NET EACH
2	1"	5	71	4338K46	$668.69
3	1½"	8	105	4338K48	1024.21

Automatic High Head Sewage Pumps



- For 1½" solids
- Up to 8520 GPH capacity
- ⁴⁄₁₀- or ½-HP motor

Submersible, heavy-duty pumps make short work of waste, sewage, and solids up to 1½". Pumps have a mercury float control switch with piggyback plug to turn pump on and off automatically at levels you set. Switch mounts to discharge pipe with an adjustable stainless steel clamp.

Cast iron body and housing have a 416 stainless steel shaft. Thermal overload-protected motor is 115 VAC, 60 Hz, 1 ph. Furnished with 15-ft. grounded power cord. Minimum sump diameter is 14". Minimum sump depth is 30". Available in ⁴⁄₁₀- and ½-hp models with 2" fpt discharge. ⁴⁄₁₀-HP PUMP—Has a molded, glass-filled thermoplastic impeller and 1700 rpm motor. Max. temperature is 150° F. Pump ht. is 16½".

PUMP PERFORMANCE					
Head, Ft.	5	10	15	20	25
GPH	5400	4800	4080	3120	600

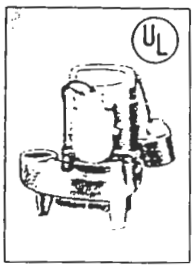
No. 5143K17 ..... NET EACH $307.83

½-HP PUMP—Has cast iron impeller and 1625 rpm motor. Maximum temperature is 160° F. Pump height is 19⅜". UL listed.

PUMP PERFORMANCE					
Head, Ft.	5	10	15	20	25
GPH	8520	7200	5400	3300	720

No. 5143K18 ..... NET EACH $414.29

UL-Listed Sewage Pumps



- For ½", ¾", or 2" solids
- Up to 6600 GPH capacity
- ⅓-, ⁴⁄₁₀-, or ½-HP motor

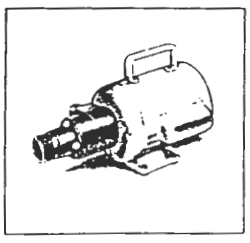
Move waste water and sewage out of collection areas to sewer or septic lines with these completely submersible, cast iron pumps. A float switch turns pump on and off automatically. You can set the pump to turn on at 9" to 14" and off at 2" to 6". Protective epoxy coating guards against rust and corrosion. Lifetime lubricated, thermal overload-protected motor is 115 VAC, 60 Hz, single phase. Furnished with 15-ft. power cord. Vortex impeller is nylon. Min. sump dia. is 18". Min. sump depth is 30". UL and CSA listed.

PUMP PERFORMANCE					
No.	Head, Ft.	5	10	15	20
42935K22	GPH	3000	2500	1600	—
42935K23	GPH	3120	2700	1980	—
42935K24	GPH	4800	3420	1440	—
42935K25	GPH	6600	5640	3900	840

HP	Discharge, FPT	Max. Dia., Solids	Ht.	No.	NET EACH
⅓	1½"	½"	10¼"	42935K22■	$131.21
⅓	1½"	¾"	8¼"	42935K23■	177.23
⁴⁄₁₀	2"	2"	11 1⁵⁄₁₆"	42935K24	251.45
½	2"	2"	12¾"	42935K25	362.41

■ Effluent pump with 10-ft. power cord.

Compact Grinder Pumps



- Turns up to 1½" semi-solids into ⅛" particles
- 1080 GPH capacity

An ideal solution to small waste-handling problems. Grind waste, tissue, and certain semi-solids down to a maximum particle size of ⅛". Not recommended for handling hard objects and rags. Mount these self-priming pumps anywhere. Equipped with a flexible Nitrile impeller with stainless steel wear plate and a cast bronze grinder plate.

Pump motor is 115 VAC, 60 Hz, 1 phase, with overload protection. Outlet port has 1" ID hose barb. Inlet port is 1½" MPT.

PUMP PERFORMANCE (Based on Water)				
Head, Ft.	5	10	20	30
GPH	840	780	648	516

No. 6766K12 ..... NET EACH $406.25

JMS Manufacturing Co., Inc.
d/b/a BEE FIBERGLASS

198 Airport Road
Fall River, MA 02720
508-675-1141
FAX 508-675-1142

December 22, 1993

Engineering Science
101 Huntinton Ave.
Boston, MA 02199

Attn: Mr. Dowman Harvey

Re: FRP Tank
Bee project #93-541

Gentlemen,

We thank you for your inquiry and are pleased to offer our budgetary quotation as follows.

Item	Qty	Description
A	1	10'-0" dia. x 18'-0" Straight side, flat bottom, flat top fiberglass tank with four lifting lugs. Budgetary Price Each.....$12,800.00

Item A will be contact molded to ASTM D4097 standards using Reichhold 33-402 resin and a 10 mil "C" veil liner.

Terms: To be determined
F.O.B. Fall River, MA. freight collect.
Prices quoted are valid for 30 days.

Delivery: Will be 4-6 weeks after receipt of approved drawings.

Drawings: Will be 1 week after receipt of purchase order.

If you have any questions please do not hesitate to contact this office.

Sincerely,

John A. Amarello
Project Engineer

JAA:ds

Remedial Systems, Inc.

56 Leonard Street
Foxboro, MA 02035-2929
(508) 543-1512
FAX (508) 543-7485

January 5, 1994

Dan Kelmar
Engineering Science
Prudentail Center - 101 Huntington Ave
Bostson, MA 02199

Tel: 617-859-2437
Fax: 617-859-2043

Subject: RSI Quotation # **SYS-01-0594-MA**
Proj: Sead Ash Landfill

Dear Dan,

Remedial Systems Inc. (RSI) is pleased to present the following quotation for the above referenced project.

Item 1: 2 - Water Depression Pump capable of **16 GPM @ 80' TDH**, 1/2 HP, 230V, 1 PH, Motor, all stainless steel construction, teflon seals, pump comes complete with 25' of (1.5") petroleum resistant discharge hose, and 25' of sheathed, petroleum resistant power lead.

$ 870.00 each

Item 2: 1 - **Total Fluids Well Probe** for use in single well water recovery, intrinsically safe, with 50 feet of cable.

$ 225.00 each

Item 3: (1) - RSI Low Profile Stripper Model **RTS-50-3** designed to meet the following conditions:

Chemical	Influent (ppb)	Effluent (ppb)	Removal (%)
TCE	100	1	99
c 1,2 DCE	120	1	99.17
Vinyl Chloride	20	1	95
Total	240	3	98.75

Water Temperature 50° F
Flowrate 30 gpm

Height	56"
Length	86"
Width	36"
Blower	230V, 1 ph, TEFC

This equipment includes inlet piping, liquid distributor, air discharge, demister, temperature gauge, pressure gauge, air inlet, blower, drainage sump, siphon drain, 3 level sump switch, and blower fail safe switch.

$ 11,610.00

Item 4: (1) - Transfer Pump, self priming, capable of 30 gpm @ 40 feet TDH, 230V, single phase, TEFC motor.

$ 695.00

Item 5: (1) - Stainless Steel Bag Filter ccapable of 50 GPM, 10 Micron filter bags.

$ 1,295.00

Item 6: 1 - LP-50 Liquid Phase Carbon Vessel:

- Max. Flowrate 56 GPM
- Max. Pressure 12 psig
- Max. Temp 125 °F
- Diameter 34"
- Overall Height 57"
- Inlet / Outlet 3" NPT
- Virgin Carbon 500 lbs
- Shipping Weight 1000 lbs

Carbon Vessels are constructed of mild steel with a high quality two layer epoxy interior coating and a hard enamel finish exterior.

$ 3,180.00 each

- Approximate cost for reactivation $ 360.00 each
- Approximate disposal cost $ 150.00 each

COST ESTIMATION PROGRAM FOR GAC TREATMENT SYSTEMS

PROBLEM ID = SEDA ASH LANDFILL FS

UGAC=0.90 AT 100000. LBS CRI=10.0 CRP=30.0 COH= 5.0
CCI=5310.0 PPI=350.0 ULAB=15.00 LOH= 10.0 UPOW=0.06
UFUEL=0.95 UNGAS=0.0055 UH2O= 0.35 BDEN=30.0 LOSS=12.0
MLR=50.0 FTYPE=G
CSITE=10.0 CINTR=10.0 CENG=10.0

TOTAL SYSTEM DESIGN CAPACITY (MGD) = 0.04
AVG SYSTEM PRODUCTION (MGD) = 0.04
NUMBER OF GAC CONTACTORS = 2.
DESIGN CAPACITY PER CONTACTOR (MGD) = 0.02
CROSS-SECTIONAL AREA OF EACH CONTACTOR (SQ. FT) = 3.73
EBCT (MINUTES) = 30.00
HYDRAULIC LOADING (GPM/SQ. FT) = 4.00
GAC BED DEPTH (FT) = 16.04
VOLUME PER EACH CONTACTOR (CU. FT) = 59.9
TOTAL GAC VOLUME OF SYSTEM (CU.FT) = 119.76
TOTAL GAC MASS OF SYSTEM (LBS) = 3592.91

ADSORBER TYPE IS STEEL PRESSURE CONTACTORS
(GAC PACKAGE PLANT)

GAC BED SERVICE LIFE (DAYS) = 300.0
GAC USE RATE (GALLONS/LB) = 3590.4
SPENT CARBON (LBS/YEAR) = 4066.

SPENT CARBON IS REPLACED WITH VIRGIN GAC

CONSTRUCTION COSTS	($)
ADSORPTION SYSTEM	197248.
REACTIVATION SYSTEM	0.
TOTAL =	197248.

ADSORPTION SYSTEM	($/YEAR)		
ELECTRIC POWER	516.		
MAINT & PROCESS LABOR	10108.		
MAINT & PROCESS MATERIALS	830.		
TOTAL O&M COST	11454.	78.5	(CENTS/1000 GAL)
TOTAL CAPITAL COST	20924.	143.3	(CENTS/1000 GAL)
TOTAL ADSOPTION COST	32378.	221.8	(CENTS/1000 GAL)

SPENT GAC REPLACEMENT

VIRGIN GAC ($/YEAR) =	4190.
VIRGIN GAC (CENTS/LB) =	103.0
VIRGIN GAC (CENTS/1000 GAL) =	28.7

OVERALL SYSTEM TOTALS	($/YEAR)	(CENTS/1000 GAL)
SYSTEMS CAPITAL	20924.	143.3
SYSTEMS O&M	15644.	107.2
SYSTEMS TOTAL	36568.	250.5

D: 1,2-DICHLOROETHENE

D-PHASE CONC., (ug/L)	=	120.00000
AP., K (umol/g)/(umol/L)^1/N	=	38.500000
ERM EXPONENT, N (DIM.)	=	0.38999999
THE BOILING PT. (cm^3/g-mol)...	=	100.00000
HT OF COMPOUND, MW	=	89.000000
IVITY, DIFL, (cm^2/sec)	=	0.68935396E-05
R COEFFICIENT, KF, (cm/sec)	=	0.27037349E-02
FUSION COEFFICIENT, DS, (cm^2/sec)..	=	0.62101374E-09
TRIBUTION PARAMETER, DG, (DIM.)	=	38137.680
BER, BI (DIM.).....	=	8.6353550
NUMBER, SC, (DIM.)	=	1798.1980

T PATTERN PARAMETERS FOR COMPOUND: 1,2-DICHLOROETHENE

MINIMUM STANTON NUMBER, STM	=	4.5612144
E MINIMUM EBCT, ETMIN, (minutes)	=	2.5006297
HE MINIMUM EBCT, EMLEN, (cm)	=	40.810280
THROUGHPUT AT 95% OF THE MTZ, T95, ...	=	1.6195295
THROUGHPUT AT 5% OF THE MTZ, T05, ...	=	0.63704449
THE EBCT OF THE MTZ, ETMTZ, (minutes).....	=	2.4568312
THE LENGTH OF THE MTZ, EMTZL, (cm)	=	40.095486

CONSTANT PATTERN SOLUTION
FOR AN EBCT OF 30.00 MINUTES

Ce/Co	Ce (ug/L)	BED VOL. FED	GAC BED LIFE (DAYS)	GAC USE RATE LBS/K-gal	FIELD ADJUSTED BED LIFE (DAYS)	FIELD ADJUSTED USE RATE LBS/K-gal
0.020	2.40	15091.7	314.4	0.26927	219.0	0.38667
0.040	4.80	15135.1	315.3	0.26850	219.3	0.38614
0.060	7.20	15168.4	316.0	0.26791	219.5	0.38573
0.080	9.60	15196.7	316.6	0.26741	219.7	0.38538
0.100	12.00	15221.7	317.1	0.26697	219.9	0.38508
0.120	14.40	15244.5	317.6	0.26657	220.0	0.38480
0.140	16.80	15265.7	318.0	0.26620	220.2	0.38454
0.160	19.20	15285.7	318.5	0.26585	220.3	0.38430
0.180	21.60	15304.6	318.8	0.26553	220.4	0.38407
0.200	24.00	15322.7	319.2	0.26521	220.6	0.38385
0.220	26.40	15340.2	319.6	0.26491	220.7	0.38364
0.240	28.80	15357.1	319.9	0.26462	220.8	0.38344
0.260	31.20	15373.5	320.3	0.26434	220.9	0.38324
0.280	33.60	15389.6	320.6	0.26406	221.0	0.38305
0.300	36.00	15405.4	320.9	0.26379	221.1	0.38286
0.320	38.40	15420.9	321.3	0.26352	221.2	0.38268
0.340	40.80	15436.3	321.6	0.26326	221.3	0.38249
0.360	43.20	15451.5	321.9	0.26300	221.4	0.38231
0.380	45.60	15466.7	322.2	0.26274	221.6	0.38213
0.400	48.00	15481.8	322.5	0.26249	221.7	0.38195
0.420	50.40	15496.9	322.9	0.26223	221.8	0.38177
0.440	52.80	15512.1	323.2	0.26197	221.9	0.38159
0.460	55.20	15527.4	323.5	0.26172	222.0	0.38141
0.480	57.60	15542.8	323.8	0.26146	222.1	0.38123
0.500	60.00	15558.4	324.1	0.26119	222.2	0.38104
0.520	62.40	15574.4	324.5	0.26093	222.3	0.38086
0.540	64.80	15590.6	324.8	0.26066	222.4	0.38067
0.560	67.20	15607.2	325.2	0.26038	222.5	0.38047

CONSTANT

THE

SCHMIDT

BIOT

ISO.

OR

Item 7: (2) - **VP-600**, Vapor Phase Carbon Vessel:

- Max. Flowrate	600 CFM
- Max. Pressure	12 psig
- Max. Temp	125° F
- Footprint	34" X 46"
- Overall Height	57"
- Tank Height	42"
- Tank Diameter	32"
- Inlet / Outlet	3" NPT
- Virgin Carbon	500 lbs
- Shipping Weight	1000 lbs

Carbon Vessels are constructed of mild steel with a high quality two layer epoxy interior coating and a hard enamel finish exterior.

$ 3,950.00 each

Item 8: (1) - **RSI Control Panel** capable of operating and controlling (2) Water Table Depression Pump, (1) transfer pump and a complete Air Stripper System. (NEMA 4 weathertight enclosure)

$ 2,450.00

Item 9: (1) - **Optional Telemetry Module**. With this option, the user may remotely monitor and operate the site from an IBM-PC compatible computer equipped with a phone modem. The user will have information on all analog and digital inputs, outputs, cycle timers, and run times of each output in the system.

$ 2,495.00

- F.O.B. Factory
- Delivery: 5-6 weeks, after approval of drawings
- Terms: Net 30 days (subject to credit approval)
- Leasing Rates Available

Offer Valid for 90 days

If you have any additional questions, please do not hesitate to contact me.

Sincerely,

Brendan Boulerice

BAB
Enc: GB

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:31:48

CORA GRANULAR ACTIVATED CARBON COST MODULE (309)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: LIQUID-PHASE CARBON
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Flow (GPM)	30	CAPITAL COST	150,000
Chlor. volatile org. (UG/L)	20	O & M COSTS	46,000
Total organic carbon (UG/L)	100		
Protection level	D	CARBON USED (LB/YEAR)	5,425
Average temp (degrees F)	50		
Confidence level	M		

*** Operation and maintenance costs are sensitive to carbon usage and regeneration cost. Carbon cost (including regeneration) was calculated at $1.50/lb.

NOTES:

Alternative MC-4

0.580	69.60	15624.3	325.5	0.26009	222.6	0.38027
0.600	72.00	15642.0	325.9	0.25980	222.8	0.38006
0.620	74.40	15660.4	326.3	0.25949	222.9	0.37985
0.640	76.80	15679.5	326.7	0.25918	223.0	0.37963
0.660	79.20	15699.6	327.1	0.25884	223.2	0.37939
0.680	81.60	15720.9	327.5	0.25850	223.3	0.37915
0.700	84.00	15743.4	328.0	0.25813	223.5	0.37888
0.720	86.40	15767.5	328.5	0.25773	223.6	0.37861
0.740	88.80	15793.4	329.0	0.25731	223.8	0.37831
0.760	91.20	15821.7	329.6	0.25685	224.0	0.37798
0.780	93.60	15852.7	330.3	0.25635	224.2	0.37762
0.800	96.00	15887.1	331.0	0.25579	224.4	0.37723
0.820	98.40	15925.8	331.8	0.25517	224.7	0.37679
0.840	100.80	15969.9	332.7	0.25446	225.0	0.37629
0.860	103.20	16021.0	333.8	0.25365	225.3	0.37571
0.880	105.60	16081.3	335.0	0.25270	225.7	0.37503
0.900	108.00	16154.1	336.5	0.25156	226.2	0.37422
0.920	110.40	16244.4	338.4	0.25016	226.8	0.37322
0.940	112.80	16360.5	340.8	0.24839	227.6	0.37194
0.960	115.20	16516.4	344.1	0.24605	228.7	0.37025
0.980	117.60	16738.8	348.7	0.24278	230.1	0.36787
1.000	120.00	17085.1	355.9	0.23785	232.4	0.36427

PARAMETERS USED FOR EMPIRICAL EQUATION THAT DESCRIBE SOLUTIONS TO HSDM FOR FIXED BED REACTOR

A0	A1	A2	A3	A4
0.4919120	0.4918330	0.4874140	0.0113710	0.1477470

CONSTANT PATTERN RESULTS FOR - 1,2-DICHLOROETHENE

PHYSICAL PARAMETERS:

EMPTY BED CONTACT TIME, EBCT, (MIN.) ..... =	10.000000
BULK DENSITY OF THE BED, RHOB (g/cm^3).... =	0.48699999
RADIUS OF ADSORBENT PARTICLE, RAD (cm).... =	0.52499998E-01
APPARENT PARTICLE DENSITY, RHOP (g/cm^3).. =	0.82499999
VOID FRACTION OF THE PARTICLE, EPOR..... =	0.64099997
VOID FRACTION OF BED, EBED (DIM.)..... =	0.40969697
SUPERFICIAL FLUID VELOCITY (cm/sec)..... =	0.27200001
SURFACE LOADING, SF (gpm/ft^2)..... =	4.0049281
REYNOLDS NUMBER, RE, (DIM.) ..... =	5.6236157
TEMPERATURE OF WATER, TEMP, (DEG C.) ..... =	12.000000
DENSITY OF WATER, DW, (g/cm^3) ..... =	0.99952000
VISCOSITY OF WATER, VW, (g/cm-sec) ..... =	0.12390000E-01
SURFACE/PORE DIFFUSION FLUX RATIO, PSDFR . =	3.7200000

PARAMETERS FOR COMPOUND: 1,2-DICHLOROETHENE

INITIAL BULK LIQUID-PHASE CONC., (ug/L)..... =	120.00000
FREUNDLICH ISO. CAP., K (umol/g)/(umol/L)^1/N =	38.500000
FREUNDLICH ISOTHERM EXPONENT, N (DIM.)..... =	0.38999999
MOLAL VOLUME AT THE BOILING PT. (cm^3/g-mol)... =	100.00000
MOLECULAR WEIGHT OF COMPOUND, MW ..... =	89.000000
LIQUID DIFFUSIVITY, DIFL, (cm^2/sec) ..... =	0.68935396E-05
FILM TRANSFER COEFFICIENT, KF, (cm/sec) ..... =	0.27037349E-02
SURFACE DIFFUSION COEFFICIENT, DS, (cm^2/sec).. =	0.62101374E-09
SOLUTE DISTRIBUTION PARAMETER, DG, (DIM.) .... =	38137.680
BIOT NUMBER, BI (DIM.)..... =	8.6353550
SCHMIDT NUMBER, SC, (DIM.) ..... =	1798.1980

CONSTANT PATTERN PARAMETERS FOR COMPOUND: 1,2-DICHLOROETHENE

THE MINIMUM STANTON NUMBER, STM ..... =	4.5612144
THE MINIMUM EBCT, ETMIN, (minutes) ..... =	2.5006297
THE MINIMUM EBCT, EMLEN, (cm) ..... =	40.810280
THROUGHPUT AT 95% OF THE MTZ, T95, ... =	1.6195295
THROUGHPUT AT 5% OF THE MTZ, T05, ... =	0.63704449
THE EBCT OF THE MTZ, ETMTZ, (minutes)..... =	2.4568312
THE LENGTH OF THE MTZ, EMTZL, (cm) ..... =	40.095486

CONSTANT PATTERN SOLUTION
FOR AN EBCT OF 10.00 MINUTES

Ce/Co	Ce (ug/L)	BED VOL. FED	GAC BED LIFE (DAYS)	GAC USE RATE LBS/K-gal	FIELD ADJUSTED BED LIFE (DAYS)	FIELD ADJUSTED USE RATE LBS/K-gal
0.020	2.40	14024.5	97.4	0.28976	70.5	0.40056
0.040	4.80	14154.7	98.3	0.28710	70.8	0.39878
0.060	7.20	14254.6	99.0	0.28508	71.0	0.39743
0.080	9.60	14339.4	99.6	0.28340	71.2	0.39630
0.100	12.00	14414.5	100.1	0.28192	71.4	0.39530
0.120	14.40	14483.0	100.6	0.28059	71.6	0.39440
0.140	16.80	14546.6	101.0	0.27936	71.7	0.39357
0.160	19.20	14606.4	101.4	0.27822	71.8	0.39280

0.180	21.60	14663.2	101.8	0.27714	72.0	0.39206
0.200	24.00	14717.5	102.2	0.27612	72.1	0.39137
0.220	26.40	14769.9	102.6	0.27514	72.2	0.39070
0.240	28.80	14820.6	102.9	0.27420	72.4	0.39006
0.260	31.20	14870.0	103.3	0.27329	72.5	0.38943
0.280	33.60	14918.2	103.6	0.27240	72.6	0.38883
0.300	36.00	14965.6	103.9	0.27154	72.7	0.38823
0.320	38.40	15012.2	104.3	0.27070	72.8	0.38765
0.340	40.80	15058.3	104.6	0.26987	72.9	0.38708
0.360	43.20	15104.0	104.9	0.26905	73.0	0.38652
0.380	45.60	15149.4	105.2	0.26825	73.1	0.38596
0.400	48.00	15194.8	105.5	0.26745	73.2	0.38541
0.420	50.40	15240.1	105.8	0.26665	73.3	0.38485
0.440	52.80	15285.7	106.2	0.26585	73.4	0.38430
0.460	55.20	15331.5	106.5	0.26506	73.5	0.38375
0.480	57.60	15377.8	106.8	0.26426	73.6	0.38319
0.500	60.00	15424.7	107.1	0.26346	73.8	0.38263
0.520	62.40	15472.5	107.4	0.26265	73.9	0.38206
0.540	64.80	15521.2	107.8	0.26182	74.0	0.38148
0.560	67.20	15571.1	108.1	0.26098	74.1	0.38090
0.580	69.60	15622.4	108.5	0.26012	74.2	0.38029
0.600	72.00	15675.5	108.9	0.25924	74.3	0.37967
0.620	74.40	15730.6	109.2	0.25834	74.5	0.37903
0.640	76.80	15788.0	109.6	0.25740	74.6	0.37837
0.660	79.20	15848.3	110.1	0.25642	74.7	0.37768
0.680	81.60	15912.0	110.5	0.25539	74.9	0.37695
0.700	84.00	15979.5	111.0	0.25431	75.0	0.37618
0.720	86.40	16051.8	111.5	0.25317	75.2	0.37536
0.740	88.80	16129.7	112.0	0.25194	75.4	0.37449
0.760	91.20	16214.5	112.6	0.25063	75.5	0.37355
0.780	93.60	16307.5	113.2	0.24920	75.8	0.37252
0.800	96.00	16410.8	114.0	0.24763	76.0	0.37139
0.820	98.40	16526.9	114.8	0.24589	76.2	0.37013
0.840	100.80	16659.2	115.7	0.24394	76.5	0.36872
0.860	103.20	16812.4	116.8	0.24171	76.9	0.36710
0.880	105.60	16993.3	118.0	0.23914	77.3	0.36521
0.900	108.00	17211.6	119.5	0.23611	77.7	0.36297
0.920	110.40	17482.7	121.4	0.23245	78.3	0.36026
0.940	112.80	17830.8	123.8	0.22791	79.1	0.35685
0.960	115.20	18298.5	127.1	0.22208	80.1	0.35244
0.980	117.60	18965.8	131.7	0.21427	81.5	0.34642
1.000	120.00	20004.8	138.9	0.20314	83.6	0.33764

PARAMETERS USED FOR EMPIRICAL EQUATION THAT DESCRIBE
SOLUTIONS TO HSDM FOR FIXED BED REACTOR

A0	A1	A2	A3	A4
0.4919120	0.4918330	0.4874140	0.0113710	0.1477470

CONSTANT PATTERN RESULTS FOR - 1,2-DICHLOROETHENE

PHYSICAL PARAMETERS:

EMPTY BED CONTACT TIME, EBCT, (MIN.) ..... = 20.000000
BULK DENSITY OF THE BED, RHOB (g/cm^3).... = 0.48699999
RADIUS OF ADSORBENT PARTICLE, RAD (cm).... = 0.52499998E-01
APPARENT PARTICLE DENSITY, RHOP (g/cm^3).. = 0.82499999
VOID FRACTION OF THE PARTICLE, EPOR..... = 0.64099997

VOID FRACTION OF BED, EBED (DIM.)..... = 0.40969697
SUPERFICIAL FLUID VELOCITY (cm/sec)..... = 0.27200001
SURFACE LOADING, SF (gpm/ft^2)..... = 4.0049281
REYNOLDS NUMBER, RE, (DIM.) ..... = 5.6236157
TEMPERATURE OF WATER, TEMP, (DEG C.) ..... = 12.000000
DENSITY OF WATER, DW, (g/cm^3) ..... = 0.99952000
VISCOSITY OF WATER, VW, (g/cm-sec) ..... = 0.12390000E-01
SURFACE/PORE DIFFUSION FLUX RATIO, PSDFR . = 3.7200000

PARAMETERS FOR COMPOUND: 1,2-DICHLOROETHENE
INITIAL BULK LIQUID-PHASE CONC., (ug/L)..... = 120.00000
FREUNDLICH ISO. CAP., K (umol/g)/(umol/L)^1/N = 38.500000
FREUNDLICH ISOTHERM EXPONENT, N (DIM.)..... = 0.38999999
MOLAL VOLUME AT THE BOILING PT. (cm^3/g-mol)... = 100.00000
MOLECULAR WEIGHT OF COMPOUND, MW ..... = 89.000000
LIQUID DIFFUSIVITY, DIFL, (cm^2/sec) ..... = 0.68935396E-05
FILM TRANSFER COEFFICIENT, KF, (cm/sec) ..... = 0.27037349E-02
SURFACE DIFFUSION COEFFICIENT, DS, (cm^2/sec).. = 0.62101374E-09
SOLUTE DISTRIBUTION PARAMETER, DG, (DIM.) .... = 38137.680
BIOT NUMBER, BI (DIM.)..... = 8.6353550
SCHMIDT NUMBER, SC, (DIM.) ..... = 1798.1980

CONSTANT PATTERN PARAMETERS FOR COMPOUND: 1,2-DICHLOROETHENE
THE MINIMUM STANTON NUMBER, STM ..... = 4.5612144
THE MINIMUM EBCT, ETMIN, (minutes) ..... = 2.5006297
THE MINIMUM EBCT, EMLEN, (cm) ..... = 40.810280
THROUGHPUT AT 95% OF THE MTZ, T95, ... = 1.6195295
THROUGHPUT AT 5% OF THE MTZ, T05, ... = 0.63704449
THE EBCT OF THE MTZ, ETMTZ, (minutes)..... = 2.4568312
THE LENGTH OF THE MTZ, EMTZL, (cm) ..... = 40.095486

CONSTANT PATTERN SOLUTION
FOR AN EBCT OF 20.00 MINUTES

Ce/Co	Ce (ug/L)	BED VOL. FED	GAC BED LIFE (DAYS)	GAC USE RATE LBS/K-gal	FIELD ADJUSTED BED LIFE (DAYS)	FIELD ADJUSTED USE RATE LBS/K-gal
0.020	2.40	14824.9	205.9	0.27412	144.7	0.39000
0.040	4.80	14890.0	206.8	0.27292	145.0	0.38918
0.060	7.20	14940.0	207.5	0.27201	145.3	0.38855
0.080	9.60	14982.3	208.1	0.27124	145.5	0.38802
0.100	12.00	15019.9	208.6	0.27056	145.6	0.38756
0.120	14.40	15054.2	209.1	0.26994	145.8	0.38713
0.140	16.80	15086.0	209.5	0.26937	145.9	0.38674
0.160	19.20	15115.9	209.9	0.26884	146.1	0.38637
0.180	21.60	15144.2	210.3	0.26834	146.2	0.38602
0.200	24.00	15171.4	210.7	0.26786	146.3	0.38569
0.220	26.40	15197.6	211.1	0.26740	146.5	0.38537
0.240	28.80	15222.9	211.4	0.26695	146.6	0.38506
0.260	31.20	15247.6	211.8	0.26652	146.7	0.38476
0.280	33.60	15271.8	212.1	0.26610	146.8	0.38447
0.300	36.00	15295.4	212.4	0.26569	146.9	0.38418
0.320	38.40	15318.8	212.8	0.26528	147.0	0.38390
0.340	40.80	15341.8	213.1	0.26488	147.1	0.38362
0.360	43.20	15364.7	213.4	0.26449	147.2	0.38335

0.380	45.60	15387.4	213.7	0.26410	147.3	0.38308
0.400	48.00	15410.0	214.0	0.26371	147.4	0.38281
0.420	50.40	15432.7	214.3	0.26332	147.5	0.38253
0.440	52.80	15455.5	214.7	0.26293	147.7	0.38226
0.460	55.20	15478.4	215.0	0.26254	147.8	0.38199
0.480	57.60	15501.6	215.3	0.26215	147.9	0.38172
0.500	60.00	15525.0	215.6	0.26176	148.0	0.38144
0.520	62.40	15548.9	216.0	0.26135	148.1	0.38116
0.540	64.80	15573.2	216.3	0.26095	148.2	0.38087
0.560	67.20	15598.2	216.6	0.26053	148.3	0.38058
0.580	69.60	15623.9	217.0	0.26010	148.4	0.38028
0.600	72.00	15650.4	217.4	0.25966	148.5	0.37997
0.620	74.40	15677.9	217.7	0.25920	148.7	0.37964
0.640	76.80	15706.7	218.1	0.25873	148.8	0.37931
0.660	79.20	15736.8	218.6	0.25823	148.9	0.37896
0.680	81.60	15768.6	219.0	0.25771	149.1	0.37859
0.700	84.00	15802.4	219.5	0.25716	149.2	0.37820
0.720	86.40	15838.6	220.0	0.25657	149.4	0.37779
0.740	88.80	15877.5	220.5	0.25594	149.6	0.37734
0.760	91.20	15919.9	221.1	0.25526	149.8	0.37686
0.780	93.60	15966.4	221.8	0.25452	150.0	0.37633
0.800	96.00	16018.1	222.5	0.25370	150.2	0.37574
0.820	98.40	16076.1	223.3	0.25278	150.5	0.37509
0.840	100.80	16142.2	224.2	0.25175	150.8	0.37435
0.860	103.20	16218.9	225.3	0.25056	151.1	0.37350
0.880	105.60	16309.3	226.5	0.24917	151.5	0.37250
0.900	108.00	16418.5	228.0	0.24751	152.0	0.37131
0.920	110.40	16554.0	229.9	0.24549	152.6	0.36984
0.940	112.80	16728.1	232.3	0.24293	153.4	0.36799
0.960	115.20	16961.9	235.6	0.23958	154.4	0.36554
0.980	117.60	17295.5	240.2	0.23496	155.9	0.36213
1.000	120.00	17815.0	247.4	0.22811	158.1	0.35701

PARAMETERS USED FOR EMPIRICAL EQUATION THAT DESCRIBE
SOLUTIONS TO HSDM FOR FIXED BED REACTOR

A0	A1	A2	A3	A4
0.4919120	0.4918330	0.4874140	0.0113710	0.1477470

CONSTANT PATTERN RESULTS FOR - 1,2-DICHLOROETHENE

PHYSICAL PARAMETERS:

EMPTY BED CONTACT TIME, EBCT, (MIN.) ..... = 30.000000
BULK DENSITY OF THE BED, RHOB (g/cm^3).... = 0.48699999
RADIUS OF ADSORBENT PARTICLE, RAD (cm).... = 0.52499998E-01
APPARENT PARTICLE DENSITY, RHOP (g/cm^3).. = 0.82499999
VOID FRACTION OF THE PARTICLE, EPOR..... = 0.64099997
VOID FRACTION OF BED, EBED (DIM.)..... = 0.40969697
SUPERFICIAL FLUID VELOCITY (cm/sec)..... = 0.27200001
SURFACE LOADING, SF (gpm/ft^2)..... = 4.0049281
REYNOLDS NUMBER, RE, (DIM.) ..... = 5.6236157
TEMPERATURE OF WATER, TEMP, (DEG C.) ..... = 12.000000
DENSITY OF WATER, DW, (g/cm^3) ..... = 0.99952000
VISCOSITY OF WATER, VW, (g/cm-sec) ..... = 0.12390000E-01
SURFACE/PORE DIFFUSION FLUX RATIO, PSDFR . = 3.7200000

CONSTANT PATTERN RESULTS FOR - TRICHLOROETHENE

PHYSICAL PARAMETERS:

EMPTY BED CONTACT TIME, EBCT, (MIN.) ..... =	20.000000
BULK DENSITY OF THE BED, RHOB (g/cm^3).... =	0.48699999
RADIUS OF ADSORBENT PARTICLE, RAD (cm).... =	0.52499998E-01
APPARENT PARTICLE DENSITY, RHOP (g/cm^3).. =	0.82499999
VOID FRACTION OF THE PARTICLE, EPOR..... =	0.64099997
VOID FRACTION OF BED, EBED (DIM.)..... =	0.40969697
SUPERFICIAL FLUID VELOCITY (cm/sec)..... =	0.27200001
SURFACE LOADING, SF (gpm/ft^2)..... =	4.0049281
REYNOLDS NUMBER, RE, (DIM.) ..... =	5.6236157
TEMPERATURE OF WATER, TEMP, (DEG C.) ..... =	12.000000
DENSITY OF WATER, DW, (g/cm^3) ..... =	0.99952000
VISCOSITY OF WATER, VW, (g/cm-sec) ..... =	0.12390000E-01
SURFACE/PORE DIFFUSION FLUX RATIO, PSDFR . =	3.7200000

PARAMETERS FOR COMPOUND: TRICHLOROETHENE

INITIAL BULK LIQUID-PHASE CONC., (ug/L)..... =	100.00000
FREUNDLICH ISO. CAP., K (umol/g)/(umol/L)^1/N =	159.80000
FREUNDLICH ISOTHERM EXPONENT, N (DIM.)..... =	0.48199999
MOLAL VOLUME AT THE BOILING PT. (cm^3/g-mol)... =	107.10000
MOLECULAR WEIGHT OF COMPOUND, MW ..... =	131.50000
LIQUID DIFFUSIVITY, DIFL, (cm^2/sec) ..... =	0.66205839E-05
FILM TRANSFER COEFFICIENT, KF, (cm/sec) ..... =	0.26411158E-02
SURFACE DIFFUSION COEFFICIENT, DS, (cm^2/sec).. =	0.10391134E-09
SOLUTE DISTRIBUTION PARAMETER, DG, (DIM.) .... =	218900.41
BIOT NUMBER, BI (DIM.)..... =	8.7831335
SCHMIDT NUMBER, SC, (DIM.) ..... =	1872.3348

CONSTANT PATTERN PARAMETERS FOR COMPOUND: TRICHLOROETHENE

THE MINIMUM STANTON NUMBER, STM ..... =	6.8841014
THE MINIMUM EBCT, ETMIN, (minutes) ..... =	3.8636057
THE MINIMUM EBCT, EMLEN, (cm) ..... =	63.054050
THROUGHPUT AT 95% OF THE MTZ, T95, ... =	1.5203652
THROUGHPUT AT 5% OF THE MTZ, T05, ... =	0.70733494
THE EBCT OF THE MTZ, ETMTZ, (minutes)..... =	3.1412284
THE LENGTH OF THE MTZ, EMTZL, (cm) ..... =	51.264851

CONSTANT PATTERN SOLUTION
FOR AN EBCT OF 20.00 MINUTES

Ce/Co	Ce (ug/L)	BED VOL. FED	GAC BED LIFE (DAYS)	GAC USE RATE LBS/K-gal	FIELD ADJUSTED BED LIFE (DAYS)	FIELD ADJUSTED USE RATE LBS/K-gal
0.020	2.00	83674.0	1162.1	0.04857	332.8	0.16962
0.040	4.00	84371.0	1171.8	0.04817	334.1	0.16894
0.060	6.00	84818.1	1178.0	0.04791	334.9	0.16851
0.080	8.00	85158.4	1182.8	0.04772	335.6	0.16819
0.100	10.00	85438.7	1186.6	0.04756	336.1	0.16792
0.120	12.00	85680.9	1190.0	0.04743	336.6	0.16769
0.140	14.00	85896.6	1193.0	0.04731	337.0	0.16749
0.160	16.00	86093.3	1195.7	0.04720	337.3	0.16731

0.180	18.00	86275.6	1198.3	0.04710	337.7	0.16714
0.200	20.00	86447.1	1200.7	0.04701	338.0	0.16698
0.220	22.00	86610.1	1202.9	0.04692	338.3	0.16683
0.240	24.00	86766.6	1205.1	0.04684	338.6	0.16668
0.260	26.00	86918.0	1207.2	0.04675	338.9	0.16654
0.280	28.00	87065.7	1209.2	0.04667	339.2	0.16641
0.300	30.00	87210.7	1211.3	0.04660	339.4	0.16627
0.320	32.00	87353.8	1213.2	0.04652	339.7	0.16614
0.340	34.00	87495.8	1215.2	0.04645	340.0	0.16601
0.360	36.00	87637.6	1217.2	0.04637	340.2	0.16588
0.380	38.00	87779.8	1219.2	0.04630	340.5	0.16575
0.400	40.00	87923.0	1221.2	0.04622	340.8	0.16562
0.420	42.00	88067.9	1223.2	0.04614	341.0	0.16549
0.440	44.00	88215.1	1225.2	0.04607	341.3	0.16536
0.460	46.00	88365.4	1227.3	0.04599	341.6	0.16522
0.480	48.00	88519.4	1229.4	0.04591	341.9	0.16509
0.500	50.00	88677.9	1231.6	0.04583	342.2	0.16494
0.520	52.00	88841.7	1233.9	0.04574	342.5	0.16480
0.540	54.00	89011.6	1236.3	0.04565	342.8	0.16465
0.560	56.00	89188.7	1238.7	0.04556	343.1	0.16449
0.580	58.00	89374.0	1241.3	0.04547	343.5	0.16432
0.600	60.00	89568.7	1244.0	0.04537	343.8	0.16415
0.620	62.00	89774.2	1246.9	0.04527	344.2	0.16397
0.640	64.00	89992.2	1249.9	0.04516	344.6	0.16378
0.660	66.00	90224.6	1253.1	0.04504	345.0	0.16358
0.680	68.00	90473.4	1256.6	0.04492	345.5	0.16336
0.700	70.00	90741.4	1260.3	0.04478	346.0	0.16313
0.720	72.00	91031.6	1264.3	0.04464	346.5	0.16288
0.740	74.00	91347.9	1268.7	0.04449	347.1	0.16261
0.760	76.00	91694.7	1273.5	0.04432	347.7	0.16231
0.780	78.00	92077.7	1278.9	0.04413	348.4	0.16199
0.800	80.00	92504.1	1284.8	0.04393	349.2	0.16163
0.820	82.00	92982.8	1291.4	0.04370	350.1	0.16122
0.840	84.00	93525.5	1299.0	0.04345	351.1	0.16077
0.860	86.00	94147.2	1307.6	0.04316	352.2	0.16026
0.880	88.00	94868.4	1317.6	0.04284	353.5	0.15968
0.900	90.00	95716.8	1329.4	0.04246	355.0	0.15899
0.920	92.00	96731.7	1343.5	0.04201	356.8	0.15819
0.940	94.00	97970.2	1360.7	0.04148	359.0	0.15722
0.960	96.00	99518.4	1382.2	0.04083	361.7	0.15604
0.980	98.00	101513.6	1409.9	0.04003	365.2	0.15456
1.000	100.00	104187.4	1447.0	0.03900	369.8	0.15264

PARAMETERS USED FOR EMPIRICAL EQUATION THAT DESCRIBE
SOLUTIONS TO HSDM FOR FIXED BED REACTOR

A0	A1	A2	A3	A4
0.0946020	0.7548780	0.0920690	0.0098770	0.0907630

CONSTANT PATTERN RESULTS FOR - TRICHLOROETHENE

PHYSICAL PARAMETERS:

EMPTY BED CONTACT TIME, EBCT, (MIN.) ..... = 30.000000
BULK DENSITY OF THE BED, RHOB (g/cm^3).... = 0.48699999
RADIUS OF ADSORBENT PARTICLE, RAD (cm).... = 0.52499998E-01
APPARENT PARTICLE DENSITY, RHOP (g/cm^3).. = 0.82499999
VOID FRACTION OF THE PARTICLE, EPOR..... = 0.64099997

VOID FRACTION OF BED, EBED (DIM.)..... = 0.40969697
SUPERFICIAL FLUID VELOCITY (cm/sec)..... = 0.27200001
SURFACE LOADING, SF (gpm/ft^2)..... = 4.0049281
REYNOLDS NUMBER, RE, (DIM.) ..... = 5.6236157
TEMPERATURE OF WATER, TEMP, (DEG C.) ..... = 12.000000
DENSITY OF WATER, DW, (g/cm^3) ..... = 0.99952000
VISCOSITY OF WATER, VW, (g/cm-sec) ..... = 0.12390000E-01
SURFACE/PORE DIFFUSION FLUX RATIO, PSDFR . = 3.7200000

PARAMETERS FOR COMPOUND: TRICHLOROETHENE
INITIAL BULK LIQUID-PHASE CONC., (ug/L)..... = 100.00000
FREUNDLICH ISO. CAP., K (umol/g)/(umol/L)^1/N = 159.80000
FREUNDLICH ISOTHERM EXPONENT, N (DIM.)..... = 0.48199999
MOLAL VOLUME AT THE BOILING PT. (cm^3/g-mol)... = 107.10000
MOLECULAR WEIGHT OF COMPOUND, MW ..... = 131.50000
LIQUID DIFFUSIVITY, DIFL, (cm^2/sec) ..... = 0.66205839E-05
FILM TRANSFER COEFFICIENT, KF, (cm/sec) ..... = 0.26411158E-02
SURFACE DIFFUSION COEFFICIENT, DS, (cm^2/sec).. = 0.10391134E-09
SOLUTE DISTRIBUTION PARAMETER, DG, (DIM.) .... = 218900.41
BIOT NUMBER, BI (DIM.)..... = 8.7831335
SCHMIDT NUMBER, SC, (DIM.) ..... = 1872.3348

CONSTANT PATTERN PARAMETERS FOR COMPOUND: TRICHLOROETHENE
THE MINIMUM STANTON NUMBER, STM ..... = 6.8841014
THE MINIMUM EBCT, ETMIN, (minutes) ..... = 3.8636057
THE MINIMUM EBCT, EMLEN, (cm) ..... = 63.054050
THROUGHPUT AT 95% OF THE MTZ, T95, ... = 1.5203652
THROUGHPUT AT 5% OF THE MTZ, T05, ... = 0.70733494
THE EBCT OF THE MTZ, ETMTZ, (minutes)..... = 3.1412284
THE LENGTH OF THE MTZ, EMTZL, (cm) ..... = 51.264851

CONSTANT PATTERN SOLUTION
FOR AN EBCT OF 30.00 MINUTES

Ce/Co	Ce (ug/L)	BED VOL. FED	GAC BED LIFE (DAYS)	GAC USE RATE LBS/K-gal	FIELD ADJUSTED BED LIFE (DAYS)	FIELD ADJUSTED USE RATE LBS/K-gal
0.020	2.00	85677.1	1784.9	0.04743	504.8	0.16770
0.040	4.00	86141.7	1794.6	0.04718	506.2	0.16726
0.060	6.00	86439.8	1800.8	0.04701	507.0	0.16699
0.080	8.00	86666.7	1805.6	0.04689	507.6	0.16677
0.100	10.00	86853.6	1809.4	0.04679	508.2	0.16660
0.120	12.00	87015.0	1812.8	0.04670	508.6	0.16645
0.140	14.00	87158.8	1815.8	0.04662	509.0	0.16632
0.160	16.00	87289.9	1818.5	0.04655	509.4	0.16620
0.180	18.00	87411.5	1821.1	0.04649	509.7	0.16609
0.200	20.00	87525.8	1823.5	0.04643	510.1	0.16599
0.220	22.00	87634.5	1825.7	0.04637	510.4	0.16589
0.240	24.00	87738.8	1827.9	0.04632	510.7	0.16579
0.260	26.00	87839.8	1830.0	0.04626	510.9	0.16570
0.280	28.00	87938.2	1832.0	0.04621	511.2	0.16561
0.300	30.00	88034.9	1834.1	0.04616	511.5	0.16552
0.320	32.00	88130.3	1836.0	0.04611	511.7	0.16544
0.340	34.00	88225.0	1838.0	0.04606	512.0	0.16535
0.360	36.00	88319.5	1840.0	0.04601	512.3	0.16527

0.380	38.00	88414.2	1842.0	0.04596	512.5	0.16518
0.400	40.00	88509.7	1844.0	0.04591	512.8	0.16509
0.420	42.00	88606.3	1846.0	0.04586	513.1	0.16501
0.440	44.00	88704.5	1848.0	0.04581	513.4	0.16492
0.460	46.00	88804.7	1850.1	0.04576	513.6	0.16483
0.480	48.00	88907.4	1852.2	0.04571	513.9	0.16474
0.500	50.00	89013.0	1854.4	0.04565	514.2	0.16464
0.520	52.00	89122.2	1856.7	0.04560	514.5	0.16455
0.540	54.00	89235.5	1859.1	0.04554	514.8	0.16445
0.560	56.00	89353.6	1861.5	0.04548	515.2	0.16434
0.580	58.00	89477.1	1864.1	0.04542	515.5	0.16423
0.600	60.00	89606.9	1866.8	0.04535	515.9	0.16412
0.620	62.00	89743.9	1869.7	0.04528	516.2	0.16400
0.640	64.00	89889.2	1872.7	0.04521	516.6	0.16387
0.660	66.00	90044.1	1875.9	0.04513	517.1	0.16374
0.680	68.00	90210.0	1879.4	0.04505	517.5	0.16359
0.700	70.00	90388.7	1883.1	0.04496	518.0	0.16343
0.720	72.00	90582.2	1887.1	0.04486	518.6	0.16327
0.740	74.00	90793.0	1891.5	0.04476	519.1	0.16308
0.760	76.00	91024.2	1896.3	0.04464	519.8	0.16288
0.780	78.00	91279.6	1901.7	0.04452	520.5	0.16267
0.800	80.00	91563.8	1907.6	0.04438	521.2	0.16242
0.820	82.00	91883.0	1914.2	0.04423	522.1	0.16215
0.840	84.00	92244.7	1921.8	0.04405	523.1	0.16184
0.860	86.00	92659.2	1930.4	0.04386	524.2	0.16150
0.880	88.00	93140.0	1940.4	0.04363	525.5	0.16109
0.900	90.00	93705.6	1952.2	0.04337	527.1	0.16063
0.920	92.00	94382.2	1966.3	0.04306	528.9	0.16007
0.940	94.00	95207.9	1983.5	0.04268	531.1	0.15940
0.960	96.00	96240.0	2005.0	0.04223	533.9	0.15858
0.980	98.00	97570.1	2032.7	0.04165	537.4	0.15753
1.000	100.00	99352.7	2069.8	0.04090	542.1	0.15617

PARAMETERS USED FOR EMPIRICAL EQUATION THAT DESCRIBE
SOLUTIONS TO HSDM FOR FIXED BED REACTOR

A0	A1	A2	A3	A4
0.0946020	0.7548780	0.0920690	0.0098770	0.0907630

CONSTANT PATTERN RESULTS FOR - TRICHLOROETHENE

PHYSICAL PARAMETERS:

EMPTY BED CONTACT TIME, EBCT, (MIN.) ..... = 10.000000
BULK DENSITY OF THE BED, RHOB (g/cm^3).... = 0.48699999
RADIUS OF ADSORBENT PARTICLE, RAD (cm).... = 0.52499998E-01
APPARENT PARTICLE DENSITY, RHOP (g/cm^3).. = 0.82499999
VOID FRACTION OF THE PARTICLE, EPOR..... = 0.64099997
VOID FRACTION OF BED, EBED (DIM.)..... = 0.40969697
SUPERFICIAL FLUID VELOCITY (cm/sec)..... = 0.27200001
SURFACE LOADING, SF (gpm/ft^2)..... = 4.0049281
REYNOLDS NUMBER, RE, (DIM.) ..... = 5.6236157
TEMPERATURE OF WATER, TEMP, (DEG C.) ..... = 12.000000
DENSITY OF WATER, DW, (g/cm^3) ..... = 0.99952000
VISCOSITY OF WATER, VW, (g/cm-sec) ..... = 0.12390000E-01
SURFACE/PORE DIFFUSION FLUX RATIO, PSDFR . = 3.7200000

PARAMETERS FOR COMPOUND: TRICHLOROETHENE

INITIAL BULK LIQUID-PHASE CONC., (ug/L).....	=	100.00000
FREUNDLICH ISO. CAP., K (umol/g)/(umol/L)^1/N	=	159.80000
FREUNDLICH ISOTHERM EXPONENT, N (DIM.).....	=	0.48199999
MOLAL VOLUME AT THE BOILING PT. (cm^3/g-mol)...	=	107.10000
MOLECULAR WEIGHT OF COMPOUND, MW	=	131.50000
LIQUID DIFFUSIVITY, DIFL, (cm^2/sec)	=	0.66205839E-05
FILM TRANSFER COEFFICIENT, KF, (cm/sec)	=	0.26411158E-02
SURFACE DIFFUSION COEFFICIENT, DS, (cm^2/sec)..	=	0.10391134E-09
SOLUTE DISTRIBUTION PARAMETER, DG, (DIM.)	=	218900.41
BIOT NUMBER, BI (DIM.).....	=	8.7831335
SCHMIDT NUMBER, SC, (DIM.)	=	1872.3348

CONSTANT PATTERN PARAMETERS FOR COMPOUND: TRICHLOROETHENE

THE MINIMUM STANTON NUMBER, STM	=	6.8841014
THE MINIMUM EBCT, ETMIN, (minutes)	=	3.8636057
THE MINIMUM EBCT, EMLEN, (cm)	=	63.054050
THROUGHPUT AT 95% OF THE MTZ, T95, ...	=	1.5203652
THROUGHPUT AT 5% OF THE MTZ, T05, ...	=	0.70733494
THE EBCT OF THE MTZ, ETMTZ, (minutes).....	=	3.1412284
THE LENGTH OF THE MTZ, EMTZL, (cm)	=	51.264851

CONSTANT PATTERN SOLUTION
FOR AN EBCT OF 10.00 MINUTES

Ce/Co	Ce (ug/L)	BED VOL. FED	GAC BED LIFE (DAYS)	GAC USE RATE LBS/K-gal	FIELD ADJUSTED BED LIFE (DAYS)	FIELD ADJUSTED USE RATE LBS/K-gal
0.020	2.00	77664.8	539.3	0.05232	160.5	0.17581
0.040	4.00	79058.7	549.0	0.05140	161.9	0.17431
0.060	6.00	79952.9	555.2	0.05083	162.8	0.17337
0.080	8.00	80633.5	560.0	0.05040	163.4	0.17267
0.100	10.00	81194.2	563.8	0.05005	164.0	0.17209
0.120	12.00	81678.5	567.2	0.04975	164.5	0.17160
0.140	14.00	82110.0	570.2	0.04949	164.9	0.17116
0.160	16.00	82503.3	572.9	0.04926	165.3	0.17077
0.180	18.00	82868.0	575.5	0.04904	165.6	0.17041
0.200	20.00	83210.9	577.9	0.04884	165.9	0.17007
0.220	22.00	83536.9	580.1	0.04865	166.2	0.16975
0.240	24.00	83849.9	582.3	0.04846	166.5	0.16945
0.260	26.00	84152.8	584.4	0.04829	166.8	0.16915
0.280	28.00	84448.2	586.4	0.04812	167.1	0.16887
0.300	30.00	84738.1	588.5	0.04796	167.4	0.16859
0.320	32.00	85024.3	590.4	0.04780	167.7	0.16832
0.340	34.00	85308.4	592.4	0.04764	167.9	0.16805
0.360	36.00	85592.0	594.4	0.04748	168.2	0.16778
0.380	38.00	85876.3	596.4	0.04732	168.5	0.16751
0.400	40.00	86162.7	598.4	0.04716	168.7	0.16724
0.420	42.00	86452.5	600.4	0.04701	169.0	0.16697
0.440	44.00	86747.0	602.4	0.04685	169.3	0.16670
0.460	46.00	87047.6	604.5	0.04668	169.6	0.16642
0.480	48.00	87355.6	606.6	0.04652	169.9	0.16614
0.500	50.00	87672.6	608.8	0.04635	170.2	0.16585
0.520	52.00	88000.2	611.1	0.04618	170.5	0.16555
0.540	54.00	88340.1	613.5	0.04600	170.8	0.16525
0.560	56.00	88694.2	615.9	0.04582	171.1	0.16493

0.580	58.00	89064.7	618.5	0.04563	171.5	0.16460
0.600	60.00	89454.1	621.2	0.04543	171.8	0.16425
0.620	62.00	89865.2	624.1	0.04522	172.2	0.16389
0.640	64.00	90301.2	627.1	0.04500	172.6	0.16351
0.660	66.00	90765.9	630.3	0.04477	173.0	0.16311
0.680	68.00	91263.6	633.8	0.04453	173.5	0.16268
0.700	70.00	91799.6	637.5	0.04427	174.0	0.16222
0.720	72.00	92380.0	641.5	0.04399	174.5	0.16173
0.740	74.00	93012.5	645.9	0.04369	175.1	0.16120
0.760	76.00	93706.1	650.7	0.04337	175.7	0.16062
0.780	78.00	94472.2	656.1	0.04302	176.4	0.16000
0.800	80.00	95325.0	662.0	0.04263	177.1	0.15931
0.820	82.00	96282.4	668.6	0.04221	178.0	0.15854
0.840	84.00	97367.7	676.2	0.04174	179.0	0.15769
0.860	86.00	98611.2	684.8	0.04121	180.1	0.15673
0.880	88.00	100053.5	694.8	0.04062	181.3	0.15564
0.900	90.00	101750.4	706.6	0.03994	182.8	0.15438
0.920	92.00	103780.2	720.7	0.03916	184.5	0.15292
0.940	94.00	106257.1	737.9	0.03824	186.6	0.15120
0.960	96.00	109353.6	759.4	0.03716	189.2	0.14912
0.980	98.00	113343.9	787.1	0.03585	192.5	0.14657
1.000	100.00	118691.5	824.2	0.03424	196.9	0.14336

PARAMETERS USED FOR EMPIRICAL EQUATION THAT DESCRIBE SOLUTIONS TO HSDM FOR FIXED BED REACTOR

A0	A1	A2	A3	A4
0.0946020	0.7548780	0.0920690	0.0098770	0.0907630

HADLEY INDUSTRIES

Environmental Technologies

EASTERN REGIONAL OFFICE
P.O. BOX 15416
PITTSBURGH, PA. 15237
(800) 872-9080
(412) 635-0385
(412) 635-0386 FAX LINE

FAX TRANSMISSION DATA SHEET

TO: Mr. Dan Kelmar Engineering-Science, Inc.

FROM: MARK WEISSERT

DATE: 12/20/93

TOTAL PAGES: 2 3 (INCLUDING THIS PAGE)

SUBJECT: Groundwater Project

Pursant to our telephone conversation, Hadley Industries understands that Engineering-Science will be treating groundwater at a flow rate 20-30 gpm with 100 ppb of TCE & 100 ppb of DCE. The treatment objective is less than 5 ppb.

Based upon the flow rates and the concentrations of the contaminants, the theoretical carbon usage rate is calculated at 480 pounds of carbon per month.

Based upon the above we reccomend that if the the flow rate can be maintained at 25 gpm or less the use of our Aquasorb 270. At the flow of 30 gpm our reccomendationis for our Aquasorb 537. The reason that our reccomendation of two different units is that to meet the treatment objective it is necessary to assure contact time of at least 8 minutes.

Pricing:

Aquasorb 270	Containing 800 lbs of carbon	$ 5,022.00ea.
Aquasorb 537	Containing 1,200 lbs. of carbon	$ 7,820.00ea.

We reccomend that two stage system with the units piped in Series.

All prices quoted are FOB Ludington, Mi. amd do not not include any applicable taxes.

We thank you for your intrest in Hadley Industries. Please feel to call should you have any questions.

AQUASORB™ 270

STANDARD FEATURES

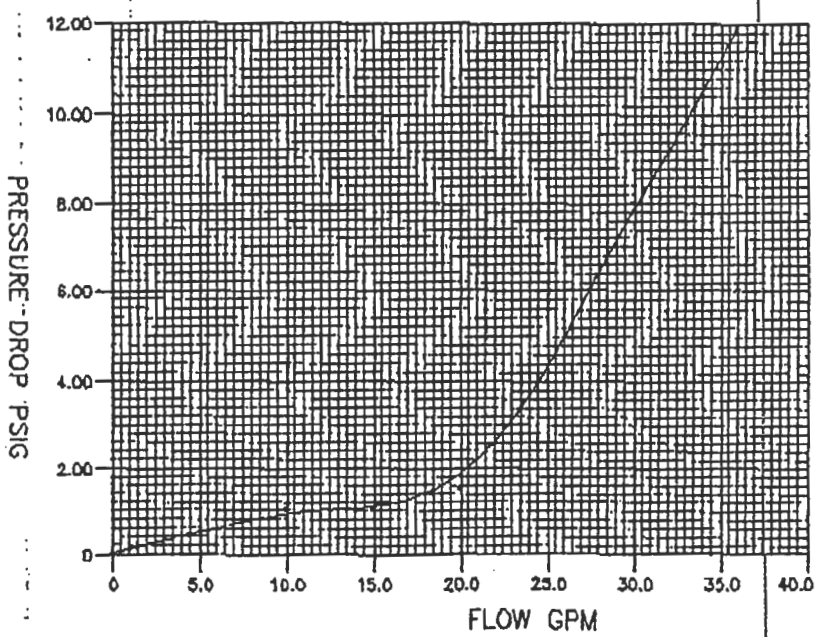
Influent	1-1/2" Sch. 80 PVC
Effluent	1-1/2" Sch. 80 PVC

SPECIFICATIONS

MAXIMUM RECOMMENDED FLOW RATE:	25 GPM		
POUNDS OF GAC:	800	SHIPPING WEIGHT (Pounds):	1,300
OPERATIONAL WEIGHT (Pounds):	3,535	OVERALL HEIGHT:	96"
TANK DIAMETER (I.D.):	35.75"	BED VOLUME (CU. FT):	28.5
BED DEPTH (IN):	49"	BED SURFACE (SQ. IN.):	1,004
HYDRAULIC LOADING RATE (GPM/SQ. FT.)		CONTACT TIME (MINUTES):	8.3
BASED ON 25.0 GPM:	3.8	CARBON TYPE:	Coal-Base
CARBON MESH:	8 x 30	TANK MATERIAL:	FRP

NOTE: THE DATA LISTED ABOVE IS SPECIFIC TO ONE TANK ASSEMBLY ONLY. HADLEY INDUSTRIES RECOMMENDS A TWO-STAGE, TWO-ADSORBER SYSTEM FOR ALL APPLICATIONS.

PRESSURE DROP CURVE



HADLEY INDUSTRIES AQUASORB 270

AQUASORB™ 537

STANDARD FEATURES

Influent	2" or 3" Sch. 80 PVC
Effluent	2" or 3" Sch. 80 PVC

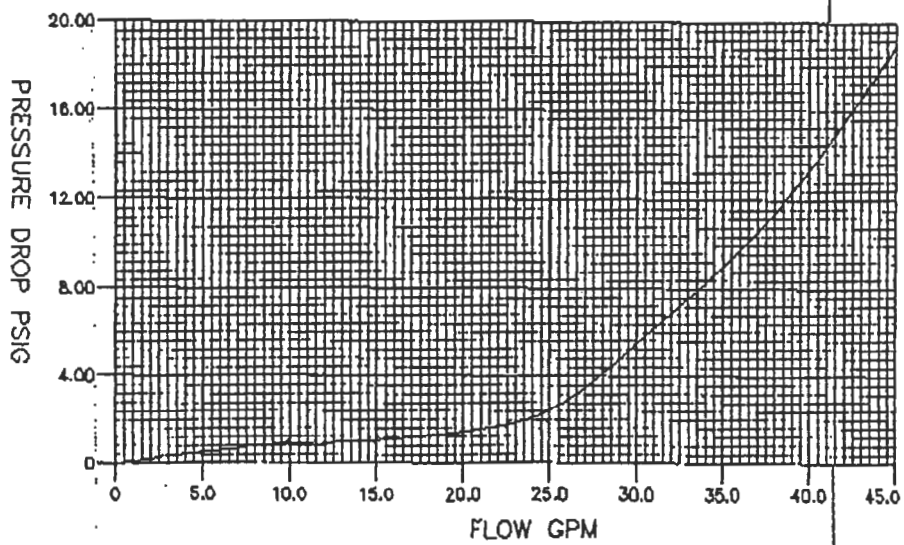
SPECIFICATIONS

MAXIMUM RECOMMENDED FLOW RATE: 50 GPM
POUNDS OF GAC: 1,200/1,500
OPERATIONAL WEIGHT (Pounds): 7,000
TANK DIAMETER (I.D.): 47"
BED DEPTH (IN): 48"
HYDRAULIC LOADING RATE (GPM/SQ. FT)
BASED ON 50.0 GPM: 3.3/4.1
CARBON MESH: 8 x 30

SHIPPING WEIGHT (Pounds): 2,300/2,600
OVERALL HEIGHT: 110"
BED VOLUME (CU. FT.)/POUNDS: 48.2/1,500
BED SURFACE (SQ. IN.): 1,735
CONTACT TIME (MINUTES): 7.8/7.8
CARBON TYPE: Coal-Base
TANK MATERIAL: FRP

NOTE: THE DATA LISTED ABOVE IS SPECIFIC TO ONE TANK ASSEMBLY ONLY. HADLEY INDUSTRIES RECOMMENDS A TWO-STAGE, TWO-ADSORBER SYSTEM FOR ALL APPLICATIONS.

PRESSURE DROP CURVE



HADLEY INDUSTRIES AQUASORB 537

IN-HOUSE CHANGEOUT COSTS

Model Liquid-Phase	Reactivate and Refill Unit List
Aquasorb™ 41	$225.00
Aquasorb™ 55	No Charge*
Aquasorb™ 60	$300.00
Aquasorb™ 82	$450.00
Aquasorb™ 270	$1,200.00
Aquasorb™ 537 (1,200 lbs.)	$1,800.00
Aquasorb™ 537 (1,500 lbs.)	$2,250.00

Model Vapor-Phase	Reactivation and Refill Unit List
Airzorb® 55	$225.00
Airzorb® 175	$750.00
Airzorb® 300	$1,350.00
Airzorb® 400	$1,800.00
Airzorb® 600	$2,700.00

*Reactivation only. Drum is not refillable.
Prices based on non-hazardous classification.

PRESSURE GAUGES, FITTINGS, AND HOSES

Pressure gauges are top-quality, oil-filled gauges designed for the appropriate operating range.

Fittings are available to assist with equipment installation and plumbing requirements.

Flexible hose assembly comes complete with the required fittings to mate to our activated carbon equipment. The hose is manufactured from either petroleum grade or chemical grade materials, designed to last the life of most projects.

Pressure Gauge Assembly	$ 86.54
Sample Port Assembly	$ 49.88

Camlock Fittings

3/4"	$ 18.65
1"	$ 19.96
1 1/2"	$ 25.57
2"	$ 30.42

Bell Reducer

1" x 3/4"	$ 7.37
1 1/2" x 3/4"	$ 12.48
2" x 3/4"	$ 19.14

Hose Assembly

3/4" x 3´	$ 96.41
3/4" x 6´	$106.42
3/4" x 12´	$121.16
3/4" x 18´	$137.66
1" x 3´	$ 96.41
1" x 6´	$103.89
1" x 12´	$118.74
1" x 18´	$133.59
1 1/2" x 6´	$119.95
1 1/2" x 12´	$136.45
1 1/2" x 18´	$152.95
2" x 12´	$160.98
2" x 18´	$185.73
3" x 12´	$226.12
3" x 18´	$262.80

INTERCONNECTING PIPING MANIFOLDS

Our manifold systems control and direct flow between installed adsorbers and include, pressure gauges, sample ports, and valves as required. Hard-plumb manifolds are manufactured from schedule 80, PVC and are designed to offer years of trouble-free service, and includes all valves, gauges, and sample ports necessary for effective operation. Soft-plumb manifolds are designed for low flow systems up to our Aquasorb™ 82 model. Both manifolds offer backwash capability.

Hard-Plumb Manifold

1-1/2" Schedule 80, PVC, 3-bed System	$5,000.00
1-1/2" Schedule 80, PVC, 2-bed System	$3,300.00
2" Schedule 80, PVC, 3-bed System	$6,000.00
2" Schedule 80, PVC, 2-bed System	$3,960.00

Soft-Plumb Manifold

1" Fittings	$1,200.00
1-1/2" Fittings	$1,500.00

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:49:29

CORA DISCHARGE TO SURFACE WATER COST MODULE (406)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: LIQUID-PHASE CARBON
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Transmission main	Gravity	CAPITAL COSTS	
Flow (GPM)	30	BASE CAPITAL COST	100,000
Length of pipe (ft)	1500	NPDES PERMIT	~~50,000~~
Depth of trench (ft)	6	DIFFUSER	0
Is diffuser required?	N		
Average temp (degrees F)	50	TOTAL CAPITAL COST	100,000
Confidence level	M	O & M COSTS	440
Protection level	D		

Cost Backup
for
Alternative MC-5

Air Stripping

SEDA ASH LANDFILL FEASIBILITY STUDY
PRELIMINARY COST ESTIMATES

Alternative: MC–5

Description: Air stripping

Unit Operation	Capital Cost	Annual O&M Cost
Groundwater monitoring	$43,000	$60,000
Site preparation	26,000	5,000
Surface water diversion	38,000	2,100
Interceptor trenches	60,000	1,000
Equalization tank/piping	30,000	1,000
In–line filter	15,000	2,000
Water softener	15,000	11,000
Air stripper	41,000	3,500
Liquid–phase carbon	20,000	6,000
Surface water discharge	100,000	1,000
Subtotal	$388,000	$92,600
Contingency (20%)	77600	18520
Engineering/Oversight (20%)	77600	18520
Total	$543,200	$129,640
Present worth O&M cost		$1,222,105
Interest =	10%	
Years of Operation =	30	
Total present worth cost	$1,765,305	

***** VERSION 3.0 DRAFT *****

DATE: 01/06/94
TIME: 11:04:50

CORA GROUNDWATER MONITORING COST MODULE (503)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Number of wells to install	10	CAPITAL COST	43,000
Average well depth (ft)	10	O & M COSTS	~~220,000~~ 60,000
Protection during setup of drill rig & installation of above-grade piping	D		
Protection during drilling	D		
Average temp (degrees F)	50		
Confidence level	M		
Number of wells to monitor	40		
Monitoring frequency	4		
Monitoring requirements:			
24 Plasma Metals	Y		
Pest/PCB	N		
GC-BN	N		
GC-Acid	N		
HSLORG	N		
VOA GC/MS	Y		
Acid GC/MS	Y		
B/N GC/MS	Y		

NOTES:

Quarterly Monitoring

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 10:56:43

CORA SITE PREPARATION COST MODULE

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS			RESULTS	
Parameter	Value	Prot. Level	Component	Total
Site clearing (acres)	15.0	D	SITE CLEARING	13,000
Tree removal (acres)	0.0		TREE REMOVAL	0
Dust control area (acres)	0.0		DUST CONTROL	0
Local util. connect.	Y		POWER CONNECTION	13,000
Distance to power pt.(ft)	500		GAS CONNECTION	0
Gas conn. req'd	N		WATER CONNECTION	0
Distance to gas conn.(ft)	0		ACCESS ROAD	0
Water conn. req'd	N		TEMPORARY STORAGE	0
Distance to wtr (ft)	0		BLDG DEMOLITION	0
Water flow (GPM)	0		FLOW EQUAL.&INVENTORY	~~260,000~~
Access rd - ft req'd	0			56,000
Acess road width (ft)	0		CAPITAL COSTS	~~286,000~~
Bldg. demolition (CY)	0		O&M (FLOW INV.)	1,100
Stored material (CY)	0			
Average temp. (deg. F)	60		BYPRODUCTS GENERATED	
Level of confidence	M		SOILS & ORGANICS (CY)	5,260

STREAM	FLOW (GPM)	RETENTION TIME (HRS)	IS PUMPING REQUIRED (Y/N)?	TOTAL TRANSFER PIPE LEN. (FT)	TRENCH IN CONTAM. MATERIAL (Y/N)?	# OF PUMP STATIONS	PROT. LEVEL (A,B, C,D,N)
1	30	6	Y	2000	N	2	D
2	0	0		0		0	
3	0	0		0		0	
4	0	0		0		0	
5	0	0		0		0	

*** Permanent utility connections are not included in technology modules with the exception of onsite incineration. Because of the specific high demand for this process, allowances have been made within the cost algorithm.

*** Equalization and inventory costs should not be confused with or used for stockpiling and rehandling costs between removal and disposal technologies. Stockpiling and rehandling costs are significant and site specific, requiring in-depth production and economic analysis beyond the scope of this conceptual resource.

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 10:59:36

CORA SURFACE WATER DIVERSION/COLLECTION COST MODULE (105)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Site on raised ground		CAPITAL COST	38,000
Length of site (ft)	2000	O & M COSTS	2,100
Width of site (ft)	1000		
25-yr, 24-hr rain (in.)	--	BYPRODUCTS FOR TRANSPORT/DISPOSAL:	
Protection level	D		
Average temp (degrees F)	50	EXCAVATED MATERIAL (CY)	
Confidence level	M	(SWELL FACTOR=1.25)	346

NOTES:

Run-on and Run-off Control

ES ENGINEERING-SCIENCE, INC.

Client Seneca Army Depot | Job No. 720489-01000 | Sheet 1 of ___
Subject Ash Landfill Remoual Action Dewatering Cost Estimate | By OMK | Date 9/23/93
Checked ___ | Rev. ___

Estimate Cost of Dewatering System

Data

2000 feet of trench
8-foot deep
3-feet wide

Trenching

From Means 6'-10' feet deep (1989)

cost is $4.26 per cubic yard

volume = (2000)(8)(3) = 48,000 ft³ = 1800 yd³

Surface Area = 2(2000)(8) + (2000)(3) = 38,000 ft²

cost = $7600

add 4% per year inflation (1.17 multiplier)

cost = $8900 Use 2.0 multiplier to account for shoring and hazardous waste site ⇒ $17,800

Materials	Quantity	Unit Cost	Total Cost		
gravel	1800 yd³	10.80	$19,440	× 1.17 =	22,745
PVC pipe (6")	2000 feet	3.33	$6,660	× 1.17 =	7792
geotextile	4500 yd²	$1.50	6,750		6750
Riser pipe (10")	100 feet	5.85	$585	× 1.17 =	685
Pumps	4	400	1,600		1600
				subtotal =	39,572

total 57,372

$60,000

BUILDING CONSTRUCTION COST DATA 1989

BK.
16.23
1989/3
1988

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022 200 | Excav, Backfill, Compact

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P
204	1300	Dozer backfilling, bulk, up to 300' haul, no compaction	B-10B	1,200	.010	C.Y.		.20	.61	.81	.97
	1400	Air tamped	B-11B	240	.067			1.28	4.01	5.29	6.30
	1600	Compacting backfill, 6" to 12" lifts, vibrating roller	B-10C	800	.015			.30	1.02	1.32	1.57
	1700	Sheepsfoot roller	B-10D	750	.016			.32	1.12	1.44	1.71
	1900	Dozer backfilling, trench, up to 300' haul, no compaction	B-10B	900	.013			.27	.81	1.08	1.29
	2000	Air tamped	B-11B	235	.068			1.31	4.09	5.40	6.45
	2200	Compacting backfill, 6" to 12" lifts, vibrating roller	B-10C	700	.017			.34	1.16	1.50	1.79
	2300	Sheepsfoot roller	B-10D	650	.018			.37	1.29	1.66	1.97
212	0010	BORROW Buy and load at pit, haul 2 miles round trip									
	0020	and spread, with 200 H.P. dozer, no compaction									
	0100	Bank run gravel (16)	B-15	600	.047	C.Y.	3.67	.87	2.34	6.88	7.90
	0200	Common borrow		600	.047		3.15	.87	2.34	6.36	7.35
	0300	Crushed stone, 1-½"		600	.047		14	.87	2.34	17.21	19.25
	0320	¾"		600	.047		14.25	.87	2.34	17.46	19.55
	0340	½"		600	.047		14.70	.87	2.34	17.91	20
	0360	⅜"		600	.047		15.20	.87	2.34	18.41	21
	0400	Sand, washed, concrete		600	.047		12.95	.87	2.34	16.16	18.10
	0500	Dead or bank sand		600	.047		3.15	.87	2.34	6.36	7.35
	0600	Select structural fill		600	.047		6.80	.87	2.34	10.01	11.35
	0700	Screened loam		600	.047		14.65	.87	2.34	17.86	20
	0800	Topsoil, weed free		600	.047		11.10	.87	2.34	14.31	16.10
	0900	For 5 mile haul, add	B-34B	200	.040			.70	1.69	2.39	2.90
222	0010	COMPACTION Steel wheel tandem roller, 5 tons (18)	B-10E	8	1.500	Hr.		30	13.55	43.55	60
	0100	10 tons	B-10F	8	1.500	"		30	21	51	68
	0300	Sheepsfoot or wobbly wheel roller, 8" lifts, common fill	B-10G	1,300	.009	C.Y.		.19	.34	.53	.65
	0400	Select fill	"	1,500	.008			.16	.30	.46	.57
	0500	Terra Probe, deep sand, vibrating 30,000 C.Y., minimum	B-43	1,800	.027			.49	.37	.86	1.15
	0520	Maximum	"	1,100	.044			.80	.61	1.41	1.88
	0540	Mobilization and demobilization, minimum	B-8	.63	102	Total		1,900	2,775	4,675	5,875
	0560	Maximum	"	.48	133	"		2,500	3,650	6,150	7,725
	0600	Vibratory plate, 8" lifts, common fill	A-1	200	.040	C.Y.		.67	.26	.93	1.30
	0700	Select fill	"	216	.037	"		.62	.24	.86	1.20
230	0010	DRILLING ONLY 2" hole for rock bolts, average	B-47	395	.061	L.F.		1.14	1.19	2.33	3.02
	0800	2-½" hole for pre-splitting, average		540	.044			.83	.87	1.70	2.21
	1600	Quarry operations, 2-½" to 3-½" diameter		715	.034			.63	.66	1.29	1.67
234	0010	DRILLING AND BLASTING Only, rock, open face, under 1500 C.Y.	B-47	225	.107	C.Y.	1.25	2	2.09	5.34	6.70
	0100	Over 1500 C.Y.	"	300	.080		1.25	1.50	1.57	4.32	5.35
	0300	Bulk drilling and blasting, can vary greatly, average									3.50
	0500	Pits, average									18
	1300	Deep hole method, up to 1500 C.Y.	B-47	50	.480		1.25	9	9.40	19.65	25
	1400	Over 1500 C.Y.		66	.364		1.25	6.80	7.10	15.15	19.45
	1900	Restricted areas, up to 1500 C.Y.		13	1.850		1.25	35	36	72.25	93
	2000	Over 1500 C.Y.		20	1.200		1.25	23	24	48.25	61
	2200	Trenches, up to 1500 C.Y.		22	1.090		1.25	20	21	42.25	56
	2300	Over 1500 C.Y.		26	.923		1.25	17.30	18.10	36.65	47
	2500	Pier holes, up to 1500 C.Y.		22	1.090		1.25	20	21	42.25	56
	2600	Over 1500 C.Y.		31	.774		1.25	14.55	15.15	30.95	40
	2800	Boulders under ½ cy, loaded on truck, no hauling	B-10Q	80	.150			3.01	4.93	7.94	9.90
	2900	Drilled, blasted and loaded on truck, no hauling	B-47	30	.800		1.25	15	15.65	31.90	41
	3100	Jackhammer operators with foreman compressor, air tools	B-9	1	40	Day		690	115	805	1,175
	3300	Track drill, compressor, operator and foreman	B-47	1	24	"		450	470	920	1,200
	3500	Blasting caps				Ea.	1.68			1.68	1.85
	3700	Explosives				Lb.	1.25			1.25	1.38
	3900	Blasting mats, rent, for first day				Ea.	39			39	43
	4000	Per added day					22			22	24
	4200	Preblast survey for 6 room house, individual lot, minimum	A-6	2.40	6.670			130		130	195
	4300	Maximum	"	1.35	11.850			230		230	345

022 200 | Excav, Backfill, Compact

		CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
2200	5000' haul	B-33E	750	.019	C.Y.		.38	2.27	2.65	3.06	246
2300	Common earth, 1500' haul		1,030	.014			.28	1.65	1.93	2.23	
2350	3000' haul		790	.018			.36	2.15	2.51	2.90	
2400	5000' haul		650	.022			.44	2.61	3.05	3.53	
2500	Clay, 1500' haul		645	.022			.44	2.63	3.07	3.55	
2550	3000' haul		495	.028			.57	3.43	4	4.63	
2600	5000' haul		405	.035			.70	4.20	4.90	5.65	
2700	Towed, 10 C.Y., ¼ push dozer, sand & gravel, 1500' haul	B-33B	560	.025			.51	2.01	2.52	2.97	
2720	3000' haul		450	.031			.63	2.50	3.13	3.69	
2730	5000' haul		365	.038			.78	3.09	3.87	4.55	
2750	Common earth, 1500' haul		420	.033			.68	2.68	3.36	3.96	
2770	3000' haul		400	.035			.71	2.82	3.53	4.15	
2780	5000' haul		310	.045			.92	3.63	4.55	5.35	
2800	Clay, 1500' haul		315	.044			.90	3.57	4.47	5.30	
2820	3000' haul		300	.047			.95	3.75	4.70	5.55	
2840	5000' haul		225	.062			1.26	5	6.26	7.40	
2900	15 C.Y., ¼ push dozer, sand & gravel, 1500' haul	B-33C	800	.018			.35	1.41	1.76	2.08	
2920	3000' haul		640	.022			.44	1.76	2.20	2.60	
2940	5000' haul		520	.027			.55	2.17	2.72	3.20	
2960	Common earth, 1500' haul		600	.023			.47	1.88	2.35	2.77	
2980	3000' haul		560	.025			.51	2.01	2.52	2.97	
3000	5000' haul		440	.032			.65	2.56	3.21	3.78	
3020	Clay, 1500' haul		450	.031			.63	2.50	3.13	3.69	
3040	3000' haul		420	.033			.68	2.68	3.36	3.96	
3060	5000' haul		320	.044			.89	3.52	4.41	5.20	
0010	**EXCAVATING, STRUCTURAL** Hand, pits to 6' deep, sandy soil	1 Clab	8	1	C.Y.		16.85		16.85	25	250
0100	Heavy soil or clay		4	2			34		34	51	
300	Pits 6' to 12' deep, sandy soil		5	1.600			27		27	41	
500	Heavy soil or clay		3	2.670			45		45	68	
0700	Pits 12' to 18' deep, sandy soil		4	2			34		34	51	
0900	Heavy soil or clay		2	4			67		67	100	
1100	Hand loading trucks from stock pile, sandy soil		12	.667			11.25		11.25	16.90	
1300	Heavy soil or clay		8	1			16.85		16.85	25	
1500	For wet or muck hand excavation, add to above				%				50%	50%	
2000	Machine excavation, for spread and mat footings, elevator pits,										
2001	and small building foundations										
2035	Common earth, hydraulic backhoe, ¾ C.Y. bucket	B-12F	90	.178	C.Y.		3.63	4.78	8.41	10.65	
2040	1 C.Y. bucket	B-12A	108	.148			3.03	4.97	8	9.95	
2050	1-½ C.Y. bucket	B-12B	144	.111			2.27	4.44	6.71	8.25	
2060	2 C.Y. bucket	B-12C	200	.080			1.63	4.46	6.09	7.35	
2070	Sand and gravel, ¾ C.Y. bucket	B-12F	100	.160			3.27	4.31	7.58	9.60	
2080	1 C.Y. bucket	B-12A	120	.133			2.72	4.47	7.19	8.95	
2090	1-½ C.Y. bucket	B-12B	160	.100			2.04	4	6.04	7.45	
3000	2 C.Y. bucket	B-12C	220	.073			1.49	4.05	5.54	6.65	
3010	Clay, till, or blasted rock, ¾ C.Y. bucket	B-12F	80	.200			4.09	5.40	9.49	12	
3020	1 C.Y. bucket	B-12A	95	.168			3.44	5.65	9.09	11.30	
3030	1-½ C.Y. bucket	B-12B	130	.123			2.51	4.92	7.43	9.15	
3040	2 C.Y. bucket	B-12C	175	.091			1.87	5.10	6.97	8.40	
9010	For mobilization or demobilization, see div. 022-274										
9020	For dewatering, see div. 021-404										
9022	For larger structures, see Bulk Excavation, div. 022-238										
9024	For loading onto trucks, add								15%		
9026	For hauling, see div. 022-266										
9030	For sheeting or soldier beams & lagging, see div. 021-614 & 624										
40	For trench excavation of strip footings, see div. 022-254										
10	**EXCAVATING, TRENCH** or continuous footing, common earth										254
0020	No sheeting or dewatering included										

022 200 | Excav, Backfill, Compact

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
254	0050	1' to 4' deep, ¾ C.Y. tractor loader/backhoe	B-11C	150	.107	C.Y.		2.05	1.16	3.21	4.35	254
	0060	½ C.Y. tractor loader/backhoe	B-11M	200	.080			1.54	1.35	2.89	3.79	
	0090	4' to 6' deep, ½ C.Y. tractor loader/backhoe	"	200	.080			1.54	1.35	2.89	3.79	
	0100	¾ C.Y. hydraulic backhoe	B-12Q	250	.064			1.31	1.32	2.63	3.40	
	0110	¾ C.Y. hydraulic backhoe	B-12F	300	.053			1.09	1.44	2.53	3.20	
	0300	½ C.Y. hydraulic excavator, truck mounted	B-12J	200	.080			1.63	2.93	4.56	5.65	
	0500	6' to 10' deep, ¾ C.Y. hydraulic backhoe	B-12F	225	.071			1.45	1.91	3.36	4.26	
	0510	1 C.Y. hydraulic backhoe	B-12A	400	.040			.82	1.34	2.16	2.69	
	0600	1 C.Y. hydraulic excavator, truck mounted	B-12K	400	.040			.82	1.77	2.59	3.15	
	0610	1-½ C.Y. hydraulic backhoe	B-12B	600	.027			.54	1.07	1.61	1.98	
	0900	10' to 14' deep, ¾ C.Y. hydraulic backhoe	B-12F	200	.080			1.63	2.15	3.78	4.79	
	0910	1 C.Y. hydraulic backhoe	B-12A	360	.044			.91	1.49	2.40	2.99	
	1000	1-½ C.Y. hydraulic backhoe	B-12B	540	.030			.61	1.19	1.80	2.20	
	1300	14' to 20' deep, 1 C.Y. hydraulic backhoe	B-12A	320	.050			1.02	1.68	2.70	3.36	
	1310	1-½ C.Y. hydraulic backhoe	B-12B	480	.033			.68	1.33	2.01	2.48	
	1320	2-½ C.Y. hydraulic backhoe	B-12S	850	.019			.38	1.77	2.15	2.52	
	1400	By hand with pick and shovel to 6' deep, light soil	1 Clab	8	1			16.85		16.85	25	
	1500	Heavy soil	"	4	2			34		34	51	
	1700	For tamping backfilled trenches, air tamp, add	A-1	100	.080			1.35	.51	1.86	2.60	
	1900	Vibrating plate, add		90	.089			1.50	.57	2.07	2.89	
	2100	Trim sides and bottom for concrete pours, common earth		600	.013	S.F.		.22	.09	.31	.43	
	2300	Hardpan		180	.044	"		.75	.29	1.04	1.44	
	2400	Pier and spread footing excavation, add to above				C.Y.				30%	30%	
	3000	Backfill trench, F.E. loader, wheel mtd., 1 C.Y. bucket										
	3020	Minimal haul	B-10R	400	.030	C.Y.		.60	.52	1.12	1.46	
	3040	100' haul	"	200	.060			1.20	1.03	2.23	2.93	
	3080	2-¼ C.Y. bucket, minimum haul	B-10T	600	.020			.40	.67	1.07	1.33	
	3090	100' haul	"	300	.040			.80	1.34	2.14	2.67	
258	0010	EXCAVATING, UTILITY TRENCH Common earth										258
	0050	Trenching with chain trencher, 12 H.P., operator walking										
	0100	4" wide trench, 12" deep	B-53	800	.010	L.F.		.21	.25	.46	.58	
	0150	18" deep		750	.011			.22	.27	.49	.62	
	0200	24" deep		700	.011			.24	.29	.53	.67	
	0300	6" wide trench, 12" deep		650	.012			.25	.31	.56	.72	
	0350	18" deep		600	.013			.27	.34	.61	.78	
	0400	24" deep		550	.015			.30	.37	.67	.85	
	0450	36" deep		450	.018			.37	.45	.82	1.04	
	0600	8" wide trench, 12" deep		475	.017			.35	.42	.77	.98	
	0650	18" deep		400	.020			.41	.50	.91	1.17	
	0700	24" deep		350	.023			.47	.58	1.05	1.33	
	0750	36" deep		300	.027			.55	.67	1.22	1.56	
	1000	Backfill by hand including compaction, add										
	1050	4" wide trench, 12" deep	A-1	800	.010	L.F.		.17	.06	.23	.32	
	1100	18" deep		530	.015			.25	.10	.35	.49	
	1150	24" deep		400	.020			.34	.13	.47	.65	
	1300	6" wide trench, 12" deep		540	.015			.25	.10	.35	.48	
	1350	18" deep		405	.020			.33	.13	.46	.64	
	1400	24" deep		270	.030			.50	.19	.69	.96	
	1450	36" deep		180	.044			.75	.29	1.04	1.44	
	1600	8" wide trench, 12" deep		400	.020			.34	.13	.47	.65	
	1650	18" deep		265	.030			.51	.19	.70	.98	
	1700	24" deep		200	.040			.67	.26	.93	1.30	
	1750	36" deep		135	.059			1	.38	1.38	1.92	
	2000	Chain trencher, 40 H.P. operator riding										
	2050	6" wide trench and backfill, 12" deep	B-54	1,200	.007	L.F.		.14	.10	.24	.32	
	2100	18" deep		1,000	.008			.16	.12	.28	.38	
	2150	24" deep		975	.008			.17	.13	.30	.39	
	2200	36" deep		900	.009			.18	.14	.32	.42	

For expanded coverage of these items see *Means Site Work Cost Data 1989*

027 150 | Sewage Systems

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
164	3160	Steel, plain oval arch culverts, plain										164
	3180	17" x 13" 16 ga., 15" equivalent	B-22	225	.133	L.F.	6.87	2.65	.56	10.08	12.15	
	3200	21" x 15" 16 ga., 18" equivalent		175	.171		8.19	3.40	.73	12.32	14.90	
	3220	28" x 20" 14 ga., 24" equivalent		150	.200		13	3.97	.85	17.82	21	
	3240	35" x 24" 14 ga., 30" equivalent		108	.278		16.25	5.50	1.18	22.93	27	
	3260	42" x 29" 12 ga., 36" equivalent	B-13	108	.519		31.25	9.40	4.27	44.92	53	
	3280	49" x 33" 12 ga., 42" equivalent		92	.609		37.63	11.05	5	53.68	63	
	3300	57" x 38" 12 ga., 48" equivalent		75	.747		34.57	13.55	6.15	54.27	65	
	3320	End sections, 17" x 13"		22	2.550	Ea.	30	46	21	97	125	
	3340	42" x 29"		17	3.290	"	154	60	27	241	290	
	3360	Multi-plate arch, steel	B-20	1,690	.014	Lb.	.53	.27		.80	.99	
168	0010	PIPING, DRAINAGE & SEWAGE, POLYVINYL CHLORIDE										168
	0020	Not including excavation or backfill										
	2000	10' lengths, S.D.R. 35, 4" diameter	B-20	375	.064	L.F.	.57	1.23		1.80	2.48	
	2040	6" diameter		350	.069		1.22	1.32		2.54	3.33	
	2080	8" diameter		335	.072		1.75	1.38		3.13	4	
	2120	10" diameter	B-21	330	.085		2.80	1.67	.26	4.73	5.85	
	2160	12" diameter		320	.088		3.95	1.72	.26	5.93	7.25	
	2200	15" diameter		190	.147		6.15	2.90	.45	9.50	11.60	
172	0010	PIPING, DRAINAGE & SEWAGE, VITRIFIED CLAY, C700										172
	0020	Not including excavation or backfill, 4' & 5' lengths										
	4030	Extra strength, compression joints, C425										
	5000	4" diameter	B-20	265	.091	L.F.	.98	1.74		2.72	3.70	
	5020	6" diameter	"	200	.120		1.63	2.30		3.93	5.25	
	5040	8" diameter	B-21	200	.140		2.54	2.75	.42	5.71	7.40	
	5060	10" diameter		190	.147		4.22	2.90	.45	7.57	9.50	
	5080	12" diameter		150	.187		5.57	3.67	.56	9.80	12.25	
	5100	15" diameter		110	.255		10.36	5	.77	16.13	19.75	
	5120	18" diameter		88	.318		15.60	6.25	.96	22.81	28	
	5140	24" diameter		45	.622		29	12.25	1.88	43.13	52	
	5160	30" diameter	B-22	31	.968		33.80	19.20	4.10	57.10	71	
	5180	36" diameter	"	20	1.500		52	30	6.35	88.35	110	
	6000	3' lengths, add to above					30%					
	6020	2' lengths, add to above					40%					
	6040	For die cast slip joints compared to premium joints					90%					
	6060	For plain joints compared to compression joints					75%					
	7060	2' lengths, add to above					40%					
174	0010	SEWAGE PUMPING STATIONS Prefabricated steel, concrete										174
	0020	or fiberglass, 200 GPM	C-17D	.17	494	Total	23,300	11,000	3,100	37,400	45,700	
	0200	1,000 GPM		.07	200		34,450	26,800	7,525	68,775	86,500	
	0500	Add for generator unit, 200 GPM, steel		.34	247		17,800	5,500	1,550	24,850	29,600	
	0600	Concrete		.51	165		11,130	3,675	1,025	15,830	18,900	
	1000	Add for generator unit, 1,000 GPM, steel		.30	280		18,900	6,250	1,750	26,900	32,100	
	1200	Concrete		.38	221		15,900	4,925	1,375	22,200	26,400	
	1500	For wet well, if required, add	B-23	.50	80		4,560	1,375	955	6,890	8,150	
176	0010	SEWAGE TREATMENT Not incl. fencing or external piping										176
	0020	Steel packaged, blown air aeration plants										
	0100	1,000 GPD				Gal.					11.40	
	0200	5,000 GPD									7.50	
	0300	15,000 GPD									4.15	
	0400	30,000 GPD									4.05	
	0500	50,000 GPD									2.95	
	0600	100,000 GPD									2.70	
	0700	200,000 GPD									1.90	
	0800	500,000 GPD									2.10	
	1000	Concrete, extended aeration, primary and secondary treatment										
	1010	10,000 GPD				Gal.					8.65	

For expanded coverage of these items see *Means Site Work Cost Data 1989*

MIRAFI®
140N

SUBSURFACE DRAINAGE

Drainage Fabric

Good drainage is essential for soil stability. In order for drainage structures to be effective — along highways, in embankments, under airfields and athletic fields, or anywhere — they must have a properly designed protective filter.

Traditionally, graded-aggregate filter systems have been used with limited success to prevent soil particles from migrating into subsurface drainage structures. However, these aggregate drains have several inherent problems, including high cost and difficult installation.

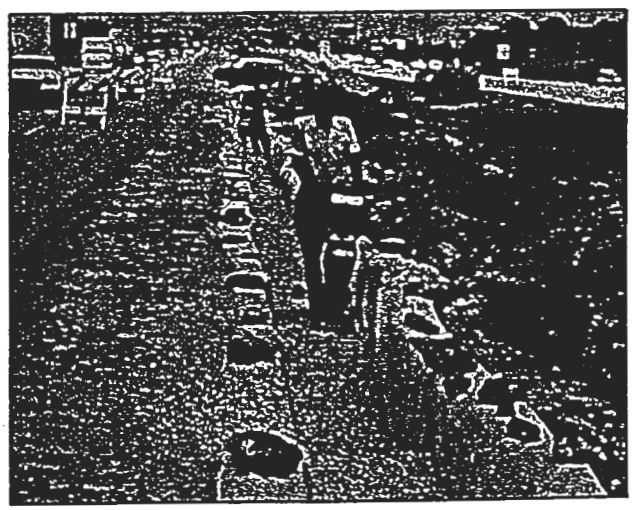
Mirafi **140N**, a nonwoven filter fabric, provides an effective, cost-efficient alternative to graded-aggregate filters. Among its design features are:

- Easily conforms to the ground or trench surface for fast and trouble-free installation;
- Creates a superior filter media because of its high water flow rate and excellent filtration properties;
- Meets severe stresses of installation with its high puncture and burst resistance.

Mirafi **140N** eliminates many of the problems associated with graded-aggregate filters, including:

- Determining the aggregate gradation required to match soil conditions;
- Finding a convenient and economical source of a specific aggregate gradation;
- Transporting and placing a graded aggregate;
- Assuring that the in-place aggregate gradation provides effective filter performance.

An additional benefit of Mirafi **140N** is that the drain size can often be reduced when Mirafi fabric is installed because the thick, graded-aggregate layer is eliminated. As a result, less excavation and less aggregate will be required.



Mirafi 140N Fabric Properties

Fabric Property	Unit	Test Method	Typical Values[1]
Grab Tensile Strength	lb	ASTM D-1682-64	120
Grab Tensile Elongation	%	ASTM D-1682-64	55
Burst Strength	psi	ASTM D-3786-80a[2]	210
Trapezoid Tear Strength	lb	ASTM D-1117-80	50
Puncture Strength	lb	ASTM D-3787-80[3]	70
Coefficient of Permeability, k	cm/sec	CFMC GET-2	0.2
Water Flow Rate	gal/min/sf	CFMC GET-2	285

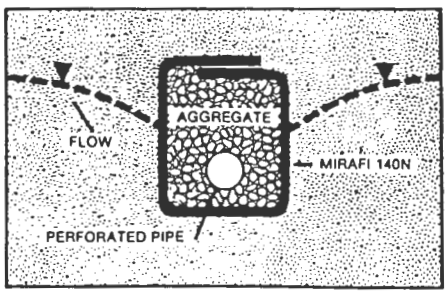
Mirafi 140N Packaging

Roll Width (ft.)	Roll Length (ft.)	Roll Wt. (lbs.)
15.0	360	185
12.5	360	175

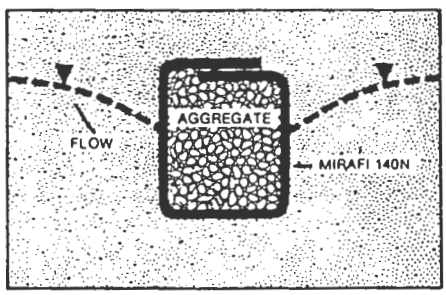
[1]The values listed are average values. Contact the Mirafi Technical Department for minimum certifiable values.
[2]Diaphragm Bursting Tester.
[3]Tension Testing Machine with ring clamp; steel ball replaced with a 5/16-inch diameter solid steel cylinder centered within the ring clamp.

To the best of our knowledge, the information contained herein is accurate. However, Mirafi, Inc. cannot assume any liability whatsoever for the accuracy or completeness thereof. Final determination of the suitability of any information or material for the use contemplated, of its manner of use, and whether the suggested use infringes any patents is the sole responsibility of the user.

Type of Fabric Wrapped Drains

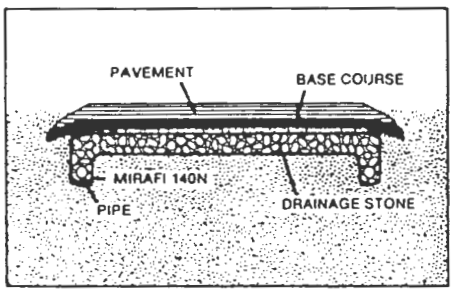


Conventional Drain (with pipe)

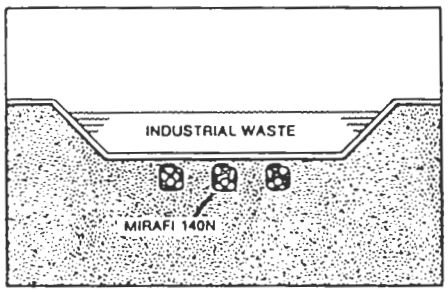


French Drain (without pipe)

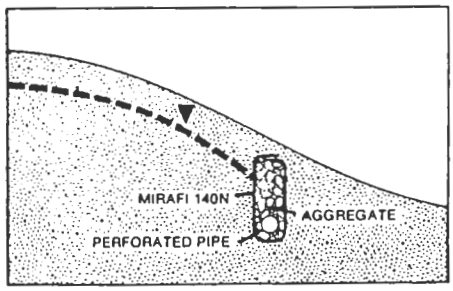
Typical Drain Applications



Blanket Drain & Edge Drain



Pond Underdrain



Interceptor Drain

MIRAFI INC
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MIRAFI INC. P.O. BOX 240967/CHARLOTTE, N.C. 28224
(704) 523-7477 or (800) 438-1855/TELEX 216903 MRFI

MIRAFI INC

CIVIL
ENGINEERING
FABRICS

February 1, 1988

FABRIC	WT/SY	ROLL SIZE	ROLL WT	PRICE*
DRAINAGE:				
Mirafi 140N	4.5 oz.	15' x 360'(600 sy)	184 lbs.	$.85/sy
Mirafi 140N	4.5 oz.	12.5' x 360'(500 sy)	153 lbs.	$.85/sy
Mirafi 140NL	3.5 oz.	15' x 420'(700 sy)	170 lbs.	$.75/sy
STABILIZATION:				
Mirafi 400X	3.5 oz.	12.5 x 576'(800 sy)	176 lbs.	$.75/sy
Mirafi 500X	4.0 oz.	12.5' x 432'(600 sy)	173 lbs.	$.80/sy
Mirafi 500X	4.0 oz.	17.5' x 309'(600 sy)	179 lbs.	$.80/sy
Mirafi 500X	4.0 oz.	25' x 216'(600 sy)	179 lbs.	$.85/sy
Mirafi 600X	6.0 oz.	12.5' x 360'(500 sy)	210 lbs.	$1.05/sy
Mirafi 600X	6.0 oz.	25' x 180'(500 sy)	210 lbs.	$1.10/sy
EROSION CONTROL:				
Mirafi 700XG	6.5 oz.	13' x 300'(433 sy)	200 lbs.	$1.30/sy
Mirafi 700X	6.5 oz.	6' x 300'(200 sy)	92 lbs.	$1.40/sy
Mirafi 700X	6.5 oz.	12' x 300'(400 sy)	184 lbs.	$1.42/sy
Mirafi 700X	6.5 oz.	18' x 150'(300 sy)	131 lbs.	$1.45/sy
Miramat2400	24.0 oz.	3.75' x 180'(75 sy)	135 lbs.	$.80/sf
Miramat1800	18.0 oz.	3.75' x 264'(110 sy)	135 lbs.	$.65/sf
SEDIMENT CONTROL:				
Envirofence		3' x 100'(100 lf)	35 lbs.	$1.50/lf
LANDSCAPE:				
Mirascape	3.0 oz.	3' x 300'(100 sy)	15 lbs.	$.75/sy
Mirascape	3.0 oz.	6' x 300'(200 sy)	28 lbs.	$.75/sy
Mirascape	3.0 oz.	9' x 300'(300 sy)	40 lbs.	$.75/sy
PREFABRICATED DRAINAGE SYSTEM:				
Miradrain 5000*		4' x 50'(200 sf)	50 lbs.	$1.50/sf
Miradrain 6000		10 panels/roll 4' x 8'(320 sf)	70 lbs.	$1.40/sf
Miradrain 6000		1 panel/roll 4' x 25'(100 sf)	25 lbs.	$1.40/sf
Miradrain 6000		1 panel/roll 4' x 50'(200 sf)	50 lbs.	$1.40/sf
Miradrain 9000		4' x 50'(200 sf)	50 lbs.	$1.60/sf

*Miradrain 5000 replaces Miradrain 4000

(OVER)

FABRIC	WT/SY	ROLL SIZE	ROLL WT	PRICE*
PAVEMENT OVERLAY:				
Mirafi 900N	4.0 oz.	12.5' x 360'(500 sy)	153 lbs.	$.75/sy
NON WOVEN (impermeable liner protection and railroad use):				
Mirafi 180N	8.0 oz.	13' x 300'(433 sy)	230 lbs.	$1.30/sy
Mirafi 180N	8.0 oz.	17.5' x 300'(583 sy)	310 lbs.	$1.30/sy
Mirafi 1120N	12.0 oz.	13' x 300'(433 sy)	310 lbs.	$1.75/sy
Mirafi 1120N	12.0 oz.	17.5' x 300'(583 sy)	410 lbs.	$1.75/sy
Mirafi 1160N	16.0 oz.	13' x 150'(217 sy)	230 lbs.	$2.60/sy
Mirafi 1160N	16.0 oz.	17.5' x 150'(292 sy)	315 lbs.	$2.60/sy
WOVEN (heavy weight, high performance):				
Mirafi 1000HP	10 oz.	15' x 240'(400 sy)	265 lbs.	$2.50/sy
Mirafi 1200HP	12 oz.	15' x 240'(400 sy)	315 lbs.	$2.90/sy
Mirafi 2100HP	21 oz.	12' x 105'(140 sy)	200 lbs.	$6.90/sy
SPECIALITY PRODUCTS:				
Mirafi coated fabric MCF 1212		12' x 300'(400 sy)	190 lbs.	$2.25/sy
Geonet 250		6.25' x 100'(625 sf)	80 lbs.	$.70/sf
Geonet 250 - with fabric		6.25' x 100'(625 sf)	80 lbs.	$.95/sf

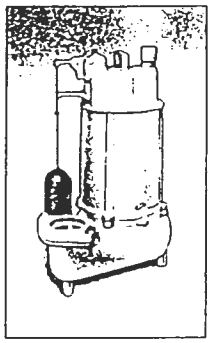
Manufacturers Representative: R. P. Martino and Company
2 Ledge Drive
Georgetown, MA 01833
617-352-2106

*Prices are for estimating purposes only. Call your local Mirafi representative or distributor for current prices and availability.

Fabric seaming available, price upon request.

Centrifugal Sewage Pumps

Submersible Automatic Sewage Ejector Pumps



- For 1¼" or 1½" solids
- Up to 9300 GPH capacities
- ½-HP motor

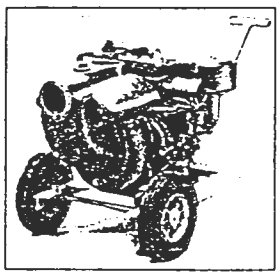
Continuous-duty pumps work tirelessly to pump sewage or other liquids containing solid matter. Built-in float switch provides automatic operation and has a quick-change feature for fast replacement if necessary. Pump also has a 10½-ft. power cord with 3-prong plug for manual use. Pumps have threaded flange connections, cast iron housing, and a 2-vane, ductile iron open impeller with a stainless steel shaft. Thermal overload-protected motor is ½ hp, 1750 rpm, 115 VAC, 60 Hz, 1 ph. Min. sump dia. is 13". Max. liquid temperature is 160° F. Pump height is 17⅜".

High-temperature (to 200° F) and 230 V models are available. Specify No. 9949K888, voltage, temperature, and discharge size. Prices on request.

PUMP PERFORMANCE					
Discharge	Head, Ft.	5	10	15	20
1½"	GPH	8220	6900	5400	3600
2"	GPH	8700	7500	6000	4200
3"	GPH	9300	8100	6480	4620

Discharge	Max. Dia., Solids	No.	NET EACH
1½"	1¼"	9949K19	$378.33
2"	1½"	9949K21	385.09
3"	1½"	9949K23	392.09

Solids Handling Pump



- For 1¾" solids
- 22,800 GPH capacity
- 10-HP engine

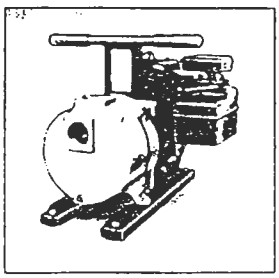
Extra heavy duty centrifugal unit gets the job done on hard-to-pump silt, rocks, sand, slurries, sludge, trash and sewage . . . handles large flows and solids up to 1¾" diameter. Self-priming pump performs suction lifts up to 25 feet. Pump has an aluminum housing with mechanical seals and a two-blade, nonclogging impeller. The 10-hp Briggs & Stratton, air-cooled, 3600 rpm, gasoline engine has recoil start and a 4-qt. fuel tank. Ports are 3" npt.

Pump is mounted on a heavy-duty steel frame with 10" pneumatic wheels and a handle for portability. Pump weighs 265 lbs.

PUMP PERFORMANCE				
Head, Ft.	25	40	60	90
GPH	22,800	18,420	13,500	4,500

No. 4388K22 ..... NET EACH $1612.68

Alumi-Lite Trash Pumps



- For 1" or 1½" solids
- Up to 20,400 GPH capacity

These self-priming pumps are constructed of lightweight aluminum, making them extremely portable but no less durable than heavier metals. Pumps are capable of suction lifts up to 25 feet. They welcome the dirty jobs, and really go into action to handle silt, rocks, sand, muddy water, sludge, trash and sewage.

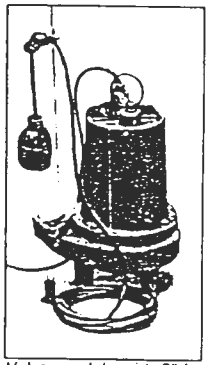
Impeller and volute are made of cast iron. Mechanical seal with a stainless steel shaft sleeve.

Powered by a Briggs & Stratton air-cooled, 4-cycle, 3600 rpm, gasoline engine with recoil start. Pumps include rubber foot mounts, a suction strainer, and a handy T-style handle for added portability.

PUMP PERFORMANCE					
Port	Head, Ft.	20	40	60	90
2"	GPH	10,800	9,240	7,200	3,120
3"	GPH	20,400	17,400	13,080	5,040

Port Size	Max. Dia., Solids	HP	Wt., Lbs.	No.	NET EACH
2"	1"	5	71	4338K46	$668.69
3"	1½"	8	105	4338K48	1024.21

Automatic High Head Sewage Pumps



- For 1½" solids
- Up to 8520 GPH capacity
- 4/10- or ½-HP motor

Submersible, heavy-duty pumps make short work of waste, sewage, and solids up to 1½". Pumps have a mercury float control switch with piggyback plug to turn pump on and off automatically at levels you set. Switch mounts to discharge pipe with an adjustable stainless steel clamp.

Cast iron body and housing have a 416 stainless steel shaft. Thermal overload-protected motor is 115 VAC, 60 Hz, 1 ph. Furnished with 15-ft. grounded power cord. Minimum sump diameter is 14". Minimum sump depth is 30". Available in 4/10- and ½-hp models with 2" fpt discharge.4/10-HP PUMP—Has a molded, glass-filled thermoplastic impeller and 1700 rpm motor. Max. temperature is 150° F. Pump ht. is 16½".

PUMP PERFORMANCE					
Head, Ft.	5	10	15	20	25
GPH	5400	4800	4080	3120	600

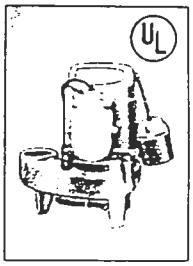
No. 5143K17 ..... NET EACH $307.83

½-HP PUMP—Has cast iron impeller and 1625 rpm motor. Maximum temperature is 160° F. Pump height is 19⅜" UL listed.

PUMP PERFORMANCE					
Head, Ft.	5	10	15	20	25
GPH	8520	7200	5400	3300	720

No. 5143K18 ..... NET EACH $414.29

UL-Listed Sewage Pumps



- For ½", ¾", or 2" solids
- Up to 6600 GPH capacity
- ½-, 4/10-, or ½-HP motor

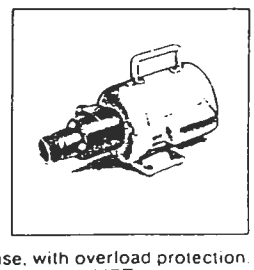
Move waste water and sewage out of collection areas to sewer or septic lines with these completely submersible, cast iron pumps. A float switch turns pump on and off automatically. You can set the pump to turn on at 9" to 14" and off at 2" to 6". Protective epoxy coating guards against rust and corrosion. Lifetime lubricated, thermal overload-protected motor is 115 VAC, 60 Hz, single phase. Furnished with 15-ft. power cord. Vortex impeller is nylon. Min. sump dia. is 18". Min. sump depth is 30". UL and CSA listed.

PUMP PERFORMANCE					
No.	Head, Ft.	5	10	15	20
42935K22	GPH	3000	2500	1600	—
42935K23	GPH	3120	2700	1980	—
42935K24	GPH	4800	3420	1440	—
42935K25	GPH	6600	5640	3900	840

HP	Discharge, FPT	Max. Dia., Solids	Ht.	No.	NET EACH
⅓	1½"	½"	10¼"	42935K22■	$131.21
⅓	1½"	¾"	8½"	42935K23■	177.23
4/10	2"	2"	11 1/16"	42935K24	251.45
½	2"	2"	12¾"	42935K25	362.41

■ Effluent pump with 10-ft. power cord.

Compact Grinder Pumps



- Turns up to 1½" semi-solids into ¼" particles
- 1080 GPH capacity

An ideal solution to small waste-handling problems. Grind waste, tissue, and certain semi-solids down to a maximum particle size of ¼". Not recommended for handling hard objects and rags. Mount these self-priming pumps anywhere. Equipped with a flexible Nitrile impeller with stainless steel wear plate and a cast bronze grinder plate.

Pump motor is 115 VAC, 60 Hz, 1 phase, with overload protection. Outlet port has 1" ID hose barb. Inlet port is 1½" MPT.

PUMP PERFORMANCE (Based on Water)				
Head, Ft.	5	10	20	30
GPH	840	780	648	516

No. 6766K12 ..... NET EACH $406.25

12/22/93 12:13

JMS Manufacturing Co., Inc.
d/b/a BEE FIBERGLASS

198 Airport Road
Fall River, MA 02720
508-675-1141
FAX 508-675-1142

December 22, 1993

Engineering Science
101 Huntinton Ave.
Boston, MA 02199

Attn: Mr. Bowman Harvey

Re: FRP Tank
Bee project #93-541

Gentlemen,

We thank you for your inquiry and are pleased to offer our budgetary quotation as follows.

Item	Qty	Description
A	1	10'-0" dia. x 18'-0" Straight side, Flat bottom, flat top fiberglass tank with four lifting lugs. Budgetary Price Each.....$12,800.00

Item A will be contact molded to ASTM D4097 standards using Reichhold 33-402 resin and a 10 mil "c" veil liner.

Terms: To be determined
F.O.B. Fall River, MA. freight collect.
Prices quoted are valid for 30 days.

Delivery: Will be 4-6 weeks after receipt of approved drawings.

Drawings: Will be 1 week after receipt of purchase order.

If you have any questions please do not hesitate to contact this office.

Sincerely,

John A. Amarello
Project Engineer

JAA:ds

Remedial Systems, Inc.

56 Leonard Street
Foxboro, MA 02035-2929
(508) 543-1512
FAX (508) 543-7485

January 5, 1994

Dan Kelmar
Engineering Science
Prudentail Center - 101 Huntington Ave
Bostson, MA 02199

Tel: 617-859-2437
Fax: 617-859-2043

Subject: RSI Quotation # **SYS-01-0594-MA**
Proj: Sead Ash Landfill

Dear Dan,

Remedial Systems Inc. (RSI) is pleased to present the following quotation for the above refereaced project.

Item 1: 2 - Water Depression Pump capable of **16 GPM @ 80' TDH**, 1/2 HP, 230V, 1 PH, Motor, all stainless steel construction, teflon seals, pump comes complete with 25' of (1.5") petroleum resistant discharge hose, and 25' of sheathed, petroleum resistant power lead.

$ 870.00 each

Item 2: 1 - **Total Fluids Well Probe** for use in single well water recovery, intrinsically safe, with 50 feet of cable.

$ 225.00 each

Item 3: (1) - RSI Low Profile Stripper Model **RTS-50-3** designed to meet the following conditions:

Chemical	Influent (ppb)	Effluent (ppb)	Removal (%)
TCE	100	1	99
c 1,2 DCE	120	1	99.17
Vinyl Chloride	20	1	95
Total	240	3	98.75

Water Temperature 50° F
Flowrate 30 gpm

Height	56"
Length	86"
Width	36"
Blower	230V, 1 ph, TEFC

This equipment includes inlet piping, liquid distributor, air discharge, demister, temperature gauge, pressure gauge, air inlet, blower, drainage sump, siphon drain, 3 level sump switch, and blower fail safe switch.

$ 11,610.00

Item 4: (1) - Transfer Pump, self priming, capable of 30 gpm @ 40 feet TDH, 230V, single phase, TEFC motor.

$ 695.00

Item 5: (1) - Stainless Steel Bag Filter ccapable of 50 GPM, 10 Micron filter bags.

$ 1,295.00

Item 6: 1 - **LP-50** Liquid Phase Carbon Vessel:

- Max. Flowrate 56 GPM
- Max. Pressure 12 psig
- Max. Temp 125 °F
- Diameter 34"
- Overall Height 57"
- Inlet / Outlet 3" NPT
- Virgin Carbon 500 lbs
- Shipping Weight 1000 lbs

Carbon Vessels are constructed of mild steel with a high quality two layer epoxy interior coating and a hard enamel finish exterior.

$ 3,180.00 each

- Approximate cost for reactivation $ 360.00 each
- Approximate disposal cost $ 150.00 each

Item 7: (2) - **VP-600**, Vapor Phase Carbon Vessel:

- Max. Flowrate	600 CFM
- Max. Pressure	12 psig
- Max. Temp	125° F
- Footprint	34" X 46"
- Overall Height	57"
- Tank Height	42"
- Tank Diameter	32"
- Inlet / Outlet	3" NPT
- Virgin Carbon	500 lbs
- Shipping Weight	1000 lbs

Carbon Vessels are constructed of mild steel with a high quality two layer epoxy interior coating and a hard enamel finish exterior.

$ 3,950.00 each

Item 8: (1) - **RSI Control Panel** capable of operating and controlling (2) Water Table Depression Pump, (1) transfer pump and a complete Air Stripper System. (NEMA 4 weathertight enclosure)

$ 2,450.00

Item 9: (1) - **Optional Telemetry Module**. With this option, the user may remotely monitor and operate the site from an IBM-PC compatible computer equipped with a phone modem. The user will have information on all analog and digital inputs, outputs, cycle timers, and run times of each output in the system.

$ 2,495.00

- F.O.B. Factory
- Delivery: 5-6 weeks, after approval of drawings
- Terms: Net 30 days (subject to credit approval)
- Leasing Rates Available

Offer Valid for 90 days

If you have any additional questions, please do not hesitate to contact me.

Sincerely,

Brendan Boulerice

BAB
Enc: GB

THE COMPOUND IS trans-DCE

HENRY"S COEF., CU.M WATER/CU.M AIR	=	0.08300	
TOTAL DESIGN FLOW, GPM	=	30.00	(0.00189 CU.M/SEC)
TOTAL AVG FLOW, GPM	=	25.00	(0.00158 CU.M/SEC)
INFLUENT CONC., ug/L	=	120.000	
EFFLUENT CONC., ug/L	=	5.000	
EQUILIBRIUM CONC., ug/L	=	46.185	
WATER TEMPERATURE, deg-K	=	285.0	
ATMOSPHERIC PRESSURE, ATM	=	1.00	
TYPE OF PACKING MEDIA:	=	2 INCH-SADDLES	
PRESS DROP: MEDIA, N/SQ.M/M	=	100.0	
AIR-TO-WATER RATIO	=	30.0	
MINIMUM A/W RATIO	=	11.55	
DESIGN AIRFLOW RATE, CFM	=	120.32	(0.06 CU.M/SEC)
STRIPPING FACTOR	=	2.49	
KLa MASS-TRANS COEFF, 1/SEC	=	0.011322	
LIQUID LOADING, GPM/SQ.FT	=	30.00	
TOWER DIAMETER, FT	=	1.13	(0.34 M)
TOTAL TOWER X-SECT AREA, SQ.FT	=	1.0	(0.1 SQ.M)
PACKING HEIGHT, FT	=	26.56	(8.10 M)
TOTAL PACKING VOLUME, CU.FT	=	26.6	(0.8 CU.M)
NUMBER OF TOWERS	=	1.0	
REMOVAL EFFICIENCY, %	=	95.83	
DESIGN POWER FOR BLOWERS, KW/HOUR	=	0.29	
DESIGN POWER FOR PUMPS, KW/HOUR	=	0.38	

PRELIMINARY COST ESTIMATES FOR SYSTEM:

PTA CONSTRUCTION COST ($)	=	33171.	
INDIRECT CONSTRUCTION ($)	=	7961.	
TOTAL PTA CONSTRUCTION ($)	=	41132.	
PTA AMORTIZED CAPITAL ($/YR)	=	4831.	(36.8 CENTS/1000 GAL)
TOWER PUMPING POWER ($/YR)	=	222.	
BLOWER ELECTRIC ($/YR)	=	201.	
FIN-WATER PUMP POWER ($/YR)	=	144.	
MAINTENANCE MATERIAL ($/YR)	=	113.	
PTA O&M LABOR ($/YR)	=	2796.	
SUM PTA O&M COST ($/YR)	=	3476.	(26.5 CENTS/1000 GAL)
TOTAL PTA SYSTEM COST ($/YR)	=	8307.	(63.2 CENTS/1000 GAL)

THE COMPOUND IS TRICHLOROETHYLENE

HENRY"S COEF., CU.M WATER/CU.M AIR	=	0.11600	
TOTAL DESIGN FLOW, GPM	=	30.00	(0.00189 CU.M/SEC)
TOTAL AVG FLOW, GPM	=	25.00	(0.00158 CU.M/SEC)
INFLUENT CONC., ug/L	=	100.000	
EFFLUENT CONC., ug/L	=	5.000	
EQUILIBRIUM CONC., ug/L	=	27.299	
WATER TEMPERATURE, deg-K	=	285.0	
ATMOSPHERIC PRESSURE, ATM	=	1.00	
TYPE OF PACKING MEDIA:	=	2 INCH-SADDLES	
PRESS DROP: MEDIA, N/SQ.M/M	=	200.0	
AIR-TO-WATER RATIO	=	30.0	
MINIMUM A/W RATIO	=	8.19	
DESIGN AIRFLOW RATE, CFM	=	120.32	(0.06 CU.M/SEC)
STRIPPING FACTOR	=	3.48	
KLa MASS-TRANS COEFF, 1/SEC	=	0.010215	
LIQUID LOADING, GPM/SQ.FT	=	30.00	
TOWER DIAMETER, FT	=	1.13	(0.34 M)
TOTAL TOWER X-SECT AREA, SQ.FT	=	1.0	(0.1 SQ.M)
PACKING HEIGHT, FT	=	24.58	(7.49 M)
TOTAL PACKING VOLUME, CU.FT	=	24.6	(0.7 CU.M)
NUMBER OF TOWERS	=	1.0	
REMOVAL EFFICIENCY, %	=	95.00	
DESIGN POWER FOR BLOWERS, KW/HOUR	=	0.42	
DESIGN POWER FOR PUMPS, KW/HOUR	=	0.36	

PRELIMINARY COST ESTIMATES FOR SYSTEM:

PTA CONSTRUCTION COST ($)	=	32638.	
INDIRECT CONSTRUCTION ($)	=	7833.	
TOTAL PTA CONSTRUCTION ($)	=	40471.	
PTA AMORTIZED CAPITAL ($/YR)	=	4754.	(36.2 CENTS/1000 GAL)
TOWER PUMPING POWER ($/YR)	=	212.	
BLOWER ELECTRIC ($/YR)	=	297.	
FIN-WATER PUMP POWER ($/YR)	=	144.	
MAINTENANCE MATERIAL ($/YR)	=	112.	
PTA O&M LABOR ($/YR)	=	2762.	
SUM PTA O&M COST ($/YR)	=	3527.	(26.8 CENTS/1000 GAL)
TOTAL PTA SYSTEM COST ($/YR)	=	8281.	(63.0 CENTS/1000 GAL)

ShallowTray™
low profile air strippers

December 21, 1993

Dan Kelmar
Engineering Science
Prudential Cntr., 101 Huntington Ave.
Boston, MA 02199

RE: Proposal #1293530
SITE ID: Senaca Army Depot

Dear Dan,

I have selected two options, our polyethylene **two-tray Model 2321-P** or our stainless steel **two-tray 2321** ShallowTray® low profile air strippers for your groundwater remediation application.

I understand that the maximum treatment flow rate is **30 gpm** and the water temperature is 50°F. ShallowTray systems are more tolerant of inorganics than other types of aeration equipment, however, high concentrations can cause operational difficulties if proper precautions are not taken.

Expected performance for both the ShallowTray air strippers operating at **30 gpm** (normal operation range is 1-45 gpm) and **50°F** is as follows:

Contaminant	Untreated ppb	After 1st Tray ppb	After 2nd Tray ppb
Trichloroethylene	100	15	3
c-1,2-Dichloroethylene	100	15	3

The power requirements as specified are 230 Volt, 1 phase, 3 wire and ground. If site requirements differ, please contact our office.

The price for the ShallowTray Model 2321-P, with optional components, is listed below:

Basic System Model 2321-P Sump tank & 1 tray, polyethylene 1 Additional tray(s), polyethylene	
Blower, 2 tray, 2 hp, 300 cfm @ 10wc, 1 phase, 230V, TEFC	
Inlet screen and damper, 304L stainless steel demister, spray nozzle, sight tube, gaskets, stainless steel latches, Schedule 80 PVC piping.	
Basic System Price	**$7,007**

North East Environmental Products 17 Technology Drive West Lebanon NH 03784 (603) 298-7061 Fax (603) 298-7063

Options		
Aluminum Frame	1	$525
Air pressure gauge	1	$74
Oil / Water separator	0	$0
Oil / Water separator options (alarm & hi-level switches, frame)	0	$0
Feed pump, 30 gpm, 50 tdh, 1.5 hp, 1 phase, 230V, TEFC	1	$481
Discharge pump, 30 gpm, 50 tdh, 1.5 hp, 1 phase, 230V, TEFC	1	$481
Additional blower	0	$0
Blower start/stop panel	0	$0
NEMA 3R main disconnect switch	1	$98
Standard NEMA 3R control panel with alarm interlocks, motor starter, alarm light, UL Listed	0	$0
Standard NEMA 3R control panel with pump level controls, alarm interlocks, motor starter, alarm light, UL Listed	1	$2,324
NEMA 3R, 4, 4X, PurgePanel™ with alarm interlocks, motor starter(s), alarm light, purged panel components	0	$0
Control panel IS components	0	$0
Intermittent operation	1	$728
Strobe alarm light	0	$0
Alarm horn	0	$0
Low air pressure alarm switch	1	$171
High water level alarm switch	1	$70
Discharge pump level switch	1	$70
Water pressure gauges	0	$0
Digital water flow indicator & totalizer	0	$0
Air flow meter	0	$0
Temperature gauges	0	$0
Line sampling ports	2	$53
Air blower silencer	0	$0
Washer wand	0	$0
Auto dialer	0	$0
Other	0	$0
Options Cost		$5,075
Price With Options		$12,082

The price for the ShallowTray Model 2321, with optional components, is listed below:

Basic System Model 2321
Sump tank & 1 tray, 304L stainless steel
1 Additional tray(s), 304L stainless steel
Blower, 2 tray, 2 hp, 300 cfm @ 10wc, 1 phase, 230V, TEFC
Inlet screen and damper, 304L stainless steel demister, air pressure gauge, spray nozzle, sight tube, gaskets, stainless steel latches, Schedule 80 PVC piping, tray cleanout ports, steel frame.
Basic System Price $9,155

Options		
Oil / Water separator	0	$0
Oil / Water separator options (alarm & hi-level switches, frame)	0	$0
Feed pump, 30 gpm, 50 tdh, 1.5 hp, 1 phase, 230V, TEFC	1	$481
Discharge pump, 30 gpm, 50 tdh, 1.5 hp, 1 phase, 230V, TEFC	1	$481
Additional blower	0	$0
NEMA 3R Blower start/stop panel	0	$0
NEMA 3R Main disconnect switch	1	$98
Standard NEMA 3R control panel with alarm interlocks, motor starter, panel light, UL Listed	0	$0
Standard NEMA 3R control panel with pump level controls, alarm interlocks, motor starter, panel light, UL Listed	1	$2,324
NEMA 3R, 4, 4X, PurgePanel™ with alarm interlocks, motor starter(s), alarm light, purged panel components	0	$0
Control panel IS components (required w/ EXP locations)	0	$0
Intermittent operation	1	$728
Strobe alarm light	0	$0
Alarm horn	0	$0
Low air pressure alarm switch	1	$171
High water level alarm switch	1	$70
Discharge pump level switch	1	$70
Water pressure gauges	0	$0
Digital water flow indicator & totalizer	0	$0
Air flow meter	0	$0
Temperature gauges	0	$0
Line sampling ports	2	$53
Air blower silencer	0	$0
Washer wand	1	No Charge
Auto dialer	0	$0
Other	0	$0
Options Cost		$4,476
Total Model 2321 System Price, Including Options, US$ Each:		**$13,630**

Financing is available for both systems.

All systems are shipped pre-assembled and factory tested and an O&M manual and system start-up video are included with each unit. Normal shipment is approximately 4 weeks from receipt of order. Purchase terms are 30% with the order, 70% net 30 days from delivery. Prices are valid for 90 days only. I look forward to working with you on this project. Once again, thank you for your interest in our products.

Sincerely,

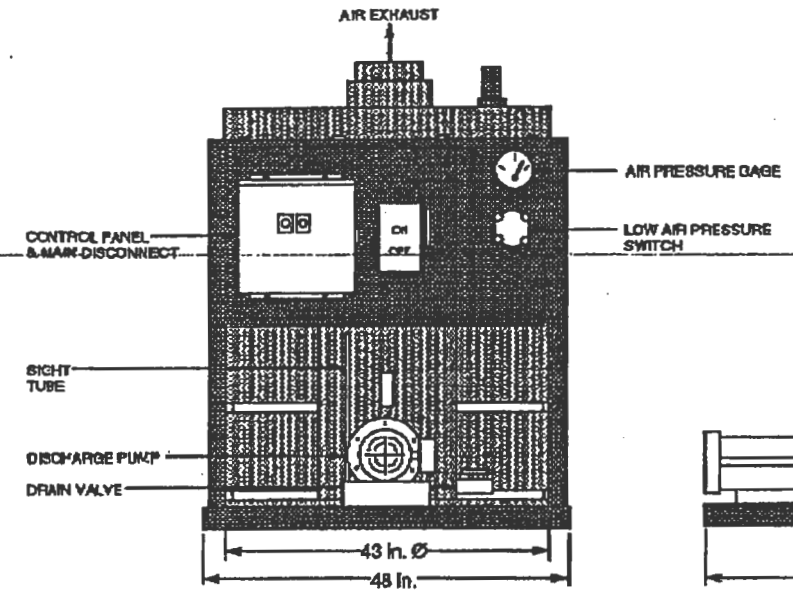
David Steele
Customer Service

File: Eng Science

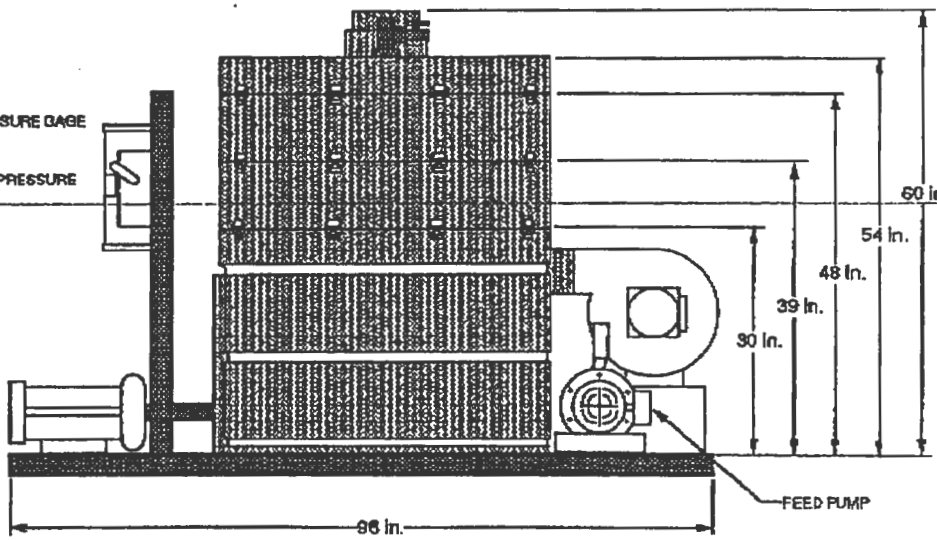
MINIMUM CLEARANCE

FRONT	1.5 ft.
TOP	20 in.
REAR	1.5 ft.
LEFT	2 ft.
RIGHT	2 ft.

FRONT



RIGHT SIDE



BASIC SYSTEM

- ✓ SUMP TANK
- ✓ AERATION TRAYS
- ✓ BLOWER
- ✓ AIR PRESSURE GAGE
- ✓ DEMISTER PAD
- ✓ PIPING
- ✓ SPRAY NOZZLE
- ✓ WATER LEVEL SIGHT TUBE
- ✓ GASKETS
- ✓ LATCHES

OPTIONAL ITEMS

- ✓ ALUMINUM FRAME
- ✓ DISCHARGE PUMP
- ✓ FEED PUMP
- ___ ADDITIONAL BLOWER
- ___ EXP MOTORS
- ___ BLOWER START/STOP PANEL
- ✓ CONTROL PANEL
- ✓ MAIN DISCONNECT SWITCH
- ___ IB COMPONENTS/REMOTE MOUNT
- ___ INTERMITTENT OPERATION
- ___ STROBE LIGHT
- ___ ALARM HORN
- ___ POWER LOSS INDICATOR
- ✓ LOW AIR PRESSURE ALARM SWITCH
- ✓ HIGH WATER LEVEL ALARM SWITCH
- ✓ DISCHARGE PUMP LEVEL SWITCH
- ___ WATER PRESSURE GAGES
- ___ DIGITAL WATER FLOW INDICATOR
- ___ AIR FLOW METER
- ___ TEMPERATURE GAGES
- ✓ LINE SAMPLING PORTS
- ___ AIR BLOWER SILENCER
- ___ WASHER WAND
- ___ AUTO DIALER

NOTE:

1. DRAWING REPRESENTS A UNIT TYPICAL TO THE SPECIFICATION YOU REQUESTED. MINOR CHANGES MAY RESULT IN THE MANUFACTURING PROCESS.

CONNECTION INFORMATION

ITEM	SIZE
GRAVITY DISCHARGE	2 in. Ø FEMALE THD.
DISCHARGE PUMP	3/4 in. Ø FEMALE THD.
WATER INLET	1-1/4 in. Ø FEMALE THD.
AIR EXHAUST NOZZLE	6 in. Ø FLANGE

POWER: 1Ø, 230 volts, 3 WIRE and GROUND

*CONSULT N.E.E.P. FOR AMPACITIES AND OTHER VOLTAGE OPTIONS

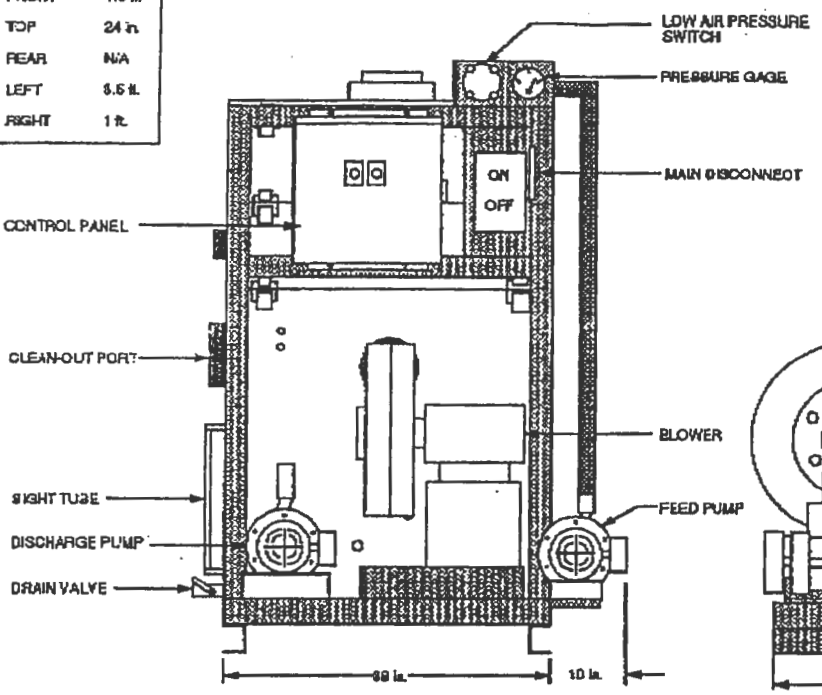
NORTH EAST ENVIRONMENTAL PRODUCTS
17 TECHNOLOGY DRIVE
WEST LEBANON, NH 03784
(603) 298-7061

TOLERANCES UNLESS OTHERWISE SPECIFIED ± 1/16	DRAWING NAME: 232
	DRAWING #: PROPOSAL #12
DRAWN: DAS	CUSTOMER: Eng. Science
DATE: 12/2/93	SCALE: SIZE:

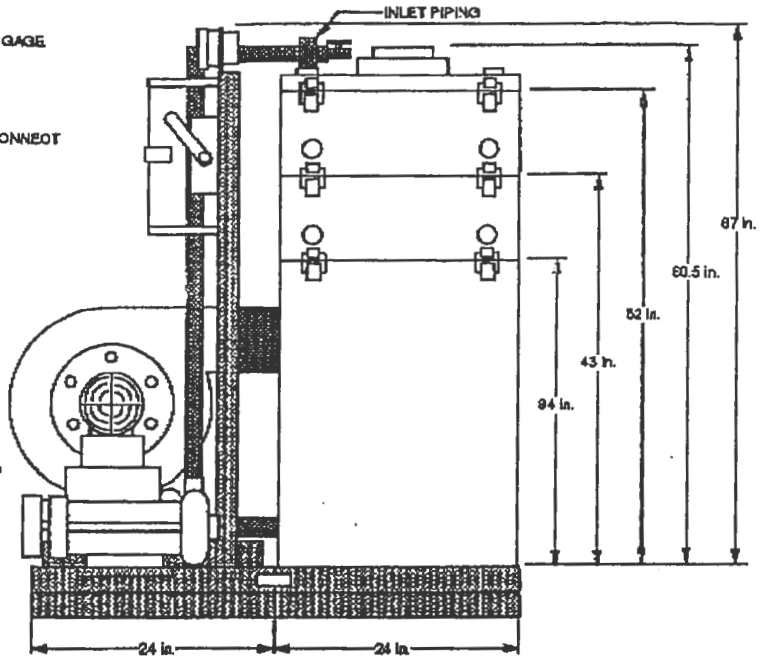
MINIMUM CLEARANCE

FRONT	1.5 ft.
TOP	24 in.
REAR	N/A
LEFT	3.5 ft.
RIGHT	1 ft.

FRONT



RIGHT SIDE



BASIC SYSTEM

- ✓ SUMP TANK
- ✓ AERATION TRAYS
- ✓ BLOWER
- ✓ AIR PRESSURE GAGE
- ✓ DEMISTER PAD
- ✓ PIPING
- ✓ SPRAY NOZZLE
- ✓ WATER LEVEL SIGHT TUBE
- ✓ GASKETS
- ✓ LATCHES
- ✓ FRAME

OPTIONAL ITEMS

- ✓ DISCHARGE PUMP
- ✓ FEED PUMP
- ___ ADDITIONAL BLOWER
- ___ EXP MOTORS
- ___ BLOWER START/STOP PANEL
- ✓ CONTROL PANEL
- ✓ MAIN DISCONNECT SWITCH
- ___ IS COMPONENTS/REMOTE MOUNT
- ___ INTERMITTENT OPERATION
- ___ STROBE LIGHT
- ___ ALARM HORN
- ___ POWER LOSS INDICATOR
- ✓ LOW AIR PRESSURE ALARM SWITCH
- ✓ HIGH WATER LEVEL ALARM SWITCH
- ✓ DISCHARGE PUMP LEVEL SWITCH
- ___ WATER PRESSURE GAGES
- ___ DIGITAL WATER FLOW INDICATOR
- ___ AIR FLOW METER
- ___ TEMPERATURE GAGES
- ✓ LINE SAMPLING PORTS
- ___ AIR BLOWER SILENCER
- ✓ WASHER WAND
- ___ AUTO DIALER

NOTE:

1. DRAWING REPRESENTS A UNIT TYPICAL TO THE SPECIFICATION YOU REQUESTED. MINOR CHANGES MAY RESULT IN THE MANUFACTURING PROCESS

POWER: 1Ø, 230 volts, 3 WIRE and GROUND

*CONSULT N.E.E.P. FOR AMPACITIES AND OTHER VOLTAGE OPTIONS

CONNECTION INFORMATION

ITEM	SIZE
GRAVITY DISCHARGE	2 in. Ø FEMALE THD.
DISCHARGE PUMP	3/4 in. Ø FEMALE THD.
WATER INLET	1-1/4 in. Ø FEMALE THD.
AIR EXHAUST NOZZLE	6 in. Ø FLANGE

NORTH EAST ENVIRONMENTAL PRODUCTS
17 TECHNOLOGY DRIVE
WEST LEBANON, NH 03784
(603) 298-7061

TOLERANCES UNLESS OTHERWISE SPECIFIED ± 1/16	DRAWING NAME: 2321
	DRAWING #: PROPOSAL #129353
DRAWN: DAS	CUSTOMER: Eng. Science
DATE: 12/21/92	SCALE:	SIZE: A	SHEET:

ShallowTray™
low profile air strippers

System Performance Estimate

Client & Proposal Information:

Engineering Science
1293530

Model chosen: 2300
Water Flow Rate: 10.0 gpm
Air Flow Rate: 300 cfm
Water Temp: 50.0 F
Air temp: 50.0 F
A/W Ratio: 224.4 cu. ft/ cu. ft
Safety Factor None

Contaminant	Untreated Influent	Model 2311 Effluent	Model 2321 Effluent	Model 2331 Effluent	Model 2341 Effluent
		Water	Water	Water	Water
		Air(lbs/hr)	Air(lbs/hr)	Air(lbs/hr)	Air(lbs/hr)
		% removal	% removal	% removal	% removal
c-1,2-Dichloroethylene	100 ppb	1 ppb	<1 ppb	<1 ppb	<1 ppb
		0.000495	0.000500	0.000500	0.000500
		99.0591%	99.9911%	99.9999%	100.0000%
Trichloroethylene	100 ppb	1 ppb	<1 ppb	<1 ppb	<1 ppb
		0.000495	0.000500	0.000500	0.000500
		99.2377%	99.9942%	100.0000%	100.0000%

This report has been generated by ShallowTray Modeler software version 1.4.1. This software is designed to assist a skilled operator in predicting the performance of a ShallowTray air stripping system. The software will accurately predict the system performance when both the equipment and the software are operated according to the written documentation and standard operation. North East Environmental Products, Inc. cannot be responsible for incidental or consequential damages resulting from the improper operation of either the software or the air stripping equipment. Report generated: 12/21/93

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ShallowTray™
low profile air strippers

System Performance Estimate

Client & Proposal Information:

Engineering Science
1293530

Model chosen: 2300
Water Flow Rate: 30.0 gpm
Air Flow Rate: 300 cfm
Water Temp: 50.0 F
Air temp: 50.0 F
A/W Ratio: 74.8 cu. ft/ cu. ft
Safety Factor None

Contaminant	Untreated Influent	Model 2311 Effluent Water Air(lbs/hr) % removal	Model 2321 Effluent Water Air(lbs/hr) % removal	Model 2331 Effluent Water Air(lbs/hr) % removal	Model 2341 Effluent Water Air(lbs/hr) % removal
c-1,2-Dichloroethylene	100 ppb	16 ppb 0.001261 84.0628%	3 ppb 0.001456 97.4601%	1 ppb 0.001486 99.5952%	<1 ppb 0.001500 99.9355%
Trichloroethylene	100 ppb	15 ppb 0.001276 85.3295%	3 ppb 0.001456 97.8478%	1 ppb 0.001486 99.6843%	<1 ppb 0.001500 99.9537%

This report has been generated by ShallowTray Modeler software version 1.4.1. This software is designed to assist a skilled operator in predicting the performance of a ShallowTray air stripping system. The software will accurately predict the system performance when both the equipment and the software are operated according to the written documentation and standard operation. North East Environmental Products, Inc. cannot be responsible for incidental or consequential damages resulting from the improper operation of either the software or the air stripping equipment. Report generated: 12/21/93

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NATIONAL ENVIRONMENTAL SYSTEMS INC

36 Maple Avenue • Seekonk, Massachusetts 02771
508 761-6611 FAX 508 761-6898

Fax Memorandum

Date: 12/28/93

To: Mr. Dan Kelmar

From: Pixie Terreault

National Environmental Systems, Inc.

Subject:

Number of Pages Including Cover Sheet: 3

NATIONAL ENVIRONMENTAL SYSTEMS, INC.

36 Maple Avenue • Seekonk, Massachusetts 02771
508 761-6611 FAX 508 761-6898

December 28, 1993

Mr. Dan Kelmar
Engineering Science
Prudential Center
Boston, MA 02199

SUBJECT: National Environmental Proposal No. 01-121593.22.01

Dear Dan:

Thank you for your interest in National Environmental's equipment for subsurface hydrocarbon contamination abatement. Per your request for quotation/design information, I am pleased to recommend the following equipment for this remediation project.

1 - National Environmental Air Stripping system to meet the following conditions:

Flow Rate	20 gpm
Water Temperature	42°F
Influent Water Concentrations:	
TCE	100 ppb
CIS-1,2-DCE	100 ppb
Effluent Water Concentrations:	
TCE	5 ppb
CIS-1,2-DCE	5 ppb
Tower Diameter	14 inches
Overall Height	28.5 feet
Blower Motor	0.5 H.P., 230 VAC, 1ø, TEFC
Packing Media	2.3 inch Lanpac

This tower includes visual cleanout port/inspection port, influent piping, influent spray assembly, top flange, flanged siphon drain, differential pressure gauge, temperature gauge, blower including stand, transition, and field installation kit, packing, mist eliminator, hi-sump sensor, blower pressure switch, site glass assembly, drawings, and operation/installation manual.

$7,120.00

We appreciate the opportunity to assist you with this project. If you have any questions or if you need more information, please do not hesitate to contact me.

Very truly yours,

Pixie Terreault

Pixie Terreault

PT/db

QUOTE VALID FOR 60 DAYS
TERMS: NET 30, FOB: OUR PLANT

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:49:29

CORA DISCHARGE TO SURFACE WATER COST MODULE (406)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: LIQUID-PHASE CARBON
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Transmission main	Gravity	CAPITAL COSTS	
Flow (GPM)	30	BASE CAPITAL COST	100,000
Length of pipe (ft)	1500	NPDES PERMIT	~~50,000~~
Depth of trench (ft)	6	DIFFUSER	0
Is diffuser required?	N		
Average temp (degrees F)	50	TOTAL CAPITAL COST	100,000
Confidence level	M	O & M COSTS	440
Protection level	D		

Cost Backup
for
Alternative MC-6

UV Oxidation

SEDA ASH LANDFILL FEASIBILITY STUDY
PRELIMINARY COST ESTIMATES

Alternative: MC–6

Description: UV oxidation

Unit Operation	Capital Cost	Annual O&M Cost
Groundwater monitoring	$43,000	$60,000
Site preparation	26,000	5,000
Surface water diversion	38,000	2,100
Interceptor trenches	60,000	1,000
Equalization tank/piping	30,000	1,000
In–line filter	15,000	2,000
Water softener	15,000	11,000
UV oxidation	50,000	10,000
Liquid–phase carbon	20,000	6,000
Surface water discharge	100,000	1,000
Subtotal	$397,000	$99,100
Contingency (20%)	79400	19820
Engineering/Oversight (20%)	79400	19820
Total	$555,800	$138,740
Present worth O&M cost		$1,307,890
Interest =	10%	
Years of Operation =	30	
Total present worth cost	$1,863,690	

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:04:50

CORA GROUNDWATER MONITORING COST MODULE (503)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Number of wells to install	10	CAPITAL COST	43,000
Average well depth (ft)	10	O & M COSTS	~~250,000~~ 60,000
Protection during setup of drill rig & installation of above-grade piping	D		
Protection during drilling	D		
Average temp (degrees F)	50		
Confidence level	M		
Number of wells to monitor	40		
Monitoring frequency	4		
Monitoring requirements:			
24 Plasma Metals	Y		
Pest/PCB	N		
GC-BN	N		
GC-Acid	N		
HSLORG	N		
VOA GC/MS	Y		
Acid GC/MS	Y		
B/N GC/MS	Y		

NOTES:

Quarterly Monitoring

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 10:56:43

CORA SITE PREPARATION COST MODULE

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS			RESULTS	
Parameter	Value	Prot. Level	Component	Total
Site clearing (acres)	15.0	D	SITE CLEARING	13,000
Tree removal (acres)	0.0		TREE REMOVAL	0
Dust control area (acres)	0.0		DUST CONTROL	0
Local util. connect.	Y		POWER CONNECTION	13,000
Distance to power pt.(ft)	500		GAS CONNECTION	0
Gas conn. req'd	N		WATER CONNECTION	0
Distance to gas conn.(ft)	0		ACCESS ROAD	0
Water conn. req'd	N		TEMPORARY STORAGE	0
Distance to wtr (ft)	0		BLDG DEMOLITION	0
Water flow (GPM)	0		FLOW EQUAL.&INVENTORY	~~[illegible]~~
Access rd - ft req'd	0			26,000
Acess road width (ft)	0		CAPITAL COSTS	~~[illegible]~~
Bldg. demolition (CY)	0		O&M (FLOW INV.)	1,100
Stored material (CY)	0			
Average temp. (deg. F)	60		BYPRODUCTS GENERATED	
Level of confidence	M		SOILS & ORGANICS (CY)	5,260

STREAM	FLOW (GPM)	RETENTION TIME (HRS)	IS PUMPING REQUIRED (Y/N)?	TOTAL TRANSFER PIPE LEN. (FT)	TRENCH IN CONTAM. MATERIAL (Y/N)?	# OF PUMP STATIONS	PROT. LEVEL (A,B, C,D,N)
1	30	6	Y	2000	N	2	D
2	0	0		0		0	
3	0	0		0		0	
4	0	0		0		0	
5	0	0		0		0	

*** Permanent utility connections are not included in technology modules with the exception of onsite incineration. Because of the specific high demand for this process, allowances have been made within the cost algorithm.

*** Equalization and inventory costs should not be confused with or used for stockpiling and rehandling costs between removal and disposal technologies. Stockpiling and rehandling costs are significant and site specific, requiring in-depth production and economic analysis beyond the scope of this conceptual resource.

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 10:59:36

CORA SURFACE WATER DIVERSION/COLLECTION COST MODULE (105)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Site on raised ground		CAPITAL COST	38,000
Length of site (ft)	2000	O & M COSTS	2,100
Width of site (ft)	1000		
25-yr, 24-hr rain (in.)	--	BYPRODUCTS FOR TRANSPORT/DISPOSAL:	
Protection level	D		
Average temp (degrees F)	50	EXCAVATED MATERIAL (CY)	
Confidence level	M	(SWELL FACTOR=1.25)	346

NOTES:

Run-on and Run-off Control

ES ENGINEERING-SCIENCE, INC.

Client Seneca Army Depot | Job No. 720489-01000 | Sheet 1 of ___
Subject Ash Landfill Removal Action Dewatering Cost Estimate | By DMK | Date 9/27/93 | Checked ___ | Rev. ___

Estimate Cost of Dewatering System

Data

2000 feet of trench
8-foot deep
3-feet wide

Trenching

From Means 6'-10' feet deep (1989)

cost is $4.26 per cubic yard

volume = (2000)(8)(3) = 48,000 ft³ = 1800 yd³

Surface Area = 2(2000)(8) + (2000)(3) = 38,000 ft²

cost = $7600

add 4% per year inflation (1.17 multiplier)

cost = $8900 Use 2.0 multiplier to account for shoring and hazardous waste site ⇒ $17,800

Materials	Quantity	Unit Cost	Total Cost		
gravel	1800 yd³	10.80	$19,440	× 1.17 =	22,745
PVC pipe (6")	2000 feet	3.33	$6,660	× 1.17 =	7792
geotextile	4500 yd²	$1.50	6,750		6750
Riser pipe (10")	100 feet	5.85	$585	× 1.17 =	685
Pumps	4	400	1,600		1600
				subtotal =	39,572

total 57,372

$60,000

BUILDING CONSTRUCTION COST DATA 1989

BK.
16.23
1989/3
1989

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022 200 | Excav, Backfill, Compact

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P
204	1300	Dozer backfilling, bulk, up to 300' haul, no compaction	B-10B	1,200	.010	C.Y.		.20	.61	.81	.97
	1400	Air tamped	B-11B	240	.067			1.28	4.01	5.29	6.30
	1600	Compacting backfill, 6" to 12" lifts, vibrating roller	B-10C	800	.015			.30	1.02	1.32	1.57
	1700	Sheepsfoot roller	B-10D	750	.016			.32	1.12	1.44	1.71
	1900	Dozer backfilling, trench, up to 300' haul, no compaction	B-10B	900	.013			.27	.81	1.08	1.29
	2000	Air tamped	B-11B	235	.068			1.31	4.09	5.40	6.45
	2200	Compacting backfill, 6" to 12" lifts, vibrating roller	B-10C	700	.017			.34	1.16	1.50	1.79
	2300	Sheepsfoot roller	B-10D	650	.018			.37	1.29	1.66	1.97
212	0010	BORROW Buy and load at pit, haul 2 miles round trip									
	0020	and spread, with 200 H.P. dozer, no compaction									
	0100	Bank run gravel (16)	B-15	600	.047	C.Y.	3.67	.87	2.34	6.88	7.90
	0200	Common borrow		600	.047		3.15	.87	2.34	6.36	7.35
	0300	Crushed stone, 1-½"		600	.047		14	.87	2.34	17.21	19.25
	0320	¾"		600	.047		14.25	.87	2.34	17.46	19.55
	0340	½"		600	.047		14.70	.87	2.34	17.91	20
	0360	⅜"		600	.047		15.20	.87	2.34	18.41	21
	0400	Sand, washed, concrete		600	.047		12.95	.87	2.34	16.16	18.10
	0500	Dead or bank sand		600	.047		3.15	.87	2.34	6.36	7.35
	0600	Select structural fill		600	.047		6.80	.87	2.34	10.01	11.35
	0700	Screened loam		600	.047		14.65	.87	2.34	17.86	20
	0800	Topsoil, weed free		600	.047		11.10	.87	2.34	14.31	16.10
	0900	For 5 mile haul, add	B-34B	200	.040			.70	1.69	2.39	2.90
222	0010	COMPACTION Steel wheel tandem roller, 5 tons (18)	B-10E	8	1.500	Hr.		30	13.55	43.55	60
	0100	10 tons	B-10F	8	1.500	"		30	21	51	68
	0300	Sheepsfoot or wobbly wheel roller, 8" lifts, common fill	B-10G	1,300	.009	C.Y.		.19	.34	.53	.65
	0400	Select fill	"	1,500	.008			.16	.30	.46	.57
	0500	Terra Probe, deep sand, vibrating 30,000 C.Y., minimum	B-43	1,800	.027			.49	.37	.86	1.15
	0520	Maximum	"	1,100	.044			.80	.61	1.41	1.88
	0540	Mobilization and demobilization, minimum	B-8	.63	102	Total		1,900	2,775	4,675	5,875
	0560	Maximum	"	.48	133	"		2,500	3,650	6,150	7,725
	0600	Vibratory plate, 8" lifts, common fill	A-1	200	.040	C.Y.		.67	.26	.93	1.30
	0700	Select fill	"	216	.037	"		.62	.24	.86	1.20
230	0010	DRILLING ONLY 2" hole for rock bolts, average	B-47	395	.061	L.F.		1.14	1.19	2.33	3.02
	0800	2-½" hole for pre-splitting, average		540	.044			.83	.87	1.70	2.21
	1600	Quarry operations, 2-½" to 3-½" diameter		715	.034			.63	.66	1.29	1.67
234	0010	DRILLING AND BLASTING Only, rock, open face, under 1500 C.Y.	B-47	225	.107	C.Y.	1.25	2	2.09	5.34	6.70
	0100	Over 1500 C.Y.	"	300	.080		1.25	1.50	1.57	4.32	5.35
	0300	Bulk drilling and blasting, can vary greatly, average									3.50
	0500	Pits, average									18
	1300	Deep hole method, up to 1500 C.Y.	B-47	50	.480		1.25	9	9.40	19.65	25
	1400	Over 1500 C.Y.		66	.364		1.25	6.80	7.10	15.15	19.45
	1900	Restricted areas, up to 1500 C.Y.		13	1.850		1.25	35	36	72.25	93
	2000	Over 1500 C.Y.		20	1.200		1.25	23	24	48.25	61
	2200	Trenches, up to 1500 C.Y.		22	1.090		1.25	20	21	42.25	56
	2300	Over 1500 C.Y.		26	.923		1.25	17.30	18.10	36.65	47
	2500	Pier holes, up to 1500 C.Y.		22	1.090		1.25	20	21	42.25	56
	2600	Over 1500 C.Y.		31	.774		1.25	14.55	15.15	30.95	40
	2800	Boulders under ½ cy, loaded on truck, no hauling	B-10Q	80	.150			3.01	4.93	7.94	9.90
	2900	Drilled, blasted and loaded on truck, no hauling	B-47	30	.800		1.25	15	15.65	31.90	41
	3100	Jackhammer operators with foreman compressor, air tools	B-9	1	40	Day		690	115	805	1,175
	3300	Track drill, compressor, operator and foreman	B-47	1	24	"		450	470	920	1,200
	3500	Blasting caps				Ea.	1.68			1.68	1.85
	3700	Explosives				Lb.	1.25			1.25	1.38
	3900	Blasting mats, rent, for first day				Ea.	39			39	43
	4000	Per added day					22			22	24
	4200	Preblast survey for 6 room house, individual lot, minimum	A-6	2.40	6.670			130		130	195
	4300	Maximum	"	1.35	11.850			230		230	345

022 200 | Excav, Backfill, Compact

		CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
2200	5000' haul	B-33E	750	.019	C.Y.		.38	2.27	2.65	3.06	246
2300	Common earth, 1500' haul		1,030	.014			.28	1.65	1.93	2.23	
2350	3000' haul		790	.018			.36	2.15	2.51	2.90	
2400	5000' haul		650	.022			.44	2.61	3.05	3.53	
2500	Clay, 1500' haul		645	.022			.44	2.63	3.07	3.55	
2550	3000' haul		495	.028			.57	3.43	4	4.63	
2600	5000' haul		405	.035			.70	4.20	4.90	5.65	
2700	Towed, 10 C.Y., ¼ push dozer, sand & gravel, 1500' haul	B-33B	560	.025			.51	2.01	2.52	2.97	
2720	3000' haul		450	.031			.63	2.50	3.13	3.69	
2730	5000' haul		365	.038			.78	3.09	3.87	4.55	
2750	Common earth, 1500' haul		420	.033			.68	2.68	3.36	3.96	
2770	3000' haul		400	.035			.71	2.82	3.53	4.15	
2780	5000' haul		310	.045			.92	3.63	4.55	5.35	
2800	Clay, 1500' haul		315	.044			.90	3.57	4.47	5.30	
2820	3000' haul		300	.047			.95	3.75	4.70	5.55	
2840	5000' haul		225	.062			1.26	5	6.26	7.40	
2900	15 C.Y., ¼ push dozer, sand & gravel, 1500' haul	B-33C	800	.018			.35	1.41	1.76	2.08	
2920	3000' haul		640	.022			.44	1.76	2.20	2.60	
2940	5000' haul		520	.027			.55	2.17	2.72	3.20	
2960	Common earth, 1500' haul		600	.023			.47	1.88	2.35	2.77	
2980	3000' haul		560	.025			.51	2.01	2.52	2.97	
3000	5000' haul		440	.032			.65	2.56	3.21	3.78	
3020	Clay, 1500' haul		450	.031			.63	2.50	3.13	3.69	
3040	3000' haul		420	.033			.68	2.68	3.36	3.96	
3060	5000' haul		320	.044			.89	3.52	4.41	5.20	
0010	**EXCAVATING, STRUCTURAL** Hand, pits to 6' deep, sandy soil	1 Clab	8	1	C.Y.		16.85		16.85	25	250
0100	Heavy soil or clay		4	2			34		34	51	
0300	Pits 6' to 12' deep, sandy soil		5	1.600			27		27	41	
0500	Heavy soil or clay		3	2.670			45		45	68	
0700	Pits 12' to 18' deep, sandy soil		4	2			34		34	51	
0900	Heavy soil or clay		2	4			67		67	100	
1100	Hand loading trucks from stock pile, sandy soil		12	.667			11.25		11.25	16.90	
1300	Heavy soil or clay		8	1			16.85		16.85	25	
1500	For wet or muck hand excavation, add to above				%				50%	50%	
2000	Machine excavation, for spread and mat footings, elevator pits,										
2001	and small building foundations										
2035	Common earth, hydraulic backhoe, ¾ C.Y. bucket	B-12F	90	.178	C.Y.		3.63	4.78	8.41	10.65	
2040	1 C.Y. bucket	B-12A	108	.148			3.03	4.97	8	9.95	
2050	1-½ C.Y. bucket	B-12B	144	.111			2.27	4.44	6.71	8.25	
2060	2 C.Y. bucket	B-12C	200	.080			1.63	4.46	6.09	7.35	
2070	Sand and gravel, ¾ C.Y. bucket	B-12F	100	.160			3.27	4.31	7.58	9.60	
2080	1 C.Y. bucket	B-12A	120	.133			2.72	4.47	7.19	8.95	
2090	1-½ C.Y. bucket	B-12B	160	.100			2.04	4	6.04	7.45	
3000	2 C.Y. bucket	B-12C	220	.073			1.49	4.05	5.54	6.65	
3010	Clay, till, or blasted rock, ¾ C.Y. bucket	B-12F	80	.200			4.09	5.40	9.49	12	
3020	1 C.Y. bucket	B-12A	95	.168			3.44	5.65	9.09	11.30	
3030	1-½ C.Y. bucket	B-12B	130	.123			2.51	4.92	7.43	9.15	
3040	2 C.Y. bucket	B-12C	175	.091			1.87	5.10	6.97	8.40	
9010	For mobilization or demobilization, see div. 022-274										
9020	For dewatering, see div. 021-404										
9022	For larger structures, see Bulk Excavation, div. 022-238										
9024	For loading onto trucks, add								15%		
9026	For hauling, see div. 022-266										
9030	For sheeting or soldier beams & lagging, see div. 021-614 & 624										
9040	For trench excavation of strip footings, see div. 022-254										
0010	**EXCAVATING, TRENCH** or continuous footing, common earth										254
0020	No sheeting or dewatering included										

022 200 | Excav, Backfill, Compact

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
254	0050	1' to 4' deep, ¾ C.Y. tractor loader/backhoe	B-11C	150	.107	C.Y.		2.05	1.16	3.21	4.35	254
	0060	½ C.Y. tractor loader/backhoe	B-11M	200	.080			1.54	1.35	2.89	3.79	
	0090	4' to 6' deep, ½ C.Y. tractor loader/backhoe	"	200	.080			1.54	1.35	2.89	3.79	
	0100	¾ C.Y. hydraulic backhoe	B-12Q	250	.064			1.31	1.32	2.63	3.40	
	0110	¾ C.Y. hydraulic backhoe	B-12F	300	.053			1.09	1.44	2.53	3.20	
	0300	½ C.Y. hydraulic excavator, truck mounted	B-12J	200	.080			1.63	2.93	4.56	5.65	
	0500	6' to 10' deep, ¾ C.Y. hydraulic backhoe	B-12F	225	.071			1.45	1.91	3.36	4.26	
	0510	1 C.Y. hydraulic backhoe	B-12A	400	.040			.82	1.34	2.16	2.69	
	0600	1 C.Y. hydraulic excavator, truck mounted	B-12K	400	.040			.82	1.77	2.59	3.15	
	0610	1-½ C.Y. hydraulic backhoe	B-12B	600	.027			.54	1.07	1.61	1.98	
	0900	10' to 14' deep, ¾ C.Y. hydraulic backhoe	B-12F	200	.080			1.63	2.15	3.78	4.79	
	0910	1 C.Y. hydraulic backhoe	B-12A	360	.044			.91	1.49	2.40	2.99	
	1000	1-½ C.Y. hydraulic backhoe	B-12B	540	.030			.61	1.19	1.80	2.20	
	1300	14' to 20' deep, 1 C.Y. hydraulic backhoe	B-12A	320	.050			1.02	1.68	2.70	3.36	
	1310	1-½ C.Y. hydraulic backhoe	B-12B	480	.033			.68	1.33	2.01	2.48	
	1320	2-½ C.Y. hydraulic backhoe	B-12S	850	.019			.38	1.77	2.15	2.52	
	1400	By hand with pick and shovel to 6' deep, light soil	1 Clab	8	1			16.85		16.85	25	
	1500	Heavy soil	"	4	2			34		34	51	
	1700	For tamping backfilled trenches, air tamp, add	A-1	100	.080			1.35	.51	1.86	2.60	
	1900	Vibrating plate, add		90	.089			1.50	.57	2.07	2.89	
	2100	Trim sides and bottom for concrete pours, common earth		600	.013	S.F.		.22	.09	.31	.43	
	2300	Hardpan		180	.044	"		.75	.29	1.04	1.44	
	2400	Pier and spread footing excavation, add to above				C.Y.				30%	30%	
	3000	Backfill trench, F.E. loader, wheel mtd., 1 C.Y. bucket										
	3020	Minimal haul	B-10R	400	.030	C.Y.		.60	.52	1.12	1.46	
	3040	100' haul	"	200	.060			1.20	1.03	2.23	2.93	
	3080	2-¼ C.Y. bucket, minimum haul	B-10T	600	.020			.40	.67	1.07	1.33	
	3090	100' haul	"	300	.040			.80	1.34	2.14	2.67	
258	0010	**EXCAVATING, UTILITY TRENCH** Common earth										258
	0050	Trenching with chain trencher, 12 H.P., operator walking										
	0100	4" wide trench, 12" deep	B-53	800	.010	L.F.		.21	.25	.46	.58	
	0150	18" deep		750	.011			.22	.27	.49	.62	
	0200	24" deep		700	.011			.24	.29	.53	.67	
	0300	6" wide trench, 12" deep		650	.012			.25	.31	.56	.72	
	0350	18" deep		600	.013			.27	.34	.61	.78	
	0400	24" deep		550	.015			.30	.37	.67	.85	
	0450	36" deep		450	.018			.37	.45	.82	1.04	
	0600	8" wide trench, 12" deep		475	.017			.35	.42	.77	.98	
	0650	18" deep		400	.020			.41	.50	.91	1.17	
	0700	24" deep		350	.023			.47	.58	1.05	1.33	
	0750	36" deep		300	.027			.55	.67	1.22	1.56	
	1000	Backfill by hand including compaction, add										
	1050	4" wide trench, 12" deep	A-1	800	.010	L.F.		.17	.06	.23	.32	
	1100	18" deep		530	.015			.25	.10	.35	.49	
	1150	24" deep		400	.020			.34	.13	.47	.65	
	1300	6" wide trench, 12" deep		540	.015			.25	.10	.35	.48	
	1350	18" deep		405	.020			.33	.13	.46	.64	
	1400	24" deep		270	.030			.50	.19	.69	.96	
	1450	36" deep		180	.044			.75	.29	1.04	1.44	
	1600	8" wide trench, 12" deep		400	.020			.34	.13	.47	.65	
	1650	18" deep		265	.030			.51	.19	.70	.98	
	1700	24" deep		200	.040			.67	.26	.93	1.30	
	1750	36" deep		135	.059			1	.38	1.38	1.92	
	2000	Chain trencher, 40 H.P. operator riding										
	2050	6" wide trench and backfill, 12" deep	B-54	1,200	.007	L.F.		.14	.10	.24	.32	
	2100	18" deep		1,000	.008			.16	.12	.28	.38	
	2150	24" deep		975	.008			.17	.13	.30	.39	
	2200	36" deep		900	.009			.18	.14	.32	.42	

For expanded coverage of these items see *Means Site Work Cost Data 1989*

027 150 | Sewage Systems

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
164	3160	Steel, plain oval arch culverts, plain										164
	3180	17" x 13" 16 ga., 15" equivalent	B-22	225	.133	L.F.	6.87	2.65	.56	10.08	12.15	
	3200	21" x 15" 16 ga., 18" equivalent		175	.171		8.19	3.40	.73	12.32	14.90	
	3220	28" x 20" 14 ga., 24" equivalent		150	.200		13	3.97	.85	17.82	21	
	3240	35" x 24" 14 ga., 30" equivalent		108	.278		16.25	5.50	1.18	22.93	27	
	3260	42" x 29" 12 ga., 36" equivalent	B-13	108	.519		31.25	9.40	4.27	44.92	53	
	3280	49" x 33" 12 ga., 42" equivalent		92	.609		37.63	11.05	5	53.68	63	
	3300	57" x 38" 12 ga., 48" equivalent		75	.747		34.57	13.55	6.15	54.27	65	
	3320	End sections, 17" x 13"		22	2.550	Ea.	30	46	21	97	125	
	3340	42" x 29"		17	3.290	"	154	60	27	241	290	
	3360	Multi-plate arch, steel	B-20	1,690	.014	Lb.	.53	.27		.80	.99	
168	0010	PIPING, DRAINAGE & SEWAGE, POLYVINYL CHLORIDE										168
	0020	Not including excavation or backfill										
	2000	10' lengths, S.D.R. 35, 4" diameter	B-20	375	.064	L.F.	.57	1.23		1.80	2.48	
	2040	6" diameter		350	.069		1.22	1.32		2.54	3.33	
	2080	8" diameter		335	.072		1.75	1.38		3.13	4	
	2120	10" diameter	B-21	330	.085		2.80	1.67	.26	4.73	5.85	
	2160	12" diameter		320	.088		3.95	1.72	.26	5.93	7.25	
	2200	15" diameter		190	.147		6.15	2.90	.45	9.50	11.60	
172	0010	PIPING, DRAINAGE & SEWAGE, VITRIFIED CLAY, C700										172
	0020	Not including excavation or backfill, 4' & 5' lengths										
	4030	Extra strength, compression joints, C425										
	5000	4" diameter	B-20	265	.091	L.F.	.98	1.74		2.72	3.70	
	5020	6" diameter	"	200	.120		1.63	2.30		3.93	5.25	
	5040	8" diameter	B-21	200	.140		2.54	2.75	.42	5.71	7.40	
	5060	10" diameter		190	.147		4.22	2.90	.45	7.57	9.50	
	5080	12" diameter		150	.187		5.57	3.67	.56	9.80	12.25	
	5100	15" diameter		110	.255		10.36	5	.77	16.13	19.75	
	5120	18" diameter		88	.318		15.60	6.25	.96	22.81	28	
	5140	24" diameter		45	.622		29	12.25	1.88	43.13	52	
	5160	30" diameter	B-22	31	.968		33.80	19.20	4.10	57.10	71	
	5180	36" diameter	"	20	1.500		52	30	6.35	88.35	110	
	6000	3' lengths, add to above					30%					
	6020	2' lengths, add to above					40%					
	6040	For die cast slip joints compared to premium joints					90%					
	6060	For plain joints compared to compression joints					75%					
	7060	2' lengths, add to above					40%					
174	0010	SEWAGE PUMPING STATIONS Prefabricated steel, concrete										174
	0020	or fiberglass, 200 GPM	C-17D	.17	494	Total	23,300	11,000	3,100	37,400	45,700	
	0200	1,000 GPM		.07	200		34,450	26,800	7,525	68,775	86,500	
	0500	Add for generator unit, 200 GPM, steel		.34	247		17,800	5,500	1,550	24,850	29,600	
	0600	Concrete		.51	165		11,130	3,675	1,025	15,830	18,900	
	1000	Add for generator unit, 1,000 GPM, steel		.30	280		18,900	6,250	1,750	26,900	32,100	
	1200	Concrete		.38	221		15,900	4,925	1,375	22,200	26,400	
	1500	For wet well, if required, add	B-23	.50	80		4,560	1,375	955	6,890	8,150	
176	0010	SEWAGE TREATMENT Not incl. fencing or external piping										176
	0020	Steel packaged, blown air aeration plants										
	0100	1,000 GPD				Gal.					11.40	
	0200	5,000 GPD									7.50	
	0300	15,000 GPD									4.15	
	0400	30,000 GPD									4.05	
	0500	50,000 GPD									2.95	
	0600	100,000 GPD									2.70	
	0700	200,000 GPD									1.90	
	0800	500,000 GPD									2.10	
	1000	Concrete, extended aeration, primary and secondary treatment										
	1010	10,000 GPD				Gal.					8.65	

MIRAFI®
140N

SUBSURFACE DRAINAGE

Drainage Fabric

Good drainage is essential for soil stability. In order for drainage structures to be effective — along highways, in embankments, under airfields and athletic fields, or anywhere — they must have a properly designed protective filter.

Traditionally, graded-aggregate filter systems have been used with limited success to prevent soil particles from migrating into subsurface drainage structures. However, these aggregate drains have several inherent problems, including high cost and difficult installation.

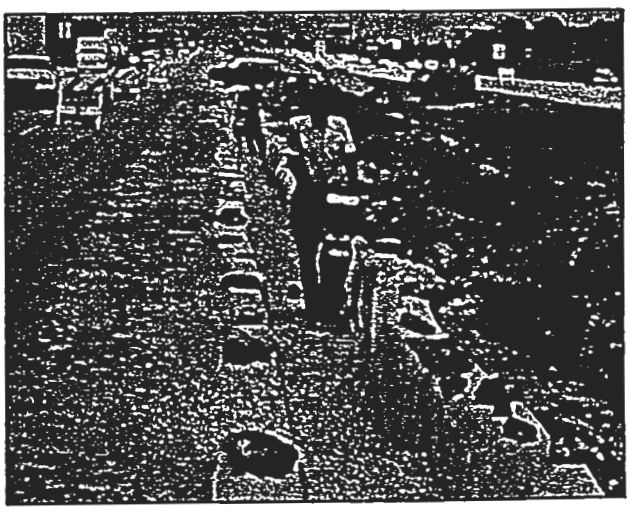
Mirafi **140N**, a nonwoven filter fabric, provides an effective, cost-efficient alternative to graded-aggregate filters. Among its design features are:

- Easily conforms to the ground or trench surface for fast and trouble-free installation;
- Creates a superior filter media because of its high water flow rate and excellent filtration properties;
- Meets severe stresses of installation with its high puncture and burst resistance.

Mirafi **140N** eliminates many of the problems associated with graded-aggregate filters, including:

- Determining the aggregate gradation required to match soil conditions;
- Finding a convenient and economical source of a specific aggregate gradation;
- Transporting and placing a graded aggregate;
- Assuring that the in-place aggregate gradation provides effective filter performance.

An additional benefit of Mirafi **140N** is that the drain size can often be reduced when Mirafi fabric is installed because the thick, graded-aggregate layer is eliminated. As a result, less excavation and less aggregate will be required.



Mirafi 140N Fabric Properties

Fabric Property	Unit	Test Method	Typical Values[1]
Grab Tensile Strength	lb	ASTM D-1682-64	120
Grab Tensile Elongation	%	ASTM D-1682-64	55
Burst Strength	psi	ASTM D-3786-80a[2]	210
Trapezoid Tear Strength	lb	ASTM D-1117-80	50
Puncture Strength	lb	ASTM D-3787-80[3]	70
Coefficient of Permeability, k	cm/sec	CFMC GET-2	0.2
Water Flow Rate	gal/min/sf	CFMC GET-2	285

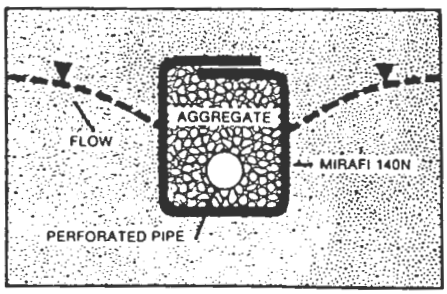
Mirafi 140N Packaging

Roll Width (ft.)	Roll Length (ft.)	Roll Wt. (lbs.)
15.0	360	185
12.5	360	175

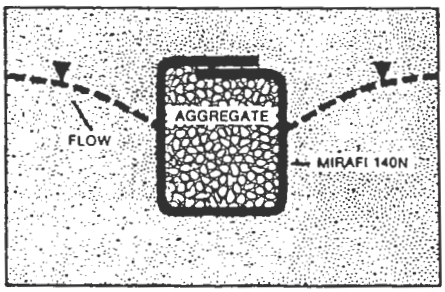
[1]The values listed are average values. Contact the Mirafi Technical Department for minimum certifiable values.
[2]Diaphragm Bursting Tester.
[3]Tension Testing Machine with ring clamp; steel ball replaced with a 5/16-inch diameter solid steel cylinder centered within the ring clamp.

To the best of our knowledge, the information contained herein is accurate. However, Mirafi, Inc. cannot assume any liability whatsoever for the accuracy or completeness thereof. Final determination of the suitability of any information or material for the use contemplated, of its manner of use, and whether the suggested use infringes any patents is the sole responsibility of the user.

Type of Fabric Wrapped Drains

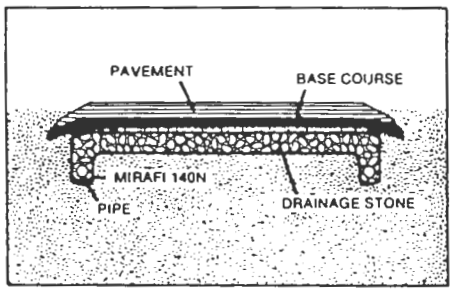


Conventional Drain (with pipe)

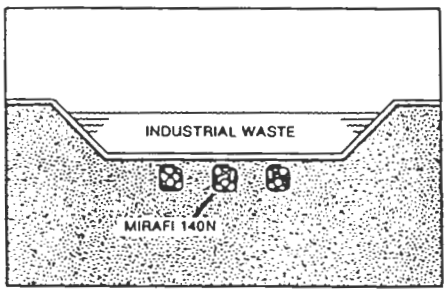


French Drain (without pipe)

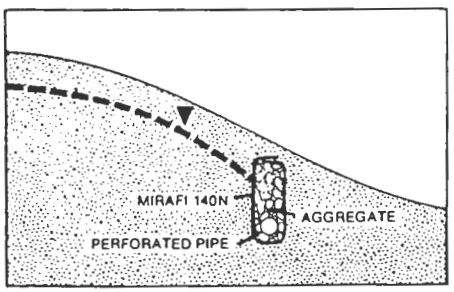
Typical Drain Applications



Blanket Drain & Edge Drain



Pond Underdrain



Interceptor Drain

MIRAFI INC

A member of the DOMINION TEXTILE group

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MIRAFI INC. P.O. BOX 240967/CHARLOTTE, N.C. 28224
(704) 523-7477 or (800) 438-1855/TELEX 216903 MRFI

TIRAFI INC

CIVIL
ENGINEERING
FABRICS

February 1, 1988

FABRIC	WT/SY	ROLL SIZE	ROLL WT	PRICE*
DRAINAGE:				
Mirafi 140N	4.5 oz.	15' x 360'(600 sy)	184 lbs.	$.85/sy
Mirafi 140N	4.5 oz.	12.5' x 360'(500 sy)	153 lbs.	$.85/sy
Mirafi 140NL	3.5 oz.	15' x 420'(700 sy)	170 lbs.	$.75/sy
STABILIZATION:				
Mirafi 400X	3.5 oz.	12.5 x 576'(800 sy)	176 lbs.	$.75/sy
Mirafi 500X	4.0 oz.	12.5' x 432'(600 sy)	173 lbs.	$.80/sy
Mirafi 500X	4.0 oz.	17.5' x 309'(600 sy)	179 lbs.	$.80/sy
Mirafi 500X	4.0 oz.	25' x 216'(600 sy)	179 lbs.	$.85/sy
Mirafi 600X	6.0 oz.	12.5' x 360'(500 sy)	210 lbs.	$1.05/sy
Mirafi 600X	6.0 oz.	25' x 180'(500 sy)	210 lbs.	$1.10/sy
EROSION CONTROL:				
Mirafi 700XG	6.5 oz.	13' x 300'(433 sy)	200 lbs.	$1.30/sy
Mirafi 700X	6.5 oz.	6' x 300'(200 sy)	92 lbs.	$1.40/sy
Mirafi 700X	6.5 oz.	12' x 300'(400 sy)	184 lbs.	$1.42/sy
Mirafi 700X	6.5 oz.	18' x 150'(300 sy)	131 lbs.	$1.45/sy
Miramat2400	24.0 oz.	3.75' x 180'(75 sy)	135 lbs.	$.80/sf
Miramat1800	18.0 oz.	3.75' x 264'(110 sy)	135 lbs.	$.65/sf
SEDIMENT CONTROL:				
Envirofence		3' x 100'(100 lf)	35 lbs.	$1.50/lf
LANDSCAPE:				
Mirascape	3.0 oz.	3' x 300'(100 sy)	15 lbs.	$.75/sy
Mirascape	3.0 oz.	6' x 300'(200 sy)	28 lbs.	$.75/sy
Mirascape	3.0 oz.	9' x 300'(300 sy)	40 lbs.	$.75/sy
PREFABRICATED DRAINAGE SYSTEM:				
Miradrain 5000*		4' x 50'(200 sf)	50 lbs.	$1.50/sf
Miradrain 6000		10 panels/roll 4' x 8'(320 sf)	70 lbs.	$1.40/sf
Miradrain 6000		1 panel/roll 4' x 25'(100 sf)	25 lbs.	$1.40/sf
Miradrain 6000		1 panel/roll 4' x 50'(200 sf)	50 lbs.	$1.40/sf
Miradrain 9000		4' x 50'(200 sf)	50 lbs.	$1.60/sf

*Miradrain 5000 replaces Miradrain 4000

(OVER)

FABRIC	WT/SY	ROLL SIZE	ROLL WT	PRICE*
PAVEMENT OVERLAY:				
Mirafi 900N	4.0 oz.	12.5' x 360'(500 sy)	153 lbs.	$.75/sy
NON WOVEN (impermeable liner protection and railroad use):				
Mirafi 180N	8.0 oz.	13' x 300'(433 sy)	230 lbs.	$1.30/sy
Mirafi 180N	8.0 oz.	17.5' x 300'(583 sy)	310 lbs.	$1.30/sy
Mirafi 1120N	12.0 oz.	13' x 300'(433 sy)	310 lbs.	$1.75/sy
Mirafi 1120N	12.0 oz.	17.5' x 300'(583 sy)	410 lbs.	$1.75/sy
Mirafi 1160N	16.0 oz.	13' x 150'(217 sy)	230 lbs.	$2.60/sy
Mirafi 1160N	16.0 oz.	17.5' x 150'(292 sy)	315 lbs.	$2.60/sy
WOVEN (heavy weight, high performance):				
Mirafi 1000HP	10 oz.	15' x 240'(400 sy)	265 lbs.	$2.50/sy
Mirafi 1200HP	12 oz.	15' x 240'(400 sy)	315 lbs.	$2.90/sy
Mirafi 2100HP	21 oz.	12' x 105'(140 sy)	200 lbs.	$6.90/sy
SPECIALITY PRODUCTS:				
Mirafi coated fabric MCF 1212		12' x 300'(400 sy)	190 lbs.	$2.25/sy
Geonet 250		6.25' x 100'(625 sf)	80 lbs.	$.70/sf
Geonet 250 - with fabric		6.25' x 100'(625 sf)	80 lbs.	$.95/sf

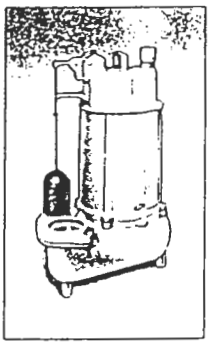
Manufacturers Representative: R. P. Martino and Company
2 Ledge Drive
Georgetown, MA 01833
617-352-2106

*Prices are for estimating purposes only. Call your local Mirafi representative or distributor for current prices and availability.

Fabric seaming available, price upon request.

Centrifugal Sewage Pumps

Submersible Automatic Sewage Ejector Pumps



- For 1¼" or 1½" solids
- Up to 9300 GPH capacities
- ½-HP motor

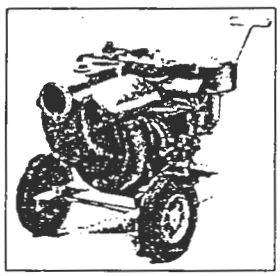
Continuous-duty pumps work tirelessly to pump sewage or other liquids containing solid matter. Built-in float switch provides automatic operation and has a quick-change feature for fast replacement if necessary. Pump also has a 10½-ft. power cord with 3-prong plug for manual use. Pumps have threaded flange connections, cast iron housing, and a 2-vane, ductile iron open impeller with a stainless steel shaft. Thermal overload-protected motor is ½ hp, 1750 rpm, 115 VAC, 60 Hz, 1 ph. Min. sump dia. is 13". Max. liquid temperature is 160° F. Pump height is 17⅜".

High-temperature (to 200° F) and 230 V models are available. Specify No. 9949K888, voltage, temperature, and discharge size. Prices on request.

PUMP PERFORMANCE					
Discharge	Head, Ft.	5	10	15	20
1½"	GPH	8220	6900	5400	3600
2"	GPH	8700	7500	6000	4200
3"	GPH	9300	8100	6480	4620

Discharge	Max. Dia., Solids	No.	NET EACH
1½"	1¼"	9949K19	$378.33
2"	1½"	9949K21	385.09
3"	1½"	9949K23	392.09

Solids Handling Pump



- For 1¾" solids
- 22,800 GPH capacity
- 10-HP engine

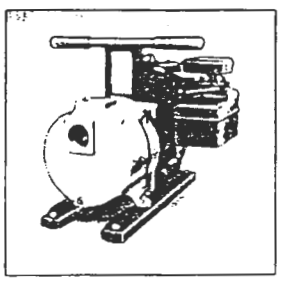
Extra heavy duty centrifugal unit gets the job done on hard-to-pump silt, rocks, sand, slurries, sludge, trash and sewage . . . handles large flows and solids up to 1¾" diameter. Self-priming pump performs suction lifts up to 25 feet. Pump has an aluminum housing with mechanical seals and a two-blade, nonclogging impeller. The 10-hp Briggs & Stratton, air-cooled, 3600 rpm, gasoline engine has recoil start and a 4-qt. fuel tank. Ports are 3" npt.

Pump is mounted on a heavy-duty steel frame with 10" pneumatic wheels and a handle for portability. Pump weighs 265 lbs.

PUMP PERFORMANCE				
Head, Ft.	25	40	60	90
GPH	22,800	18,420	13,500	4,500

No. 4388K22 ..... NET EACH $1612.68

Alumi-Lite Trash Pumps



- For 1" or 1½" solids
- Up to 20,400 GPH capacity

These self-priming pumps are constructed of lightweight aluminum, making them extremely portable but no less durable than heavier metals. Pumps are capable of suction lifts up to 25 feet. They welcome the dirty jobs, and really go into action to handle silt, rocks, sand, muddy water, sludge, trash and sewage.

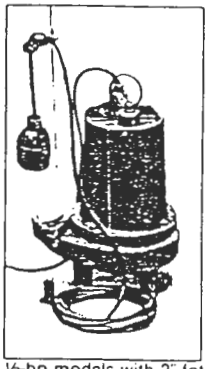
Impeller and volute are made of cast iron. Mechanical seal with a stainless steel shaft sleeve.

Powered by a Briggs & Stratton air-cooled, 4-cycle, 3600 rpm, gasoline engine with recoil start. Pumps include rubber foot mounts, a suction strainer, and a handy T-style handle for added portability.

PUMP PERFORMANCE					
Port	Head, Ft.	20	40	60	90
2"	GPH	10,800	9,240	7,200	3,120
3"	GPH	20,400	17,400	13,080	5,040

Port Size	Max. Dia., Solids	HP	Wt., Lbs.	No.	NET EACH
2	1"	5	71	4338K46	$668.69
3	1½"	8	105	4338K48	1024.21

Automatic High Head Sewage Pumps



- For 1½" solids
- Up to 8520 GPH capacity
- ⁴⁄₁₀- or ½-HP motor

Submersible, heavy-duty pumps make short work of waste, sewage, and solids up to 1½". Pumps have a mercury float control switch with piggyback plug to turn pump on and off automatically at levels you set. Switch mounts to discharge pipe with an adjustable stainless steel clamp.

Cast iron body and housing have a 416 stainless steel shaft. Thermal overload-protected motor is 115 VAC, 60 Hz, 1 ph. Furnished with 15-ft. grounded power cord. Minimum sump diameter is 14". Minimum sump depth is 30". Available in ⁴⁄₁₀- and ½-hp models with 2" fpt discharge. ⁴⁄₁₀-HP PUMP—Has a molded, glass-filled thermoplastic impeller and 1700 rpm motor. Max. temperature is 150° F. Pump ht is 16½"

PUMP PERFORMANCE					
Head, Ft.	5	10	15	20	25
GPH	5400	4800	4080	3120	600

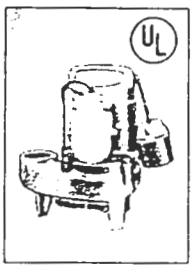
No. 5143K17 ..... NET EACH $307.83

½-HP PUMP—Has cast iron impeller and 1625 rpm motor. Maximum temperature is 160° F. Pump height is 19⅜" UL listed.

PUMP PERFORMANCE					
Head, Ft.	5	10	15	20	25
GPH	8520	7200	5400	3300	720

No. 5143K18 ..... NET EACH $414.29

UL-Listed Sewage Pumps



- For ½", ¾", or 2" solids
- Up to 6600 GPH capacity
- ½-, ⁴⁄₁₀-, or ½-HP motor

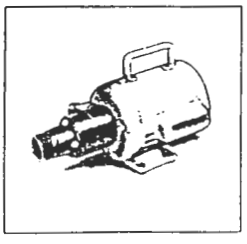
Move waste water and sewage out of collection areas to sewer or septic lines with these completely submersible, cast iron pumps. A float switch turns pump on and off automatically. You can set the pump to turn on at 9" to 14" and off at 2" to 6". Protective epoxy coating guards against rust and corrosion. Lifetime lubricated, thermal overload-protected motor is 115 VAC, 60 Hz, single phase. Furnished with 15-ft. power cord. Vortex impeller is nylon. Min. sump dia. is 18". Min. sump depth is 30". UL and CSA listed.

PUMP PERFORMANCE					
No.	Head, Ft.	5	10	15	20
42935K22	GPH	3000	2500	1600	—
42935K23	GPH	3120	2700	1980	—
42935K24	GPH	4800	3420	1440	—
42935K25	GPH	6600	5640	3900	840

HP	Discharge, Max. Dia., FPT	Solids	Ht.	No.	NET EACH
⅓	1½"	½"	10¼"	42935K22■	$131.21
⅓	1½"	¾"	8½"	42935K23■	177.23
⁴⁄₁₀	2"	2"	11¹⁵⁄₁₆"	42935K24	251.45
½	2"	2"	12¾"	42935K25	362.41

■ Effluent pump with 10-ft. power cord.

Compact Grinder Pumps



- Turns up to 1½" semi-solids into ⅛" particles
- 1080 GPH capacity

An ideal solution to small waste-handling problems. Grind waste, tissue, and certain semi-solids down to a maximum particle size of ⅛". Not recommended for handling hard objects and rags. Mount these self-priming pumps anywhere. Equipped with a flexible Nitrile impeller with stainless steel wear plate and a cast bronze grinder plate.

Pump motor is 115 VAC, 60 Hz, 1 phase, with overload protection. Outlet port has 1" ID hose barb. Inlet port is 1½" MPT.

PUMP PERFORMANCE (Based on Water)				
Head, Ft.	5	10	20	30
GPH	840	780	648	516

No. 6766K12 ..... NET EACH $406.25

12/22/93 12:13

JMS Manufacturing Co., Inc.
d/b/a BEE FIBERGLASS

198 Airport Road
Fall River, MA 02720
508-675-1141
FAX 508-675-1142

December 22, 1993

Engineering Science
101 Huntinton Ave.
Boston, MA 02199

Attn: Mr. Bowman Harvey

Re: FRP Tank
Bee project #93-541

Gentlemen,

We thank you for your inquiry and are pleased to offer our budgetary quotation as follows:

Item	Qty	Description
A	1	10'-0" dia. x 18'-0" Straight side, flat bottom, flat top fiberglass tank with four lifting lugs. Budgetary Price Each.....$12,800.00

Item A will be contact molded to ASTM D4097 standards using Reichhold 33-402 resin and a 10 mil "c" veil liner.

Terms: To be determined
F.O.B. Fall River, MA. freight collect.
Prices quoted are valid for 30 days.

Delivery: Will be 4-6 weeks after receipt of approved drawings.

Drawings: Will be 1 week after receipt of purchase order.

If you have any questions please do not hesitate to contact this office.

Sincerely,

John A. Amarello
Project Engineer

JAA:ds

Remedial Systems, Inc.

56 Leonard Street
Foxboro, MA 02035-2929
(508) 543-1512
FAX (508) 543-7485

January 5, 1994

Dan Kelmar
Engineering Science
Prudentail Center - 101 Huntington Ave
Bostson, MA 02199

Tel: 617-859-2437
Fax: 617-859-2043

Subject: RSI Quotation # **SYS-01-0594-MA**
Proj: Sead Ash Landfill

Dear Dan,

Remedial Systems Inc. (RSI) is pleased to present the following quotation for the above referenced project.

Item 1: 2 - Water Depression Pump capable of **16 GPM @ 80' TDH**, 1/2 HP, 230V, 1 PH, Motor, all stainless steel construction, teflon seals, pump comes complete with 25' of (1.5") petroleum resistant discharge hose, and 25' of sheathed, petroleum resistant power lead.

$ 870.00 each

Item 2: 1 - **Total Fluids Well Probe** for use in single well water recovery, intrinsically safe, with 50 feet of cable.

$ 225.00 each

Item 3: (1) - RSI Low Profile Stripper Model **RTS-50-3** designed to meet the following conditions:

Chemical	Influent (ppb)	Effluent (ppb)	Removal (%)
TCE	100	1	99
c 1,2 DCE	120	1	99.17
Vinyl Chloride	20	1	95
Total	240	3	98.75

Water Temperature 50° F
Flowrate 30 gpm

Height	56"
Length	86"
Width	36"
Blower	230V, 1 ph, TEFC

This equipment includes inlet piping, liquid distributor, air discharge, demister, temperature gauge, pressure gauge, air inlet, blower, drainage sump, siphon drain, 3 level sump switch, and blower fail safe switch.

$ 11,610.00

Item 4: (1) - Transfer Pump, self priming, capable of 30 gpm @ 40 feet TDH, 230V, single phase, TEFC motor.

$ 695.00

Item 5: (1) - Stainless Steel Bag Filter ccapable of 50 GPM, 10 Micron filter bags.

$ 1,295.00

Item 6: 1 - LP-50 Liquid Phase Carbon Vessel:

- Max. Flowrate 56 GPM
- Max. Pressure 12 psig
- Max. Temp 125 °F
- Diameter 34"
- Overall Height 57"
- Inlet / Outlet 3" NPT
- Virgin Carbon 500 lbs
- Shipping Weight 1000 lbs

Carbon Vessels are constructed of mild steel with a high quality two layer epoxy interior coating and a hard enamel finish exterior.

$ 3,180.00 each

- Approximate cost for reactivation $ 360.00 each
- Approximate disposal cost $ 150.00 each

Item 7: (2) - **VP-600**, Vapor Phase Carbon Vessel:

- Max. Flowrate	600 CFM
- Max. Pressure	12 psig
- Max. Temp	125° F
- Footprint	34" X 46"
- Overall Height	57"
- Tank Height	42"
- Tank Diameter	32"
- Inlet / Outlet	3" NPT
- Virgin Carbon	500 lbs
- Shipping Weight	1000 lbs

Carbon Vessels are constructed of mild steel with a high quality two layer epoxy interior coating and a hard enamel finish exterior.

$ 3,950.00 each

Item 8: (1) - **RSI Control Panel** capable of operating and controlling (2) Water Table Depression Pump, (1) transfer pump and a complete Air Stripper System. (NEMA 4 weathertight enclosure)

$ 2,450.00

Item 9: (1) - **Optional Telemetry Module**. With this option, the user may remotely monitor and operate the site from an IBM-PC compatible computer equipped with a phone modem. The user will have information on all analog and digital inputs, outputs, cycle timers, and run times of each output in the system.

$ 2,495.00

- F.O.B. Factory
- Delivery: 5-6 weeks, after approval of drawings
- Terms: Net 30 days (subject to credit approval)
- Leasing Rates Available

Offer Valid for 90 days

If you have any additional questions, please do not hesitate to contact me.

Sincerely,

Brendan Boulerice

BAB
Enc: GB

FACSIMILE COVER SHEET

Peroxidation Systems Inc.

DATE: 12/16/93

TIME:

TO: Dan Kelmar cc Mike Donaway PSI, NJ

ORGANIZATION: Engineering Science

FAX NUMBER: (617) 859-2043

FROM: NORMAN A. OLSON

PEROXIDATION SYSTEMS, INC.
5151 E. Broadway
Tucson, Arizona 85711

(800) 552-8064 - Toll Free
(602) 790-8383 - In Arizona

Fax: (602) 790-8008

5 Pages To Follow This Cover Sheet

For assistance with this transmission please contact me at the numbers listed above.

Comments: Attached find a cost estimate for the case we discussed.

If you have any questions call Mike Donaway, your PSI Area Sales Manager at (908) 276-0044 or call me at (602) 790-8383.

- Norm Olson

December 16, 1993

Mr. Dan Kelmar
Engineering Science, Inc.
Prudential Center
101 Huntington Avenue
Boston, MA 02199

RE: **perox-pure™** Treatment Estimate for a Confidential CERCLA Site
Proposal #NAO-93175-17038-PN01

Dear Mr. Kelmar:

Thank you for your interest in the **perox-pure™** Process. As requested, we have prepared this preliminary estimate for **perox-pure™** Process treatment of the water described in Exhibit I.

The information contained in this preliminary estimate includes descriptions, process information and pricing which are confidential to PSI. This proposal shall not be copied nor released to third parties without prior approval from PSI. The figures quoted are preliminary only and are subject to change.

perox-pure™ SYSTEM

Peroxidation System Inc's **perox-pure™** system is a complete skid mounted ultraviolet (UV), hydrogen peroxide (H_2O_2) system with all required controls. Only a minimal foundation with containment dike, electrical and plumbing connections are necessary. Over 85 systems are in use in North America and Europe. Many of our customers use the **perox-pure™** Process at multiple plant locations.

The unique difference between the **perox-pure™** organic destruction process and other systems is its ability to actually destroy organics to non-detectable levels, thus eliminating the generation of by-product wastes or air discharges to handle or treat.

In contrast to treatment by liquid phase activated carbon, **perox-pure™** doesn't require solids handling, transport and potential liability. Compared to the complexities of air stripping with vapor phase treatment **perox-pure™** is simple, straight forward and doesn't require an air permit or vapor monitoring.

If circumstances dictate the desirability of using the **perox-pure™** Process along with other technologies, we are prepared to offer the total system.

INVESTMENT AND OPERATING COSTS

The **perox-pure™** treatment system estimated to treat the anticipated flow and organic loading is presented below.

Mr. Dan Kelmar
December 16, 1993
Page 2

Equipment Capital Investment	$45,000
Installation/Start-up	$5,000
Maintenance Parts (est. @ 8% of Capital)	$3,600/year
Hydrogen Peroxide (est. @ $0.65/lb. 50%)	$600-1,800/year
Power (est. @ $0.06/kWh)	$5,200/year

Please note this preliminary estimate does not include site preparation, pretreatment or post-treatment equipment, if any, freight, taxes, special permits or on-site equipment handling. Normal delivery is 12-16 weeks after receipt of order.

PROCESS ASSESSMENT

Due to the variability of treatment costs depending on the physical and chemical characteristics of the water, a more definitive estimate will require a bench-scale evaluation in our Tucson facility. For this evaluation we would need 15 gallons of water. These test results would enable us to more accurately select the appropriate unit size and "firm up" our estimate. The fee for **perox-pure™** bench-scale process evaluation and preparation of the technical and economic report is $3,500, plus analytical.

SUMMARY

The **perox-pure™** Process offers the advantages of a proven, cost-effective treatment system that creates no air emissions or generation of secondary waste products.

Your Area Sales Manager, Mike Donaway of PSI's Cranford, New Jersey office, would be happy to discuss any questions you have, as well as how to take the next step in your evaluation of **perox-pure™** technology, and can be reached at (908) 276-0044.

Thank you very much for your continued interest in our products and services!

Sincerely yours,

Norman Olson

Norman A. Olson
Applications Specialist

Enclosures

cc: Mike J. Donaway, PSI - New Jersey

EXHIBIT I

Organization:	Engineering Science, Inc.
Contact:	Dan Kelmar
Telephone No.:	(617) 859-2427
Water Source:	Confidential CERCLA Site
Flow Rates:	10-30 gpm

Target Contaminants	Influent Concentration (ppb)	Effluent Concentration (ppb)
Trichloroethene	50-100	<1
1,2-Dichloroethene	50-100	<1
Vinyl Chloride	10	<1

Water Characteristics

TOC	2 mg/l
COD	Unknown
BOD	5 mg/l
Oils/Greases	Unknown
Color	Unknown
Iron	10-20 mg/l[1]
Suspended Solids	180 mg/l[1]
Dissolved Solids	400 mg/l
Turbidity	Unknown
Alkalinity	230 mg/l
pH	7.0
Hardness	320 mg/l
Temperature	Unknown

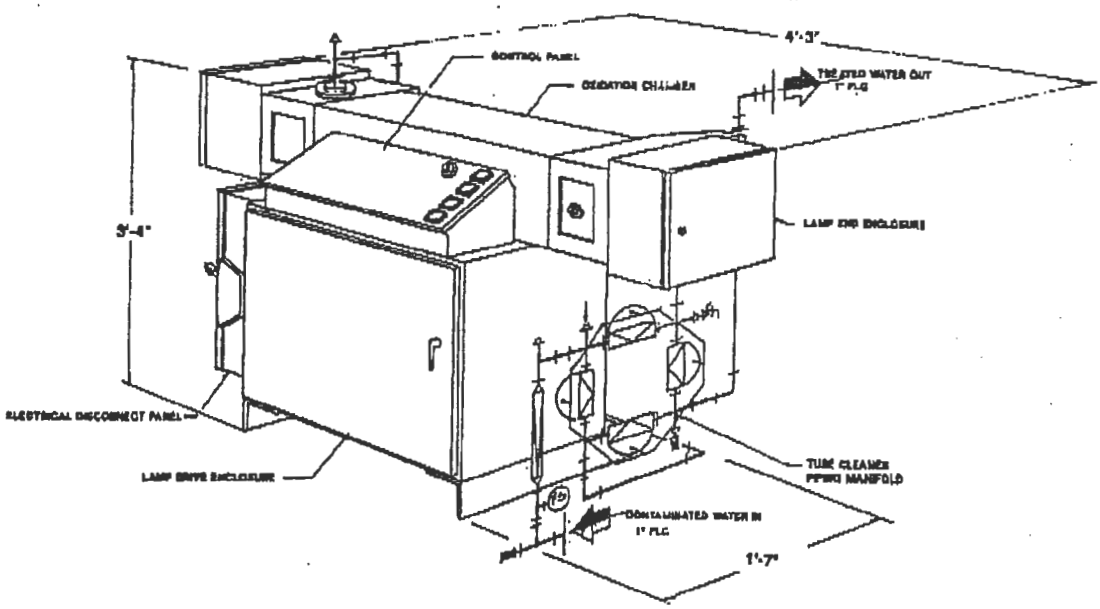
[1] Pretreatment may be beneficial.

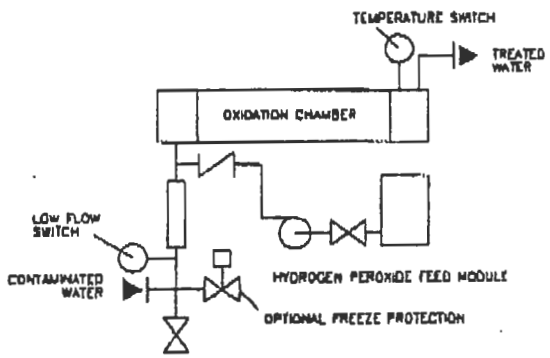
Peroxidation Systems Inc.

perox-pure tm
ORGANIC DESTRUCTION PROCESS

MODULAR TREATMENT SYSTEMS

MX 10





SPECIFICATIONS	Model MX 10
Flow Rate:	
Maximum	20 gpm
Connections:	150# Flange
Inlet:	1"
Outlet:	1"
Power Supply:	1/60/240V, 10 KW, 50 AMPS
Electrical Encl.:	NEMA 3R
Material -	
Wetted Parts:	316 SS, Quartz, Fluoroelastomers, TFE
External Parts:	Enameled Steel and Aluminum
Weight -	
Shipping:	250 lbs.
Operating:	300 lbs.

The MX 10, a compact, low cost modular treatment system, is designed to treat water contaminated by fuels (gasoline, MTBE and alcohol), and other organics, using a combination of hydrogen peroxide and ultraviolet (UV) light.

Based on previous successful applications, Peroxidation Systems, Inc., offers this unit to treat up to 20 gpm continuously, or lower flows batchwise. Automatic tube cleaning is a standard feature to minimize on-site operator attention.

The oxidation chamber contains one lamp mounted in a quartz sleeve with fluoroelastomer seals. Safety features include shop-wired and tested control panels interlocked with temperature and flow switches which shut off power at preset conditions.

The MX 10 system and its components are covered by numerous issued and pending patents.

pp - 6.34-5/93

Peroxidation Systems Inc.
5151 E. Broadway, Suite 600 Tucson, Arizona 85711 602-790-8383 FAX 602-790-8008

perox-pure™
ORGANIC DESTRUCTION PROCESS

APPLICATION BULLETIN

VOLATILE ORGANIC COMPOUNDS - VOC'S

DESCRIPTION

The VOC's most often of concern are those on the EPA Method 601 list called Purgable Halocarbons. These are organics containing chlorine, bromine and/or fluorine, however the chlorinated compounds are most often encountered. The complete list is shown below.

Bromodichloromethane	1,2-Dichlorobenzene	trans-1,3-Dichloropropene
Bromoform	1,3-Dichlorobenzene	Methylene Chloride (MeCl)
Bromomethane	1,4-Dichlorobenzene	1,1,2,2-Tetrachloroethane
Carbon Tetrachloride (CCl_4)	Dichlorodifluoromethane	Tetrachloroethene (PCE)
Chlorobenzene	1,1-Dichloroethane (DCA)	1,1,1-Trichloroethane (TCA)
Chloroethane	1,2-Dichloroethane	1,1,2-Trichloroethane
2-Chloroethylvinyl Ether	1,1-Dichloroethene (DCE)	Trichloroethene (TCE)
Chloroform ($CHCl_3$)	trans-1,2-Dichloroethene	Trichlorofluoromethane
Chloromethane	1,2-Dichloropropane	(Freon)
Dibromochloromethane	cis-1,3-Dichloropropene	Vinyl Chloride (VC)

APPLICATION

The common VOC's encountered are listed below. Others will fall somewhere in between.

Fastest	Slowest
TCE	MeCl
PCE	$CHCl_3$
VC	TCA
DCE	CCl_4

PERFORMANCE

Sample data from bench and full-scale systems are shown below:

Contaminant	Influent (µg/l)	Effluent (µg/l)	Oxidation Time (min.)
TCE	11,950	<1	0.55
1,2-DCE	3,480	<1	0.5
PCE	24,990	<1	0.5
TCA	1,453	100	2.0
MeCl	2,510	<20	2.0

Keep in mind, the presence of high concentrations of background organics, high pH, and color can affect the rate of oxidation in a particular water.

Peroxidation Systems Inc.
5151 E. Broadway, Suite 600 Tucson, Arizona 85711 602-790-8383 FAX 602-790-8008

ULTROX
A Division of Zimpro Environmental, Inc.

2435 South Anne Street
Santa Ana, CA 92704-5308
Phone: (714) 545-5557
Fax: (714) 557-5396

FROM: Bill Himebaugh PROJECT NUMBER:

DATE: December 21, 1993

TOTAL PAGES: 5

FAX TRANSMITTAL

TO: Dan Kelmar

COMPANY: Engineering Science, Inc.

LOCATION: Boston

FAX NUMBER: 617 859-2043

MESSAGE: Please find attached budget scale up calculations

If you have any problems with this fax message, please call (714) 545-5557.

Fax Operator:

ULTROX

A Division of Zimpro Environmental, Inc.

2435 South Anne Street
Santa Ana, CA 92704-5908
Phone: 714 545-5557
Fax: 714 557-5396

December 21, 1993

Dan Kelmar
Engineering Science, Inc.
Prudential Center
101 Huntington Avenue
Boston, MA 02199

FAX: (617) 859-2043

Dear Mr. Kelmar:

Please find attached budget capital and O&M costs for the ULTROX® Oxidation system estimated to meet your groundwater treatment requirements at the SEDA Ash FS site in upstate New York. Since oxidation destroys different compounds with different levels of efficiency, we are basing our estimates on experiences with similar contaminants.

To provide more complete data and a firm price quotation, we recommend a laboratory treatability study. This would allow us to subject the targeted compounds to a variety of oxidation variables and determine the optimum, cost effective dosing needed to reach your required target concentrations. I have enclosed our laboratory fee schedule for your consideration.

Should you require any further information or clarification, please give me a call.

Sincerely,
ULTROX

William S. Himebaugh
National Sales Manager

WSH/gkr
enc: Budget Quote & Fee Schedule

BUDGET CAPITAL AND O&M COSTS FOR THE ULTROX® UV/OXIDATION SYSTEM

I. PARAMETERS

PARAMETERS	CONCENTRATION (ug/l)	GOAL (ug/l)
TCE	50-100	5
1,2-DCE	50-100	5

II. UV/OXIDATION SYSTEM COMPONENTS

A. CONCRETE TANK
   1. ONE C-5000

B. OZONE GENERATOR
   1. 7 LB/DAY OZONE GENERATOR

C. OZONE GENERATOR AIR PREPARATION SYSTEM
   1. COMPRESSOR
   2. AIR DRYER (-70°F DEWPOINT)
   3. AIR FILTER

D. HYDROGEN PEROXIDE FEED SYSTEM
   1. CHEMICAL METERING PUMP (0.5 GPH)
   2. CALIBRATION CYLINDER
   3. PUMP STAND

E. VAPOR TREATMENT
   1. D-TOX™/DECOMPOZON™ CATALYTIC OZONE/VOC DESTRUCTION UNIT

F. POWER CONTROL UNIT
   1. PROGRAMMABLE LOGIC AUTOMATIC CONTROL UNIT

III. ASSUMPTIONS

A. FLOW RATE = 60 GPM

B. ELECTRICAL COSTS = $0.06/KWH

C. H_2O_2 COSTS = $0.70/LB

IV. COSTS

A.	TOTAL BUDGET CAPITAL COST*:	$ 147,000
B.	TOTAL BUDGET O&M COSTS**:	$ 0.16/1000 GALLONS

* Capital costs are estimated FOB Santa Ana, CA and do not include installation, start up or training. More detailed information will be required for integration into full-scale system design.

** O&M costs include electrical power costs, H_2O_2 costs, and amortized UV lamp replacement costs.

ULTROX

STANDARD TERMS AND FEE SCHEDULE FOR LABORATORY TREATABILITY AND PILOT PLANT STUDIES

LABORATORY TREATABILITY STUDIES (Santa Ana, CA)

$700/day with a five day minimum

Analytical work at an independent laboratory will be billed at cost plus 20%

FIELD PILOT PLANT STUDIES

Models P-75

$2,650/week, with a one week minimum

Models P-325, P-650, P-675

$3,100/week, with a one week minimum

D-TOX CF-1 with G-14 lb/day ozone generator	$2,500/week
D-TOX CF-1 with G-28 lb/day ozone generator	$2,800/week

An Ultrox field engineer will be provided at a charge of $2,400 (plus travel and living expenses) for the first five working days on site. A per diem charge of $575.00 (plus travel and living expenses) will be invoiced for each additional day an Ultrox field engineer is required. Rates for extended rental periods, i.e. greater than four weeks, will be quoted upon request.

A credit of 50% on up to 4 weeks laboratory work and pilot plant work will be given for purchase of an ULTROX® system purchased within six months of test completion. The credit does not apply to charges for living, travel and freight expenses or field engineer's time, or for analytical charges at an independent laboratory.

TERMS

- Payable upon receipt of invoice
- Invoices for laboratory tests are issued upon completion of tests or on a monthly basis for extended laboratory studies.
- Freight charges for shipment of samples and/or pilot plant units to and from Santa Ana, CA, are the customer's responsibility.
- Invoices for pilot plant rentals are issued on a monthly basis.
- First week's pilot plant rental due with purchase order.
- One third (1/3) payment due with purchase order on laboratory studies.
- Charges commence on the day the unit arrives at client's facility until it is returned to Santa Ana, CA. Federal holidays, Saturdays and Sundays that the unit is in transit are not billed to our clients.
- Any damage to the unit above normal operating wear is the responsibility of the customer.
- Actual travel and daily living expenses for Ultrox field engineers are billed to the customer.
- Prices are subject to change without notice.
- All samples will be returned to client after testing is completed.

Prices effective 4/1/91

Solarchem

FACSIMILE

Markham, Ontario
Number of Pages : 4

DATE : December 23, 1993

FAX NO. : 617-859-2043

TO : Dan Kelmar/Bowman Harvey

FROM : Robert Notarfonzo

RE : Cost Estimate for Ash Landfill

Here is the cost estimate you requested. Based on the following water characteristics:

Groundwater Characteristics

pH	7		Hardness	320 ppm		Chloride	40
TDS	400 ppm		Alkalinity	230 ppm		Nitrate	0.5
TSS	180 ppm		Calcium	115 ppm		Iron	20
TOC	2 ppm		BOD	5 ppm		Manganese	<0.02
Flow	30 gpm		TCE	100 ppb		1,2 DCE	100 ppb

A 10 kW unit will be required to reduce both TCE and DCE to below 5 ppb. The capital cost for the reactor and hydrogen peroxide metering skid is $ 61,000. Operating costs will be approximately $0.72 per 1000 gallons (a more detailed breakdown attached).

If these costs look attractive and a compact destruction technology is preferred (vs. air stripping and activated carbon), you may want to arrange for a design test to confirm and guarantee costs. I have included information on our design test requirements.

Please feel free to call me if you have any questions.

Note: Iron will precipitate during process but fouling is not a problem in our system because of our patented wiper mechanism. Although unlikely, the suspended solids may interfere with treatment and require screening through a 5-10 micron filter.

130 Royal Crest Court
Markham, Ontario
Canada, L3R 0A1
Telephone: (416) 477 - 9242
Facsimile: (416) 477 - 4511

7320 Smoke Ranch Road
Las Vegas, Nevada 89128
USA
Telephone: (702) 255 - 7055
Facsimile: (702) 255 - 7280

Solarchem Environmental Systems
PRELIMINARY COST ESTIMATE

APPLICATION — *Date* 23-Dec-93

Customer	Engineering-Science				
Project Name	Ash Landfill		*Source*	Source	
Location	Upstate NY		*Discharge to*	Discharge	
Flow Rate	30	gpm	*Operating Basis*	24	hours/day
Contaminant	TCE/1,2 DCE			7	days/week
[Influent]	100	ppb		8400	hrs/year
[Effluent]	5	ppb			

SYSTEM DESCRIPTION

Process	Rayox	with...	UV	Peroxide		
Operating Mode	Continuous					
Rayox Reactor Rating	10	kW	Arranged as	1	skid(s)	
Total # of Rayox Reactors	1		each with	1	reactor(s)	
Total UV Power	10	kW				

Including the following :

1	Rayox reactor skid(s) including Rayox reactor(s) with Quartz Cleaner(s) and Power Supply(s)
1	Programmable Logic Controller (PLC) System Controller(s)
1	Set of Engineering Drawings, and Operating & Maintenance Manual
1	Hydrogen Peroxide Dosing System

ESTIMATED EQUIPMENT PRICE **$61,000**

Price does not include freight to job site, site preparation, or installation.

ESTIMATED OPERATING COSTS

		$/1000 gal	$/year
Electrical Power	(@ $ 0.06 per kWh)	$0.25	$3,700
Replacement of UV lamps		$0.38	$5,700
Hydrogen Peroxide	(@ $ 0.34 per lb, 50%)	$0.09	$1,300
Total		$0.72	$10,700

DELIVERY Typical Delivery..... 8 to 10 weeks

Rayox® Design Test

In order to confirm the design of a **Rayox®** system for a particular water stream, Solarchem performs a Design Test at its laboratory. The tests are directed by engineers thoroughly familiar with the various **Rayox®** processes and are supported by in-house analytical services. Sufficient tests are performed to select and optimize the **Rayox®** process for the specific application.

In order to undertake a **Rayox®** Design Test, we require:

- 55 gallons of the subject water, delivered to our laboratory, prepaid, in approved DOT polyethylene or plastic lined containers.
- discharge objectives/requirements
- all available analytical data on the actual subject water
- any specific analytical methods which may be unique to the project
- variation in flowrate (min, normal, max)
- estimated operating hours per year
- specifics of geographical location
- electrical power cost in $/kWhr

Upon the completion of the **Rayox®** Design Test, a proposal will be issued which would typically include:

- an assessment of the treatment alternatives evaluated and a selection of the preferred **Rayox®** process
- a fixed price quotation for the proposed system (scope definition permitting)
- a statement of the performance guarantee and warranty for the system
- an estimate of the operating costs
- a schematic flow diagram of the proposed system
- an estimate of physical dimensions and dry weight
- a firm delivery schedule, subject to confirmation at time of order

Normally a **Rayox®** Design Test can be completed within three to four weeks after receipt of the sample water at our laboratory. The typical cost for this work is a test fee of $3,000 to $5,000 plus the cost of disbursements (outside analytical services, delivery charges, etc.). The test fee would be credited towards a related system purchase within six months of the report date.

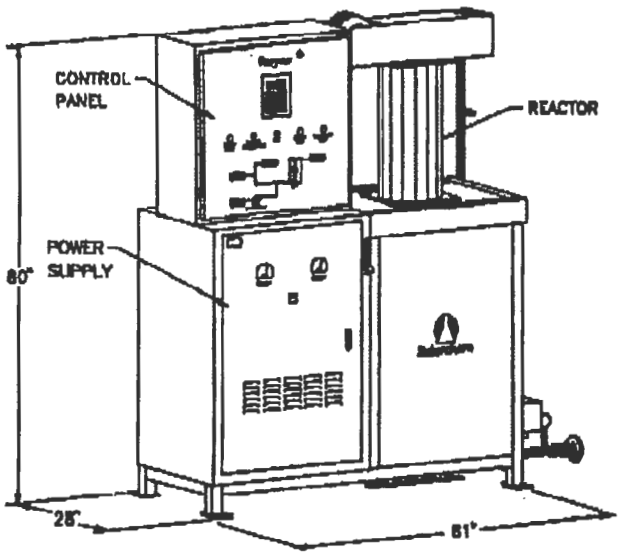
SOLARCHEM ENVIRONMENTAL SYSTEMS

Eastern USA and Canada
130 Royal Crest Court
Markham, Ontario
L3R 0A1, Canada
Tel : (905) 477 9242
Fax : (905) 477 4511

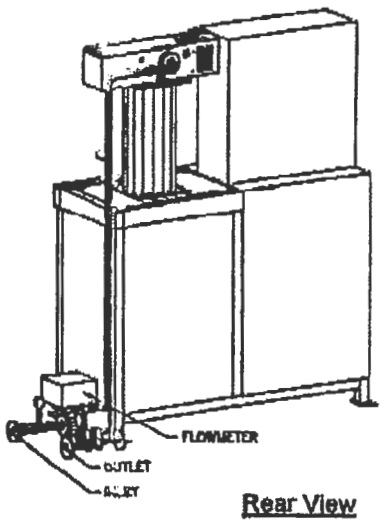
Western USA
7320 Smoke Ranch Road, Suit H
Las Vegas, Nevada
89128, USA
Tel : (702) 255 7055
Fax : (702) 255 7280

OCTOBER, 1993

Model 10 - 1 (10 kW System)



Front View



Rear View

System Specifications

Configuration: 1 x 10 kW reactor

Flowrate: up to 25 gpm (1" piping)

Electrical Requirements:
(US) 480 VAC, 3ph, 27 amps
(Can) 600 VAC, 3ph, 22 amps

Lamp Power: 5 kW - 10 kW (adj.)

PLC: Siemens T1405 - 435 CPU

Materials:
Wetted Parts - 316SS, Quartz, Viton
External Parts - Epoxy Coated Steel

Shipping Weight: 1100 lbs / 500 kg

Model Features

- Fully Automated Control
- Proven Lamp Wiper
- Interactive Message Display
- Fully Adjustable Lamp Power
- OSHA Approved
- NEC Approved
- Safety Interlock Switches
- Modem/Auto Dialer (optional)
- Magnetic Flowmeters
- Factory Pretested
- Minimum Installation Requirements

Solarchem

OUTSHINING THE TREATMENT ALTERNATIVES

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:49:29

CORA DISCHARGE TO SURFACE WATER COST MODULE (406)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: LIQUID-PHASE CARBON
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS

Parameter	Value
Transmission main	Gravity
Flow (GPM)	30
Length of pipe (ft)	1500
Depth of trench (ft)	6
Is diffuser required?	N
Average temp (degrees F)	50
Confidence level	M
Protection level	D

RESULTS

Component	Total
CAPITAL COSTS	
BASE CAPITAL COST	100,000
NPDES PERMIT	~~50,000~~
DIFFUSER	0
TOTAL CAPITAL COST	100,000
O & M COSTS	440

Cost Backup
for
Alternative MC-7

Two Stage Biodegradation

SEDA ASH LANDFILL FEASIBILITY STUDY
PRELIMINARY COST ESTIMATES

Alternative: MC-7

Description: Two-stage biodegradation

Unit Operation	Capital Cost	Annual O&M Cost
Groundwater monitoring	$43,000	$60,000
Site preparation	26,000	5,000
Surface water diversion	38,000	2,100
Interceptor trenches	60,000	1,000
Equalization tank/piping	30,000	1,000
In-line filter	15,000	2,000
Water softener	15,000	11,000
Two-stage biodegradation	180,000	30,000
Surface water discharge	100,000	1,000
Subtotal	$507,000	$113,100
Contingency (20%)	101,400	22,620
Engineering/Oversight (20%)	101,400	22,620
Total	$709,800	$158,340
Present worth O&M cost		$1,492,658
Interest =	10%	
Years of Operation =	30	
Total present worth cost	$2,202,458	

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:04:50

CORA GROUNDWATER MONITORING COST MODULE (503)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Number of wells to install	10	CAPITAL COST	43,000
Average well depth (ft)	10	O & M COSTS	~~270,000~~ 60,000
Protection during setup of drill rig & installation of above-grade piping	D		
Protection during drilling	D		
Average temp (degrees F)	50		
Confidence level	M		
Number of wells to monitor	40		
Monitoring frequency	4		
Monitoring requirements:			
24 Plasma Metals	Y		
Pest/PCB	N		
GC-BN	N		
GC-Acid	N		
HSLORG	N		
VOA GC/MS	Y		
Acid GC/MS	Y		
B/N GC/MS	Y		

NOTES:

Quarterly Monitoring

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 10:56:43

CORA SITE PREPARATION COST MODULE

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS			RESULTS	
Parameter	Value	Prot. Level	Component	Total
Site clearing (acres)	15.0	D	SITE CLEARING	13,000
Tree removal (acres)	0.0		TREE REMOVAL	0
Dust control area (acres)	0.0		DUST CONTROL	0
Local util. connect.	Y		POWER CONNECTION	13,000
Distance to power pt.(ft)	500		GAS CONNECTION	0
Gas conn. req'd	N		WATER CONNECTION	0
Distance to gas conn.(ft)	0		ACCESS ROAD	0
Water conn. req'd	N		TEMPORARY STORAGE	0
Distance to wtr (ft)	0		BLDG DEMOLITION	0
Water flow (GPM)	0		FLOW EQUAL.&INVENTORY	~~250,000~~ 0
Access rd - ft req'd	0			
Acess road width (ft)	0		CAPITAL COSTS	~~286,000~~
Bldg. demolition (CY)	0		O&M (FLOW INV.)	1,100
Stored material (CY)	0			
Average temp. (deg. F)	60		BYPRODUCTS GENERATED	
Level of confidence	M		SOILS & ORGANICS (CY)	5,260

STREAM	FLOW (GPM)	RETENTION TIME (HRS)	IS PUMPING REQUIRED (Y/N)?	TOTAL TRANSFER PIPE LEN. (FT)	TRENCH IN CONTAM. MATERIAL (Y/N)?	# OF PUMP STATIONS	PROT. LEVEL (A,B, C,D,N)
1	30	6	Y	2000	N	2	D
2	0	0		0		0	
3	0	0		0		0	
4	0	0		0		0	
5	0	0		0		0	

*** Permanent utility connections are not included in technology modules with the exception of onsite incineration. Because of the specific high demand for this process, allowances have been made within the cost algorithm.

*** Equalization and inventory costs should not be confused with or used for stockpiling and rehandling costs between removal and disposal technologies. Stockpiling and rehandling costs are significant and site specific, requiring in-depth production and economic analysis beyond the scope of this conceptual resource.

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 10:59:36

CORA SURFACE WATER DIVERSION/COLLECTION COST MODULE (105)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: MODULES COMMON TO ALL SCENARIOS
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS		RESULTS	
Parameter	Value	Component	Total
Site on raised ground		CAPITAL COST	38,000
Length of site (ft)	2000	O & M COSTS	2,100
Width of site (ft)	1000		
25-yr, 24-hr rain (in.)	--	BYPRODUCTS FOR TRANSPORT/DISPOSAL:	
Protection level	D		
Average temp (degrees F)	50	EXCAVATED MATERIAL (CY)	
Confidence level	M	(SWELL FACTOR=1.25)	346

NOTES:

Run-on and Run-off Control

ES ENGINEERING-SCIENCE, INC.

Client Seneca Army Depot | Job No. 720489-01000 | Sheet 1 of ___
Subject Ash Landfill Removal Action | By DMK | Date 9/23/93
Dewatering Cost Estimate | Checked ___ | Rev. ___

Estimate Cost of Dewatering System

Data

2000 feet of trench
8-foot deep
3-feet wide

Trenchings

From Means 6'-10' feet deep (1989)

cost is $4.26 per cubic yard

volume = (2000)(8)(3) = 48,000 ft³ = 1800 yd³

Surface Area = (2)(2000)(8) + (2)(3)(2000) = 38,000 ft²

cost = $7600

add 4% per year inflation (1.17 multiplier)

cost = $8900 Use 2.0 multiplier to account for shoring and hazardous waste site ⇒ $17,800

Materials	Quantity	Unit Cost	Total Cost		
gravel	1800 yd3	10.80	$19,440	× 1.17 =	22,745
PVC pipe (6")	2000 feet	3.33	$6,660	× 1.17 =	7792
geotextile	4500 yd²	$1.50	6,750		6750
Riser pipe (10")	100 feet	5.85	$585	× 1.17 =	685
Pumps	4	400	1,600		1600
				subtotal =	39,572

total 57,372

$60,000

BUILDING CONSTRUCTION COST DATA 1989

BK.
16.23
1989/3
1989

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022 200 | Excav, Backfill, Compact

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P
204	1300	Dozer backfilling, bulk, up to 300' haul, no compaction	B-10B	1,200	.010	C.Y.		.20	.61	.81	.97
	1400	Air tamped	B-11B	240	.067			1.28	4.01	5.29	6.30
	1600	Compacting backfill, 6" to 12" lifts, vibrating roller	B-10C	800	.015			.30	1.02	1.32	1.57
	1700	Sheepsfoot roller	B-10D	750	.016			.32	1.12	1.44	1.71
	1900	Dozer backfilling, trench, up to 300' haul, no compaction	B-10B	900	.013			.27	.81	1.08	1.29
	2000	Air tamped	B-11B	235	.068			1.31	4.09	5.40	6.45
	2200	Compacting backfill, 6" to 12" lifts, vibrating roller	B-10C	700	.017			.34	1.16	1.50	1.79
	2300	Sheepsfoot roller	B-10D	650	.018			.37	1.29	1.66	1.97
212	0010	BORROW Buy and load at pit, haul 2 miles round trip									
	0020	and spread, with 200 H.P. dozer, no compaction									
	0100	Bank run gravel (16)	B-15	600	.047	C.Y.	3.67	.87	2.34	6.88	7.90
	0200	Common borrow		600	.047		3.15	.87	2.34	6.36	7.35
	0300	Crushed stone, 1-½"		600	.047		14	.87	2.34	17.21	19.25
	0320	¾"		600	.047		14.25	.87	2.34	17.46	19.55
	0340	½"		600	.047		14.70	.87	2.34	17.91	20
	0360	⅜"		600	.047		15.20	.87	2.34	18.41	21
	0400	Sand, washed, concrete		600	.047		12.95	.87	2.34	16.16	18.10
	0500	Dead or bank sand		600	.047		3.15	.87	2.34	6.36	7.35
	0600	Select structural fill		600	.047		6.80	.87	2.34	10.01	11.35
	0700	Screened loam		600	.047		14.65	.87	2.34	17.86	20
	0800	Topsoil, weed free		600	.047		11.10	.87	2.34	14.31	16.10
	0900	For 5 mile haul, add	B-34B	200	.040			.70	1.69	2.39	2.90
222	0010	COMPACTION Steel wheel tandem roller, 5 tons (18)	B-10E	8	1.500	Hr.		30	13.55	43.55	60
	0100	10 tons	B-10F	8	1.500	"		30	21	51	68
	0300	Sheepsfoot or wobbly wheel roller, 8" lifts, common fill	B-10G	1,300	.009	C.Y.		.19	.34	.53	.65
	0400	Select fill	"	1,500	.008			.16	.30	.46	.57
	0500	Terra Probe, deep sand, vibrating 30,000 C.Y., minimum	B-43	1,800	.027			.49	.37	.86	1.15
	0520	Maximum	"	1,100	.044			.80	.61	1.41	1.88
	0540	Mobilization and demobilization, minimum	B-8	.63	102	Total		1,900	2,775	4,675	5,875
	0560	Maximum	"	.48	133	"		2,500	3,650	6,150	7,725
	0600	Vibratory plate, 8" lifts, common fill	A-1	200	.040	C.Y.		.67	.26	.93	1.30
	0700	Select fill	"	216	.037	"		.62	.24	.86	1.20
230	0010	DRILLING ONLY 2" hole for rock bolts, average	B-47	395	.061	L.F.		1.14	1.19	2.33	3.02
	0800	2-½" hole for pre-splitting, average		540	.044			.83	.87	1.70	2.21
	1600	Quarry operations, 2-½" to 3-½" diameter		715	.034			.63	.66	1.29	1.67
234	0010	DRILLING AND BLASTING Only, rock, open face, under 1500 C.Y.	B-47	225	.107	C.Y.	1.25	2	2.09	5.34	6.70
	0100	Over 1500 C.Y.	"	300	.080		1.25	1.50	1.57	4.32	5.35
	0300	Bulk drilling and blasting, can vary greatly, average									3.50
	0500	Pits, average									18
	1300	Deep hole method, up to 1500 C.Y.	B-47	50	.480		1.25	9	9.40	19.65	25
	1400	Over 1500 C.Y.		66	.364		1.25	6.80	7.10	15.15	19.45
	1900	Restricted areas, up to 1500 C.Y.		13	1.850		1.25	35	36	72.25	93
	2000	Over 1500 C.Y.		20	1.200		1.25	23	24	48.25	61
	2200	Trenches, up to 1500 C.Y.		22	1.090		1.25	20	21	42.25	56
	2300	Over 1500 C.Y.		26	.923		1.25	17.30	18.10	36.65	47
	2500	Pier holes, up to 1500 C.Y.		22	1.090		1.25	20	21	42.25	56
	2600	Over 1500 C.Y.		31	.774		1.25	14.55	15.15	30.95	40
	2800	Boulders under ½ cy, loaded on truck, no hauling	B-10Q	80	.150			3.01	4.93	7.94	9.90
	2900	Drilled, blasted and loaded on truck, no hauling	B-47	30	.800		1.25	15	15.65	31.90	41
	3100	Jackhammer operators with foreman compressor, air tools	B-9	1	40	Day		690	115	805	1,175
	3300	Track drill, compressor, operator and foreman	B-47	1	24	"		450	470	920	1,200
	3500	Blasting caps				Ea.	1.68			1.68	1.85
	3700	Explosives				Lb.	1.25			1.25	1.38
	3900	Blasting mats, rent, for first day				Ea.	39			39	43
	4000	Per added day					22			22	24
	4200	Preblast survey for 6 room house, individual lot, minimum	A-6	2.40	6.670			130		130	195
	4300	Maximum	"	1.35	11.850			230		230	345

022 200 | Excav, Backfill, Compact

		CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
2200	5000' haul	B-33E	750	.019	C.Y.		.38	2.27	2.65	3.06	246
2300	Common earth, 1500' haul		1,030	.014			.28	1.65	1.93	2.23	
2350	3000' haul		790	.018			.36	2.15	2.51	2.90	
2400	5000' haul		650	.022			.44	2.61	3.05	3.53	
2500	Clay, 1500' haul		645	.022			.44	2.63	3.07	3.55	
2550	3000' haul		495	.028			.57	3.43	4	4.63	
2600	5000' haul		405	.035			.70	4.20	4.90	5.65	
2700	Towed, 10 C.Y., ¼ push dozer, sand & gravel, 1500' haul	B-33B	560	.025			.51	2.01	2.52	2.97	
2720	3000' haul		450	.031			.63	2.50	3.13	3.69	
2730	5000' haul		365	.038			.78	3.09	3.87	4.55	
2750	Common earth, 1500' haul		420	.033			.68	2.68	3.36	3.96	
2770	3000' haul		400	.035			.71	2.82	3.53	4.15	
2780	5000' haul		310	.045			.92	3.63	4.55	5.35	
2800	Clay, 1500' haul		315	.044			.90	3.57	4.47	5.30	
2820	3000' haul		300	.047			.95	3.75	4.70	5.55	
2840	5000' haul		225	.062			1.26	5	6.26	7.40	
2900	15 C.Y., ¼ push dozer, sand & gravel, 1500' haul	B-33C	800	.018			.35	1.41	1.76	2.08	
2920	3000' haul		640	.022			.44	1.76	2.20	2.60	
2940	5000' haul		520	.027			.55	2.17	2.72	3.20	
2960	Common earth, 1500' haul		600	.023			.47	1.88	2.35	2.77	
2980	3000' haul		560	.025			.51	2.01	2.52	2.97	
3000	5000' haul		440	.032			.65	2.56	3.21	3.78	
3020	Clay, 1500' haul		450	.031			.63	2.50	3.13	3.69	
3040	3000' haul		420	.033			.68	2.68	3.36	3.96	
3060	5000' haul		320	.044			.89	3.52	4.41	5.20	
0010	**EXCAVATING, STRUCTURAL** Hand, pits to 6' deep, sandy soil	1 Clab	8	1	C.Y.		16.85		16.85	25	250
0100	Heavy soil or clay		4	2			34		34	51	
300	Pits 6' to 12' deep, sandy soil		5	1.600			27		27	41	
500	Heavy soil or clay		3	2.670			45		45	68	
0700	Pits 12' to 18' deep, sandy soil		4	2			34		34	51	
0900	Heavy soil or clay		2	4			67		67	100	
1100	Hand loading trucks from stock pile, sandy soil		12	.667			11.25		11.25	16.90	
1300	Heavy soil or clay		8	1			16.85		16.85	25	
1500	For wet or muck hand excavation, add to above				%				50%	50%	
2000	Machine excavation, for spread and mat footings, elevator pits,										
2001	and small building foundations										
2035	Common earth, hydraulic backhoe, ¾ C.Y. bucket	B-12F	90	.178	C.Y.		3.63	4.78	8.41	10.65	
2040	1 C.Y. bucket	B-12A	108	.148			3.03	4.97	8	9.95	
2050	1-½ C.Y. bucket	B-12B	144	.111			2.27	4.44	6.71	8.25	
2060	2 C.Y. bucket	B-12C	200	.080			1.63	4.46	6.09	7.35	
2070	Sand and gravel, ¾ C.Y. bucket	B-12F	100	.160			3.27	4.31	7.58	9.60	
2080	1 C.Y. bucket	B-12A	120	.133			2.72	4.47	7.19	8.95	
2090	1-½ C.Y. bucket	B-12B	160	.100			2.04	4	6.04	7.45	
3000	2 C.Y. bucket	B-12C	220	.073			1.49	4.05	5.54	6.65	
3010	Clay, till, or blasted rock, ¾ C.Y. bucket	B-12F	80	.200			4.09	5.40	9.49	12	
3020	1 C.Y. bucket	B-12A	95	.168			3.44	5.65	9.09	11.30	
3030	1-½ C.Y. bucket	B-12B	130	.123			2.51	4.92	7.43	9.15	
3040	2 C.Y. bucket	B-12C	175	.091			1.87	5.10	6.97	8.40	
9010	For mobilization or demobilization, see div. 022-274										
9020	For dewatering, see div. 021-404										
9022	For larger structures, see Bulk Excavation, div. 022-238										
9024	For loading onto trucks, add								15%		
9026	For hauling, see div. 022-266										
9030	For sheeting or soldier beams & lagging, see div. 021-614 & 624										
10	For trench excavation of strip footings, see div. 022-254										
10	**EXCAVATING, TRENCH** or continuous footing, common earth										254
0020	No sheeting or dewatering included										

022 200 | Excav, Backfill, Compact

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
254	0050	1' to 4' deep, ¾ C.Y. tractor loader/backhoe	B-11C	150	.107	C.Y.		2.05	1.16	3.21	4.35	254
	0060	½ C.Y. tractor loader/backhoe	B-11M	200	.080			1.54	1.35	2.89	3.79	
	0090	4' to 6' deep, ½ C.Y. tractor loader/backhoe	"	200	.080			1.54	1.35	2.89	3.79	
	0100	⅝ C.Y. hydraulic backhoe	B-12Q	250	.064			1.31	1.32	2.63	3.40	
	0110	¾ C.Y. hydraulic backhoe	B-12F	300	.053			1.09	1.44	2.53	3.20	
	0300	½ C.Y. hydraulic excavator, truck mounted	B-12J	200	.080			1.63	2.93	4.56	5.65	
	0500	6' to 10' deep, ¾ C.Y. hydraulic backhoe	B-12F	225	.071			1.45	1.91	3.36	4.26	
	0510	1 C.Y. hydraulic backhoe	B-12A	400	.040			.82	1.34	2.16	2.69	
	0600	1 C.Y. hydraulic excavator, truck mounted	B-12K	400	.040			.82	1.77	2.59	3.15	
	0610	1-½ C.Y. hydraulic backhoe	B-12B	600	.027			.54	1.07	1.61	1.98	
	0900	10' to 14' deep, ¾ C.Y. hydraulic backhoe	B-12F	200	.080			1.63	2.15	3.78	4.79	
	0910	1 C.Y. hydraulic backhoe	B-12A	360	.044			.91	1.49	2.40	2.99	
	1000	1-½ C.Y. hydraulic backhoe	B-12B	540	.030			.61	1.19	1.80	2.20	
	1300	14' to 20' deep, 1 C.Y. hydraulic backhoe	B-12A	320	.050			1.02	1.68	2.70	3.36	
	1310	1-½ C.Y. hydraulic backhoe	B-12B	480	.033			.68	1.33	2.01	2.48	
	1320	2-½ C.Y. hydraulic backhoe	B-12S	850	.019			.38	1.77	2.15	2.52	
	1400	By hand with pick and shovel to 6' deep, light soil	1 Clab	8	1			16.85		16.85	25	
	1500	Heavy soil	"	4	2			34		34	51	
	1700	For tamping backfilled trenches, air tamp, add	A-1	100	.080			1.35	.51	1.86	2.60	
	1900	Vibrating plate, add		90	.089			1.50	.57	2.07	2.89	
	2100	Trim sides and bottom for concrete pours, common earth		600	.013	S.F.		.22	.09	.31	.43	
	2300	Hardpan		180	.044	"		.75	.29	1.04	1.44	
	2400	Pier and spread footing excavation, add to above				C.Y.				30%	30%	
	3000	Backfill trench, F.E. loader, wheel mtd., 1 C.Y. bucket										
	3020	Minimal haul	B-10R	400	.030	C.Y.		.60	.52	1.12	1.46	
	3040	100' haul	"	200	.060			1.20	1.03	2.23	2.93	
	3080	2-¼ C.Y. bucket, minimum haul	B-10T	600	.020			.40	.67	1.07	1.33	
	3090	100' haul	"	300	.040			.80	1.34	2.14	2.67	
258	0010	EXCAVATING, UTILITY TRENCH Common earth										258
	0050	Trenching with chain trencher, 12 H.P., operator walking										
	0100	4" wide trench, 12" deep	B-53	800	.010	L.F.		.21	.25	.46	.58	
	0150	18" deep		750	.011			.22	.27	.49	.62	
	0200	24" deep		700	.011			.24	.29	.53	.67	
	0300	6" wide trench, 12" deep		650	.012			.25	.31	.56	.72	
	0350	18" deep		600	.013			.27	.34	.61	.78	
	0400	24" deep		550	.015			.30	.37	.67	.85	
	0450	36" deep		450	.018			.37	.45	.82	1.04	
	0600	8" wide trench, 12" deep		475	.017			.35	.42	.77	.98	
	0650	18" deep		400	.020			.41	.50	.91	1.17	
	0700	24" deep		350	.023			.47	.58	1.05	1.33	
	0750	36" deep		300	.027			.55	.67	1.22	1.56	
	1000	Backfill by hand including compaction, add										
	1050	4" wide trench, 12" deep	A-1	800	.010	L.F.		.17	.06	.23	.32	
	1100	18" deep		530	.015			.25	.10	.35	.49	
	1150	24" deep		400	.020			.34	.13	.47	.65	
	1300	6" wide trench, 12" deep		540	.015			.25	.10	.35	.48	
	1350	18" deep		405	.020			.33	.13	.46	.64	
	1400	24" deep		270	.030			.50	.19	.69	.96	
	1450	36" deep		180	.044			.75	.29	1.04	1.44	
	1600	8" wide trench, 12" deep		400	.020			.34	.13	.47	.65	
	1650	18" deep		265	.030			.51	.19	.70	.98	
	1700	24" deep		200	.040			.67	.26	.93	1.30	
	1750	36" deep		135	.059			1	.38	1.38	1.92	
	2000	Chain trencher, 40 H.P. operator riding										
	2050	6" wide trench and backfill, 12" deep	B-54	1,200	.007	L.F.		.14	.10	.24	.32	
	2100	18" deep		1,000	.008			.16	.12	.28	.38	
	2150	24" deep		975	.008			.17	.13	.30	.39	
	2200	36" deep		900	.009			.18	.14	.32	.42	

For expanded coverage of these items see *Means Site Work Cost Data 1989*

027 150 | Sewage Systems

			CREW	DAILY OUTPUT	MAN-HOURS	UNIT	BARE COSTS MAT.	BARE COSTS LABOR	BARE COSTS EQUIP.	BARE COSTS TOTAL	TOTAL INCL O&P	
164	3160	Steel, plain oval arch culverts, plain										164
	3180	17" x 13" 16 ga., 15" equivalent	B-22	225	.133	L.F.	6.87	2.65	.56	10.08	12.15	
	3200	21" x 15" 16 ga., 18" equivalent		175	.171		8.19	3.40	.73	12.32	14.90	
	3220	28" x 20" 14 ga., 24" equivalent		150	.200		13	3.97	.85	17.82	21	
	3240	35" x 24" 14 ga., 30" equivalent		108	.278		16.25	5.50	1.18	22.93	27	
	3260	42" x 29" 12 ga., 36" equivalent	B-13	108	.519		31.25	9.40	4.27	44.92	53	
	3280	49" x 33" 12 ga., 42" equivalent		92	.609		37.63	11.05	5	53.68	63	
	3300	57" x 38" 12 ga., 48" equivalent		75	.747		34.57	13.55	6.15	54.27	65	
	3320	End sections, 17" x 13"		22	2.550	Ea.	30	46	21	97	125	
	3340	42" x 29"		17	3.290	"	154	60	27	241	290	
	3360	Multi-plate arch, steel	B-20	1,690	.014	Lb.	.53	.27		.80	.99	
168	0010	PIPING, DRAINAGE & SEWAGE, POLYVINYL CHLORIDE										168
	0020	Not including excavation or backfill										
	2000	10' lengths, S.D.R. 35, 4" diameter	B-20	375	.064	L.F.	.57	1.23		1.80	2.48	
	2040	6" diameter		350	.069		1.22	1.32		2.54	3.33	
	2080	8" diameter		335	.072		1.75	1.38		3.13	4	
	2120	10" diameter	B-21	330	.085		2.80	1.67	.26	4.73	5.85	
	2160	12" diameter		320	.088		3.95	1.72	.26	5.93	7.25	
	2200	15" diameter		190	.147		6.15	2.90	.45	9.50	11.60	
172	0010	PIPING, DRAINAGE & SEWAGE, VITRIFIED CLAY, C700										172
	0020	Not including excavation or backfill, 4' & 5' lengths										
	4030	Extra strength, compression joints, C425										
	5000	4" diameter	B-20	265	.091	L.F.	.98	1.74		2.72	3.70	
	5020	6" diameter	"	200	.120		1.63	2.30		3.93	5.25	
	5040	8" diameter	B-21	200	.140		2.54	2.75	.42	5.71	7.40	
	5060	10" diameter		190	.147		4.22	2.90	.45	7.57	9.50	
	5080	12" diameter		150	.187		5.57	3.67	.56	9.80	12.25	
	5100	15" diameter		110	.255		10.36	5	.77	16.13	19.75	
	5120	18" diameter		88	.318		15.60	6.25	.96	22.81	28	
	5140	24" diameter		45	.622		29	12.25	1.88	43.13	52	
	5160	30" diameter	B-22	31	.968		33.80	19.20	4.10	57.10	71	
	5180	36" diameter	"	20	1.500		52	30	6.35	88.35	110	
	6000	3' lengths, add to above					30%					
	6020	2' lengths, add to above					40%					
	6040	For die cast slip joints compared to premium joints					90%					
	6060	For plain joints compared to compression joints					75%					
	7060	2' lengths, add to above					40%					
174	0010	SEWAGE PUMPING STATIONS Prefabricated steel, concrete										174
	0020	or fiberglass, 200 GPM	C-17D	.17	494	Total	23,300	11,000	3,100	37,400	45,700	
	0200	1,000 GPM		.07	200		34,450	26,800	7,525	68,775	86,500	
	0500	Add for generator unit, 200 GPM, steel		.34	247		17,800	5,500	1,550	24,850	29,600	
	0600	Concrete		.51	165		11,130	3,675	1,025	15,830	18,900	
	1000	Add for generator unit, 1,000 GPM, steel		.30	280		18,900	6,250	1,750	26,900	32,100	
	1200	Concrete		.38	221		15,900	4,925	1,375	22,200	26,400	
	1500	For wet well, if required, add	B-23	.50	80		4,560	1,375	955	6,890	8,150	
176	0010	SEWAGE TREATMENT Not incl. fencing or external piping										176
	0020	Steel packaged, blown air aeration plants										
	0100	1,000 GPD				Gal.					11.40	
	0200	5,000 GPD									7.50	
	0300	15,000 GPD									4.15	
	0400	30,000 GPD									4.05	
	0500	50,000 GPD									2.95	
	0600	100,000 GPD									2.70	
	0700	200,000 GPD									1.90	
	0800	500,000 GPD									2.10	
	1000	Concrete, extended aeration, primary and secondary treatment										
	1010	10,000 GPD				Gal.					8.65	

For expanded coverage of these items see *Means Site Work Cost Data 1989*

MIRAFI®
140N

SUBSURFACE DRAINAGE

Drainage Fabric

Good drainage is essential for soil stability. In order for drainage structures to be effective — along highways, in embankments, under airfields and athletic fields, or anywhere — they must have a properly designed protective filter.

Traditionally, graded-aggregate filter systems have been used with limited success to prevent soil particles from migrating into subsurface drainage structures. However, these aggregate drains have several inherent problems, including high cost and difficult installation.

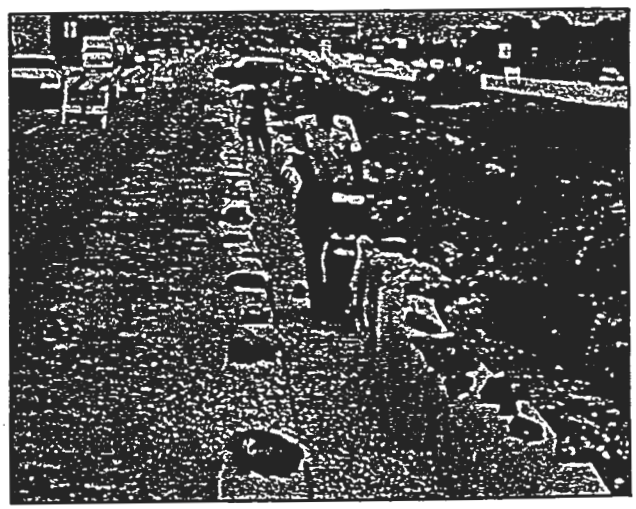
Mirafi **140N**, a nonwoven filter fabric, provides an effective, cost-efficient alternative to graded-aggregate filters. Among its design features are:

- Easily conforms to the ground or trench surface for fast and trouble-free installation;
- Creates a superior filter media because of its high water flow rate and excellent filtration properties;
- Meets severe stresses of installation with its high puncture and burst resistance.

Mirafi **140N** eliminates many of the problems associated with graded-aggregate filters, including:

- Determining the aggregate gradation required to match soil conditions;
- Finding a convenient and economical source of a specific aggregate gradation;
- Transporting and placing a graded aggregate;
- Assuring that the in-place aggregate gradation provides effective filter performance.

An additional benefit of Mirafi **140N** is that the drain size can often be reduced when Mirafi fabric is installed because the thick, graded-aggregate layer is eliminated. As a result, less excavation and less aggregate will be required.



Mirafi 140N Fabric Properties

Fabric Property	Unit	Test Method	Typical Values[1]
Grab Tensile Strength	lb	ASTM D-1682-64	120
Grab Tensile Elongation	%	ASTM D-1682-64	55
Burst Strength	psi	ASTM D-3786-80a[2]	210
Trapezoid Tear Strength	lb	ASTM D-1117-80	50
Puncture Strength	lb	ASTM D-3787-80[3]	70
Coefficient of Permeability, k	cm/sec	CFMC GET-2	0.2
Water Flow Rate	gal/min/sf	CFMC GET-2	285

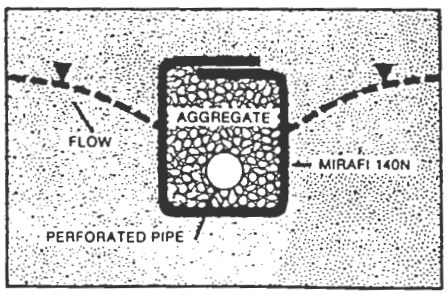
Mirafi 140N Packaging

Roll Width (ft.)	Roll Length (ft.)	Roll Wt. (lbs.)
15.0	360	185
12.5	360	175

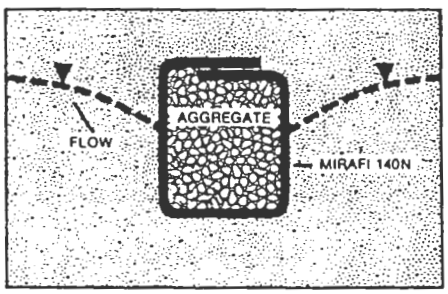
[1]The values listed are average values. Contact the Mirafi Technical Department for minimum certifiable values.
[2]Diaphragm Bursting Tester.
[3]Tension Testing Machine with ring clamp; steel ball replaced with a 5/16-inch diameter solid steel cylinder centered within the ring clamp.

To the best of our knowledge, the information contained herein is accurate. However, Mirafi, Inc. cannot assume any liability whatsoever for the accuracy or completeness thereof. Final determination of the suitability of any information or material for the use contemplated, of its manner of use, and whether the suggested use infringes any patents is the sole responsibility of the user.

Type of Fabric Wrapped Drains

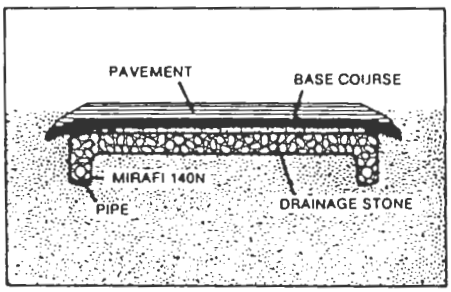


Conventional Drain (with pipe)

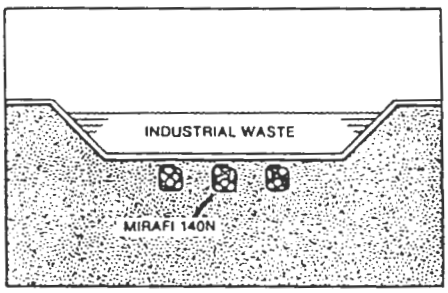


French Drain (without pipe)

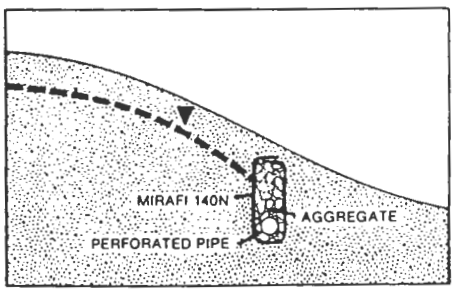
Typical Drain Applications



Blanket Drain & Edge Drain



Pond Underdrain



Interceptor Drain

MIRAFI INC

A member of the DOMINION TEXTILE group

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MIRAFI INC. P.O. BOX 240967/CHARLOTTE, N.C. 28224
(704) 523-7477 or (800) 438-1855/TELEX 216903 MRFI

MIRAFI INC

CIVIL
ENGINEERING
FABRICS

February 1, 1988

FABRIC	WT/SY	ROLL SIZE	ROLL WT	PRICE*
DRAINAGE:				
Mirafi 140N	4.5 oz.	15' x 360'(600 sy)	184 lbs.	$.85/sy
Mirafi 140N	4.5 oz.	12.5' x 360'(500 sy)	153 lbs.	$.85/sy
Mirafi 140NL	3.5 oz.	15' x 420'(700 sy)	170 lbs.	$.75/sy
STABILIZATION:				
Mirafi 400X	3.5 oz.	12.5 x 576'(800 sy)	176 lbs.	$.75/sy
Mirafi 500X	4.0 oz.	12.5' x 432'(600 sy)	173 lbs.	$.80/sy
Mirafi 500X	4.0 oz.	17.5' x 309'(600 sy)	179 lbs.	$.80/sy
Mirafi 500X	4.0 oz.	25' x 216'(600 sy)	179 lbs.	$.85/sy
Mirafi 600X	6.0 oz.	12.5' x 360'(500 sy)	210 lbs.	$1.05/sy
Mirafi 600X	6.0 oz.	25' x 180'(500 sy)	210 lbs.	$1.10/sy
EROSION CONTROL:				
Mirafi 700XG	6.5 oz.	13' x 300'(433 sy)	200 lbs.	$1.30/sy
Mirafi 700X	6.5 oz.	6' x 300'(200 sy)	92 lbs.	$1.40/sy
Mirafi 700X	6.5 oz.	12' x 300'(400 sy)	184 lbs.	$1.42/sy
Mirafi 700X	6.5 oz.	18' x 150'(300 sy)	131 lbs.	$1.45/sy
Miramat2400	24.0 oz.	3.75' x 180'(75 sy)	135 lbs.	$.80/sf
Miramat1800	18.0 oz.	3.75' x 264'(110 sy)	135 lbs.	$.65/sf
SEDIMENT CONTROL:				
Envirofence		3' x 100'(100 lf)	35 lbs.	$1.50/lf
LANDSCAPE:				
Mirascape	3.0 oz.	3' x 300'(100 sy)	15 lbs.	$.75/sy
Mirascape	3.0 oz.	6' x 300'(200 sy)	28 lbs.	$.75/sy
Mirascape	3.0 oz.	9' x 300'(300 sy)	40 lbs.	$.75/sy
PREFABRICATED DRAINAGE SYSTEM:				
Miradrain 5000*		4' x 50'(200 sf)	50 lbs.	$1.50/sf
Miradrain 6000		10 panels/roll 4' x 8'(320 sf)	70 lbs.	$1.40/sf
Miradrain 6000		1 panel/roll 4' x 25'(100 sf)	25 lbs.	$1.40/sf
Miradrain 6000		1 panel/roll 4' x 50'(200 sf)	50 lbs.	$1.40/sf
Miradrain 9000		4' x 50'(200 sf)	50 lbs.	$1.60/sf

*Miradrain 5000 replaces Miradrain 4000

(OVER)

FABRIC	WT/SY	ROLL SIZE	ROLL WT	PRICE*
PAVEMENT OVERLAY:				
Mirafi 900N	4.0 oz.	12.5' x 360'(500 sy)	153 lbs.	$.75/sy
NON WOVEN (impermeable liner protection and railroad use):				
Mirafi 180N	8.0 oz.	13' x 300'(433 sy)	230 lbs.	$1.30/sy
Mirafi 180N	8.0 oz.	17.5' x 300'(583 sy)	310 lbs.	$1.30/sy
Mirafi 1120N	12.0 oz.	13' x 300'(433 sy)	310 lbs.	$1.75/sy
Mirafi 1120N	12.0 oz.	17.5' x 300'(583 sy)	410 lbs.	$1.75/sy
Mirafi 1160N	16.0 oz.	13' x 150'(217 sy)	230 lbs.	$2.60/sy
Mirafi 1160N	16.0 oz.	17.5' x 150'(292 sy)	315 lbs.	$2.60/sy
WOVEN (heavy weight, high performance):				
Mirafi 1000HP	10 oz.	15' x 240'(400 sy)	265 lbs.	$2.50/sy
Mirafi 1200HP	12 oz.	15' x 240'(400 sy)	315 lbs.	$2.90/sy
Mirafi 2100HP	21 oz.	12' x 105'(140 sy)	200 lbs.	$6.90/sy
SPECIALITY PRODUCTS:				
Mirafi coated fabric MCF 1212		12' x 300'(400 sy)	190 lbs.	$2.25/sy
Geonet 250		6.25' x 100'(625 sf)	80 lbs.	$.70/sf
Geonet 250 - with fabric		6.25' x 100'(625 sf)	80 lbs.	$.95/sf

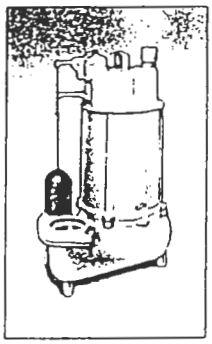
Manufacturers Representative: R. P. Martino and Company
2 Ledge Drive
Georgetown, MA 01833
617-352-2106

*Prices are for estimating purposes only. Call your local Mirafi representative or distributor for current prices and availability.

Fabric seaming available, price upon request.

Centrifugal Sewage Pumps

Submersible Automatic Sewage Ejector Pumps



- For 1¼" or 1½" solids
- Up to 9300 GPH capacities
- ½-HP motor

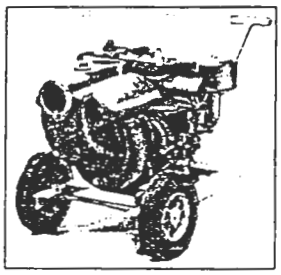
Continuous-duty pumps work tirelessly to pump sewage or other liquids containing solid matter. Built-in float switch provides automatic operation and has a quick-change feature for fast replacement if necessary. Pump also has a 10½-ft. power cord with 3-prong plug for manual use. Pumps have threaded flange connections, cast iron housing, and a 2-vane, ductile iron open impeller with a stainless steel shaft. Thermal overload-protected motor is ½ hp, 1750 rpm, 115 VAC, 60 Hz, 1 ph. Min. sump dia. is 13". Max. liquid temperature is 160° F. Pump height is 17⅝".

High-temperature (to 200° F) and 230 V models are available. Specify No. 9949K888, voltage, temperature, and discharge size. Prices on request.

PUMP PERFORMANCE					
Discharge	Head, Ft.	5	10	15	20
1½"	GPH	8220	6900	5400	3600
2"	GPH	8700	7500	6000	4200
3"	GPH	9300	8100	6480	4620

Discharge	Max. Dia., Solids	No.	NET EACH
1½"	1¼"	9949K19	$378.33
2"	1½"	9949K21	385.09
3"	1½"	9949K23	392.09

Solids Handling Pump



- For 1¾" solids
- 22,800 GPH capacity
- 10-HP engine

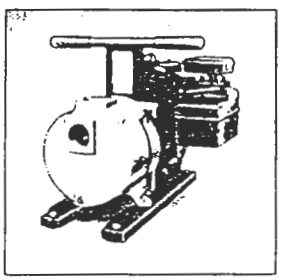
Extra heavy duty centrifugal unit gets the job done on hard-to-pump silt, rocks, sand, slurries, sludge, trash and sewage . . . handles large flows and solids up to 1¾" diameter. Self-priming pump performs suction lifts up to 25 feet. Pump has an aluminum housing with mechanical seals and a two-blade, nonclogging impeller. The 10-hp Briggs & Stratton, air-cooled, 3600 rpm, gasoline engine has recoil start and a 4-qt. fuel tank. Ports are 3" npt.

Pump is mounted on a heavy-duty steel frame with 10" pneumatic wheels and a handle for portability. Pump weighs 265 lbs.

PUMP PERFORMANCE				
Head, Ft.	25	40	60	90
GPH	22,800	18,420	13,500	4,500

No. 4388K22 ..... NET EACH $1612.68

Alumi-Lite Trash Pumps



- For 1" or 1½" solids
- Up to 20,400 GPH capacity

These self-priming pumps are constructed of lightweight aluminum, making them extremely portable but no less durable than heavier metals. Pumps are capable of suction lifts up to 25 feet. They welcome the dirty jobs, and really go into action to handle silt, rocks, sand, muddy water, sludge, trash and sewage.

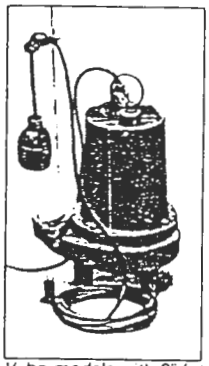
Impeller and volute are made of cast iron. Mechanical seal with a stainless steel shaft sleeve.

Powered by a Briggs & Stratton air-cooled, 4-cycle, 3600 rpm, gasoline engine with recoil start. Pumps include rubber foot mounts, a suction strainer, and a handy T-style handle for added portability.

PUMP PERFORMANCE					
Port	Head, Ft.	20	40	60	90
2"	GPH	10,800	9,240	7,200	3,120
3"	GPH	20,400	17,400	13,080	5,040

Port Size	Max. Dia., Solids	HP	Wt., Lbs.	No.	NET EACH
2	1"	5	71	4338K46	$668.69
3	1½"	8	105	4338K48	1024.21

Automatic High Head Sewage Pumps



- For 1½" solids
- Up to 8520 GPH capacity
- ⁵⁄₁₀- or ½-HP motor

Submersible, heavy-duty pumps make short work of waste, sewage, and solids up to 1½". Pumps have a mercury float control switch with piggyback plug to turn pump on and off automatically at levels you set. Switch mounts to discharge pipe with an adjustable stainless steel clamp.

Cast iron body and housing have a 416 stainless steel shaft. Thermal overload-protected motor is 115 VAC, 60 Hz, 1 ph. Furnished with 15-ft. grounded power cord. Minimum sump diameter is 14". Minimum sump depth is 30". Available in ⁵⁄₁₀- and ½-hp models with 2" fpt discharge. ⁵⁄₁₀-HP PUMP—Has a molded, glass-filled thermoplastic impeller and 1700 rpm motor. Max. temperature is 150° F. Pump ht. is 16½".

PUMP PERFORMANCE					
Head, Ft.	5	10	15	20	25
GPH	5400	4800	4080	3120	600

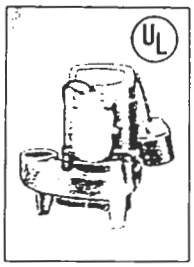
No. 5143K17 ..... NET EACH $307.83

½-HP PUMP—Has cast iron impeller and 1625 rpm motor. Maximum temperature is 160° F. Pump height is 19⅜". UL listed.

PUMP PERFORMANCE					
Head, Ft.	5	10	15	20	25
GPH	8520	7200	5400	3300	720

No. 5143K18 ..... NET EACH $414.29

UL-Listed Sewage Pumps



- For ½", ¾", or 2" solids
- Up to 6600 GPH capacity
- ⅓-, ⁵⁄₁₀-, or ½-HP motor

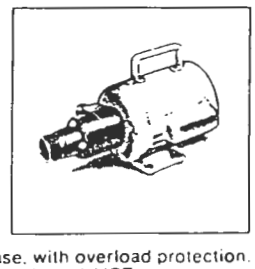
Move waste water and sewage out of collection areas to sewer or septic lines with these completely submersible, cast iron pumps. A float switch turns pump on and off automatically. You can set the pump to turn on at 9" to 14" and off at 2" to 6". Protective epoxy coating guards against rust and corrosion. Lifetime lubricated, thermal overload-protected motor is 115 VAC, 60 Hz, single phase. Furnished with 15-ft. power cord. Vortex impeller is nylon. Min. sump dia. is 18". Min. sump depth is 30". UL and CSA listed.

PUMP PERFORMANCE					
No.	Head, Ft.	5	10	15	20
42935K22	GPH	3000	2500	1600	—
42935K23	GPH	3120	2700	1980	—
42935K24	GPH	4800	3420	1440	—
42935K25	GPH	6600	5640	3900	840

HP	Discharge, Max. Dia., FPT	Solids	Ht.	No.	NET EACH
⅓	1½"	½"	10¼"	42935K22■	$131.21
⅓	1½"	¾"	8¼"	42935K23■	177.23
⁵⁄₁₀	2"	2"	11 ¹³⁄₁₆"	42935K24	251.45
½	2"	2"	12¾"	42935K25	362.41

■ Effluent pump with 10-ft. power cord.

Compact Grinder Pumps



- Turns up to 1½" semi-solids into ⅛" particles
- 1080 GPH capacity

An ideal solution to small waste-handling problems. Grind waste, tissue, and certain semi-solids down to a maximum particle size of ⅛". Not recommended for handling hard objects and rags. Mount these self-priming pumps anywhere. Equipped with a flexible Nitrile impeller with stainless steel wear plate and a cast bronze grinder plate.

Pump motor is 115 VAC, 60 Hz, 1 phase, with overload protection. Outlet port has 1" ID hose barb. Inlet port is 1½" MPT.

PUMP PERFORMANCE (Based on Water)				
Head, Ft.	5	10	20	30
GPH	840	780	648	516

No. 6766K12 ..... NET EACH $406.25

12/22/93 12:13

JMS Manufacturing Co., Inc.
dba BEE FIBERGLASS

198 Airport Road
Fall River, MA 02720
508-675-1141
FAX 508-675-1142

December 22, 1993

Engineering Science
101 Huntinton Ave.
Boston, MA 02199

Attn: Mr. Bowman Harvey

Re: FRP Tank
Bee project #93-541

Gentlemen,

We thank you for your inquiry and are pleased to offer our budgetary quotation as follows.

Item	Qty	Description
A	1	10'-0" dia. x 18'-0" Straight side, Flat bottom, flat top fiberglass tank with four lifting lugs. Budgetary Price Each.....$12,800.00

Item A will be contact molded to ASTM D4097 standards using Reichhold 33-402 resin and a 10 mil "c" veil liner.

Terms: To be determined
F.O.B. Fall River, MA. freight collect.
Prices quoted are valid for 30 days.

Delivery: Will be 4-6 weeks after receipt of approved drawings.

Drawings: Will be 1 week after receipt of purchase order.

If you have any questions please do not hesitate to contact this office.

Sincerely,

John A. Amarello
Project Engineer

JAA:ds

Remedial Systems, Inc.

56 Leonard Street
Foxboro, MA 02035-2929
(508) 543-1512
FAX (508) 543-7485

January 5, 1994

Dan Kelmar
Engineering Science
Prudentail Center - 101 Huntington Ave
Bostson, MA 02199

Tel: 617-859-2437
Fax: 617-859-2043

Subject: RSI Quotation # **SYS-01-0594-MA**
Proj: Sead Ash Landfill

Dear Dan,

Remedial Systems Inc. (RSI) is pleased to present the following quotation for the above referenced project.

Item 1: 2 - Water Depression Pump capable of **16 GPM @ 80' TDH**, 1/2 HP, 230V, 1 PH, Motor, all stainless steel construction, teflon seals, pump comes complete with 25' of (1.5") petroleum resistant discharge hose, and 25' of sheathed, petroleum resistant power lead.

$ 870.00 each

Item 2: 1 - **Total Fluids Well Probe** for use in single well water recovery, intrinsically safe, with 50 feet of cable.

$ 225.00 each

Item 3: (1) - RSI Low Profile Stripper Model **RTS-50-3** designed to meet the following conditions:

Chemical	Influent (ppb)	Effluent (ppb)	Removal (%)
TCE	100	1	99
c 1,2 DCE	120	1	99.17
Vinyl Chloride	20	1	95
Total	240	3	98.75

Water Temperature 50° F
Flowrate 30 gpm

Height	56"
Length	86"
Width	36"
Blower	230V, 1 ph, TEFC

This equipment includes inlet piping, liquid distributor, air discharge, demister, temperature gauge, pressure gauge, air inlet, blower, drainage sump, siphon drain, 3 level sump switch, and blower fail safe switch.

$ 11,610.00

Item 4: (1) - Transfer Pump, self priming, capable of 30 gpm @ 40 feet TDH, 230V, single phase, TEFC motor.

$ 695.00

Item 5: (1) - Stainless Steel Bag Filter ccapable of 50 GPM, 10 Micron filter bags.

$ 1,295.00

Item 6: 1 - LP-50 Liquid Phase Carbon Vessel:

- Max. Flowrate 56 GPM
- Max. Pressure 12 psig
- Max. Temp 125 °F
- Diameter 34"
- Overall Height 57"
- Inlet / Outlet 3" NPT
- Virgin Carbon 500 lbs
- Shipping Weight 1000 lbs

Carbon Vessels are constructed of mild steel with a high quality two layer epoxy interior coating and a hard enamel finish exterior.

$ 3,180.00 each

- Approximate cost for reactivation $ 360.00 each
- Approximate disposal cost $ 150.00 each

Item 7: (2) - **VP-600**, Vapor Phase Carbon Vessel:

- Max. Flowrate	600 CFM
- Max. Pressure	12 psig
- Max. Temp	125° F
- Footprint	34" X 46"
- Overall Height	57"
- Tank Height	42"
- Tank Diameter	32"
- Inlet / Outlet	3" NPT
- Virgin Carbon	500 lbs
- Shipping Weight	1000 lbs

Carbon Vessels are constructed of mild steel with a high quality two layer epoxy interior coating and a hard enamel finish exterior.

$ 3,950.00 each

Item 8: (1) - **RSI Control Panel** capable of operating and controlling (2) Water Table Depression Pump, (1) transfer pump and a complete Air Stripper System. (NEMA 4 weathertight enclosure)

$ 2,450.00

Item 9: (1) - **Optional Telemetry Module.** With this option, the user may remotely monitor and operate the site from an IBM-PC compatible computer equipped with a phone modem. The user will have information on all analog and digital inputs, outputs, cycle timers, and run times of each output in the system.

$ 2,495.00

- F.O.B. Factory
- Delivery: 5-6 weeks, after approval of drawings
- Terms: Net 30 days (subject to credit approval)
- Leasing Rates Available

Offer Valid for 90 days

If you have any additional questions, please do not hesitate to contact me.

Sincerely,

Brendan Boulerice

BAB
Enc: GB

Envirex Ltd.

414/547-0141
FAX: 414/547-4120
TELEX: 201312 ENWA UR

P.O. Box 1624
Waukesha, WI 53187-1624

1901 South Prairie Avenue
Waukesha, WI 53186-7360

January 25, 1994

Engineering-Science, Inc
Prudential Center
101 Huntington Ave
Boston, MA 02199

Attn: Mr. Dan Kelmar

Subject: Ash FS/Upstate NY
Groundwater Remediation

Dear Mr. Kelmar,

Thank you for your interest in the Envirex GAC-Fluid Bed process. As I believe I mentioned, your application is not quite straight forward. The chlorinated compounds are not readily aerobically biodegradable. One option that may be a consideration is to break the chlorine bond anaerobically and to follow aerobically to finish the degradation. We have been considering this flow scheme for a while but to be honest although we foresee no problems with it, we have not tested it to date.

Based on your application, the most economical design would be to use a Model "C" anaerobic unit followed by a Model "C" aerobic unit. I am enclosing information on the units. The unit sells for less than $50,000.00 each. We discussed the possibility of piloting the proposed system and I attached the pilot program and costs for such a system, which includes operational sizing and cost estimates.

If this is of any interest, please let me know.

Sincerely,

Stephanie A. Hansen

Stephanie A. Hansen, P.E.
Project Manager
Fluid Bed Group

ENVIREX LTD.

GAC-FLUID BED

Anaerobic

PROJECT: Ash FS - Upstate NY
DATE: 1-25-94

* AVE. CONDITIONS *

INF. CHARACTERISTICS:

FLOW (GPM)	30	FLOW (MGD)	0.04
BTEX (mg/l)	0.000	BTEX (#/D)	0.0
BENZENE	0.000	BTX-COD(mg/l)	0.0
TOLUENE	0.000	BTX-OD(mg/l)	0.0
ETH BENZENE	0.000		
T-XYLENES	0.000		
OTHER AROMATICS	0.000	BTX-OD (#/D)	0.0
AMMONIA-N (mg/l)	0.000	NH3 OD (#/D)	0.0
TPH'S (mg/l)	0.000	TPH COD (#/D)	0.0
CHLORINATED (mg/l)	0.210	CL ORG OD (#/D)	0.1
OTHER COD (mg/l)	0.0	TOTAL COD (mg/l)	0.4
IRON (mg/l)	20.0	TOTAL COD (#/D)	0.1
TEMP DEG F	65.0	TO2 DEMAND (#/D)	5.1

ACTUAL DESIGN:

REACTOR DIAM	1.7	BED VOL (FT3)	14
NO. REACTORS	1	R+Q FLOW (GPM)	30
BED DEPTH (FT)	6	R/Q RATIO	-0.0
FLUX (GPM/FT2)	13	HRT (MIN)	3
TCOD LOAD (#/DKCF)	376	CARBON (# ea)	204
BTXCOD LD (#/DKCF)	0	CARBON TOTAL	204

TSS OUT (mg/l)	40.1	TSS (#/DAY)	14.4

MODEL 30C
ESTIMATED 0
OPERATING COSTS

ELECT COST ($/KWhr)	$0.06	PUMP EFF %	78
		MOTOR EFF %	79
FLUID PUMP BHP ea:	1.5	PUMP $/D	$1.61
CHEMICAL FEED PUMP B	0.1	PUMP $/D	$0.13
GR CONTROL HP	0.3	PUMP $/D	$0.35
NO. UNITS	1	TOTAL PUMP $/D	$2.10
DIAMETER	1.7		
STD NUTR (GAL/D)	0.1	NUTR $/D	$0.14
ATTRITION (#/D)	0	CARBON ($/D)	$0.03
		TOTAL DAILY	$2.26
		TOTAL ANNUAL	$825.78

BUDGETARY
CAPITAL COST

BASIS: Complete skid package
includes installation assistance
and start up. Concrete pad
required.
INCLUDES: engineering,all equipment
controls/instrumentation,carbon,
start-up,training
MATL BASIS: 304 ss reactor, galv.
structural skid, NEMA 4X ss panel
PVC piping/valves

BUDGET PRICE $48,800

ENVIREX LTD.

GAC-FLUID BED

PROJECT: ENGINEERING SCIENCE
DATE: 1-25-94

* AVE. CONDITIONS *

INF. CHARACTERISTICS:

FLOW (GPM)	30	FLOW (MGD)	0.04
BTEX (mg/l)	0.000	BTEX (#/D)	0.0
BENZENE	0.000	BTX-COD(mg/l)	0.0
TOLUENE	0.000	BTX-OD(mg/l)	0.0
ETH BENZENE	0.000		
T-XYLENES	0.000		
OTHER AROMATICS	0.000	BTX-OD (#/D)	0.0
AMMONIA-N (mg/l)	0.000	NH3 OD (#/D)	0.0
TPH'S (mg/l)	0.000	TPH COD (#/D)	0.0
CHLORINATED (mg/l)	0.210	CL ORG OD (#/D)	0.1
OTHER COD (mg/l)	0.0	TOTAL COD (mg/l)	0.4
IRON (mg/l)	20.0	TOTAL COD (#/D)	0.1
TEMP DEG F	65.0	TO2 DEMAND (#/D)	5.1

ACTUAL DESIGN:

REACTOR DIAM	1.7	BED VOL (FT3)	13
NO. REACTORS	1	R+Q FLOW (GPM)	28
BED DEPTH (FT)	6	R/Q RATIO	-0.1
FLUX (GPM/FT2)	13	HRT (MIN)	3
TCOD LOAD (#/DKCF)	391	CARBON (# ea)	196
BTXCOD LD (#/DKCF)	0	CARBON TOTAL	196

#/D O2 USED	5.8	PSA SIZE (SCFH)	3
EFF O2 (mg/l)	2.0		
REACTOR INF 02	17.0		
TSS OUT (mg/l)	40.1	TSS (#/DAY)	14.4

MODEL 30C

ESTIMATED 0

OPERATING COSTS

ELECT COST ($/KWhr)	$0.06	PUMP EFF %	78
		MOTOR EFF %	79
FLUID PUMP BHP ea:	1.5	PUMP $/D	$1.61
H2O2 FEED PUMP BHP ea:	0.1	PUMP $/D	$0.13
NUTRIENT FEED PUMP BHP	0.1	PUMP $/D	$0.13
GR CONTROL HP	0.3	PUMP $/D	$0.35
NO. UNITS	1	TOTAL PUMP $/D	$2.23
DIAMETER	1.7		
H2O2 REQ'D (GAL/D)	4	H2O2 $/D (assumes H2O2 at $3.50/gal)	$13.18
STD NUTR (GAL/D)	0.1	NUTR $/D	$0.14
ATTRITION (#/D)	0	CARBON ($/D)	$0.03
		TOTAL DAILY	$15.57
		TOTAL ANNUAL	$5,684.12

BUDGETARY

CAPITAL COST

BASIS: Complete skid package includes installation assistance and start up. Concrete pad required.

INCLUDES: engineering,all equipment controls/instrumentation,carbon, start-up,training

MATL BASIS: 304 ss reactor, galv. structural skid, NEMA 4X ss panel PVC piping/valves, modulated DO control

BUDGET PRICE $48,800

***** VERSION 3.0 DRAFT ***** DATE: 01/06/94
TIME: 11:49:29

CORA DISCHARGE TO SURFACE WATER COST MODULE (406)

SITE NAME: SEDA ASH LANDFILL
OPERABLE UNIT: MIGRATION CONTROL ESTIMATED START: MID FY 1995
SCENARIO: LIQUID-PHASE CARBON
RUN BY: Dan Kelmar PHONE NUMBER: 617/859-2427

INPUTS

Parameter	Value
Transmission main	Gravity
Flow (GPM)	30
Length of pipe (ft)	1500
Depth of trench (ft)	6
Is diffuser required?	N
Average temp (degrees F)	50
Confidence level	M
Protection level	D

RESULTS

Component	Total
CAPITAL COSTS	
BASE CAPITAL COST	100,000
NPDES PERMIT	~~50,000~~
DIFFUSER	0
TOTAL CAPITAL COST	100,000
O & M COSTS	440

APPENDIX E

Non-time Critical Removal Action

DRAWING NUMBER	519200-B3	
CHECKED BY	SDL	8/15/95
APPROVED BY	Pwc	8/15/95
EGW	7/28/95	
DRAWN BY		

ASH LANDFILL

AREA A

AREA B

SB102 0FT-4FT
DIBENZO(A,H)ANTHRACENE 380
BENZO(A)PYRENE 22,000
INDENO(1,2,3-CD)PYRENE 8,600
CHRYSENE 26,000

N 995158.21
E 420363.05

SB119 0FT-2FT
BENZO(A)PYRENE 2,800
INDENO(1,2,3-CD)PYRENE 3,500
CHRYSENE 1,600
BENZO(A)ANTHRACENE 2,200

SB119 4FT-6FT
BENZO(A)PYRENE 160
BENZO(A)ANTHRACENE 340

N 995102.30
E 420352.88

N 994898.21
E 420332.13

N 994917.56
E 420324.00

N 994882.25
E 420318.68

N 994952.46
E 420307.23

N 995268.24
E 420275.63

N 994986.50
E 420259.46

SB105 0FT-2FT
INDENO(1,2,3-CD)PYRENE 3,700
BENZO(A)PYRENE 6,900
CHRYSENE 3,900
BENZO(A)ANTHRACENE 4,600

SB129 0FT-2FT
BENZO(A)PYRENE 1,800
CHRYSENE 1,800
BENZOANTHRACENE 1,600

SB129 6FT-7FT
1,2-DICHLOROETHENE 310

N 995013.61
E 420206.24

N 994855.99
E 420175.48

N 995243.07
E 420174.01

N 994994.74
E 420128.90

N 994860.98
E 420144.62

N 994883.19
E 420130.02

N 995190.73
E 420089.65

N 994956.09
E 420114.69

SB108 7FT-9FT
1,2-DICHLOROETHENE 550

N 995003.71
E 420075.93

N 995037.25
E 420050.02

SB-101 SB-102 SB-103 SB-104 SB-105 SB-106 SB-107 SB-108 SB-109 SB-110 SB-111 SB-112 SB-113 SB-114 SB-115 SB-116 SB-117 SB-118 SB-119 SB-120 SB-121 SB-122 SB-123 SB-124 SB-125 SB-126 SB-127 SB-128 SB-129 SB-130 SB-131

E 420000

N 995000

SCALE
0 50 100 FEET

NOTES:

1. SB-102, SB-105, SB-108, AND SB-129 OVEREXCAVATED BY APPROXIMATELY THREE FEET, DUE TO ELEVATED PAH CONCENTRATIONS, AS REQUESTED BY NYSDEC. CONFIRMATORY SIDEWALL SAMPLES WERE TAKEN FROM EACH SOIL BORING LOCATION EXCEPT SB-102. REFER TO MEMORANDUM SUBJECT "OVEREXCAVATION OF AREA "A" SOIL BORINGS SB-102 AND SB-105" FOUND IN APPENDIX N PROJECT CORRESPONDENCE.

2. FIGURE BASED ON ENGINEERING-SCIENCE, INC. FIGURE 3, "AREA OF CONCERN REMEDIATION PLAN," JUNE 1994.

LEGEND

SB-101 CHRYSENE 500	SOIL BORING WITH CLEAN-UP LEVEL EXCEEDANCES (PPB)
- - - -	WATER MAIN
— · — · —	ASH LANDFILL
———	EXCAVATION BOUNDARY
- - - -	FORMER REFUSE PITS
	WETLAND

SCALE: 1" = 50'

FIGURE 1-3
AREAS OF CONCERN AT ASH LANDFILL

PREPARED FOR

SENECA ARMY DEPOT
ROMULUS, NEW YORK

INTERNATIONAL TECHNOLOGY CORPORATION

132298

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"Do Not Scale This Drawing"

DRAWING NUMBER 519200-B4

DRAWN BY	EGW	7/31/95
CHECKED BY	ODL	8/7/95
APPROVED BY	Fmc	8/7/95

FRAC TANKS

AIR MONITORING STATION #1

WATER TREATMENT PLANT

MET STATION

FRAC TANKS

E 420000

MODUTANK STORAGE CONTAINER

DECON PAD

AREA A

CONTAMINATED SOIL STAGING AREA

AIR MONITORING STATION #3

N 995000

CONEX STORAGE

AREA B

WEST PATROL ROAD

PROPANE TANKS

LTTD UNIT

BAG HOUSE

POST-TREATMENT SOIL STAGING AREA

POST-TREATMENT SOIL STAGING AREA

EXCLUSION ZONE FENCE

OFFICE TRAILER

DECON TRAILERS

FUEL STATION

PIT AREA

AIR MONITORING STATION #2

SCALE 0 75 150 FEET

BREAK TRAILER

ABANDONED INCINERATOR BUILDING

PARKING AREA

SMOKE SHACK

OFFICE TRAILERS

CONEX STORAGE

DUMPSTER

WEST SMITH FARM ROAD

FIGURE 1-4
SITE PLAN

PREPARED FOR

SENECA army DEPOT
ROMULUS, NEW YORK

INTERNATIONAL TECHNOLOGY CORPORATION

132298

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"Do Not Scale This Drawing"

Analytical Testing

TABLE 3-1
SITE SPECIFIC CLEANUP LEVELS
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

Site Specific Compounds	Site Specific Cleanup Levels (ppb)
Volatiles	
Trichloroethene	700
1,2-Dichloroethene	300
Vinyl Chloride	200
Toluene	1,500
Total Xylenes	1,200
Semivolatiles	
Napthalene	13,000
Phenanthrene	50,000
Fluoranthene	50,000
Pyrene	50,000
Bis(2-ethylhexyl)phthalate	50,000
Indeno(1,2,3-cd)pyrene	3,200
Benzo(a)anthracene	220
Chrysene	400
Benzo(a)pyrene	61
Dibenz(a,h)anthracene	14

ppb - parts per billion

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

Compounds	Sample Identification and Constituent Concentration (ppb)								
	Trip Blank (10/31/94)	PT-B1-1	T-B1-1	Trip Blank (11/1/94)	PT B1-2	T-B1-2 RE	PT-B1-3	T-B1-3 RE	Trip Blank (11/1/94)
	ND≥10	180 D	ND≥11	ND≥10	130 D	ND≥12	20	ND≥12	ND≥10
ene (total)	ND≥10	300 D	ND≥11	ND≥10	180 D	ND≥12	29	ND≥12	ND≥10
	ND≥10	21	ND≥11	ND≥10	5 J	ND≥12	8 J	ND≥12	ND≥10
	ND≥10	2 J	ND≥11	ND≥10	2 J	ND≥12	ND≥12	2 J	ND≥10
	ND≥10	3 J	ND≥11	ND≥10	ND≥12	ND≥12	ND≥12	ND≥12	ND≥10
	NA	ND ≥ 660	ND≥660	NA	63 J	ND≥660	ND≥660	ND≥660	NA
	NA	ND≥660	ND≥660	NA	180 J	ND≥660	67 J	ND≥660	NA
	NA	ND≥660	ND≥660	NA	290 J	ND≥660	110 J	ND≥660	NA
	NA	ND≥660	ND≥660	NA	270 J	ND≥660	110 J	ND≥660	NA
l)phthalate	NA	ND≥660	ND≥660	NA	190 J	ND≥660	50 J	ND≥660	NA
)pyrene	NA	ND≥660	ND≥660	NA	377 J	ND≥660	ND≥660	ND≥660	NA
ene	NA	**320***	24	NA	**290***	5.0 J	100	25	NA
	NA	350	39	NA	270	ND≥12	95	17	NA
	NA	**400***	30	NA	**230***	ND≥21	**87***	17 J	NA
hracene	NA	**110***	ND≥18	NA	**ND≥18***	**ND≥18***	**17 J***	**ND≥18***	NA

J of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

ic Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-B1-4	PT-B1-5	Trip Blank (11/4/94)	T-B1-5	PT-B1-6	T-B1-6	Trip Blank (11/7/94)	PT-B1-7	T-B1-7
ene	ND≥11	52	ND≥10	ND≥11	150 D	ND≥10	ND≥10	260 B	ND≥11
ethene (total)	ND≥11	78	ND≥10	1 J	210 D	ND≥10	ND≥10	**650 B***	ND≥11
le	ND≥11	4 J	ND≥10	ND≥11	65	ND≥10	ND≥10	28 J	ND≥11
	ND≥11	ND≥11	ND≥10	2 J	1 J	2 J	ND≥10	1 J	ND≥11
es	ND≥11	ND≥11	ND≥10	ND≥11	4 J	ND≥10	ND≥10	ND≥55	ND≥11
s									
	ND≥660	42 J	NA	ND≥660	180 J	ND≥660	NA	92 J	ND≥660
e	ND≥660	180 J	NA	ND≥660	290 J	ND≥660	NA	280 J	ND≥660
e	ND≥660	290 J	NA	ND≥660	360 J	42 J	NA	430 J	ND≥660
	ND≥660	280 J	NA	ND≥660	320 J	ND≥660	NA	330 J	ND≥660
exyl)phthalate	520 J	70 J	NA	ND≥660	88 J	ND≥660	NA	110 J	400 J
-cd)pyrene	ND≥660	73 J	NA	ND≥660	93 J	ND≥660	NA	110 J	ND≥660
hracene	16	**260***	NA	41	**260***	29	NA	**490***	32
	9.4 J	120	NA	74	250	41	NA	**480***	61
ene	16 JB	**110 B***	NA	40 B	**240 B***	38 B	NA	**220***	21 J
)anthracene	**ND≥18***	8.8 JB	NA	**27 B***	7.7 JB	**30 B***	NA	**100***	11 J

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

Compounds	Sample Identification and Constituent Concentration (ppb)									
	T-B1-8	T-B1-8 duplicate	Equipment Blank	Field Blank	Trip Blank (11/7/94)	PT-B1-9	T-B1-9	PT-B1-10	Trip Blank (11/7/94)	
ne	ND≥12	ND≥11	ND≥10	ND≥10	ND≥10	160	ND≥12	82 B	ND≥10	
hene (total)	ND≥12	ND≥11	ND≥10	ND≥10	ND≥10	**610***	ND≥12	200	ND≥10	
	ND≥12	ND≥11	ND≥10	ND≥10	ND≥10	25 J	ND≥12	3 J	ND≥10	
	1 J	1 J	ND≥10	ND≥10	ND≥10	ND≥53	1 J	0.6 J	ND≥10	
	ND≥12	ND≥11	ND≥10	ND≥10	ND≥10	ND≥53	ND≥12	ND≥11	ND≥10	
	ND≥660	ND≥660	ND≥10	NA	NA	140 J	ND≥660	250 J	NA	
	53 J	47 J	ND≥10	NA	NA	560 J	120 J	470 J	NA	
	61 J	70 J	ND≥10	NA	NA	900	190 J	700	NA	
	62 J	53 J	ND≥10	NA	NA	680	120 J	520 J	NA	
yl)phthalate	ND≥660	ND≥660	ND≥10	NA	NA	200 J	30 J	190 J	NA	
d)pyrene	49 J	40 J	ND≥10	NA	NA	270 J	99 J	190 J	NA	
acene	38	81	ND≥0.16	NA	NA	98 B	18 B	210 B	NA	
	40	61	ND≥0.17	NA	NA	110	16	220	NA	
e	40	61	ND≥0.31	NA	NA	**100 B***	22 B	**200 B***	NA	
nthracene	**22***	**27***	ND≥0.27	NA	NA	**21***	**ND≥18***	**26***	NA	

d of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

c Compounds	Sample Identification and Constituent Concentration (ppb)									
	Trip Blank (11-12-94)	T-B1-11	T-B2-1	T-B2-2	T-B2-3	T-B2-4	T-B2-5	Trip Blank (11-14-94)	T-B2-6 RE	
hene	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND≥10	ND≥11	
roethene (total)	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND≥10	ND≥11	
ride	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND≥10	ND≥11	
	ND≥10	ND≥10	0.1 J	2 J	ND≥10	ND≥11	0.1 J	ND≥10	ND≥11	
nes	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND≥10	ND≥11	
	NA	ND≥660	ND≥660	ND≥660	ND≥660	ND≥660	ND≥660	NA	ND≥660	
ene	NA	ND≥660	54 J	64 J	110 J	92 J	56 J	NA	36 J	
ne	NA	ND≥660	86 J	94 J	110 J	140 J	87 J	NA	50 J	
	NA	ND≥660	61 J	69 J	82 J	110 J	64 J	NA	ND≥660	
hexyl)phthalate	NA	ND≥660	ND≥660	ND≥660	ND≥660	ND≥660	ND≥660	NA	ND≥660	
,3-cd)pyrene	NA	ND≥660	ND≥660	ND≥660	ND≥660	52 J	ND≥660	NA	ND≥660	
thracene	NA	31	130	110	45	82	65	NA	20	
	NA	33	85	80	35	83	46	NA	19	
rene	NA	26	**63***	**68***	32	**77***	49	NA	18 JB	
h)anthracene	NA	**15 J***	**32***	**40***	**18 J***	**42***	**29***	NA	**ND≥18***	

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

fic Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-B2-8	Trip Blank (11-15-94)	T-B2-9	T-B2-10	T-B2-11	Trip Blank (11-16-94)	T-B2-12	T-B2-12 duplicate	T-B2-13
ethene	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥11	ND≥11	ND≥11
oroethene (total)	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥11	ND≥11	ND≥11
oride	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥11	ND≥11	ND≥11
	1 J	ND≥10	0.1 J	1 J	ND≥10	4 BJ	ND≥11	ND≥11	ND≥11
lenes	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	1 J	ND≥11	ND≥11	ND≥11
es									
ne	ND≥660	NA	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660	ND≥660
rene	33 J	NA	32 J	ND≥660	39 J	NA	110 J	130 J	91 J
ene	42 J	NA	42 J	28 J	59J	NA	184 J	230 J	160 J
	ND≥660	NA	ND≥660	ND≥660	37 J	NA	80 J	100 J	74 J
ylhexyl)phthalate	ND≥660	NA	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660	ND≥660
2,3-cd)pyrene	ND≥660	NA	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660	48 J
anthracene	29	NA	16	16	34	NA	61 B	120 B	77 B
	17	NA	20	19	44	NA	33 B	68 B	79 B
pyrene	17 JB	NA	15 J	15 J	39	NA	29 B	**71 B***	**93 B***
a,h)anthracene	**ND≥18***	NA	**ND≥18***	**ND≥18***	**ND≥18***	NA	9 J	**17 J***	**78***

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

ic Compounds	Sample Identification and Constituent Concentration (ppb)									
	Equipment Blank	Field Blank	C-SB-129R	Trip Blank (11-17-94)	T-B2-15	T-B2-16	Trip Blank (11-18-94)	T-B2-17	T-B2-18	
nene	ND≥10	ND≥10	15 B	0.8 JB	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	
oethene (total)	ND≥10	ND≥10	47	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	
ide	ND≥10	ND≥10	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	
	1.0 JB	0.80 JB	ND≥11	2.0 JB	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	
es	ND≥10	ND≥10	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	
	ND≥10	NA	ND≥660	NA	ND≥660	ND≥660	NA	ND≥660	ND≥660	
ne	ND≥10	NA	130 J	NA	78 J	77 J	NA	81 J	97 J	
e	ND≥10	NA	230 J	NA	110 J	110 J	NA	120 J	160 J	
	ND≥10	NA	100 J	NA	55 J	56 J	NA	55 J	79 J	
nexyl)phthalate	ND≥10	NA	ND≥660	NA	ND≥660	ND≥660	NA	ND≥660	ND≥660	
3-cd)pyrene	ND≥10	NA	ND≥660	NA	ND≥660	33 J	NA	38 J	ND≥660	
thracene	0.062 JB	NA	21 B	NA	97	18	NA	24	78	
	ND≥0.17	NA	10 JB	NA	38	6.5 J	NA	33	87	
rene	ND≥ 0.31	NA	6.5 JB	NA	35	5.2 J	NA	11 JB	49 B	
n)anthracene	ND≥ 0.27	NA	5.9 J	NA	**ND≥18***	**ND≥18***	NA	6.1 J	**22***	

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

fic Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-B2-20	T-B3-1	Trip Blank (11-19-94)	T-B3-2	T-B3-3	T-B3-4 RE	Trip Blank (11-23-94)	T-B3-5 RE	T-B3-6
thene	ND≥11	ND≥11	1 BJ	ND≥11	0.7 JB	ND≥11	ND≥10	ND≥11	ND≥11
roethene (total)	ND≥11	ND≥11	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND≥11	ND≥11
ride	ND≥11	ND≥11	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND≥11	ND≥11
	2 BJ	ND≥11	4 BJ	3 BJ	4 BJ	ND≥11	0.60 J	ND≥11	ND≥11
nes	ND≥11	ND≥11	ND≥10	ND≥11	2 J	ND≥11	ND≥10	ND≥11	ND≥11
e	ND≥660	ND≥660	NA	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660
ene	95 J	49 J	NA	46 J	68 J	33 J	NA	ND≥660	ND≥660
ne	148 J	60 J	NA	64 J	79 J	34 J	NA	ND≥660	ND≥660
	74 J	34 J	NA	33 J	37 J	ND≥660	NA	ND≥660	ND≥660
lhexyl)phthalate	ND ≥ 660	ND≥660	NA	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660
,3-cd)pyrene	53 J	ND≥660	NA	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660
nthracene	78	92	NA	46	46	31	NA	2.9 JB	25 B
	97	120	NA	50	61	39	NA	ND≥12	19 B
yrene	43 B	41 B	NA	21 JB	19 JB	11 JB	NA	6.2 J	ND≥21
,h)anthracene	**22***	**15 J***	NA	7.5 J	**ND≥21***	**21***	NA	**ND≥18***	**ND≥18***

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

ific Compounds	Sample Identification and Constituent Concentration (ppb)									
	T-B3-7 RE	T-B3-8	T-B3-9 RE	T-B4-1	T-B4-2	Trip Blank (11-27-94)	T-B4-3 RE	T-B4-4 RE	T-B4-5 RE	
thene	ND≥11	ND≥11	ND≥11	ND≥11	ND≥11	ND≥10	ND≥11	1.0 J	ND≥11	
oroethene (total)	ND≥11	ND≥11	ND≥11	ND≥11	ND≥11	ND≥10	ND≥11	ND≥12	ND≥11	
ride	ND≥11	ND≥11	ND≥11	ND≥11	ND≥11	ND≥10	ND≥11	ND≥12	ND≥11	
	ND≥11	3 BJ	ND≥11	3 BJ	2 BJ	ND≥10	2 J	4 J	ND≥11	
nes	ND≥11	ND≥11	ND≥11	2 BJ	ND≥11	0.6 J	ND≥11	ND≥12	ND≥11	
s										
e	ND≥660	ND≥660	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660	ND≥660	
ene	ND≥660	43 J	47 J	41 J	37 J	NA	41 J	48 J	67 J	
ene	ND≥660	56 J	54 J	39 J	36 J	NA	45 J	58 J	74 J	
	ND≥660	33 J	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660	47 J	
lhexyl)phthalate	ND≥660	43 JB	ND≥660	ND≥660	ND≥660	NA	106 J	ND≥660	ND≥660	
2,3-cd)pyrene	ND≥660	ND≥660	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660	ND≥660	
nthracene	ND≥11	58 B	37 B	47 B	64 B	NA	110 B	99 B	170 B	
	3.7 JB	85 B	34 B	31 B	98 B	NA	46 B	38 B	57 B	
yrene	ND≥21	13 J	30	14 J	ND≥21	NA	55	40	**81***	
,h)anthracene	**ND≥18***	**20***	7.5 J	6.6 J	**ND≥18***	NA	**18 J***	8.3 J	**44***	

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

ic Compounds	Sample Identification and Constituent Concentration (ppb)									
	T-B4-6	T-B4-7 RE	T-B4-8 RE	EB-B4-5	FB-B4-5	Trip Blank (11-28-94)	T-B4-9	T-B4-10 RE	Trip Blank (11-28-94)	
ıene	ND≥11	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	ND≥12	ND≥11	ND≥10	
ethene (total)	ND≥11	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	ND≥12	ND≥11	ND≥10	
de	ND≥11	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	ND≥12	ND≥11	ND≥10	
	2 J	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	ND≥12	ND≥11	ND≥10	
es	ND≥11	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	ND≥12	ND≥11	ND≥10	
	ND≥660	ND≥660	ND≥660	ND≥10	NA	NA	ND≥660	ND≥660	NA	
ıe	53 J	ND≥660	ND≥660	ND≥10	NA	NA	ND≥660	ND≥660	NA	
e	65 J	ND≥660	ND≥660	ND≥10	NA	NA	ND≥660	ND≥660	NA	
	36 J	ND≥660	ND≥660	ND≥10	NA	NA	ND≥660	ND≥660	NA	
nexyl)phthalate	ND≥660	ND≥660	ND≥660	ND≥10	NA	NA	ND≥660	ND≥660	NA	
3-cd)pyrene	ND≥660	ND≥660	ND≥660	ND≥10	NA	NA	ND≥660	ND≥660	NA	
hracene	77 B	55 B	25 B	ND≥0.16	NA	NA	5.7 JB	6.5 JB	NA	
	28 B	20 B	9.0 JB	ND≥0.17	NA	NA	ND≥12	4.3 JB	NA	
rene	23	20 J	12 J	ND≥0.31	NA	NA	6.9 J	ND≥21	NA	
)anthracene	11 J	**ND≥18***	**ND≥18***	ND≥0.27	NA	NA	**ND≥18***	**ND≥18***	NA	

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

e Compounds	Sample Identification and Constituent Concentration (ppb)									
	Trip Blank (12-1-94)	T-B4-12 RE	Trip Blank (12-2-94)	T-B4-13	T-B4-14	T-B4-15	Trip Blank (12-3-94)	T-B4-16	T-B4-17	
ene	ND≥10	ND≥12	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥11	ND≥11	
ethene (total)	ND≥10	ND≥12	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥11	ND≥11	
le	ND≥10	ND≥12	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥11	ND≥11	
	ND≥10	ND≥12	ND≥10	2 J	ND≥11	ND≥10	ND≥10	ND≥11	ND≥11	
es	ND≥10	ND≥12	2J	ND≥11	ND≥11	ND≥10	2J	ND≥11	ND≥11	
	NA	ND≥660	NA	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660	
e	NA	ND≥660	NA	59 J	93 J	123 J	NA	100 J	92 J	
e	NA	ND≥660	NA	101 J	143 J	200 J	NA	160 J	150 J	
	NA	ND≥660	NA	48 J	73 J	97 J	NA	140 J	80 J	
exyl)phthalate	NA	610 J	NA	404 J	ND≥660	ND≥660	NA	ND≥660	ND≥660	
-cd)pyrene	NA	ND≥660	NA	ND≥660	ND≥660	ND≥660	NA	ND≥660	ND≥660	
hracene	NA	5.0 J	NA	20 B	**233 B***	35 B	NA	160 B	170 B	
	NA	ND≥12	NA	48	96	60	NA	66	71	
ene	NA	7.7 JB	NA	36	**70***	**120***	NA	**79 B***	**98 B***	
)anthracene	NA	**ND≥21***	NA	**ND≥18***	**ND≥18***	**21***	NA	**46***	**65***	

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

c Compounds	Sample Identification and Constituent Concentration (ppb)									
	T-A1-1	T-A1-1 duplicate	T-A1-2 RE	T-A1-3	EB-B4-18	FB-B4-18	Trip Blank (12-5-94)	T-A1-4 RE	Trip Blank (12-5-94)	
ene	ND≥11	ND≥11	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	
ethene (total)	ND≥11	ND≥11	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	
de	ND≥11	ND≥11	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	
	ND≥11	ND≥11	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	
es	ND≥11	ND≥11	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	
	ND≥660	190 J	ND≥660	ND≥660	ND≥10	NA	NA	ND≥660	NA	
e	79 J	160 J	120 J	170 J	ND≥10	NA	NA	210 J	NA	
e	132 J	150 J	210 J	290 J	ND≥10	NA	NA	480 J	NA	
	79 J	103 J	120 J	170 J	ND≥10	NA	NA	300 J	NA	
exyl)phthalate	840	ND≥660	ND≥660	ND≥660	ND≥10	NA	NA	ND≥660	NA	
-cd)pyrene	ND≥660	85 J	ND≥660	200 J	ND≥10	NA	NA	330 J	NA	
hracene	130 B	170 B	140 B	**440 B***	0.079 J	NA	NA	96 B	NA	
	61	130	86	280	ND≥0.17	NA	NA	180	NA	
ene	**68 B***	**140 B***	**87 B***	**330 B***	ND≥0.31	NA	NA	**81 B***	NA	
)anthracene	**20 J***	**67***	**45***	**260***	ND≥0.32	NA	NA	**84***	NA	

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

	Sample Identification and Constituent Concentration (ppb)									
e Compounds	Trip Blank (12-7-94)	T-A1-6 RE	Trip Blank (12-8-94)	T-A1-7 RE	Trip Blank (12-8-94)	T-A1-8	Trip Blank (12-15-94)	T-A1-9	Trip Blank (12-17-94)	
ene	ND≥10	ND≥11	ND≥10	ND≥10	ND≥10	ND≥12	ND≥10	10 J	ND≥10	
ethene (total)	ND≥10	ND≥11	ND≥10	ND≥10	ND≥10	2 J	ND≥10	12	ND≥10	
de	ND≥10	ND≥11	ND≥10	ND≥10	ND≥10	ND≥12	ND≥10	ND≥11	ND≥10	
	ND≥10	ND≥11	ND≥10	3 BJ	ND≥10	2 J	ND≥10	ND≥11	ND≥10	
es	ND≥10	ND≥11	ND≥10	1.0 J	ND≥10	ND≥12	ND≥10	ND≥11	ND≥10	
	NA	ND≥660	NA	56 J	NA	53 J	NA	450 J	NA	
e	NA	110 J	NA	110 J	NA	110 J	NA	2200	NA	
e	NA	160 J	NA	99 J	NA	140 J	NA	2500	NA	
	NA	92 J	NA	85 J	NA	140 J	NA	1800	NA	
hexyl)phthalate	NA	290 J	NA	ND≥660	NA	ND≥660	NA	120 JB	NA	
3-cd)pyrene	NA	96 J	NA	150 J	NA	210 J	NA	930 J	NA	
hracene	NA	180 B	NA	**370 B***	NA	**350 B***	NA	**760 B***	NA	
	NA	110 B	NA	170	NA	170	NA	**490 B***	NA	
rene	NA	**110 B***	NA	**350 B***	NA	**390 B***	NA	**800 B***	NA	
)anthracene	NA	**34***	NA	**ND≥18***	NA	**420 B***	NA	**400***	NA	

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

pecific Compounds	Sample Identification and Constituent Concentration (ppb)								
	Trip Blank (1/5/95)	T-A1-11 RE	Trip Blank (1/9/95)	T-A1-12	T-A1-12 duplicate RE	T-A1-13 RE	T-A1-14 RE	T-A1-15 RE	EB-A1-13
roethene	ND≥10	ND≥11	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	2 J	ND≥10
chloroethene (total)	ND≥10	ND≥11	ND≥10	ND≥10	ND≥10	ND≥10	3J	2 J	ND≥10
chloride	ND≥10	ND≥11	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	ND≥10
e	ND≥10	ND≥11	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	3 J	ND≥10
Xylenes	ND≥10	ND≥11	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	ND≥10	ND≥10
tiles									
lene	NA	ND≥660	NA	ND≥660	ND≥660	ND≥660	ND≥660	87 J	ND≥10
threne	NA	319 J	NA	470 J	290 J	160 J	120 J	150 J	ND≥10
nthene	NA	510 J	NA	770 J	510 J	220 J	100 J	120 J	ND≥10
	NA	310 J	NA	460 J	290 J	120 J	100 J	130 J	ND≥10
ethylhexyl)phthalate	NA	ND≥660	NA	ND≥660	ND≥660	ND≥660	ND≥660	ND≥660	2.2 J
(1,2,3-cd)pyrene	NA	260	NA	660	390 J	150	220 J	250 J	ND≥10
a)anthracene	NA	100 B	NA	**650 B***	**330 B***	13 B	**250 B***	**340 B***	ND≥0.16
ne	NA	57 B	NA	**440 B***	220 B	18 B	210 B	180 B	ND≥0.17
a)pyrene	NA	**65 B***	NA	**620 B***	**350 B***	ND≥21	**610 B***	**500 B***	ND≥0.31
o(a,h)anthracene	NA	**36***	NA	**340***	**230***	**47***	**ND≥18***	**ND≥18***	ND≥0.32

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

pecific Compounds	Sample Identification and Constituent Concentration (ppb)								
	Trip Blank (1/11/95)	T-A1-16	T-A1-17 RE	T-A1-18	Trip Blanks (1/12/95)	T-A1-19	T-A1-20 RE	Trip Blank (1/13/95)	T-A1-21 RE
roethene	0.4 J	1 J	2 J	0.80 J	ND≥10	3 BJ	3 BJ	ND≥10	ND≥11
chloroethene (total)	ND≥10	ND≥11	ND≥11	ND≥11	ND≥10	3 J	5 J	ND≥10	ND≥11
chloride	ND≥10	ND≥11	ND≥11	ND≥11	ND≥10	ND ≥ 11	ND≥11	ND≥10	ND≥11
e	ND≥10	ND≥11	3 J	ND≥11	ND≥10	7 BJ	3BJ	ND≥10	ND≥11
Xylenes	ND≥10	ND≥11	ND≥11	ND≥11	ND≥10	2 J	ND≥11	ND≥10	ND≥11
tiles									
lene	NA	ND≥660	ND≥660	80 J	NA	60 J	43 J	NA	54 J
nthrene	NA	130 J	150 J	380 J	NA	330 J	64 J	NA	100 J
nthene	NA	130 J	180 J	500 J	NA	360 J	57 J	NA	100 J
	NA	100 J	120 J	340 J	NA	280 J	45 J	NA	75 J
ethylhexyl)phthalate	NA	130 J	ND≥660	100 J	NA	ND≥660	ND≥660	NA	ND≥660
(1,2,3-cd)pyrene	NA	190 J	100 J	390 J	NA	420 J	ND≥660	NA	130 J
(a)anthracene	NA	**410 B***	**270 B**	**320 B***	NA	210	130	NA	**310 B***
ene	NA	320 B	160 B	300 B	NA	130 B	74 B	NA	110 B
(a)pyrene	NA	**550 B***	**260 B***	**400 B***	NA	**180***	**130***	NA	**240 B***
zo(a,h)anthracene	NA	**310***	**190***	**250***	NA	**ND≥18***	**ND≥18***	NA	**240***

at end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

	Sample Identification and Constituent Concentration (ppb)								
Site Specific Compounds	Trip Blanks (1/16/95)	T-A1-23 RE	T-A1-24	Trip Blank (1/16/95)	T-A1-25	EB-A1-M15	Trip Blank (1/17/95)	T-A1-26 RE	T-A dup
Volatiles									
Trichloroethene	ND≥10	ND≥11	ND≥11	ND≥10	4 J	ND≥10	ND≥10	ND≥11	ND
1,2-Dichloroethene (total)	ND≥10	ND≥11	ND≥11	ND≥10	12	ND≥10	ND≥10	ND≥11	ND
Vinyl chloride	ND≥10	ND≥11	ND≥11	ND≥10	7 J	ND≥10	ND≥10	ND≥11	ND
Toluene	ND≥10	ND≥11	ND≥11	ND≥10	2 J	1J	ND≥10	ND≥11	ND
Total Xylenes	ND≥10	ND≥11	ND≥11	ND≥10	2 J	ND≥10	ND≥10	ND≥11	ND
Semivolatiles									
Napthalene	NA	ND≥660	ND≥660	NA	89 J	NA	NA	ND≥660	ND
Phenanthrene	NA	93 J	87 J	NA	580 J	NA	NA	68J	5
Fluoranthene	NA	130 J	100 J	NA	550 J	NA	NA	83 J	5
Pyrene	NA	89 J	110 J	NA	680	NA	NA	60 J	4
Bis(2-ethylhexyl)phthalate	NA	ND≥660	ND≥660	NA	78 J	NA	NA	ND≥660	6
Indeno(1,2,3-cd)pyrene	NA	140 J	210 J	NA	290 J	NA	NA	59 J	3
Benzo(a)anthracene	NA	**250 B***	68 B	NA	**520 B***	NA	NA	110 B	7
Chrysene	NA	205 B	98 B	NA	320 B	NA	NA	130 B	8
Benzo(a)pyrene	NA	**320 B***	**530 B***	NA	**860 B***	NA	NA	**190 B***	5
Dibenzo(a,h)anthracene	NA	**270***	**480***	NA	**990***	NA	NA	**270***	**1**

Notes at end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

	Sample Identification and Constituent Concentration (ppb)								
ite Specific Compounds	T-A1-27	FB-A1-27	EB-A1-M16	Trip Blank (1/19/95)	T-A1-28	T-A1-29	T-A1-30	Trip Blank (1/20/95)	T-A R
atiles									
richloroethene	ND≥11	ND≥10	NA	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND
,2-Dichloroethene (total)	ND≥11	ND≥10	NA	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND
inyl chloride	ND≥11	ND≥10	NA	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND
oluene	ND≥11	11	NA	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND
otal Xylenes	ND≥11	ND≥10	NA	ND≥10	ND≥11	ND≥10	ND≥11	ND≥10	ND
ivolatiles									
laphthalene	ND≥660	NA	ND≥10	NA	ND≥660	ND≥660	ND ≥ 660	NA	ND ≥
henanthrene	77 J	NA	ND≥10	NA	72 J	71 J	67 J	NA	40
luoranthene	110 J	NA	ND≥10	NA	72 J	58 J	80 J	NA	37
yrene	82 J	NA	ND≥10	NA	68 J	48 J	72 J	NA	3.
is(2-ethylhexyl)phthalate	ND≥660	NA	ND≥10	NA	ND≥660	ND≥660	ND ≥ 660	NA	ND≥
ndeno(1,2,3-cd)pyrene	88 J	NA	ND≥10	NA	88 J	44 J	76 J	NA	3
enzo(a)anthracene	110 B	NA	0.067 JB	NA	110 B	77 B	150 B	NA	8
hrysene	130 B	NA	ND≥0.17	NA	100 B	65 B	120 B	NA	6
enzo(a)pyrene	**240 B***	NA	ND≥0.31	NA	**150 B***	**140 B***	**210 B***	NA	**89**
ibenzo(a,h)anthracene	**310***	NA	ND≥0.27	NA	**110***	**ND≥18***	**ND≥18***	NA	7

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

e Compounds	Sample Identification and Constituent Concentration (ppb)									
	T-A1-32 RE	Trip Blank (1/23/95)	T-A1-33 RE	C-SB-105R	Trip Blank (1/26/95)	T-A1-34	T-A1-35	T-A1-36	Trip Blank (1/27/95)	
ene	ND≥11	ND≥10	ND≥11	NA	ND≥10	ND≥11	ND≥11	ND≥11	ND≥10	
ethene (total)	ND≥11	ND≥10	ND≥11	NA	ND≥10	ND≥11	ND≥11	ND≥11	ND≥10	
le	ND≥11	ND≥10	ND≥11	NA	ND≥10	ND≥11	ND≥11	ND≥11	ND≥10	
	ND≥11	ND≥10	ND≥11	NA	ND≥10	ND≥11	ND≥11	ND≥11	ND≥10	
es	ND≥11	ND≥10	ND≥11	NA	ND≥10		ND≥11	ND≥11	ND≥10	
	ND ≥660	NA	ND≥660	ND≥660	NA	ND≥660	ND≥660	ND≥660	NA	
e	34 J	NA	120 J	170 J	NA	51 J	35 J	46 J	NA	
e	33 J	NA	170 J	260 J	NA	64 J	44 J	50 J	NA	
	33 J	NA	88 J	210 J	NA	33 J	33 J	33 J	NA	
exyl)phthalate	ND ≥660	NA	35 J	56 J	NA	ND≥660	ND≥660	ND≥660	NA	
-cd)pyrene	660	NA	ND≥660	ND≥660	NA	ND≥660	ND≥660	ND≥660	NA	
nracene	65 B	NA	130 B	110 B	NA	25	62	34	NA	
	61 B	NA	130 B	110 B	NA	240	42	72	NA	
ene	60 B	NA	**110 B***	**106 B***	NA	37	**82***	33	NA	
)anthracene	**65***	NA	**98***	**46***	NA	**33***	**ND≥18***	**31***	NA	

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

	Sample Identification and Constituent Concentration (ppb)									
ic Compounds	Trip Blank (1/30/95)	T-A1-38	T-A1-39 RE	EB-A1-39	Trip Blank (2/1/95)	T-A1-40	T-A1-40 duplicate RE	EB-A1-40	T-A1-41 RE	
ene	ND≥10	ND≥10	1 J	ND≥10	ND≥10	0.8 J	2.0 J	ND≥10	ND≥11	
oethene (total)	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	2.0 J	ND≥10	ND≥11	
de	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	
	0.5J	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	
es	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	
	NA	ND≥660	ND≥660	ND≥10	NA	ND≥660	ND≥660	NA	ND≥660	
ne	NA	ND≥660	100 J	ND≥10	NA	47 J	75 J	NA	51 J	
e	NA	ND≥660	120 J	ND≥10	NA	42 J	73 J	NA	49 J	
	NA	ND≥660	75 J	ND≥10	NA	33 J	43 J	NA	33 J	
hexyl)phthalate	NA	ND≥660	ND≥660	ND≥10	NA	ND≥660	ND≥660	NA	ND≥660	
3-cd)pyrene	NA	ND≥660	ND≥660	ND≥10	NA	ND≥660	ND≥660	NA	ND≥660	
hracene	NA	15 B	97 B	0.13 J	NA	52 B	54 B	NA	120 B	
	NA	15	89	0.13 JB	NA	59	47	NA	120	
rene	NA	11 B	**140 B***	ND ≥ 1.1	NA	**84***	**67***	NA	**120***	
)anthracene	NA	**ND≥18***	**ND≥18***	ND ≥ 0.27	NA	**77***	**ND≥18***	NA	**ND≥18***	

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York
(Page 19 of 33)

ic Compounds	Sample Identification and Constituent Concentration (ppb)									
	T-A1-42	Trip Blank (2/3/95)	T-A1-43	Trip Blank (2/8/95)	Trip Blank (2/21/95)	T-A1-44	T-A1-45	Trip Blank (2/22/95)	T-A1-46 RE	
ene	ND≥11	ND≥10	ND≥11	ND≥10	ND≥10	2 BJ	ND≥11	ND≥10	ND≥10	
ethene (total)	ND≥11	ND≥10	ND≥11	ND≥10	ND≥10	1 J	ND≥11	ND≥10	ND≥10	
de	ND≥11	ND≥10	ND≥11	ND≥10	ND≥10	ND ≥ 11	ND≥11	ND≥10	ND≥10	
	2 J	ND≥10	ND≥11	ND≥10	0.7J	0.9 J	ND≥11	ND≥10	ND≥10	
es	0.7 J	ND≥10	ND≥11	ND≥10	ND≥10	ND ≥ 11	ND≥11	ND≥10	ND≥10	
	ND≥660	NA	ND≥660	NA	NA	160	170	NA	ND ≥ 34	
ne	46 J	NA	66 J	NA	NA	120	ND ≥ 75	NA	18	
e	50 J	NA	67 J	NA	NA	140	76	NA	ND ≥ 6.9	
	33 J	NA	ND≥660	NA	NA	310	170	NA	ND ≥ 6.9	
nexyl)phthalate	ND≥660	NA	ND≥660	NA	NA	1600	ND ≥ 1500	NA	ND ≥ 340	
3-cd)pyrene	ND≥660	NA	ND≥660	NA	NA	ND ≥ 7.5	ND ≥ 7.5	NA	ND ≥ 1.8	
hracene	140 B	NA	120 B	NA	NA	57	27	NA	1.3	
	130	NA	110	NA	NA	53	40	NA	ND ≥ 5.2	
rene	**140***	NA	**150***	NA	NA	42	15	NA	ND ≥ 0.69	
)anthracene	**43***	NA	**ND≥18***	NA	NA	5.8	ND ≥ 4.4	NA	ND ≥ 1.0	

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

fic Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-47 RE	T-A1-47R	T-A1-48	T-A1-48R	Trip Blank (2/24/95)	T-A1-49	T-A1-49R	T-A1-50	Trip Blank (2/27/95)
thene	1 BJ	NA	ND≥11	NA	ND≥10	ND≥11	NA	ND≥11	ND≥10
roethene (total)	ND≥10	NA	0.6 J	NA	ND≥10	ND≥11	NA	ND≥11	ND≥10
ride	ND≥10	NA	ND≥11	NA	ND≥10	ND≥11	NA	ND≥11	ND≥10
	2 J	NA	ND≥11	NA	ND≥10	ND≥11	NA	ND≥11	ND≥10
nes	ND≥10	NA	ND≥11	NA	ND≥10	ND≥11	NA	ND≥11	ND≥10
s									
e	NA	190	NA	130	NA	NA	160	230	NA
ene	NA	ND≥18	NA	24	NA	NA	59	51	NA
ne	NA	72	NA	15	NA	NA	47	50	NA
	NA	79	NA	8.3	NA	NA	63	41	NA
lhexyl)phthalate	NA	ND≥350	NA	ND≥360	NA	NA	ND≥360	2000	NA
2,3-cd)pyrene	NA	11	NA	ND≥1.8	NA	NA	25	17	NA
nthracene	NA	30	NA	5.5	NA	NA	25	33	NA
	NA	27	NA	6.1	NA	NA	23	26	NA
yrene	NA	34	NA	3.1	NA	NA	24	41	NA
,h)anthracene	NA	7.9	NA	ND≥1.1	NA	NA	9.8	7.4	NA

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

e Compounds	Sample Identification and Constituent Concentration (ppb)									
	T-A1-52 RE	Trip Blank (3/1/95)	T A1-53	T-A1-53 Duplicate RE	Trip Blank (3/2/95)	T-A1-54 RE	FB-A1-54	Trip Blank (3/3/95)	T-A1-55	
ene	ND≥11	ND≥10	1 J	1 J	ND≥10	ND≥11	ND≥10	ND≥10	0.9 J	
oethene (total)	ND≥11	ND≥10	1 J	ND ≥ 11	ND≥10	ND≥11	ND≥10	ND≥10	0.5 J	
ıle	ND≥11	ND≥10	ND ≥ 11	ND ≥ 11	ND≥10	ND≥11	ND≥10	ND≥10	ND≥11	
	ND≥11	ND≥10	6 J	6 J	ND≥10	3J	ND≥10	ND≥10	ND≥11	
es	ND≥11	ND≥10	ND ≥ 11	ND ≥ 11	ND≥10	ND≥11	ND≥10	ND≥10	ND≥11	
	100	NA	180	180	NA	130	NA	NA	130	
ıe	32	NA	61	62	NA	28	NA	NA	100	
e	25	NA	51	57	NA	20	NA	NA	110	
	32	NA	8.4	18	NA	ND≥7.3	NA	NA	84	
hexyl)phthalate	1200	NA	1300	1400	NA	560	NA	NA	2200	
-cd)pyrene	6.1	NA	8.0	1.8	NA	ND≥1.9	NA	NA	ND≥1.8	
hracene	18	NA	25	26	NA	8.9	NA	NA	48	
	18	NA	22	53	NA	5.9	NA	NA	31	
ene	12	NA	19	17	NA	5.7	NA	NA	47	
)anthracene	4.2	NA	3.8	4.2	NA	1.6	NA	NA	10	

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York
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c Compounds	Sample Identification and Constituent Concentration (ppb)									
	Trip Blank (3/6/95)	T-A1-56 RE	T-A1-57 RE	T-A1-58 RE	T-A1-59 RE	T-A1-60 RE	Trip Blank (3/7/95)	T-A1-61	Trip Blank (3/8/95)	
ene	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	
oethene (total)	ND≥10	2J	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	
de	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	
	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	
es	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥10	ND≥10	
	NA	64	ND≥36	ND≥34	ND ≥ 36	150	NA	35	NA	
ie	NA	ND≥18	ND≥19	ND≥18	ND ≥ 18	ND≥19	NA	ND≥18	NA	
e	NA	ND≥7.0	7.7	ND≥7.0	ND ≥ 7.2	19	NA	ND≥7.1	NA	
	NA	ND≥7.0	ND≥7.3	ND≥7.0	ND ≥ 7.2	ND≥7.3	NA	ND≥7.1	NA	
hexyl)phthalate	NA	ND≥340	ND≥360	ND≥340	ND ≥ 360	ND≥360	NA	ND≥350	NA	
3-cd)pyrene	NA	ND≥1.8	ND≥1.9	ND≥1.8	ND ≥ 1.8	ND≥1.9	NA	ND≥1.8	NA	
hracene	NA	2.7	2.3	2.3	2.2	6.1	NA	1.4	NA	
	NA	ND≥5.2	ND≥5.5	ND≥5.2	ND ≥ 5.4	7.1	NA	ND≥5.3	NA	
rene	NA	0.76	1.2	0.99	1.2	2.8	NA	0.88	NA	
)anthracene	NA	ND≥1.0	ND≥1.1	ND≥1.0	ND ≥ 1.1	1.1	NA	ND≥1.1	NA	

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

fic Compounds	Sample Identification and Constituent Concentration (ppb)								
	Trip Blank (3/13/95)	T-A1-62 RE	T-A1-63 RE	T-A1-64	T-A1-65 RE	Trip Blank (3/14/95)	T-A1-66	T-A1-67	Trip Blank (3/15/95)
hene	ND≥10	ND≥10	ND≥11	1.0 J	ND ≥ 10	ND≥10	ND ≥ 11	ND ≥ 10	ND≥10
roethene (total)	ND≥10	ND≥10	ND≥11	2.0 J	ND ≥ 10	ND≥10	ND ≥ 11	ND ≥ 10	ND≥10
ride	ND≥10	ND≥10	ND≥11	ND≥10	ND ≥ 10	ND≥10	ND ≥ 11	ND ≥ 10	ND≥10
	ND≥10	ND≥10	ND≥11	3.0 J	ND ≥ 10	ND≥10	ND ≥ 11	2 J	ND≥10
nes	ND≥10	ND≥10	ND≥11	ND≥10	ND ≥ 10	ND≥10	ND ≥ 11	ND ≥ 10	ND≥10
	NA	ND≥33	ND≥35	ND≥35	ND≥33	NA	88	190	NA
ene	NA	22	31	27	ND≥17	NA	40	41	NA
ne	NA	24	29	20	8.3	NA	56	55	NA
	NA	ND≥6.9	ND≥7.2	ND≥7.2	ND≥6.8	NA	21	26	NA
lhexyl)phthalate	NA	730	1100	750	ND≥330	NA	1100	1300	NA
,3-cd)pyrene	NA	6.3	12	3.6	ND≥1.7	NA	27	13	NA
nthracene	NA	7.6	14	7.4	2.1	NA	27	19	NA
	NA	11	18	7.6	ND≥5.1	NA	36	ND≥5.6	NA
rene	NA	3.7	18	4.0	0.74	NA	33	29	NA
h)anthracene	NA	1.1	6.0	2.5	ND≥1.0	NA	9.9	2.3	NA

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

fic Compounds	Trip Blank (3/16/95)	T-A1-69 RE	T-A1-70	T-A1-70 duplicate	Trip Blank (3/17/95)	T-A1-71	FB-A1-71	EB-A1-71	T-A1-72
			Sample Identification and Constituent Concentration (ppb)						
thene	ND≥10	ND ≥ 10	ND ≥ 11	ND ≥ 11	ND≥10	0.8 J	ND≥10	ND≥10	ND≥11
roethene (total)	ND≥10	ND ≥ 10	ND ≥ 11	ND ≥ 11	ND≥10	ND≥11	ND≥10	ND≥10	ND≥11
ride	ND≥10	ND ≥ 10	ND ≥ 11	ND ≥ 11	ND≥10	ND≥11	ND≥10	ND≥10	ND≥11
	ND≥10	ND ≥ 10	ND ≥ 11	ND ≥ 11	ND≥10	ND≥11	ND≥10	ND≥10	1 J
nes	ND≥10	ND ≥ 10	ND ≥ 11	ND ≥ 11	ND≥10	ND≥11	ND≥10	ND≥10	0.9 J
e	NA	170	ND≥140	100	NA	100	NA	ND≥2.0	280
ene	NA	57	ND≥74	39	NA	36	NA	ND≥0.50	38
ne	NA	75	120	52	NA	43	NA	ND≥0.20	47
	NA	170	130	130	NA	110	NA	ND≥0.20	130
lhexyl)phthalate	NA	470	ND≥1400	530	NA	500	NA	ND≥10	470
,3-cd)pyrene	NA	6.1	ND≥7.4	5.6	NA	7.5	NA	ND≥0.050	5.9
nthracene	NA	30	44	24	NA	18	NA	ND≥0.020	22
	NA	ND≥5.4	ND≥22	ND≥5.4	NA	ND≥5.6	NA	ND≥0.15	ND≥5.4
yrene	NA	21	35	28	NA	22	NA	ND≥0.20	24
,h)anthracene	NA	4.8	7.9	4.5	NA	2.9	NA	ND≥0.030	4.8

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

ific Compounds	Sample Identification and Constituent Concentration (ppb)								
	Trip Blank (3/20/95)	T-A1-74	T-A1-75	T-A1-76	T-A1-77	T-A1-78	Trip Blank (3/22/95)	T-A1-79	T-A1-80 RE
ethene	ND≥10	ND≥11	ND≥11	ND≥10	ND ≥ 11	ND≥10	ND≥10	46	3 J
oroethene (total)	ND≥10	ND≥11	ND≥11	ND≥10	ND ≥ 11	ND≥10	ND≥10	16	ND≥10
oride	ND≥10	ND≥11	ND≥11	ND≥10	ND ≥ 11	ND≥10	ND≥10	ND≥11	ND≥10
	ND≥10	ND≥11	ND≥11	ND≥10	ND ≥ 11	ND≥10	ND≥10	ND≥11	ND≥10
enes	ND≥10	ND≥11	ND≥11	ND≥10	ND ≥ 11	ND≥10	ND≥10	ND≥11	ND≥10
es									
ne	NA	92	270	350	180	210	NA	49 J	190
rene	NA	32	44	45	29	46	NA	350	81
ene	NA	37	56	65	29	56	NA	380	77
	NA	32	35	41	29	39	NA	240	92
ylhexyl)phthalate	NA	930	1500	1800	890	1400	NA	3500	930
2,3-cd)pyrene	NA	2.7	10	16	ND≥1.8	12	NA	ND≥7.5	8.9
nthracene	NA	15	24	32	13	25	NA	140	29
	NA	15	19	23	13	20	NA	170	16
pyrene	NA	7.4	17	31	6.5	19	NA	**130***	26
a,h)anthracene	NA	ND ≥ 1.0	3.8	4.4	1.4	2.7	NA	**41***	3.4

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

ific Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-81 RE	T-A1-82 RE	Trip Blank (3/27/95)	T-A1-83 RE	T-A1-84	Trip Blank (3/28/95)	T-A1-85 RE	T-A1-85 duplicate RE	FB-A1-85
thene	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	2 J	ND≥10
proethene (total)	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	2 J	ND≥10
ride	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10
	2BJ	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10
enes	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10	ND≥11	ND≥11	ND≥10
s									
e	84	84	NA	55	ND≥40	NA	85	90	NA
ene	18	32	NA	24	ND≥21	NA	25	26	NA
ene	24	39	NA	29	17	NA	24	31	NA
	15	29	NA	17	12	NA	28	32	NA
ylhexyl)phthalate	ND≥350	ND≥370	NA	ND≥360	ND≥400	NA	440	450	NA
2,3-cd)pyrene	ND≥1.8	5.2	NA	3.8	ND≥2.1	NA	ND≥1.9	ND≥1.9	NA
nthracene	8.3	14	NA	12	6.7	NA	9.3	12	NA
	11	14	NA	12	6.7	NA	ND≥5.5	ND≥5.5	NA
pyrene	5.9	10	NA	9.6	4.0	NA	5.7	5.7	NA
a,h)anthracene	1.5	2.2	NA	1.7	ND≥1.2	NA	ND≥1.1	ND≥1.1	NA

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

cific Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-86 RE	EB-A1-86	Trip Blank (4/1/95)	T-A1-87 RE	T-A1-86R	EB-A1-86R	Trip Blank (4/4/95)	T-A1-88	Trip Blank (4/6/95)
ethene	ND≥11	ND≥10	ND≥10	ND≥11	NA	NA	ND≥10	ND≥11	ND≥10
loroethene (total)	ND≥11	ND≥10	ND≥10	ND≥11	NA	NA	ND≥10	ND≥11	ND≥10
oride	ND≥11	ND≥10	ND≥10	ND≥11	NA	NA	ND≥10	ND≥11	ND≥10
	ND≥11	ND≥10	ND≥10	ND≥11	NA	NA	ND≥10	ND≥11	ND≥10
lenes	ND≥11	ND≥10	ND≥10	ND≥11	NA	NA	ND≥10	ND≥11	ND≥10
es									
ne	NA	NA	NA	66	80	ND≥2.0	NA	160	NA
rene	NA	NA	NA	28	20	ND≥0.50	NA	47	NA
hene	NA	NA	NA	36	32	ND≥0.20	NA	53	NA
	NA	NA	NA	25	23	ND≥0.20	NA	42	NA
ylhexyl)phthalate	NA	NA	NA	520	510	ND≥10	NA	570	NA
,2,3-cd)pyrene	NA	NA	NA	2.8	3.2	ND≥0.050	NA	4.1	NA
anthracene	NA	NA	NA	13	13	ND≥0.020	NA	17	NA
	NA	NA	NA	12	12	ND≥0.15	NA	14	NA
pyrene	NA	NA	NA	7.0	9.4	ND≥0.020	NA	11	NA
a,h)anthracene	NA	NA	NA	1.4	1.1	ND≥0.030	NA	1.2	NA

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

ific Compounds	Sample Identification and Constituent Concentration (ppb)								
	Trip Blank (4/10/95)	Trip Blank (4/11/95)	T-A1-90 RE	T-A1-91 RE	Trip Blank (5/7/95)	T-A1-92	Trip Blank (5/9/95)	T-A1-93	C-SB-108R
thene	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	ND≥11
proethene (total)	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	ND≥11
ride	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	ND≥11
	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	ND≥11
enes	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥11	ND≥11
s									
e	NA	NA	140	470	NA	100	NA	110	NA
ene	NA	NA	ND≥71	110	NA	27	NA	22	NA
ene	NA	NA	ND≥28	120	NA	28	NA	25	NA
	NA	NA	ND≥28	88	NA	26	NA	21	NA
ylhexyl)phthalate	NA	NA	ND≥1400	ND≥1400	NA	ND≥350	NA	ND≥360	NA
2,3-cd)pyrene	NA	NA	ND≥7.1	ND≥7.3	NA	3.4	NA	ND≥1.8	NA
nthracene	NA	NA	9.9	32	NA	9.5	NA	8.0	NA
	NA	NA	21MI	**590 MI***	NA	ND≥5.4	NA	7.2	NA
yrene	NA	NA	3.7	9.6	NA	5.5	NA	7.2	NA
,h)anthracene	NA	NA	ND≥4.2	ND≥4.3	NA	1.5	NA	1.7	NA

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

cific Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-94	Trip Blank (5/11/95)	Trip Blank (5/12/95)	T-A1-95	Trip Blank (5/13/95)	T-A1-96	T-A1-97	Trip Blank (5/16/95)	T-A1-98
ethene	ND≥54	ND≥10	ND≥10	ND≥54	ND≥10	ND≥53	ND≥51	ND≥10	ND≥53
oroethene (total)	ND≥54	ND≥10	ND≥10	ND≥54	ND≥10	ND≥53	ND≥51	ND≥10	ND≥53
oride	ND≥54	ND≥10	ND≥10	ND≥54	ND≥10	ND≥53	ND≥51	ND≥10	ND≥53
	ND≥54	ND≥10	ND≥10	ND≥54	ND≥10	ND≥53	ND≥51	ND≥10	6J
enes	ND≥54	ND≥10	ND≥10	ND≥54	ND≥10	ND≥53	ND≥51	ND≥10	ND≥53
es									
ne	56	NA	NA	39	NA	73	120	NA	88
rene	ND≥19	NA	NA	ND≥19	NA	ND≥18	ND≥18	NA	19
ene	8.6	NA	NA	ND≥7.6	NA	7.5	16	NA	22
	ND≥7.6	NA	NA	ND≥7.6	NA	12	11	NA	18
ylhexyl)phthalate	ND≥370	NA	NA	ND≥370	NA	ND≥350	ND≥360	NA	560
2,3-cd)pyrene	ND≥1.9	NA	NA	ND≥1.9	NA	1.9	ND≥1.8	NA	3.8
anthracene	2.8	NA	NA	ND≥0.76	NA	3.1	7.2	NA	11
	ND≥5.6	NA	NA	ND≥5.6	NA	130 MI	240 MI	NA	200 MI
pyrene	2.0	NA	NA	ND≥0.76	NA	1.2	3.0	NA	7.9
a,h)anthracene	ND≥1.1	NA	NA	ND≥1.1	NA	ND≥1.1	ND≥1.1	NA	1.8

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York
(Page 30 of 33)

cific Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-99	Trip Blank (5/18/95)	T-A1-100	Trip Blank (5/19/95)	T-A1-101	Trip Blank (5/21/95)	T-A1-102	T-A1-103	T-A1-103 duplicate
ethene	ND≥49	ND≥10	ND≥46	ND≥10	ND≥50	ND≥10	ND≥48	ND≥46	ND≥50
oroethene (total)	ND≥49	ND≥10	ND≥46	ND≥10	ND≥50	ND≥10	ND≥48	ND≥46	ND≥50
oride	ND≥49	ND≥10	ND≥46	ND≥10	ND≥50	ND≥10	ND≥48	ND≥46	ND≥50
	ND≥49	ND≥10	ND≥46	ND≥10	ND≥50	ND≥10	ND≥48	ND≥46	ND≥50
lenes	ND≥49	ND≥10	ND≥46	ND≥10	ND≥50	ND≥10	ND≥48	ND≥46	ND≥50
es									
ne	130	NA	NA	NA	140	NA	130	170	200
rene	30	NA	NA	NA	18	NA	20	38	42
ene	33	NA	NA	NA	17	NA	16	42	43
	39	NA	NA	NA	21	NA	16	52	42
ylhexyl)phthalate	ND≥350	NA	NA	NA	450	NA	400	750	730
,2,3-cd)pyrene	4.5	NA	NA	NA	ND≥1.8	NA	ND≥1.9	3.9	3.0
anthracene	13	NA	NA	NA	6.7	NA	6.8	17	18
	14	NA	NA	NA	250 MI	NA	290 MI	**410 MI***	**510 MI***
pyrene	14	NA	NA	NA	4.9	NA	4.3	14	14
a,h)anthracene	2.7	NA	NA	NA	1.2	NA	ND≥1.1	2.9	3.1

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

cific Compounds	Sample Identification and Constituent Concentration (ppb)								
	EB-A1-103	T-A1-100R2 (5/25/95)	Trip Blank (5/25/95)	T-A1-104	Trip Blank (5/26/95)	T-A1-105	Trip Blank (5/27/95)	T-A1-106	T-A1-107
oethene	ND≥10	NA	ND≥10	ND≥54	ND≥10	ND≥54	ND≥10	ND≥52	ND≥53
loroethene (total)	ND≥10	NA	ND≥10	ND≥54	ND≥10	ND≥54	ND≥10	ND≥52	ND≥53
loride	ND≥10	NA	ND≥10	ND≥54	ND≥10	ND≥54	ND≥10	ND≥52	ND≥53
	ND≥10	NA	ND≥10	ND≥54	ND≥10	ND≥54	ND≥10	ND≥52	ND≥53
lenes	ND≥10	NA	ND≥10	ND≥54	ND≥10	ND≥54	ND≥10	ND≥52	ND≥53
les									
ene	ND≥2.0	ND≥36	NA	ND≥36	NA	ND≥36	NA	150	220
rene	ND≥0.50	23	NA	24	NA	26	NA	29	39
hene	ND≥0.20	29	NA	27	NA	39	NA	25	39
	ND≥0.20	25	NA	18	NA	34	NA	24	76
ylhexyl)phthalate	ND≥10	980	NA	980	NA	1200	NA	550	860
,2,3-cd)pyrene	ND≥0.050	4.9	NA	4.9	NA	9.5	NA	2.7	4.8
)anthracene	ND≥0.020	11	NA	12	NA	20	NA	12	21
e	ND≥0.15	13	NA	9.2	NA	23	NA	**430 MI***	**550 MI***
)pyrene	ND≥0.020	8.6	NA	6.8	NA	13	NA	6.8	16
(a,h)anthracene	ND≥0.030	2.8	NA	1.7	NA	3.8	NA	1.7	3.1

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TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

ific Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-108	Trip Blank (6/1/95)	T-A1-109	Trip Blank (6/2/95)	T-A1-110	Trip Blank (6/4/95)	T-A1-111	T-A1-112	Trip Blank (6/6/95)
ethene	ND≥54	ND≥10	ND≥48	ND≥10	ND≥54	ND≥10	ND≥54	ND≥51	ND≥10
oroethene (total)	ND≥54	ND≥10	ND≥48	ND≥10	ND≥54	ND≥10	ND≥54	ND≥51	ND≥10
oride	ND≥54	ND≥10	ND≥48	ND≥10	ND≥54	ND≥10	ND≥54	ND≥51	ND≥10
	ND≥54	ND≥10	ND≥48	ND≥10	ND≥54	ND≥10	ND≥54	ND≥51	ND≥10
enes	ND≥54	ND≥10	ND≥48	ND≥10	ND≥54	ND≥10	ND≥54	ND≥51	ND≥10
es									
ne	170	NA	340	NA	220	NA	110	300	NA
rene	33	NA	44	NA	52	NA	18 J	41	NA
ene	30	NA	42	NA	48	NA	20	34	NA
	64	NA	74	NA	110	NA	30	79	NA
ylhexyl)phthalate	750	NA	1300	NA	1400	NA	540	860	NA
2,3-cd)pyrene	2.0	NA	5.1	NA	4.2	NA	5.3	5.6	NA
anthracene	12	NA	19	NA	22	NA	10	15	NA
	ND≥5.4	NA	**560 MI***	NA	**610 MI***	NA	280 MI	**670 MI***	NA
pyrene	16	NA	12	NA	30	NA	8.0	15	NA
a,h)anthracene	3.6	NA	3.7	NA	5.6	NA	1.6	3.0	NA

end of table

TABLE 3-2
SOIL VOLATILE AND SEMIVOLATILE DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

Site Specific Compounds	Sample Identification and Constituent Concentration (ppb)				
	Trip Blank (6/7/95)	T-A1-114	T-A1-115	Trip Blank (6/22/95)	Decon-S
Volatiles					
Trichloroethene	ND≥10	ND≥56	ND≥50	ND≥10	9 J
1,2-Dichloroethene (total)	ND≥10	ND≥56	ND≥50	ND≥10	ND ≥ 60
Vinyl chloride	ND≥10	ND≥56	ND≥50	ND≥10	ND ≥ 60
Toluene	ND≥10	ND≥56	ND≥50	ND≥10	ND ≥ 60
Total Xylenes	ND≥10	ND≥56	ND≥50	ND≥10	ND ≥ 60
Semivolatiles					
Napthalene	NA	190	190	NA	ND≥43
Phenanthrene	NA	23	25	NA	ND≥22
Fluoranthene	NA	23	24	NA	14
Pyrene	NA	23	19	NA	14
Bis(2-ethylhexyl)phthalate	NA	ND≥370	380	NA	ND≥430
Indeno(1,2,3-cd)pyrene	NA	2.8	ND≥1.9	NA	ND≥2.2
Benzo(a)anthracene	NA	14	14	NA	6.0
Chrysene	NA	ND≥5.6	ND≥5.6	NA	ND≥6.6
Benzo(a)pyrene	NA	7.5	9.0	NA	ND≥5.0
Dibenzo(a,h)anthracene	NA	1.9	4.2	NA	ND≥1.3

Notes:

B - Indicates constituent also detected in the associated method blank.
D - Dilution concentration
EB - Equipment blank
FB - Open field blank
J - Indicates an estimated value. Concentration above the method detection limit (MDL) but below the practical quantitation limit (PQL).
MI - Indicates an estimated concentration due to matirx interference.
NA - Not applicable
ND - Indicates constituent not detected at or above the stated PQL.
PT - Pre-treated sample
RE - Indicates voaltile analysis reextracted and reanalyzed due to interference.
T - Treated sample
***(BOLD) -** Indicates constituent concentration detected above site specific cleanup levels or not detected at a PQL above the cleanup level.

TABLE 3-3
SOIL METALS DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

ompounds	Sample Identification and Constituent Concentration (ppb)								
	PT-B1-1	T-B1-M1	T-B1-M2	T-B2-M1	T-B2-M2	T-B2-M3	T-B2-M4	T-B2-M5	T-B2-M6
	NA	10.2	7.4 BJ	9.8 BJ	7.5 BJ	6.6 B	7.0B	6.0B	8.2B
	NA	1010	840 BJ	835 J	800 J	746	700	824	833
	NA	5.5	5.1 J	ND≥5.0 J	ND≥5.0 J	31	ND≥10	ND≥10	ND≥10
	NA	ND ≥ 5.0	ND ≥ 10 J	ND≥10 J	ND≥10 J	ND ≥ 10	ND≥10	ND≥10	ND≥10
	Total Lead =47 ppm	390	350 J	244 J	262 J	154	198	84	ND≥30
	NA	ND ≥ 0.20	ND ≥ 0.2 J	ND≥0.20 J	ND≥0.20 J	ND ≥ 0.20	ND≥0.20	ND≥0.20	ND≥0.40
	NA	ND ≥ 15	ND ≥ 3.0 J	13.2 J	13.8 J	13.2	ND≥30	ND≥30	ND ≥ 30
	NA	ND ≥ 5.0	ND ≥ 0.2 J	ND≥10 J	ND≥10 J	ND ≥ 10	ND≥0.30	ND≥0.30	ND≥0.30

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TABLE 3-3
SOIL METALS DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York
(Page 2 of 7)

alytical Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-B3-M8	T-B3-M9	T-B3-M10	T-B3-M11	T-B4-M12	T-B4-M13	T-B4-M14	EB-B4-5	T-B4-M
P Metals									
senic	4.0B	4 B	4.0 B	5.0 B	ND ≥ 4.0	5.0 B	4.0 BJ	ND≥4.0	6.0 B
rium	679	1780	877	ND≥20	751	871	860 J	47B	919
dmium	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10 J	ND≥10	ND≥1
romium	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10 J	ND≥10	ND≥1
ad	49	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30 J	ND≥30	ND≥3
rcury	ND≥0.20	ND≥0.20	ND≥0.20	ND≥0.20	ND≥0.20	ND≥0.20	ND≥0.20 J	ND≥0.2	ND≥0.
enium	ND≥3.0	ND≥5.0	ND≥50	ND≥50	ND≥5.0	ND≥50	ND≥50 J	ND≥5.0	ND≥5
ver	ND≥0.30	ND≥0.50	ND≥0.50	ND≥0.50	ND≥0.50	ND≥0.50	ND≥0.5 J	ND≥0.5	ND≥0.

alytical Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-B4-M16	T-B4-M17	T-B4-M18	EB-B4-18	T-A1-M1	T-A1-M2	T-A1-M3	T-A1-M4	T-A1-
P Metals									
senic	ND≥4.0 J	4.0 BJ	ND≥4.0 J	ND≥4.0	5.7 B J	8.3 BJ	9.0 BJ	7.0 BJ	7.1 I
rium	1000 J	838 J	898 J	ND≥20	820 J	1060 J	986 J	1100 J	923
dmium	ND≥10 J	ND≥10 J	ND≥10J	ND≥10	ND≥10 J	16 J	ND≥10 R	ND≥10 R	ND≥1
romium	ND≥10 J	ND≥10 J	ND≥10 J	ND≥10	ND≥10 J	ND≥10 R	ND≥10 R	ND≥10 R	ND≥1
ad	ND≥30 J	ND≥30 J	ND≥30 J	ND≥2.0	60.8 J	181 J	66 J	268 J	97.8
rcury	ND≥0.20 J	ND≥0.20 J	ND≥0.20 J	ND≥0.2	ND≥0.2 J	ND≥0.40 R	ND≥0.40 R	ND≥0.40 R	ND≥4
lenium	ND≥5.0 J	ND≥5.0 J	ND≥5.0 J	ND≥5.0	ND≥5.0 J	ND≥4.0 R	ND≥4.0 R	ND≥4.0 R	ND≥4.
ver	ND≥0.50 J	ND≥0.50 J	ND≥10 J	ND≥10	ND≥0.50 J	ND≥0.50 R	ND≥0.50 R	ND≥0.50 R	ND≥0.

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TABLE 3-3
SOIL METALS DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

Analytical Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-M6	T-A1-M7	T-A1-M8	T-A1-M9	T-A1-M10	EB-A1-13	T-A1-M11	T-A1-M12	T-A
TCLP Metals									
Arsenic	4.4 BJ	ND≥4.0	12	8.0 B	16	ND≥4.0	10 B	17	1
Barium	1030 J	905	860 B	1260	1130	ND≥20	1460	1950	8
Cadmium	ND≥10 R	ND≥10	ND≥10	18	10	ND≥10	11.1	10	ND
Chromium	ND≥10 R	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	10	ND≥10	ND
Lead	214 J	57	119	124	134	ND≥30	401	222	2
Mercury	ND≥0.40 R	ND≥0.40	ND≥0.40	0.69	ND≥0.40	ND≥0.4	0.67	ND≥0.40	0
Selenium	6.8 J	ND≥5.0	ND≥5.0	ND ≥ 5.0	13.2	ND≥5.0	ND≥5.0	17.6	1
Silver	0.86 BJ	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND

Analytical Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-M14	T-A1-M15	EB-A1-M15	T-A1-M16	T-A1-M17	T-A1-M18	T-A1-M19	T-A1-M20	T-A
TCLP Metals									
Arsenic	9.4 BJ	13.1 J	ND≥5.0	ND≥5.0 J	11.3 J	5.1 BJ	11.0	4.0 B	4
Barium	1070 J	939 J	ND≥10	832 J	1040 J	714 EJ	664 E	715 E	8
Cadmium	4.9 BJ	4.3 BJ	ND≥4.0	5.2 J	7.9 J	3.1 J	5.1	ND≥10	NI
Chromium	ND ≥ 5.0 J	ND≥5.0 J	ND≥5.0	ND≥5.0 J	ND≥5.0 J	ND≥0.70 J	ND≥5.0	ND≥10	NI
Lead	61.9 J	18.7 J	ND≥3.0	22 J	27.9 J	10.6 J	38.8	ND≥30	NI
Mercury	0.83 J	ND≥0.40 J	ND≥0.40	ND≥0.40 J	ND≥0.40 J	ND≥0.40 J	ND≥0.40	0.78	0
Selenium	7.6 J	11.5 J	ND≥5.0	11 J	ND≥5.0 J	ND≥4.0 J	ND≥4.0	ND≥4.0	NI
Silver	ND≥10 J	ND≥10 J	ND≥10	ND≥10 J	ND≥10 J	ND≥10 J	ND≥10	ND≥0.50	ND

ee Notes At End of Table

TABLE 3-3
SOIL METALS DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

Analytical Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-M22	EB-A1-39	T-A1-M23	T-A1-M23 duplicate	T-A1-M24	T-A1-M25	T-A1-M26	T-A1-M27	T-A
TCLP Metals									
Arsenic	7.0 BJ	ND≥4.0	ND≥4.0 R	12.6 J	14 J	5.0 BJ	6.0 BJ	5.0 BJ	ND
Barium	723 J	ND≥40	874 J	913 J	778 J	870 J	769 J	769 J	7
Cadmium	ND≥10 R	ND≥10	ND≥10 R	ND≥10 R	ND≥10 R	ND≥10	ND≥10	ND≥10	ND
Chromium	ND≥10 R	ND≥10	ND≥10 R	ND≥10 R	ND≥10 R	ND≥10	ND≥10	ND≥10	ND
Lead	67 J	ND≥40	41.4 J	ND≥40 R	ND≥ 40 R	47 J	ND≥30	ND≥30	ND
Mercury	ND≥0.40 R	ND≥0.2	ND≥0.40 R	ND≥0.40 R	ND≥0.20 R	ND≥0.40	0.68 J	ND≥0.40	ND≥
Selenium	ND≥3.0 R	ND≥2.3	ND≥3.0 R	ND≥3.0 R	ND≥3.0 R	ND≥3.0	ND≥3.0	7.9 J	ND
Silver	ND≥10 R	ND≥0.5	ND≥0.50 R	ND≥0.50 R	ND≥0.50 R	ND≥10	ND≥10	ND≥10	ND

Analytical Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-M28 Duplicate	EB-A1-55	T-A1-M29	T-A1-M30	T-A1-M31	T-A1-M32	T-A1-M33	T-A1-M33 duplicate	EB
TCLP Metals									
Arsenic	ND≥4.0 R	0.99B	4.0 BJ	7.8 BJ	53.6	8.2 B	7.0B	6.0B	NI
Barium	741 J	ND≥10	636 J	515 J	593	735	783	794	N
Cadmium	ND≥10 R	ND≥1.7	ND≥10 R	ND≥10 R	ND≥10	ND≥10	ND≥10	ND≥10	N
Chromium	ND≥10 R	ND≥3.3	ND≥10 R	ND≥10 R	ND≥10	ND≥10	ND≥10	ND≥10	N
Lead	ND≥30 R	4.4	ND≥30 R	ND≥30 R	ND≥30	ND≥30	ND≥30	ND≥30	NI
Mercury	ND≥0.40 R	0.21	ND ≥0.40 R	ND ≥ 0.40 R	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	ND
Selenium	8.0 J	ND≥1.0	ND≥5.0 R	ND≥5.0 R	9.0	ND≥5.0	ND≥5.0	ND≥5.0	NI
Silver	ND≥10 R	ND≥3.3	ND≥10 R	ND≥10 R	ND≥10	ND≥0.50	ND≥10	ND≥10	N

ee Notes At End of Table

TABLE 3-3
SOIL METALS DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York
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alytical Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-M34	T-A1-M35	T-A1-M36	T-A1-M37	T-A1-M38	T-A1-M38 duplicate	T-A1-M39	EB-A1-86	T-A1-M4
P Metals									
senic	5.0B	4.0B	4.0B	8.0B	4.0B	ND≥4.0	ND≥4.0	ND≥4.0	ND≥4.0
rium	644	566	612	596	678	707	737	ND≥40	665
dmium	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	12.7	ND≥10	ND≥10	ND≥10
romium	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	22	ND≥10	ND≥10	ND≥10
ad	ND≥30	37	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30
rcury	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	0.97
enium	ND≥5.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0
ver	ND≥10	ND≥10	20	ND≥10	25.9	ND≥10	ND≥10	ND≥10	ND≥10

alytical Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-M41	T-A1-M42	T-A1-M43	T-A1-M44	T-A1-M45	T-A1-M46	T-A1-M47	T-A1-M48	T-A1-M4
P Metals									
senic	4.0 B	ND≥4.0	ND≥4.0	4.0 B	4.0 B	ND≥4.0	8.0 B	5.0 B	4.0 B
rium	576	593	568	689	583	617	624	582	608
dmium	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10
romium	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10
ad	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30
rcury	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.20	ND≥0.2
lenium	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0
ver	ND≥10	ND≥10	ND≥0.50	ND≥0.50	ND≥10	ND≥10	ND≥0.50	ND≥10	ND≥10

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TABLE 3-3
SOIL METALS DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York
(Page 6 of 7)

nalytical Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-M50	T-A1-M51	T-A1-M52	T-A1-M53	T-A1-M54	T-A1-M55	T-A1-M56	T-A1-M56 Duplicate	EB-A1-1
P Metals									
senic	4.0 B	5.0 B	ND≥4.0	5.0 B	ND≥4.0	ND≥4.0	ND≥4.0	5.0 B	ND≥4.0
rium	646	624	592	608	625	509	567	572	ND≥30
dmium	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10
romium	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10
ad	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30	ND≥30
ercury	0.48	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.40	ND≥0.4	ND≥0.4	ND≥0.40	ND≥0.4
lenium	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	3.0B	ND≥3.0	3.0B	ND≥3.0	ND≥3.0
ver	ND≥10	ND≥10	ND≥10	ND≥10	ND≥0.5	ND≥0.5	ND≥0.5	ND≥0.5	ND≥0.5

nalytical Compounds	Sample Identification and Constituent Concentration (ppb)								
	T-A1-M57	T-A1-M58	T-A1-M59	T-A1-M60	T-A1-M61	T-A1-M62	T-A1-M63	T-A1-M64	T-A1-M6
P Metals									
senic	5.0 B	4.0 B	5.0 B	ND ≥ 4.0	ND≥4.0	6.0 B	ND≥4.0	9.0B	4.0 B
rium	544	751	754	588	715	752	724	611	588
dmium	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10
romium	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10	ND≥10
ad	ND≥30	ND≥30	814	ND≥30	90	30	ND≥30	ND≥30	ND≥30
ercury	ND≥0.4	ND≥0.4	ND≥0.4	ND≥0.4	ND≥0.4	ND≥0.4	ND≥0.4	ND≥0.4	ND≥0.4
lenium	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0
ver	ND≥10	ND≥0.5	ND≥0.5	ND≥0.5	ND≥10	ND≥0.5	ND≥0.5	ND≥0.5	ND≥0.5

otes At End of Table

TABLE 3-3
SOIL METALS DATA SUMMARY
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York
(Page 7 of 7)

Analytical Compounds	Sample Identification and Constituent Concentration(ppb)			
	T-A1-M66	T-A1-M67	T-A1-M68	Decon-SM
TCLP Metals				
Arsenic	6.0 B	ND≥4.0	5.0 B	8.0 B
Barium	683	211	669	884
Cadmium	ND≥10	ND≥10	ND≥10	ND≥10
Chromium	ND≥10	ND≥10	ND≥10	ND≥10
Lead	ND≥30	ND≥90	ND≥90	57
Mercury	ND≥0.4	ND≥0.4	ND≥0.4	ND≥0.4
Selenium	ND≥3.0	ND≥3.0	ND≥3.0	ND≥3.0
Silver	ND≥0 .5	ND≥5.0	ND≥0.50	ND≥10

Notes:

B - Indicates a value greater than or equal to the instrument detection limit, but less than the contract required detection limit.
E - Indicates a value estimated or not reported due to the presence of interference.
J - Qualified as estimated due to poor percent recovery of relative percent difference. See QA/QC summary tables.
ND - Indicates constituent not detected at or above the stated practical quantitation limit (PQL).
ppb - parts per billion
ppm - parts per million
R - Indicates sample results are unusable due to very low spike recoveries in associated QA/QC samples. See QA/QC summary tables.
TCLP - Toxicity Characteristic Leaching Procedure

TABLE 3-4
PHASE I SOIL BORING AND CONFIRMATORY SOIL SAMPLE
ANALYTICAL DATA COMPARISON
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

(Sample Dates: Phase I - October, 1994 and Confirmatory Samples - November 1994, January 1995, and May, 1995)

Analytical Compounds	Site Specific Cleanup Levels (ppb)	Phase I Soil Boring Data (ppb)			Confirmatory Excavation Wall Sample Data (ppb)
		SB129(RE) 0 to 2 ft	SB129(RE) 2 to 4 ft	SB129 6 to 7 ft	C-SB-129R (0 to 7 ft)
Volatiles					
Trichloroethene	700	17	ND ≥ 12	99 D	15 B
1,2-Dichloroethene	300	ND ≥ 11	20	200 D	47
Vinyl chloride	200	ND ≥ 11	ND≥ 12	4 J	ND ≥ 11
Toluene	1,500	ND ≥ 11	ND ≥ 12	ND ≥10	ND ≥ 11
Total Xylenes	1,200	ND ≥ 11	ND ≥ 12	ND ≥ 10	ND ≥ 11
Semivolatiles					
Bis(2-ethylhexyl)phthalate	50,000	1300	ND≥540	320 J	ND≥660
Pyrene	50,000	2700	ND≥540	ND≥550	100 J
Fluoranthene	50,000	4300	ND≥540	ND≥550	230 J
Phenanthrene	50,000	560 J	ND≥540	ND≥550	130 J
Benzo(a)pyrene	61	**1800***	**ND≥540***	**ND≥550***	6.5 BJ
Indeno(1,2,3-cd)pyrene	3200	1200	ND≥540	ND≥550	ND≥660
Napthalene	13,000	ND≥570	ND≥540	ND≥550	ND≥660
Chrysene	400	**1800***	**ND≥540***	**ND≥550***	10 BJ
Benzo(a)anthracene	220	**1600***	**ND≥540***	**ND≥550***	21 B
Dibenzo(a,h)anthracene	14	**ND≥570***	**ND≥540***	**ND≥550***	5.9 J

See Notes at end of Table

TABLE 3-4
PHASE I SOIL BORING AND CONFIRMATORY SOIL SAMPLE
ANALYTICAL DATA COMPARISON
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

(Sample Dates: Phase I - October, 1994 and Confirmatory Samples - November 1994, January 1995, and May 1995)

Analytical Compounds	Site Specific Cleanup Levels (ppb)	Phase I Soil Boring Data (ppb)			Confirmatory Excavation Wall Sample Data (ppb)
		SB105 0 to 2 ft	SB105 2 to 4 ft	SB105(RE) 2 to 4 ft duplicate	C-SB-105 R (0 to 4 ft)
Volatiles					
Trichloroethene	700	ND≥11	13	15 B	NA
1,2-Dichloroethene	300	ND≥11	19	3 J	NA
Vinyl chloride	200	ND≥11	12	5 J	NA
Toluene	1,500	ND≥11	14	11 J	NA
Total Xylenes	1,200	ND≥11	ND≥12	2 J	NA
Semivolatiles					
Bis(2-ethylhexyl)phthalate	50,000	ND≥560	ND≥570	9000 D	56 J
Pyrene	50,000	5300 D	ND≥570	19,000 D	210 J
Fluoranthene	50,000	12,000 D	ND≥570	21,000 D	260 J
Phenanthrene	50,000	3400 D	ND≥570	12,000 D	170 J
Benzo(a)pyrene	61	**6900 D***	**ND≥570***	**8900 D***	**106 B***
Indeno(1,2,3-cd)pyrene	3200	**3700***	ND≥570	**3800****	ND≥660
Napthalene	13,000	ND≥560	ND≥570	300 J	ND≥660
Chrysene	400	**3900 D***	**ND≥570***	**3500 DJ***	110 B
Benzo(a)anthracene	220	**4600 D***	**ND≥570***	**6800 D***	110 B
Dibenzo(a,h)anthracene	14	**ND≥560***	**ND≥570***	**440 J***	**46***

See Notes at end of Table

TABLE 3-4
PHASE I SOIL BORING AND CONFIRMATORY SOIL SAMPLE
ANALYTICAL DATA COMPARISON
ASH LANDFILL
SENECA ARMY DEPOT ACTIVITY
Romulus, New York

(Sample Dates: Phase I - October, 1994 and Confirmatory Samples - November 1994, January 1995, and May 1995)

Analytical Compounds	Site Specific Cleanup Levels (ppb)	Phase I Soil Boring Data (ppb)				Confirmatory Excavation Wall Sample Data (ppb)
		SB108 0 to 2 ft	SB108 2 to 4 ft	SB108 2 to 4 ft duplicate	SB108 7 to 9 ft	C-SB-108R
Volatiles						
Trichloroethene	700	ND≥12	4 J	4 J	480 D	ND≥11
1,2-Dichloroethene	300	ND≥12	2 J	2 J	**550 D ***	ND≥11
Vinyl chloride	200	ND≥12	ND≥11	ND≥11	3 J	ND≥11
Toluene	1,500	3 J	2 J	2 J	ND≥11	ND≥11
Total Xylenes	1,200	ND≥12	ND≥11	ND≥11	ND≥11	ND≥11
Semivolatiles						
Bis(2-ethylhexyl)phthalate	50,000	ND≥580	ND≥560	ND≥560	ND≥560	NA
Pyrene	50,000	ND≥580	ND≥560	ND≥560	ND≥560	NA
Fluoranthene	50,000	ND≥580	ND≥560	ND≥560	ND≥560	NA
Phenanthrene	50,000	**ND≥580***	ND≥560	ND≥560	ND≥560	NA
Benzo(a)pyrene	61	ND≥580	**ND≥560***	**ND≥560***	**ND≥560***	NA
Indeno(1,2,3-cd)pyrene	3200	ND≥580	ND≥560	ND≥560	ND≥560	NA
Napthalene	13,000	ND≥580	ND≥560	ND≥560	ND≥560	NA
Chrysene	400	**ND≥580***	**ND≥560***	**ND≥560***	**ND≥560***	NA
Benzo(a)anthracene	220	**ND≥580***	**ND≥560***	**ND≥560***	**ND≥560***	NA
Dibenzo(a,h)anthracene	14	**ND≥580***	**ND≥560***	**ND≥560***	**ND≥560***	NA

Notes:
B - Indicates constituent also detected in the associated method blank
D - Dilution concentration
J - Indicates an estimated value. Concentration above the method detection limit (MDL) but below the practical quantitation limit (PQL).
NA - Not applicable
ND - Indicates constituent not detected at or above the stated PQL.
RE - Indicates volatile analysis re-extracted and reanalyzed due to interference.
ppb - parts per billion
SB - Soil Boring
*** (Bold)** - Constituent concentration is above the site specific cleanup level or not detected at a PQL above the cleanup level.

SIMULATION OF GROUNDWATER FLOW AND VOC PLUME MIGRATION AT THE ASH LANDFILL, SENECA ARMY DEPOT ACTIVITY, ROMULUS, NEW YORK

Prepared for :

Seneca Army Depot Activity
Romulus, New York

Prepared by:

Parsons Engineering Science, Inc.
Prudential Center
Boston, MA

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APPENDICES

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B Preliminary Water Budget Calculations (Q_{in} vs Q_{out})

C MODFLOW Output files

D MODFLOW Model Sensitivity Analysis Results

- Sensitivity of Heads to Net Recharge
- Sensitivity of Heads to K_h
- Sensitivity of Heads to K_v

E MODPATH Output file

F MT3D Output file

- Scenario 3

1.0 INTRODUCTION

Groundwater at the Ash Landfill has been impacted by volatile organic compounds (VOCs), predominantly trichloroethene (TCE) and the breakdown products, including 1,2-dichloroethene (1,2-DCE) and vinyl chloride (VC). The plume, as it existed in 1994, is shown in Figure 1-1.

The presence of VOCs was first detected in 1979 during an initial installation assessment performed by the Army Environmental Hygiene Agency (AEHA 1979). Since that time, the plume has been delineated and monitored by Seneca Army Depot Activity (SEDA). Monitoring has been conducted as part of a quarterly groundwater sampling program, initiated upon the detection of the plume, in an effort to track the migration of the plume and protect potential off-site receptors. While there is some variability in the data, the monitoring results suggest that the plume is stable with no significant increase in the concentration of VOCs at the wells sampled during the period from 1989 to 1995. This data led to the formulation of the hypothesis that natural degradation subsurface processes, may be responsible for stabilizing the plume. This modeling effort is intended to evaluate this hypothesis.

The full extent of the plume was delineated as part of a remedial investigation (RI) at the Ash Landfill [Parsons Engineering Science, Inc. (Parsons ES), 1994a]. As part of this program, numerous monitoring wells were strategically located around the plume. This effort was successful in delineating the plume in all directions. The path of travel of the plume is from the east to the west. The westernmost tip of the plume is of interest as an increase in concentration in the wells along this edge would indicate the plume is migrating. Due to the proximity of the plume front to the depot boundary, several wells, including bedrock wells, were installed along this plume edge at off-site locations. The data obtained from these off-site wells confirmed that the plume had not migrated beyond the SEDA boundary. However, when the plume dimensions are mapped the plume was depicted to exist slightly beyond the SEDA boundary due to extrapolation between the on-site wells that have detectable amounts and the off-site wells that do not have detectable amounts of volatile organics. Although the plume has not impacted any active source of drinking water, a private drinking water well is present at a farmhouse residence located to the west (Figure 1-1).

Table 1-1

Historical VOC Concentrations in Groundwater

Ash Landfill Groundwater Model
Seneca Army Depot Activity

					Mar '92	Jun '92	JAS '92	Dec '92	Jan '93	April '93	Jul '93	Nov '93	Jan '94	AMJ '94	JAS '94	OND '94	JFM '95	Jun '95	JAS '95	OND '95	Jan '96			
		Quarter:			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	PT-13	Trichloroethene	µg/L		323	119	*	1800	260	45	1400	95	58	*	*	*	*	*	*	*	410	*	*	*
		cis-1,2-DCE			*	*	*	2800	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		trans-1,2-DCE			6	2.5U	*	54	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		Total 1,2-DCE			*	*	*	*	320	36	2000	81	44	*	*	*	*	*	*	*	530	*	*	*
		Vinyl Chloride			14	2.5U	*	5U	9	ND	100	ND	ND	*	*	*	*	*	*	*	22	*	*	*
2	PT-17	Trichloroethene	µg/L		100	72.4	*	160	140	27	210	100	46	*	*	*	*	220	*	*	*	*	*	*
		cis-1,2-DCE			*	*	*	35	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		trans-1,2-DCE			ND	ND	*	ND	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		Total 1,3-DCE			*	*	*	*	27	3	44			*	*	*	*	64	*	*	*	*	*	*
		Vinyl Chloride			ND	ND	*	ND	ND	ND	ND	ND	ND	*	*	*	*	ND	*	*	*	*	*	*
3	PT-18	Trichloroethene	µg/L		9840	7920	*	14000	10000	16000	13000	9500	13000	*	*	*	*	23000	*	*	*	*	*	*
		cis-1,2-DCE			*	*	*	700	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		trans-1,3-DCE			ND	ND	*	ND	440	450	590			*	*	*	*	*	*	*	*	*	*	*
		Total 1,2-DCE			*	*	*	*	*	*	*	*	*	*	*	*	*	550	*	*	*	*	*	*
		Vinyl Chloride			ND	ND	*	10	ND	ND	ND			*	*	*	*	ND	*	*	*	*	*	*
4	PT-20	Trichloroethene	µg/L		21	18	*	24	23	6	32	31	14	*	*	*	*	34	*	*	*	*	*	*
		cis-1,2-DCE			*	*	*	26	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		trans-1,2-DCE			ND	ND	*	ND	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		Total 1,2-DCE			*	*	*	*	26	7	49			*	*	*	*	41	*	*	*	*	*	*
		Vinyl Chloride			ND	ND	*	ND	ND	ND	ND			*	*	*	*	ND	*	*	*	*	*	*
5	PT-22	Trichloroethene	µg/L		73.9	98.9	*	89	89	79	87	92	71	*	*	*	*	110	*	*	*	*	*	*
		cis-1,2-DCE			*	*	*	150	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		trans-1,2-DCE			2	2	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		Total 1,2-DCE			*	*	*	*	140	140	140	140	89	*	*	*	*	170	*	*	*	*	*	*
		Vinyl Chloride			ND	ND	*	ND	ND	ND	ND	ND	ND	*	*	*	*	ND	*	*	*	*	*	*
6	PT-23	Trichloroethene	µg/L		<1.0	<1.0	*	5U	1.0	10U	10U	10U	10U	*	*	*	*	0.5U	*	*	*	*	*	*
		cis-1,2-DCE			*	*	*	ND	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		trans-1,3-DCE			ND	ND	*	ND	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		Total 1,2-DCE			*	*	*	*	1.0	ND	ND	ND	ND	*	*	*	*	ND	*	*	*	*	*	*
		Vinyl Chloride			ND	ND	*	ND	ND	ND	ND	ND	ND	*	*	*	*	ND	*	*	*	*	*	*
7	PT-24	Trichloroethene	µg/L		4.4	6.2	*	6.7	7.0	5.0	6.0	4	5.0U	*	*	*	*	5	*	*	*	*	*	*
		cis-1,2-DCE			*	*	*	110.0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		trans-1,2-DCE			ND	ND	*	ND	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		Total 1,2-DCE			*	*	*	*	100.0	81.0	99.0	72	59	*	*	*	*	72	*	*	*	*	*	*
		Vinyl Chloride			ND	ND	*	ND	ND	ND	ND	ND	ND	*	*	*	*	ND	*	*	*	*	*	*
8	MW-28	Trichloroethene	µg/L		28.4	25.8	*	30	30	22	31	28	31	*	*	*	*	27	*	*	*	*	*	*
		cis-1,2-DCE			*	*	*	51	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		trans-1,2-DCE			ND	ND	*	ND	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		Total 1,3-DCE			*	*	*	*	47	41	*			*	*	*	*	31	*	*	*	*	*	*
		Vinyl Chloride			ND	ND	*	ND	ND	ND	ND			*	*	*	*	ND	*	*	*	*	*	*
9	MW-29	Trichloroethene	µg/L		<1.0	<1.0	*	5U	2	10U	10U	10U	10U	*	*	*	*	2	*	*	*	*	*	*
		cis-1,2-DCE			*	*	*	67.00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		trans-1,2-DCE			ND	ND	*	ND	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		Total 1,2-DCE			*	*	*	*	70.00	76.00	97.00	63.00	80	*	*	*	*	94.00	*	*	*	*	*	*
		Vinyl Chloride			ND	ND	*	ND	ND	ND	ND	ND	ND	*	*	*	*	ND	*	*	*	*	*	*

Note 1) * indicates that no data is available

Table 1-1

Historical VOC Concentrations in Groundwater

Ash Landfill Groundwater Model
Seneca Army Depot Activity

			Mar '87	AMJ '87	Aug '87	Oct '87	JFM '88	AMJ '88	Sept '88	Nov' 88	Mar '89	AMJ '89	Sept' 89	Jan '90	Mar '90	Jun 90	Sep '90	Dec '90	Mar '91	Jun '91	Sep '91	Dec '9
	Quarter:		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	
13	Trichloroethene	µg/L	540	•	1700	94	•	•	•	1530	68	•	950	129	100	790	3100	870	130	2100	1350	17
	cis-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	trans-1,2-DCE		570	•	ND	95	•	•	•	2730	•	•	ND	1U	5U	5U	10U	10U	1	51	63	
	Total 1,2-DCE		•	•	•	•	•	•	•	•	43	•	1000	•	•	•	•	•	•	•	•	•
	Vinyl Chloride		11	•	ND	ND	•	•	•	ND	•	•	17	7	2U	2U	140	10U	1U	35	160	
17	Trichloroethene	µg/L	160	•	•	192	•	•	•	226	•	•	•	170	90	400	340	92	220	460	529	75
	cis-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	trans-1,2-DCE		100	•	•	172	•	•	•	568	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	N
	Total 1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Vinyl Chloride		ND	•	•	79	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	N
18	Trichloroethene	µg/L	•	•	•	•	•	•	•	•	•	•	•	2500	7600	5900	17000	22000	15000	12000	10000	37
	cis-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	trans-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	N
	Total 1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Vinyl Chloride		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	N
20	Trichloroethene	µg/L	•	•	•	•	•	•	•	•	•	•	•	23	26	46	52	35	35	36	30	
	cis-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	trans-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	I
	Total 1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Vinyl Chloride		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	I
21	Trichloroethene	µg/L	•	•	•	•	•	•	•	•	•	•	•	87	100	200	87	93	110	100	74.9	6
	cis-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	trans-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	4	ND	ND	ND	4	4	3	ND	
	Total 1,3-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Vinyl Chloride		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	
23	Trichloroethene	µg/L	•	•	•	•	•	•	•	•	•	•	•	<1 0	<5 0	<5 0	<1 0	<10	<1 0	<10	<1 0	<
	cis-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	trans-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	
	Total 1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Vinyl Chloride		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	
24	Trichloroethene	µg/L	•	•	•	•	•	•	•	•	•	•	•	4 0	6 0	9 0	2 0	6 0	•	8 0	8 6	
	cis-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	trans-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	•	ND	ND	
	Total 1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Vinyl Chloride		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	•	ND	ND	
W-28	Trichloroethene	µg/L	•	•	•	•	•	•	•	•	•	•	•	27 0	27 0	39 0	28 0	36 0	30 0	39 0	21 2	
	cis-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	trans-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	
	Total 1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Vinyl Chloride		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	ND	ND	ND	ND	ND	
W-29	Trichloroethene	µg/L	•	•	•	•	•	•	•	•	•	•	•	<1 0	<5 0	<5 0	•	<10	<1 0	1 0	•	
	cis-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	trans-1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	•	ND	ND	ND	•	
	Total 1,2-DCE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Vinyl Chloride		•	•	•	•	•	•	•	•	•	•	•	ND	ND	ND	•	ND	ND	ND	•	

1) • indicates that no data is available

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In addition, the model output suggested that the plume may have reached a steady-state condition where the dimensions of the plume would remain constant.

The ODAST one-dimensional analytical model was able to provide insight into the suspected behavior of the plume, however, it is a relatively simplistic model with limitations. It was determined that the more sophisticated numerical flow and transport models, MODFLOW and MT3D, would be used for this study to more accurately represent the flow and transport systems at the Ash Landfill and the surrounding area.

1.3 HISTORICAL VOC CONCENTRATIONS IN GROUNDWATER

Historical VOC concentrations in groundwater were evaluated and summarized to identify any trends in the data. Historical trends for only TCE was plotted because the data for 1,2-DCE was not complete. Early in the monitoring program only the trans-isomer of DCE was monitored. Without the cis-isomer the total volatile organic concentration at selected points cannot be ascertained. Vinyl chloride was not plotted because it was detected in only a few instances and in a limited number of wells.

Historical groundwater data are available from a number of monitoring wells at the Ash Landfill (PT-12, PT-17, PT-18, PT-20, PT-22, PT-23, PT-24, MW-28, and MW-29) and are shown on Table 1-1. Most of this data was collected as part of a quarterly monitoring program at the Ash Landfill that was implemented in 1989. Table 1-1 presents the historical information for the compounds TCE, cis- and trans-1,2-DCE and vinyl chloride.

Historical trends for TCE are presented as bar diagrams for the available years (Figure 1-2). For most of the wells, TCE concentrations appear to remain stable over time. The monitoring wells near the "toe" of the plume, PT-24, and PT-28, appear to have had the least fluctuation in concentrations. For example, the concentration of TCE in monitoring well MW-28 ranged between 21 ug/L and 39 ug/L over a five year monitoring period between January, 1990 and June, 1995. The concentrations in PT-24 ranged between 2 ug/L and 9 ug/L over this same time period.

Some fluctuation in concentration is noticeable in monitoring wells near the source area, i.e. MW-12 and PT-18. For example, the concentration of TCE in monitoring well PT-18 ranged from 2,500 ug/L to 23,000 ug/L over a five year monitoring period between January, 1990 and June, 1995. The concentrations of TCE observed in PT-12 ranged from 3,100 ug/L to 58 ug/L over this same time period.

The TCE model was calibrated by adjusting one variable, the decay factor of the solute (λ), until the output, the TCE concentration ratio (C/C_o) matched the actual field well data. The decay factor that produced the expected concentration was estimated at 0.00062 day^{-1}. The final decay factors used to calibrate the model for TCE were compared to literature data to determine if the decay factors used in this model were similar to those found at other sites. Nelson et al. (1990) provided a first-order decay rate for TCE of 0.0006 day^{-1}. This rate was based upon the concentrations measured prior to implementation of an in-situ groundwater treatment process. This data was obtained and used by Nelson to compare the treatment effectiveness. This rate compares favorably to the calibrated decay rate estimated using the ODAST model.

Following calibration, the ODAST model output was run for various times and distances and compared to actual results for other wells along the flow path.

A similar procedure was used to calibrate the model for 1,2-DCE. The decay factor for 1,2-DCE was determined to be 0.00069.

To evaluate a second plausible scenario, simulations were performed using the average concentrations of TCE and 1,2-DCE in MW-44 as C_o. With C_o as the source concentration and the known plume geometry, the centerline of the plume does not conform to a straight line, providing additional uncertainty when comparing site data to model output. However, because this source area (MW-44) contains the highest concentrations of TCE and 1,2-DCE on the site, modeling of this scenario was warranted.

This modeling was performed using the concentrations of TCE and 1,2-DCE at MW-44 as the source concentration terms (C_o), while maintaining the same parameters and assumptions used for the initial modeling scenario including degradation rates. However, new distances from the source area (MW-44) for the same downgradient wells in the modeling array were obtained.

Results of the model runs for TCE and 1,2-DCE in MW-44 indicate that concentrations in the downgradient wells are similar to the actual concentrations determined during the RI. For 1,2-DCE, the results are also similar to actual concentrations, however, 1,2-DCE concentrations predicted by the model are higher in wells closer to the source area (MW-44) and are lower in the further downgradient wells; the shift occurs between wells PT-22 and MW-29.

Thus, the results of modeling two contaminant transport scenarios suggested that natural degradation may be a significant factor that would limit the transport of the TCE/1,2-DCE plume.

x = distance from the source (m); and
t = time elapsed since the beginning of the operation (year).

The pore water velocity in the vicinity of the Ash Landfill was estimated to be 18.1 ft/yr or 0.05 ft/day (0.015 m/day). The velocity calculation incorporated an effective porosity of 0.15, an average hydraulic gradient of 0.021, and a hydraulic conductivity of 0.35 ft/day. A longitudinal dispersivity value of 30 feet was used (Meiri et al., 1990) because the geologic conditions of the site described in this article are similar to the conditions at the Ash Landfill. This value is consistent with values used in other transport simulations (Anderson, 1979). The product of the dispersivity (30 ft) and the groundwater velocity (18.1 ft/yr) is the coefficient of dispersion, 543 ft^2/year (0.138 m^2/day), which was used to this simulation. A retardation factor of 1.5 was used for TCE. This value is consistent with the value used by Meiri et al. (1990) and other literature values for the soil type at SEDA. For 1,2-DCE a lower retardation factor of 1.21 was used (Looney et al., 1987). Simulations of up to 200 years were performed to predict the contaminant concentration ratios.

Data from the RI suggested that two adjacent source areas existed. These source areas were centered around monitoring wells PT-18 and MW-44.

The TCE concentration at PT-18 was assumed to be the source concentration (C_o) for TCE. PT-18 was chosen as the source because PT-18 was the highest concentration for one of the source areas and was located within the area identified as the source area by soil gas and conformational soil sampling during the RI. PT-18 was along the centerline of the groundwater plume. Historical monitoring data has also shown that the concentration of TCE in PT-18 has remained relatively constant suggesting a constant leaching term. This data was collected prior to the implementation of he source removal effort that occurred between November, 1994 and June, 1995. The four wells downgradient of the source that were part of the modeling array and used for calibration were PT-12, PT-22, MW-29, and MW-56; these wells also occur along the same general groundwater flow path, i.e. PT-12 is 200 ft. (61 m) directly downgradient from PT-18; PT-22 is 390 ft. (119 m) from PT-18; MW-29 is 850 ft. (259 m) from PT-18; and MW-56 is 1,165 ft. (355 m) from PT-18. The same flow path was used to calibrate the model for 1,2-DCE, however, for 1,2-DCE the concentration at PT-12 , approximately 200 ft. from the TCE source area, was assumed to be the 1,2-DCE source concentration term, (C_o). PT-12 was chosen to represent the source term for 1,2-DCE because this well contained the highest concentration of 1,2-DCE of the wells chosen to calibrate the model.

modeling effort. The details of the ODAST modeling are provided in the Ash Landfill RI report (Parsons ES, 1994a).

The ODAST model calculates the contaminant mass ratio (C/C_o) for any given point (x) downstream from the source of contamination at any given time (t) as a function of average pore water velocity (v), the dispersion coefficient (D), the retardation factor (R), the decay factor of the solute (λ), and the decay factor of the source (α). For the analysis performed in support of the RI, the TCE source was assumed to be sufficiently large that annual dissolution rates remain constant; therefore, α , the rate of source decay, was assumed to be zero. The ODAST one-dimensional analytical solution used to model this system is:

$$\frac{C}{C_o}(x,t) = \frac{v}{v+U}\exp\left[\frac{x(v-U)}{2D}\right] erfc\left[\frac{Rx-Ut}{2(DRt)^{1/2}}\right]$$

$$+\frac{v}{v-U}\exp\left[\frac{x(v+U)}{2D}\right] erfc\left[\frac{Rx+Ut}{2(DRt)^{1/2}}\right]$$

$$+\frac{v^2}{2DR(\lambda-\alpha)}\exp\left[\frac{vx}{D}-(\lambda-\alpha)t\right] erfc\left[\frac{Rx+vt}{2(DRt)^{1/2}}\right]$$

where:

$$U = [v^2 + 4DR(\lambda-\alpha)]^{1/2}$$

and the model input parameters were defined as follows:

C = concentration at a distance, x, and a time, t (ug/L);
C_o = concentration at source (ug/L);
v = pore water velocity (m/day);
D = coefficient of dispersion (m^2/day);
R = Retardation factor (unitless);
λ = decay factor of the solute (day^{-1});
α = decay factor of the source (day^{-1});

conditions are favorable to support biodegradation. The presence of anaerobic dechlorination daughter products at downgradient locations had provided an indication that such a process is active. The United States Geological Survey (USGS) groundwater flow model (MODFLOW) and a three dimensional transport model (MT3D) were selected as the tools to predict the future migration of the plume relative to its current configuration. The transport model was also used to simulate the anticipated beneficial effect on the future migration of the plume resulting from the elimination of the VOC source material at the Ash Landfill.

1.1 PURPOSE

The purpose of this study is to predict the migration potential of a plume of VOCs and to evaluate the added beneficial effect gained eliminating the source of VOCs. The results of the modeling combined with the supporting field data and the historical groundwater monitoring data will provide the basis for evaluating the potential for off-site groundwater impacts. Additionally, these results will be used in the decision making process regarding the need for implementation of an engineered groundwater recovery and treatment system.

1.2 PREVIOUS MODELING RESULTS

As part of the RI, a one-dimensional analytical model was used to evaluate the future migration of dissolved materials (i.e., chlorinated organic compounds) in the groundwater. This initial modeling effort was intended to evaluate the potential for, or if, the plume would reach downgradient off-site locations.

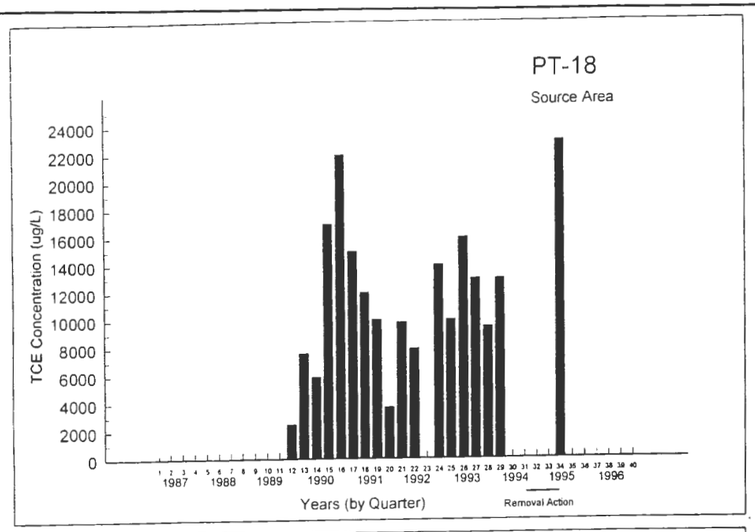
The model, One Dimensional Analytical Solute Transport (ODAST), considers advection, dispersion, decay, and adsorption in a porous media and utilizes an analytical solution, presented by Van Genuchten and Alves (1982), for the one-dimensional groundwater transport of constituents from the source and is described in *Groundwater Transport: Handbook of Mathematical Models* (American Geophysical Union, 1984). This model is an analytical solution to the partial differential equation describing solute transport in saturated porous media using simplifying assumptions and appropriate boundary conditions. The model assumes an infinitely long homogeneous, isotropic porous medium in a steady uniform flow. ODAST includes two function type subroutines, one calculates the product of the exponential, exp(A) and the other the complementary error function, erfc(B). The modeling focused on both TCE and 1,2-DCE, which is predominately the cis isomer. The ODAST model provided a reasonable, first-cut, analysis of contaminant transport at the site during the RI. The discussion below is a summary of this

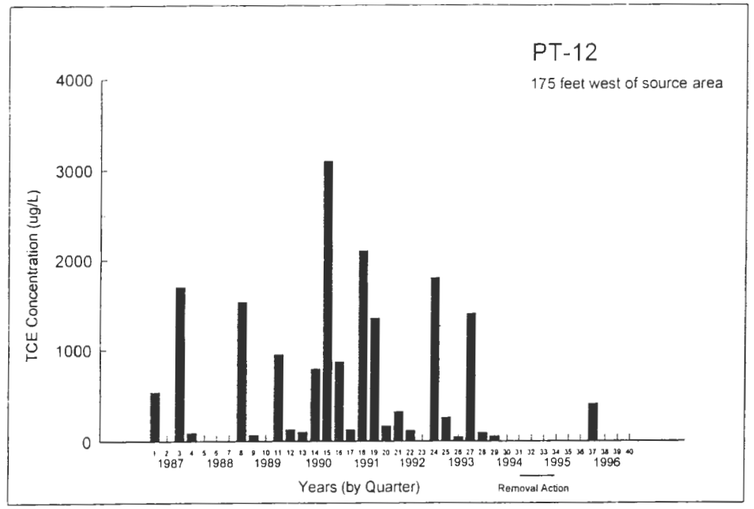
Using the historical groundwater monitoring data as the factual basis to understand the plume, initial fate and transport modeling of the plume was performed using a one-dimensional analytical model. The results of this effort suggested that the plume dimensions would remain constant. The hydrogeological mechanisms and transport factors of the model, appeared to explain why the on-site monitoring wells did not increase and the plume dimensions remained constant. The measurement of breakdown products in the downgradient wells combined with the stability of the plume suggested that natural degradation processes are responsible for stabilization of the plume. In other words, the natural degradation mechanisms, such soil microbiological respiration, operating in the groundwater/soil matrix were able to remove the dissolved volatile ogranics over the plume area at a rate equal to the rate that volatile organics were being introduced to the groundwater system as a result of leaching.

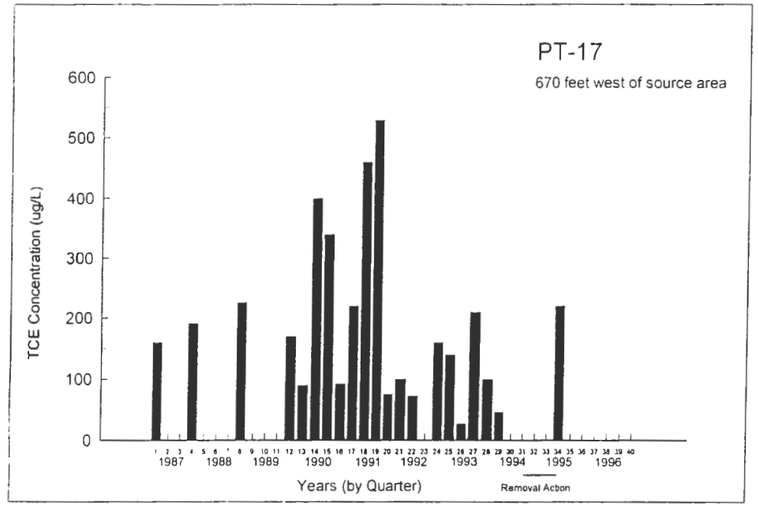
In the fall of 1994, the Army initiated a proactive, non-time critical removal action to eliminate the source of the groundwater plume. This effort, completed in June of 1995, successfully decontaminated the soil source area using Low Temperature Thermal Desorption (LTTD) at the Ash Landfill and eliminated further leaching of volatile organics to the groundwater. As the chlorinated organic compounds are more dense than water, source soil, including saturated soil, was completely excavated from the land surface to the top of competent bedrock, treated and returned to the excavation. In the process, several thousand gallons of groundwater from this area also were extracted and treated from the till/weathered shale aquifer.

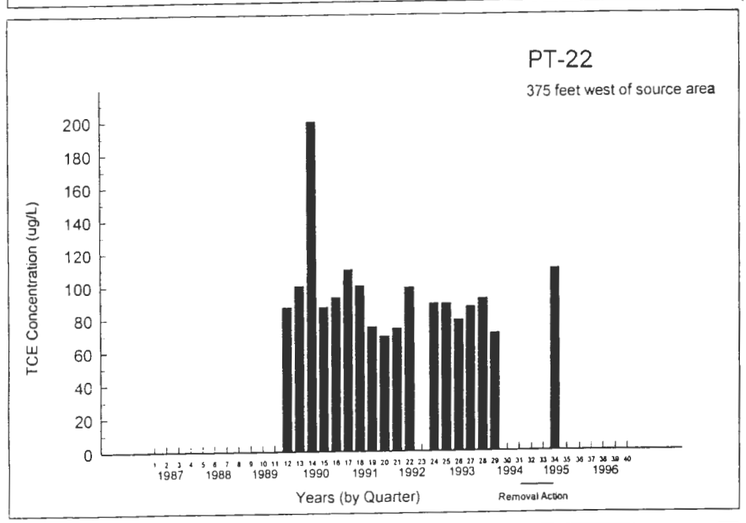
The soil removal action was implemented to eliminate the continued mass input to the groundwater system with the intention that by eliminating the source of groundwater impacts, the natural degradation system would continue to degrade the remaining plume, thereby eliminating the need to implement an engineered remedial action. To provide greater confidence in the ability of the natural mechanisms to degrade the plume at a sufficient rate, it was determined that more sophisticated modeling techniques, such as numerical modeling, would be used to evaluate the effectiveness of this alternative. If the results from this evaluation suggested that the natural degradation process was capable of preventing expansion of the plume, eventually degrading the on-site concentrations to acceptable conditions, then institutional controls in combination with continued groundwater monitoring would be considered as the preferred remedial alternative.

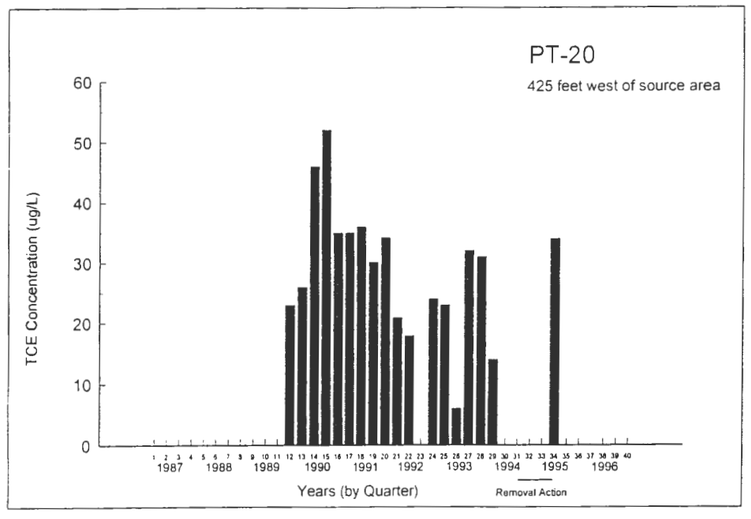
For this study, numerical groundwater flow and transport models were selected as the preferred approach to evaluate this alternative. Concurrently, geochemical data identifying the presence of available electron acceptors and electron donors, was obtained to evaluate whether the site

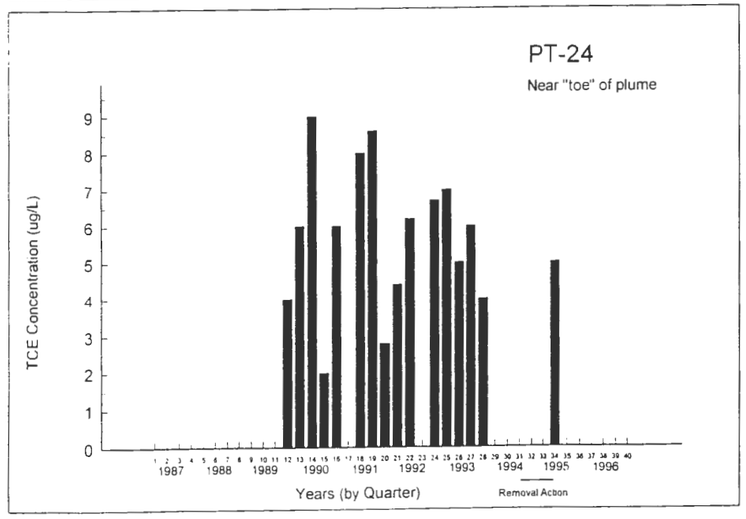


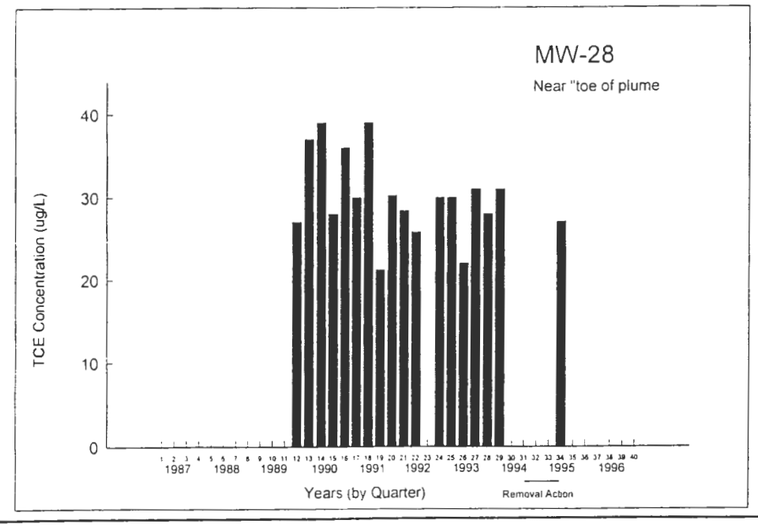












Note: Concentration scales vary for each individual monitoring well presented.

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SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	726209-01002

FIGURE 1-2
HISTORICAL TCE
CONCENTRATIONS IN GROUNDWATER

SCALE	DATE	REV
1" = 250'	APRIL 1996	A

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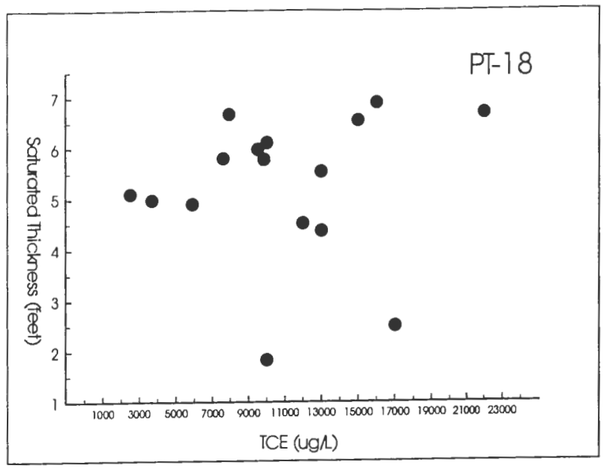
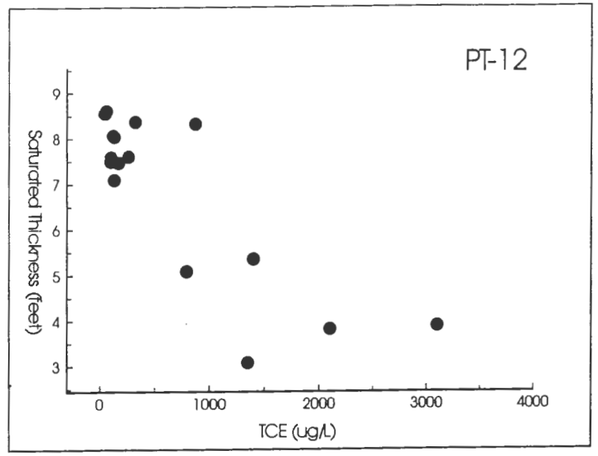
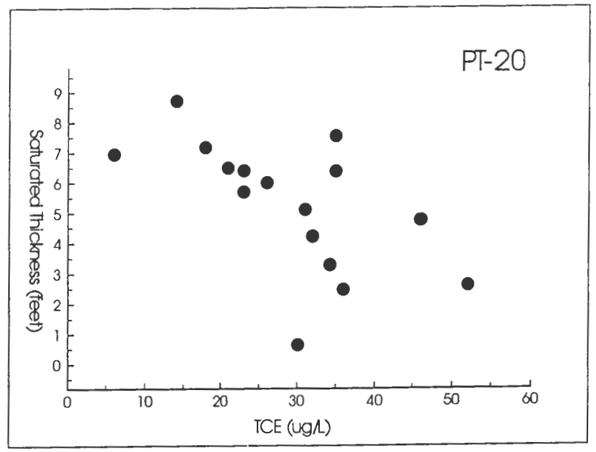
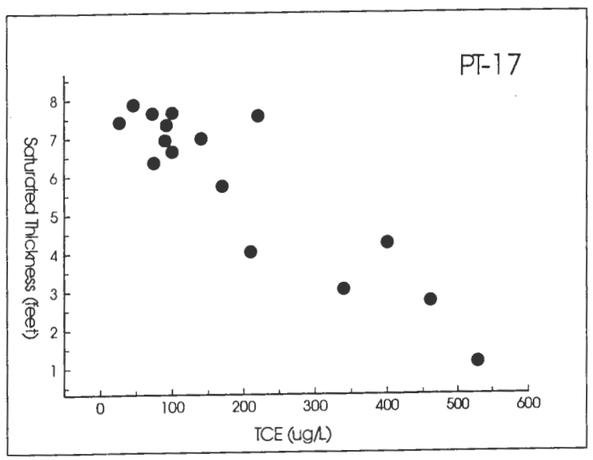
Variability in concentration near the former source area could be a function of mixing with percolating rainfall. Some degree of variability in concentration appears to be related to water table elevation. While the trend in not always consistent, in general, water levels in PT-18 and PT-12 decrease in the late summer and fall and are generally the highest in the spring. Figure 3-8, located in Section 3, provides a graphical depiction of the seasonal fluctuations of the water table in these wells. During the wet period of the year, interactions with clean infiltrating rainwater and TCE source soil would tend to be the greatest. Figure 1-3 provides a graphical relationship between the saturated thickness and the concentration at selected wells. Following this interaction a portion of the TCE sorbed to the source soil would be removed due to dissolution. This newly dissolved material would then migrate downgradient at the retarded groundwater velocity, estimated to be approximately 40 ft/yr. At this rate, the travel time to reach PT-12, approximately 175 feet west of the source area would be approximately 4.4 years. During this time period, new, clean, infiltrating rainfall would percolate through the soil causing a layer of clean water, i.e. newly infiltrated precipitation to form over the impacted groundwater. When sampled, this water is mixed, within the well, causing a reduction in concentration. This effect would not be as significant if the well is sampled during the period of the year when the water levels are low and this layer of clean infiltrated water is smaller.

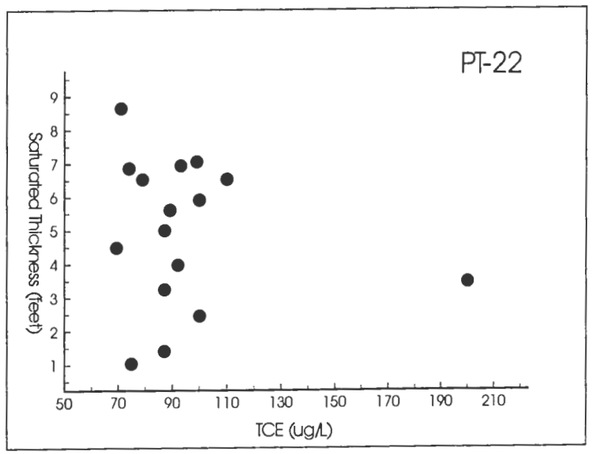
While this effect could account for some observed variations in several wells throughout the historical monitoring period, it cannot account for the notable changes in the concentration and the ratio of TCE to DCE between wells. This change in the ratio of TCE to DCE is highlighted by comparing the concentration ratio of TCE to DCE in PT-18, a well near the former source area, and PT-24, a well near the toe of the plume. At PT-18, the ratio of TCE to DCE ranged from approximately 42 to 1 to 20 to 1, depending on the measured concentration used to establish the ratio. This ratio changes at PT-24, where the ratio of TCE to DCE is 0.07 to 1 and 0.05 to 1. The actual concentration of TCE in PT-18 ranged from 2,500 ug/L to 23,000 ug/L, whereas the concentration of TCE in PT-24 ranged from 2.0 ug/L to 9.0 ug/L, a decrease of approximately 3 to 4 orders of magnitude. Further, the actual concentration of DCE at PT-18 ranged from approximately 44 ug/L to 550 ug/L, whereas the concentration of DCE at PT-24 ranged from 59 ug/L to 100 ug/L, a decrease of approximately one order of magnitude. The change in the rations of TCE to DCE from the source area to the toe of the plume is strong evidence that degradation of the initial material is occurring in the aquifer as the plume migrates along the travel path. The mechanisms of this degradation is considered to occur mainly from biological activity, although abiotic reactions such as hydrolysis, cannot be completely ruled out. However, it is generally recognized that hydrolysis is a slower process compared to biological degradation. By far, the predominant mechanism that has been shown to produce the degradation products measured at the

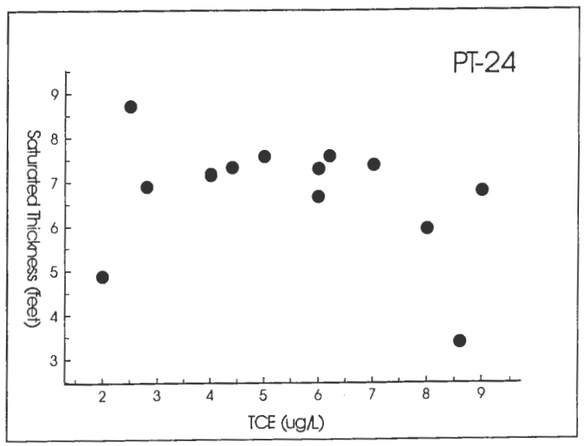


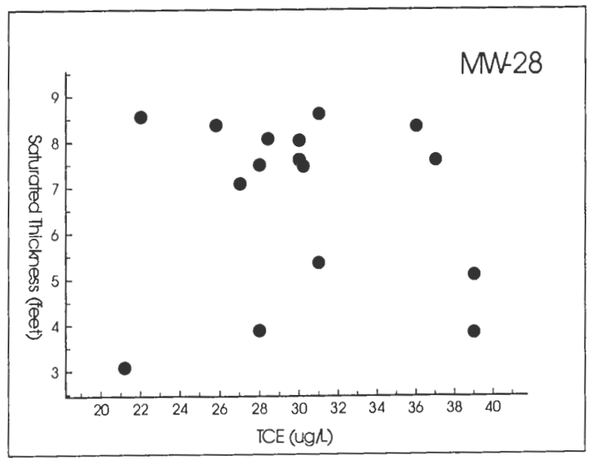












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ASH LANDFILL GROUNDWATER MODEL

DEPT. ENVIRONMENTAL ENGINEERING | DWG NO. 726209-01002

FIGURE 1-3
Relationship Between Saturated Thickness and TCE Concentration in the Till/ Weathered Shale Aquifer

SCALE NA | DATE JUNE 1996

GRAPHICS\SENECA\ASHMODEL\TCEVSAT.CDR

site is anaerobic reductive dechlorination. This biochemical process involves the sequential removal of a chloride atom from TCE and a subsequent transfer of electrons. The transfer of electrons is utilized by endogenous soil microbes use a source of energy to sustain continued growth. When conditions are favorable, the halogenated organic compounds act as electron acceptors, becoming reduced in the process. Natural ogranic carbon is utilized by the microbes to complete the electron transfer and this material is use to donate electrons, becoming oxidized in the process. This process is analogous to the normal biological functions we perform by breathing air, electron acceptors, and ingesting food, electron donors. The soil microbes perform similar functions but utilize alternative electron acceptors and electron donors.

Sampling performed as part of the FS, identified the presence of an abundant supply of dissolved organic carbon in the aquifer, ranging in concentration from 1,000 to 2,000 ug/L in every well sampled. This material is a sufficient source of electron donor material for the soil microbes to utilize, whereas the chlorinated organic material and other compounds such as the abundant supply of sulfate measured in many monitoring wells will act a viable source of electron acceptors to complete the electron transfer. When combined with the existing historical data, that documents the occurrence of breakdown products, the presence of these electron donors and acceptors provides ample evidence to suggest that natural biological degradation processes are occurring. The remaining effort is focused upon determining whether the rate of degradation is sufficient to limit the continued migration of the plume.

In summary, on the basis of the historical data, no wells show a consistent increase in VOC concentration over time, which would be indicative of continued movement and expansion of the VOC plume. Rather, most of the data from the wells indicate that the concentrations are remaining the same over the 6 to 9 years of monitoring that has been performed.

1.4 TECHNICAL APPROACH TO GROUNDWATER FLOW AND TRANSPORT MODELING

The technical approach used to accomplish the goals of the study included the use of MODFLOW, a three-dimensional groundwater flow model and MT3D a three-dimensional transport model.

The modeling objectives are as follows:

- To use existing geologic and hydrogeologic data gathered for the RI at the Ash Landfill to develop a conceptual model for the groundwater flow system.
- To design a groundwater flow model that simulates steady-state flow at the Ash Landfill
- To perform contaminant transport modeling under three scenarios:

  Scenario 1: Simulate the migration of the plume from time t = 0, the time of the initial release, to the present day.
  Scenario 2: Simulate the future migration of the existing VOC plume.
  Scenario 3: Simulate the beneficial effect that the source removal effort has had on the future migration of the VOC plume.

Geologic and hydrogeologic data for the site was assembled from previous studies performed at the site. These data were used to define hydrostratigraphic units and to define the flow system for the site. The conceptual model was developed from the geologic setting, hydrogeologic parameters, and the three-dimensional flow system. A water balance was prepared to determine the infiltration and evapotranspiration rates for the site. The competent shale was represented as equivalent porous medium (EPM) for the model because the degree of secondary porosity (i.e., cracks, microcracks and fracturing) in the shale is believed to form a continuous network of flow. A preliminary water budget was prepared to help define the vertical extent of the flow system to be modeled in the competent shale.

A profile groundwater flow model was initially prepared to provide a cursory check to ensure that the conceptual model and initial parameters values were reasonably accurate. Once the profile model was calibrated to the observed heads along the section, a three dimensional areal model was prepared and calibrated. Once calibrated to the current site conditions, sensitivity analyses of the flow model was performed.

Following calibration of the flow model, the next step was to combine the flow model with the transport model. The transport model is used to model the migration of the dissolved organic chemicals of concern. Transport parameter values were assembled from literature and derived from chemical data collected at the site. The transport model was performed using transport parameter values and flow data from the calibrated three-dimensional flow model. The transport model was calibrated and a sensitivity analyses was performed based on the estimated time of the release of

volatile organics to the groundwater (Scenario 1). Once calibrated, so that the model output depicted the measured plume, the transport model was used to evaluate the conditions that would have occurred if the removal of the TCE source area had not been performed (Scenario 2) The model was then used to evaluate the beneficial effect that the removal of the source area (Scenario 3) has on the future migration of the plume.

The groundwater flow and transport models and pre-and post-processing software used for this modeling study are as follows. MODFLOW/EM (Version 3.1), the United States Geological Survey (USGS) three-dimensional finite-difference groundwater flow model, was used to simulate steady-state groundwater flow conditions at the Ash Landfill site and surrounding area. The pre-processor MFI/EM was used in conjunction with a spreadsheet program to develop the data files necessary to run MODFLOW. Post-processing of MODFLOW results was performed using MODPATH/MODPATH-PLOT (Version 3) and HEDSRFEM. MODPATH/MODPATH-PLOT were used for the pathline analysis in the flow model. HEDSRFEM was used to convert unformatted head files to xyz data files for use in Geosoft, a mapping and processing program.

The transport model, Modular Three-Dimensional Transport Model (MT3D) (Version 1.85), a three dimensional transport model for simulation of the affects of advection, dispersion, and chemical reactions of contaminants in groundwater systems, was used to simulate the movement of the VOC plume. Post processing program, POSTMT3D, was used to generate plot data files from the unformatted concentration files and the model grid configuration files both of which are saved by MT3D. Geosoft was also used to process the plot data files generated by POSTMT3D.

2.0 DESCRIPTION OF THE ASH LANDFILL AND SURROUNDING AREAS

2.1 ASH LANDFILL

The Ash Landfill site is located in the southwestern section of SEDA. It encompasses approximately 130-acres and is composed mostly of undeveloped land with a few man-made features or structures related to past site activities. The site is bounded on the north by Cemetery Road, on the east by the Seneca Army Depot Railroad line, on the south by open grassland and brush, and on the west by the boundary of the depot (Figure 1-1). Undeveloped areas are present mostly in the northern and extreme southwestern portions of the site. The area to the north of the ash landfill and debris piles consists mostly of low grasses with areas of dense brush and a few trees. South of West Smith Farm Road dense brush with some small open grassy areas dominate (Figure 1-1).

From 1941 to 1974, uncontaminated trash was burned in a series of pits near the incinerator building. Between 1974 and 1979 rubbish and garbage were burned in the incinerator. Ashes from the incinerator were temporarily stored in an unlined cooling pond that is located immediately north of the incinerator building (Figure 1-1). When the pond filled, the ashes were buried in the adjacent Ash Landfill. Large items that could not be burned were disposed of in the Non-Combustible Fill Landfill.

Major features on the site are the abandoned incinerator building, a cooling pond, the Ash Landfill, and the Non-Combustible Fill Landfill (Figure 1-1). The abandoned and somewhat dilapidated incinerator building is situated on a small artificially constructed mound and is accessed via a paved driveway off of West Smith Farm Road. An approximately 70-foot diameter abandoned cooling pond is located 10 feet from the northeastern corner of the incinerator building. The Ash Landfill is located slightly north of this point. The approximately 500 x 300 foot kidney-shaped Ash Landfill is defined by a 3 to 4 foot rise in topography (Figure 1-1). It is mostly vegetated with low grass, however, there are areas void of any vegetative cover near the bend in the road. The Non-Combustible Fill Landfill is located across West Smith Farm Road from the incinerator. This roughly rectangular, wedge-shaped fill area thickens to the west where it reaches a maximum total relief of approximately 14 feet.

2.2 SURROUNDING AREAS

This modeling study incorporated significant areas of land beyond the borders of the Ash Landfill. Immediately west of the Ash Landfill is farmland as well as undeveloped land that extends to Route 96A (Figure 2-1). Beyond Route 96A lies Sampson State Park and Seneca Lake. The SEDA airstrip is approximately 3,000 feet southwest of the Ash Landfill. Kendaia Creek is located approximately 3,800 feet north of the Ash Landfill and flows west toward Seneca Lake. East of the Ash Landfill are rows of Quonset huts, used for storage, that are in otherwise undeveloped land. Beyond this area is developed land near Route 96 at the border of the depot. Beyond this, east of Route 96, lies farmland. In addition to the Ash Landfill, six other sites at SEDA provided important hydrogeological information that was utilized to supplement the information collected at the Ash Landfill for the modeling study (Figure 2-1). These are: SEAD-64D, which is immediately adjacent to the Ash Landfill, SEAD-16, -17, -25, -26, -50, and 64A, all located near Route 96 (Figure 2-1).

REEDER CREEK

ROUTE 96A

SAMPSON STATE PARK

FARMHOUSE

ASHLANDFILL

SENECA ARMY DEPOT

SEAD-16

SEAD-25

SEAD-17

ROUTE 96

SEAD64A

SENECA LAKE

SEAD-64D

SEAD-50

AIRFIELD

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LEGEND

- MONITORING WELL
- STREAM / CREEK
- INTERMITTENT STREAM
- RAILROAD TRACKS
- 760 — GROUND SURFACE ELEVATION CONTOUR
- VOC PLUME

N

800 0 800 1600

1" = 1600'

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SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT. ENVIRONMENTAL ENGINEERING | Dwg. No.

FIGURE 2-1
ASH LANDFILL AND
SURROUNDING AREA

SCALE 1" = 1600' | DATE JANUARY 1996 | REV. A

3.0 HYDROGEOLOGIC SETTING

The hydrogeologic setting described in this section is based on information contained in the Ash Landfill RI (Parsons ES, 1994a) and in the Expanded Site Inspection (ESI) reports including: the Seven Low Priority Areas of Concern (AOC)s, the Eight Moderately Low Priority AOCs and the Seven High Priority AOCs (Parsons ES, 1995a, 1995b, 1995c). The description below summarizes only the pertinent information, used to support this modeling study, that was obtained from these reports.

3.1 TOPOGRAPHY

The SEDA facility lies on the western side of a series of north- to south-trending rock terraces that separate Cayuga Lake on the east from Seneca Lake on the west. The rock terraces range in elevation from 490 feet above mean sea level (MSL) in northern Seneca County to as much as 1,600 feet above MSL at the southern end of the lakes. Elevations within the SEDA facility range from approximately 450 feet above MSL on the western boundary to approximately 760 feet above MSL in the southeast corner. The Depot's land surface generally slopes to the west and north.

The Ash Landfill site is located on gently sloping terrain along the western boundary of SEDA, immediately west of the munitions storage area. The majority of the site slopes to the west-southwest and is vegetated with grasses and occasional brush thickets. Elevations range from approximately 680 feet above MSL near the intersection of the, on-depot, railroad tracks and West Smith Farm Road to 630 to 635 feet along the fenced boundary line (Figure 1-1).

3.2 CLIMATE

The nearest source of climatological data is the Aurora Research Farm in Aurora, New York which is approximately ten miles east of SEDA on the eastern side of Cayuga Lake. This research farm is administered by the Northeast Regional Climate Center located at Cornell University in Ithaca, New York. Only precipitation and temperature measurements are available at this location.

A cool climate exists at SEDA with average temperatures ranging from 23°F in January to 69°F in July. Marked temperature differences are found between daytime highs and nighttime lows during the summer and portions of spring and autumn. Precipitation is unusually well-distributed, averaging approximately 3 inches per month. Daily precipitation data measured at the Aurora

Research Farm in Aurora, New York for the period (1958-1991) were obtained from the Northeast Regional Climate Center (Figure 3-1). The average monthly precipitation during this 35-year period of record is summarized in Figure 3-1. The maximum 24-hour precipitation measured at this station during this period was 3.9 inches on September 26, 1975.

The precipitation in this area is derived principally from cyclonic storms that pass from the interior of the country through the St. Lawrence Valley. Lakes Seneca, Cayuga, and Ontario provide a significant amount of the winter precipitation and moderate the local climate. The annual average snowfall is approximately 100 inches. Wind velocities are moderate, but during the winter months, there are numerous days with sufficient winds to cause blowing and drifting snow. The most frequently occurring wind directions are westerly and west-southwesterly.

Values of 35 inches mean annual pan evaporation and 28 inches for annual lake evaporation are cited for this region in the Climate Atlas of United States (U.S. Dept. of Commerce, 1983). An independent value of 27 inches for mean annual evaporation from open water surfaces was estimated from an isoplethed figure in "Water Atlas of the United States" (Water Information Center, 1973).

3.3 SURFACE WATER

Regionally, surface water flow at SEDA is controlled by the network of small drainage ditches that parallel the access roads on the Depot. These ditches are believed to receive overland flow during heavy rain events and meltwater during the late winter and spring months. However, they are dry for most of the year, based on observations made during the investigations at SEDA. West of SEDA there are no such controls on surface water flow.

Intermittent stream drainage patterns and topography shown on United States Geological Survey (USGS) 7 1/2 minute topographic maps of the Ovid and Dresden quadrangles indicate that surface

Average Monthly Precipitation
in Proximity to the Ash Landfill (1958–1991)

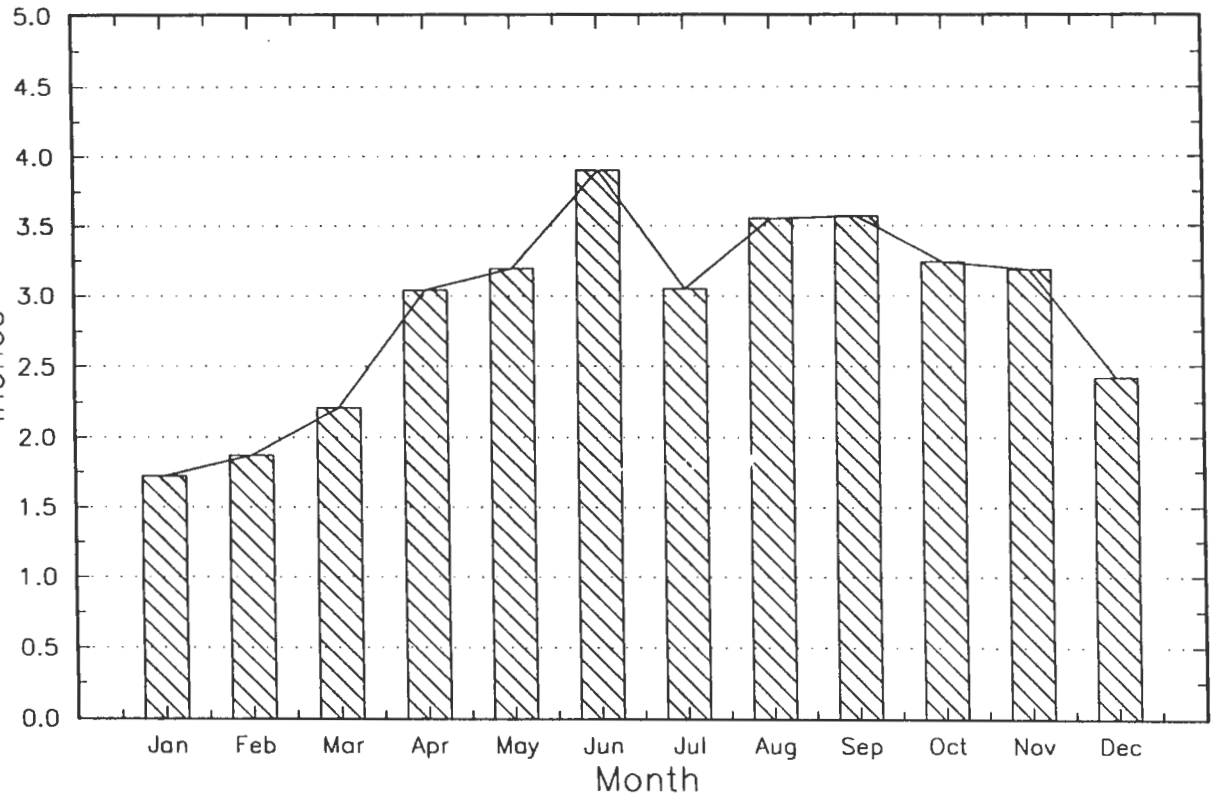

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FIGURE 3-
AVERAGE MONTHLY PR
IN PROXIMITY T
ASH LANDFILL (1

SCALE NA | DATE

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water flows generally to the west on the Depot. However, east of Route 96 flow is to the east, suggesting that there is a regional surface water divide located near Route 96. This divide is not near the Ash Landfill and does not affect he surface water flow patterns of the site.

All of the surface water at the Ash Landfill is suspected to drain into several small wetland areas on-site (Figure 1-1). Based on topographic expression, several of these wetland areas (W-B, W-D, W-E, and W-F) drain primarily into two small, but well developed, drainage swales south of the Ash Landfill and incinerator building (Figure 1-1). Farther north, less well developed swales drain areas in an near wetlands W-B and W-E. These ditches direct surface water flow westward into a drainage ditch along West Patrol Road. Surface water, when present, drains to the north on both sides of West Patrol Road. Wetland W-F also drains west along West Smith Farm Road to the ditch along West Patrol Road. Drainage along West Patrol Road (between West Smith Farm Road and Cemetery Road) is to the northwest, based on topography. Drainage on both sides of West Smith Farm Road and Cemetery Road is to the west. North and east of the Ash Landfill site is Kendaia Creek which drains upland areas east of the Ash Landfill site. Kendaia Creek passes approximately 3,800 feet north of the Ash Landfill and eventually drains into Seneca Lake.

Precipitation data indicates that, historically, June has the greatest amount of rainfall, 3.9 inches, and the winter months (January and February) generally have had the least amount of rainfall (Figure 3-1).

Suspected spring locations within a one mile radius of the Ash Landfill were examined in the field as part of the Ash Landfill RI. Field observations made at potential seeps within wetlands in proximity to and downgradient of the Ash Landfill site found no evidence of springs within these wetlands. It appeared that low spots with poorly drained soils enabled surface run-off to collect and form hydric conditions that are conducive to wetland formation. No evidence of springs was observed within a one-mile radius of the Ash Landfill during the RI field work.

3.4 SITE GEOLOGY

3.4.1 Introduction

The site geology is characterized by a mantle of Pleistocene till overlying gray Devonian shale. At the top of the shale unit is a thin weathered zone where it contacts the overlying mantle of Pleistocene till. This stratigraphy is consistent over the entire Ash Landfill site and the six other

nearby sites that have been investigated (SEAD-16, -17, -25, -26, -50, and -64D) at SEDA. The information obtained from these site investigations suggests that the geology at throughout the facility is consistent and is applicable to areas outside the immediate vicinity of the Ash Landfill (i.e., the modeled area).

3.4.2 Till/Weathered Shale

The predominant surficial geologic unit present at the site is dense glacial till. The till is distributed across the entire region and ranges from in thickness from less than 4 to approximately 18 feet although it is generally only 6 to 8 feet thick. The till generally consists of brown to gray-brown silt, clay and fine sand with few fine to coarse gravel-sized inclusions of weathered shale. Larger diameter weathered shale clasts (as large as 6 inches in diameter) are more prevalent in basal portions of the till and are probably ripped-up clasts removed from the shale by the once active glacier. The general Unified Soil Classification System description of the till on-site is as follows: Clay-silt, brown; slightly plastic, small percentage of fine to medium sand, small percentage of fine to coarse gravel-sized gray shale clasts, dense and mostly dry in place, till, (ML). Grain size analyses performed by Metcalf & Eddy (1989) on glacial till samples collected during the installation of monitoring wells on another portion of SEDA show a wide distribution of sediments sizes, charateristic of unsorted glacial till. These tills have a high percentage of silt and clay with trace amounts of fine gravel. The porosities of five gray-brown silty clay (i.e., till) samples ranged from 34.0 percent to 44.2 percent with an average of 37.3 percent (USAEHA, 1984). No fracturing or other evidence of physical disturbance were observed in the till.

At the Ash Landfill site and surrounding area, Darian silt-loam soils, 0 to 18 inches thick, are developed over the till on-site, however, in some locations, till is exposed at the surface. The surficial soils are somewhat poorly drained and have a silt clay loam and clay subsoil.

The zone of gray weathered shale has a variable thickness and was encountered below the till in almost all locations drilled at SEDA. The thickness of the weathered shale varies at the Depot, however, it is generally only 2 to 4 feet thick. Differential weathering through geologic time is likely responsible for the variable thicknesses.

3.4.3 Competent Shale

The bedrock underlying the Ash Landfill and the surrounding region is composed of the Ludlowville Formation of the Devonian age Hamilton Group. The Ludlowville Formation is a gray-black, calcareous shale that is fissile and exhibits parting (or separation) along bedding planes; it is approximately 140 feet thick in Seneca County (Mozola, 1951). Three predominant joint directions, N60°E, N30°W, and N20°E are present within this unit (Mozola, 1951). These joints are primarily vertical. Merin (1992) also cites three prominent vertical joint directions of northeast, north-northwest, and east-northeast in outcrops of the Genesse Formation 30 miles southeast of the Ash Landfill site near Ithaca, New York.

Data from boring logs indicates that the surface of the competent shale slopes consistently to the west. The bedrock topographic gradient (as well as the land surface topography) is steeper in the eastern portion of the Ash Landfill site than in the southwestern portion of the site. Available data suggests that the competent shale surface flattens out under a cultivated field west of the Conrail railroad tracks.

The characteristics of the competent shale were observed in a total of 236 feet of core collected during packer testing and monitoring well installation performed at the Ash Landfill. Major characteristics of the bedrock cores include bedding-plane fractures, breccia zones, tectonic joints, fossil beds, and minor deposits of iron sulfides. Bedding-plane fractures were present throughout the competent shale although they were more well developed and more closely spaced near the top of the competent shale, where their spacing was approximately 0.5 inches. Bedding-plane fractures also tended to be filled with silt and clay near the top of the shale. Well-defined bedding-plane fractures were also noted by Merin (1992) in cores from well cemented, gray, thin-bedded siltstones of the Genessee Formation near Ithaca, New York. Generally, the fracture frequency decreased with depth as evidenced by the increase in Rock Quality Designations (RQDs). RQDs are the total length of recovered core sections over 4 inches in length expressed as a percentage of the interval cored. RQDs are a geological term used to determine the integrity of the bedrock. High RQDs indicate competant, unfractured bedrock. Such rock would not be expected to yield significant amounts of water as the pathways for water to travel, i.e. the fractures, are limited. The core recoveries are influenced by the number of bedding-plane fractures and tectonic fractures in the shale. Merin (1992) also noted that bedding-plane fracture frequency decreased with depth in Devonian siltstones near Ithaca, New York.

Breccia zones are present in several of the cores at varying depths. Breccia is a geoloical term that refers to fragmental rock whose components are angular. Breccia rock are not considered to be

affected by erosion due to interactions with water. These zones range from 3 to 12 inches thick and are composed of angular shale fragments in a fine silt and clay matrix. The upper and low contacts of these zones are generally sharp. The breccia is believed to have been formed during small tectonic movements along preexisting bedding plane fractures. No breccia zones were observed along any other type of fracture (e.g., vertical fracture or low angle fracture) except for bedding plane fractures. Brecciated zones were identified in cores for monitoring wells MW-49D (4-inch-thick zone at 24 feet), MW-50D (12-inch-thick zone at 41 feet), MW-52D (3-inch-thick zone at 40 feet), MW-54D (8-inch-thick zone at 30 feet), MW-55D (3-inch-thick zone at 50 feet), and MW-55D (3-inch-thick zone at 20 feet).

Joints were very common in the competent shale. They were observed in most cores at a variety of angles (between 5° and 90°) although most tended to be between 30° and 60°. Below the top of the competent shale fractures were less than a millimeter thick. They were generally free of silt or clay except in the upper few feet of the shale where they were filled with silt and clay. In some instances, the fractures were filled with a secondary calcium carbonate mineral. The spacing between the joints was usually 4-5 inches in the upper 20 feet of the competent shale; joints spacings below 20 feet were variable but were generally greater than 4-5 inches. The orientation of the joints in space could not be determined because the drilling program did not require the collection of oriented cores.

Thin fossil beds were present at many locations in the shale. The beds ranged in thickness from less than 1 inch to 3 inches. Occasionally only a single fossil was seen in the shale and not associated with an accumulation bed. The fossil beds provide planes of weakness in the shale and were almost always associated with bedding plane fractures.

Iron sulfides were present throughout the cores; however, they were more abundant below 80 feet. Evidence for this is available only from the core for MW-52. This corehole penetrated to 100 feet below the land surface.

3.4.4 Site Stratigraphy

A geologic cross-section was constructed for the Ash Landfill site. The location of the section is shown in Figure 3-2. The east-west cross-section A-A′ shows the consistent till, weathered shale, competent shale stratigraphy beneath the site based on data from borings and monitoring wells (Figure 3-3). The Ash Landfill, which is up to 4 feet thick, is also shown on the section A-A′. The

N 997000
N 996000
N 995000
N 994000
E 421000
E 420000
E 419000
MW-41D
200 FEET
MW-42D
SEAD RAILROAD
APPROXIMATE LOCATION OF 6" WATER MAIN
A
PT-10
COOKING GREASE PAIS DISPOSAL AREA
W-A
NON COMBUSTIBLE FILL LANDFILL
DEBRIS PILE
MW-39
MW-43
B-40B
MW-40
MW-60
MW-59
PT-11
W-E
ASH LANDFILL
PT-18
SOUTH GARRY ROAD
DEBRIS PILE
MW-44
W-C
ABANDONED INCINERATOR BUILDING
W-D
W-B
B-47
PT-12
W-F
MW-45
MW-46
MW-49T
MW-50D
PT-19
PT-22
PT-21
PT-20
MW-48
APPROXIMATE LOCATION OF 6" WATER MAIN
CEMETERY ROAD
MW-32
MW-33
PT-15
PT-17
MW-30
MW-31
PT-25
PT-23
MW-27
MW-28
MW-53
MW-54D
MW-55D
ASPHALT PATCH
MW-29
SEAD-2
EL.634.91'
MW-38D
PT-16
PT-24
MW-34
(625 FEET)
MW-36
MW-35D
WEST PATROL ROAD
CONRAIL RAILROAD
MW-57D
MW-56
MW-58D
W-G
A'
PT-26
(1315 FEET)
MW-37
SEAD-1
EL.630.90'
FARMHOUSE
WELLS (1250 FEET)
MW-51D
MW-47
MW-52D
0

LEGEND:

- PAVED ROAD
- DIRT ROAD
- 650 — GROUND CONTOUR AND ELEVATION
- TREE
- W-B — WETLAND & DESIGNATION
- APPROXIMATE EXTENT OF FILL
- OUTLINE OF FORMER TRASH PITS (IDENTIFIED FROM AERIAL PHOTO)
- APPROXIMATE EXTENT OF DEBRIS PILE
- BRUSH
- CHAIN LINK FENCE
- UTILITY POLE
- APPROXIMATE LOCATION OF FIRE HYDRANT
- FUEL OR UNDERGROUND STORAGE TANK
- SURVEY MONUMENT
- SEAD-1 EL.630.90'
- PT-22 — MONITORING WELL AND DESIGNATION
- MW-37
- B-40B — SOIL BORING AND DESIGNATION
- LOCATION OF CROSS SECTION

PARSONS
PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE
SENECA army DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

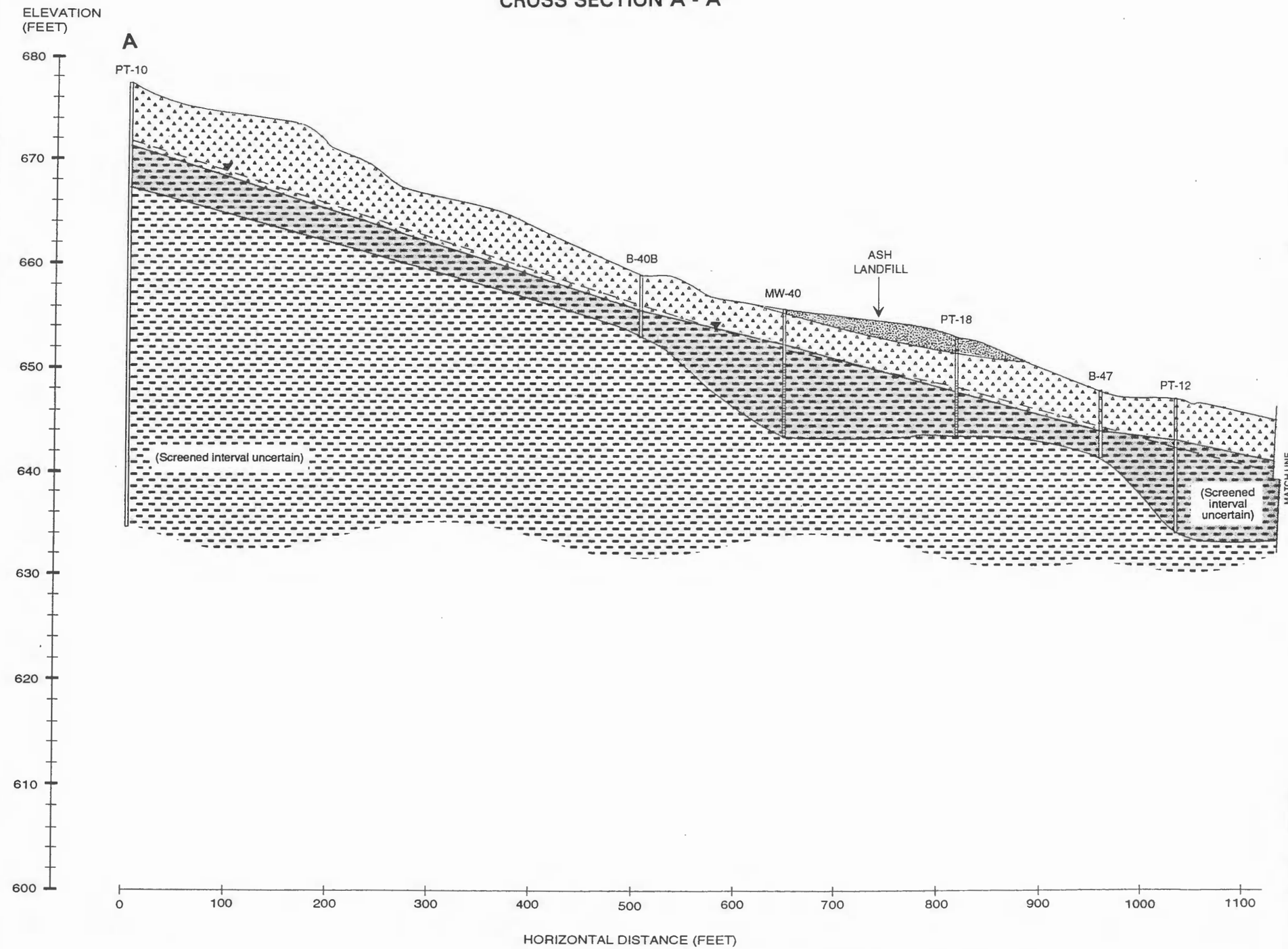
DEPT. ENVIRONMENTAL ENGINEERING
Dwg. No. 720209-01002

FIGURE 3-2
LOCATION OF GEOLOGIC CROSS-SECTION A-A'

SCALE 1" = 250'
DATE OCTOBER 1995
REV A

ACAD\SENECA\ASHMODEL\CSAA.DWG

CROSS SECTION A - A'



NOTES:

1. Lithologic units are based on descriptions supplied by Parsons Engineering-Science, Inc. (1994a). Interpretations are based on extrapolations between widely spaced boreholes, actual conditions may vary.
2. Water table based on depth to water measurements made in June 1993.

MW-44

Monitoring Well Designation with Screened Interval

LEGEND:

- FILL
- TILL
- WEATHERED SHALE
- COMPETENT SHALE
- WATER TABLE

PARSONS

PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

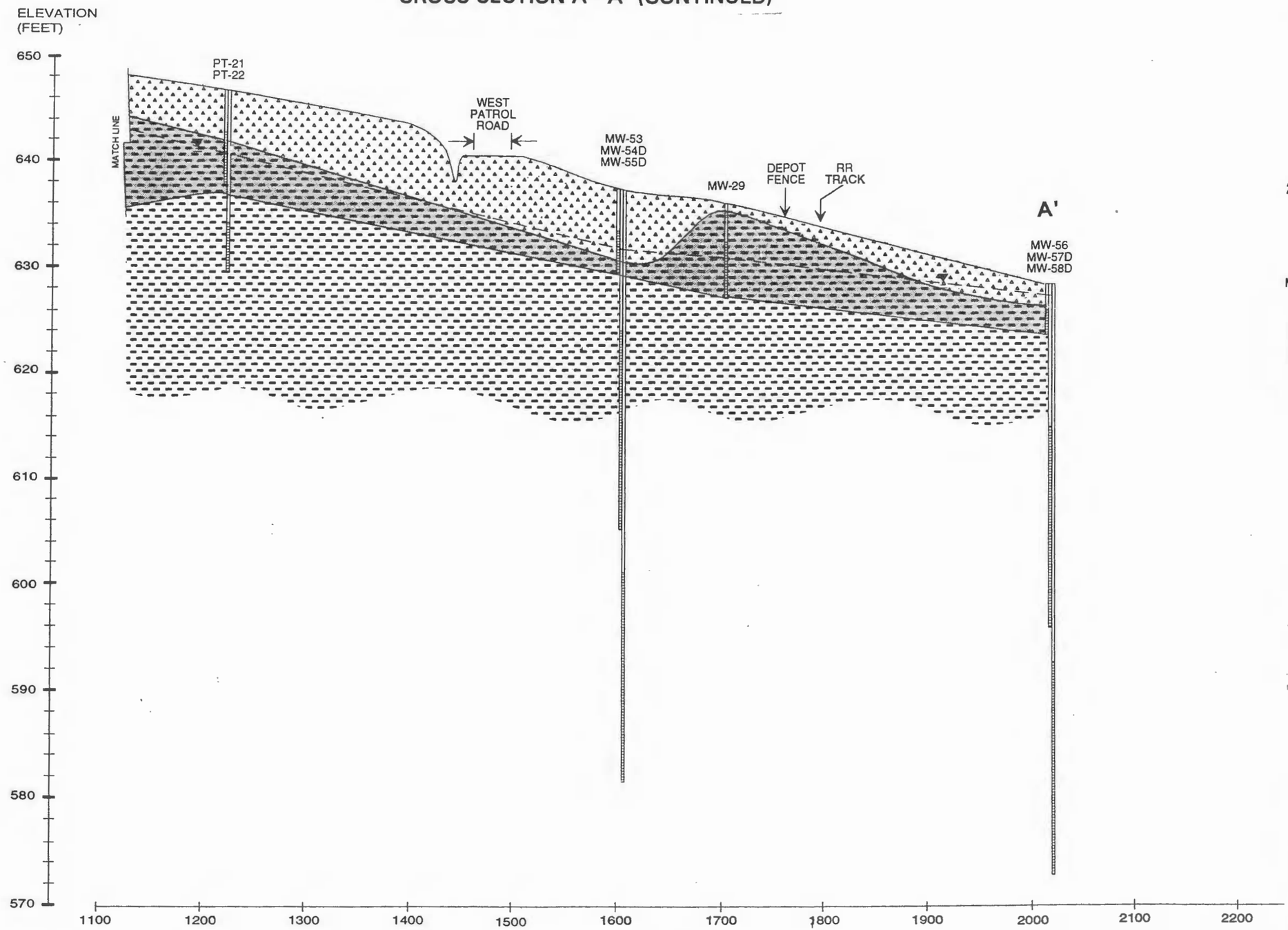
DEPT: ENVIRONMENTAL ENGINEERING | DWG NO: 726209-01002

FIGURE 3-3
CROSS SECTION A - A'

SCALE: NA | DATE: JANUARY 1996

GRAPHICS\SENECA\ASHMODEL\11X17H.CDR

CROSS SECTION A - A' (CONTINUED)



NOTES:

1. Lithologic units are based on descriptions supplied by Parsons Engineering-Science, Inc. (1994a). Interpretations are based on extrapolations between widely spaced boreholes, actual conditions may vary.
2. Water table based on depth to water measurements made in June 1993.

MW-44

Monitoring Well Designation with Screened Interval

LEGEND:

- FILL
- TILL
- WEATHERED SHALE
- COMPETENT SHALE
- WATER TABLE

PARSONS
PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE
SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT. ENVIRONMENTAL ENGINEERING | DWG NO. 726209-01002

FIGURE 3-3
CROSS SECTION A - A' (CONTINUED)

SCALE NA | DATE JANUARY 1996

GRAPHICS\SENECA\ASHMODEL\11X17H.CDR

section was drawn to provide a somewhat detailed view of the subsurface stratigraphy by intersecting as many data points (i.e., soil borings or monitoring wells) as possible while maintaining a uniform direction for the cross-section. The scale of the sections did not permit identification of a soil horizon.

3.5 HYDROGEOLOGIC SETTING

3.5.1 Introduction

The hydrogeologic properties of the till/weathered shale and competent shale aquifers were derived from investigations performed at the Ash Landfill. Specifically, this section addresses topics such as groundwater flow directions, hydraulic conductivities, groundwater velocity, vertical gradients, and vertical connection tests between the shallow and deep aquifers. This information was used as the basis for the conceptual model that describes the expected aquifer characteristics and behavior. The conceptual model is presented at the end of the section.

3.5.2 Groundwater Flow Directions

A groundwater contour map was constructed for the Ash Landfill and SEAD-64D, an adjacent site, using depth to groundwater measurements in the till/weathered shale aquifer. The groundwater contour map was constructed on the basis of depth to water measurements made on June 14, 1993 (Figure 3-4). The flow direction determined during this effort is consistent with the data obtained from the several quarterly groundwater monitoring events performed at the site. The map indicates that the general direction of groundwater flow in the shallow aquifer was to the west toward Seneca Lake, generally following the surface topography. The aquifer surface elevations were approximately 655 feet above MSL in the eastern portion of the site and 630 feet above MSL in the western portion of the site. Generally, groundwater flow contours indicate that there is a consistent gradient over the entire area. The groundwater gradient between wells PT-18 and PT-17 was calculated to be 0.021. The site-wide hydraulic gradient (between wells MW-40 and MW-56) was calculated to be 0.020 ft/ft.

Groundwater topography maps were prepared for high, medium and low water table conditions to determine if the direction of the groundwater flow and/or the hydrolic gradient were different (Figures 3-5, 3-6 and 3-7). Analysis of these maps indicates that the groundwater flow directions and horizontal gradients are approximately the same. The flow direction is to the west-southwest

N

LEGEND

MONITORING WELL

SURVEY MONUMENT

GROUNDWATER CONTOUR WITH FLOW DIRECTION

INTERMITTENT STREAM

RAILROAD TRACKS

RAILROAD TRACKS

760 GROUND SURFACE ELEVATION CONTOUR

300 0 300 600

1" = 600'

PARSONS

PARSONS ENGINEERING SCIENCE, INC.

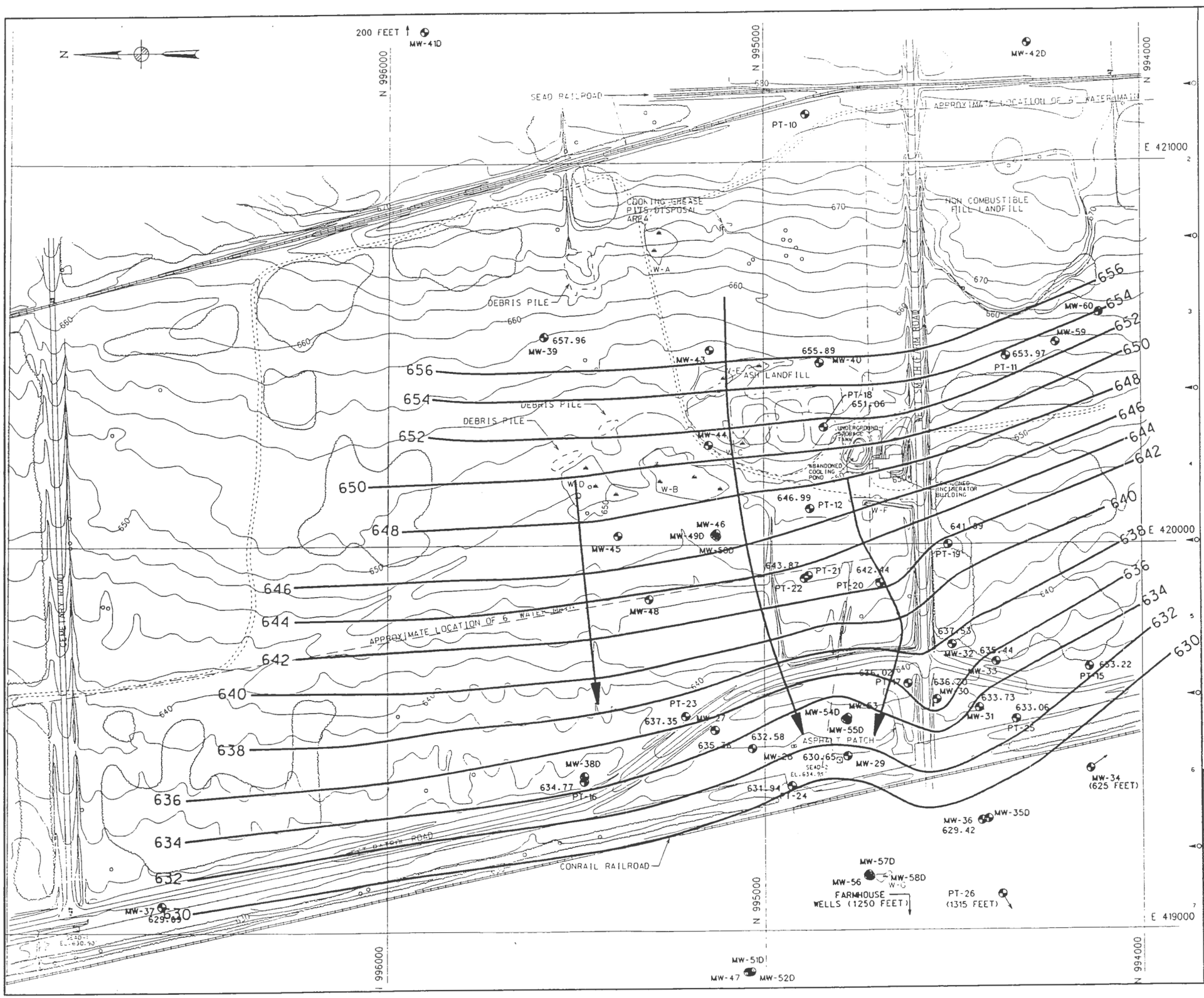
CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT. ENVIRONMENTAL ENGINEERING | Dwg. No.

FIGURE 3-4
GROUNDWATER FLOW DIRECTIONS AT THE ASH LANDFILL AND SEAD-64D

SCALE 1" = 600' | DATE JANUARY 1998 | REV A



LEGEND

- GROUND CONTOUR AND ELEVATION
- W-1 — WETLAND & DESIGNATION
- UTILITY POLE
- TREE
- BRUSH
- MW-29 / 626.87 — MONITORING WELL WITH WATER TABLE ELEVATION
- 632 — GROUNDWATER ELEVATION CONTOUR (ARROW INDICATES DIRECTION OF FLOW)

N

125 0 125 250

1" = 250'

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PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE

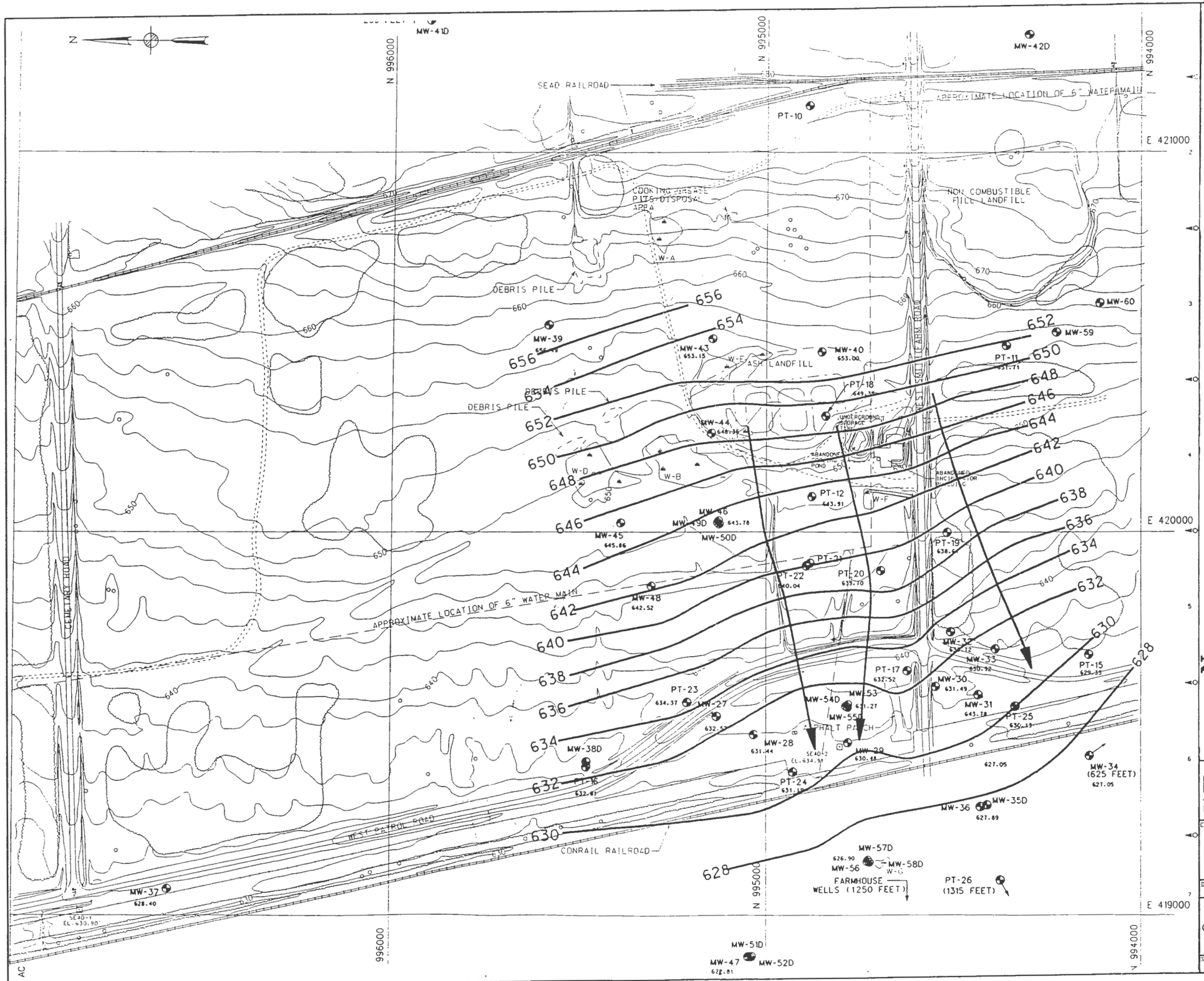
SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	726209-01002

FIGURE 3-5

GROUNDWATER ELEVATIONS AND TOPOGRAPHY FOR THE TILL WEATHERED SHALE AQUIFER - DECEMBER 1992

SCALE	DATE	REV
1" = 250'	APRIL 1996	A



LEGEND

- GROUND CONTOUR AND ELEVATION (650)
- W-1 — WETLAND & DESIGNATION
- UTILITY POLE
- TREE
- BRUSH
- MW-29 / 626.87 — MONITORING WELL WITH WATER TABLE ELEVATION
- 632 — GROUNDWATER ELEVATION CONTOUR (ARROW INDICATES DIRECTION OF FLOW)

N

125 0 125 250

1" = 250'

PARSONS

PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT.	Dwg. No.
ENVIRONMENTAL ENGINEERING	726209-01002

FIGURE 3-6

GROUNDWATER ELEVATIONS AND TOPOGRAPHY FOR THE TILL WEATHERED SHALE AQUIFER - JUNE 1993

SCALE	DATE	REV
1" = 250'	APRIL 1996	A

N

SEAD RAILROAD

APPROXIMATE LOCATION OF 6" WATER MAIN

COOKING GREASE PIIS DISPOSAL AREA

W-A

NON COMBUSTIBLE FILL LANDFILL

DEBRIS PILE

DEBRIS PILE

DEBRIS PILE

W-E ASH LANDFILL

WEST SMITH FARM ROAD

ABANDONED INCINERATOR BUILDING

W-D

W-B

W-C

CEMETERY ROAD

APPROXIMATE LOCATION OF 6" WATER MAIN

WEST PATROL ROAD

CONRAIL RAILROAD

ASPHALT PATCH

FARMHOUSE WELLS (1250 FEET)

W-G

SEAD-1 EL 630.90'

SEAD-2 EL-634.91'

PT-10

PT-11

PT-12

PT-15

PT-16

PT-17

PT-18

PT-19

PT-20

PT-21

PT-22

PT-23

PT-24

PT-25

PT-26 (1315 FEET)

MW-27

MW-28

MW-29

MW-30

MW-31

MW-32

MW-33

MW-34 (625 FEET)

MW-35D

MW-36

MW-37

MW-38D

MW-39

MW-40

MW-42D

MW-43

MW-44

MW-45

MW-46

MW-47

MW-48

MW-49D

MW-50D

MW-51D

MW-52D

MW-53

MW-54D

MW-55D

MW-56

MW-57D

MW-58D

MW-59

MW-60

647.66

646

644

642.65

642

640

638.34

638

636

634

632

632.64

630

631.60

630.02

630.76

626.70

627.45

633.69

630.73

628.07

626.84

631.15

629.43

650

660

670

680

640

LEGEND

- GROUND CONTOUR AND ELEVATION
- W-1 — WETLAND & DESIGNATION
- UTILITY POLE
- TREE
- BRUSH
- MW-29 / 626.87 — MONITORING WELL WITH WATER TABLE ELEVATION
- 632 — GROUNDWATER ELEVATION CONTOUR (ARROW INDICATES DIRECTION OF FLOW)

125 0 125 250

1" = 250'

PARSONS

PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT. ENVIRONMENTAL ENGINEERING | Dwg. No. 725980-01007

FIGURE 3-7

GROUNDWATER ELEVATIONS AND TOPOGRAPHY FOR THE TILL WEATHERED SHALE AQUIFER - SEPTEMBER 1990

SCALE 1" = 250' | DATE APRIL 1996 | REV A

ACAD\SENECA\ASHMODEL\SEPT90GW.DWG

and the horizontal gradient between wells PT-18 and PT-17 is 0.02 ft/ft for all three aquifer conditions.

The groundwater flow direction in the competent shale aquifer at the Ash Landfill is to the west-southwest, based on data collected from the 5 deep bedrock wells. The gradient between the bedrock wells PT-10 and MW-35D was calculated to be 0.025.

The physical characteristics of the competent shale aquifer that affect the flow of groundwater were investigated by reviewing a report prepared by Mozola (1951) and reviewing the core data collected during the monitoring well installation. Mozola (1951) described two distinct sets of joints in the area. The main set, termed dip joints, appear to be in the form of two conjugate shear planes that intersect to form acute angles ranging from 10° to 30°. The mean direction of the dip joints ranges from North 15° to 30° East to North 30° to 45° West. Strike joints at right angles to the dip joints trend from North 50° East to North 70° East and are spaced from 1 inch to 4 feet apart. The dip of the joint planes ranges from 46° to nearly vertical; dip directions range as noted above. In addition, Mozola (1951) found that, most of the joints in the beds of the shale are filled with clay or fine silt which may inhibit groundwater flow.

The flow of groundwater in the competent shale is believed to be influenced primarily by the joints and bedding plane fractures that were observed in the bedrock core samples collected during the RI. No other flow pathways were observed in the core samples. This view was suggested by Mozola (1951) for rocks of the Hamilton Group and more recently by Merin (1992) for Devonian siltstones near Ithaca, New York. Brecciated zones in the shale may have once transported significantly greater amounts of water than the unbrecciated shale, however, today they are not believed to be major transport pathways because they are filled with a fine silt and clay matrix. In Merin's (1992) conceptual model of groundwater flow in a siltstone aquifer near Ithaca, New York, flow is through a network of horizontal and vertical bedding plane fractures and joints that exists in the subsurface. Limited amounts of groundwater is expected to migrate through vertical and horizontal planes of secondary porosity (i.e., fractures), each of which is a fraction of a millimeter thick and extends several inches to tens of feet in length. Based on the physical characteristics of the competent shale observed in this investigation, this model is believed to apply to the shale at the Ash Landfill site.

3.5.3 Hydraulic Conductivities

Horizontal hydraulic conductivities were determined for 22 wells at the Ash Landfill site, 8 of which are screened in the till/weathered shale and 14 are screened in the competent shale. Hydraulic conductivities of these wells ranged from 1.8×10^{-4} to 1.9×10^{-7} cm/sec with one anomalous value of 5.8×10^{-11} cm/sec. Hydraulic conductivity values for the shallow till/weathered shale aquifer ranged from 3.9×10^{-5} cm/sec to 1.8×10^{-4} cm/sec. Hydraulic conductivity values for the competent shale aquifer (as determined by slug testing) ranged from 1.9×10^{-7} to 1.2×10^{-4} cm/sec. In most instances the conductivity values for the till/weathered shale aquifer are greater than for the competent shale aquifer. Within the competent shale aquifer, conductivity values generally decrease with depth, a phenomenon which can be attributed to an increase in mechanical stresses causing fractures to close (deMarsily, 1986). Merin (1992) noted a similar trend in fractured Devonian siltstones near Ithaca, New York and attributed it to the fact that shallower wells intercepted more highly fractured rock than the deeper wells did.

3.5.4 Groundwater Velocity

The average linear darcy velocity of groundwater in the till/weathered shale was calculated using the following parameters: 1) an average hydraulic conductivity of 4.5×10^{-4} cm/sec (1.28 ft/day), 2) an estimated effective porosity of 15% (0.15) to 20% (0.20), and 3) a groundwater gradient of 1.95×10^{-2} ft/ft (Parsons ES, 1994a). The average linear velocity was calculated to 0.166 ft/day or 60.7 feet/year at 15% effective porosity and 0.125 ft/day or 45.5 ft/yr at 20% effective porosity. The actual velocity on-site may be locally influenced by more permeable zones possibly associated with differences in the actual porosity of the till/weathered shale.

The average linear darcy velocity of groundwater in the competent shale was calculated using the following parameters : 1) an average hydraulic conductivity of 3.73×10^{-5} cm/sec (0.106 ft/day), 2) an estimated effective porosity of 6.75% (0.0675), and 3) a groundwater gradient of 2.5×10^{-2} ft/ft. An average linear velocity of 3.9×10^{-2} ft/day or 14.3 ft/yr was calculated for the shale.

3.5.5 Vertical Hydraulic Heads and Gradients

The potential for vertical flow from the till to the shale bedrock was investigated by measuring the piezometeric head in the overburden wells and adjacent bedrock wells and calculating the vertical gradients in two paired wells. The potenital for vertical flow would be indicated by the magnitude

of the head differences over the vertical distance that the measurements were made. Negative values is an indication that the direction of vertical flow would be downward, into the shale bedrock. Vertical hydraulic head profiles for the two well pairs (PT-16/MW-38D and MW-36/MW-35D) and four well clusters (MW-46/MW-49D/MW-50D, MW-47/MW-51D/MW-52D, MW-53/MW-54D/MW-55D, and MW-56/MW-57D/MW-58D) were determined (Parsons ES, 1994a). These data do not suggest any significant vertical groundwater movement. Some of the vertical hydraulic head profiles at the Ash Landfill site indicate slight downward flow, whereas other areas of the site show slight upward flow. There is no consistent distribution of head over the site suggesting there are no clear trends in upward or downward flow. Each well pair/cluster location tends to have individual flow characteristics.

3.5.6 Vertical Connection Between Till/Weathered Shale and Competent Shale Aquifers

Vertical connection tests were performed to observe the influence that would occur by removing water from one well and measuring the change in piezometeric head in a paired well. These tests were performed to determine the degree of connection between the till/weathered shale and competent shale aquifers. Specifically, the tests were performed to determine whether the connection between the till/weathered shale and competent shale were small enough that the competent bedrock could be considered as a lower impermeable boundary for the shallow groundwater flow systems at the Ash Landfill. Such an impermeable boundary would prove to be an important limitation on the possible spread of volatiles and other constituents.

Vertical connection test data are available for two paired wells (PT-16 and MW-38D, MW-36 and MW-35D), and four well clusters [(MW-46, MW-49D, and MW-50D), (MW-47, MW-51D, and MW-52D), (MW-53, MW-54D, and MW-55D), and (MW-56, MW-57D, and MW-58D)] (Parsons ES, 1994a). In all of the vertical connection tests at the well clusters, the degree of displacement in the till/weathered shale wells (up to 0.3 feet) was greater during purging of the shallow shale wells than the deep shale wells. These greater displacements can be attributed to the close proximity of the shallow shale wells to the till/weathered shale wells. The degree of vertical connection within the competent shale aquifer is comparatively greater than the connection observed between the till/weathered shale and competent shale aquifers. The results indicate that although there is a connection between the till/weathered shale aquifer the connection is not significant with the competent shale aquifer below it. This could be due to filling of bedding plane fractures and joints (noted earlier) by silt and clay in the upper portions of the shale aquifer. Flow into the

competent shale is likely controlled by vertical gradients. Vertical connections between wells screened within the competent shale aquifer are greater, most likely due to the presence of clean vertical sub-millimeter scale bedding plane joints that exist in the shale aquifer. One exception is the relatively poor vertical connection between competent shale wells MW-51D and MW-52D.

3.5.7 Summary of Aquifer Characteristics and Behavior

3.5.7.1 Introduction

An analysis of the tests performed for this investigation, and the 3 years of available historical quarterly monitoring data provided the informational basis for the development of the conceptual model of the overall behavior of the till/weathered shale and competent shale aquifers. The historical depth to ground water data was collected for the years 1990 through 1993 during quarterly sampling events at the Ash Landfill site. No long term historical data was available from the wells installed during the Ash Landfill RI (Parsons ES, 1994a) and the ESI investigations (Parsons ES, 1995a, 1995b, 1995c) so the data discussed below represents wells the were installed prior to the RI fieldwork, conducted in 1992.

3.5.7.2 Till/Weathered Shale Aquifer

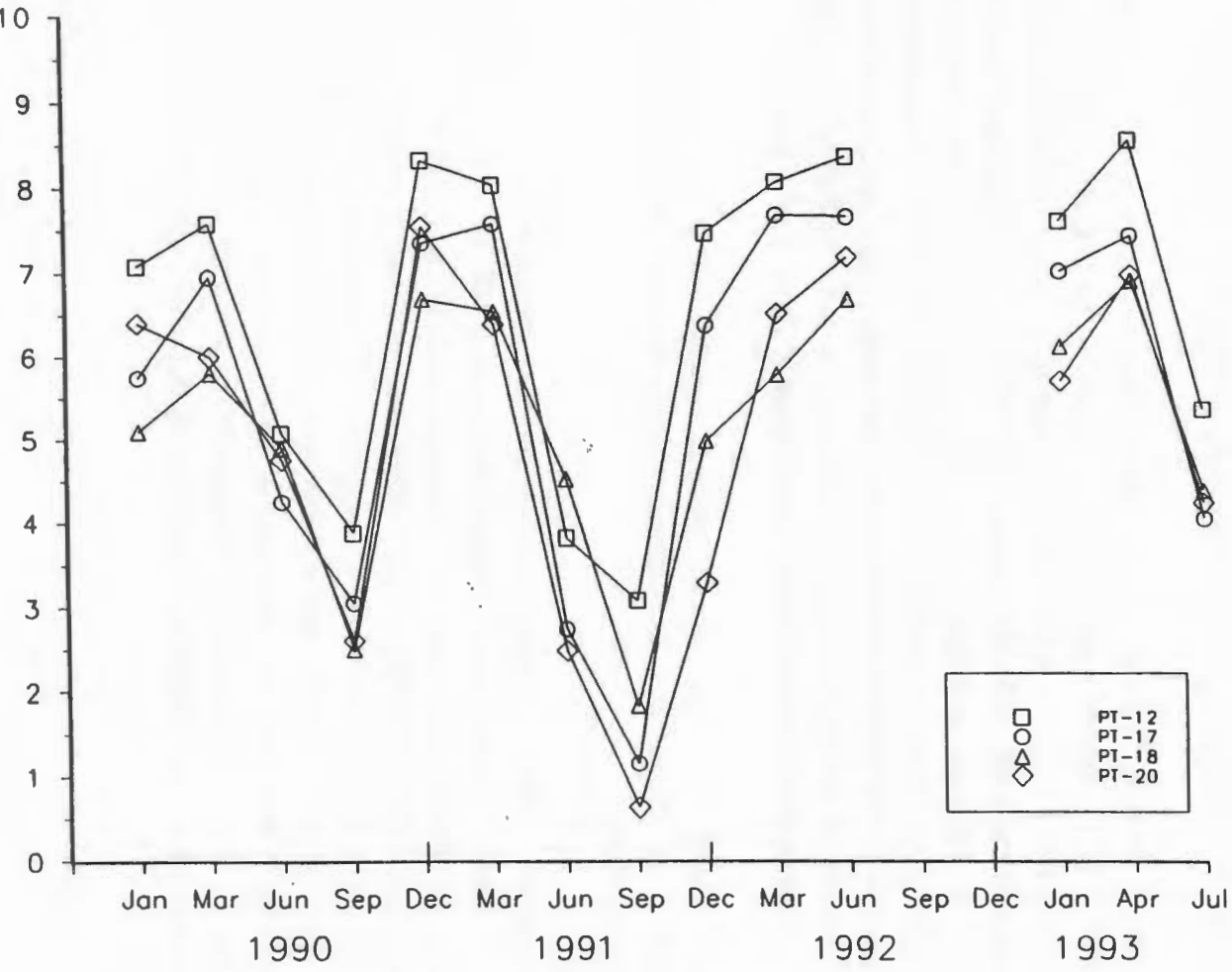
One of the ost striking aspects of hte historical data is the consistent and dramatic chang observed in water levels over the year. These data indicates a clear relationship between seasonal changes and the water table elevation. The highest groundwater levels are consistently measured in the spring, whereas the lowest levels are observed in the later portions of the year. For the relatively thin till/weathered shale aquifer, historical measurements of annual water table elevations indicate fluctuations as great as 8.72 feet occur in well PT-26, which is located approximately 2,300 feet off-site, near the SEDA airfield. The maximum water table fluctuation at the Ash Landfill site was measured in well PT-25, where the water levels have fluctuated up to 8.21 feet (Figure 3-8). The maximum thickness of the till/weathered shale aquifer was determined to be at the off-site borehole, PT-26, and was approximately 11.6 feet. On-site, the maximum thickness was determined to be approximately 8.6 feet and was observed in the borehole for PT-25. This would mean that during the spring, the water table will reach within several inches of the ground surface. Alternatively, at certain times of the year, the saturated interval becomes quite thin ,approximately 1 to 3 feet thick, and even dries up in some locations, i.e. PT-29 and PT-30.

Based on the historical data, the wells at the Ash Landfill site exhibit rhythmic, seasonal water table and saturated thickness fluctuations (Figure 3-8). The saturated interval is at its thinnest (generally between 1 and 3 feet thick) in the month of September and is the thickest (generally between 6 and 8.5 feet thick) between the months of December and March. Although portions of the graphs that depict this change are not available, i.e. September and December 1992, it is likely that the water table would behave in a similar way as in the past, exhibiting a seasonal low. The saturated thickness of the till/weathered shale aquifer for high and low water table conditions during the years 1990 through 1992 are also shown on Table 3-1. This table depicts the change in the water table (in feet) from low water table conditions to high water table conditions for two seasonal cycles. The average change in the water table for these two seasonal cycles was approximately 5.4 feet.

Mozola (1951) states that groundwater in Seneca County (including the Ash Landfill site) is derived almost entirely from precipitation within the County. To investigate historical precipitation events and the likely relationship between fluctuations in the water table of the till/weathered shale aquifer and these precipitation events, monthly precipitation data for the years 1990 through most of 1993 were obtained from the Aurora Research Farm located 10 miles east of the site. Precipitation is relatively constant from month to month, although slightly higher amounts of precipitation occurs in the spring (March and April) and fall (September) and relatively lower amounts in the summer (with the exception of the month of July 1992) and winter (January and February). These data alone do not explain the fluctuations observed on the saturated thickness plots (Figure 3-8).

The rhythmic behavior of the aquifer does not appear to be controlled by precipitation events, rather it is more likely affected by a combination of precipitation amounts and increased evapotranspiration rates.

Evapotranspiration is affected by temperature, exposure to the intensity of the sun, velocity of the wind, and the amount of vegetation and appears to be the most significant factor in explaining the occurrance of groundwater fluctuations. The fluctuations cannot be fully explained as a result of horizontal groundwater flow. Discharging groundwater from the till/weathered shale unit, that has a relatively low hydraulic conductivity, i.e. an average of 3.65×10^{-4} cm/sec, cannot account for the amount of groundwater that must be removed from the site over the time required. While vertical connection tests indicate that low degrees of downward movement are possible from the till/weathered shale aquifer to the competent shale aquifer, no strong downward vertical gradients were not observed on-site and, therefore, downward flow is also believed to be minimal compared to evaporative losses.



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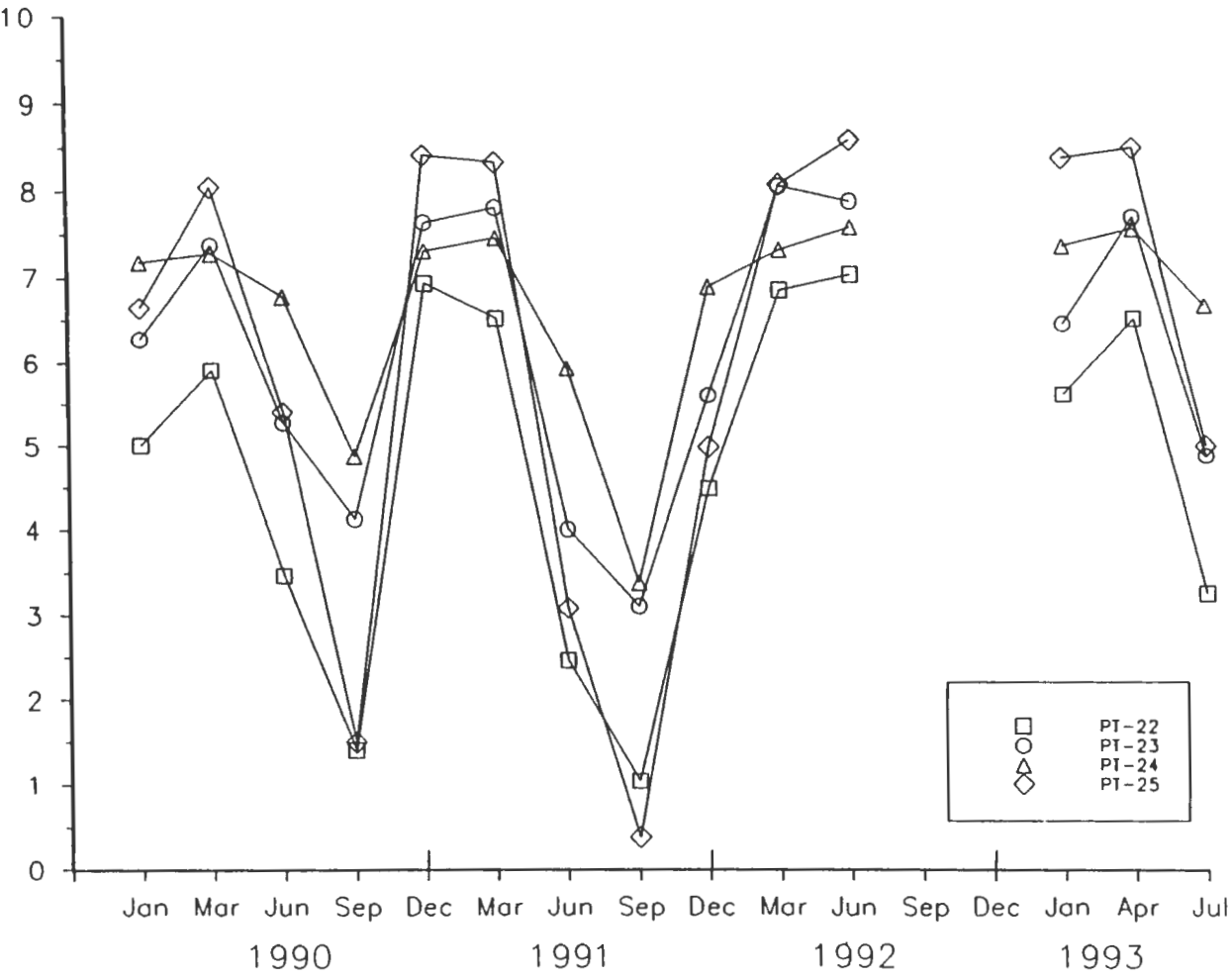

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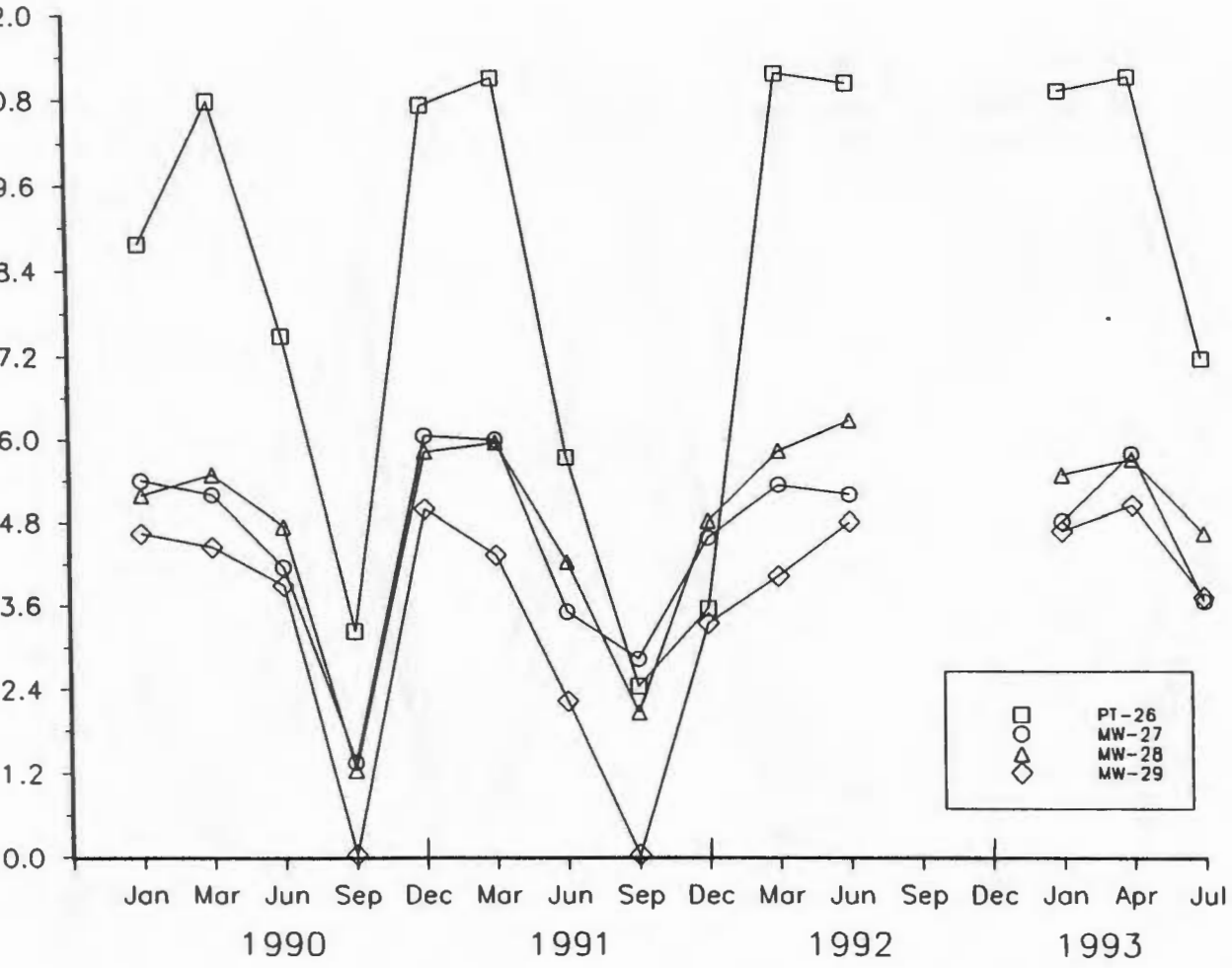

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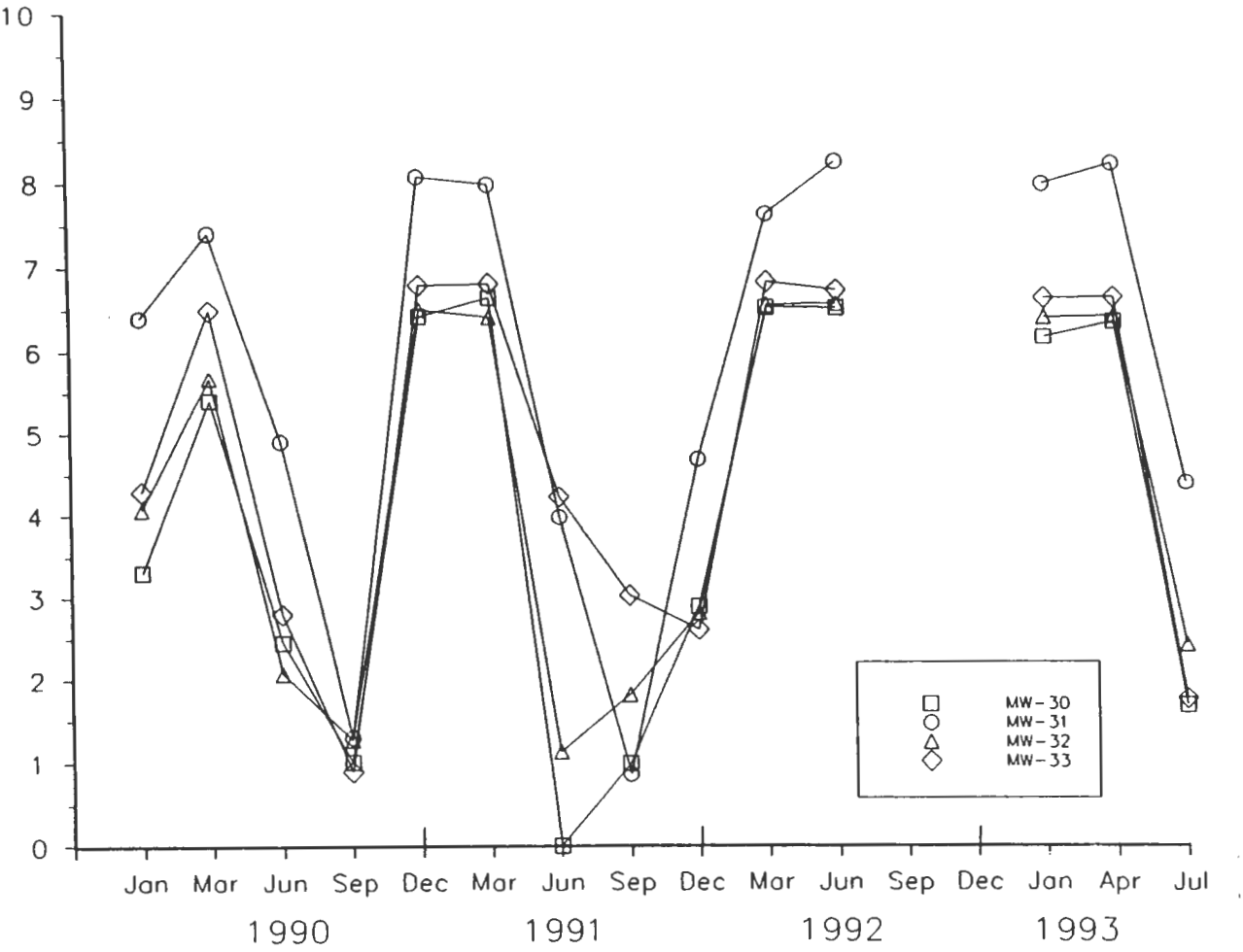

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Table 3-1

Saturated Thicknesses of the Till/Weathered Shale Aquifer
at Selected Well Locations

Ash Landfill Groundwater Model
Seneca Army Depot Activity

Monitoring Well	Saturated Thickness Fall 1990 (feet)	Saturated Thickness Winter/Spring 1991 (feet)	Change 1990-1991 (feet)	Saturated Thickness Fall 1991 (feet)	Saturated Thickness Spring/Summer 1992 (feet)	Change 1991-1992 (feet)	Average Change (feet)
PT-12	3.88	8.32	4.4	3.08	8.36	5.3	4.9
PT-17	3.05	7.57	4.5	1.15	7.65	6.5	5.5
PT-18	2.50	6.69	4.2	1.83	6.68	4.9	4.5
PT-20	2.60	7.54	4.9	0.63	7.18	6.6	5.7
PT-22	1.41	6.94	5.5	1.04	7.04	6.0	5.8
PT-23	4.13	7.81	3.7	3.10	8.06	5.0	4.3
PT-24	4.88	7.46	2.6	3.38	7.59	4.2	3.4
PT-25	1.50	8.41	6.9	0.38	8.59	8.2	7.6
PT-26	3.23	11.10	7.9	2.44	11.16	8.7	8.3
PT-27	1.35	6.05	4.7	2.83	5.33	2.5	3.6
MW-28	1.24	5.82	4.6	2.06	6.26	4.2	4.4
MW-29	0.00	4.86	4.9	0.00	4.67	4.7	4.8
MW-30	1.00	6.64	5.6	0.00	6.52	6.5	6.1
MW-31	1.30	8.07	6.8	0.85	8.24	7.4	7.1
MW-32	1.27	6.50	5.2	1.12	6.56	5.4	5.3
MW-33	0.89	6.81	5.9	2.60	6.82	4.2	5.1
						Average Change at Site:	5.4

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Therefore, based on the hydrographs for the wells, the conceptual model for this groundwater system is that the high water table in the late fall and winter is sustained through the spring by precipitation, snow melting events (predominantly in March and April) and low evapotranspiration rates. Precipitation accompanied by an increase in evapotranspiration (due to an increase in temperature and more vegetation growth) in the summer results in little recharge to the aquifer and thus a decline in the water table. In the summer, evapotranspiration at the surface causes water to move up from the water table to the surface by capillary action, a phenomenon noted by deMarsily (1986). In the fall (September and October) there is a slight increase in precipitation and a decrease in evapotranspiration, which accounts for the increasing water table elevations that are sustained through the winter months and into the spring.

There is support for the conceptual model that describes the behavior of the till/weathered shale aquifer can be found in the literature. Jones et al. (1992) discusses similar obervations for a shallow ground water flow system in a Wisconsin-age weathered till in Iowa and cites vertical upward movement and evapotranspiration as a primary source of discharge from the till. Cravens and Ruedisili (1987) and Hendry (1988) performed earlier studies at the Iowa site and showed that the recharge from surface percolation was predominantly discharged through capillary rise and evapotranspiration. They also inicated that lateral flow within the weathered till and vertical downward flow were minor. Cravens and Ruedisili (1987) also documented that the water table depth ranged from an average minimum of 2.4 feet in the summer to an average maximum of 8.5 feet in the fall; a similar seasonal trend was evident at the Ash Landfill site. Specifically, these researchers attributed the rise and fall of the water table to "seasonal changes in precipitation, plant water use, and evaporation through micropores and fractures." According to Fetter (1980) water can rise by capillary action about 4.9 feet in silts and 9.8 feet in some clays. This can explain large losses of water from the weathered till zone without the required movement of water downward through the unweathered till (Cravens and Ruedisili, 1987). Davis and DeWiest (1966) assert that use of water by plants is generally much more important as a means of ground water discharge than is direct soil evaporation. However, evaporation aided by soil cracks and capillary transfer is effective in the upper 3 feet of sandy soil and the upper 10 feet of clayey soil.

In another instance, hydrographs for peizometers screened in the upper portions of a till in Saskatchewan, Canada showed seasonal fluctuations of up to 8 feet over a period of approximately 4 months (Keller, at al., 1988). However, at this particular site, the seasonal ground water high occurs in September-October and the low in May-June. On the basis of hydrographs from nested peizometers, the loss of groundwater at this site was shown not to be from downward flow, but was

attributed to a combination of lateral flow and upward losses due to evapotranspiration, freezing in the unsaturated zone and other causes that were not noted by the authors.

DeMarsily (1986) notes that both the moisture content of the soil and the water table is generally higher in the winter compared to the summer for similar soil. A comparison of general moisture profiles in soil for these seasons indicates that precipitation events in the winter months are more likely to have a direct impact on the water table. This is due to the higher moisture content of the soil in the winter which allows for greater infiltration (recharge) of water during and after precipitation events. The moisture profiles indicate that in the summer, when evaporation is high, the atmosphere generally takes back all the moisture received during a storm, resulting in little recharge to the aquifer.

The various losses and gains in the till/weathered shale aquifer at the Ash Landfill site, as depicted on the water table elevation and saturated thickness plots and in the conceptual water balance described above, are supported by the monthly water balance model that was run for the same three years of historical data (1990 through 1992). The results of this monthly water balance is presented in Table 3-2. The water balance used for development of the conceptual model was developed using the rational method described by the U.S. EPA (1975). The model takes into account evapotranspiration, precipitation, precipitation runoff, and infiltration. A more complete discussion of the water balance model can be found in Section 4.2. As shown in Table 3-2, much of the runoff and almost all of the percolation (groundwater recharge) occurs during March, April, and May, during the snow melt period. There is continued runoff throughout the time period when the temperature stays above freezing. This is consistent with observations made at the site regarding runoff and groundwater levels. There is always runoff at the site during a major rainfall since the clay soils on-site prevent rapid infiltration.

In summary, groundwater levels measured in the spring have historically been highest, dropping over the summer due to a decrease in precipitation and increased evapotranspiration. Water levels in the late fall and winter rise due to a slight increase in late fall precipitation and vegatative dieback. Groundwater levels in the late fall and winter are not as high as those measured in the spring, when a combination of increased precipitation, no evapotranspiration and snow melting events contribute to the highest water levels of the year.

TABLE 3 - 2

MONTHLY WATER BALANCE
1990

SENECA ARMY DEPOT
ASH LANDFILL GROUNDWATER MODEL

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	A
p. (°F)	22.5	23.4	32.0	44.8	54.5	64.6	69.1	66.9	60.6	50.4	39.4	27.9	
	0	0	0	1.7	4.0	7.0	8.5	7.8	5.8	2.9	0.7	0.0	
T (in)	0.000	0.000	0.000	0.039	0.079	0.118	0.134	0.126	0.102	0.063	0.024	0.000	
or	24.6	24.6	30.9	33.6	37.8	38.1	38.4	35.7	31.2	28.5	24.6	23.7	
in)	0.0	0.0	0.0	1.3	3.0	4.5	5.1	4.5	3.2	1.8	0.6	0.0	
	2.16	3.71	2.23	4.58	6.24	2.82	3.14	1.89	4.36	5.86	3.02	4.92	
)	0	0	6.3	6.3	6.2	2.8	3.1	1.9	4.4	5.9	3.0	4.9	
	0.22	0.22	0.22	0.22	0.20	0.18	0.18	0.18	0.18	0.18	0.20	0.22	
	0.0	0.0	1.4	1.4	1.2	0.5	0.6	0.3	0.8	1.1	0.6	1.1	
	0.0	0.0	4.9	4.9	5.0	2.3	2.6	1.5	3.6	4.8	2.4	3.8	
	0.0	0.0	4.9	3.6	2.0	-2.2	-2.6	-2.9	0.4	3.0	1.8	3.8	
)						-2.2	-4.8	-7.7					
	3.9	3.9	3.9	3.9	3.9	2.2	1.1	0.5	0.9	3.9	3.9	3.9	
n)	0.0	0.0	0.0	0.0	-0.0	-1.7	-1.1	-0.6	0.4	3.0	0.0	0.0	
	0.0	0.0	0.0	1.3	3.0	4.0	3.7	2.1	3.2	1.8	0.6	0.0	
	0.0	0.0	4.9	3.6	2.1	0.0	0.0	0.0	0.0	0.0	1.8	3.8	
(feet)	0.0	0.0	1.4	0.6	-0.3	-1.6	-1.3	-0.8	-0.8	0.3	0.3	1.1	

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rrected precipitation (rain + melting snow)
face Runoff Coefficient
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n
tration minus Potentail Evapotranspiration
= Accumulated Potential Water Loss
oisture Storage (for negative accumulated water loss values, soil storage values were obtained from table 9 of "A Current Report on Solid Waste Management.")
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TABLE 3 - 2

MONTHLY WATER BALANCE
1991

SENECA ARMY DEPOT
ASH LANDFILL GROUNDWATER MODEL

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	A
p. (°F)	22.5	23.4	32.0	44.8	54.5	64.6	69.1	66.9	60.6	50.4	39.4	27.9	
	0	0	0	1.7	4.0	7.0	8.5	7.8	5.8	2.9	0.7	0.0	
T (in)	0.000	0.000	0.000	0.039	0.079	0.118	0.134	0.126	0.102	0.063	0.024	0.000	
or	24.6	24.6	30.9	33.6	37.8	38.1	38.4	35.7	31.2	28.5	24.6	23.7	
in)	0.0	0.0	0.0	1.3	3.0	4.5	5.1	4.5	3.2	1.8	0.6	0.0	
	1.54	1.13	2.59	4.60	1.87	0.89	3.38	3.29	2.62	2.68	3.63	2.10	
)	0	0	4.5	5.4	1.9	0.9	3.4	3.3	2.6	2.7	3.6	2.1	
	0.22	0.22	0.22	0.22	0.20	0.18	0.18	0.18	0.18	0.18	0.20	0.22	
	0.0	0.0	1.0	1.2	0.4	0.2	0.6	0.6	0.5	0.5	0.7	0.5	
	0.0	0.0	3.5	4.2	1.5	0.7	2.8	2.7	2.1	2.2	2.9	1.6	
	0.0	0.0	3.5	2.9	-1.5	-3.8	-2.4	-1.8	-1.0	0.4	2.3	1.6	
)					-1.5	-5.3	-7.6	-9.4	-10.5				
	3.9	3.9	3.9	3.9	2.7	1.0	0.6	0.4	0.2	0.6	3.0	3.9	
n)	0.0	0.0	0.0	0.0	-1.2	-1.7	-0.5	-0.2	-0.1	0.4	2.3	0.9	
	0.0	0.0	0.0	1.3	2.7	2.4	3.2	2.9	2.3	1.8	0.6	0.0	
	0.0	0.0	3.4	2.9	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	0.7	
(feet)	0.0	0.0	1.0	0.4	-1.1	-1.1	-1.0	-0.9	-0.7	-0.4	0.5	0.5	

TABLE 3 - 2

MONTHLY WATER BALANCE
1992

SENECA ARMY DEPOT
ASH LANDFILL GROUNDWATER MODEL

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	An
. (°F)	22.5	23.4	32.0	44.8	54.5	64.6	69.1	66.9	60.6	50.4	39.4	27.9	
	0	0	0	1.7	4.0	7.0	8.5	7.8	5.8	2.9	0.7	0.0	
(in)	0.000	0.000	0.000	0.039	0.079	0.118	0.134	0.126	0.102	0.063	0.024	0.000	
r	24.6	24.6	30.9	33.6	37.8	38.1	38.4	35.7	31.2	28.5	24.6	23.7	
n)	0.0	0.0	0.0	1.3	3.0	4.5	5.1	4.5	3.2	1.8	0.6	0.0	
	1.54	1.56	3.22	2.90	3.27	2.93	8.81	3.20	5.25	3.04	3.22	2.90	
	0	0	5.4	3.8	3.3	2.9	8.8	3.2	5.3	3.0	3.2	2.9	
	0.22	0.22	0.22	0.22	0.20	0.18	0.18	0.18	0.18	0.18	0.20	0.22	
	0.0	0.0	1.2	0.8	0.7	0.5	1.6	0.6	0.9	0.5	0.6	0.6	
	0.0	0.0	4.2	3.0	2.6	2.4	7.2	2.6	4.3	2.5	2.6	2.3	
	0.0	0.0	4.2	1.7	-0.4	-2.1	2.1	-1.9	1.1	0.7	2.0	2.3	
)					-0.4	-2.5		-1.9					
	3.9	3.9	3.9	3.9	3.5	2.0	3.9	2.4	3.5	3.9	3.9	3.9	
)	0.0	0.0	0.0	0.0	-0.4	-1.5	1.9	-1.5	1.1	0.4	0.0	0.0	
	0.0	0.0	0.0	1.3	3.1	3.9	5.1	4.1	3.2	1.8	0.6	0.0	
	0.0	0.0	4.2	1.7	0.0	0.0	0.2	0.0	0.0	0.3	2.0	2.3	
(feet)	0.0	0.0	1.2	0.1	-1.0	-1.5	-0.8	-1.6	-0.6	-0.3	0.4	0.6	

3.5.7.3 Competent Shale Aquifer

The historical data base for the competent shale aquifer is very limited. Historical water table elevations are available for only one well (PT-10) which is believed to be screened in the competent shale. Seasonally this well shows the same magnitude of fluctuations in water table elevation as the till/weathered shale wells. As the competent shale aquifer does not appear to be a significant contributor to the transport of pollutants, the influence of this aquifer on the conceptual model is considered to be minimal.

4.0 CONCEPTUAL MODEL

This section will describe the conceptual model that was developed prior to the initiation of modeling activities. The conceptual model for the Ash Landfill has two main components associated with it. The first component includes aspects of the model associated with flow conditions and the hydrogeological setting. The second component includes aspects associated with the fate and transport of the chlorinated organic compounds present in the groundwater. The complete conceptual model will present a thorough understanding of these two aspects so that the modeling will be consistent with and will represent, as much as possible, the actual flow and transport systems at the Ash Landfill.

The intent of the conceptual model is to integrate the physical hydrogeological setting at the site into a simplified, yet representative, depiction of the various hydrological units to be modeled. The conceptual model will also define the vertical and horizontal boundaries of the modeling effort. The conceptual model is significant because the numerical model grid is a mathematical representation of the site conditions and is based upon the conditions of the conceptual model.

The conceptual model was developed following an evaluation of soil and groundwater stratigraphy data collected from the Ash Landfill RI. The Ash Landfill site is located approximately halfway between the SEDA topographic high of 760 feet MSL and Seneca Lake, which has an elevation of approximately 455 MSL. There are no other high points between these two points. Groundwater flow in the overlying glacial till is known to follow the slope of the land surface and, therefore, groundwater is expected to flow from the topographic high area, past the Ash Landfill site, eventually discharging into Seneca Lake. The direction of flow would be from east to west.

Based upon this information, the area to be modeled included an area beyond the Ash Landfill site, encompassing the western flank of the highlands separating Seneca and Cayuga Lakes. The eastern highland area is considered to be a groundwater divide between the two finger lakes; this area is also believed to be a likely recharge zone for both the shallow till/weathered shale and deeper competent shale aquifers. Seneca Lake is the likely discharge area for horizontal groundwater flow for the two aquifer systems. The eastern and western boundaries of the conceptual model are approximately 24,000 feet apart, extending from the groundwater divide to the surface of Seneca Lake. The groundwater divide represents a no-flow boundary condition, whereas Seneca Lake represents a constant-head boundary condition. The boundary conditions along the northern and southern edges of the modeling grid are defined as no-flow conditions represented by groundwater

streamlines. Flow is assumed to be parallel to the streamlines, with no flow across these streamlines. This is consistent with the conceptual model since groundwater at the site is known to flow in an east-to-west direction. Streamlines have been established that are sufficiently wide to encompass the area to be modeled. These streamlines provide the northern and southern boundaries of the conceptual model grid covering an area 6,800 feet wide. The total area to be modeled is approximately 3,750 acres.

4.1 DEFINITION OF HYDROSTRATIGRAPHIC UNITS

Geologic information including geologic maps, soil boring and rock coring logs were combined with information describing hydrogeologic properties of the stratigraphic units identified at this site. Anderson and Woessner (1992) define hydrostratigraphic units as geologic units with similar hydrogeologic properties.

Two hydrostratigraphic units were identified for this model. The first unit is the till/weathered shale unit and the second unit competent shale unit. These two geologic units have different depositional environments that account for the movement of water through these units. The shale was deposited in an inland sea during the Devonian Period, approximately 400 million years before present (ybp), whereas the till was deposited directly by a continental glacier that advanced over the Finger Lakes region approximately 10,000 ybp. As a result, these two units have separate and distinct compositional and hydrologic properties.

The first and uppermost hydrostratigraphic unit is glacial till and weathered shale. Till is a geologic term that refers to an unsorted mixture of variable geologic material that was deposited at the base of the advancing glacier. The till at the facility is a dense, poorly sorted mixture of predominantly silt and clay with lesser amount of sand and gravel. Upper portions of the till are generally less dense than the lower portions, probably due to greater exposure to weathering processes. The base of the till contains clasts of shale that are likely ripped-up clasts incorporated into the till by the glacier. No vertical or horizontal fracturing was observed in the till. The till gives way to a weathered shale that contains variable amounts of silt and clay in centimeter-scale bedding plane fractures. The weathered shale is generally only a few feet thick at the site. From previous drilling efforts conducted at the Ash Landfill site and other sites at SEDA, it is known that the till/weathered shale unit has an average thickness of approximately 12 feet. The till/weathered shale unit has an average horizontal hydraulic conductivity (K_h) of 3.7×10^{-4} cm/sec (Table 4-1).

The second hydrostratigraphic unit is the competent shale. This shale is a gray calcareous shale of the Ludlowville Formation, characterized by thin limestone units, fossil beds, and minor deposits of iron sulfides. Bedding plane fractures, joints and breccia zones all contribute to secondary porosity in the shale. Generally, fracture frequency decreases with depth. The competent shale unit has an average K_h of 4.2×10^{-5} cm/sec (Table 4-1).

The data indicates that hydraulic conductivity values in the till\weathered shale are greater than those measured in the competent shale, and hydraulic conductivity values continue to decrease within the competent shale unit with depth (Figure 4-1). Since the hydraulic conductivities of these two units differ by more than an order of magnitude, it was decided that these two lithologic units would be modeled separately. Further evidence for differentiating these two hydrostratigraphic units is supported by the vertical connection testing performed on paired wells and well clusters at the Ash Landfill site. A comparison of drawdowns in the wells indicated that the degree of vertical connection within the competent shale aquifer is better than the connection observed between the till/weathered shale and competent shale aquifers. Thus, the results indicate that the till/weathered shale aquifer is not significantly connected to the competent shale aquifer below it.

Note in Figure 4-1 that a hydraulic conductivity was extrapolated for a zone below the deepest bedrock monitoring wells installed on-site (between 52 and 72 feet) using the three average hydraulic conductivities measured for the shallower zones (Figure 4-1). On the basis of these results four proposed model layers were identified (Figure 4-1). These layers correspond to the till/weathered shale layer, the upper portion of the competent bedrock, the middle portion of the bedrock and the lower portions of the competent bedrock. In Section 4.3, the three average hydraulic conductivities and the one extrapolated conductivity were used to define the bottom of the flow model.

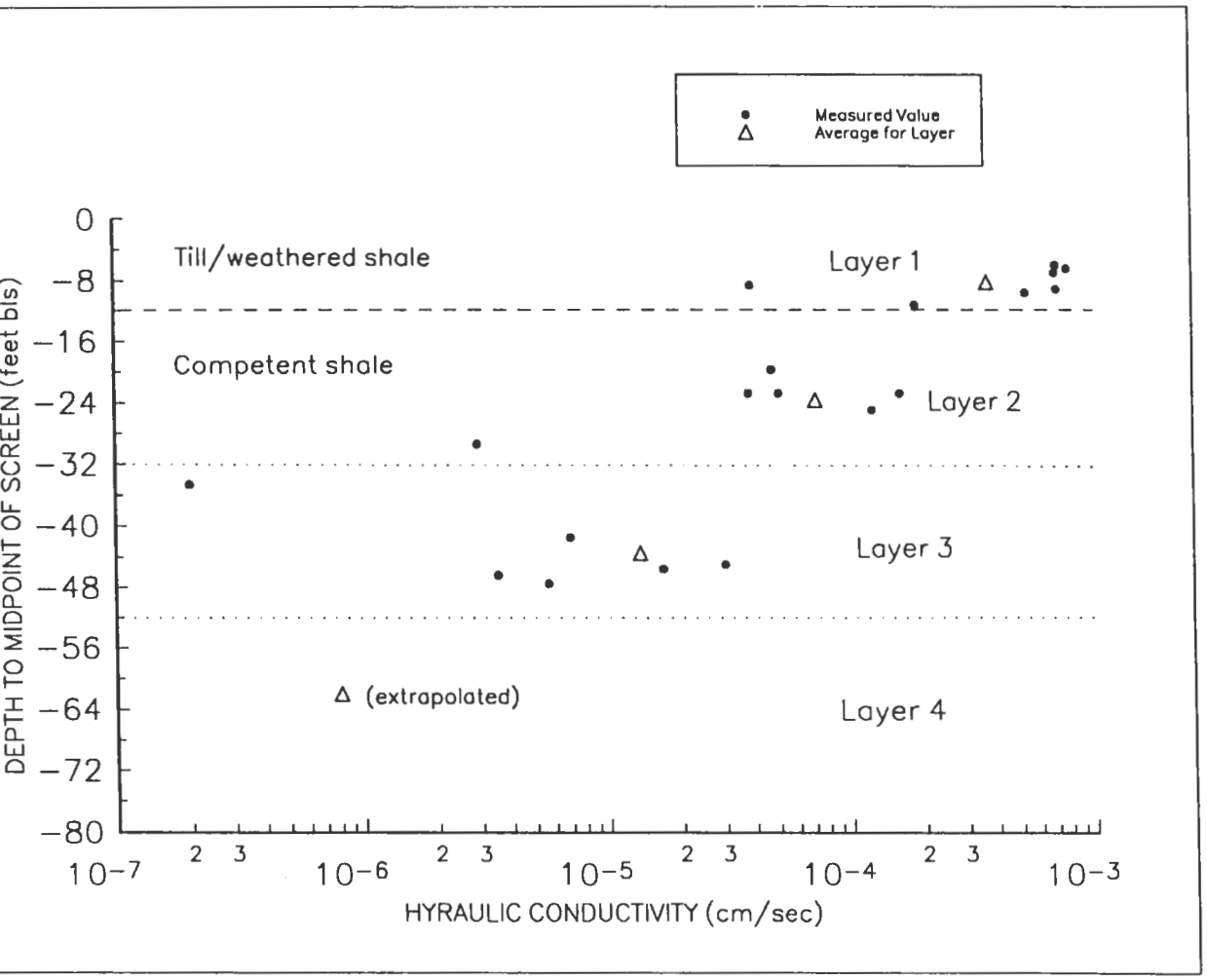
Vertical hydraulic conductivities (K_v) were derived from literature values and from the physical make up of the aquifer material (Table 4-1). For layer 1, the K_v was based on a anisotropy of K in a fine-grained till aquifer in western New York State where K_h/K_v is 9 (Prudic, 1992). For

TABLE 4 - 1

STATISTICAL PARAMETERS OF HYDRAULIC CONDUCTIVITY

SENECA ARMY DEPOT
ASH LANDFILL GROUNDWATER MODEL

		Kh (cm/sec)	Kh (ft/day)	Kv (cm/sec)	Kv (ft/day)
Layer 1 (proposed)					
Till/Weathered Shale		3.090E-05	0.09	3.433E-06	0.01
		7.800E-04	2.21	8.667E-05	0.25
		1.847E-04	0.52	2.052E-05	0.06
		5.258E-04	1.49	5.842E-05	0.17
		7.066E-04	2.00	7.851E-05	0.22
		3.871E-05	0.11	4.301E-06	0.01
		7.031E-04	1.99	7.812E-05	0.22
	Minumum	3.090E-05	0.09	3.433E-06	0.01
	Maxiumum	7.800E-04	2.21	8.667E-05	0.25
	Arith. Mean	3.650E-04	1.03	4.055E-05	0.11
	Stand. Dev.	3.430E-04	0.97	3.811E-05	0.11
		Kh (cm/sec)	Kh (ft/day)	Kv (cm/sec)	Kv (ft/day)
Layer 2 (proposed)					
Competent Shale		4.719E-05	0.13	4.719E-06	0.01
		1.222E-04	0.35	1.222E-05	0.03
		1.595E-04	0.45	1.595E-05	0.05
		5.044E-05	0.14	5.044E-06	0.01
		3.786E-05	0.11	3.786E-06	0.01
	Minumum	3.786E-05	0.11	3.786E-06	0.01
	Maxiumum	1.595E-04	0.45	1.595E-05	0.05
	Arith. Mean	7.142E-05	0.20	7.142E-06	0.02
	Stand. Dev.	5.902E-05	0.17	5.902E-06	0.02
		Kh (cm/sec)	Kh (ft/day)	Kv (cm/sec)	Kv (ft/day)
Layer 3 (proposed)					
Competent Shale		6.934E-06	0.02	6.934E-07	0.002
		5.639E-06	0.02	5.639E-07	0.002
		3.505E-06	0.01	3.505E-07	0.001
		1.671E-05	0.05	1.671E-06	0.005
		3.004E-05	0.09	3.004E-06	0.009
	Minumum	3.505E-06	0.01	3.505E-07	0.001
	Maxiumum	3.004E-05	0.09	3.004E-06	0.009
	Arith. Mean	1.344E-05	0.04	1.344E-06	0.004
	Stand. Dev.	1.271E-05	0.04	1.271E-06	0.004
Layer 4 (proposed)					
Competent Shale		(NO MEASUREMENTS FROM THIS LAYER)			



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layers 2 and 3, the Kv values were derived based on an anisotropy of K in the aquifer where Kh/Kv is estimated to be approximately 10.

4.2 WATER BALANCE FROM PRECIPITATION

The fate and transport of the constituents of concern is influenced by the interaction with precipitation, the recharge to groundwater and the migration with groundwater. Moisture content in the vadose zone of soil can also influence the rate of biological degradation and the rate of volatilization. Accordingly, understanding the water balance of the site is helpful in evaluating the contaminant fate and transport at the Ash Landfill. The initial water balance performed prior to conducting the modeling effort was developed for this site using the rational method described by the U.S. EPA (1975). This procedure calculates infiltration as the difference between precipitation and runoff. Recharge to groundwater is the difference between the amount of water that infiltrates into the ground minus the actual evapotranspiration and any changes in soil moisture. The results of these calculations, which are based on average temperature and precipitation data for the years 1958-1991, are summarized in Table 4-2. A comprehensive discussion of the weather data is presented in Table 3-1, and discussed in Section 3 of this report.

The potential evapotranspiration (PET), was estimated using the procedure described by Thornthwaite and Mather (1957). Evapotranspiration is an estimate of the amount of water which is released from the site through both evaporation and plant uptake (transpiration). The methodology begins by determining the Heat Index, which is obtained from either Table 1 or 2 presented by Thornthwaite and Mather (1957). Mean monthly temperature data was obtained from the nearby meteorological station, the Aurora Research Farm, which is operated by Cornell University. The data is shown on Line 1 on Table 4-2. The monthly Heat Indexes are shown on Line 2 of Table 4-2. Heat Indexes are zero when the mean monthly temperature is less than 32°F. From the sum of the monthly Heat Indexes, the unadjusted potential evapotranspiration is obtained from either Table 3 or 4 presented by Thornthwaite and Mather (1957). The unadjusted potential evapotranspiration values are presented on Line 3 of Table 4-2. To change the unadjusted values of potential evapotranspiration into the adjusted monthly potential evapotranspiration, the unadjusted values were multiplied by a correction factor. The correction factor is expressed in terms of a 12-hour day, which provides an indication of the duration of sunlight for a particular month. Correction factors for the unadjusted potential evapotranspiration are obtained from Table 6 of Thornthwaite and Mather (1957) and depend upon the latitude of the site. This value is presented

TABLE 4-4

MONTHLY WATER BALANCE

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

e #	*Parameter*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Annual*
	Mean Temp. (°F)	22.5	23.4	32.0	44.8	54.5	64.6	69.1	66.9	60.6	50.4	39.4	27.9	46.3
	Heat Index	0	0	0	1.7	4.0	7.0	8.5	7.8	5.8	2.9	0.7	0.0	38.4
	Unadj. PET (in)	0.000	0.000	0.000	0.039	0.079	0.118	0.134	0.126	0.102	0.063	0.024	0.000	
	Corr. Factor	24.6	24.6	30.9	33.6	37.8	38.1	38.4	35.7	31.2	28.5	24.6	23.7	
	Adj. PET (in)	0.0	0.0	0.0	1.3	3.0	4.5	5.1	4.5	3.2	1.8	0.6	0.0	24.0
	P (in)	1.88	2.16	2.45	2.86	3.17	3.70	3.46	3.18	2.95	2.80	3.15	2.57	34.3
	Corr. P (in)	0	0	7.1	4.8	3.2	3.7	3.5	3.2	3.0	2.8	3.2	0	34.3
	C R/O	0.22	0.22	0.22	0.22	0.20	0.18	0.18	0.18	0.18	0.18	0.20	0.22	
	R/O (in)	0.0	0.0	1.6	1.1	0.6	0.7	0.6	0.6	0.5	0.5	0.6	0.0	6.8
0	I (in)	0.0	0.0	5.5	3.8	2.5	3.0	2.8	2.6	2.4	2.3	2.5	0.0	27.5
1	I-PET(in)	0.0	0.0	5.5	2.5	-0.4	-1.5	-2.3	-1.9	-0.8	0.5	1.9	0.0	3.5
2	neg (I-PET)					-0.4	-1.9	-4.2	-6.1	-6.9				
3	ST (in)	3.1	3.1	3.9	3.9	3.5	2.4	1.3	0.8	0.7	1.2	3.1	3.1	
4	delta ST (in)	0.0	0.0	0.8	0.0	-0.4	-1.1	-1.1	-0.5	-0.1	0.5	1.9	0.0	
5	AET (in)	0.0	0.0	0.0	1.3	3.0	4.1	3.9	3.1	2.5	1.8	0.6	0.0	20.4
6	PERC (in)	0.0	0.0	4.7	2.5	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	7.1

ces:
nthwaite and Mather, 1957. Instructions and Tables for Computing Potential Evapotranspiration and the Water Balance.
, 1975. Use of the Water Balance Method for Predicting Leachate Generation from Solid Waste Disposal Sites.

n temperatures (from Table 3.1, Section 3, of this report)
index values (from Tables 1 and 2 of Thornthwaite and Mather, 1957)
= Potential Evapotranspiration (from Tables 3 and 4 of Thornthwaite and Mather, 1957)
ection factors (from Table 6 of Thornthwaite and Mather, 1957)
PET = Unadj. PET times Correction Factor
Precipitation (from Table 3.1, Section 3, of this report)
P = Corrected precipitation (rain + melting snow)
O = Surface Runoff Coefficient (from EPA, 1975)
= Surface Runoff
Infiltration
ET = Infiltration minus Potential Evapotranspiration
(I-PET) = Accumulated Potential Water Loss
= Soil Moisture Storage (Maximum value of 3.9" obtained from Table 10 of Thornthwaite and Mather, 1957.,
er values obtained from Table 9 of EPA, 1975.)
ta ST = Change in Storage
T = Actual evapotranspiration
RC = Percolation

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on Line 4 of Table 4-2. The adjusted Potential Evapotranspiration (PET) is then calculated as the product of Lines 3 and 4 of Table 4-2.

When the mean monthly temperatures were below 32° F, the monthly precipitation values were then corrected to account for precipitation as snowfall in the months of December through March. It was assumed that all of the snowfall remained on the ground as snow, with no evaporation, infiltration, or runoff until March when the snow began to melt. It was also assumed that 60% of the snow (the total precipitation for December, January, and February) melted in March, and therefore entered the water balance as precipitation in addition to the normal monthly precipitation for March. The remaining 40% of the accumulated snowfall was assumed to melt in April.

The total monthly precipitation was then adjusted to account for the percent of water which runs off as overland flow. Line 8, in Table 4-2, contains the Runoff Coefficient, C_{RO}. This coefficient is a measure of the amount of precipitation that will runoff from any given area, and will depend on the soils, vegetation, and slopes found at a site. Generally, C_{RO} values range from 0.05 to 0.35 (U.S. EPA, 1975). At the Ash Landfill, the surface soils are primarily silty clay loams, as described in Section 3.0. Much of the area is covered with native grasses, though some of the road areas have no vegetative cover. The site slopes generally range from 1 to 3%. For these conditions, the C_{RO} values range from 0.13 (less than 2% slope) to 0.22 (2-7% slopes). Following EPA guidance (1975), a higher C_{RO} (0.22) was used for the cooler months, and a lower value (0.18) was used for the warmer months. For the transitional months, (May and November), a value of 0.20 was used.

Infiltration (I), Line 10, is calculated as the difference between the monthly corrected precipitation values, Line 7, and the calculated runoff values, Line 9. Infiltration (Line 10) minus the adjusted potential evapotranspiration values, Line 5, yields I-PET, Line 11. This value was used to assess periods of time when the soil moisture is decreasing. A positive value of I-PET indicates the amount which is available to increase soil moisture or percolate to groundwater. Negative values indicates that potential evapotranspiration exceeds infiltration and there is a net decrease in the soil moisture.

Soil moisture (ST) is a measurement of the available field moisture and is related to soil type. The available moisture is obtained as the difference between the field capacity, i.e. the point at which water will drain by gravity, and the wilting point, i.e. the point at which water is unavailable for plant uptake. The soil types on the site are silt clay loam, as discussed in Section 3.0 of this report. From Table 10 of the Thornthwaite and Mather (1957), the field capacity for a silty clay loam is

approximately 3.6 inches per foot of root zone. The wilting point for a silty clay loam is approximately 1.2 inches per foot of root zone. The available soil moisture (ST) is the difference of 3.6 and 1.2 inches per foot, or 2.4 inches per foot of root zone. Hutton (1972) indicates that the root zone for this area is generally between 18 to 24 inches deep. This analysis used 1.62 feet (19.4 inches) as the root zone; therefore, the ST value used in these calculations was 3.9 inches (Line 13), or the product of 2.4 inches per foot of root zone and 1.62 feet of root zone. This initial value is assigned to the last month having a positive value of I-PET, which is the month of April. In other words, the last month that the field capacity of the soil was achieved and drainage occurred was April, and the value of 3.9 inches was set for this month. The water balance program then proceeded to calculate the ST for the remaining months.

The Actual Evapotranspiration (AET) (Line 15) is calculated only when the change in soil moisture is negative. The change is soil moisture is presented on Line 14. If the Heat Index (Line 2) is zero, then the AET is also zero. In other words, when the temperature is below freezing there is no AET. If the ST, Line 13, is equal to the field capacity, which is the maximum value ST can be, then the AET equals the Adjusted PET, Line 5. Therefore, the AET is greatest when the soil moisture is greater. When the change in soil moisture is negative (i.e., the soil moisture is decreasing), the AET is calculated as:

$$AET = PET + (I - PET - \Delta ST)$$

where: AET = Actual Evapotranspiration (Line 15);
PET = Adjusted Potential Evapotranspiration (Line 5);
I-PET = Infiltration minus Adjusted Potential Evapotranspiration (Line 11); and
ΔST = Change in Soil Moisture (Line 14).

Percolation (PERC) (Line 16), which is recharge to the groundwater, is calculated as the remainder when the change in soil moisture (Line 14) and the AET (Line 15) is subtracted from I (Line 10).

The results of the water balance analysis indicates that much of the runoff and almost all of the percolation (groundwater recharge) occur in March and April, during the snow melt period. There is continued runoff throughout the time period when the temperature stays above freezing, however, recharge is eliminated by the large amount of water that is released to the atmosphere through evapotranspiration; the average annual evapotranspiration at the site is 20.4 inches. These

estimates are consistent with observations made at the site regarding runoff and groundwater elevation changes. During field operations, runoff was observed following any major rainfall event. This observation is consistent with expectations since the dense, clay-rich till prevents rapid infiltration. With respect to the groundwater, water levels measured in the spring have historically been the highest, with the levels dropping substantially throughout the summer months. Changes in water levels of three to four feet per month have been observed. During the late summer and early fall, the water table is the lowest, and in some instances the water level appears to be close to the top of the competent bedrock. Water levels in the late fall and winter are generally on the rise due to late fall precipitation and snow melting events, but they are not as high as those measured in the spring, when a combination of increased precipitation and snow melting occurs.

Using the annual runoff value developed from the water balance (6.8 inches) and the surface area of the Ash Landfill site, which is approximately 130 acres, the total annual amount of potential runoff is 74 acre-feet (24 million gallons) per year. Much of this flow is captured and diverted away from the site by the surface drainage swales which line the edges of the roads surrounding the site, while some is retained on-site in the freshwater wetlands and low spots.

To provide a check of the average annual evapotranspiration (ET) rate calculated by the Thornthwaite and Mather (1957) method in the water balance, an evapotranspiration computer model, developed and executed by the Northeast Regional Climate Center at Cornell University, was run. This general ET model was developed based on the British Meteorological Office Rainfall and Evaporation Calculation System (MORECS).

According to DeGaetano et al. (1994), MORECS is used "operationally in Great Britain to obtain weekly and monthly estimates of average evaporation and soil moisture deficits over 40 km x 40 km grid squares. The system relies on routinely observed daily meteorological data as its input." Moreover, MORECS determines potential and actual ET over a variety of different surface types. The Northeast Regional Climate Center model has been modified and validated for use in the northeastern United States by DeGaetano et al. (1994). Using MORECS, "historical and real-time estimates of potential ET from grass, evapotranspiration from bare soil and standard evaporation pans, as well as actual ET from grass- and deciduous tree-covered surfaces are available" (DeGaetano et al., 1994).

For application to the Ash Landfill, actual ET rates from a grass-covered surface were chosen as the most appropriate for the site. Meteorological data from Ithaca, New York was used for the

model because this was the closest location that could provide the necessary input data for the model; Ithaca is approximately 20 miles south of the Ash Landfill. The model evaluated meteorological data for the years 1984 through 1994 and derived the monthly total evapotranspiration from a grass-covered field (Table 4-3). The average yearly total evapotranspiration for the grass-covered field is 21.19 inches. This compares favorably with the total evapotranspiration value calculated using the Thornthwaite and Mather (1957) method of 20.40 inches. Details of the MORECS model are included in Appendix A.

While there is close agreement between both of these models, neither accounts for ET from groundwater after percolation has occurred. The importance of this effect is discussed in the Section 4.3, Preliminary Water Budget (Q_{in} vs Q_{out}). This effect has required modification of the initial conceptual model to account for the difference between the amount of water that will recharge to groundwater and the amount of water that is removed by evapotranspiration.

4.3 PRELIMINARY WATER BUDGET (Q_{in} vs Q_{out})

A preliminary field-estimated water budget was prepared for the area to be modeled based on the expected sources of water to the system as well as the expected flow directions and discharge areas. This preliminary water budget was prepared to obtain information on the magnitudes of these flows prior to running the model. It was also used as a calibration criteria for the water budget computed by the model.

The field-estimated water budget encompassed an area equal in size to the area to be modeled. The eastern boundary was the groundwater divide (no flow boundary) between Seneca and Cayuga Lakes (near Route 96) and the western boundary was Seneca Lake (constant head boundary) (Figure 2-1). Because groundwater topographic maps for the site and surrounding area indicate a fairly consistent east to west flow direction, the northern and southern boundaries were streamline no-flow boundaries.

Based on the boundary conditions, recharge to the aquifer system is wholly from precipitation and groundwater flow is from east to west, eventually discharging into Seneca Lake. The total area of the region modeled was 150,413,697 ft^2. The annual recharge from precipitation as determined

TABLE 4-3

MONTHLY EVAPOTRANSPIRATION FROM GRASS
IN ITHACA, NY

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

Year onth	1984 (inches)	1985 (inches)	1986 (inches)	1987 (inches)	1988 (inches)	1989 (inches)	1990 (inches)	1991 (inches)	1992 (inches)	1993 (inches)
uary	0.24	0.22	0.28	0.24	0.27	0.37	0.33	0.30	0.27	0.24
uary	0.53	0.39	0.31	0.55	0.48	0.35	0.53	0.47	0.22	0.43
arch	0.80	1.28	1.20	1.65	1.26	1.19	1.27	1.00	0.67	0.93
April	1.80	2.00	2.17	1.96	1.73	1.91	1.99	2.08	1.64	1.57
May	2.12	3.48	3.71	3.46	3.20	2.51	2.52	4.03	2.84	3.43
June	4.30	3.15	3.38	3.51	4.39	3.02	3.60	3.65	3.51	3.42
July	4.26	4.10	3.49	4.19	3.43	4.51	3.81	3.38	2.35	4.09
gust	3.39	2.77	3.34	3.08	3.33	3.27	3.10	2.03	2.91	3.00
mber	2.37	2.38	2.00	1.52	2.57	2.04	2.03	1.04	2.21	1.53
ober	1.30	1.27	0.93	1.09	0.94	1.41	1.10	1.44	1.14	1.11
mber	0.52	0.32	0.40	0.51	0.53	0.33	0.69	0.53	0.43	0.42
mber	0.32	0.21	0.27	0.28	0.34	0.25	0.31	0.30	0.28	0.40
(inches):	21.95	21.57	21.48	22.04	22.47	21.16	21.28	20.25	18.47	20.57

ARITHMATIC MEAN: 21.19 inches

from the water balance is 7.1 inches (0.592 ft). To calculate the total recharge to the aquifer systems (Q_{in}) the total area was multiplied by the annual amount of recharge from precipitation;

$$Q_{in} = AREA_{mod} \times RECHARGE_{ppt}$$

where:

Q_{in} = total recharge to the aquifer system, (ft^3/day);
$AREA_{mod}$ = total area of the model, (ft^2) and
$RECHARAGE_{ppt}$ = amount of recharge from precipitation, (ft/yr).

This yield an estimate of Q_{in} at approximately 89,045,000 ft^3/yr or 244,000 ft^3/day or 1,825,000 gallons/day.

The volume of water flowing into Seneca Lake (Q_{out}) was calculated based on the expected flow through the 4 layers identified shown in Figure 4-1. The darcy flow through each of these four layers was determined using the average hydraulic conductivity of each layer, their depths relative to the ground surface, their cross-sectional areas, and the observed ground water gradients as shown on Table 4-4.

Layer 1, the till weathered shale unit, is approximately 12 feet thick and has an average saturated thickness of 6 feet. A layer thickness of 20 feet was used for the layer thicknesses of the three competent shale units because this is the interval for which the data was available from the monitoring wells at the Ash Landfill site; these units are fully saturated.

The flow for each proposed layer was calculated using the flow equation:

$$Q_{out} = KAI$$

where: Q_{out} = flow out of the layer;
K = horizontal hydraulic conductivity (K_h), (ft/day);
A = cross-sectional area though which the flow occurs, (ft^2); and
I = groundwater gradient.

The individual components of total Q_{out} are 1,139.99 ft^3/day, 922.33 ft^3/day, 184.47 ft^3/day, and 10.61 ft^3/day for layers 1, 2, 3 and 4, respectively (Table 4-4). The total volume of water flowing into Seneca Lake from these layers was calculated to be 2,257 ft^3/day. The flow calculations are included in Appendix B.

To reasonably define the bottom of the flow system to be modeled, the percentage of flow within the individual layers was compared to the overall aquifer flow into Seneca Lake. Based on these calculations, the contribution of flow from layer 4 (approximately 0.5%) was determined to not be significant when compared to the total flow through the system and ,therefore, a fourth layer was not considered in the numerical MODFLOW model. From a modeling perspective, this method of determining a practical bottom of the flow system should not compromise the representation of the flow system.

Clearly, when Q_{in} (244,000 ft^3/day) from precipitation is compared to Q_{out} (2,257 ft^3/day) at the discharge point, Seneca Lake, there is an obvious discrepancy. This required a modification of the initial conceptual model in order to account for this difference. To do this an additional component of the conceptual model, evapotranspiration from groundwater, must be considered in order to account for the apparent discrepancy. Conceptual model assumptions, such as boundary conditions, groundwater flow parameters, etc., are believed to represent the flow system accurately as these parameters are derived from measured values. As discussed earlier in this section, the groundwater flow system can only transport a finite amount of groundwater, which is not the amount of water that would result from 7 inches of recharge per year. Instead, the discrepancy is believed to be caused by the inability of the Thornthwaite and Mather (1957) water balance method to account for evapotranspiration from groundwater after recharge has occurred, a phenomena that appears to be significant at the Ash Landfill site. This phenomena occurs from the upward movement of groundwater in the shallow, fine-grained till aquifer due to capillary action, which eventually transpires and/or evaporates into the atmosphere. This is considered to be a key factor that must be accounted for in the Ash Landfill conceptual model.

To evaluate whether the evaporative loss of groundwater is a valid concept at the Ash Landfill, historical groundwater data and possible mechanisms by which water could be lost from the aquifer system were evaluated. First, historical groundwater observations from monitoring wells appear to be in agreement with the recharge value derived from the Thornthwaite and Mather (1957) method. Secondly, it would appear that evapotranspiration from groundwater is the only possible mechanism by which water could be lost from the aquifer.

TABLE 4-4

DATA USED IN PRELIMINARY WATER BUDGET CALCULATION

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

Proposed Layer	Composition	Stratigraphic Depth (ft bls)	Hydraulic Conducitivity (ft/day)	Cross-Sectional Area (square ft)	Groundwater Gradient (ft/ft)	Qout (cubic ft/day)	Percenta Total Q
1	Till/W. Shale	0 to 12	1.03	55,339.68	0.02	1,139.99	50.5%
2	Competent Shale	12 to 32	0.2	184,465.60	0.025	922.33	40.9%
3	Competent Shale	32 to 52	0.04	184,465.60	0.025	184.47	8.2%
4	Competent Shale	52 to 72	0.0023	184,465.60	0.025	10.61	0.5%
					Total Qout =	2,257.40	

To determine if the recharge value calculated using the Thornthwaite and Mather (1957) method was reasonable, seasonal increases in the saturated thickness of the till/weathered shale aquifer (Figure 3-8 and Table 3-1) was compared to the total annual percolation value of 7 inches. First, the amount of water that was added to the system from a period when the water table was low (late summer early fall) to a period when the water table was high (late winter and spring) was determined. On the basis of the data shown in Table 3-1, the average change in the water table was 5.4 feet. The amount of percolation that would be required to cause the water table to rise 5.4 feet would be obtained by multiplying the total rise in feet of water in the wells for a season by the effective porosity of the till, which is estimated to be approximately 0.15. The effective porosity was used because it represents the available space through which water can move, assuming some water would be bound up in the interstices of the till. Therefore, an 5-foot rise in the water table would require an infiltration of approximately 9 inches of water. Following the same line of reasoning, 7 inches of infiltration (which was calculated in the water balance) would result in a water level rise of 3.9 feet (7 inches ÷ 0.15 = 46.7 inches or 3.9 feet) or approximately 4 feet, which is close the average change observed from the well observations which was approximately 5 feet. Therefore, the infiltration value of 7 inches is considered to reasonably close to the observed changes in the saturated thickness of the till/weathered shale aquifer. This amount of infiltration, or more, would be required in order to be able to account for the seasonal rise in the water table observed in the wells on-site. This means that the Q_{in} (i.e., recharge) from precipitation is reasonable, based on the annual recharge of 0.59 feet (approximately 7 inches) taken from the water balance determined using the method of Thornthwaite and Mather (1957). Thus, based on a comparison of Q_{in} vs Q_{out}, significantly more water would have to be removed from the groundwater flow system in order for the two flows to balance.

Several mechanisms for the loss of water from the aquifer were considered for the conceptual model; horizontal, downward and upward movement were considered. First, the K_h values in the till are not believed to be high enough to transport the water horizontally and cause the observed decrease in the water table. Secondly, the poor vertical connection between the till and the competent shale aquifers suggests that downward movement of groundwater into the bedrock, as a means of removing water, is not reasonable. Therefore, the third concept, upward movement groundwater via evapotranspiration, was considered to be the most reasonable alternative, given the site conditions (i.e., the fine-grained nature of the till, shallowness of the till/weathered shale aquifer, the shallow depth of the water table, the open, vegetated land surface at the site, etc.).

The concept of evapotranspirative loss of groundwater from unconfined, fine-grained till aquifers to explain large fluctuations in the water table (especially where the water table is close to a vegetated land surface) is not uncommon and has been documented by many researchers (i.e., Jones et al., 1992; Cravens and Ruedisili, 1987; Hendry, 1988; and Keller et al., 1988) - Section 3.5.7.2 presents a detailed discussion of their findings. Furthermore, the characteristics and behavior of the aquifer flow system at the Ash Landfill suggest that this phenomenon is occurring at the Ash Landfill and in the surrounding area.

Thus, it is reasonable to conclude that a significant amount of the water that percolates into the groundwater flow system at the Ash Landfill is lost to evapotranspiration and is never discharged to Seneca Lake. The actual net recharge value (Q_{in}), recharge - evapotranspiration, based on the conceptual model information, would be approximately 1.6×10^{-5} ft/day (or 0.07 in/yr).

4.4 DEFINITION OF FLOW SYSTEM AND BOUNDARY CONDITIONS

A flow system is defined by hydrostratigraphy, hydrologic information, and geochemical data. The following is a description of the groundwater flow system in the vicinity of the Ash Landfill.

The groundwater flow system is primarily recharged by precipitation within Seneca County (Mozola, 1955). The traditional water balance would suggest that approximately 34.3 inches of rain falls in the region, with approximately 6.8 inches being lost to runoff, 20.4 inches being lost to evapotranspiration, and 7.1 inches allowed to percolate into the groundwater (Table 4-2). However, this does not account for the loss from groundwater, via evapotranspiration, once the percolation has recharged groundwater. It is clear from calculation of groundwater flow through the system that only a small percentage of the water that percolates to the groundwater actually moves throughout the entire length of the system. A large percentage is lost from the system though evapotranspiration from the water table. The shallow water table, the fine-grained nature of the till, and the relatively large fluctuations in the water table indicate that evapotranspiration likely plays a major role in removing water from the till/weathered shale aquifer system.

The flow of groundwater at the Ash Landfill occurs primarily through two hydrostratigraphic units; a till/weathered shale unit and a competent shale unit. Hydrologic data from these units provides a more complete definition of the flow system. Water level measurements from the till/weathered shale unit at five sites within the modeled area indicate that the general direction of groundwater flow is to the west toward Seneca Lake. At the Ash Landfill and at the Garbage Disposal Area

(SEAD-64D) sites, the groundwater flow direction is consistently to the west over an area that encompasses approximately 3/4 of the width of the area to be modeled. The flow direction in the competent shale at the Ash Landfill site is also to the west. In the eastern portion of the modeled area at SEAD-16, -17, -25, and -64A, groundwater flow directions are to the west and southwest (Figure 2-1) (Parsons ES, 1995a, 1995b, 1995c).

In the far eastern portion of the modeled area the combination of an easterly groundwater flow direction at SEAD-50 and a topographic high along Route 96 suggests the presence of a groundwater divide (Figure 2-1). In the south, the groundwater divide is defined by both the easterly groundwater flow and the topography. To the north along Route 96, the topography and drainage pattern of small intermittent streams define the location of the divide. Groundwater flow in the western portion of the modeled area is controlled by Seneca Lake, which is a large, stable water body whose surface elevation is approximately 455 feet above mean sea level.

The hydraulic conductivity of the layers helped to define the vertical extent of the flow system. Hydraulic conductivity data for the modeled area was obtained from slug tests that were performed in the till/weathered shale and in the competent shale at the Ash Landfill. Horizontal hydraulic conductivity values ranged from 7.8×10^{-4} cm/sec to 1.9×10^{-11} cm/sec. The data indicate that the conductivity values for the till/weathered shale are greater than those for the competent shale. The average hydraulic conductivity of the till/weathered shale unit is 3.7×10^{-4} cm/sec and for the competent shale it is 4.2×10^{-5} cm/sec. Also, within the competent shale aquifer conductivity values generally decrease with depth. Initially, three separate flow units were defined in the competent shale (Figure 4-1); a hydraulic conductivity value for the third flow unit in the shale was extrapolated from shallower data because no wells were screened at this depth. However, as part of the preliminary water budget calculations, the lowermost unit in the competent shale was eliminated from the model due to lack of a significant volume of flow in this unit compared to the total flow through the system. Therefore, for the purposes of this model, flow was modeled to a depth of 52 feet below the land surface.

No significant vertical gradients exist in the well clusters at the Ash Landfill. Although small upward and downward gradients were observed in some of the well, there is no dominant trend in the flow directions (Parsons ES, 1994a).

An important distinction in the flow system is that the competent shale, and its network of bedding plane fractures and joints, was considered an equivalent porous medium (EPM) in the groundwater

flow model. Fractured rock systems simulate EPM when the fracture apertures are constant, the fracture orientations are randomly distributed and the fracture spacing is small relative to the scale of the flow system (U.S. EPA, 1989). Generally, in the EPM approach the fractured rock is treated as if it were an unconsolidated porous media. The shale at the Ash Landfill is believed to approximate EPM because it is characterized by vertical and horizontal joints, and horizontal bedding plane fractures. The frequency and size of the bedding plane fractures decreases with depth based on an analysis of bedrock cores collected at the Ash Landfill; this is supported by a measured decrease is hydraulic conductivity with depth (Figure 4-1).

Merin (1992) characterized groundwater flow in fractured siltstone approximately 15 miles south of the site near Ithaca, New York based on a detailed analysis of rock cores, borehole geophysics and thin sections. The results of this analysis indicate that "groundwater flow is conceptualized as moving through vertical and horizontal planes of porosity, each of which is a fraction of a millimeter thick and extends for several inches to tens of meters in length." In addition, three zones of bedding plane fractures were delineated based on the vertical distribution of horizontal fractures, and the spacing between these horizontal fractures increases with depth. This supports the finding that hydraulic conductivities are higher in the upper portions of the bedrock. Furthermore, Merin (1992) argues that the vertical joints and horizontal bedding plane fractures are conduits in shallow bedrock and that groundwater flow might approximate EPM conditions. The data from the Ash Landfill site and nearby areas (e.g., Ithaca, NY) do not support a descrete fracture approach to modeling groundwater flow in the shale.

The validity of using the EPM approach to model contaminant transport is not well established. However, Pankow et al. (1986) evaluated the EPM approach at two fractured rock sites and they concluded that " the EPM approach would work well in describing contaminant transport for the system with small interfracture spacing and high enough matrix porosity and diffusion coefficient to rapidly establish matrix/fracture equilibrium."

In summary, three flow units were defined in the analysis of the flow system at the Ash Landfill site (Section 4.4) and therefore, the model consisted of 3 layers: layer 1 - till/weathered shale from 0 to 12 feet bls; layer 2 - competent shale from 12 to 32 feet bls; and layer 3 - competent shale from 32 to 52 feet bls.

Several types of boundary conditions were used for the model. The eastern model boundary was represented by a groundwater divide no-flow boundary as indicated by the topography, stream

drainage patterns, and groundwater flow directions established at nearby sites. Seneca Lake forms a constant head boundary at the western extent of the model. Between these two boundaries groundwater flow is essentially to the west as indicated by flow directions established at the Ash Landfill and five other sites within the modeled area. Thus, streamline no-flow boundaries were used to represent the northern and southern boundaries of the model.

4.5 CONTAMINANT FATE AND TRANSPORT

The constituents of concern (COCs) at this site include volatile chlorinated organic compounds that were within the boundaries of a well defined groundwater plume. These compounds include trichloroethene (TCE), cis- and trans-dichloroethene (DCE) and vinyl chloride (VC). These compounds have been detected in various monitoring wells at the site and have been monitored over time. From this database, various patterns are apparent which include:

- The total concentration of the COCs in the plume decreases with increasing distance from the source area.
- The direction of plume travel is consistent with the movement of groundwater.
- The ratio of TCE to the breakdown products changes as the distance from the source area increases.
- The concentration of individual COCs in various wells appears to remain constant over the period of groundwater monitoring.
- The boundaries of the plume do not appear to be expanding.

From this information and the analytical modeling that was performed during the RI, the hypothesis was suggested that degradation of the COC within the plume was occurring such that the plume had reached steady state conditions. In other words, the extent of the plume has not substantially changed because the rate of input of COCs equaled the removal of COCs by natural removal mechanisms. If the site conditions are supportive of biotic degradation it is likely that the indigenous microbial community is controlling the mass of COCs present in the plume. Given this hypothesis, the remedial strategy that this modeling effort would be used to support is one that would incorporate institutional controls in association with continued long-term monitoring of groundwater. This approach was deemed appropriate because source control was accomplished in the spring of 1995 and was successful in eliminating continued leaching of COCs to the groundwater system.

The COCs at the Ash Landfill are known to be resistant to aerobic microbial degradation. However, these compounds have been shown to be susceptible to degradation through a process called reductive dechlorination. Reductive dechlorination occurs under anaerobic conditions and is capable of removing halogens from compounds, in this case chlorine, to produce less toxic compounds. Reductive dechlorination is possible because unlike non-halogenated compounds, halogenated compounds are in an oxidized state due to the presence of the large electronegative chlorine group. This makes the organochloride molecule susceptible to reduction rather than oxidation. Thus, compounds with more chlorine atoms are more susceptible to reduction than compounds with fewer chlorine atoms. This process sequentially dechlorinates chlorinated organic molecules with compounds containing relatively large amounts of chlorine, such as TCE, being easier to dechlorinate than the (less chlorinated) breakdown products.

The process of dechlorination involves a transfer of electrons. Compounds that gain electrons are reduced whereas the compounds that donate electrons are oxidized. Oxygen is typically the electron acceptor for environmental oxidation processes; however, under anaerobic conditions the electron acceptors can be either other organic compounds or inorganic anions such as oxidized forms of sulfur, nitrogen, iron, or carbonate. For anaerobic (anoxic) bacteria to degrade chlorinated hydrocarbons, certain requirements for the environmental system must be met. These requirements include the following:

- availability of carbon sources (electron donors);
- presence of electron acceptors;
- essential nutrients;
- proper ranges of pH, temperature, and salinity;
- absence of dissolved oxygen; and
- proper redox potential.

With this essential information, it will be possible to evaluate the likelihood that biotic anaerobic dechlorination is active in controlling the migration of the dissolved COCs at the Ash Landfill

As part of the conceptual model development Parsons ES conducted an extensive field sampling program with the intention of obtaining data that will provide an understanding of the status of the biotic processes that are on-going at the site. Table 4-5 presents the parameters that were measured in the monitoring wells that were within the boundary of the groundwater plume. These parameters

TABLE 4-5

CHEMICAL PARAMETERS RELATED TO BIOTIC DEGRADATION

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

PARAMETER	METHOD OF ANALYSES	SIGNIFICANCE
Ferrous (Fe^{+2})	Colormetric HACH Kit	Presence of iron in the reduced, divalent state, may inidcate anaerobic reduction as ferric Fe^{+3}, an electron acceptor is reduced to ferrous, Fe^{+2}
Chloride (Cl^-)	EPA Method 300.0	General water quality parameter used as a marker of biogical dechlorination. Presence of chloride in areas of anaerobic dechlorination supports dechlorination process since chloride is being sequentially removed from the organic molecule and being released to the groundwater.
Specific Conductivity	EPA Method 120.1	General water quality parameter; useful to identify areas where leaching from the landfill could be occurring.
Alkalinity	EPA Method 310.1	General water quality parameter; provides an indication of the presence of carbonates. Carbonates could be an electron acceptor under anaerobic conditions.
Nitrate (NO_3^-)	EPA Method 300.0	Potential electron acceptor for anaerobic processes. Nitrate can be used as an electron acceptor by facilitative anaerobic microorganisms via either denitrification or direct nitrate reduction.
Nitrite (NO^-_2)	EPA Method 300.0	Presence of nitrite is an indication that dentrification process is ongoing.
Sulfate (SO_4=)	EPA Method 300.0	Possible electron acceptor in the anaerobic microbial degradation process.
Dissolved Sulfide (S=)	Standard Method 4500E	Product of sulfate-based anaerobic microbial respiration.
Redox Potential (E_h)	Standard Method 2580A	Redox potential influences the nature of the biologically produces degradation process. Indicator of the tendency of a solution to accept or transfer electrons. Anaerobic conditions exist at E_h values less than +750mV.
Methane	Robert S. Kerr Standard Operating Procedure (RSKSOP) - 175	Indicator of reducing conditions; product of anaerobic reduction of carbon dioxide.
Carbon Dioxide	RSKSOP-175	Possible source of electron acceptors during methanogenisis.
Ethane, Ethene	RSKSOP - 175	Products of biotransformation of chlorinated hydrocarbons; the presence of these compounds indicates that anaerobic degradation is occurring.
pH	EPA Method 150.1	General water quality parameter, for microbial dechlorination to occur; pH must be within acceptable range.
Dissolved Organic Carbon	EPA Method 415.1	May be source of electrons; acts as an electron donor during anaerobic dechlorination processes.

include alternative electron acceptors, general water quality parameters, and final end products of biotic degradation.

Field activities for collection of these data took place during June 1995. The results of these field efforts are summarized in Table 4-6. The results presented in Table 4-6 suggest that several alternative electron acceptors are available to complete the transfer of electrons through an anaerobic dechlorinative process. The concentration of carbonates, sulfate, and nitrate are high enough to suggest that these compounds could act as electron acceptors. Further, the COCs throughout the site may act as electron donors in the transfer of electrons, although, cometabolic mechanisms may also play a lesser role. General water quality parameters, such as pH, specific conductance, and chloride, all are within the range of what would be acceptable for biological growth. The redox potential values are within the range of what would be considered anaerobic, suggesting that anaerobic dichlorination could be occurring. Although the redox potential measured at SEDA does not indicate strongly anaerobic conditions at the time of measurement, it is nonetheless within the anaerobic range.

TABLE 4-6

BIODEGRADATION INDICATOR PARAMETER RESULTS

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

Monitoring Well	Ethene (mg/L)	Ethane (mg/L)	Methane (mg/L)	Chloride (mg/L)	CO2 (mg/L)	Spec. Cond. (umho/cm)	Ferrous (mg/L)	Sulfide (mg/L)
PT-10	<0.11	<0.08	<0.004	59.7	327	794	<0.01	<0.10
PT-17	<0.11	<0.08	<0.004	59.3	349	906	0.01	0.32
PT-18	<0.11	<0.08	0.424	57.7	629	1450	0.01	<0.10
PT-20	<0.11	<0.08	<0.004	67.1	331	954	0.01	<0.10
PT-22	<0.11	<0.08	<0.004	148	352	1230	<0.01	<0.1
PT-22 (Dup)	NA	NA	NA	NA	349	NA	NA	NA
MW-24	<0.11	<0.08	<0.004	40.3	275	763	0.12	<0.10
MW-24 (Dup)	NA	NA	NA	NA	276	NA	NA	NA
MW-27	<0.11	<0.08	0.184	37.8	268	633	0.21	<0.10
MW-28	<0.11	<0.08	<0.004	25.3	293	656	0.04	<0.10
MW-29	<0.11	<0.08	<0.004	58.2	316	944	0.24	0.16
MW-32	<0.11	<0.08	<0.004	67.7	284	800	0.27	<0.10
MW-36	<0.11	<0.08	<0.004	48.8	270	706	<0.01	<0.10
MW-39	<0.11	<0.08	<0.004	22	145	617	<0.01	<0.10
MW-40	<0.11	<0.08	<0.004	12.5	221	486	<0.01	<0.10
MW-41D	<0.11	<0.08	<0.004	12.7	279	652	0.03	<0.10
MW-42D	<0.11	<0.08	<0.004	4.6	266	533	<0.01	<0.10
MW-43	<0.11	<0.08	<0.004	26.5	369	766	0.12	<0.10
MW-43 (Dup)	NA	NA	NA	NA	366	NA	NA	NA
MW-45	<0.11	<0.08	<0.004	24.4	285	567	0.07	<0.10
MW-46	<0.11	<0.08	<0.004	25.7	298	675	0.01	<0.10
MW-48	<0.11	<0.08	<0.004	27.5	271	578	0.11	<0.10
MW-49D	<0.11	<0.08	0.009	25.1	259	646	0.06	<0.10
MW-149(Dup of 49D)	<0.11	<0.08	0.011	24.8	264	640	NA	<0.10
MW-49 (Rinsate)	<0.11	<0.08	<0.004	1.9	<5	1.83	NA	<0.10
MW-50D	<0.11	<0.08	<0.004	15.2	220	486	0.13	<0.10
MW-53	<0.11	<0.08	<0.004	74.7	308	904	0.15	0.32
MW-54D	<0.11	<0.08	<0.004	53.4	222	629	<0.01	<0.10
MW-55D	<0.11	<0.08	<0.004	4.6	218	534	0.46	<0.10
MW-56	<0.11	<0.08	<0.004	42.4	302	700	0.02	<0.10
MW-56 (Dup)	NA	NA	NA	NA	294	NA	NA	NA

Notes: NA - Not Available

* - Nitrate-N and Nitrite-N combined due to late holding times

TAL -6 (cont.)

BIODEGRADATION INDICATOR PARAMETER RESULTS

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

Monitoring Well	DOC (mg C/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Redox Pot. (mV)	pH	Tot. Alk. (mg CaCO3/L)
PT-10	<1.0	22.6	<0.056	<0.076	367.9	7.35	333
PT-17	148	78	0.61	<0.076	361.8	7.03	331
PT-18	6.1	231	<0.056	<0.076	NA	6.87	548
PT-20	1.9	22.6	0.15	<0.076	NA	7.05	310
PT-22	3.1	218	0.18	<0.76	352.4	7.02	316
PT-22 (Dup)	NA	NA	NA	NA	NA	NA	NA
MW-24	4.6	79	0.15	<0.076	372.4	7.09	288
MW-24 (Dup)	NA	NA	NA	NA	NA	NA	NA
MW-27	2.3	50.7	0.098	<0.076	394.7	7.73	292
MW-28	2.8	49.5	0.089	<0.076	362.5	7.09	282
MW-29	3.2	126	0.21	<0.076	365.6	7.06	313
MW-32	1.6	56.4	0.79	<0.076	415.3	7.16	294
MW-36	1.8	62.6	1.7	<0.076	379.3	7.25	273
MW-39	3.5	26.7	0.091	<0.076	398.2	7.2	264
MW-40	1.4	56.7	0.13*	NA	362.3	7.41	217
MW-41D	1.2	41.1	0.077	<0.076	371.4	7.62	300
MW-42D	3.2	24.6	0.088	<0.076	390.8	7.48	279
MW-43	4.4	43.4	<0.056	<0.076	365.5	7.09	362
MW-43 (Dup)	NA	NA	NA	NA	NA	NA	NA
MW-45	1.7	39.1	0.064	<0.076	351.2	7.22	281
MW-46	42	46.7	<0.056	<0.076	347.9	7.13	297
MW-48	2.5	41.4	0.081	<0.076	382.3	7.25	276
MW-49D	5.3	57.6	0.11	<0.076	379.5	7.32	264
MW-149(Dup of 49D)	3.7	58.5	0.084	<0.076	NA	7.36	264
MW-49 (Rinsate)	2.3	1.1	<0.056	<0.076	NA	6.64	<5
MW-50D	3.3	32.8	0.11	<0.076	NA	7.59	231
MW-53	3.5	103	0.15	<0.076	359.6	7.08	289
MW-54D	4.1	40.6	0.27	<0.076	373.9	7.48	223
MW-55D	<1.0	31.3	0.23	<0.076	340.6	8.88	253
MW-56	2.5	81.7	0.23	<0.076	360.6	7.11	289
MW-56 (Dup)	NA	NA	NA	NA	NA	NA	NA

Notes: NA - Not Available

* - Nitrate-N and Nitrite-N combined due to late holding times

5.0 GROUNDWATER FLOW MODEL DESIGN AND RESULTS

5.1 SELECTION OF MODEL CODE

This modeling study involved the simulation of both three dimensional groundwater flow and transport. The computer code MODFLOW was selected for this project because of the following:

- MODFLOW simulates three dimensional groundwater flow;
- The head and flow data saved by MODFLOW can be used with particle tracking models (e.g., MODPATH and MODPATH-PLOT) and the three-dimensional transport model, Modular Transport in 3 Dimensions (MT3D);
- The accuracy of the code has been checked against one or more analytical solutions;
- The code includes a water balance computation; and
- The code has been used to simulate groundwater flow in numerous studies.

Further, MODFLOW has been peer-reviewed for both theory and coding, has been extensively verified, field tested and has many users (EPA, 1993). The transport code, MT3D, was selected as the transport model, as this model is structured to be used in conjunction with MODFLOW, has been peer reviewed for theory and has been both field tested and verified (EPA, 1993).

5.2 RELATIONSHIP BETWEEN CONCEPTUAL MODEL AND MODFLOW NUMERICAL MODEL

This section describes how the grid of the numerical model was developed from the conceptual model. First, the boundary conditions and grid layout will be discussed, followed by the method of assignment of input parameter values.

5.2.1 Boundary Conditions and Grid Layout

The area modeled extends considerably beyond the Ash Landfill and its immediate surrounding area to take advantage of meaningful physical and hydraulic boundaries (Figure 5-1). Seneca Lake, a physical boundary, formed a constant head boundary at the western edge of the model. The eastern model boundary was represented by a groundwater divide no-flow (i.e., hydraulic) boundary as indicated by the land surface topography, stream drainage patterns, and groundwater flow directions established at nearby sites (SEAD-50, SEAD-64A, SEAD-25, SEAD-16 and

REEDER CREEK

STREAMLINE NO-FLOW BOUNDARY

ROUTE 96A

SAMPSON STATE PARK

FARMHOUSE

ASHLANDFILL

SENECA ARMY DEPOT

SEAD-16

SEAD-25

SEAD-17

ROUTE 96

GROUNDWATER DIVIDE NO-FLOW BOUNDARY

SEAD64A

SEAD-64D

STREAMLINE NO-FLOW BOUNDARY

SEAD-50

CONSTANT-HEAD BOUNDARY

SENECA LAKE

AIRFIELD

LEGEND

- AREA OF INACTIVE CELLS
- GROUNDWATER FLOW DIRECTION IN TILL/WEATHERED SHALE AQUIFER
- ACTIVE MODEL BOUNDARY
- CONSTANT-HEAD BOUNDARY
- GROUNDWATER DIVIDE NO-FLOW BOUNDARY
- MONITORING WELL
- STREAM / CREEK
- INTERMITTENT STREAM
- RAILROAD TRACKS
- 760 — GROUND SURFACE ELEVATION CONTOUR
- VOC PLUME

N

800 0 800 1600

1" = 1600'

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PARSONS

PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT. ENVIRONMENTAL ENGINEERING | Dwg. No.

FIGURE 5-1

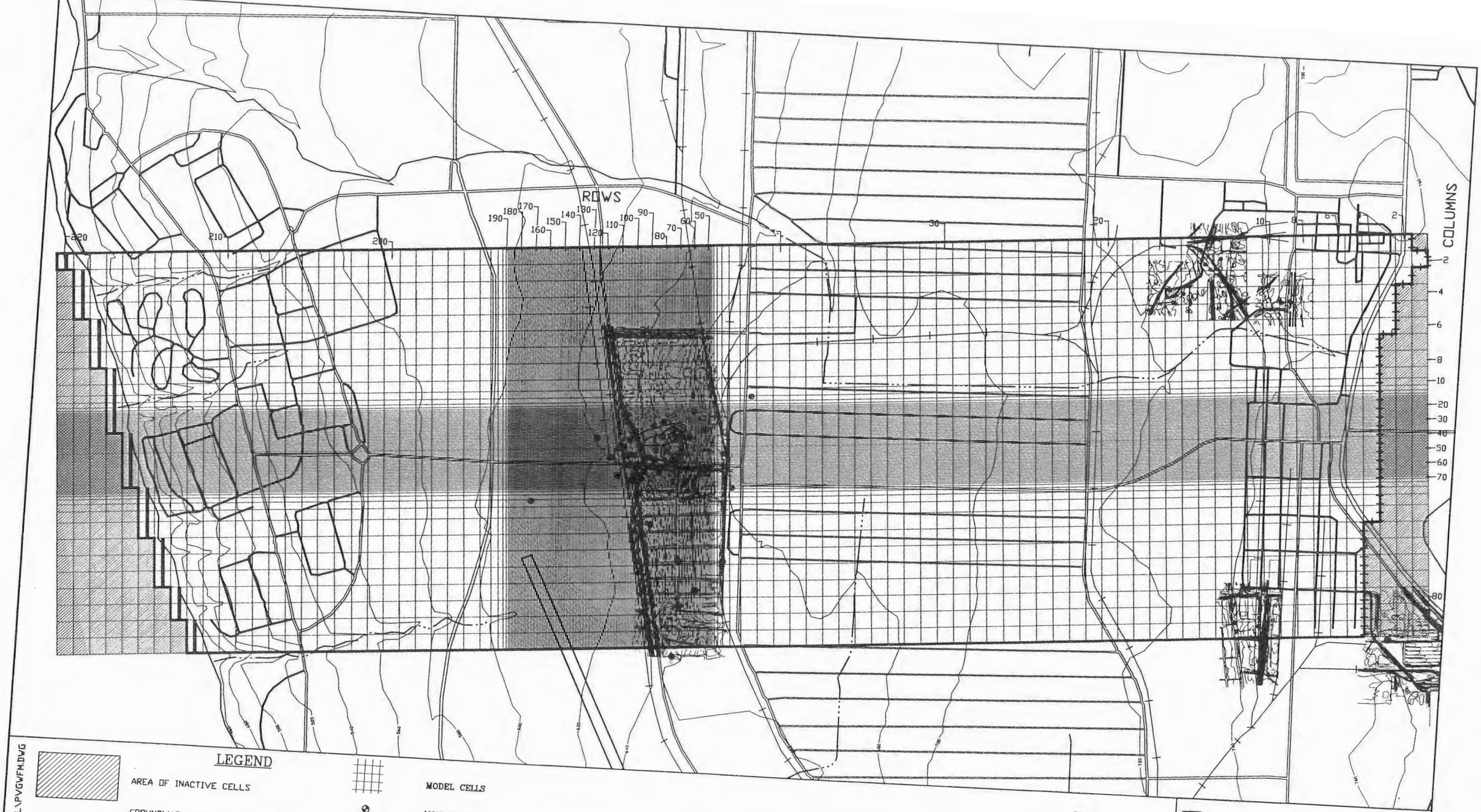
GROUNDWATER FLOW MODEL BOUNDARY CONDITIONS AND GROUNDWATER FLOW DIRECTIONS

SCALE 1" = 1600' | DATE JANUARY 1996 | REV A

SEAD-17). Between these two boundaries, groundwater flow is essentially to the west as indicated by flow directions established at the Ash Landfill and other sites within the modeled area. Thus, streamline no-flow (i.e., hydraulic) boundaries were used to represent the northern and southern boundaries of the model. Finally, the bottom of the model was represented by a no-flow boundary due to the low hydraulic conductivities measured in the deeper portions of the competent shale. The model grid consisted of nodes and associated finite-difference blocks or cells representing a block-centered grid. Model boundaries were defined based on physical and hydraulic considerations in order to most accurately represent the flow system beneath the Ash Landfill.

The block-centered finite-difference grid was overlaid on the map of the area to be modeled such that the horizontal plane of the aquifer was collinear with the principal directions of hydraulic conductivity tensors K_x and K_y. (Figure 5-2). In addition, three flow units were modeled: layer 1 represents till/weathered shale from 0 to 12 ft bls; layer 2 represents competent shale from 12 to 32 feet bls; and layer 3 represents competent shale from 32 to 52 feet bls (as described in Section 4.3). The thickness of the layers remained constant throughout the horizontal extent of the model grid. However, the array of cells that make up each layer dips gently to the west, generally following the land surface topography. This results in a stratigraphic three-dimensional (or non-horizontal model-layer) grid (Figure 5-3). By applying a non-horizontal vertical layer discretization scheme to simulate flow at the Ash Landfill site, discrete units could be assigned to discrete model layers. The angle between the dip of the shale beds and the horizontal axis was so small that K_z was assumed to be collinear with the vertical axis (Anderson and Woessner, 1992). Harte (1994) showed that for sites with model layer slopes of 0.17 ft/ft or less, the benefits of applying a non-horizontal model layer vertical discretization scheme to simulate flow, especially considering the improved ability to represent discrete hydrogeologic units, exceeded the numerical errors due to the misalignment of the model axes with the hydraulic conductivity tensor (K_z).

The flow model used a variable grid with three layers that totaled 54,120 cells; each layer had a grid size of 28 x 220 cells, or 18,040 cells (Figure 5-2). A variable grid was used for this model to achieve increased resolution (for hydraulic heads and plume concentrations) at the Ash Landfill. The grid consists of a central area of regularly-spaced, 25-foot cells that encompasses the Ash Landfill and its immediate surrounding area (Figure 5-4). Beyond this area of regularly-spaced cells, the grid expands in increments of 1.5 times (38 ft, 56 ft, 84 ft, 127 ft, and 190 ft) until a cell size of 285 ft is reached. Then, this cell size extends to the model boundaries in all



LEGEND

- AREA OF INACTIVE CELLS
- MODEL CELLS
- GROUNDWATER FLOW DIRECTION IN TILL/WEATHERED SHALE AQUIFER
- MONITORING WELL
- STREAM / CREEK
- INTERMITTENT STREAM
- ACTIVE MODEL BOUNDARY
- RAILROAD TRACKS
- 760 GROUND SURFACE ELEVATION CONTOUR
- CONSTANT-HEAD BOUNDARY
- GROUNDWATER DIVIDE NO-FLOW BOUNDARY
- VOC PLUME

N

800 0 800 1600

1" = 1600'

C:\ACAD\SENECA\ASHMODEL\PVGWFM.DWG

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PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

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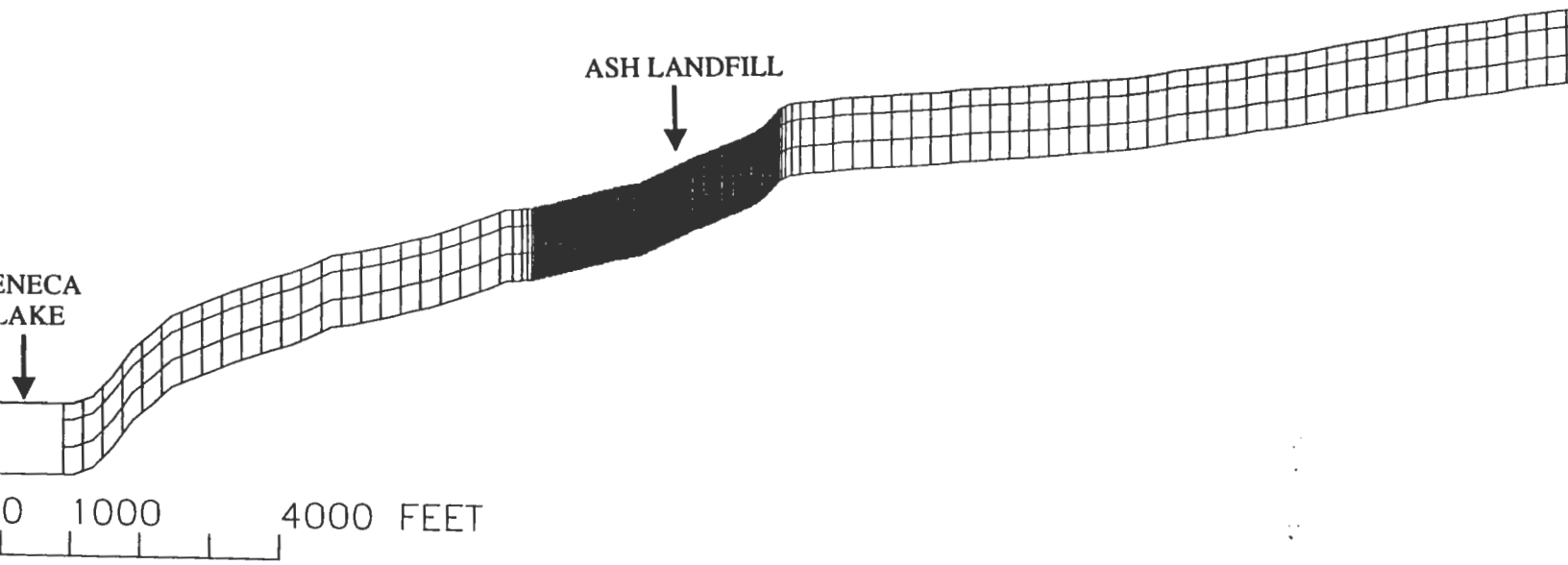
FIGURE 5-2
PLAN VIEW OF GROUNDWATER FLOW MODEL GRID

SCALE 1" = 1600' | DATE DECEMBER 1996 | REV A

GRO



VERTICAL EXAGGERATION IS 20.0X
Cross-section of Model Grid

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ASH LANDFILL GROUND

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FIGURE
CROSS SECT
GROUNDWATER F
GRID AT COL

SCALE NA DA

ECA\ASHMODEL\PRECIP.CDR

COLUMNS

ROUTE 96A

AIRFIELD

FARMHOUSE

600

620

640

580

760

N

LEGEND

MODEL CELLS

ACTIVE MODEL BOUNDARY

MONITORING WELL

STREAM / CREEK

INTERMITTENT STREAM

RAILROAD TRACKS

760 GROUND SURFACE ELEVATION CONTOUR

VOC PLUME

300 0 300 600

1" = 600'

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SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT. ENVIRONMENTAL ENGINEERING | Dwg. No.

FIGURE 5-4
GROUNDWATER FLOW MODEL GRID
NEAR THE ASH LANDFILL

SCALE 1" = 600' | DATE JANUARY 1998 | REV.

directions. A grid size of approximately 284-feet provided enough detail so that simulated heads outside the area of interest could be calibrated to observed heads with some degree of spatial accuracy, yet it reduced data preparation and computing time for the model. There were 562 inactive cells in the model; inactive cells are those cells west of the constant head cells at Seneca Lake and east of the groundwater divide cells along Route 96 (Figure 5-2).

The goal of grid spacing is to design a grid so that the dimensionless number, the Peclet number (P_e), is less than or equal to 4, Anderson and Woessner (1992). The grid size in the area of the Ash Landfill was decreased to 25-feet in order to meet the Peclet criteria for the solute transport model. This minimized the effect of numerical dispersion in the finite difference solution and provided the necessary detail to understand the migration of chlorinated organics. The equation used to calculate the Peclet number is:

$$P_e = \frac{\Delta L}{\alpha}$$

where: P_e = Peclet number
ΔL = characteristic nodal spacing, (ft.), and
α = characteristic dispersivity, (ft.).

A dispersivity of 10 feet for the till/weathered shale, and a 25-foot grid spacing yields a P_e of 2.5. A dispersivity of 20 feet for the competent shale yields a P_e of 1.25 (the choice of dispersivity values is discussed is Section 6.3.3). The 25-foot grid spacing yields P_e numbers for both the till/weathered shale and the competent shale that meet the Peclet number criteria recommended for solute transport modeling.

5.2.2 Assignment of Input Parameter Values For MODFLOW

The MODFLOW model separates different modeling functions into distinct categories depending upon the hydrogeologic conditions being modeled. Input parameter values were assigned to each variable associated with the various package use in the model. Groundwater flow was simulated using four MODFLOW packages. They are as follows:

1. Basic Package,
2. Block Centered Flow Package,
3. Recharge Package and

4. Preconditioned Conjugate Gradient (PCG-2) Solution Package .

Input parameter values for the MODFLOW groundwater flow model were derived from both site investigation data, to the greatest extent possible, and the literature when site-specific data were not available. Table 5-1 presents the selected input parameters for the flow model along with the acceptable range for each value; the best estimate for each parameter used in the model is also presented. The parameter values that describe the physical geometry of the flow system, as well as those values that describe the aspects of groundwater flow, are discussed below.

5.2.2.1 Basic Package

Model Layers and Aquifer Types

Three model layers were simulated in the model. Model layer 1 simulated groundwater flow in the till/weathered shale unit, the ground surface to 12 feet below the land surface. Model layer 2 simulated flow in the upper 20 feet of the shale unit and, model layer 3 simulated flow in the next 20 foot interval in the competent shale. The depths to the tops and bottoms of the layers relative the land surface are, receptively, 0 to 12 feet for layer 1 (the till/weathered shale), 12 to 32 feet for layer 2 (the competent shale), and 32 to 52 feet for layer 3 (also in the competent shale).

The land surface elevations were established from 2-foot contour maps of the selected sites within the modeled area at SEDA and from 1:24,000-scale (7.5 min.) USGS maps (the Dresden and Ovid, NY quadrangles). Two foot contour maps were available for six sites within the model grid boundaries. Outside of the areas associated with these sites, the 1:24,000 scale maps were used.

All three model layers were assigned an aquifer type. Model layer 1, which is considered to be an unconfined water table aquifer, was designated as a confined aquifer for the purposes of the flow model. The reason for this is that the solution scheme of the MODFLOW model was not stable enough to meet the closure criteria for the piezometric heads. Simulating model layer 1 as confined in a steady state model does not significantly affect the heads calculated by MODFLOW, although this does necessitate the need to assume constant transmissivity (hydraulic conductivity times saturated thickness) throughout the simulation. Model layers 2 and 3 were simulated under confined conditions because the piezometric heads in each layer were measured in the field to be above the tops of the model layers.

TABLE 5-1

REASONABLE RANGE, BEST ESTIMATE AND UNCERTAINTY FOR MODFLOW INPUT PARAMETERS

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

Input Parameter	Units	Reasonable Range			Best Estimate	Scource	Uncertainty
		Low	nominal	High			
Aquifer Types:							
Layer 1 aquifer type	NA	NA	unconfined*	NA	unconfined*	field data	low
Layer 2 aquifer type	NA	NA	confined	NA	confined	field data	low
Layer 3 aquifer type	NA	NA	confined	NA	confined	field data	low
Layer Thicknesses:							
Layer 1 Thickness	(feet)	4.5	12	18	12	field data	low
Layer 2 Thickness	(feet)	20	20	20	20	field data	low
Layer 3 Thickness	(feet)	20	20	20	20	field data	low
Conductivity:							
Layer 1 Kh	(feet/day)	0.09	1.03	2.21	1.03	field data	low
Layer 1 Kv	(feet/day)	0.01	0.11	0.25	0.11	Literature	medium
Layer 1 Vcont		0.0007	0.0018	0.0041	0.0018	Calculation	med.- high
Layer 2 Kh	(feet/day)	0.11	0.20	0.45	0.20	field data	low
Layer 2 Kv	(feet/day)	0.01	0.02	0.05	0.02	Literature	high
Layer 2 Vcont		0.0001	0.0003	0.0008	0.0003	Calculation	high
Layer 3 Kh	(feet/day)	0.01	0.04	0.09	0.04	field data	low
Transmissivity:							
Layer 1 Transmissivity	(sq feet/day)	0.54	6.18	13.26	6.18	field data	low
Layer 2 Transmissivity	(sq feet/day)	2.20	4.05	9.00	4.05	field data	low
Layer 3 Transmissivity	(sq feet/day)	0.20	0.76	1.80	0.76	field data	low
Heads:							
Constant Head Seneca Lake	(feet, msl)	455	455	455	455	Literature	low
Recharge:							
Net Recharge	(feet/day)	0.000012	0.000013	0.000014	0.000013	field data	low
Boundaries:							
Northern Boundary	NA	NA	streamline	NA	streamline	field data	low
Southern Boundary	NA	NA	streamline	NA	streamline	field data	low
Eastern Boundary	NA	NA	gw divide	NA	gw divide	field data	low
Western Boundary	NA	NA	constant head	NA	constant head	Literature	low
Bottom Boundary	NA	NA	low conductivity	NA	low conductivity	field data	low

Note:
1) * = Layer 1 was simulated as a confined aquifer (i.e., constant transmissivity) for this steady-state model for reasons discussed in the text.

H:\eng\seneca\ashmodel\tables\rrbeumf.wk4

Boundaries for the Flow Field

The boundary array for the flow model consisted of constant piezometric head cells along the shoreline of Seneca Lake. The northern and southern extents of the model were designated as streamline no-flow boundaries. A groundwater divide is present on the eastern boundary of the model. All of the cells west of the constant piezometric head cells and east of the groundwater divide were inactive for the model runs; all other cells in the model were active. The bottom of the model grid was simulated as a no-flow boundary.

Starting Piezometric Heads

The starting piezometric head arrays for the three model layers were derived from measured groundwater elevations at monitoring wells. In areas where no monitoring wells existed, groundwater elevations were extrapolated from the slope of the land surface. The elevation of Seneca Lake, 455 feet MSL (Mozola, 1955), was assigned as the piezometric head for the constant head cells.

For layer 1, seasonally averaged groundwater elevations were initially assigned to their corresponding model cells. The process of deriving these elevations is described in Section 5.4.1. Starting heads for layers 2 and 3 were 1.0 and 2.0 feet, respectively, below the starting heads for layer 1. This represented conditions that were measured in the field where bedrock wells were installed.

In areas where no monitoring wells were present, starting groundwater elevations were extrapolated between cells by subtracting 5 feet from the land surface elevation. This extrapolation between measured and non-measured water table elevations provided a reasonable approximation when cross-referenced against selected actual water table measurements. The final array was derived by using the observed and approximated data, and a four-point moving average calculation.

5.2.2.2 Block-Centered Flow Package

Horizontal hydraulic conductivity (K_h) values for the three layers of the model were obtained from the Ash Landfill RI report (Parsons ES, 1994a). A horizontal hydraulic conductivity of 1.03 ft/day was used for layer 1 (the till/weathered shale). Horizontal conductivities of 0.2 ft/day and 0.04 ft/day were used for layers 2 and 3 (in the competent shale), respectively. The conductivity values represent an average for each geologic unit represented as a model layer (Table 4-1).

Vertical hydraulic conductivities (K_v) were derived from literature values and from the physical make up of the aquifer material. For layer 1, the K_v was based on data from a fine-grained till aquifer in western New York State where K_h/K_v was determined to be 9 (Prudic, 1992). For layers 2 and 3, the K_v values were derived based on an anisotropy (Kh/Kv) of 10.

Vertical Conductance (Vcont)

Vertical conductances (Vcont)s were calculated for layers 1 and 2 using the following equation, (McDonald and Harbaugh, 1988):

$$Vcont_{i,j,k+1/2} = \frac{1}{\frac{(\Delta V_k)/2}{k_{zi,j,k}} + \frac{(\Delta V_{k+1})/2}{k_{zi,j,k+1}}}$$

where:

$Vcont_{i,j,k+1/2}$ is the vertical conductance between two nodes located at the midpoints of vertically adjacent layers;

Δv_k is the thickness of model layer $_k$;

Δv_{k+1} is the thickness of model layer $_{k+1}$;

$K_{z\,i,j,k}$ is the vertical hydraulic conductivity of the upper layer in cell $_{i,j,k}$; and

$K_{z\,i,j,k+1}$ is the vertical hydraulic conductivity of the lower layer in cell $_{i,j,k+1}$.

The equation is used to represent a transition situation where two adjacent model layers are used to represent two vertically adjacent, yet distinct, hydrogeologic units. It incorporates both K_v and the thickness of each adjacent unit.

Using the above equation, a V_{cont} of 0.0018 was calculated for layer 1. For layer 2, V_{cont} of 0.0003 was calculated. A V_{cont} value was not needed for layer 3 because the bottom of this layer is a no-flow boundary.

Transmissivity

Transmissivity was calculated by multiplying the saturated thickness by the horizontal hydraulic conductivity (K_h). A transmissivity value of 6.18 ft^2/day was used for layer 1; this value is based on a saturated thickness of 6 feet and K_h of 1.03 ft/day. The average thickness of the till/weathered

shale aquifer was determined to be approximately 6 ft, based on observations of fluctuations of the water table in wells at the Ash Landfill. Transmissivities of 4.05 ft^2/day and 0.76 ft^2/day were used for layers 2 and 3; these values were based on a saturated thickness of 20 ft and K_h values of 0.20 ft/day and 0.04 ft/day, respectively.

5.2.2.3 Recharge Package

Net areal recharge from precipitation was used in the model as the only source of water for the flow system. Both a water balance and a water budget was considered in determining the net recharge to groundwater. The water balance indicated that the shallow till/weathered shale aquifer received 0.0016 ft/day, (0.59 ft/year) of recharge from precipitation; however, the water budget suggested that a significant amount of this water is subsequently lost to evapotranspiration. Instead of simulating both recharge from precipitation and evapotranspiration, a net recharge value was used in the model. A net recharge of 0.000013 ft/day was used to begin the calibration process for the model based on the water budget. Recharge was specified to enter the simulated flow system through the uppermost active layer in the model.

5.2.2.4 Other Model Input Parameters

Error Criterion for Heads: At the end of each iteration, MODFLOW selects the largest absolute difference in heads as a measure of the residual error and compares it to the user-defined error criterion. Anderson and Woessner (1992) recommend as a "rule of thumb" that the error criterion should be one or two orders of magnitude smaller than the level of accuracy desired in the head results. Because the desired accuracy for head results in this model was 0.1 feet, an error criterion of 0.001 was used for the model

Error Criterion for Water Balance: MODFLOW also calculates an error in the water balance by comparing the total simulated inflows and outflows, which serves as another way of checking the amount of residual error in the solution. Water entering storage is treated as outflow and water released from storage is treated as inflow. The difference between total inflow and total outflow is the percent error and it is calculated by MODFLOW using the equation that follows:

$$D = \frac{100(IN - OUT)}{(IN + OUT)/2}$$

where: D = percent error term;
IN = total flow into the system; and
OUT = total flow out of the system.

According to Konikow (1978), the ideal error in the water balance should be less than 0.1 percent, however, an error of approximately 1 percent is usually considered acceptable (Anderson and Woessner, 1992).

5.3 MODEL CALIBRATION

Once the model grid, starting piezometric heads, and the recharge value were established the model was calibrated by comparing the modeled and measured site conditions. The groundwater flow model was calibrated using industry-standard calibration criteria. A model is considered calibrated when it reproduces historical data within some acceptable level of accuracy determined prior to the calibration process (EPA, 1992).

Prior to calibration, an acceptable range for each of the parameter values was identified (Table 5-1), and target piezometric heads were established.

The conceptual model indicated that a significant amount of water that percolates to the groundwater is subsequently lost through evapotranspiration. Thus, the value of the net recharge parameter had a significant effect on the piezometric heads in the model. Since many of the hydrogeologic input parameters were based on site measurements and literature sources, the model was calibrated by selecting the best estimates for all the parameters and then, through trial-and-error, only the net recharge value was adjusted until simulated heads matched measured heads within the targeted error of the model.

The model calibration process began with the net recharge value of 0.000013 ft/day determined in during the water budget process. This is significantly less than the 0.0016 ft/day (or 0.59 ft/year) of percolation calculated in the water balance because it is believed that evapotranspiration removes water from the groundwater system throughout the year. Ultimately, the model was calibrated using a net recharge of 0.00001332 feet/day. Output from the calibrated MODFLOW run is provided in Appendix C.

The results of the calibration of the groundwater flow model were evaluated both qualitatively and quantitatively. These calibration criteria are as follows:

1. Hydraulic Heads (ME, MAE, and RMS) and Gradients;
2. Water Balance and Volumetric Flow; and
3. Groundwater Velocity and Advective Travel Time.

5.3.1 Hydraulic Heads (ME, MAE, and RMS) and Gradients

The comparison of simulated heads with observed (or target) heads is an essential calibration criteria for the model. For this model, target heads were available from 60 monitoring wells within the modeled area.

The target heads for the model cells were set as the seasonal arithmetic mean of the observed water table elevations in monitoring wells from 1990 to 1995. Table 5-2 presents the observed water table elevations as well as their seasonal arithmetic means. For wells that had large water elevation data sets, the seasonal arithmetic mean was taken to be a reasonably acceptable target elevation for the model, since it represented a point approximately midway from the highest to the lowest water level elevation. Sample standard deviations for each well for the years 1990, 1991, 1993, and 1994 were also calculated as well as an average standard deviation for each year. Data presented in Section 3.5.2 indicates that the groundwater flow direction and horizontal gradients at the Ash Landfill do not significantly change from periods when the water table is high to periods then it is low. Assigning the use of seasonally averaged piezometric heads as targets for a steady-state groundwater flow model is considered reasonable since flow direction and gradients during periods of the year remain constant when piezometric heads were higher or lower than the average value.

However, this process could not be applied to all of the wells, because for some wells the amount of data was limited (i.e., only one or two seasons were represented in the data). For these latter wells, the seasonal arithmetic mean was derived by making appropriate adjustments to the observed data based on the average standard deviation of elevations determined at wells where adequate data were available. These adjustments were based on knowledge of the established seasonal behavior of heads in the aquifer.

After model calibration was completed, simulated heads were compared to measured (target) heads using both maps and X-Y scatter plots. A comparison between contour maps of simulated and measured heads is depicted in Figure 5-5.

TABLE 5-2

WATER TABLE ELEVATIONS AND DEVELOPMENT OF A SEASONALLY AVERAGED WATER TABLE AT THE ASH LANDFILL

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

	WELL	ELEVATION TOP OF PVC	DEPTH TO WATER IN ALL WELLS (TOC) JAN 1990	MAR 1990	JUN 1990	SEPT 1990	DEC 1990	MAR 1991	JUN 1991	SEPT 1991	DEC 1991	FEB 1992	MAR 1992	JUN 1992	JAN 1993	APR 1993	JUN 1993	NOV-DEC 1993	FEB 1994	JUL 1994	SEPT 1994	DEC 1994	MAR 1995
1	PT-10	681.58	7.80	5.70	9.60	10.10	4.71	4.89	10.74	11.01	7.06	6.66	3.79	5.55	9.10	5.45	9.60	5.8	7.75	**********		5.06	**********
2	PT-11	658.26	5.60	5.10	7.20	9.00	4.56	4.38	8.18	9.77	6.06	5.34	4.57	4.71	5.95	4.24	6.51	7.02	5.00	6.67	8.64	4.56	4.28
3	PT-12	652.03	6.30	5.80	8.30	9.50	5.06	5.35	9.56	10.30	5.92	5.74	5.32	5.02	5.78	4.83	8.03	5.89	4.78	**********			
4	PT-15	637.84	6.40	4.90	7.75	10.05	3.75	4.29	9.32	10.44	8.48	5.34	4.06	4.25	6.04	3.98	8.41	9.85	5.64	**********		6.37	**********
5	PT-16	637.78	3.80	3.10	4.60	6.50	2.98	2.88	5.66	7.59	4.21	3.30	2.94	2.87	2.70	2.78	4.70	3.47	3.20	**********		2.70	**********
6	PT-17	640.62	5.90	4.70	7.40	8.60	4.30	4.08	8.91	10.50	5.28	4.74	3.98	4.00	4.65	4.23	7.62	5.00	3.77	**********		4.12	**********
7	PT-18	656.59	6.60	5.90	6.80	9.20	5.01	5.16	7.18	9.87	6.72	6.49	5.92	5.02	5.59	4.81	7.33	5.72	6.17	**********		6.73	**********
8	PT-19	645.45	**********									3.78	**********					6.65	6.83	**********	6.38	7.64	4.01	3.10
9	PT-20	647.28	5.40	5.80	7.05	9.20	4.26	5.42	9.32	11.17	8.51	6.22	5.29	4.62	6.10	4.64	7.58	6.70	3.07	**********		5.13	**********
10	PT-21	647.51	6.50	4.60	7.00	9.25	3.85	4.73	8.01	9.56	7.40	12.14	5.12	4.95	-	4.09	8.15	8.46	5.19	**********			
11	PT-22	648.62	6.80	5.90	8.35	10.40	4.87	5.28	9.35	10.77	7.32	5.79	4.95	4.77	6.20	5.29	8.57	7.84	3.17	**********			
12	PT-23	641.54	5.80	4.70	6.80	7.95	4.44	4.27	8.07	8.98	6.47	4.70	4.02	4.19	5.62	4.37	7.21	7.63	2.83	**********		4.77	**********
13	PT-24	636.35	4.70	4.60	5.10	7.00	4.57	4.42	5.95	8.50	4.98	4.70	4.55	4.29	4.50	4.30	5.21	4.73	3.16	**********		4.31	**********
14	PT-25	637.02	5.30	3.90	6.55	10.45	3.54	3.82	8.87	11.57	6.96	4.66	3.87	3.36	3.56	3.44	6.98	6.36	5.06	**********		4.07	**********
15	PT-26	614.64	5.20	3.20	6.50	10.75	3.26	2.88	8.25	11.54	10.42	4.42	2.82	2.96	3.06	2.86	6.85	4.64	2.95	**********			
16	MW-27	639.42	5.00	5.20	6.25	9.05	4.35	4.41	6.89	7.57	5.82	5.08	5.07	5.21	5.60	4.63	6.75	4.45	5.35	6.42	7.09	3.80	5.13
17	MW-28	637.41	5.20	4.90	5.65	9.15	4.57	4.44	6.16	8.33	5.57	4.90	4.57	4.13	4.92	4.70	5.77	5.14	4.14	**********		4.94	**********
18	MW-29	637.33	5.90	6.10	6.65	10.5	5.55	6.21	8.32	10.5	7.19	6.88	6.52	5.74	5.88	5.51	6.83	6.12	5.96	**********		5.80	**********
19	MW-30	640.23	7.20	5.10	8.05	9.5	4.08	3.86	10.5	9.52	7.62	6.01	3.98	3.99	4.35	4.16	8.83	6.53	6.64	8.40	9.09	4.08	4.10
20	MW-31	636.86	4.10	3.10	5.60	9.20	2.43	2.52	6.53	9.65	5.82	3.72	2.88	2.26	2.52	2.26	6.13	5.14	4.02	**********		2.75	**********
21	MW-32	641.65	6.30	4.70	8.30	9.10	3.87	3.96	9.25	8.56	7.56	4.99	3.82	3.81	3.98	3.97	7.96	4.80	5.93	**********		4.83	**********
22	MW-33	639.52	6.10	3.90	7.60	9.50	3.60	3.58	6.17	7.37	7.79	4.36	3.57	3.67	3.77	3.76	8.64	5.10	5.27	**********		5.53	**********
23	MW-34	632.89	**********									4.18	**********		2.92	2.77	5.84	6.50	4.51	**********		2.81	**********
24	MW-35D	631.82	**********									2.94	**********		2.40	2.19	3.81	2.56	2.16	**********		2.23	**********
25	MW-36	632.09	**********									2.99	**********		2.15	2.33	3.90	2.48	2.24	3.43	5.66	2.28	2.34
26	MW-37	632.89	**********									3.16	**********		1.98	2.31	4.49	6.24	3.28	**********		2.14	**********
27	MW-38D	637.99	**********									4.08	**********		3.32	3.38	5.23	4.16	3.89	**********		3.40	**********
28	MW-39	659.72	**********									**********			1.80	2.19	3.05	3.35	2.03	**********		1.73	**********
29	MW-40	659.46	**********									4.15	**********		3.50	3.13	6.30	5.90	3.06	6.06	7.28	3.48	3.61
30	MW-41D	694.02	**********									7.11	**********		6.22	6.06	8.28	8.26	7.46	**********		6.83	**********
31	MW-42D	683.04	**********									3.61	**********		2.64	2.38	5.70	8.10	2.43	**********		2.86	**********
32	MW-43	657.9	**********									**********					4.58	5.44	**********			2.48	**********
33	MW-44	654.12	**********									**********					5.49	7.14	**********				
34	MW-45	651.13	**********									**********					5.04	5.70	**********	4.93	6.38	2.66	3.05
35	MW-46	650.65	**********									**********					6.64	8.04	**********			3.37	**********
36	MW-47	628.53	**********									**********					5.25	7.06	**********	5.70	6.89	2.85	2.84
37	MW-48	648.57	**********									**********					5.80	6.39	**********	5.92	7.00	3.25	3.10
38	MW-49D	650.69	**********									**********					5.83	7.95	**********			3.58	**********
39	MW-50D	650.27	**********									**********					5.71	7.37	**********			3.88	**********
40	MW-51D	628.64	**********									**********					5.43	7.08	**********			2.96	**********
41	MW-52D	626.7	**********									**********					3.64	6.66	**********			2.50	**********
42	MW-53	639.63	**********									**********					8.14	9.50	**********			8.80	**********
43	MW-54D	639.34	**********									**********					7.95	9.46	**********			6.05	**********
44	MW-55D	639.43	**********									**********					9.20	8.02	**********			6.06	**********
45	MW-56	630.69	**********									**********					3.61	3.54	**********	3.82	4.02	2.91	2.95
46	MW-57D	630.27	**********									**********					3.13	3.16	**********			1.67	**********
47	MW-58D	629.86	**********									**********					3.40	4.20	**********			1.33	**********
48	MW-59	656.83	**********									**********					**********			3.20	5.22	1.88	1.90
49	MW-60	660.15	**********									**********					**********			3.25	5.32	2.04	2.02
50	MW84D-1	667.79	**********									**********					**********			3.43	**********	2.76	**********
51	MW84D-2	635.2	**********									**********					**********			4.45	**********	1.71	**********
52	MW84D-3	648.88	**********									**********					**********			2.99	**********	1.97	**********
53	MW84D-4	661.33	**********									**********					**********			6.23	**********	3.84	**********
54	MW84D-5	652.49	**********									**********					**********			5.53	**********		
55	MW84A-1	745.77	**********									**********					**********			9.14	**********		
56	MW84A-2	740.98	**********									**********					**********			6.45	**********		
57	MW84A-3	739.85	**********									**********					**********			5.77	**********		
58	MW16-1	735.54	**********									**********					**********	3.40	**********				
59	MW16-2	734.55	**********									**********					**********	3.54	**********				
60	MW16-3	735.48	**********									**********					**********	4.22	**********				
61	MW17-1	736.27	**********									**********					**********		2.80	**********			
62	MW17-2	733.74	**********									**********					**********		3.19	**********			
63	MW17-3	732.15	**********									**********					**********		2.38	**********			
64	MW17-4	734.58	**********									**********					**********		3.00	**********			
65	MW25-3	745.56	**********									**********					**********		3.15	**********			

Note: Water levels for Dec 1994 were taken during the Ash Landfill Removal Action and dewatering operation

TABLE 5-2 (cont.)

WATER TABLE ELEVATIONS AND DEVELOPMENT OF A SEASONALLY AVERAGED WATER TABLE AT THE ASH LANDFILL

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

	WELL	ELEVATION TOP OF PVC	WATER TABLE ELEVATION IN ALL WELLS (TOC)																					
			JAN 1990	MAR 1990	JUN 1990	SEPT 1990	DEC 1990	MAR 1991	JUN 1991	SEPT 1991	DEC 1991	FEB 1992	MAR 1992	JUN 1992	JAN 1993	APR 1993	JUN 1993	NOV-DEC 1993	FEB 1994	JUL 1994	SEPT 1994	DEC 1994	MAR 1995
1	PT-10	681.58	673.78	675.88	671.98	671.48	676.87	676.69	670.84	670.57	674.52	674.92	677.79	676.03	672.48	676.13	671.98	675.78	673.83	**********	**********	676.52	**********	
2	PT-11	658.26	652.66	653.16	651.06	649.26	653.70	653.88	650.08	648.49	652.20	652.92	653.69	653.55	652.31	654.02	651.75	651.24	653.26	651.59	649.62	653.70	653.98	
3	PT-12	652.03	645.73	646.23	643.73	642.53	646.97	646.68	642.47	641.73	648.11	646.29	646.71	647.01	646.25	647.20	644.00	646.14	647.25	**********	**********	**********	**********	
4	PT-15	637.84	631.44	632.94	630.09	627.79	634.09	633.55	628.52	627.40	629.36	632.50	633.78	633.59	631.80	633.88	629.43	627.99	632.20	**********	**********	631.47	**********	
5	PT-16	637.76	633.96	634.66	633.16	631.26	634.78	634.88	632.10	630.17	633.55	634.46	634.82	634.89	635.06	634.98	633.06	634.29	634.58	**********	**********	635.08	**********	
6	PT-17	640.62	634.72	635.92	633.22	632.02	636.32	636.54	631.71	630.12	635.34	635.86	636.64	636.62	635.97	636.39	633.00	635.62	636.85	**********	**********	636.50	**********	
7	PT-18	656.59	649.99	650.69	649.79	647.39	651.58	651.43	649.41	648.72	649.87	650.10	650.67	651.57	651.00	651.78	649.26	650.87	650.42	**********	**********	649.86	**********	
8	PT-19	645.45	**********	**********	**********	**********	**********	**********	**********	**********	641.67	**********	**********	**********	**********	**********	638.80	638.62	**********	639.07	637.81	641.44	642.35	
9	PT-20	647.28	641.88	641.48	640.23	638.08	643.02	641.86	637.96	636.11	638.77	641.06	641.99	642.66	641.18	642.44	639.70	640.58	644.21	**********	**********	642.15	**********	
10	PT-21	647.51	641.01	642.01	640.51	638.26	643.66	642.78	639.50	637.85	640.11	635.37	642.39	642.58	647.51	643.42	639.36	639.05	642.32	**********	**********	**********	**********	
11	PT-22	648.62	641.82	642.72	640.27	638.22	643.75	643.34	639.27	637.85	641.30	642.83	643.67	643.85	642.42	643.33	640.05	640.78	645.45	**********	**********	**********	**********	
12	PT-23	641.54	635.74	636.84	634.74	633.58	637.10	637.27	633.47	632.56	635.07	636.84	637.52	637.35	635.92	637.17	634.33	633.91	638.71	**********	**********	636.77	**********	
13	PT-24	636.35	631.65	631.75	631.25	629.35	631.78	631.93	630.40	627.85	631.37	631.65	631.80	632.06	631.85	632.05	631.14	631.62	633.19	**********	**********	632.04	**********	
14	PT-25	637.02	631.72	633.12	630.47	628.57	633.48	633.40	628.15	625.45	630.06	632.36	633.15	633.66	633.46	633.58	630.06	630.66	631.98	**********	**********	632.95	**********	
15	PT-26	614.64	609.44	611.44	608.14	603.89	611.38	611.76	606.39	603.10	604.22	610.22	611.82	611.68	611.56	611.78	607.79	609.80	611.69	**********	**********	**********	**********	
16	MW-27	639.42	634.42	634.22	633.17	630.37	635.07	635.01	632.53	631.85	633.60	634.34	634.35	634.21	633.82	634.79	632.87	634.97	634.07	633.00	632.33	635.62	634.29	
17	MW-28	637.41	632.21	632.51	631.76	628.26	632.64	632.97	631.25	629.08	631.64	632.51	632.84	633.28	632.49	632.71	631.64	632.27	633.27	**********	**********	632.47	**********	
18	MW-29	637.33	631.43	631.23	630.68	626.83	631.78	631.12	629.01	626.83	630.14	630.45	630.81	631.59	631.45	631.82	630.50	631.21	631.37	**********	**********	631.53	**********	
19	MW-30	640.23	633.03	635.13	632.18	630.73	636.15	636.37	629.73	630.71	632.61	634.22	636.25	636.24	635.86	636.07	631.40	633.70	633.59	631.83	631.14	636.15	636.13	
20	MW-31	636.86	632.76	633.76	631.26	627.66	634.43	634.34	630.33	627.21	631.04	633.14	633.98	634.60	634.34	634.58	630.73	631.72	632.84	**********	**********	634.11	**********	
21	MW-32	641.65	635.35	636.95	633.35	632.55	637.78	637.69	632.40	633.09	634.09	636.66	637.83	637.84	637.67	637.68	633.69	636.85	635.72	**********	**********	636.82	**********	
22	MW-33	639.52	633.42	635.62	631.92	630.02	635.92	635.94	633.35	632.15	631.73	635.16	635.95	635.85	635.75	635.76	630.88	634.42	634.25	**********	**********	633.99	**********	
23	MW-34	632.89	**********	**********	**********	**********	**********	**********	**********	**********	628.71	**********	**********	**********	629.97	630.12	627.05	628.39	628.38	**********	**********	630.28	**********	
24	MW-35D	631.82	**********	**********	**********	**********	**********	**********	**********	**********	628.88	**********	**********	**********	629.42	629.63	628.01	629.26	629.66	**********	**********	629.59	**********	
25	MW-36	632.09	**********	**********	**********	**********	**********	**********	**********	**********	629.10	**********	**********	**********	629.84	629.76	628.19	628.61	629.85	628.66	628.43	629.81	629.75	
26	MW-37	632.89	**********	**********	**********	**********	**********	**********	**********	**********	629.73	**********	**********	**********	630.91	630.58	628.40	628.65	629.81	**********	**********	630.75	**********	
27	MW-38D	637.99	**********	**********	**********	**********	**********	**********	**********	**********	633.91	**********	**********	**********	634.87	634.61	632.76	633.83	634.10	**********	**********	634.59	**********	
28	MW-39	659.72	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	657.92	657.53	656.67	656.37	657.89	**********	**********	657.99	**********	
29	MW-40	659.46	**********	**********	**********	**********	**********	**********	**********	**********	655.31	**********	**********	**********	655.96	656.33	653.16	653.56	656.40	653.40	652.18	655.98	655.85	
30	MW-41D	684.02	**********	**********	**********	**********	**********	**********	**********	**********	686.91	**********	**********	**********	687.80	687.98	685.74	685.76	686.56	**********	**********	687.19	**********	
31	MW-42D	683.04	**********	**********	**********	**********	**********	**********	**********	**********	679.43	**********	**********	**********	680.40	680.66	677.34	679.94	680.81	**********	**********	680.18	**********	
32	MW-43	657.9	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	653.32	652.46	**********	**********	**********	**********	**********	655.42	**********	
33	MW-44	654.12	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	648.83	648.98	**********	**********	**********	**********	**********	**********	**********	
34	MW-45	651.13	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	646.09	645.43	**********	646.20	644.75	646.47	646.08	**********	**********	
35	MW-46	650.65	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	644.01	642.61	**********	**********	**********	**********	**********	647.28	**********	
36	MW-47	628.53	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	623.28	621.47	**********	622.83	621.64	625.68	625.69	**********	**********	
37	MW-48	648.57	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	642.77	642.18	**********	642.65	641.57	645.32	645.47	**********	**********	
38	MW-49D	650.69	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	644.86	642.74	**********	**********	**********	**********	**********	647.11	**********	
39	MW-50D	650.27	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	644.56	642.90	**********	**********	**********	**********	**********	646.39	**********	
40	MW-51D	626.64	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	623.21	621.58	**********	**********	**********	**********	**********	625.68	**********	
41	MW-52D	626.7	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	623.06	620.04	**********	**********	**********	**********	**********	624.20	**********	
42	MW-53	639.63	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	631.49	630.13	**********	**********	**********	**********	**********	632.83	**********	
43	MW-54D	639.34	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	631.39	629.88	**********	**********	**********	**********	**********	633.29	**********	
44	MW-55D	639.43	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	630.23	630.51	**********	**********	**********	**********	**********	633.37	**********	
45	MW-56	630.69	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	627.08	627.15	**********	626.87	626.67	627.78	627.74	**********	**********	
46	MW-57D	630.27	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	627.14	627.11	**********	**********	**********	**********	**********	628.60	**********	
47	MW-58D	629.86	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	626.46	625.66	**********	**********	**********	**********	**********	628.53	**********	
48	MW-59	656.83	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	653.63	651.61	654.95	654.93	
49	MW-60	660.15	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	656.90	654.83	658.11	658.13	
50	MW84D-1	667.79	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	664.36	**********	665.03	**********	
51	MW84D-2	635.2	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	630.75	**********	633.49	**********	
52	MW84D-3	648.88	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	645.89	**********	646.91	**********	
53	MW84D-4	661.33	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	655.10	**********	657.39	**********	
54	MW84D-5	652.49	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	646.96	**********	**********	**********	
55	MW84A-1	745.77	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	738.63	**********	**********	**********	
56	MW84A-2	740.98	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	734.53	**********	**********	**********	
57	MW84A-3	739.85	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	734.08	**********	**********	**********	
58	MW18-1	735.54	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	732.14	**********	**********	**********	**********	**********	**********	
59	MW18-2	734.55	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	731.01	**********	**********	**********	**********	**********	**********	
60	MW18-3	735.48	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	731.26	**********	**********	**********	**********	**********	**********	
61	MW17-1	736.27	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	733.47	**********	**********	**********	**********	**********	
62	MW17-2	733.74	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	730.55	**********	**********	**********	**********	**********	
63	MW17-3	732.15	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	729.77	**********	**********	**********	**********	**********	
64	MW17-4	734.58	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	731.58	**********	**********	**********	**********	**********	
65	MW25-3	745.56	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	742.41	**********	**********	**********	**********	**********	

TABLE 5-2 (cont.)

WATER TABLE ELEVATIONS AND DEVELOPMENT OF A SEASONALLY AVERAGED WATER TABLE AT THE ASH LANDFILL

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

	WELL	ELEVATION TOP OF PVC	SEASONAL ARITHMETIC MEAN OF ELEVATIONS (MSL) - per Anderson and Woessner, 1992. 1990	1991	1993	1994	ARITHMETIC MEAN	SAMPLE STANDARD DEVIATION OF ELEVATIONS 1990	1991	1993	1994
1	PT-10	681.58	673.28	673.16	674.09		673.51	1.99	2.97	2.17	
2	PT-11	658.26	651.54	651.16	652.33		651.68	1.76	2.36	1.21	
3	PT-12	652.03	644.56	644.25	645.90		644.90	1.73	2.51	1.35	
4	PT-15	637.64	630.57	629.71	630.78		630.35	2.19	2.68	2.60	
5	PT-16	637.76	633.26	632.68	634.35		633.43	1.47	2.02	0.93	
6	PT-17	640.62	633.97	633.43	635.25		634.21	1.71	3.01	1.53	
7	PT-18	656.59	649.47	649.36	650.73		649.85	1.44	1.96	1.06	
8	PT-19	645.45				640.17	640.17				2.09
9	PT-20	647.28	640.42	638.68	640.98		640.02	1.71	2.40	1.15	
10	PT-21	647.51	640.87	640.09	642.34		641.03	1.91	2.01	3.98	
11	PT-22	648.62	640.76	640.44	641.65		640.95	1.97	2.40	1.50	
12	PT-23	641.54	635.23	634.59	635.33		635.05	1.39	2.06	1.50	
13	PT-24	636.35	631.00	630.39	631.67		631.02	1.12	1.81	0.39	
14	PT-25	637.02	630.47	629.27	631.94		630.56	2.82	3.34	1.84	
15	PT-26	614.64	608.23	606.37	610.24		608.28	3.19	3.85	1.88	
16	MW-27	639.42	633.05	633.25	634.06		633.45	1.67	1.38	1.06	
17	MW-28	637.41	631.19	631.29	632.28		631.58	1.97	1.63	0.46	
18	MW-29	637.33	630.04	629.28	631.25		630.19	2.17	1.84	0.56	
19	MW-30	640.23	632.77	632.36	634.26		633.13	1.64	2.93	2.19	
20	MW-31	636.86	631.36	630.73	632.64		631.64	2.67	2.93	1.91	
21	MW-32	641.65	634.55	634.32	636.47		635.11	1.99	2.35	1.90	
22	MW-33	639.52	632.75	633.29	634.20		633.41	2.37	1.89	2.30	
23	MW-34	632.89			628.38		628.38				
24	MW-35D	631.82			629.08		629.08				
25	MW-36	632.09			629.38	628.66	629.02				1.58
26	MW-37	632.89			629.14		629.14				
27	MW-38D	637.99			633.97		633.97				
28	MW-39	659.72			657.12		657.12				
29	MW-40	659.46			654.75	654.35	654.55				1.87
30	MW-41D	694.02			686.82		686.82				
31	MW-42D	683.04			678.34		678.34				
32	MW-43	657.9			652.89 NSA-2		652.89 NA				
33	MW-44	654.12			647.81 NSA-2		647.81 NA				
34	MW-45	651.13			645.76 NSA-2	646.66	646.88				1.73
35	MW-46	650.65			643.31 NSA-2		643.31 NA				
36	MW-47	628.53			622.38 NSA-2	623.96	623.96				2.05
37	MW-48	646.57			642.48 NSA-2	643.75	643.75				1.95
38	MW-49D	650.69			643.80 NSA-2		643.80 NA				
39	MW-50D	650.27			643.73 NSA-2		643.73 NA				
40	MW-51D	628.64			622.39 NSA-2		622.39 NA				
41	MW-52D	626.7			621.55 NSA-2		621.55 NA				
42	MW-53	639.63			630.81 NSA-2		630.81 NA				
43	MW-54D	639.34			630.64 NSA-2		630.64 NA				
44	MW-55D	639.43			630.37 NSA-2		630.37 NA				
45	MW-56	630.69			627.12 NSA-2	627.27	627.27				0.58
46	MW-57D	630.27			627.13 NSA-2		627.13 NA				
47	MW-58D	629.86			626.06 NSA-2		626.06 NA				
48	MW-59	656.83				653.78	653.78				1.57
49	MW-60	660.15				656.99	656.99				1.55
50	MW64D-1	667.79				664.70 NSA-2	664.70 NA				
51	MW64D-2	635.2				632.12 NSA-2	632.12 NA				
52	MW64D-3	648.88				646.40 NSA-2	646.40 NA				
53	MW64D-4	661.33				658.25 NSA-2	658.25 NA				
54	MW64D-5	652.49				646.96 NSA-1	646.96 NA				
55	MW64A-1	745.77				736.63 NSA-1	736.63 NA				
56	MW64A-2	740.98				734.53 NSA-1	734.53 NA				
57	MW64A-3	739.85				734.08 NSA-1	734.08 NA				
58	MW18-1	735.54			732.14 NSA-1		732.14 NA				
59	MW18-2	734.55			731.01 NSA-1		731.01 NA				
60	MW18-3	735.48			731.26 NSA-1		731.26 NA				
61	MW17-1	736.27				733.47 NSA-1	733.47 NA				
62	MW17-2	733.74				730.55 NSA-1	730.55 NA				
63	MW17-3	732.15				729.77 NSA-1	729.77 NA				
64	MW17-4	734.58				731.58 NSA-1	731.58 NA				
65	MW25-3	745.56				742.41 NSA-1	742.41 NA				
								1.98	2.37	1.58	1.68

Note:
NSA-1 = Not a seasonal average, represents only 1 water elevation for the given year
NSA-2 = Not a seasonal average, represents only 2 water elevations for the given year
NA = Needs Adjusting

TABLE 5-2 (cont.)

WATER TABLE ELEVATIONS AND DEVELOPMENT OF A SEASONALLY AVERAGED WATER TABLE AT THE ASH LANDFILL

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

	WELL	ELEVATION TOP OF PVC	ADJUSTED ARITHMETIC MEAN	COMMENTS	SEASONALLY AVERAGED GROUNDWATER ELEVATION FOR MODEL CALIBRATION (MSL)
1	PT-10	681.58	673.51	no adjustment	673.51
2	PT-11	658.26	651.68	no adjustment	651.68
3	PT-12	652.03	644.90	no adjustment	644.90
4	PT-15	637.64	630.35	no adjustment	630.35
5	PT-16	637.76	633.43	no adjustment	633.43
6	PT-17	640.62	634.21	no adjustment	634.21
7	PT-18	656.59	649.85	no adjustment	649.85
8	PT-19	645.45	640.17	no adjustment	640.17
9	PT-20	647.28	640.02	no adjustment	640.02
10	PT-21	647.51	641.03	no adjustment	641.03
11	PT-22	648.62	640.95	no adjustment	640.95
12	PT-23	641.54	635.05	no adjustment	635.05
13	PT-24	636.35	631.02	no adjustment	631.02
14	PT-25	637.02	630.56	no adjustment	630.56
15	PT-26	614.64	608.28	no adjustment	608.28
16	MW-27	639.42	633.45	no adjustment	633.45
17	MW-28	637.41	631.58	no adjustment	631.58
18	MW-29	637.33	630.19	no adjustment	630.19
19	MW-30	640.23	633.13	no adjustment	633.13
20	MW-31	638.86	631.64	no adjustment	631.64
21	MW-32	641.65	635.11	no adjustment	635.11
22	MW-33	639.52	633.41	no adjustment	633.41
23	MW-34	632.89	628.38	no adjustment	628.38
24	MW-35D	631.82	629.08	no adjustment	629.08
25	MW-36	632.09	629.02	no adjustment	629.02
26	MW-37	632.69	629.14	no adjustment	629.14
27	MW-38D	637.99	633.97	no adjustment	633.97
28	MW-39	659.72	657.12	no adjustment	657.12
29	MW-40	659.46	654.55	no adjustment	654.55
30	MW-41D	694.02	686.82	no adjustment	686.82
31	MW-42D	683.04	678.34	no adjustment	678.34
32	MW-43	657.9	653.78	1 std dev subtracted from Dec '94 elev	653.78
33	MW-44	654.12	648.59	1/2 std dev added to arithmetic mean	648.59
34	MW-45	651.13	646.88	no adjustment	646.88
35	MW-46	650.65	645.82	1 std dev subtracted from Dec '94 elev	645.82
36	MW-47	628.53	623.96	no adjustment	623.96
37	MW-48	648.57	643.75	no adjustment	643.75
38	MW-49D	650.69	645.45	1 std dev subtracted from Dec '94 elev	645.45
39	MW-50D	650.27	644.73	1 std dev subtracted from Dec '94 elev	644.73
40	MW-51D	628.64	624.02	1 std dev subtracted from Dec '94 elev	624.02
41	MW-52D	628.7	622.54	1 std dev subtracted from Dec '94 elev	622.54
42	MW-53	639.63	631.17	1 std dev subtracted from Dec '94 elev	631.17
43	MW-54D	639.34	631.63	1 std dev subtracted from Dec '94 elev	631.63
44	MW-55D	639.43	631.71	1 std dev subtracted from Dec '94 elev	631.71
45	MW-56	630.69	627.27	no adjustment	627.27
46	MW-57D	630.27	626.94	1 std dev subtracted from Dec '94 elev	626.94
47	MW-58D	629.86	626.87	1 std dev subtracted from Dec '94 elev	626.87
48	MW-59	656.83	653.78	no adjustment	653.78
49	MW-60	660.15	656.99	no adjustment	656.99
50	MW64D-1	667.79	663.37	1 std dev subtracted from Dec '94 elev	663.37
51	MW64D-2	635.2	631.83	1 std dev subtracted from Dec '94 elev	631.83
52	MW64D-3	648.88	645.25	1 std dev subtracted from Dec '94 elev	645.25
53	MW64D-4	661.33	655.73	1 std dev subtracted from Dec '94 elev	655.73
54	MW64D-5	652.49	648.20	3/4 std dev added to Jul '94 elev	648.20
55	MW64A-1	745.77	737.87	3/4 std dev added to Jul '94 elev	737.87
56	MW64A-2	740.98	735.77	3/4 std dev added to Jul '94 elev	735.77
57	MW64A-3	739.85	735.32	3/4 std dev added to Jul '94 elev	735.32
58	MW16-1	735.54	730.97	3/4 std dev subtracted from Nov/Dec'93 elev	730.97
59	MW16-2	734.55	729.84	3/4 std dev subtracted from Nov/Dec'93 elev	729.84
60	MW16-3	735.48	730.09	3/4 std dev subtracted from Nov/Dec'93 elev	730.09
61	MW17-1	736.27	731.81	1 std dev subtracted from Dec '94 elev	731.81
62	MW17-2	733.74	728.89	1 std dev subtracted from Dec '94 elev	728.89
63	MW17-3	732.15	728.11	1 std dev subtracted from Dec '94 elev	728.11
64	MW17-4	734.58	729.92	1 std dev subtracted from Dec '94 elev	729.92
65	MW25-3	745.58	740.75	1 std dev subtracted from Dec '94 elev	740.75

Justification for adjustments to obtain seasonal average elevation:
1) Adjustements were based on seasonal data for selected wells for which standard deviations were calculated
2) December through March elevations represent maximum water table and were adjusted down by 1 standard deviation
3) July elevations represent near minimum water table and were adusted up by 3/4 standard deviation.
4) Nov/Dec elevations represent near maximum water table and were adusted down by 3/4 standard deviation.

LEGEND

- AREA OF INACTIVE CELLS
- GROUNDWATER FLOW DIRECTION IN TILL/WEATHERED SHALE AQUIFER
- ACTIVE MODEL BOUNDARY
- CONSTANT-HEAD BOUNDARY
- GROUNDWATER DIVIDE NO-FLOW BOUNDARY
- MODEL CELLS
- MONITORING WELL
- STREAM / CREEK
- INTERMITTENT STREAM
- RAILROAD TRACKS
- GROUND WATER CONTOUR BASED ON SIMULATED HEADS (550.0)
- MEASURED GROUNDWATER CONTOUR BASED ON MEASURED HEADS (650)
- VOC PLUME

N

800 0 800 1600

1' = 1600'

GROUNDWATER CONTOUR INTERVAL IS 10 FEET.

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ASH LANDFILL GROUNDWATER MODEL

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FIGURE 5-5
COMPARISON OF MEASURED AND SIMULATED HEADS

SCALE 1" = 1600' | DATE JANUARY 1996 | REV A

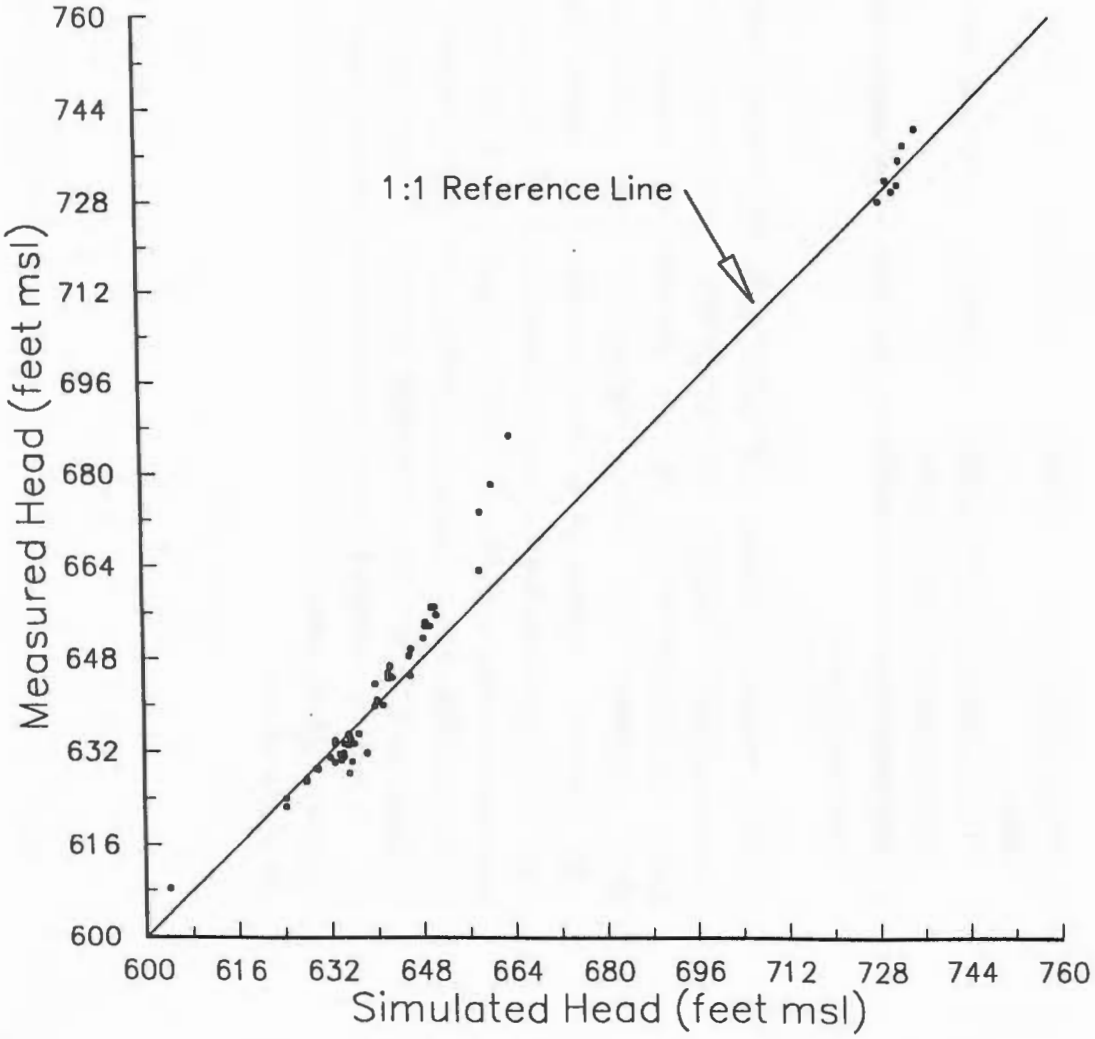
A scatter plot of measured heads versus simulated heads shows the calibration fit for the model (Figure 5-6). The plot shows that the simulated heads depart from the measured (or target) heads between the elevations of approximately 604 and 680 feet above MSL, which corresponds to a drop in land surface slope east of the Ash Landfill (Figures 5-6 and 5-3). A similar departure of simulated heads from the target heads occurs in the western portion of the site at the drop in the land surface near Seneca Lake, however, since no monitoring well data were available from this area to establish the water table in this area, some error would be expected in this area.

A listing of measured and simulated heads, together with their differences and three types of average of the differences are presented in Table 5-3. The average of the differences can be used to quantify the average error in the calibration, with the final objective being to minimize this error. The three types of average are as follows:

1. Mean Error (ME), which is the mean difference between the measured heads and the simulated heads;
2. Mean Absolute Error (MAE), which is the mean of the absolute value of the differences in measured and simulated heads; and
3. Root Mean Squared Error (RMS), which is the average of the squared differences in measured an simulated heads.

To help in evaluating the calibration of the flow model, ME, MAE and RMS were plotted against net recharge, the most significant calibration criterion. The plots indicate that all three averages provide a well-defined minimum (Figure 5-7). Specifically, the ME provided the lowest minimum when a net recharge rate of 0.00486 feet/year (or 0.00001332 feet/day) was used. Hydraulic gradients for the simulated heads at the Ash Landfill are very similar to those for the observed heads. The simulated gradient between till/weathered shale wells PT-18 and PT-17 was 0.014 ft/ft compared to a measured gradient of 0.021 ft/ft. Between wells MW-40 and MW-56, that are also till/weathered shale wells, the simulated gradient was 0.016 ft/ft compared to a gradient of 0.019 ft/ft measured in the field. For the competent shale wells PT-10 and MW-36, a simulated gradient of 0.015 ft/ft was computed while a gradient of 0.025 was measured. Also, there were no significant vertical gradients simulated by the model; this is consistent with vertical gradients measured at the site.

Plot of Simulated versus Measured Heads
Monitoring Wells



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ASH LANDFILL GROUNDWATER MODEL

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FIGURE 5-6
PLOT OF SIMULATED
VERSUS
MEASURED H' S

SCALE NA | DATE JANUARY 1996

TABLE 5-3

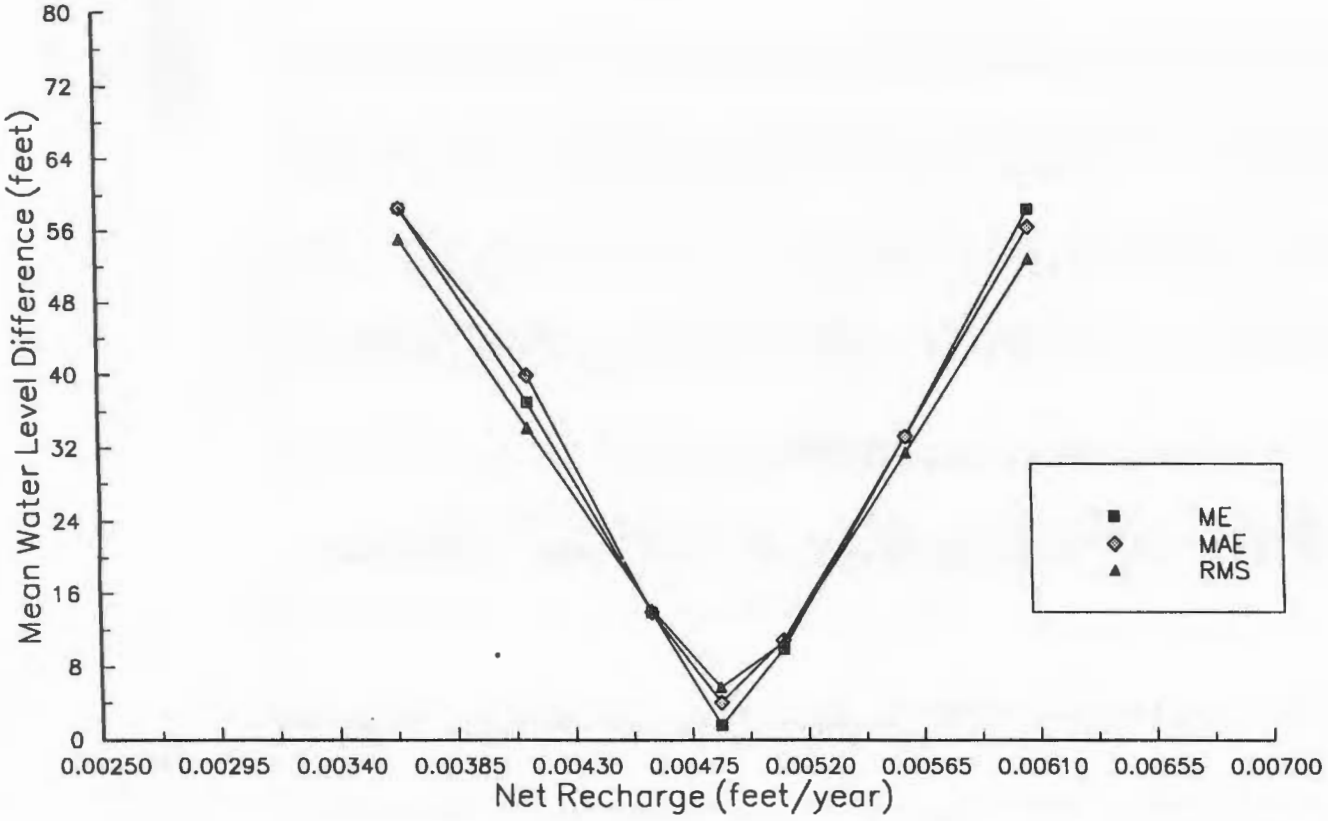
COMPARISON OF MEASURED AND SIMULATED HEADS

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	MODEL HEAD	Difference (feet)	Absolute Difference	Squared Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	736.1	-4.7	4.7	21.66
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	734.0	-3.9	3.9	14.99
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	733.2	-2.1	2.1	4.50
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	730.8	-1.0	1.0	1.03
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	732.9	1.9	1.9	3.74
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	731.9	2.1	2.1	4.25
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	729.5	1.4	1.4	1.92
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	663.9	-22.9	22.9	525.10
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	660.6	-17.7	17.7	314.53
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	658.5	-15.0	15.0	225.28
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	658.3	-5.1	5.1	25.75
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	650.4	-6.7	6.7	45.19
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	649.8	-7.2	7.2	51.73
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	650.7	-5.0	5.0	25.34
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	648.8	-5.8	5.8	33.09
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	648.7	-5.1	5.1	25.81
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	649.6	-4.2	4.2	17.34
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	648.4	-3.3	3.3	10.73
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	646.2	-3.7	3.7	13.32
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	645.9	-2.7	2.7	7.22
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	642.6	-4.3	4.3	18.28
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	642.2	-3.4	3.4	11.73
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	642.2	-3.3	3.3	10.59
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	646.0	0.7	0.7	0.56
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	642.9	-2.0	2.0	4.00
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	642.2	-2.5	2.5	6.42
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	639.9	-3.9	3.9	14.84
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	640.2	-0.8	0.8	0.69
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	640.2	-0.7	0.7	0.56
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	641.3	1.1	1.1	1.28
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	639.8	-0.2	0.2	0.05
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	637.0	1.9	1.9	3.56
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	635.2	0.1	0.1	0.02
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	635.5	1.3	1.3	1.65
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	632.9	-1.1	1.1	1.14
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	634.4	0.9	0.9	0.90
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	632.9	-0.5	0.5	0.28
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	636.2	2.8	2.8	7.77
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	635.1	2.0	2.0	3.89
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	638.4	6.6	6.6	43.11
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	634.3	2.6	2.6	6.69
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	634.3	2.7	2.7	7.05
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	634.3	2.7	2.7	7.11
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	633.6	2.0	2.0	4.07
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	634.4	3.2	3.2	10.41
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	632.0	1.0	1.0	0.97
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	633.9	3.3	3.3	11.17
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	635.8	5.5	5.5	29.71
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	632.8	2.6	2.6	6.83
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	629.6	0.5	0.5	0.22
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	629.9	0.8	0.8	0.67
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	629.9	0.9	0.9	0.78
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	635.3	6.9	6.9	47.85
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	627.9	0.6	0.6	0.40
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	627.9	1.0	1.0	0.91
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	627.9	1.0	1.0	1.05
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	624.3	0.3	0.3	0.08
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	624.3	0.3	0.3	0.12
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	624.3	1.8	1.8	3.08
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	604.0	-4.3	4.3	18.30

Stastical Calculations:

Monitoring Wells	
ME=	-1.58
MAE=	4.03
RMS=	5.71
	32.57



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ASH LANDFILL GROUNDWATER MODEL

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FIGURE 5-7
PLOT SHOWING THE EFFECT OF NET RECHARGE ON ME, MAE, AND RMS

SCALE: NA | DATE: OCTOBER 1995

GRAPHICS\SEN HMODEL\MAMAEPLT.CDR

5.3.2 Water Balance

The water balance also served as a calibration criterion for the groundwater flow model. Two aspects of the water balance (or volumetric budget) were evaluated.

First, the net recharge value (Q_{in}) used to calibrate the flow model (1.332×10^{-5} ft/day or 0.058 in/yr) was approximately the same as the estimated value calculated for the water budget (1.622×10^{-5} ft/day or 0.07 in/yr). Also, there was relatively good agreement between the flows out of the modeled area (Q_{out}) as calculated in the preliminary water budget and in the MODFLOW model. In the preliminary water budget, a total outflow (Q_{out}) of 2,257 ft^3/day was calculated, compared to a total outflow of 2,004 ft^3/day calculated by the model.

Second, the percent error in the volumetric budget as calculated by the MODFLOW model was 0 percent, with a total flow in (Q_{in}) of 2004 ft^3/day (solely from recharge) and a total flow out (Q_{out}) at constant head cells at Seneca Lake of 2,004 ft^3/day. The model calculated a difference between Q_{in} and Q_{out} of -0.077 ft^3/day.

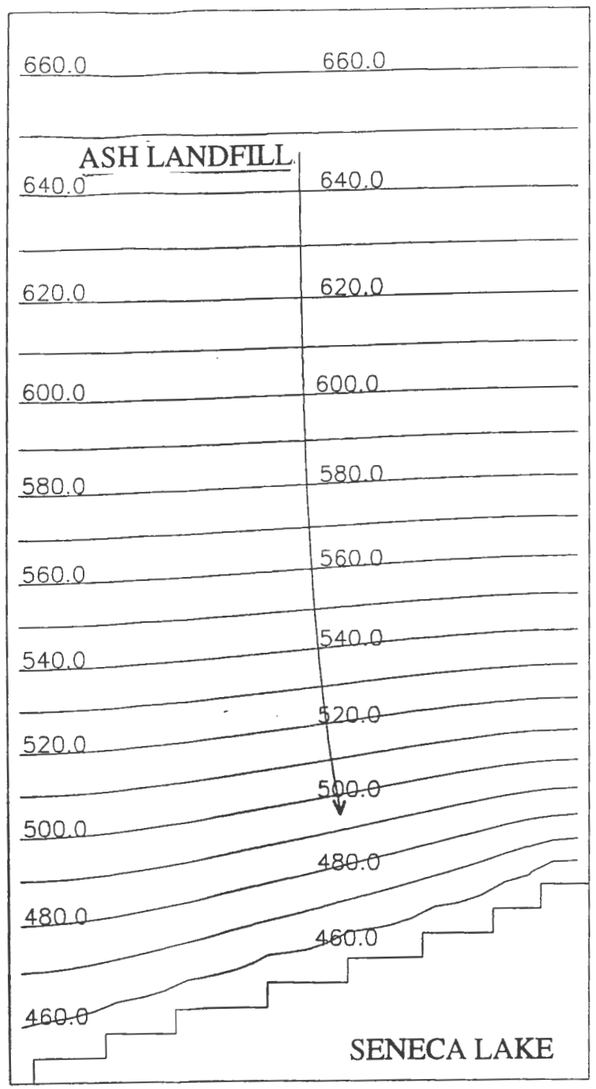
5.3.3 Groundwater Velocity and Advective Travel Time

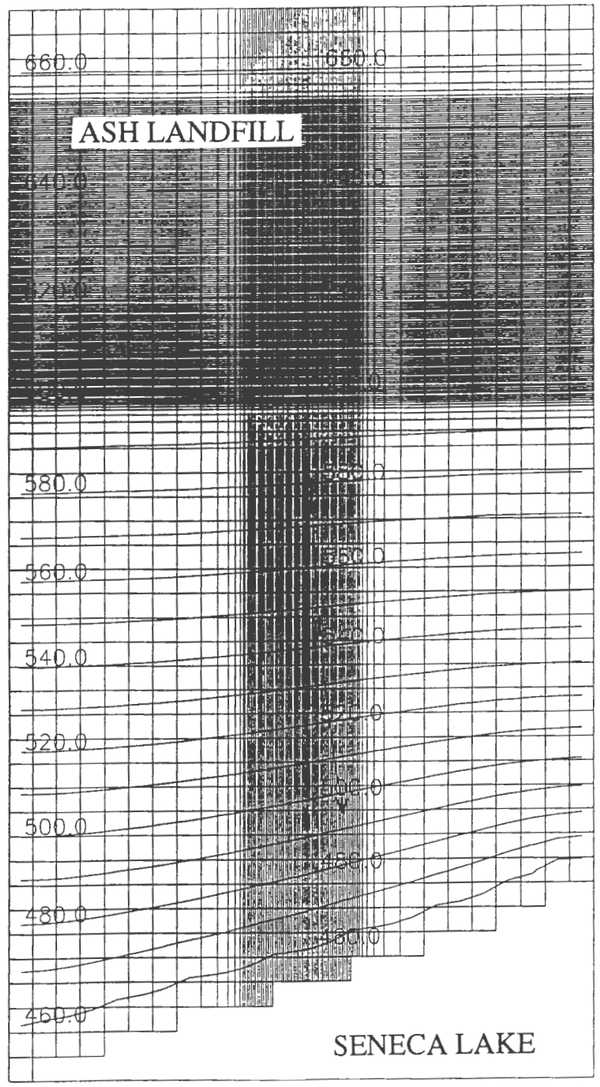
Model calibration was also supported by comparing groundwater velocities calculated using two different methods. The methods are as follows:

- Darcy groundwater velocity equation; and
- Travel time using MODPATH.

Using hydraulic data from the Ash Landfill site, a range of groundwater flow velocities in the till/weathered shale was calculated to be 45.5 ft/year, for an effective porosity of 20%, and 60.7 ft/year, for an effective porosity of 15% (Parsons ES, 1994a). The groundwater velocity in the competent shale was calculated to be 14.3 ft/year.

The model MODPATH was used to calculate the groundwater velocity in layer 1 by determining the time for groundwater to travel a fixed distance in layer 1 (See Appendix E). This is accomplished releasing one particle at the center of a cell, within the Ash Landfill grid matrix, and determining the average travel time for the particle to discharge into layer 2 (Figures 5-8 and 5-9). The process was stopped when the particle entered a cell in layer 2. The particle traveled a total of approximately 8,000 feet in layer 1 before discharging into layer 2 in 1.88E+05 days. The





A. PATHLINE TRACE WITHOUT MODEL GRID

LEGEND:

560.0 LINE OF EQUAL SIMULATED HEAD

PARTICLE PATHLINE TRACE

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SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

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FIGURE 5-8
PATHLINE TRACE FOR A SINGLE PARTICLE RELEASED IN LAYER 1 AT THE ASH LANDFILL

SCALE NA | DATE JANUARY 1996

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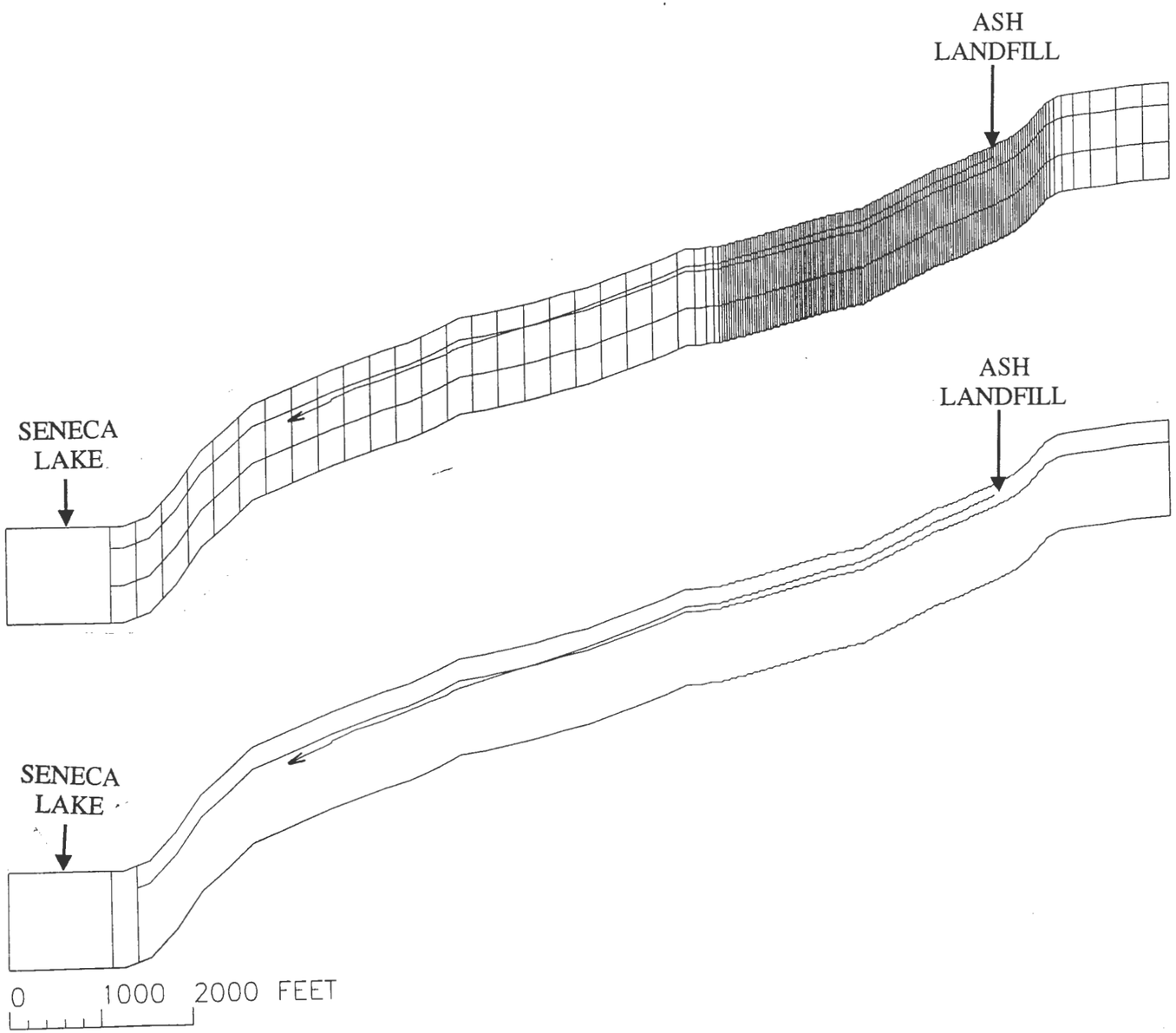

Pathline Trace of One Particle Released in Layer 1 at the Ash Landfill

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ASH LANDFILL GROUNDWATER MODEL

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FIGURE 5-9
CROSS-SECTION PATHLINE TRACE FOR A SINGLE PARTICLE RELEASED IN LAYER 1 AT THE ASH LANDFILL

SCALE NA	DATE JANUARY 1996

GRAPHICS\SENECA\ASHMODEL\SENTMD.CDR

groundwater velocity in this layer was 0.067 feet/day or approximately 25 feet/year. This velocity represents an average velocity for the entire 8,000 foot distance covered by the particle, and is lower when compared to the value calculated from the on-site data. One explanation for this difference may be due to the steeper hydraulic gradient on-site compared to the gradients located west of the site, between the western boundary of SEDA and Route 96A

Also, a plume of sodium was identified at the Ash Landfill and was found to have the same general longitudinal profile as the VOC plume (Figure 5-10). The series of wells included in the profile includes PT-18, PT-12, PT-22, MW-53, and MW-56; MW-40 is a well located directly upgradient of the sodium source. Like the VOC plume, the sodium plume originates in the Ash Landfill area (near PT-18) and extends west to approximately the SEDA boundary. Both plumes are believed to have traveled along the same flow path. In Section 6.0, information from the sodium plume is used to develop a biodegradation constant for the VOCs at the site.

5.4 SENSITIVITY ANALYSIS

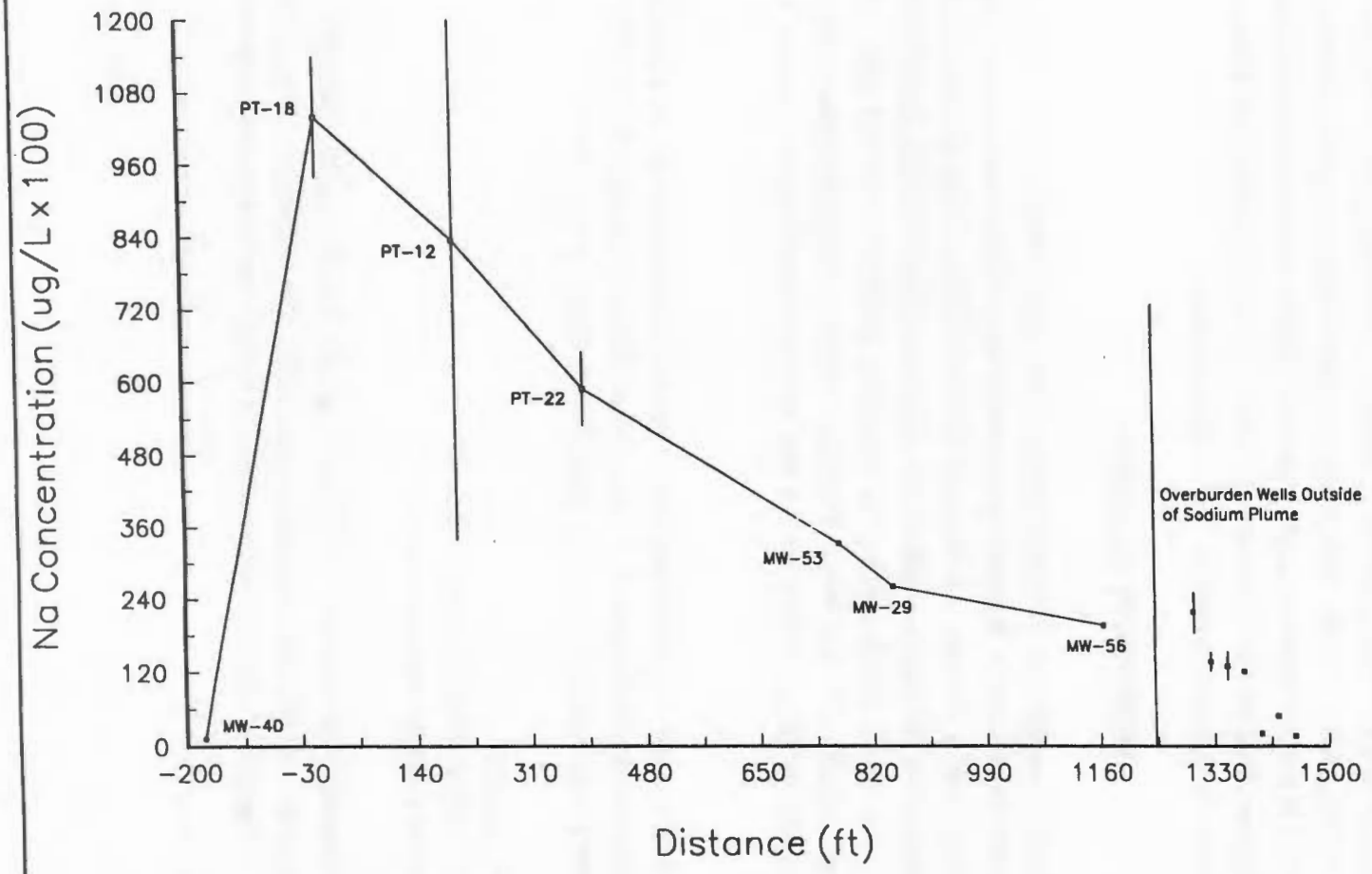
A sensitivity analysis was performed after the flow model was calibrated. The purpose of the sensitivity analysis was to determine how sensitive the calibrated model was to variations in the aquifer parameters, stresses, and boundary conditions. Thus, during the sensitivity analysis the calibrated values for hydraulic conductivity, storage parameters, recharge and boundary conditions were systematically changed within the previously established plausible range (Anderson and Woessner, 1992). For this model, boundary conditions were characterized using well-defined physical and hydrologic boundaries and thus they were not included as part of the sensitivity analysis.

The sensitivity analysis was performed by changing one input parameter at a time and evaluating the effects on the distribution of the heads (the dependent variable) in the model. The input parameters evaluated for the sensitivity analysis of the model were as follows:

1. Net recharge;
2. Horizontal hydraulic conductivity (k_h); and
3. Vertical hydraulic conductivity (k_v).

Each parameter was varied by 10, 20, and 50 percent from its original calibrated value and the resulting effects on the head were noted (Appendix D). The results of the analysis are graphically shown in Figure 5-11. Net recharge appears to be the most sensitive parameter compared to K_h and

SODIUM CONCENTRATIONS IN GROUNDWATER
(Maximum, Minimum, and Average)



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ASH LANDFILL GROUNDWATER MODEL

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FIGURE 5-10
SODIUM CONCENTRATIONS IN GROUNDWATER (MAXIMUM, MINIMUM, AVERAGE)

SCALE	DATE
NA	OCTOBER 1995

GRAPHICS\SENE .MODEL\NA_SLOPE.CDR

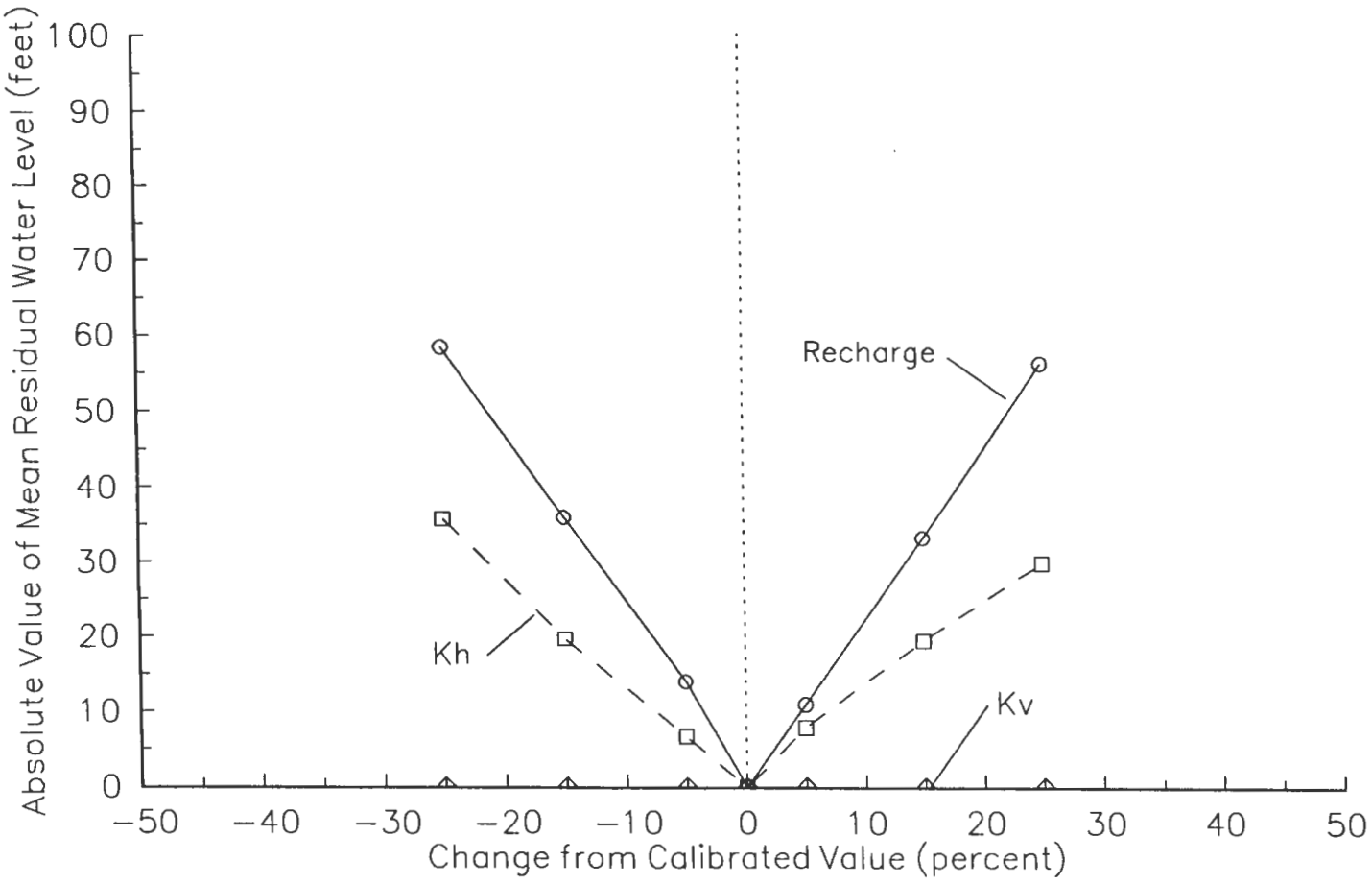

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FIGURE 5-11
PLOT SHOWING THE SENSIVITY OF THE FLOW MODEL TO RECHARGE, Kh, AND Kv

SCALE	DATE
NA	OCTOBER 1995

GRAPHICS\SENECA\ASHMODEL\SENS.CDR

K_v. Changes of up to +/- 25% of the calibrated net recharge value produced a mean residual of approximately 60 feet of piezometric head for the model. For K_h , changes of +/- 25% from the calibrated value produced approximately 30 to 35 foot mean residual. Changes of up to +/- 25 % in K_v produced no measurable changes in head from their calibrated values. Storage parameters were not varied because the model is a steady-state simulation.

5.5 GROUNDWATER FLOW MODEL RESULTS

The steady-state groundwater flow system at the Ash Landfill was simulated by MODFLOW using a stratigraphic three-dimensional grid that extended to 52 feet below the land surface. The model successfully simulated heads over the Ash Landfill site and the surrounding area using well-defined physical and hydraulic boundaries for the flow system. The heads calculated by the model indicate that groundwater flow is primarily to the west in the upper portions of the plateau separating Seneca and Cayuga Lakes. The groundwater flow appears to bend to the southwest as it approaches Seneca Lake (Figure 5-5).

6.0 TRANSPORT MODEL DESIGN AND RESULTS

6.1 SELECTION OF MODEL CODE

The transport modeling portion of this study required a computer code that could simulate important physical and chemical effects in three-dimensional groundwater flow systems. The MT3D computer code was selected to simulate contaminant transport for this project for the following reasons:

- MT3D simulates advection, dispersion, and chemical reactions for contaminants in groundwater flow systems in three dimensions;
- MT3D uses unformatted head and flow files saved in MODFLOW for the transport calculations;
- The accuracy of the MT3D code has been checked against several analytical solutions;
- MT3D includes a mass balance computation;
- MT3D has been used to simulate contaminant transport in numerous studies; and
- MT3D allows the flow model to be constructed and calibrated independently.

The reliability rating for MT3D indicates that it has peer-reviewed theory, it has been verified and field tested, and it has many users (EPA, 1993).

6.2 RELATIONSHIP BETWEEN CONCEPTUAL MODEL AND MT3D NUMERICAL MODEL

The MT3D transport model can be used in conjunction with the block-centered finite-difference MODFLOW model. Thus, the aspects of the conceptual model are preserved in the transport model because MT3D retrieves the hydraulic heads and the various flow and sink/source terms saved by the flow model, automatically incorporating the specified hydrologic boundary conditions.

6.3 ASSIGNMENT OF INPUT PARAMETER VALUES FOR MT3D

The MT3D model uses a modular structure similar to that implemented in MODFLOW. Like the MODFLOW model, the MT3D model uses a main program and complementary series of packages, and each of these packages deals with a single aspect of the transport simulation. Input parameter

values are entered into the main program and the various packages for use in the model. The three model scenarios were simulated using five packages. The packages are as follows:

1. Basic Transport Package;
2. Advection Package;
3. Dispersion Package;
4. Sink & Source Mixing Package; and
5. Chemical Reaction Package.

Input parameter values for the MT3D model were derived from both site investigation data and from the literature (when site-specific data were not available). The parameter values that define and affect contaminant transport are discussed below relative to the package in which they are specified. Three scenarios were simulated for this project, and some of the input parameters varied depending on what scenario was simulated. Table 6-1 presents the selected input parameters for the transport model along with an acceptable range for each value; the best estimates for the parameters used in the model are also presented.

Because MT3D is a complementary program to MODFLOW, it uses the same model boundary and grid conditions that were used for MODFLOW (Figure 6-1). Therefore, none of the physical aspects of the model grid or groundwater flow parameters will be discussed here.

6.3.1 Basic Transport Package Parameters

In the Basic Transport Package, which is the main program, general model characteristics are specified, including: the number of model layers, aquifer layer types, grid dimensions and elevations, the major transport packages to be used, effective porosity values, concentration boundary conditions, the starting concentration field, and various aspects of the model output. For this model, the number of model layers, the aquifer layer types and the grid were the same as that used in the MODFLOW model.

The effective porosities of the till/weathered shale aquifer and the competent shale aquifer were specified as 15% (0.15) and 6% (0.06), respectively. These are the same effective porosities used to calculate the likely range of groundwater velocities in the Ash Landfill RI report (Parsons ES, 1994a).

TABLE 6-1

REASONABLE RANGE, BEST ESTIMATE, AND UNCERTAINTY FOR
MT3D INPUT PARAMETERS

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

Input Parameter	Units	Reasonable Range			Best Estimate	Scource	Uncertainty
		Low	Nominal	High			
Advection Terms:							
Effective Porosity Layer 1	percent	15	15	25	15 (or 0.15)	Literature	low
Effective Porosity Layer 2	percent	6	6	6	6 (or 0.06)	Literature	low
Effective Porosity Layer 3	percent	6	6	6	6 (or 0.06)	Literature	low
Dispersion Terms:							
Long. Dispersivity (L) Layer 1	feet	10	10	30	10	Literature	low
Long. Dispersivity (L) Layer 2	feet	15	20	40	20	Literature	low
Long. Dispersivity (L) Layer 3	feet	15	20	40	20	Literature	low
Ratio of TH / L		0.06	0.1	0.5	0.5	Literature	medium
Ratio of TV / L		0.006	0.01	0.05	0.01	Literature	medium
Coeff. of Molecular Diffusion		0	0	0	0		low
Chemical Reaction Terms:							
Sorption Constant (Kd)	ml/gram	0.006*	0.013^	0.013^	0.013^	Literature	low
Bulk Dry Density (Pb)	gram/cu. cm	1.51	1.69	1.78	1.65	field data	low
k (dissolved phase)	/day	5.0E-06	0.00005	0.0006	0.00005	Literature	low
k (sorbed phase)	/day	5.0E-06	0.00005	0.0006	0.00005	Literature	low

Notes:
1) TH = transverse horizontal dispersivity
2) TV = transverse vertical dispersivity
3) K = first order biodegradation rate constant
4) * = Kd for both cis- and trans-1,2-DCE
5) ^ = Kd for TCE

REEDER CREEK

STREAMLINE NO-FLOW BOUNDARY

SEAD-16

SEAD-25

SEAD-17

ROUTE 96A

ROUTE 96

ASHLANDFILL

SAMPSON STATE PARK

FARMHOUSE

SENECA ARMY DEPOT

GROUNDWATER DIVIDE NO-FLOW BOUNDARY

CONSTANT-HEAD BOUNDARY

SEAD64A

SEAD-64D

STREAMLINE NO-FLOW BOUNDARY

SEAD-50

SENECA LAKE

AIRFIELD

LEGEND

- AREA OF INACTIVE CELLS
- GROUNDWATER FLOW DIRECTION IN TILL/WEATHERED SHALE
- AQUIFER
- ACTIVE MODEL BOUNDARY
- CONSTANT-HEAD BOUNDARY
- GROUNDWATER DIVIDE NO-FLOW BOUNDARY
- MONITORING WELL
- STREAM / CREEK
- INTERMITTENT STREAM
- RAILROAD TRACKS
- GROUND SURFACE ELEVATION CONTOUR (760)
- VOC PLUME

N

800 0 800 1600

1" = 1600'

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FIGURE 6-1
MT3D MODEL GRID AND
BOUNDARY CONDITIONS

SCALE 1" = 1600' | DATE JANUARY 1996 | REV A

For Scenarios 1 and 2, two model cells in the vicinity of wells MW-44 and PT-18 were defined as constant source concentration cells, and the remaining were specified as active cells, subject to the boundary conditions established in the model. For Scenario 3, all of the model cells were active.

For the transport modeling, three initial concentration scenarios were generated for use with the three transport scenarios. Scenario 1 simulated the initial release of COCs to the present day. For Scenario 1, the initial concentration matrix consisted of two point sources that were held constant. Under this scenario, the groundwater, other than in the source area, is initially free of impacts. This scenario was used as a calibration scenario, since the outcome matched the plume size and concentrations prior to the implementation of the source removal effort, completed in June of 1995. Calibration of the model involved establishing input parameters such as dispersion coefficients and degradation rates, in addition to simulating the effects of constant leaching of chlorinated organics to the groundwater.

The intent of Scenario 2, was to evaluate the existing plume of VOCs (TCE, cis- and trans-1,2-DCE, and VC) as depicted in the Ash Landfill RI report over an extended timeframe, had no source removal been performed. The initial modeling concentrations were set at the concentration levels measured and presented in the RI report, prior to the remediation of the source area. A four-point moving average method was used to generate the concentration of cells that did not correspond with monitoring well locations where measured concentrations were available. The source concentrations used for Scenario 1 were also used for Scenario 2. This also included simulation of constant leaching of chlorinated organics to groundwater, similar to the conditions of Scenario 1.

For Scenario 3, the initial concentration field was established as the concentration of VOCs (TCE, cis- and trans-1,2-DCE, and VC) observed after the remediation of the source areas at the Ash Landfill had been completed. A complete round of groundwater quality data, performed in July, 1995, one month after completion of the source remediation program, was used as the basis for Scenario 3. This data was supplemented with additional field data, obtained in February 1996, during the sampling of source area wells that had been reinstalled in October, 1995. These wells were destroyed during the source removal due to their proximity to the source area excavation. These supplemental source area concentrations were combined with concentrations measured in the downgradient wells in July 1995 as the starting concentration field. This concentration field was used to simulate the movement of the plume under the most current site conditions and was used as the initial concentration field for Scenarios 3-A, -B and -C. Again, the four-point moving average method was used to generate the concentrations at model cells that did not correspond with monitoring well locations where measured concentrations were available.

6.3.2 Advection Package Parameters

For this model the hybrid Method of Characteristics/Modified Method of Characteristics (MOC/MMOC), or HMOC, advection solution scheme was used. This solution scheme was chosen because it combines the strengths of MOC and MMOC by using an automatic adaptive scheme that depends on the nature of the concentration field. Thus, the advection term is solved by the MOC technique when sharp concentration fronts are present. Away from sharp concentration fronts the advection term is solved by the MMOC technique. The critical relative concentration gradient for controlling the selective use of either MOC or MMOC in the HMOC solution scheme was 0.01.

The number of cells any particle was allowed to move in any one direction in one transport step (the Courant number) was 1.0. The Runge-Kutta particle tracking algorithm was for all of the model scenarios.

6.3.3 Dispersion Package Parameters

In this package, the dispersion terms for both the till and the competent shale were specified. Because no site-specific dispersivity data were available for the geologic units at the Ash Landfill, the longitudinal dispersivity for the till and the shale were obtained from the literature. A groundwater modeling study cited by Anderson (1979) used longitudinal dispersivities of 3 meters (9.8 ft) for till and 6.1 meters (20.0 ft) for a shale unit directly below the till. Thus, for this model, a longitudinal dispersivity of 10 ft was specified for the till/weathered shale and a longitudinal dispersivity of 20 feet was specified for the competent shale. The ratio of horizontal transverse dispersivity to the longitudinal dispersivity was specified as 0.1. The ratio of vertical transverse dispersivity to the longitudinal dispersivity was specified as 0.01. The effective molecular diffusion coefficient was neglected as this process was not expected to play a major role in contaminant transport.

6.3.4 Sink & Source Mixing Package Parameters

Only the recharge option was activated for the Sink & Source Mixing Package but it was not used to simulate the constant source terms under Scenarios 1 and 2 for the transport model. Thus, no concentration of recharge flux was specified in this package because the constant source concentration terms for the cells that contain MW-44 and PT-18 were defined in the concentration boundary array contained in the Basic Transport Package.

6.3.5 Chemical Reaction Package Parameters

The Chemical Reaction Package was used to simulate the effects of sorption and biodegradation on the movement of VOCs (TCE, cis- and trans-1,2-DCE, and VC) in the aquifer flow system.

Sorption refers to the mass transfer process between the contaminants dissolved in groundwater (solution phase) and the contaminants sorbed on the porous medium (sorbed phase). Additionally, it is generally assumed that equilibrium conditions exist between the solution-phase and the solid-phase concentrations and that the sorption reaction is fast enough relative to the groundwater velocity that it can be treated as instantaneous. MT3D incorporates the sorption isotherms into the transport model through the use of the retardation factor (S.S. Papadopulos & Associates, 1992).

The linear sorption isotherm was used in the transport model. The linear sorption isotherm assumes that the sorbed concentration (C_{sorb}) is directly proportional to the dissolved concentration (C_{diss}) in the following manner :

$$C_{sorb} = K_d \times C_{diss}$$

where:

C_{sorb} = sorbed concentration;
K_d = the distribution coefficient; and
C_{diss} = dissolved concentration.

For linear sorption, the constant of proportionality is known as the distribution coefficient (K_d). For this model, a K_d of 0.013 ml/g was used to represent the sorption term (Looney et al., 1987

The retardation factor was calculated by the model using the equation that follows:

$$R = 1 + \left[\frac{P_b}{P_{or}}\right] K_d$$

where: R = retardation factor
P_b = bulk density of the soil or rock
P_{or} = porosity of soil or rock

K_d = distribution coefficient

For this model, the measured bulk density of 1.69 g/cm^3 was used represent the till (USAEHA, 1984). A effective porosity of 15% (or 0.15) was also used. On the basis of the above data, a retardation factor of 1.2 was calculated using the equation above.

A first-order rate constant was used to represent biodegradation as part of the contaminant transport model. This term was expected to be the most sensitive term in the simulation and represents the only term where COCs are actually removed from the groundwater system. Since the actual site specific biodegradation term is not readily determined, a range of biodegradation constants (k), that could be considered reasonable, were explored using two methods. One method was based on the approach developed by Wiedemeier et al. (1995) that relies on a recalcitrant tracer and historical concentration data to derive the value of k. The other method, developed by Buscheck and Alcantar (1995), derives k from historical data of concentration and distance from the source.

The derivation of the biodegradation rate constant was calculated using a method developed by Wiedemeier et al. (1995), modified for the Ash Landfill site. Wiedemeier et al. (1995) utilized a recalcitrant tracer for determining the degradation rate of a BTEX plume. Trimethylbenzene (TMB), also a constituent of fuels, was shown to posses several qualities that made it an ideal tracer compound. The tracer compound, TMB, was released at the same time as the compounds that were of interest, i.e. BTEX, TMB possessed similar sorption and volatilization potentials as BTEX and was found to be nonbiodegradable. By measuring the concentration of this compound relative to the concentration of other compounds that were biodegradable, at several wells over time, Wiedemeier et al. was able to obtain a first order decay constant. Although Wiedemeier et al. applied this approach to a plume of hydrocarbons, the approach appeared reasonable in developing a degradation rate constant for this site. Initially, the historical groundwater chemistry database was reviewed to identify the presence of any constituents that could be tracer candidates. Such a constituent may have been released coincidentally with the VOCs during the initial release event and possess similar qualities to TMB. Trimethylbenzene could not be used as it was not measured in any downgradient well. Following this review, sodium was selected as the best tracer candidate because the extent and concentrations of sodium paralleled the VOC plume downgradient of the Ash Landfill as it originates near the source area for VOCs and has a historical database that mimics the measured extent of the VOC plume. Sodium is considered to be a good tracer because it is not biodegraded, and is relatively mobile.

Both sodium and VOCs are involved in mechanisms that remove these constituents from groundwater, however, sodium unlike VOCs is affected by exchange mechanisms rather than sorption mechanisms. Dragun (1988) discusses the mechanisms involved in the exchange of cations. The mechanism is governed by the cation exchange capacity (CEC) of the media. Like the sorption reaction of VOCs and soil, the exchange reaction is reversible but unlike the sorption reaction, the exchange reaction involves replacement of one cation from the solid phase with another from solution. This reaction is typically associated with the removal of common cations such as calcium from solution, however, other cations can be involved. In general, trivalent cations are preferentially exchanged over divalent cations, which are in turn preferentially exchanged over monovalent cations, such as sodium. Of the monovalent cations, sodium is one of the weakest adsorbed monovalent cations. The CEC is strongly dependent on the presence of certain types of clay that contain the sites responsible for the exchange. Soils that contain an abundance of the right type of clay will exhibit high CECs, whereas soils that are low in these constituents have low CECs. Since a hierarchy of removal via CEC has been identified, the removal of sodium via this mechanism is limited as groundwater chemistry from the site is dominated by the presence of divalent cations such as calcium, iron and magnesium that would be removed prior to removal of sodium.

The CEC of the soil at the site was not directly measured, and the impact of CEC on the concentration of sodium in the groundwater is not understood. However, from the previous discussion, sodium, a weakly exchanged cation, is not considered to be strongly sorbed to soil and while a comparison of the sorption properties of sodium to TCE and 1,2-DCE cannot be made all three are considered to be weakly sorbed constituents.

The other chemical property compared to the selected tracer, sodium, was volatilization. Sodium and the three compounds of interest (i.e., TCE, cis- and trans-1,2-DCE and VC) do not have similar volatilization properties. The three chlorinated compounds of interest are considered volatile while sodium, an ion in solution, has no volatilization potential. However, although the potential for these differences are great, the actual differences may not be as great as anticipated. While it is likely that volatilization from the dissolved phase to the vapor phase is occurring, the migration of the gas through the soil pore space may be occurring very slowly, thereby minimizing the error. The impermeable nature of the soils and the small concentration differences that were detected to be present in the soil gas would suggest that the driving force for release to the atmosphere may be less than what would be expected.

Therefore, although some uncertainty exists, sodium was selected as the best available tracer for the determination of a biodegradation rate using the method described by Wiedemeier et al. (1995), as modified for the site constituents at the Ash Landfill. Since this technique represented only one way to determine the biodegradation rate constant, the use of the tracer method was deemed appropriate as it would represent a reasonable lower limit of the variable of concern.

The tracer method involves evaluating observed decreases in VOC concentrations and adjusting these concentrations to account for the decrease that can be attributed to biodegradation. To accomplish this, measured concentrations of VOCs are corrected for the effects of dispersion, dilution from recharge, and sorption. As previously mentioned, sodium was selected as the tracer as it is considered to be only slightly adsorbed to soil particles and it is not biodegraded.

According to Wiedemeier et al., "the corrected concentration of a compound is the concentration of the compound that would be expected at one point (B) located downgradient from another point (A) after correcting for the effects of dispersion, dilution from recharge, volatilization, and sorption between points A and B." For this study, the concentrations of the VOCs was corrected using the equation of Wiedemeier et al. (1995) and Wilson et al. (1994) as follows:

$$C_{Bcorr} = C_B \left(\frac{Na_A}{Na_B} \right)$$

where: $C_{B,corr}$ = corrected concentration of compound of interest at Point B
C_B = measured concentration of compound of interest at Point B
Na_A = measured concentration of sodium at Point A
Na_B = measured concentration of sodium at Point B.

Six points along a single flow path parallel to the direction of groundwater flow were chosen for comparison of corrected and observed VOC concentrations to assess the effects of dispersion, dilution, and sorption and to determine the biodegradation rate constant. The raw VOC and sodium data for these wells is presented in Table 6-2. The Na-corrected concentrations are also shown in Table 6-3.

A first-order biological decay rate can be calculated if it can be shown that the biodegradation is a first order process. A log-linear plot of Na-corrected VOC concentration versus downgradient travel time along the flow path is shown in Figure 6-2. Since the semi-log plot of the data produced

TABLE 6-2

VOC AND SODIUM CONCENTRATIONS MEASURED IN SELECTED MONITORING WELLS AT THE ASH LANDFILL

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

Location	1992		1993		AVERAGE	
	VOCs (µg/L)	Sodium (µg/L)	VOCs (µg/L)	Sodium (µg/L)	VOCs (µg/L)	Sodium (µg/L)
PT-18	11,850	114,000.0	13,740	93,900	12,795	103,950
PT-12	384	33,800.0	2,458	133,000	1,421	83,400
PT-22	180	52,800.0	248	64,900	214	58,850
MW-53	NA	NA	55.0	33,000	55.0	33,000
MW-29	72.0	26,200.0	99.0	25,600	85.5	25,900
MW-56	NA	NA	0.2	19,500	0.2	19,500

Note:
1) VOCs = TCE, cis- and trans-1,2-DCE and VC
2) NA = not available

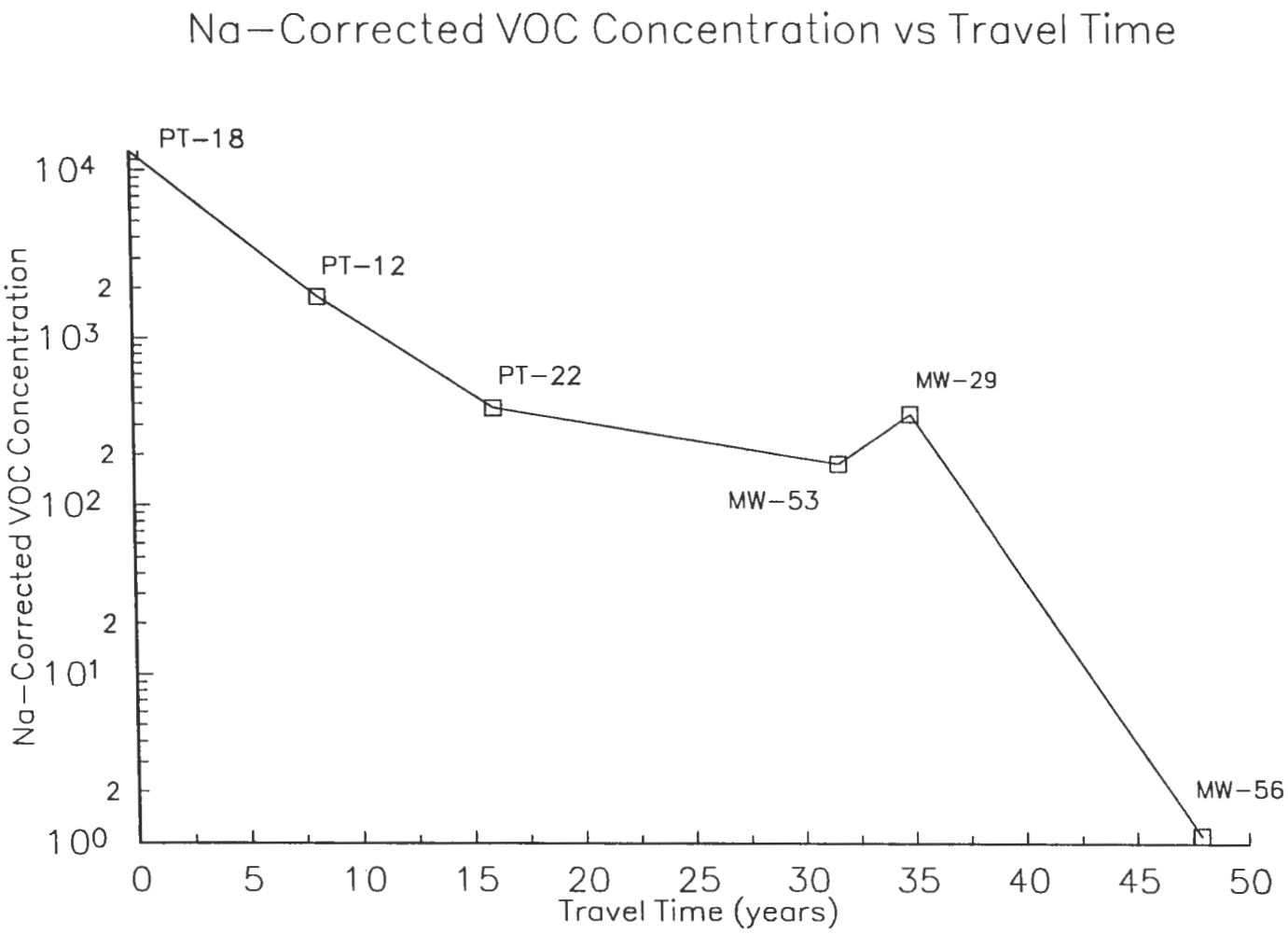
TABLE 6-3

SODIUM-CORRECTED VOC CONCENTRATIONS
AT THE ASH LANDFILL

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

Location	Distance Down-gradient (ft)	Retarded Travel Time from PT-18 (years)	Na-Corrected VOC Concentration (µg/L)	Concentration Ratio (C/Co)
PT-18	0	0	12,795.0	1
PT-12	200	8.22	1,771.1	0.138
PT-22	390	16.03	378.0	0.030
MW-53	770	31.64	173.3	0.014
MW-29	850	34.93	343.2	0.027
MW-56	1,165	47.88	1.1	0.000083

Note:
1. Travel time calculated in years as VOCs (TCE, cis- and trans-1,2-DCE, VC) with a retardation factor of 1.5



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ASH LANDFILL GROUNDWATER MODEL

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FIGURE 6-2
Na-CORRECTED
VOC CONCENTRATIONS VS
TRAVEL TIME

SCALE NA | DATE OCTOBER 1995

GRAPHICS\SENECA\ASHMODEL\TTPLOT.CDR

a reasonably straight line with a correlation coefficient of 0.7, there is evidence to suggest that biodegradation along the flow path is approximated by first-order kinetics.

First order decay can be described by the relationship:

$$C = C_o e^{-kt}$$

where: C = contaminant concentration at time t
C_o = initial contaminant concentration
k = first order decay constant

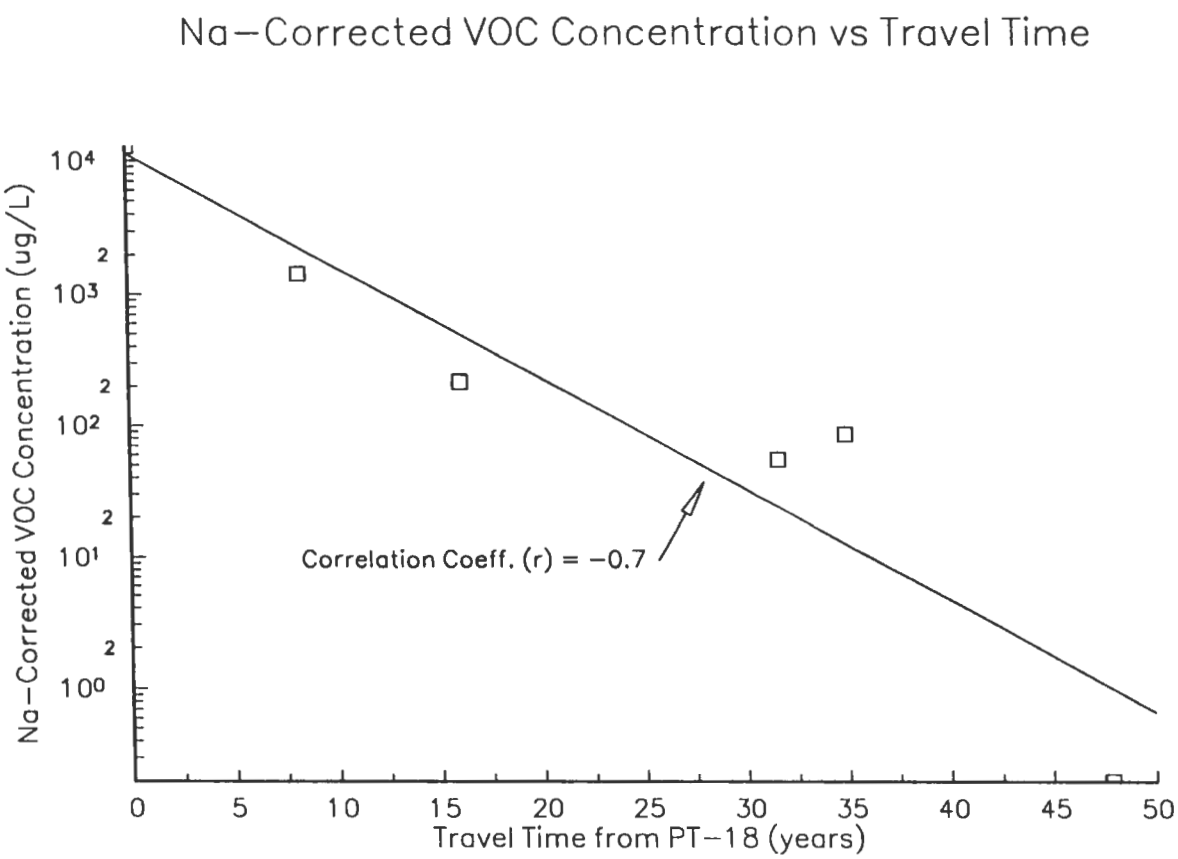
Travel time, t, was calculated as :

$$t = \frac{x}{v}$$

where: t = travel time between two points;
x = distance between two points; and
v = advective groundwater velocity or retarded solute velocity (where applicable).

A first-order exponential decay analysis was performed once the travel times between the points were determined and the total VOC concentrations were corrected for the effects of dilution. The data, in a log-linear form, is presented, with Na-corrected VOC concentrations as the ordinate and travel time from PT-18 in years as the abscissa, as Figure 6-3. A correlation coefficient of -0.7 was obtained for the log-linear straight line, suggesting a reasonable correlation between the two variables. From the graphical depiction of the data, an inverse relationship is evident between the VOC concentration and the distance from PT-18. Since this data is in the form of a straight line, it is possible to determine the biodegradation rate constant. Following the convention of Wiedemeier et al. (1995), the first order biodegradation rate constant for the VOCs was calculated as 0.00005/day.

In an alternative method, Buscheck and Alcantar (1995) derived a relationship that allows calculation of first-order biodegradation rate constants for steady-state plumes. Using this method, a regression analysis is performed on a plot of contaminant concentration (logarithmic scale) versus distance downgradient (linear scale) and coupled to a one-dimensional, steady-state, contaminant



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ASH LANDFILL GROUNDWATER MODEL

DEPT.	DWG NO.
ENVIRONMENTAL ENGINEERING	726209-01002

FIGURE 6-3
Na-CORRECTED
C/C_o CONCENTRATIONS VS
TRAVEL TIME

SCALE	DATE
NA	JANUARY 1996

GRAPHICS\SENECA\ASHMODEL\DEGCONST.CDR

transport that includes advection, dispersion, sorption, and biodegradation. For a steady-state plume, the first-order decay rate is given by the following equation:

$$k = \frac{v_c}{4\alpha_x}\left(\left[1 + 2\alpha_x\left(\frac{k'}{v_x}\right)\right]^2 - 1\right)$$

where:

k= first-order biodegradation rate constant;

v_c = retarded contaminant velocity in the x-direction;

α_x = dispersivity; and

k'/v_x = slope of line formed by making a log-linear plot of contaminant concentration versus distance downgradient along flow path.

As discussed in Section 1.2, there is evidence to suggest that the plume at the Ash Landfill may have reached steady-state because the total VOC concentrations in downgradient wells and in other on-site wells do not indicated that concentrations are increasing over time (Table 1-1 and Figure 1-2). In addition, the site data suggests that the VOC plume has not migrated significantly during over the approximately 8 years of quarterly monitoring.

Using the method of Buscheck and Alcantar (1995), regression analysis was performed on a log-linear plot of VOC concentrations versus distance downgradient from PT-18 [using the same flow paths used in the Wiedemeier et al. (1995) - see Tables 6-2 and 6-3]. The parameters required for the calculation of the biodegradation rate constant (k) were as follows: a retarded contaminant velocity (v_c) of 0.06 ft/day was determined by dividing the groundwater velocity of 26 ft/year (0.071 ft/day) by a retardation factor of 1.2; a dispersivity (α_x) of 10 ft was used, based on values cited in Anderson (1972); the slope of the regression line on the log-linear plot (k/v_x) was determined to be -0.008. The first-order biodegradation rate constant (k) was calculated to be 0.0005/day using the method of Buscheck and Alcantar (1995). This degradation rate is faster than the value calculated by Wiedemeier et al. (1995) of 0.00005/day, but compares favorably with the original rate used in the ODAST modeling.

The two methods used to derive the biodegradation rate constant for the VOCs provided a range of k values and served as the basis for calibrating the model. The lowest value (0.00005/day) would yield the most conservative result and the highest value (0.0005/day) would yield the least conservative result. The model runs presented in Sections 6.4 and 6.5 use mostly the conservative

approach (k = 0.00005), however, less conservative k values were used in Scenario 3 to demonstrate the range of possible model simulation results with the VOC source removed. For the less conservative runs, k values of 0.0005/day and 0.00009/day were used, with the latter value representing the approximate median value between the most conservative and least conservative k values derived earlier in this section.

6.4 MODEL CALIBRATION AND VERIFICATION

6.4.1 Simulation of Plume from Origin with VOC Source - Scenario 1

The transport model was calibrated by simulating the plume migration from its origin at the two source areas (Parsons ES, 1994a). The measured source term concentrations, represented by the concentrations in MW-44 and PT-18 have variability as shown in Table 6-5. For MW-44, the concentration of total VOCs has varied between 132,000 ug/L and 204,000 ug/L. The range of concentration for total VOCs for PT-18 is between 11,400 ug/L and 23,550 ug/L. It is also possible that because these values represent discrete points in a larger source area, the actual source concentration may be higher. Since the source term has variability, Scenario 1 evaluated the effect that different source term concentrations had on the calibration by performing two simulations with differing source term concentrations. However, for each simulation the source concentration was held constant over the model run.

During model calibration, the degradation constant, and the longitudinal and transverse dispersivities were among the parameters adjusted (within the reasonable ranges) to obtain a plume configuration that matched the extent of the measured plume. Although the distribution coefficient (K_d) affects the transport of constituents at the Ash Landfill, the model appeared to calibrate best by varying the biodegradation constant (k) and dispersivity. The biodegradation constant was considered to be the most uncertain variable of those that control the plume configuration and was used for calibration. The expected range of values for k were derived by the two methods described previously

Two source terms were considered and varied to encompass the expected lower and high end of the source concentration. The first source term was represented by concentrations in the cells that contained wells MW-44 and PT-18 and were held constant at 132,000 µg/L and 13,950 µg/L, respectively, with no degradation of the VOC source material. The second term was a modification of the first and was represented by concentrations of the same two wells that were set at 250,000 µg/L and 26,022 µg/L, respectively, with no degradation of the VOC source material. Model runs

Table 6-4

Comparison of Measured and Simulated Concentrations of Total Chlorinated VOCs (ug/L)

Ash Landfill Groundwater Model
Seneca Army Depot Activity

	Biodegradation Constant (k) = 0.00005							
		Source Term One				Source Term Two		
Well	Measured Range of Concentrations in Monitoring Well*	Simulated Concentration at 35 years from time = 0	Simulated Concentration at 40 years from time = 0	Simulated Concentration at 45 years from time = 0	Measured Range of Concentrations in Monitoring Well*	Simulated Concentration at 35 years from time = 0	Simulated Concentration at 40 years from time = 0	Simulated Concentration at 45 years from time = 0
MW-44	132,000 - 204,000	132,000	132,000	132,000	132,000 - 204,000	250,000	250,000	250,000
PT-18	11,400 - 23,550	13,740	13,740	13,740	11,400 - 23,550	26,022	26,022	26,022
MW-45	ND - 0.5	3.8	4.3	4.5	ND - 0.5	7.2	8.1	8.5
MW-46	167 - 202	24,666	24,179	24,119	167 - 202	46,716	45,793	45,681
PT-12	81 - 4,654	1,551	1,547	1,535	81 - 4,654	2,938	2,929	2,907
PT-22	160 - 280	744	788	816	160 - 280	1,410	1,493	1,545
MW-28	58 - 81	319	1,218	2,364	58 - 81	605	2,306	4,478
PT-23	ND - 2.0	553	1,424	2,154	ND - 2.0	1,048	2,697	4,080
MW-53	17 - 55	90	235	368	17 - 55	170	444	698
MW-29	63 - 101	17	82	180	63 - 101	33	156	341
MW-31	ND	0.0	0.0	0.0	ND	0.0	0.0	0.1
PT-24	76 - 116.7	8.3	81	271	76 - 116.7	16	154	514
MW-56	ND - 0.2	0.0	0.2	2.2	ND - 0.2	0.0	0.4	4.1
MW-47	ND	0.0	0.0	0.1	ND	0.0	0.0	0.1

Notes:

1) * = Historical data from 1990 - 1996, although not all wells have data for the full range of these years.
2) Source Term One: MW-44 is 132,000 ug/L and PT-18 is 13,740 ug/L.
3) Source Term Two: MW-44 is 250,000 ug/L and PT-18 is 26,022 ug/L.

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increasing. This information, suggest that this range of k values encompasses the likely range of degradation rate constants.

To determine the degree of model calibration, the simulated plumes (solid contours) were visually compared to the existing plume (dashed contours) for the conditions described with the slowest k value, i.e. 0.00005/day. This output is graphically depicted as Figure 6-4. The geometry of the simulated plumes between 30 and 40 years from the release of VOCs is shown for the existing plume and the simulated plume in the till/weathered shale aquifer (layer 1) (Figure 6-4). This geometry was achieved using the best estimate values for the input parameters shown in Table 6-3. The 10 µg/L contour of the simulated plume at 35 and 40 years extends to the fenced SEDA boundary and lower concentrations extend beyond this boundary in a manner similar to the existing plume. The configuration of the eastern portion of the simulated plume reflects the two source areas of elevated VOCs in soil, which is supported by the results of the soil gas surveys in this area (Parsons ES, 1994a).

The model is believed to be conservative and predicts higher concentrations of VOCs in layers 2 and 3 than were observed in the few bedrock wells located near the source areas (MW-49D, MW-50D and PT-21) (Figures 6-5 and 6-6).

The mass balance discrepancies for the two model runs that were used for the Scenario 1 simulation are shown in Figures 6-7 and 6-8. For the model run to 30 years (Figure 6-7) early mass balance discrepancies of up to 60 % are quickly reduced to less than 6 %, and as the simulation continued the discrepancy held at approximately 6 %. For the model run to 50 years (Figure 6-8) the mass balance discrepancies are approximately the same as for the 30 year model run, however, beyond 30 years they increase to approximately 8 %.

6.5 TRANSPORT MODEL PREDICTIONS

6.5.1 Future Plume Migration with VOC Source - Scenario 2

Scenario 2 was used to simulate the potential maximum migration of the existing plume had the source removal program not be performed. For this simulation, as in Scenario 1, the model used the constant-source concentrations in the cells that contained the monitoring wells MW-44 and PT-18. Again, the use of these concentrations assumes that there has been no degradation of the VOC source material in the soils at these two areas since the time of the release. The most conservative,

30 YEARS FROM T=0

35 YEARS FROM T=0

40 YEARS FROM T=0

LEGEND

SIMULATED VOC PLUME (CONTOUR CONCENTRATIONS IN ug/L)

EXISTING VOC PLUME (CONTOUR CONCENTRATIONS IN ug/L)

MONITORING WELL

RAILROAD TRACKS

760 GROUND SURFACE ELEVATION CONTOUR

N

300 0 300 600

1" = 600'

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SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

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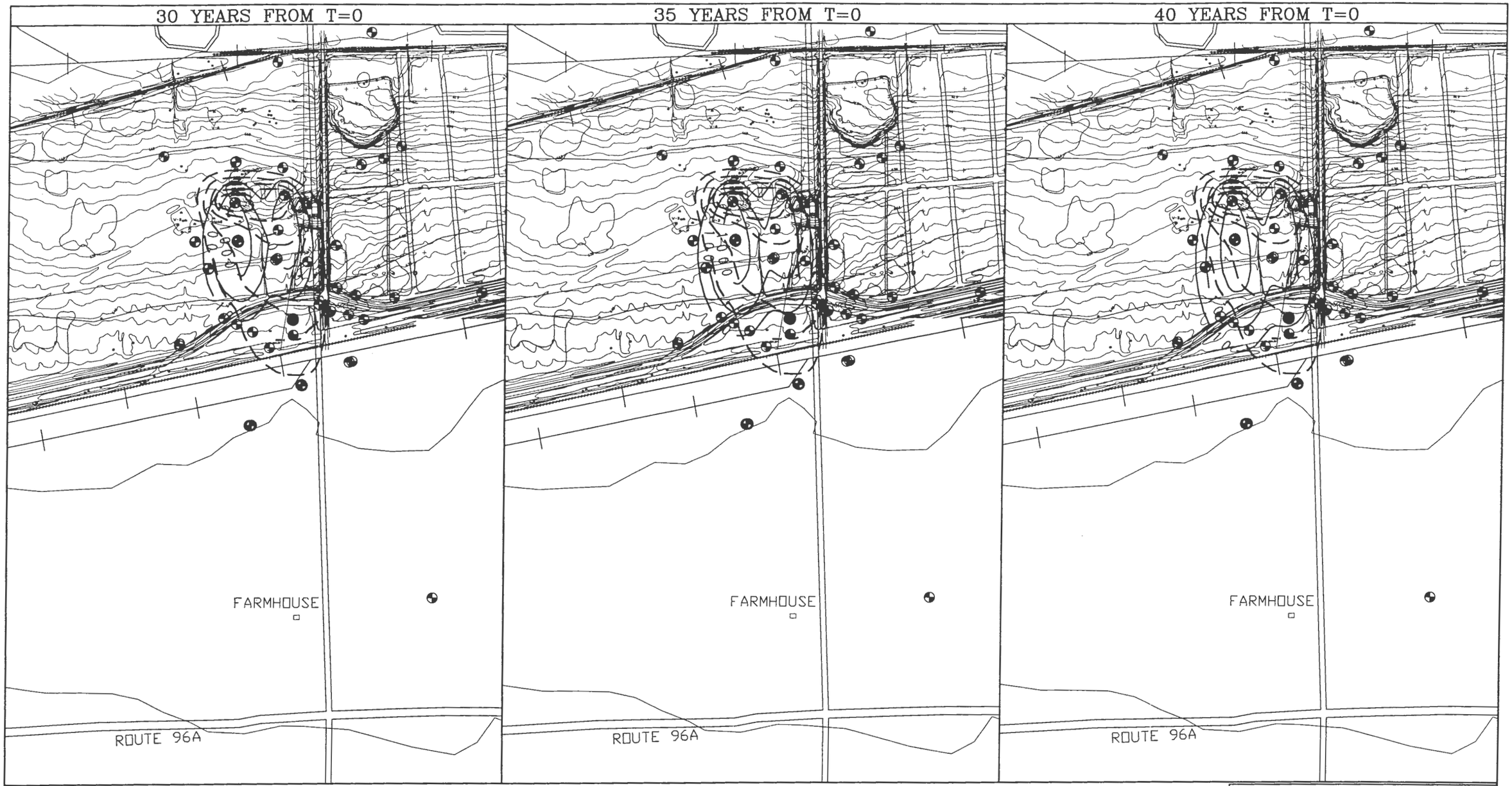
FIGURE 6-4

SIMULATION OF VOC PLUME IN LAYER 1 FROM ORIGIN (t=0) TO 30,35, AND 40 YEARS WITH A CONSTANT SOURCE (SCENARIO 1)

SCALE 1" = 600' | DATE JANUARY 1996 | REV A



LEGEND

SIMULATED VOC PLUME (CONTOUR CONCENTRATIONS IN ug/L)

EXISITING VOC PLUME (CONTOUR CONCENTRATIONS IN ug/L)

MONITORING WELL

RAILROAD TRACKS

760 GROUND SURFACE ELEVATION CONTOUR

N

300 0 300 600

1" = 600'

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FIGURE 6-5

SIMULATION OF VOC PLUME IN LAYER 2 FROM ORIGIN (t=0) TO 30,35, AND 40 YEARS WITH A CONSTANT SOURCE (SCENARIO 1)

SCALE 1" = 600' | DATE JANUARY 1996 | REV A

30 YEARS FROM T=0

35 YEARS FROM T=0

40 YEARS FROM T=0

FARMHOUSE

ROUTE 96A

LEGEND

SIMULATED VOC PLUME (CONTOUR CONCENTRATIONS IN ug/L)

EXISITING VOC PLUME (CONTOUR CONCENTRATIONS IN ug/L)

MONITORING WELL

RAILROAD TRACKS

760 GROUND SURFACE ELEVATION CONTOUR

N

300 0 300 600

1" = 600'

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ASH LANDFILL GROUNDWATER MODEL

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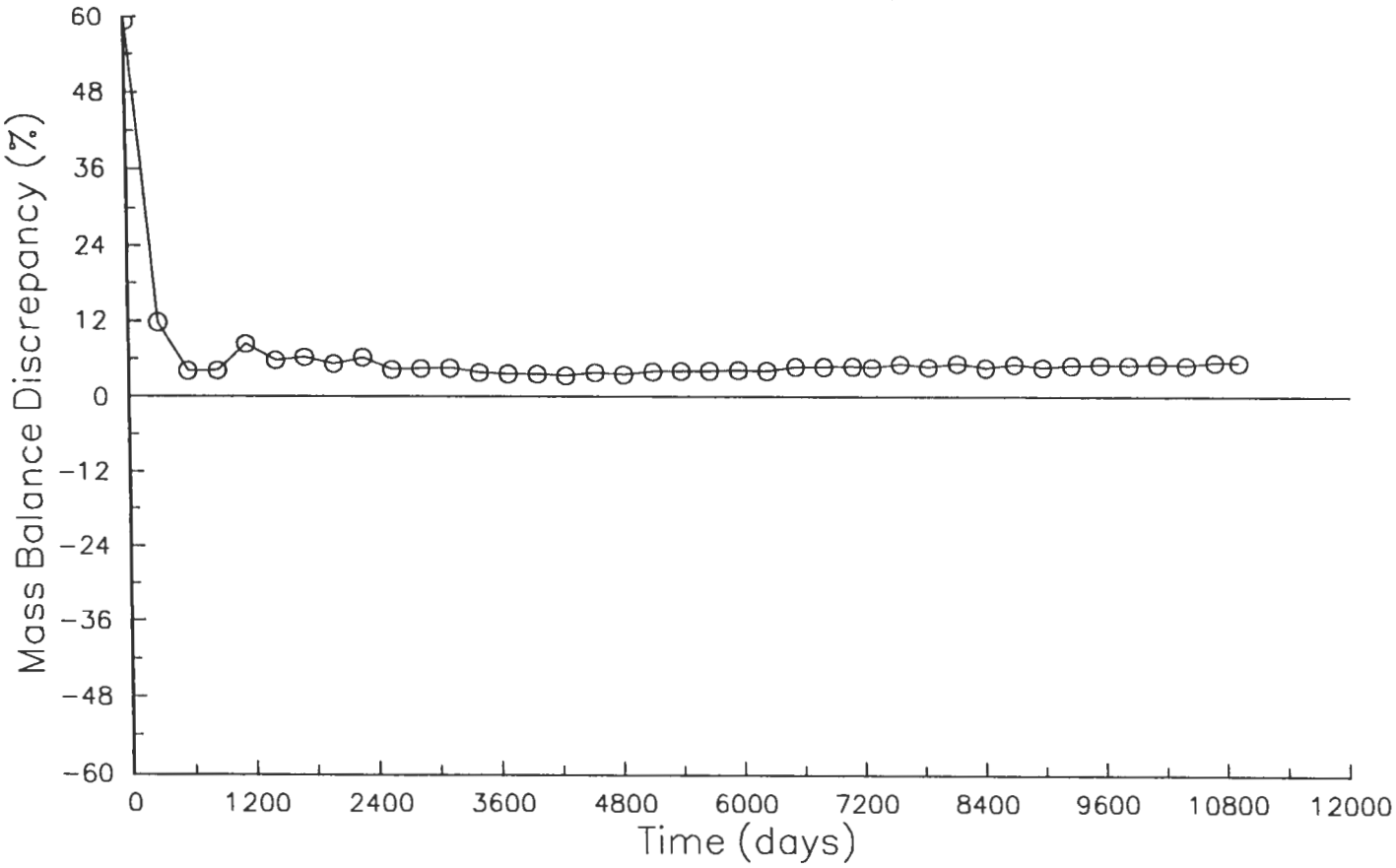
FIGURE 6-6

SIMULATION OF VOC PLUME IN LAYER 3 FROM ORIGIN (t=0) TO 30, 35, AND 40 YEARS WITH A CONSTANT SOURCE (SCENARIO 1)

SCALE 1" = 600' | DATE JANUARY 1996 | REV A



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ASH LANDFILL GROUNDWATER MODEL

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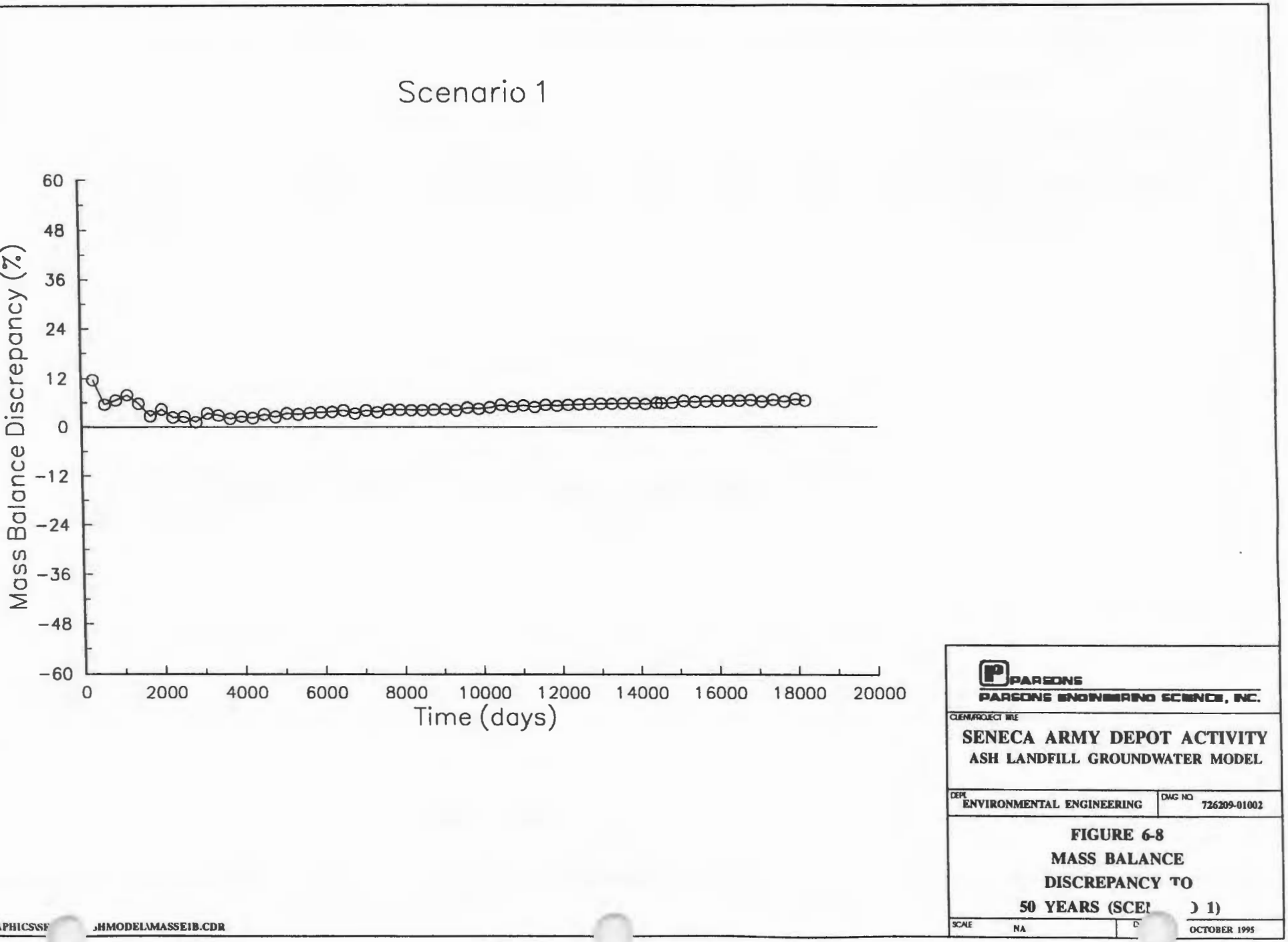
FIGURE 6-7
MASS BALANCE
DISCREPANCY TO
30 YEARS (SCENARIO 1)

SCALE NA | DATE OCTOBER 1995

GRAPHICS\SENECA\ASHMODEL\MASSE1A.CDR



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SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT: ENVIRONMENTAL ENGINEERING | DWG NO: 726209-01002

FIGURE 6-8
MASS BALANCE
DISCREPANCY TO
50 YEARS (SCE!) 1)

SCALE: NA | D: OCTOBER 1995

GRAPHICS\SF ..HMODEL\MASSE1B.CDR

slowest, degradation constant k, i.e 0.00005/day, was used to degrade the groundwater plume in the plume area outside the source areas.

Snapshots of the simulated plume at 30, 50, and 100 years from the present are shown in Figures 6-9, 6-10 and 6-11. At 30 years the model predicts that the plume in layer 1 will have migrated off-site, with the 10 µg/L contour approximately 700 feet west of the SEDA boundary (Figure 6-9). At 50 years the 10 µg/L contour will reach to approximately 1000 feet beyond this boundary and the 100 and 1,000 µg/L contours will also extend beyond the boundary (Figure 6-9). By 100 years from the present the 10 µg/L contour will have reached the farmhouse and significant areas west of the SEDA boundary will have been impacted by concentrations of VOCs greater than 100 to 1,000 µg/L (Figure 6-9). By this time, the model predicts that the plume will have more than doubled in length compared to its existing configuration.

Not unexpectedly, the concentrations predicted for layers 2 and 3 are smaller than those for the layer 1 (Figures 6-10 and 6-11). However, they are likely to reflect a worst-case impact because the calibration run in Scenario 1 indicated that concentrations in layer 2 and 3 are higher than those observed in bedrock wells.

The mass balance discrepancy for the model run that was used for the Scenario 2 simulation is shown in Figure 6-12. The model was run for 100 years and the mass balance error is stabilized at approximately 8 % by the end of the model run.

6.5.2 Future Plume Migration without VOC Source - Scenario 3

The modeling performed as part of Scenario 3 was intended to evaluate the potential future migration of the plume now that the VOC source was eliminated. The source soils were removed as part of a removal action at the Ash Landfill between December 1994 and May 1995 (Parsons ES, 1994b and IT Corp, 1995). Also, approximately 900,000 gallons of groundwater in the vicinity of the source soils were removed and treated during this remedial event. For this scenario, the model used different starting concentrations from the previous two scenarios since, based on the results of two groundwater sampling events performed after the removal action, one in July 1995 and another in February 1996, the source concentrations had been reduced. This was expected since the source removal action removed several thousand gallons of groundwater in addition to the source of continual groundwater impacts.

approach (k = 0.00005), however, less conservative k values were used in Scenario 3 to demonstrate the range of possible model simulation results with the VOC source removed. For the less conservative runs, k values of 0.0005/day and 0.00009/day were used, with the latter value representing the approximate median value between the most conservative and least conservative k values derived earlier in this section.

6.4 MODEL CALIBRATION AND VERIFICATION

6.4.1 Simulation of Plume from Origin with VOC Source - Scenario 1

The transport model was calibrated by simulating the plume migration from its origin at the two source areas (Parsons ES, 1994a). The measured source term concentrations, represented by the concentrations in MW-44 and PT-18 have variability as shown in Table 6-5. For MW-44, the concentration of total VOCs has varied between 132,000 ug/L and 204,000 ug/L. The range of concentration for total VOCs for PT-18 is between 11,400 ug/L and 23,550 ug/L. It is also possible that because these values represent discrete points in a larger source area, the actual source concentration may be higher. Since the source term has variability, Scenario 1 evaluated the effect that different source term concentrations had on the calibration by performing two simulations with differing source term concentrations. However, for each simulation the source concentration was held constant over the model run.

During model calibration, the degradation constant, and the longitudinal and transverse dispersivities were among the parameters adjusted (within the reasonable ranges) to obtain a plume configuration that matched the extent of the measured plume. Although the distribution coefficient (K_d) affects the transport of constituents at the Ash Landfill, the model appeared to calibrate best by varying the biodegradation constant (k) and dispersivity. The biodegradation constant was considered to be the most uncertain variable of those that control the plume configuration and was used for calibration. The expected range of values for k were derived by the two methods described previously

Two source terms were considered and varied to encompass the expected lower and high end of the source concentration. The first source term was represented by concentrations in the cells that contained wells MW-44 and PT-18 and were held constant at 132,000 µg/L and 13,950 µg/L, respectively, with no degradation of the VOC source material. The second term was a modification of the first and was represented by concentrations of the same two wells that were set at 250,000 µg/L and 26,022 µg/L, respectively, with no degradation of the VOC source material. Model runs

from 35 years, 40 years and one to 45 years, were used to generate the simulated plume data. The biodegradation constant, k, was selected for each source terms and each time. For the first run, the k value selected represented the higher, i.e. faster, end of the expected range, i.e. 0.0005/day. For the second run, the k value selected represented the lower, i.e., slower, end of the expected range of biodegradation rate constants, i.e., 0.00005/day. Predicted concentrations for selected points that corresponded to monitoring well locations were obtained as model output. These predicted concentrations were then compared to the range of measured concentrations as shown in Table 6-4.

The output suggests a reasonably close match to actual plume dimensions for both k values. As shown in Table 6-4, for the faster degradation rate constant, 0.0005/day, the downgradient concentrations at PT-12, PT-23 and MW-45 were within the range of measured values regardless of the source term used. Several other downgradient wells such as MW-31, MW-56 and MW-47 also confirmed that the plume did not migrate beyond the known boundary as the measured concentrations were the same as the model concentrations, which were non-detect. The model predicted lower concentrations than what was measured at PT-22 and MW-28 but predicted higher concentrations than what was measured at MW-46. Under this scenario it appears that the predicted concentrations reached an upper limit and remained constant, suggesting that steady state had been achieved.

Table 6-4 provides a comparison between the measured values at the same selected wells and model output values for the lower degradation rate constant, 0.00005/day. Under this scenario, the predicted downgradient concentrations at PT-12, PT-29 and PT-24 were within the range of measured values regardless of the source term used. Although the predicted concentration range at PT-29 and PT-24 were within the range, the concentrations at these wells appear to be increasing beyond the measured range. The downgradient wells, MW-31 and MW-47 also confirmed that the plume did not migrate beyond the known boundary as the measured concentrations were the same as the model concentrations, which were non-detect. Under this scenario, the model predicted higher concentrations than what was measured at wells MW-45, MW-46, PT-22, MW-28, PT-23 and MW-53. Under this scenario, it appears that the concentration in several wells, in particular the wells along the plume boundary, were increasing, suggesting that steady state had not been achieved.

Overall, the two scenarios suggest that the faster k value predicts lower than expected concentrations at several wells and steady state is attained, whereas, the slower k value predicts concentrations that are higher than what was measured and the concentrations in several wells are

Table 6-4

Comparison of Measured and Simulated Concentrations of Total Chlorinated VOCs (ug/L)

Ash Landfill Groundwater Model
Seneca Army Depot Activity

	Biodegradation Constant (k) = 0.0005							
		Source Term One				Source Term Two		
Well	Measured Range of Concentrations in Monitoring Well*	Simulated Concentration at 35 years from time = 0	Simulated Concentration at 40 years from time = 0	Simulated Concentration at 45 years from time = 0	Measured Range of Concentrations in Monitoring Well*	Simulated Concentration at 35 years from time = 0	Simulated Concentration at 40 years from time = 0	Simulated Concentration at 45 years from time = 0
MW-44	132,000 - 204,000	132,000	132,000	132,000	132,000 - 204,000	250,000	250,000	250,000
PT-18	11,400 - 23,550	13,740	13,740	13,740	11,400 - 23,550	26,022	26,022	26,022
MW-45	ND - 0.5	0.1	0.1	0.1	ND - 0.5	0.1	0.1	0.1
MW-46	167 - 202	2,329	2,262	2,418	167 - 202	4,509	4,290	4,364
PT-12	81 - 4,654	151	150	153	81 - 4,654	289	286	288
PT-22	160 - 280	15	15	15	160 - 280	27	28	28
MW-28	58 - 81	1.4	2.5	3.0	58 - 81	2.6	4.7	5.7
PT-23	ND - 2.0	2.5	3.4	3.7	ND - 2.0	4.7	6.4	7.0
MW-53	17 - 55	0.3	0.5	0.5	17 - 55	0.6	0.9	1.0
MW-29	63 - 101	0.1	0.1	0.2	63 - 101	0.1	0.2	0.3
MW-31	ND	0.0	0.0	0.0	ND	0.0	0.0	0.0
PT-24	76 - 116.7	0.0	0.1	0.2	76 - 116.7	0.0	0.2	0.4
MW-56	ND - 0.2	0.0	0.0	0.0	ND - 0.2	0.0	0.0	0.0
MW-47	ND	0.0	0.0	0.0	ND	0.0	0.0	0.0

Notes:

1) * = Historical data from 1990 - 1996, although not all wells have data for the full range of these years.
2) Source Term One: MW-44 is 132,000 ug/L and PT-18 is 13,740 ug/L.
3) Source Term Two: MW-44 is 250,000 ug/L and PT-18 is 26,022 ug/L.

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Table 6-4

Comparison of Measured and Simulated Concentrations of Total Chlorinated VOCs (ug/L)

Ash Landfill Groundwater Model
Seneca Army Depot Activity

	Biodegradation Constant (k) = 0.00005							
		Source Term One				Source Term Two		
Well	Measured Range of Concentrations in Monitoring Well*	Simulated Concentration at 35 years from time = 0	Simulated Concentration at 40 years from time = 0	Simulated Concentration at 45 years from time = 0	Measured Range of Concentrations in Monitoring Well*	Simulated Concentration at 35 years from time = 0	Simulated Concentration at 40 years from time = 0	Simulated Concentration at 45 years from time = 0
MW-44	132,000 - 204,000	132,000	132,000	132,000	132,000 - 204,000	250,000	250,000	250,000
PT-18	11,400 - 23,550	13,740	13,740	13,740	11,400 - 23,550	26,022	26,022	26,022
MW-45	ND - 0.5	3.8	4.3	4.5	ND - 0.5	7.2	8.1	8.5
MW-46	167 - 202	24,666	24,179	24,119	167 - 202	46,716	45,793	45,681
PT-12	81 - 4,654	1,551	1,547	1,535	81 - 4,654	2,938	2,929	2,907
PT-22	160 - 280	744	788	816	160 - 280	1,410	1,493	1,545
MW-28	58 - 81	319	1,218	2,364	58 - 81	605	2,306	4,478
PT-23	ND - 2.0	553	1,424	2,154	ND - 2.0	1,048	2,697	4,080
MW-53	17 - 55	90	235	368	17 - 55	170	444	698
MW-29	63 - 101	17	82	180	63 - 101	33	156	341
MW-31	ND	0.0	0.0	0.0	ND	0.0	0.0	0.1
PT-24	76 - 116.7	8.3	81	271	76 - 116.7	16	154	514
MW-56	ND - 0.2	0.0	0.2	2.2	ND - 0.2	0.0	0.4	4.1
MW-47	ND	0.0	0.0	0.1	ND	0.0	0.0	0.1

Notes:

1) * = Historical data from 1990 - 1996, although not all wells have data for the full range of these years.
2) Source Term One: MW-44 is 132,000 ug/L and PT-18 is 13,740 ug/L.
3) Source Term Two: MW-44 is 250,000 ug/L and PT-18 is 26,022 ug/L.

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30 YEARS FROM PRESENT

50 YEARS FROM PRESENT

100 YEARS FROM PRESENT

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LEGEND

SIMILATED VOC PLUME
(CONTOUR CONCENTRATIONS
IN ug/L)

MONITORING WELL

RAILROAD TRACKS

760 GROUND SURFACE ELEVATION CONTOUR

N

300 0 300 600

1" = 600'

PARSONS

PARSONS ENGINEERING SCIENCE, INC.

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SENECA army DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

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FIGURE 6-9

SIMULATION OF EXISTING VOC PLUME IN LAYER 1 WITH CONSTANT SOURCE AT 30,50, AND 100 YEARS FROM THE PRESENT (SCENARIO 2)

SCALE 1" = 600' | DATE JANUARY 1998 | REV. A

30 YEARS FROM PRESENT

50 YEARS FROM PRESENT

100 YEARS FROM PRESENT

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LEGEND

SIMILATED VOC PLUME (CONTOUR CONCENTRATIONS IN ug/L)

MONITORING WELL

RAILROAD TRACKS

760 GROUND SURFACE ELEVATION CONTOUR

N

300 0 300 600

1" = 600'

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ASH LANDFILL GROUNDWATER MODEL

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FIGURE 6-10

SIMULATION OF EXISTING VOC PLUME IN LAYER 2 WITH CONSTANT SOURCE AT 30,50, AND 100 YEARS FROM THE PRESENT (SCENARIO 2)

SCALE 1" = 600' | DATE JANUARY 1996 | REV A

30 YEARS FROM PRESENT

50 YEARS FROM PRESENT

100 YEARS FROM PRESENT

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LEGEND

SIMILATED VOC PLUME (CONTOUR CONCENTRATIONS IN ug/L)

MONITORING WELL

RAILROAD TRACKS

760 GROUND SURFACE ELEVATION CONTOUR

N

300 0 300 600

1" = 600'

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SENECA army DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

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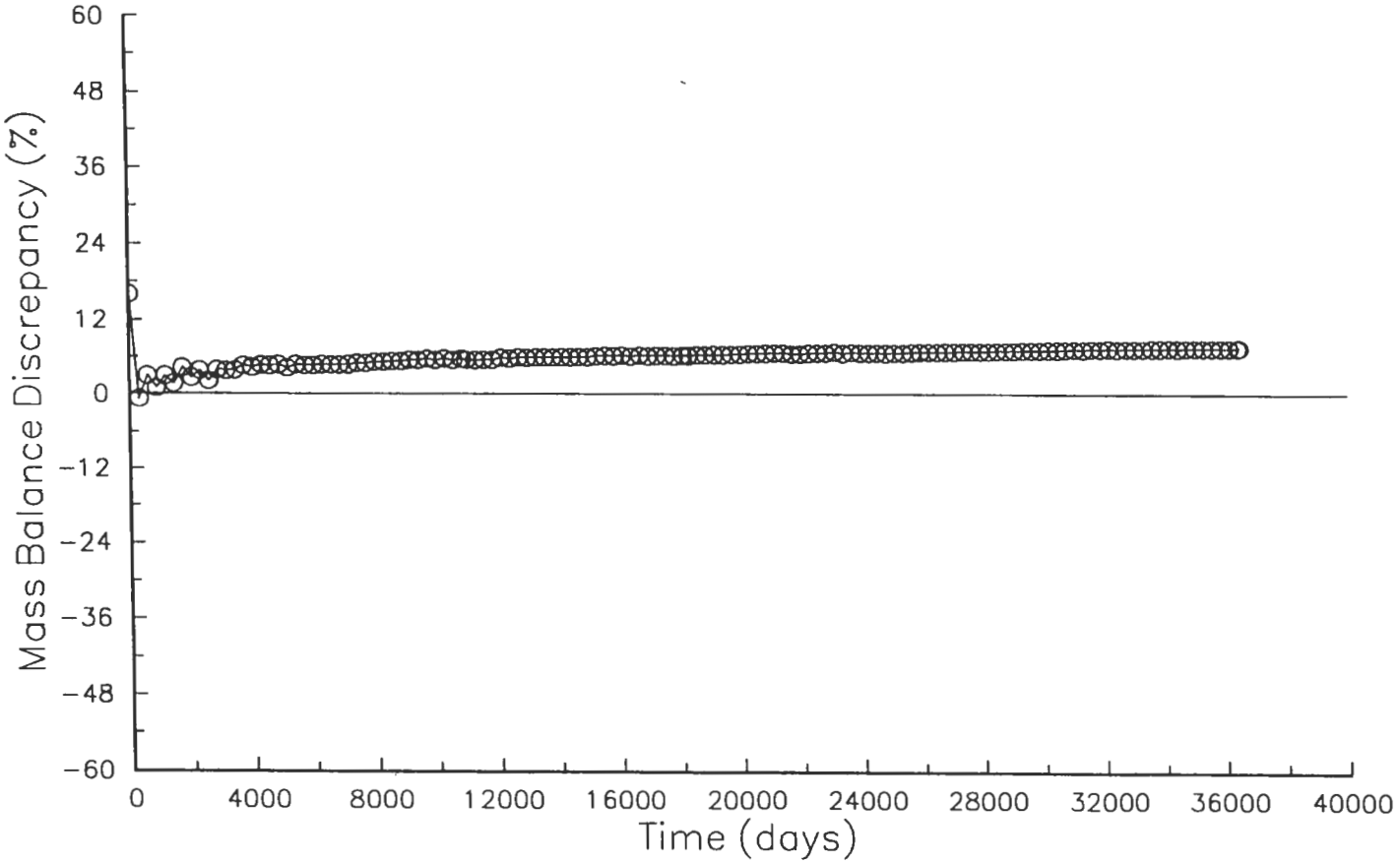
FIGURE 6-11

SIMULATION OF EXISTING VOC PLUME IN LAYER 3 WITH CONSTANT SOURCE AT 30,50, AND 100 YEARS FROM THE PRESENT (SCENARIO 2)

SCALE 1" = 600' | DATE JANUARY 1996 | REV A



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PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE

SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT.	DWG NO.
ENVIRONMENTAL ENGINEERING	726209-01002

FIGURE 6-12
MASS BALANCE DISCREPANCY TO 100 YEARS (SCENARIO 2)

SCALE	DATE
NA	OCTOBER 1995

GRAPHICS\SENECA\ASHMODEL\MASSE2B.CDR

Scenario 3 was comprised of 4 simulation runs, 3, 3-A, 3-B, and 3-C. These runs evaluated different components of this scenario, such as starting concentrations and degradation constant values that are considered to be plausible for the site. Because two different k values were calculated in Section 6.5.3 and shown to represent the likely range of degradation rates it was necessary to consider a range of k values. There is also uncertainty in the time of the release that was consider as part of Scenario 1 that was also considered as part of these scenarios. These scenarios were established to consider what would occur over the expected range of k values, from a conservative value of 0.00005/day to a less conservative value of 0.0005/day. The 4 simulation runs under Scenario 3 are as follows:

1. Scenario 3: July 1995 starting concentration field and k of 0.00005/day;
2. Scenario 3-A: February 1996 starting concentration field and k of 0.00005/day;
3. Scenario 3-B: February 1996 starting concentration field and k of 0.0005/day; and
4. Scenario 3-C: February 1996 starting concentration field and k of 0.000009/day.

Scenario 3

For Scenario 3, the July 1995 post-remediation starting concentrations were headed by a maximum concentration of 23,000 µg/L, which was measured at PT-18 (no data was available from MW-44 because this well was destroyed during the source area removal). The degradation constant used was 0.00005/day. In addition, there was no constant source for the VOCs in this scenario (Appendix F). Other input parameter values were the same as those used in Scenario 1.

To allow a comparison to Scenario 2 results, snapshots of the simulated plume at 30, 50 and 100 years from the present for Scenario 3 are shown in Figures 6-13, 6-14, and 6-15. The most obvious difference between the plumes simulated in Scenarios 2 and 3 is that both the size (i.e., length) and the concentrations were greatly reduced in Scenario 3. At 30 years the plume in layer 1 for Scenario 3 does not look significantly different from the plume predicted in Scenario 2 (Figure 6-13 and 6-9). Both figures show the 10 µg/L contour hundreds of feet beyond the SEDA boundary, however, the maximum concentration within the plume is greatly reduced in Scenario 3; this maximum occurs approximately 500 feet west of the former source areas at the Ash Landfill. By 50 years the plume is significantly shortened compared to its pre-remediation configuration (Scenario 2) and the 10 µg/L contour is approximately 700 feet beyond the SEDA boundary compared to approximately 1,000 feet under Scenario 2. Additionally, the maximum concentration is less than 1,000 µg/L. Comparison of the plumes simulated under Scenarios 2 and 3 at 100 years

30 YEARS FROM PRESENT

50 YEARS FROM PRESENT

100 YEARS FROM PRESENT

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LEGEND

100
10

SIMILATED VOC PLUME
(CONTOUR CONCENTRATIONS
IN ug/L)

MONITORING WELL

RAILROAD TRACKS

760

GROUND SURFACE
ELEVATION CONTOUR

N

300 0 300 600

1" = 600'

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FIGURE 6-13

SIMULATION OF EXISTING VOC PLUME IN LAYER 1
AFTER SOURCE REMOVAL AT 30, 50, AND 100 YEARS
FROM THE PRESENT (SCENARIO 3)

SCALE 1" = 600' | DATE JANUARY 1996 | REV A

30 YEARS FROM PRESENT

50 YEARS FROM PRESENT

100 YEARS FROM PRESENT

C:\ACAD\SENECA\ASHMODEL\S3LAY2.DWG

LEGEND

100
10

SIMILATED VOC PLUME (CONTOUR CONCENTRATIONS IN ug/L)

MONITORING WELL

RAILROAD TRACKS

760

GROUND SURFACE ELEVATION CONTOUR

N

300 0 300 600

1" = 600'

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ASH LANDFILL GROUNDWATER MODEL

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FIGURE 6-14

SIMULATION OF EXISTING VOC PLUME IN LAYER 2 AFTER SOURCE REMOVAL AT 30, 50, AND 100 YEARS FROM THE PRESENT (SCENARIO 3)

SCALE 1" = 600' | DATE JANUARY 1996 | REV A

30 YEARS FROM PRESENT

50 YEARS FROM PRESENT

100 YEARS FROM PRESENT

C:\ACAD\SENECA\ASHMODEL\S3LAY3.DWG

LEGEND

100
10

SIMILATED VOC PLUME
(CONTOUR CONCENTRATIONS
IN ug/L)

MONITORING WELL

RAILROAD TRACKS

760

GROUND SURFACE
ELEVATION CONTOUR

N

300 0 300 600

1" = 600'

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ASH LANDFILL GROUNDWATER MODEL

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Dwg. No.

FIGURE 6-15

SIMULATION OF EXISTING VOC PLUME IN LAYER 3
AFTER SOURCE REMOVAL AT 30, 50, AND 100 YEARS
FROM THE PRESENT (SCENARIO 3)

SCALE 1" = 600'

DATE JANUARY 1996

REV. A

provides the most contrast. With the source removed (Scenario 3), the plume is reduced to a relatively small oval shape with concentrations mostly less than 100 µg/L. Concentrations are predicted to exceed 100 µg/L in only one small area. At this time the plume is roughly 1,200 feet long, compared to a length of almost 3,000 feet under Scenario 2. Also, under Scenario 3 the 10 µg/L contour has not reached the farmhouse, as it was predicted to do in Scenario 2.

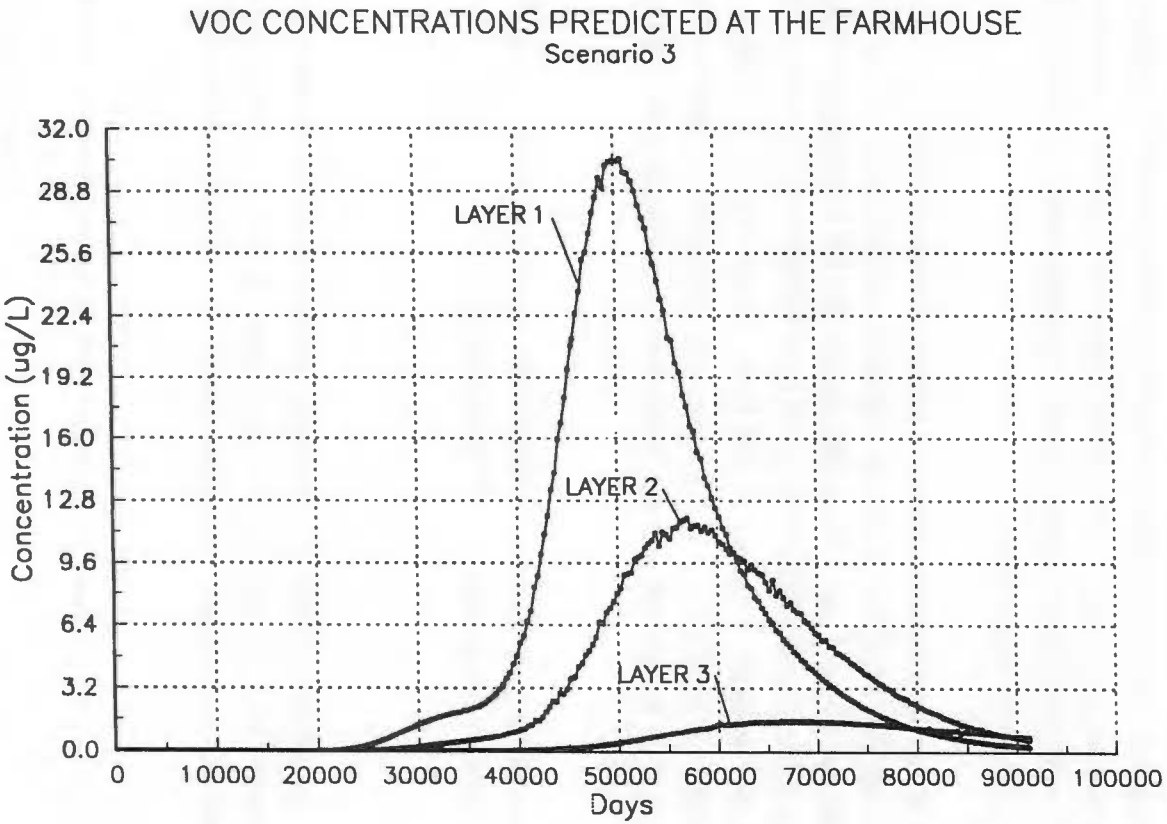
In layers 2 and 3 the model predicts that the plume sizes and concentrations in Scenario 3 will be significantly less that shown under Scenario 2 (Figures 6-14 and 6-15). In layer 2, the plume remains within the SEDA boundary at 30 years and concentration are less than 1,000 µg/L (Figure 6-14). At 50 years the plume is only slightly larger than at 30 years, but the model predicts that it will migrate beyond the SEDA boundary. By 100 years the concentrations are greatly reduced (less than 100 µg/L) and the plume is mostly beyond the SEDA boundary, with the 10 µg/L contour 500 feet west of the farmhouse. In layer 3, the plume is reduced to a small area with concentrations below 100 µg/L at both 30 and 50 years, and it has not migrated off of SEDA (Figure 6-15). At 100 years the plume is represented by an even smaller area (approximately 100 feet by 200 feet), defined by the 10 µg/L contour (Figure 6-15).

For Scenario 3, an X-Y plot of concentration versus time for the model cells in layers 1, 2, and 3 that corresponds to the location of the farmhouse were made to show the nature of the potential impacts at the farmhouse (Figure 6-16). The model predicts that the leading edge of the plume in layer 1 will reach the farmhouse after approximately 70 years and that a maximum concentration of 30 µg/L will be at approximately 137 years (Figure 6-16). Minor impacts to layers 2 and 3 are predicted by the model (11µg/L and 1.5 µg/L, respectively), however, the model is believed to overestimate the impacts to these layers, since no VOCs have been detected in the competent shale wells on-site (Figure 6-16).

The mass balance discrepancy for Scenario 3 shows initial instability followed by stabilization at approximately 4 % error for the model run to 100 years (Figure 6-17).

Scenario 3-A

For Scenario 3-A, the February 1996 post-remediation starting concentrations were headed by a maximum concentration of 1,132 µg/L at the source area wells PT-18 and MW-44. The degradation constant was 0.00005/day, which is a conservative value. In addition, there was no



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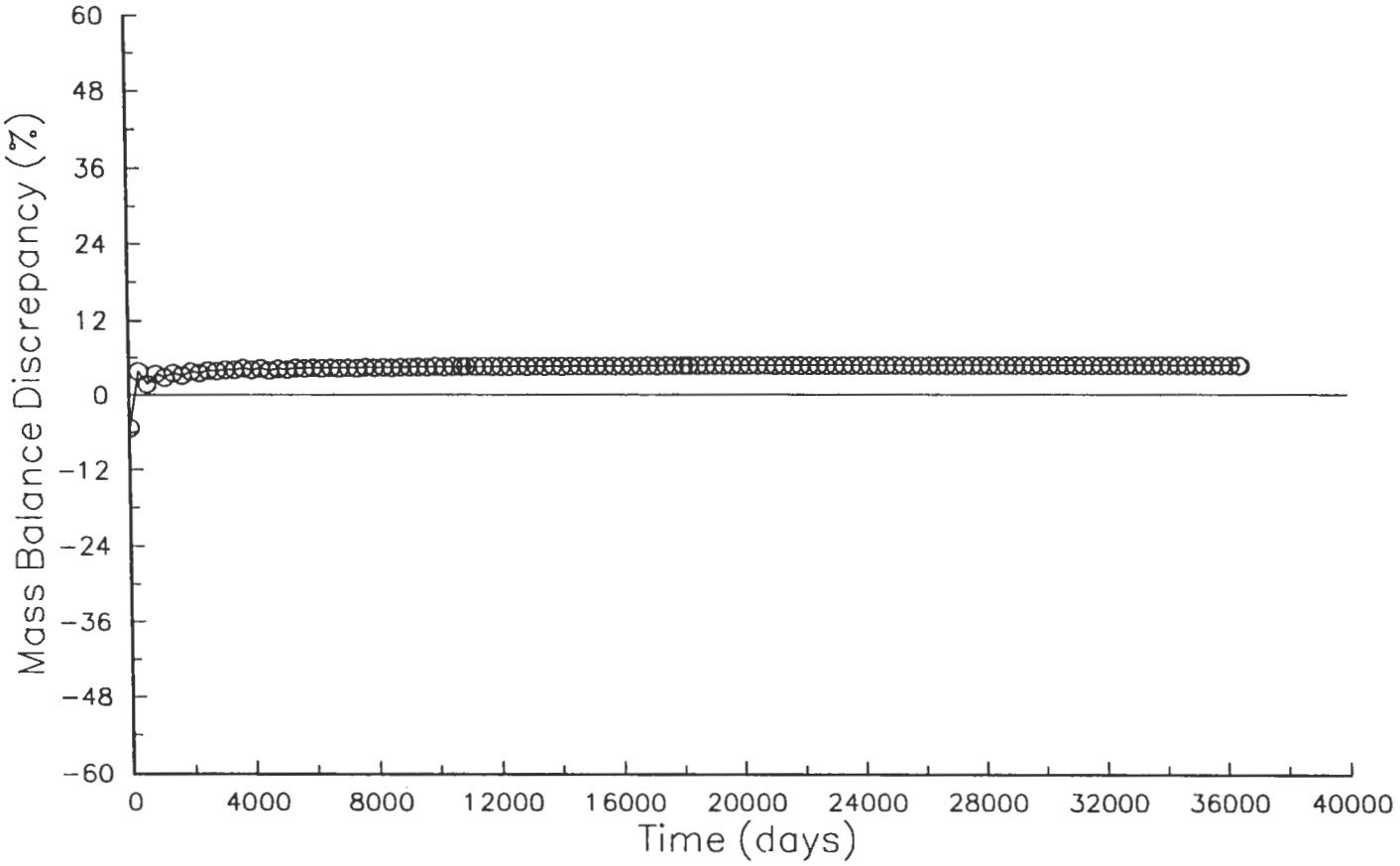
SENECA ARMY DEPOT ACTIVITY
ASH LANDFILL GROUNDWATER MODEL

DEPT.	DWG NO.
ENVIRONMENTAL ENGINEERING	726209-01002

FIGURE 6-16
VOC CONCENTRATIONS PREDICTED AT THE FARMHOUSE (SCENARIO

SCALE	DATE
NA	OCTOBER 1995

GRAPHICS\SE .MODEL\FARMOBS3.CDR



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ASH LANDFILL GROUNDWATER MODEL

DEPT. ENVIRONMENTAL ENGINEERING | DWG NO. 726209-01002

FIGURE 6-17
MASS BALANCE
DISCREPANCY TO
100 YEARS (SCENARIO 3)

SCALE NA | DATE OCTOBER 1995

GRAPHICS\SENECA\ASHMODEL\MASSE2B.CDR

constant source for the VOCs in this scenario (Appendix F). Other input parameter values were the same as those used in Scenario 1.

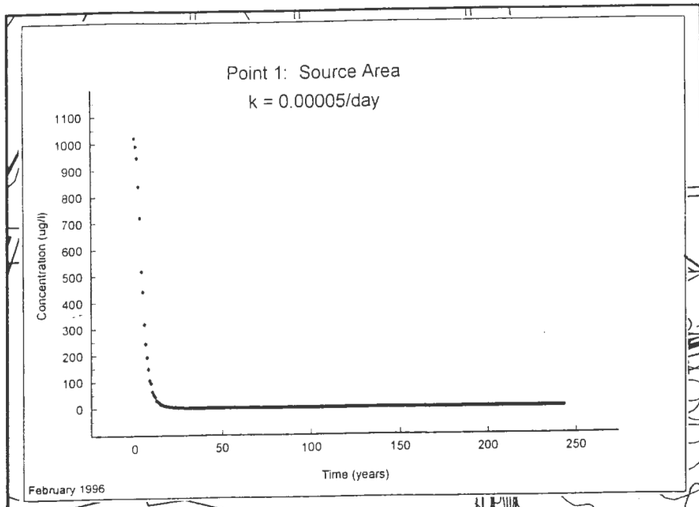
Profile concentration plots at 5 simulation monitoring points along the longitudinal axis of the plume were used to present the modeling results (Figure 6-18) - the plots show how the concentration changed with time at each of the points; the starting time was February 1996.

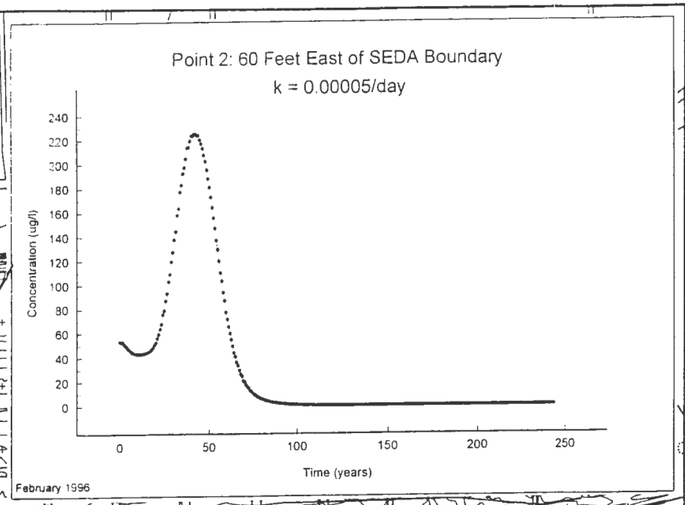
Analysis of the most conservative results indicates that at the source area concentrations (Point 1) decreased to below 5 µg/L (the NYSDEC GA standard for TCE) after approximately 21 years. At simulation Point 2, the concentration reaches a maximum of 225 µg/L after approximately 40 years and decreased to 5 µg/L after a total of 81 years. Immediately east of the SEDA boundary, at Point 3, the maximum simulated concentration was 176 after about 50 years. After 89 years the predicted concentration was 5 µg/L [the small upward bump on the plot is due to a small, elongate zone of relatively high concentrations near MW-29 and PT-17, which caused lower concentrations to be assigned to upgradient cells in a portion of the plume when the initial concentration field was generated using the 4-point moving average method]. At Point 4, which is 200 feet west of the SEDA boundary, the maximum concentration (132 µg/L) is reached after 57 years and the 5 µg/L concentration was reached after approximately 98 years. Lastly, at the farm house, a maximum concentration of 10 µg/L is predicted after approximately 140 years and it takes another 16 years for the concentration at this point to decrease to 5 µg/L. The maximum concentration at the farmhouse is three times lower than that predicted under Scenario 3; this response was caused by the reduced starting concentration field in the source area for February 1996 compared to July 1995.

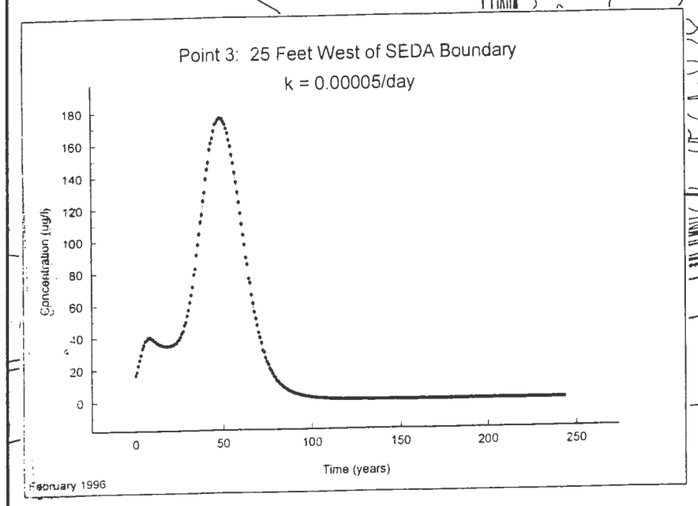
The mass balance discrepancy for Scenario 3-A shows initial instability followed by stabilization at approximately 6 % error for the model run to 250 years.

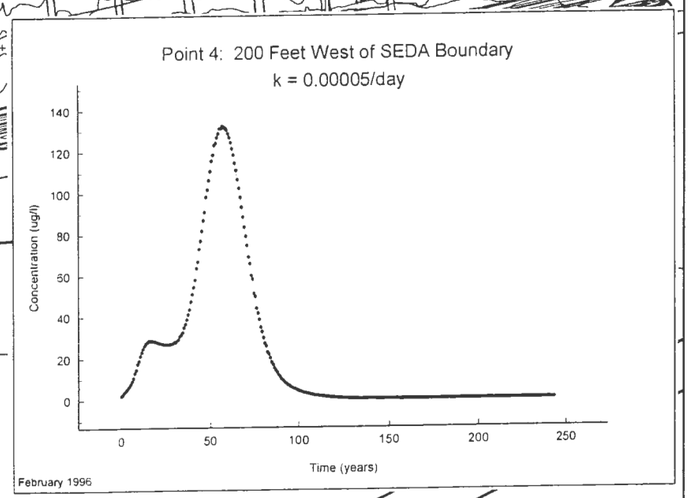
Scenario 3-B

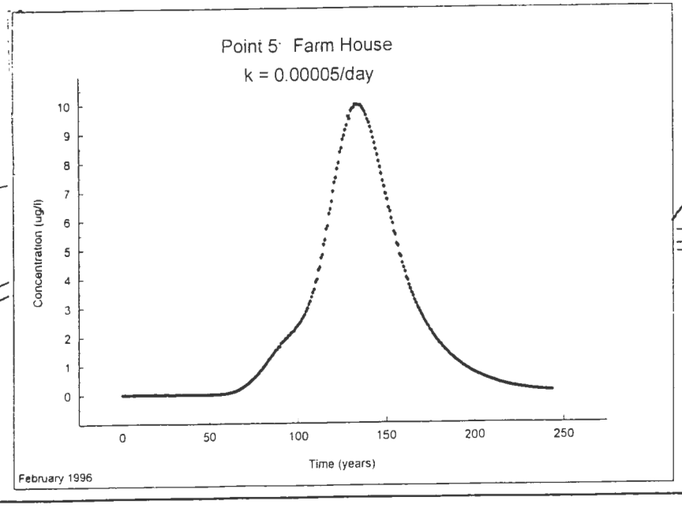
For Scenario 3-B, the February 1996 post-remediation starting concentrations were headed by a maximum concentration of 1,132 µg/L at the source area wells PT-18 and MW-44. This time, the less conservative degradation constant of 0.0005/day was used. In addition, there was no constant source for the VOCs in this scenario (Appendix F). Other input parameter values were the same as those used in Scenario 1.

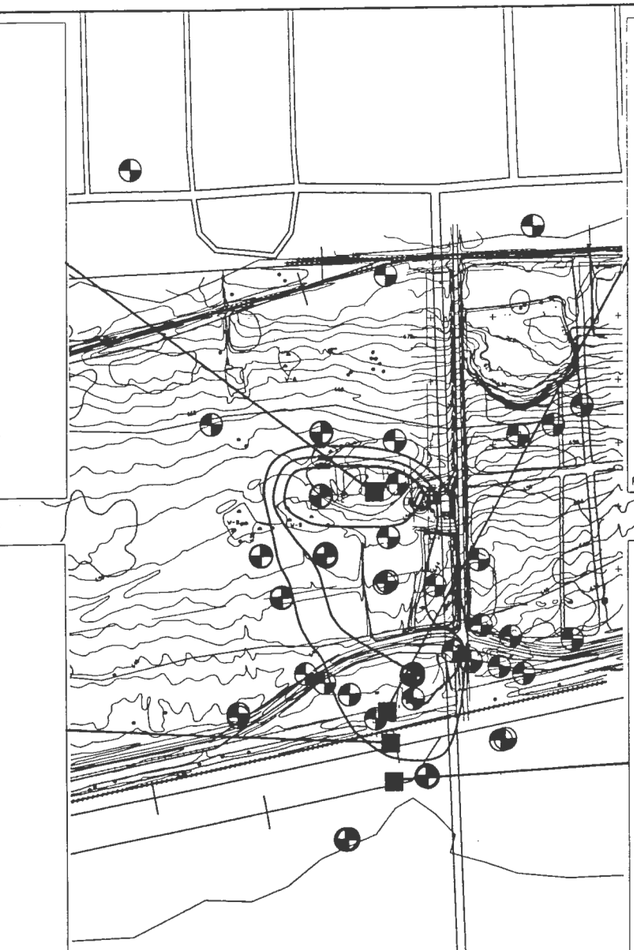


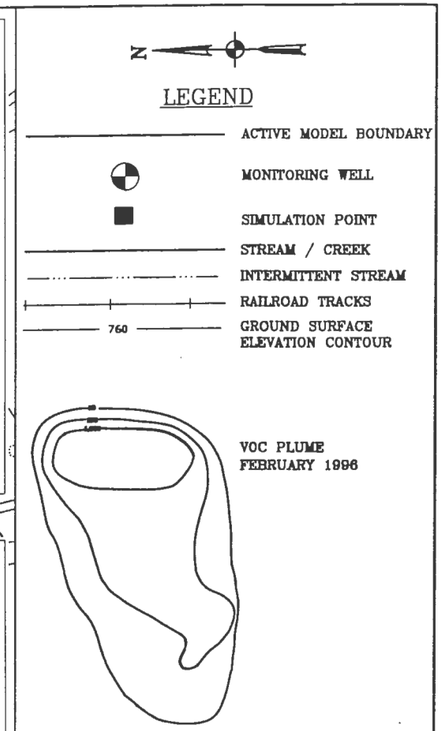


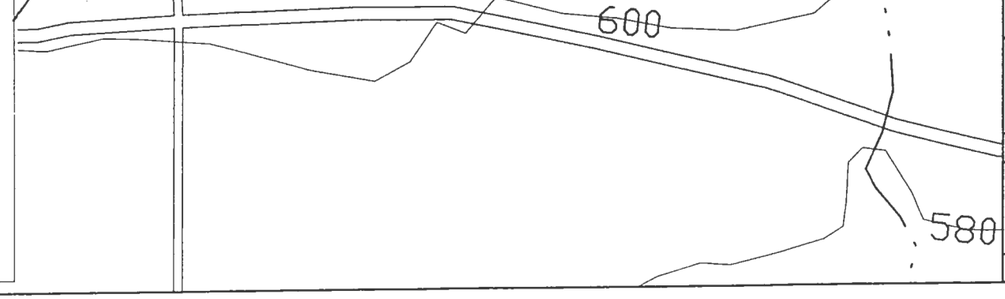












300 0 300 600
1" = 600'

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ASH LANDFILL GROUNDWATER MODEL

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ENVIRONMENTAL ENGINEERING	726209-01002

FIGURE 6-18
PROFILES OF VOC CONCENTRATIONS AT SELECTED LOCATIONS IN LAYER 1-SENARIO 3-A

SCALE	DATE	REV
1" = 600'	APRIL 1996	A

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Profile concentration plots at 5 simulation monitoring points along the longitudinal axis of the plume were used to present the results (Figure 6-19). Analysis of the less conservative results indicates that concentrations at Point 1 (the source area), at Point 2 (60 feet east of the SEDA boundary), and at Point 3 (immediately west of the SEDA boundary) are reduced to below 5 µg/L after approximately 12 years; only decreasing concentrations are predicted by the model at these points. At Point 4, the maximum concentration was 3.3 µg/L after approximately 10 years. The model results indicate that the plume will be completely degraded before it reaches the farm house.

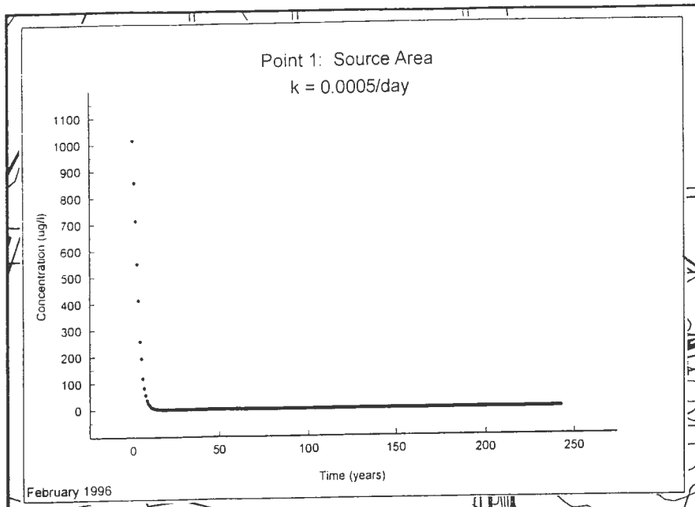
The mass balance discrepancy for Scenario 3-B shows initial instability followed by stabilization at approximately 2 % error for the model run to 250 years.

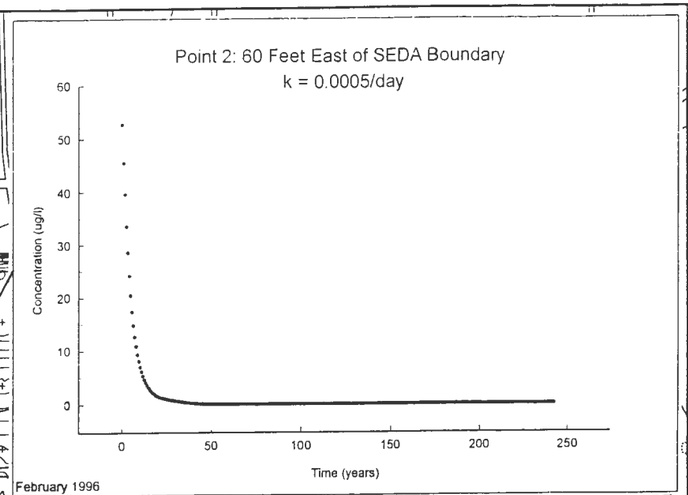
Scenario 3-C

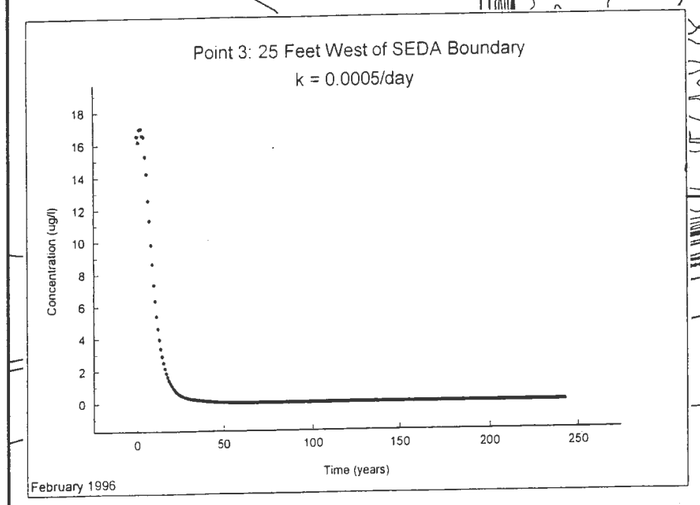
For Scenario 3-C, the February 1996 post-remediation starting concentrations were headed by a maximum concentration of 1,132 µg/L at the source area wells PT-18 and MW-44. This time, the median degradation constant of 0.00009/day was used. In addition, there was no constant source for the VOCs in this scenario (Appendix F). Other input parameter values were the same as those used in Scenario 1.

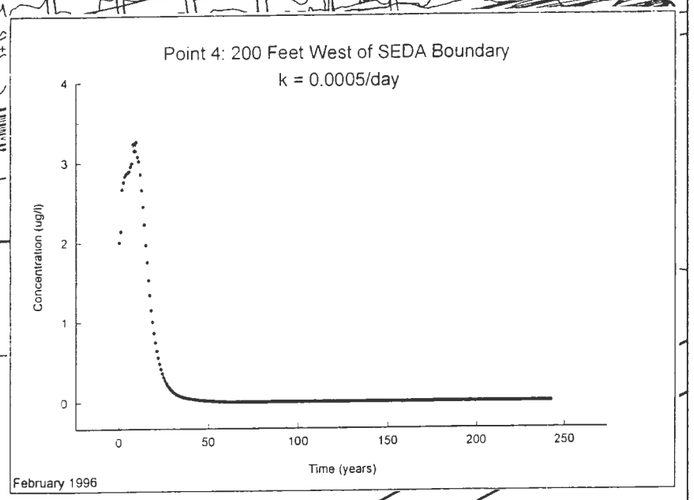
Profile concentration plots at 5 simulation monitoring points along the longitudinal axis of the plume were used to present the results (Figure 6-20). Analysis of the Scenario 3-C results (a moderately conservative run compared to Scenarios 3-A and 3-B) indicates that at Point 1 it will take 19 years for the concentrations to be reduced to 5 µg/L. At Point 2, the predicted concentration was approximately 120 µg/L after 40 years and another 32 years are required to reduce the concentration to 5 µg/L. Immediately west of the SEDA boundary (at Point 3) the maximum simulated concentration was 87 µg/L after 46 years; this concentration was reduced to 5 µg/L after another 32 years. At Point 4, the maximum was 57 µg/L after 55 years; a 5 µg/L concentration is predicted at this point after a total of 85 years. At the farm house, the predicted maximum concentration was 1.4 µg/L, which is below the 5 µg/L GA standard.

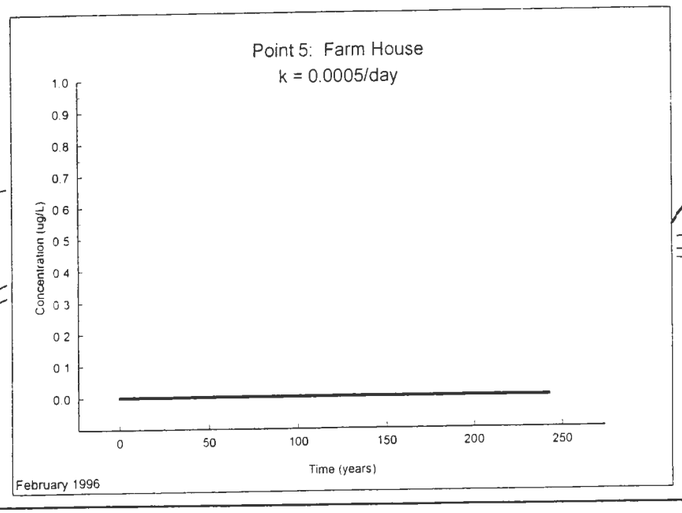
The mass balance discrepancy for Scenario 3-C shows initial instability followed by stabilization at approximately 5 % error for the model run to 250 years.

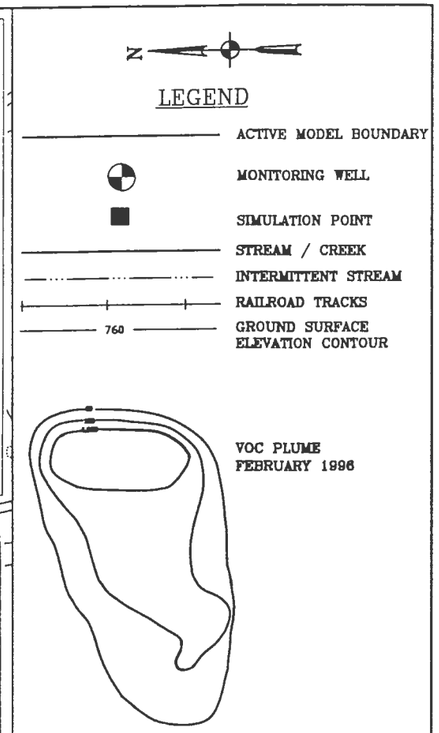












FARMHOUSE

600

580

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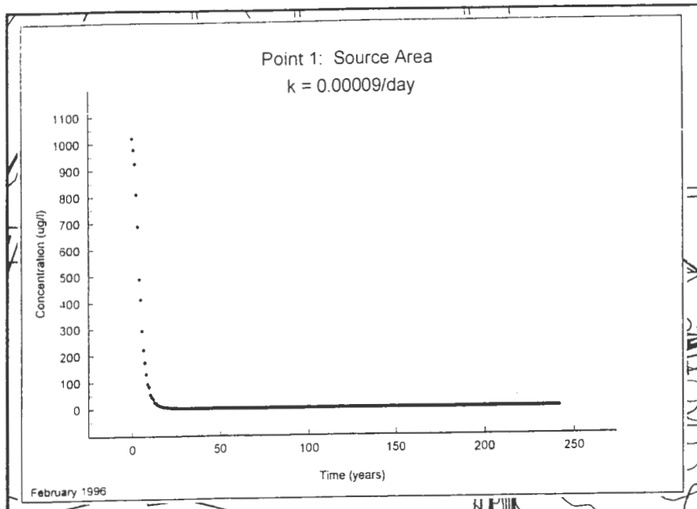
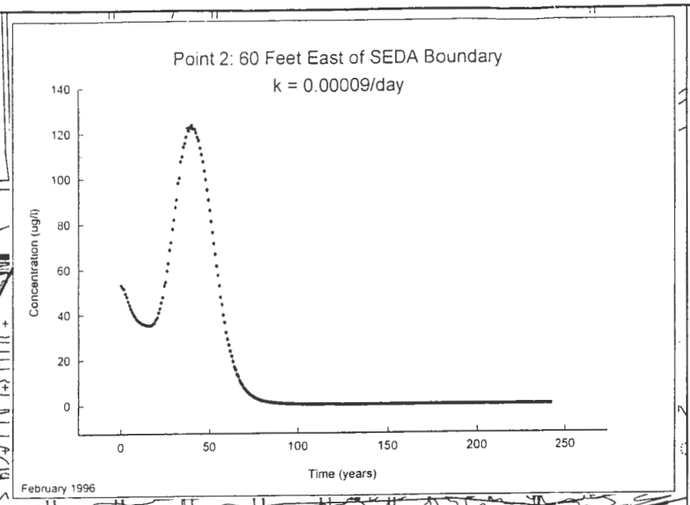
ENVIRONMENTAL ENGINEERING	726209-01002

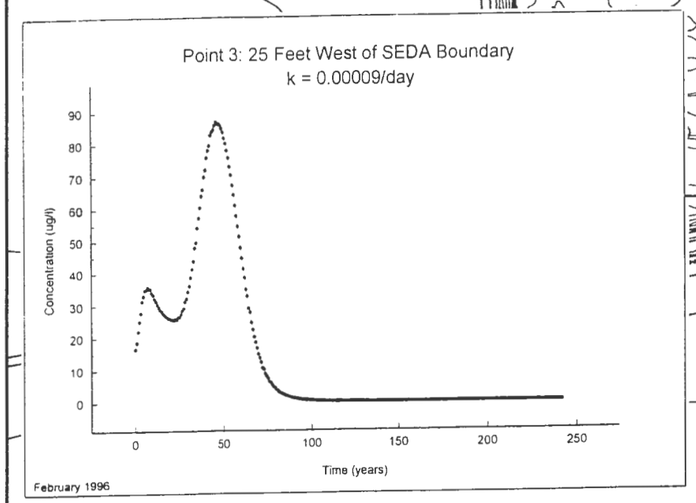
FIGURE 6-19

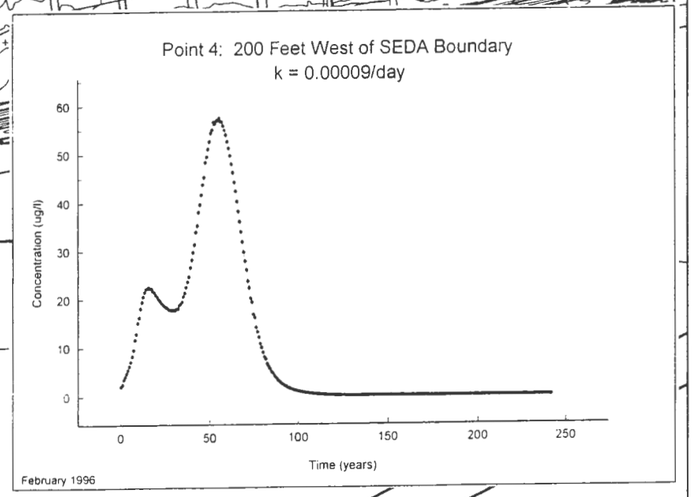
PROFILES OF VOC CONCENTRATIONS AT SELECTED LOCATIONS IN LAYER 1-SENARIO 3-B

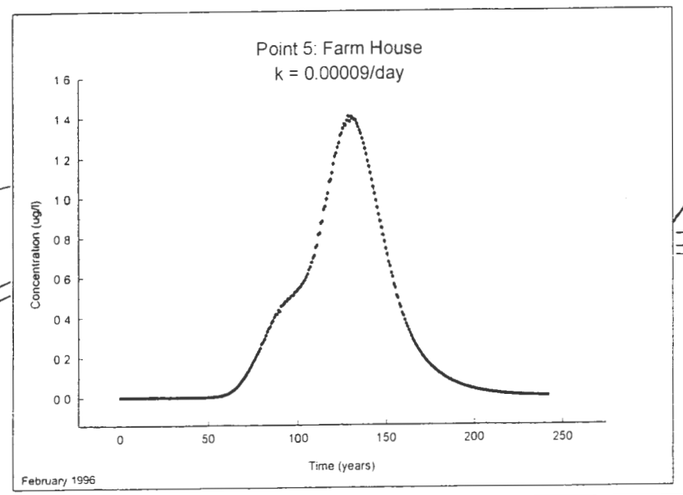
SCALE	DATE	REV
1" = 600'	APRIL 1996	A

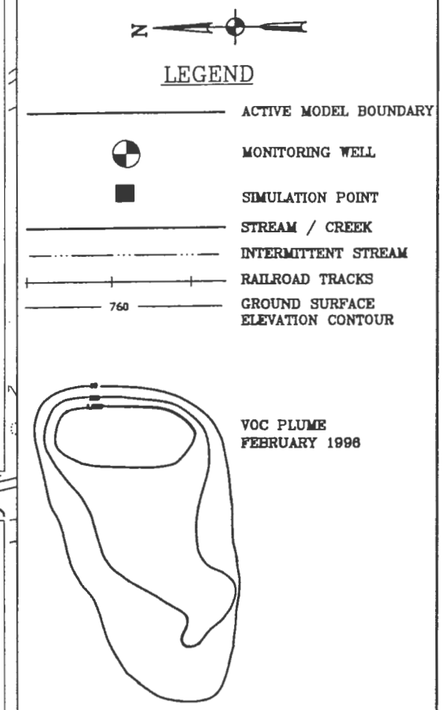












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ASH LANDFILL GROUNDWATER MODEL

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ENVIRONMENTAL ENGINEERING	726209-01002

FIGURE 6-20

PROFILES OF VOC CONCENTRATIONS AT SELECTED LOCATIONS IN LAYER 1-SENARIO 3-C

SCALE	DATE	REV
1" = 600'	APRIL 1996	A

6.6 SENSITIVITY ANALYSIS

A sensitivity analysis was performed after the transport model was calibrated. The purpose of the sensitivity analysis was to determine how sensitive the model is to variations or uncertainty in the degradation constant rate (k), the dispersivity (α_L), and the distribution coefficient (K_d) parameters. The sensitivity analysis was performed by increasing and decreasing the best estimates for k, α_L, and K_d up to one order of magnitude (i.e., ± 25 percent, ± 50 percent, ± 1 order of magnitude) and noting the effects on the maximum concentration observed at selected monitoring points (i.e., cells). Thus, during the sensitivity analysis the values for k, α_L, and K_d were systematically changed within a wide range of values over many model runs that simulated plume migration to 100 years.

Four cells along the longitudinal axis of the plume were selected as points at which the concentration data was saved over time by the model. The cell coordinates of the monitoring points are as follows:

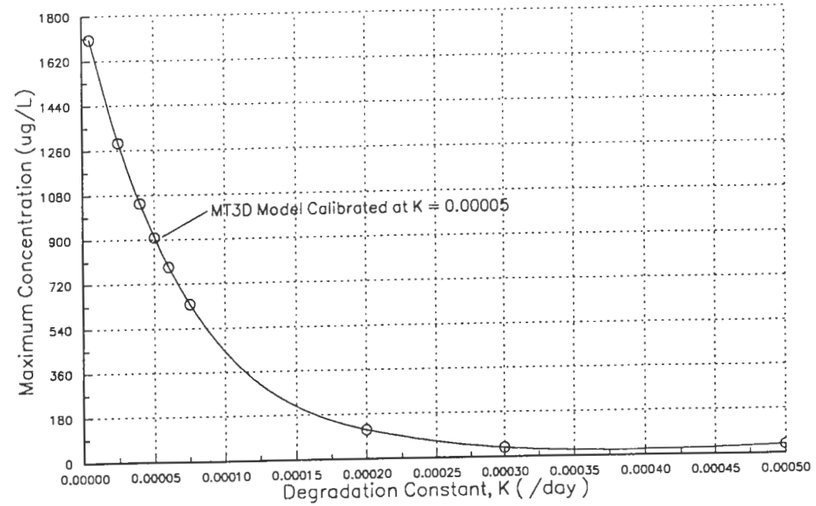
1. Layer 1, row 102, column 38 (within existing plume)
2. Layer 1, row 131, column 40
3. Layer 1, row 155, column 42
4. Layer 1, row 177, column 42 (at farmhouse).

6.6.1 Degradation Constant (k)

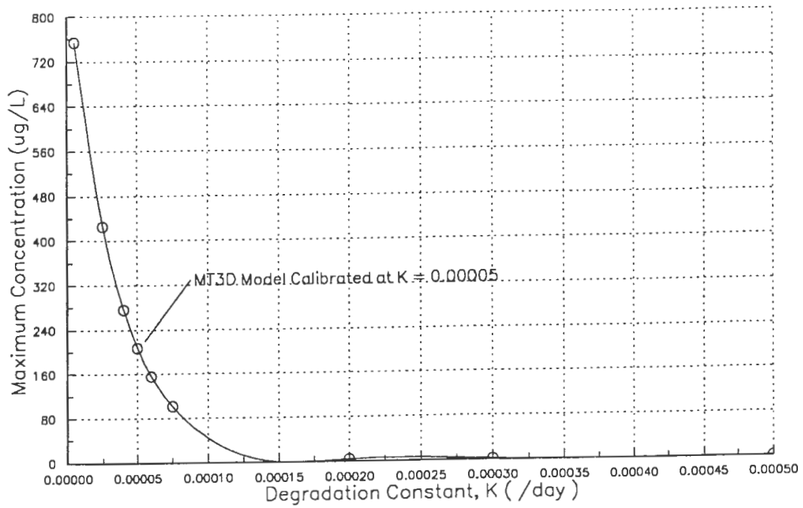
The sensitivity of the model to k has been discussed in Section 6.4.1 and was evaluated using two scenarios that differ only by the values used for the starting concentrations. Model sensitivity to k was also evaluated under Scenario 3, which used both a July 1995 starting concentration field. This sensitivity analysis served as a basis of comparison to other parameters, such as α_L and K_d, which are discussed in the following sections.

The results of the initial sensitivity analysis for k are shown on Figure 6-21. These x-y plots show how the maximum concentration predicted at a monitoring point changes with differing k values; the data points were connected using a spline function. Not unexpectedly, all of the plots exhibit a trend where the maximum concentration increases with decreasing k values, and at higher k values the maximum concentrations are greatly reduced. Thus, as k values become increasingly small, the maximum concentrations are expected to be more influenced by other processes. The results of the

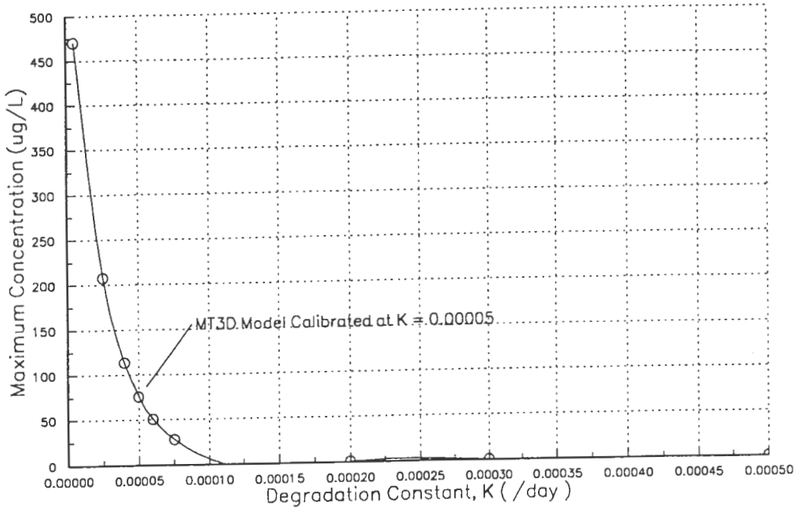
Cell: Layer 1 , Row 102, Column 38
Scenario 3



Cell: Layer 1 , Row 131 , Column 40
Scenario 3



Cell: Layer 1 , Row 155, Column 42
Scenario 3



Cell: Layer 1 , Row 177, Column 42
Scenario 3

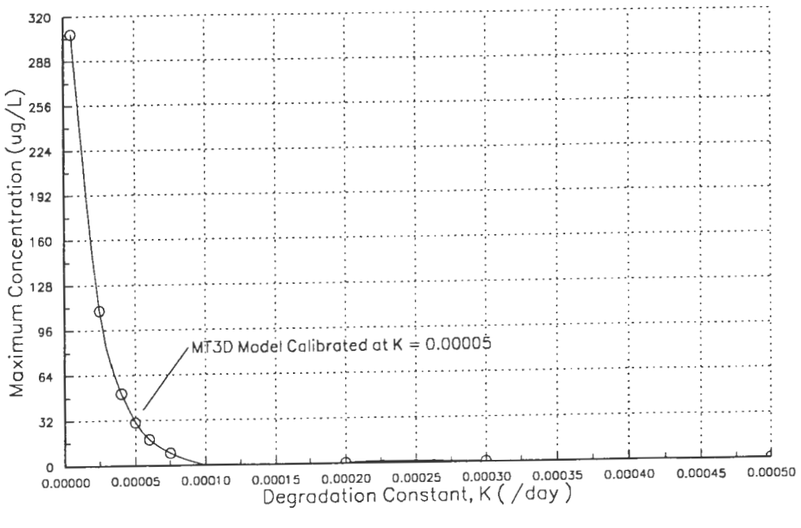


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FIGURE 6-21
PLOTS SHOWING THE SENSITIVITY OF THE TRANSPORT MODEL TO THE DEGRADATION CONSTANT. K
JULY 1995 VOC PLUME

SCALE NA | DATE APRIL 1996

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subsequent sensitivity analysis were very similar to those obtained in the initial analysis (Figure 6-22).

As a comparison, the k value obtained from the literature for the ODAST model (0.00062/day) was near the range of expected values calculated using the method of Wiedemeier et al. (1995) (0.00005/day) and the method of Buscheck and Alcantar (1995), that predicted a degradation constant of 0.0005/day. The data suggests that the range of k values that may be considered reasonable for the site is between 0.00005/day to 0.0005/day. Using a k value of 0.0005/day, which is approximately equal to the value that was used in the ODAST model, results in significant degradation of VOCs at monitoring points within the existing plume, attainment of steady state conditions and predicts no migration at the monitoring points downgradient of the existing plume after 150 years (Figure 6-18). This supports the preliminary conclusion reached after running the ODAST model that the plume had achieved a steady-state condition.

6.6.2 Dispersivity - Longitudinal (α_L)

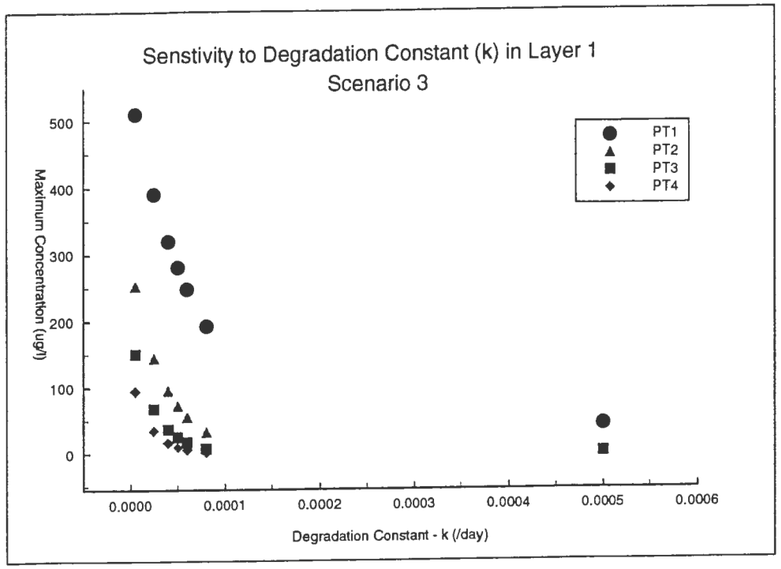
The sensitivity of the model to α_L was evaluated using the most recent starting concentration field, February 1996. This sensitivity analysis served as a basis of comparison to other parameters, such as k and K_d .

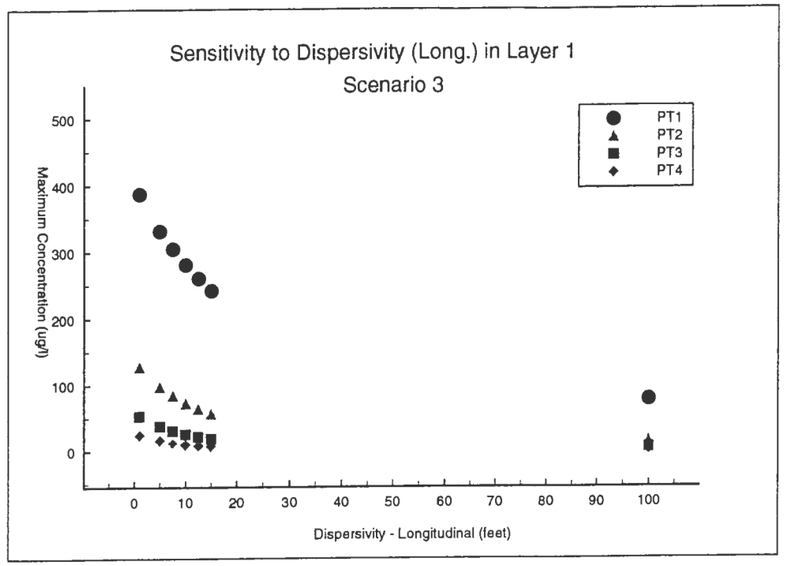
The results of the initial sensitivity analysis for α_L are shown on Figure 6-22. This x-y plot shows how the maximum concentration predicted at the monitoring points changes with differing distribution coefficient values. All of the plots exhibit a similar trend in that increasing α_L results in decreasing maximum concentrations at the four monitoring points. However, a comparison of these results with those for k indicated that the transport model is less sensitive to α_L than to k.

6.6.3 Distribution Coefficient (K_d)

The sensitivity of the model to K_d was evaluated using the most recent starting concentration field, February 1996. This sensitivity analysis served as a basis of comparison to other parameters, such as k and α_L.

The results of the initial sensitivity analysis for K_d are shown on Figure 6-22. This x-y plot shows how the maximum concentration predicted at a monitoring point changes with differing dispersivity





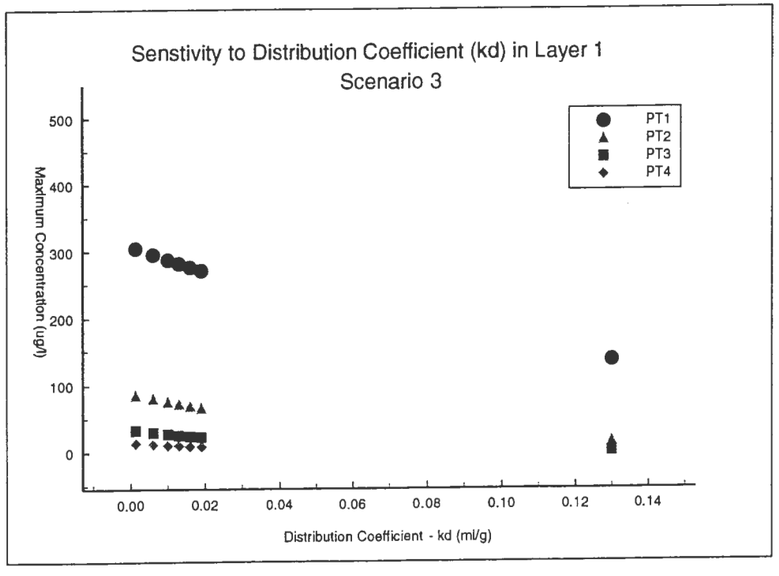


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FIGURE 6-22

PLOTS SHOWING THE SENSITIVITY OF THE TRANSPORT MODEL TO K, Dsp., AND Kd FEBRUARY 1995 VOC PLUME

SCALE NA | DATE APRIL 1996

GRAPHICS\SENECA\ASHMODEL\SENTMD2.CDR

values. All of the plots exhibit a similar trend in that increasing K_ds result in decreasing maximum concentrations at the four monitoring points. A comparison of these results with those for k and α_L indicated that the transport model is less sensitive to K_d than to either of the other two parameters, k and α_L.

7.0 SUMMARY AND CONCLUSIONS

Groundwater flow and contaminant transport modeling were combined to simulate the migration of a VOC plume under several scenarios at the Ash Landfill and surrounding area. The primary goal of the modeling was to evaluate the potential for future impacts to off-site farmhouse wells by VOCs migrating from the Ash Landfill under pre- and post- VOC source removal scenarios.

The groundwater flow model consisted of a flow system defined by three model layers, layer 1 for the till/weathered shale and layers 2 and 3 for the competent shale. The MODFLOW model simulated a groundwater flow system defined by a constant head boundary at Seneca Lake, a groundwater divide no flow boundary between Seneca and Cayuga lakes, and streamline no flow boundaries along the northern and southern sides of the model. An important aspect of the groundwater flow system near the Ash Landfill is that much of the water that enters the system via precipitation is returned to the atmosphere through a combination of evapotranspiration and capillary rise in the fine-grained till. Thus, the net recharge rate was a significant factor affecting the heads calculated by the MODFLOW model.

Head and flow data from the calibrated flow model were incorporated into the MT3D contaminant transport model to simulate the migration of the VOC plume under three scenarios. Under Scenario 1 the transport model was calibrated using the existing plume as a basis of comparison. The plume was simulated from the time of the release (t = 0) to 50 years with two constant sources of VOCs in the Ash Landfill. The results indicate that the simulated concentrations in layer 1 matched the existing plume configuration at approximately 35 years after the time of the release, depending on the degradation rate constant selected. Using a slow k value (i.e., 0.00005/day) the plume appeared to match current plume dimensions although several wells were predicted to have higher concentrations than what was actually measured. Using a faster k value (i.e., 0.0005/day) the plume dimensions were smaller than what was actually measured but several wells appeared to coincide with actual measured values. Using the slower k value, VOC concentrations in layers 2 and 3 were found to be higher than those measured in nearby bedrock wells and thus the model is believed to predict higher plume concentrations than actually exist in the bedrock..

Scenario 2 was performed to evaluate the migration potential of the plume if the source removal action had not be performed. This scenario provided a worst case scenario since the slowest rate constant was used in this simulation. This scenario predicted off-site migration of the plume.

For Scenario 3, the boundary condition of constant leaching of VOCs was eliminated from the model to reflect the benefits gained as a result of the removal action completed at the Ash Landfill in the Spring of 1995. Initial starting concentration fields were less than what was used for

Scenario 1 or Scenario 2. As expected, the model predicted beneficial effects of the removal action in reducing the size (i.e., length of the plume) and the magnitude of the concentrations in the plume over time when compared to what would have occurred as part of Scenario 2. While elimination of the source decreased the size of the plume and the concentrations in several wells, the potential exists for the remaining portion of the plume that was not affected by the removal action to migrate off-site. The goal of this scenario was to evaluate this potential.

From a review of the historical groundwater monitoring data it appears that degradation of the existing groundwater plume was likely occurring based upon an increase in the presence of breakdown products in the downgradient wells. Scenario 3 was used to evaluate the hypothesis that, combined with source removal, the indigenous microbial community was capable of eliminating the remaining plume prior to the plume reaching any off-site receptors (the nearest current receptor is at the farmhouse). The degree to which the plume was expected to migrate off-site was determined to be largely a function of this term. A range of likely degradation rates was quantified for use in the MT3D model. Two techniques were utilized to provide this allowable range, one utilized historical data and a groundwater tracer to derive a degradation rate and the other utilized historical groundwater monitoring data at several downgradient monitoring wells to obtain the degradation value. The range of degradation rates obtained using these two techniques was between 0.0005/day and 0.00005/day. Degradation rate values within this range were evaluated during the modeling runs.

In addition to the modeling runs, Parsons ES collected field data that was used to evaluate whether or not the conditions at the site are acceptable to support biotic reductive dechlorination, suspected to be the main mechanism of the degradation process. This data detected the presence of dissolved organic carbon in the aquifer that can serve as a source of electrons, i.e. electron donors. The redox potentials measured in several monitoring wells were in the range considered to be anaerobic, although not strongly anaerobic. The pH of the groundwater system was determined to be with the range that would support biological activity. This information suggested that site conditions were within the range of conditions for degradation to occur.

Scenario 3 utilized the July 1995 groundwater monitoring results as the starting concentration field and a conservative k value of 0.00005/day. Under these conditions, the plume in layer 1 reached the farmhouse in 70 years with a maximum concentration of 30 µg/L at 137 years. In layers 2 and 3 the plume was predicted to reach the farmhouse in 95 and 150 years, respectively. Additional source term groundwater data was collected in February, 1996, for wells that were destroyed during the source removal action. This data was not included in this scenario as this information was not available when this scenario was evaluated.

Scenarios 3-A, 3-B, and 3-C involve simulations of the existing plume using the February 1996 groundwater sampling data as the source term. For these scenarios, the migration of the plume was evaluated using three different degradation approaches that are intended to account for the range of possible k values calculated using methods described in Section 6. These rates included a slow rate of 0.00005/day, a faster rate of 0.0005/day and a median rate of 0.00009/day. On the basis of calibration information, each rate may be applicable to the Ash Landfill site and, therefore, it was necessary to consider the range of possible occurrences using each rate. Using the slowest rate, the model predicted that the plume of VOCs remaining on-site after the removal action will not completely degrade before it move west from the Ash Landfill to the farmhouse. The model predicts a maximum concentration of 10 μ/L will be achieved at the farmhouse after 140 years. Using the fastest k value, the model predicts that the plume will not move a great distance from the Ash Landfill, and will be completely degraded before it reaches the farm house. Also, under this scenario the model predicts that the off-site portion of the plume will be degraded to below 5 μ/L within approximately 15 years. Using the median k value, the model predicts that the plume will migrate off-site, but it will be degraded to approximately 1.4 μ/L (which is below the 5 μ/L NYSDEC GA standard for both TCE and 1,2-DCE) when it reaches the farmhouse.

The contaminant transport simulations of the removal of VOC source soils at the Ash Landfill predict a reduction in the size and magnitude of the VOC concentrations of the plume over time. The impacts of off-site migration depend upon the actual value of k, the degradation rate constant. The faster rate indicates that the off-site impacts are minimal while the slowest rate suggests that there will be off-site migration. While the model prediction are not conclusive, there is sufficient data (i.e., the historical groundwater data in Section 1.3) that would suggest that the VOC concentrations have remained constant. This data, and the model results that predicted stable plume conditions using the faster degradation rate, suggests that there is a reasonable likelihood that off-site migration will be minimal. Since uncertainty in these results exists, it is prudent to continue monitoring the aquifer at the "toe" of the plume to determine if VOC concentrations increase over time. If concentrations in the wells predicted by the model using the fast degradation rate increase then it is likely that this rate was not correct and the conditions predicted by the slower rate would apply. However, if monitoring suggests that the concentrations remain the same or decrease then the results predicted by the model using the faster degradation constant are true and the plume will not migrate off-site. In either event, there would be sufficient time to implement a remedial response prior to the plume impacting any existing potable groundwater supply, should the concentrations increase.

8.0 REFERENCES

American Geophysical Union, 1984. *Groundwater Transport: Handbook of Mathematical Models*, pp. 5-22.

Anderson, M.P., 1979 "Using Models to Simulate the Movement of Contaminants through Groundwater Flow System." *CRC Critical Reviews in Environmental Control V9*, pp 97-156.

Anderson, M.P. and Woessner, W.W., 1992, Applied Groundwater Modeling, Simulation of Flow and Advective Transport, Academic Press, San Diego, CA, 381 pp.

Bouwer H. and Rice R.C., 1976, A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells, *Water Resources Research*, Vol. 12, No. 3 pp. 423-428.

Brett, C.E., Dick, V.B, Baird, G.C., 1991, "Comparative Taphonamy and Paleoecology of Middle Devonian Dark Gray and Black Shale Facies from Western New York;" in eds., Landing, E.L. and Brett, C.E., Dynamic Stratigraphy and Depositional Environments of the Hamilton Group (Middle Devonian) in New York State, Part II, *New York State Museum Bulletin Number 469*. pp. 5-36.

Buscheck, T.E. and C.E. Alcantar, 1995, Regression Techniques and Analytical Solutions to Demonstrate Intrinsic Bioremediation, In Proceedings of the 1995 International Conference on In-Situ and On Site Bioreclamation, April, 1995, Battelle

Cravens, S. J. and Ruedisili, L.C., 1987, Water Movement in Till of East-Central South Dakota, Ground Water, vol. 25, No. 5, pp. 555-561.

Davis, Stanley N, and Roger J.M. DeWiest, 1966. *Hydrogeology*. John Wiley and Sons, Inc., New York.

DeGaetano, A.T., K.L. Eggleston, and W.W. Knapp, 1994, Daily Evaporation and Soil Moisture Estimates for the Northeastern United States, Cornell University, Ithaca, NY, Publication no. RR94, pp. 1-14.

de Marsily, Ghislain, 1986. *Quantitative Hydrogeology,* Academic Press, Inc., Austin.

Demenico, P.A. and Schwartz, F.W., 1990, Physical and Chemical Hydrogeology, John Wiley & Sons, New York, NY 824 pp.

Fetter, C.W. Jr., 1980. *Applied Hydrogeology*. Charles E. Merrill Publishing Co., Columbus, Ohio

Freeze, R.A. and J.A. Cherry, 1979. *Groundwater*, Prentice-Hall, Inc. Englewood Cliffs, New Jersey 07632, 604 pp.

Gray, L.M., 1991, "Paleoecology, Origin, and Significance of a Shell-Rich Bed in the Lowermost Part of the Ludlowville Formation (Middle Devonian, Central New York)," in eds. Landing, E.L. and Brett, C.E., Dynamic Stratigraphy and Depositional Environments of the Hamilton Group (Middle Devonian) in New York State, Part II, *New York State Museum Bulletin 469*, p.93-105.

Meiri, D., M. Ghiasi, R.J. Patterson, N. Ramanujam, and M.P. Tyson, 1990, Extraction of TCE-Contaminated Groundwater by Subsurface Drains and a Pumping Well, Ground Water, vol. 28, no. 1, pp. .

Harte, Philip, T., 1994, Comparison of Vertical Descretization Techniques in Finite Difference Models of Groundwater Flow Example from a Hypothetical New England Setting, U.S. Geological Survey Open-File Report 94-343, 25 pp.

Hendry, M.J., 1988. "Hydrogeology of Clay Till in a Prairie Region of Canada." *Groundwater*, Vol. 26, No. 5, September-October.

Houlsby, A.C., 1976. "Routine Interpretation of the Lugeon Water-Test." *Quarterly Journal of Engineering Geology*. Vol. 9, pp. 303-313.

Hutton, F.Z. Jr., 1972, Soil Survey of Seneca County, New York, U.S. Department of Agriculture, Soil Conservation Service in cooperation with Cornell University Agricultural Experiment Station, pp. 1-143.

Jones, LaDon, Tracy Lemar, and Chin-Ta Tsai, 1992. "Results of Two Pumping Tests in Wisconsin Age Weathered Till in Iowa." *Groundwater*, Vol 30, No. 4, July-August.

Keller, C.K., G. Van Der Kamp, and J.A. Cherry, 1988. "Hydrogeology of Two Saskatchewan Tills, I. Fractures, Bulk Permeability, and Spatial Variability of Downward Flow." *Journal of Hydrology*, 101:97-121.

LaSala, A.M. Jr., 1968, Groundwater Resources of the Erie-Niagara Basin, New York: Basic Planning Report ENB-3, State of New York Conservation Department with Resources Commission.

Looney, B.B., Grant, M.W., and King, C.M., 1987, Estimation of Geochemical Parameters for Assessing Subsurface Transport at the Savanah River Plant, United States Department of Defense, Contract DE-AC09-76SR00001, EI du Pont de Nemours & Co., Savanah River Laboratory, Aiken, SC.

McDonald, M.G. and Harbaugh, A.W., 1988, A Modular Three-Dimensional Finite-Difference Ground-Water Flow Model, Techniques of Water Resources of the U.S.G.S., Book 6, Chapter A1.

Merin, Ira. S., 1992, "Conceptual Model of Ground Water Flow in Fractured Siltstone Based on Analysis of Rock Cores, Borehole Geophysics, and Thin Sections." *Ground Water Monitoring Review*, Fall, 1992.

Metcalf and Eddy, 1989, Criteria Development Report for the Closure of Nine Burning Pads, Seneca Army Depot, Romulus, New York, Vol.1.

MFI/EM, The USGS Program to Input Data for MODFLOW Extended Memory Version for 80386 and 80486 Computers, Maximal Engineering Software, Inc., November 1994.

MODFLOW/EM, The USGS Three Dimensional Ground Water Flow Model Extended Memory Version for 80386 and 80486 Computers, Maximal Engineering Software, Inc., August, 1993.

MODPATH/EM, The USGS Model to Calculate Pathlines Using the Results of MODFLOW Extended Memory Version for 80386 and 80486 Computers, Maximal Engineering Software, Inc., November 1994.

MODPATH-PLOT/EM, The USGS Program for Displaying Pathlines and Endpoints Calculated by MODPATH Extended Memory Version for 80386 and 80486 Computers, Maximal Engineering Software, Inc., November 1994.

Mozola, A.J., 1951, The Groundwater Resources of Seneca County, New York, Bulletin GW-26. Water, Power and Control Commission, Department of Conservation, State of New York, Albany, New York.

Muller E.H. and Cadwel D.H., 1986, Surficial Geologic Map of New York State Finger Lakes

National Ground Water Association, Use of Modflow for Simulation of Ground Water Flow and Advective Transport, Short Course, Instructors: Michael McDonald, Arlen Harbaugh, Daniel Morissey, and David Pollock, Nov. 1994.

Nelson, M. J., J. V. Kinsella, and T. Montoya, 1990, In Situ Biodegradation of TCE Contaminated Groundwater, Environmental Progress, vol. 9, No. 3, pp. 190-196.

Pankow, J.F., R.L. Johnson, J.P. Hewetson, and J.A. Cherry, 1986, An Evaluation of Contaminant Migration Patterns at Two Waste Disposal Sites on Fractured Porous Media in Terms of the Equivalent Porous Medium (EPM) Model, J. of Contaminant Hydrology, vol. 1, pp. 65-76.

Parsons ES, Remedial Investigation Report at the Ash Landfill Site, 1994a.

Parsons ES, Action Memorandum, Ash Landfill Removal Action, 1994b.

Parsons ES, Expanded Site Inspection Seven Low Priority AOCs SEADs 60, 62, 63, 64(A, B, C and D), 67, 70, and 71, 1995a.

Parsons ES, Expanded Site Inspection Eight Moderately Low Priority AOCs SEADs 5, 9, 12(A and B), (43, 56, 69), 44(A and B), 50, 58, and 59, 1995b.

Parsons ES, Expanded Site Inspection Seven High Priority AOCs SEADs 4, 16, 17, 24, 25, 26 and 45, 1995c.

Pollock, D.W. 1994, User's Guide for MODPATH/MODPATH-PLOT, Version 3: A particle tracking post-processing package for MODFLOW, the U.S. Geological Survey finite-difference ground-water flow model, U.S. Geological Survey, Open-File Report 94-464.

Prudic, D.E., 1992, Hydraulic Conductivity of a Fine-Grained Till, Cattaraugus County, New York, Ground Water, vol. 20, no. 2, pp. 194-204.

Shacklette, H.T. at Boennger, J.G., 1984, "Element Concentrations in Soils at other Surficial Materials of the Contiguous United States" U.S.G.S. Prof Paper 1270, Washington

S. S. Papadopulous and Associates, 1992 , MT3D, A Modular Three-Dimensional Transport Model for Simulation of Advection, Dispersion, and Chemical Reactions of Contaminants in Groundwater Systems, Version 1.85, Documentation and User's Guide, second revision (3/15/92).

Telford, W.M., Geldart, L.P., Sheriff, R.E., Keys, D.A. 1981, Applied Geophysics, Cambridge University Press, Cambridge, England, 860 pp.

Thornthwaite and J.R., Mather, 1957, Publications in Climatology, Volume X, Number 3; Instructions and Tables for Computing Potential Evapotranspiration and The Water Balance.

Todd, David Keith, 1980. *Groundwater Hydrology*. John Wiley & Sons, New York. (2ed.)

U.S. Department of Agriculture, Soil Conservation Service, April 1972 Soil Survey, Seneca County New York

U.S. Department of Commerce, 1983, Climate Atlas of the United States.

U.S. Army Environmental Hygiene Agency, 1979. Army Pollution Abatement Program Study, No. D-1031-W, Landfill Leachate Study Seneca Army Depot, Romulus, New York, 23 July - 3 August 1979.

U.S. Army Environmental Hygiene Agency, 1984. Phase 4 Evaluation of the Open Burning/Open Detonation Grounds. Investigation of Soil Contamination, Hazardous Waste Study No. 37-26-0479-85.

U.S. Environmental Protection Agency, 1975. Use of the Water Balance Method for Predicting Leachate Generation from Solid Waste Disposal Sites.

U.S. Environmental Protection Agency, Office of Research and Development, 1989, Super Fund Ground Water Issue, Contaminant Transport in Fractured Media: Models for Decision Makers, EPA540/4-89/004.

U.S. Environmental Protection Agency, Office of Research and Development, 1992, Quality Assurance and Quality Control in the Development and Application of Groundwater Models, EPA/600/R-93/011.

U.S. Environmental Protection Agency, Rober S. Kerr Environmental Laborotory, Office of Research and Development, 1993, Compilation of Groundwater Models, by Paul K.M. van der Heijde and Osman A. Elnawawy, EPA/600/R-93/118.

U.S. Geological Survey Quadrangle Maps, Towns of Ovid and Dresden, New York, 1970.

U.S. Geological Map of New York State, 1978.

Van Genuchten, M. Th., and W.J. Alves, 1982. Analytical solutions of the one-dimensional convective-dispersive solute transport equation, *U.S. Dep. of Agric. Tech. Bull.* 1661, 149 pp.

Water Information Center, "Water Atlas of the United States," 1973.

Wiedemeier, Todd H., Swanson, M.A., Wilson, J.T., Kampbell, D.H., Miller, R.N., and Hanson, J.E., 1995, Comparison of Two Methods for Determining Biodegradation Rates at the Field Scale: Submitted to Groundwater Monitoring and Remediation, 1995.

Wilson, J.T., Pfeffer, F.M., Weaver, J.W., Kampbell, D.H., Wiedemeier, T.H., Hansen, J.E., Miller, R.N., 1994, "Intrinsic bioremediation of JP-4 fuel." in proceedings of the symposium on Intrinsic Bioremediation of Groundwater, EPA/540/R-94/515, August 30-September 1, 1994, U.S. Environmental Protection Agency, p. 60-72.

APPENDIX A

Northeast Regional Climate Center, Daily Evapotranspiration and Soil Moisture Estimates for the Northeastern United States - MORECS model

NORTHEAST
REGIONAL
CLIMATE
CENTER

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9 May 1995

Mr. Paul Meriney
Parsons Engineering Science Inc.
Prudential Center
Boston, MA 02199-7697

Dear Mr. Meriney:

Enclosed is the climatic data that you ordered. The tabulated values indicate the monthly total evapotranspiration from a grass-covered surface at Ithaca, NY. These values were derived using our evapotranspiration model which is described in the publication which I have included. A bill for this data is also enclosed.

I hope that this information is useful for your application. If you have any further questions, please don't hesitate to contact me.

Sincerely,

Arthur T. DeGaetano, Ph.D.
Research Climatologist

MONTHLY EVAPOTRANSPIRATION FROM GRASS

ITHACA, NY

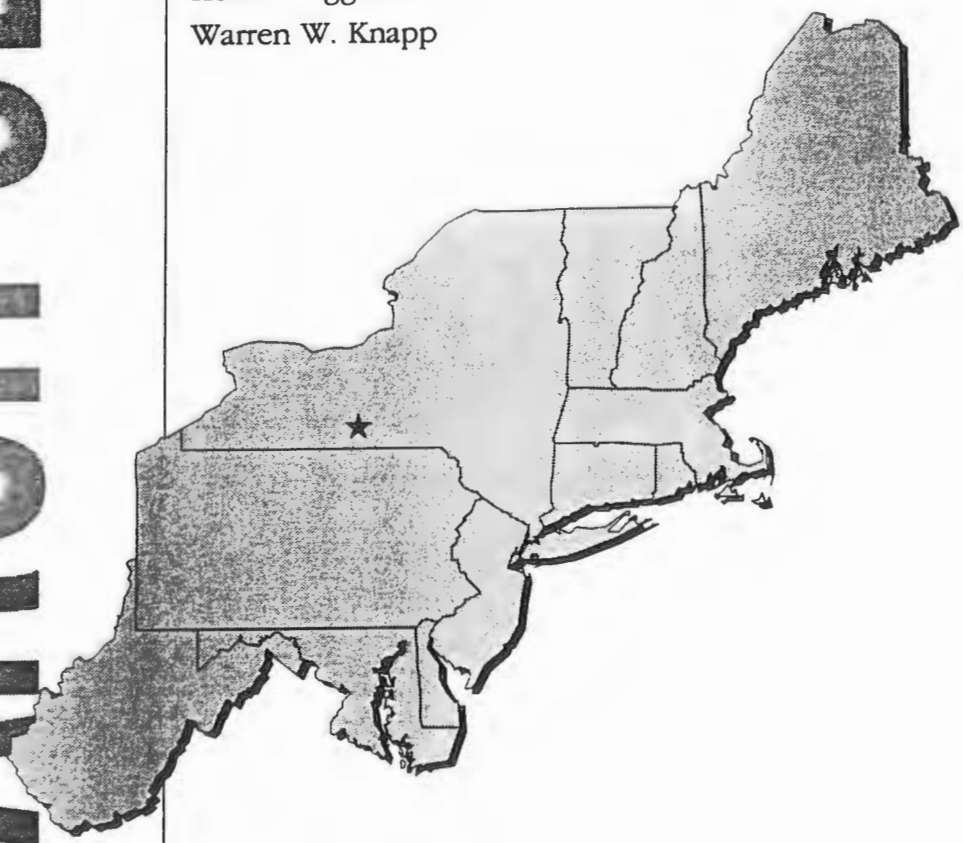
Month	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
January	0.24	0.22	0.28	0.24	0.27	0.37	0.33	0.30	0.27	0.24	0.17
February	0.53	0.39	0.31	0.55	0.48	0.35	0.53	0.47	0.22	0.43	0.54
March	0.80	1.28	1.20	1.65	1.26	1.19	1.27	1.00	0.67	0.93	0.87
April	1.80	2.00	2.17	1.96	1.73	1.91	1.99	2.08	1.64	1.57	1.93
May	2.12	3.48	3.71	3.46	3.20	2.51	2.52	4.03	2.84	3.43	2.64
June	4.30	3.15	3.38	3.51	4.39	3.02	3.60	3.65	3.51	3.42	4.20
July	4.26	4.10	3.49	4.19	3.43	4.51	3.81	3.38	2.35	4.09	4.05
August	3.39	2.77	3.34	3.08	3.33	3.27	3.10	2.03	2.91	3.00	2.97
September	2.37	2.38	2.00	1.52	2.57	2.04	2.03	1.04	2.21	1.53	2.05
October	1.30	1.27	0.93	1.09	0.94	1.41	1.10	1.44	1.14	1.11	1.45
November	0.52	0.32	0.40	0.51	0.53	0.33	0.69	0.53	0.43	0.42	0.61
December	0.32	0.21	0.27	0.28	0.34	0.25	0.31	0.30	0.28	0.40	0.41

RESEARCH SERIES

NORTHEAST REGIONAL CLIMATE CENTER

Daily Evapotranspiration and Soil Moisture Estimates for the Northeastern United States

Arthur T. DeGaetano
Keith L. Eggleston
Warren W. Knapp



Cornell University
Ithaca, New York
Publication No. RR 94-1
January 1994

Daily Evapotranspiration and Soil Moisture Estimates for the Northeastern United States

Arthur T. DeGaetano
Keith L. Eggleston
Warren W. Knapp

Cornell University
Ithaca, New York
Publication No. RR 94-1
January 1994

The mission of the Northeast Regional Climate Center (NRCC) is to facilitate and enhance the collection, dissemination and use of climate data as well as to monitor and assess climatic conditions and impacts in the twelve-state, northeastern region of the United States. Implementing this mission involves three programmatic objectives: 1) the development and management of regional climate data bases, 2) the dissemination of information and educational services regarding climate and its impacts, and 3) the performance and support of applied climate research.

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The Northeast Regional Climate Center is supported by a Grant from the National Oceanic and Atmospheric Administration.

Daily Evapotranspiration and Soil Moisture Estimates for the Northeastern United States

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INTRODUCTION

A recent survey of climate information users in the northeastern United States indicated a strong interest in current evapotranspiration (ET) and soil moisture values. Such data has a wide variety of applications including the planning of agricultural operations, flood potential forecasting, and the scheduling of urban lawn watering. Unfortunately, routine measurements of evaporation and soil moisture are not widely available in the region. Only about 30 cooperative network stations in the Northeast measure pan evaporation, and soil moisture is observed at a limited number of specialized stations. These measurements are not reported, however, with sufficient frequency to be useful in monitoring real-time ET rates or soil moisture status. In addition, the historical records of such observations show many gaps and inconsistencies.

Because the inventory of evaporation and soil moisture measurements is so limited, numerous methods to estimate ET and soil moisture status have been proposed and implemented. Broadly, such methods can be classified as either climatological or physically-based. Climatological methods are designed to estimate potential ET using routinely measured meteorological data such as air temperature, and do not relate well to actual situations where both crop and soil factors affect the rate of ET. Such methods are useful only for estimating maximum ET values over periods of a month or longer. Formally, potential evapotranspiration is defined as the rate of water loss from an extended surface of short green crop assuming that the crop fully shades the ground, exerts negligible resistance to the flow of water and is continually well supplied with water.

Perhaps the most widely used climatological method for estimating ET is that of Thornthwaite (1948). Based on mean monthly temperature (T_i), in °C, Thornthwaite's method estimates potential ET (ETP) for month i using the formula:

$$ETP_i = 1.6\,(10(T_i)/I)^a \qquad (1)$$

where ETP has units of centimeters and the exponent a is given by:

$$a = 6.75\times10^{-7}\,(I^3) - 7.71\times10^{-5}\,(I^2) + 1.79\times10^{-2}\,(I) + 0.49. \qquad (2)$$

I is a heat index given as:

$$I = \sum_{i=1}^{12} (T_i/5)^{1.514}. \qquad (3)$$

Application of the Thornthwaite method to estimate ETP over periods shorter than a month leads to significant errors because short-term temperature means are an unsatisfactory surrogate for net radiation, which physically drives evapotranspiration. Other climatological methods have been proposed by Blaney and Criddle (1950), and Jensen and Haise (1963).

Physically-based methods for estimating evaporation allow for more reliable, short-term estimates at the expensive of requiring considerably more meteorological input data. This is exemplified by the commonly used Penman Method (Penman, 1948) given in simplified form as:

$$E = (\Delta H + \gamma E_a)/ (m + \gamma) \quad (4)$$

where E is daily evaporation from an open water surface, Δ is the slope of the saturation vapor pressure curve at the mean air temperature, H is an estimate of net radiation and γ is the psychromatic constant. E_a, which relies on the saturation and actual vapor pressures, e_s and e_a, respectively, and the mean wind speed, u, is given as:

$$E_a = 0.35(e_s - e_a)(1 + u \times 10^{-2}). \quad (5)$$

Other physically-based methods for estimating evaporation, include those proposed by Thornthwaite and Holzman (1942), Swinbank (1951), and Suomi and Tanner (1958). A physically-based method for estimating evapotranspiration was developed by Monteith (1963).

Combining the methods of Penman and Monteith provides a physically-based means of estimating ET from surfaces other than open water. The Penman-Monteith equation (Monteith, 1965) calculates ET as:

$$\lambda E = \frac{\Delta(R_n - G) + \rho c_p (e_s - e_a)/r_a}{\Delta + \gamma (1 + r_s/r_a)} \quad (6)$$

where
- E = rate of water loss (Kg $m^{-2}s^{-1}$)
- Δ = rate of change of e_s with temperature (mb $°C^{-1}$)
- R_n = net radiation (Wm^{-2})
- G = soil heat flux (Wm^{-2})
- ρ = air density (Kg m^{-3})
- c_p = specific heat of air at constant pressure (1005 JKg^{-1} $°C^{-1}$)
- e_s = saturation vapor pressure (mb)
- e_a = actual vapor pressure (mb)
- λ = latent heat of vaporization (2.465×10^6 JKg^{-1})
- γ = psychromatic constant (0.66 mb $°C^{-1}$)
- r_s = surface resistance (sm^{-1})
- r_a = aerodynamic resistance (sm^{-1})

Due to its physical basis and its ability to provide reliable daily ET estimates, the Penman-Monteith equation is commonly used to estimate ET for a variety of surface types and locations. The Penman-Monteith equation forms the basis for the British Meteorological Office Rainfall and Evaporation Calculation System (MORECS) (Thompson et al., 1981). MORECS is used operationally in Great Britain to obtain weekly and monthly estimates of average evaporation and soil moisture deficits over

40 km x 40 km grid squares. The system relies on routinely observed daily meteorological data as its input. An important feature of MORECS is a scheme designed to determine potential and actual ET over a variety of different surface types. Using MORECS, such estimates can be obtained for open water, bare soil, grass, cereals, potatoes, deciduous trees, conifers, orchards and pastures.

The Penman-Monteith equation is also the primary means by which ET is calculated in the CERES-Maize corn simulation model (Jones and Kiniry, 1986). This model is used operationally by the Midwest Climate Center to estimate soil moisture status under corn crops in the midwestern U.S. (Kunkel, 1990). Although well suited for use in the Midwest, where corn is a widely grown agricultural crop, such a crop-specific model is not a good choice the Northeast due to the wide variety of land uses.

Because of this need for a more general ET model, the British MORECS has been modified and validated for use in the northeastern United States. Presently, historical and real-time estimates of potential ET from grass, evaporation from bare soil and standard evaporation pans, as well as actual ET from grass- and deciduous tree-covered surfaces are available for the region. In addition, soil moisture deficits can be calculated under grass, bare soil and deciduous trees. ET and soil moisture estimates can also be obtained for a variety of other crops, however the unavailability of reliable verification data for other surface covers has precluded validation of the model for other surface cover types.

MODEL DESCRIPTION

a. Evaporation

Calculation of ET values using Equation 6 requires several supplementary physical and empirical relationships with which to compute values for terms that are not routinely measured. Because solar radiation measurements are not widely available in the Northeast, daily estimates of downward shortwave solar radiation are calculated based on hourly cloudiness, dew point and station pressure observations using the methods described in DeGaetano et al., 1993. Net radiation is obtained by decreasing the short wave radiation estimate according to the surface albedo, and summing this estimate and the net long wave radiation given by Linacre (1968) as:

$$R_{LN} = \varepsilon\sigma T^4 [1.35(e_s/T)^{0.143} - 1] (0.6) \quad (7)$$

where R_{LN} = net long wave radiation (Wm^{-2})
ε = emissivity (0.95)
σ = Stefan's constant (5.67×10^{-8} Wm^{-2} $°K^{-4}$)
e_s = saturation vapor pressure (mb)
T = shelter temperature (°K).

The constant 0.6 accounts for cloudiness assuming a constant cloud cover of five tenths.

During daylight hours, G is defined as the flux density of heat into the soil and is calculated as:

$$G_d = (0.3 - 0.03L)R_{Nd} \quad (8)$$

where L is the leaf area index and R_{Nd} is daytime net radiation. For grass, L varies from 2.0 during winter (December-February) to 5.0 in summer (July-September). However, L is assumed to equal 3.33 when calculating G_d. The leaf area index used to calculate G_d for deciduous trees varies linearly from 0.1 during dormancy to 6.0 at full leaf. A similar linear decrease in leaf area index is assumed during senescence. For bare soil, L = 0.0. At night, an estimate of G is given by:

$$G_n = (D(G_d) - P)/(24 - D) \quad (9)$$

where D is the number of daylight hours and P is the average daily heat storage in soil (Whr m^{-2}). Monthly values of P were empirically determined by Wales-Smith and Arnott (1980) and are given in Thompson et al. (1981). It is assumed that the British heat storage values are suitable for use in the northeastern U.S. When estimating pan evaporation, G is set equal to 0.0.

Using the logarithmic wind profile and assuming neutral stability, r_a is given as:

$$r_a = (6.25/u)\ \ln(10.0/z_o)\ \ln(6.0/z_o) \quad (10)$$

where u is the wind speed (ms^{-1}) at a height of 10 m above the ground and z_o is the roughness length (m). Fixed roughness lengths of 1.5×10^{-2}, 5.0×10^{-3} and 5.0×10^{-4} m are assigned to grass, bare soil and water, respectively. For deciduous trees, roughness length varies linearly between 0.2 m at leaf emergence to 1.0 m for full leaf. During autumn, roughness length is linearly decreased from the full leaf value to a defoliated value of 1.5×10^{-2} m. Similarly, roughness length is linearly increased during the period of bud break in spring.

In MORECS, water may be extracted from both the soil and the crop. Thus, the surface resistance term incorporates resistances due to both the crop and soil. Daytime values of crop resistance are prescribed for each surface type. These values reflect a crop that is freely supplied with water and thus represent a minimum resistance associated with each crop type. For deciduous trees, the minimum resistance is set equal to 80 sm^{-1}, while for grass this value varies from 50 during winter to 40 sm^{-1} in the summer months. Despite the lack of crop cover, a relatively high crop resistance value of 600 sm^{-1} is used for evaporation from bare soil to ensure that transpiration is negligible.

MORECS assumes two soil moisture reservoirs. Water in the top reservoir (x) is freely available for ET, while water in the second reservoir (y) becomes increasingly more difficult to extract as soil moisture decreases. The contents of each reservoir can be subdivided into water available for evaporation (x_{SOIL} or y_{SOIL}) and water available for transpiration (x_{CROP} or y_{CROP}). In the case of bare soil, water can only be evaporated from x_{SOIL} or y_{SOIL}. Provided water exists in x, the crop resistance remains at the minimum value. Soil resistance, is set to 100 sm^{-1} until x_{SOIL} has been depleted. After this point, soil resistance increases according to the formula:

$$r_{SOIL} = 100Cx_{max}/(x_{SOIL} + x_{CROP} + 0.01Cx_{max}) \quad (11)$$

where r_{SOIL} is the soil resistance, x_{SOIL} and x_{CROP} are the amount of water contained in each reservoir, and Cx_{max} is the maximum amount of water that can be held in x_{CROP}. For potential evapotranspiration, r_{SOIL} remains at 100 sm^{-1} and crop resistance is set at the minimum value for grass.

Once the water in the x reservoir has been exhausted, r_{SOIL} is set to 10^4 sm^{-1} and ne crop resistance (r_{CROP}) is increased proportionally to the water deficit of the y reservoir using the formula:

$$r_{CROP} = (r_{CROP})_{min}((2.5y_{max}/(y_{SOIL} + y_{CROP}))-1.5) \quad (12)$$

where y_{SOIL} and y_{CROP} are the amount of water contained in each reservoir, y_{max} is the maximum amount of water that can be held in the y reservoir and $(r_{CROP})_{min}$ is the minimum crop resistance value.

Daytime surface resistance, r_s, is related to r_{CROP} and r_{SOIL} by the expression:

$$r_s = r_{CROP}\, r_{SOIL}/((r_{SOIL}(1-A))+(r_{CROP}\, A)) \quad (13)$$

where $A = 0.7^L$. At night, when stomata are closed, r_s is given by:

$$r_s = 2500(r_{SOIL})/(r_{SOIL}(L)+2500). \quad (14)$$

However, when the surface is bare soil and all water in x_{SOIL} has been depleted, regardless of the time of day, r_s is specified as:

$$r_s = 100(3.5(1-(y_{SOIL}/Sy_{max})) + \exp(0.2(Sy_{max}/(y_{SOIL} - 1)))) \quad (15)$$

where Sy_{max} is the maximum amount of water that can be held in y_{SOIL}. For an open water surface, r_s equals 0.0.

b. Precipitation

Each of the soil reservoirs can be replenished by rainfall and, theoretically, by dew deposition. In cases where the soil surface is covered by vegetation, a certain amount of rainfall is intercepted by the plant canopy and is thus unavailable to the soil. The proportion of rainfall that can be intercepted by grass, P, is:

$$P = (1.0 - 0.5^L). \quad (16)$$

The amount of interception, I, is simply the product of P and the daily rainfall. However, I can not exceed 20% of the leaf area index, L (i.e., $I \leq 0.2L$). Particularly during summer, several individual showers may contribute to the daily rainfall total. In such cases, the interception associated with the first shower may evaporate prior to any subsequent rainfall. Thus, Thompson et al. (1981) suggest the calculated value of I be multiplied by an adjustment factor during the months from March through November. These adjustment factors are given in Table 1. During all months, however, I is limited to the daily rainfall total.

Table 1. Adjustment factors to allow for evaporation of interception resulting from multiple daily rainfall events.

Month	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Factor	1.2	1.4	1.6	2.0	2.0	2.0	1.8	1.4	1.2

Interception by deciduous trees is treated differently. Helvey and Patric (1965) present a regression-based approach for estimating interception of rainfall in eastern

hardwood forests. During dormancy (trees are in a defoliated state), interception is given as:

$$I = 0.086R + 0.015 \quad (17)$$

Interception by trees in full leaf is calculated using:

$$I = 0.099R + 0.031 \quad (18)$$

where R is the daily rainfall and the date of full leaf is obtained using phenological data. During leaf emergence, I is linearly increased from its dormancy value. Conversely, during senescence, I is linearly decreased from its full leaf value.

When interception is present, evaporation of the intercepted moisture occurs prior to any evapotranspiration from the soil. After setting r_s to 0.0, the open water value, evaporation is calculated hourly until the foliage is completely dry (no interception). Subsequent hourly ET estimates are calculated using r_s given by Equations 13 and/or 14. If intercepted water still exists after 24 hours, the unevaporated interception is assumed to fall to the soil.

c. Dew Deposition

The formation of dew is assumed when nighttime evaporation is negative. In these instances, dew is treated as open water and nighttime evaporation is recalculated after setting r_s to zero. If this calculation again yields negative evaporation, the deposition of dew is assumed with the amount of dew equal to the absolute value of evaporation. Ensuing calculations treat dew deposition in the same manner as rainfall. If recalculation yields positive evaporation, nighttime evaporation is set to zero. In such cases it is assumed that only dew has evaporated.

d. Runoff

For surface types other than deciduous tress, runoff is assumed equal to zero unless both the x and y reservoirs are at capacity. In the case of trees, runoff is also assumed to occur if the daily rainfall exceeds 1.00 inch or regardless of the daily rainfall total, when x_{SOIL} is greater than zero. These criteria are based on the curve number method (USDA, 1972). Using a simplification of this method, the runoff from a tree covered surface is:

$$RO_{tree} = (R - 0.2D)^2/(R + 0.8D) \quad (19)$$

R is the daily rainfall (cm), and D is given by:

$$D = (x_{max} + y_{max}) - (x_{soil} + x_{crop} + y_{soil} + y_{crop}) \quad (20)$$

where x_{max} and y_{max} are the capacities of the x and y soil water reservoirs.

e. Water Budget Calculations

The maximum total amount of water available for ET from a specific crop (AW) is assumed to fill two soil moisture reservoirs. Water in the x reservoir, 40% of AW, is freely available for ET, while the remaining 60% of AW, which fills the y reservoir, becomes increasing difficult to transpire or evaporate as the contents of y decrease. The amount of water within each reservoir is further subdivided into water available

for evaporation from bare soil (x_{soil} or y_{soil}) and water available for ET from a crop covered surface (x_{crop} or y_{crop}). For soil with typical water holding capacity, AW is assigned a value of 20 mm for bare soil; 125 mm for grass and 175 mm for trees. Thus, regardless of crop type, x_{soil} and y_{soil} can not exceed 8 and 12 mm, respectively for a soil with average water holding capacity.

Through the process of ET, water is withdrawn from x_{soil} until this sub-reservoir is empty. Subsequent ET draws water from x_{crop} until the entire x reservoir is exhausted. At this point ET draws water from the y reservoir, depleting y_{soil} before tapping the reserve stored in y_{crop}. Soil moisture is replenished in a similar manner. Rainfall must fill the x_{soil} sub-reservoir to capacity before replenishing any moisture deficit in x_{crop}. Once the x reservoir is at capacity, additional rainfall fills y_{soil} and finally y_{crop}. This sequence of ET and recharge qualitatively represents the decreasing availability of soil moisture for evaporation and/or transpiration. Such an assumption simplifies the process of specifying crop and soil resistances as soil moisture becomes increasingly depleted or recharged.

f. Modifications for winter conditions

Because MORECS was developed for a climate in which snowfall is uncommon, several modifications were required to adapt the model for use in the northeastern U.S. where snowfall is possible throughout the cold half of the year. These modifications are designed to assure that soil moisture conditions are correctly initialized at the start of the growing season. Precipitation is assumed to fall in liquid form throughout the year. Therefore, the liquid water contained in snowfall is assumed to immediately replenish the soil moisture reservoirs. Although these assumptions allow soil moisture conditions to be tracked through the winter, individual daily soil moisture values are overestimated when snow cover is present or the soil is frozen.

Two additional modifications are also incorporated when snow cover exists and/or the air temperature falls below 30° F. The surface resistance is set to 0.0 on days with snow cover, because the presence of snow implies that any evaporation will occur from an open, although frozen, water surface. At temperatures below 30° F, the value of λ, used in Eq. 6, is assigned the latent heat of sublimation (2.799×10^6 Jkg^{-1}).

VALIDATION

To assess the accuracy of the ET and soil moisture values estimated by the model, output values were compared with observations at several sites in the northeastern United States. Unfortunately, sets of high-quality soil moisture observations are extremely scarce, so much of the validation analysis is based on pan evaporation measurements. Daily pan evaporation observations were obtained from 4 sites in the region and compared with the corresponding model estimates of open water evaporation. Mean errors (ME), (model - observed), mean absolute errors (MAE) and root mean square errors (RMSE) were computed at each site. These results appear in Table 2.

The results in Table 2 indicate close agreement between the observed and modeled evaporation values. The model appears to be unbiased as indicated by the overall

Table 2. Mean error (ME), mean absolute error (MAE) and root mean square error (RMSE) associated with modeled pan evaporation at the indicated sites. Errors have units of inches. The daily average observed pan evaporation (PAN), period of record (Years) and number of daily observations (OBS) are also given.

Station	ME	MAE	RMSE	PAN	Years	OBS
Beltsville, MD	0.00	0.04	0.06	0.19	1985 - 1990	1043
Emmaus, PA	0.01	0.05	0.07	0.17	1985 - 1991	1278
Ithaca, NY	0.00	0.03	0.05	0.15	1984 - 1990	1277
New Brunswick, NJ	0.01	0.04	0.05	0.17	1985 - 1990	1003
All Stations	0.00	0.04	0.06	0.17		4601

mean error value of zero. Little bias is apparent at the individual stations as well. On average, individual evaporation estimates deviate from the observed value by approximately ±0.04 inches. This value is remarkably consistent among the four stations, as are the RMSE values. Errors were also calculated for monthly periods and for days with and without precipitation reported. Generally, these results were similar to those given in Table 2.

Model-derived soil moisture estimates under grass and bare soil were verified using weekly data collected at Rock Springs, PA (McKee, 1983). Figure 1 compares actual and model-derived soil moisture under grass during 1977. This growing season was generally characterized by a dry spring and moist early summer. Dry weather during the late summer and early autumn was followed by wet late-autumn conditions. Despite these frequent and rather abrupt changes in soil moisture conditions, the modeled values follow the observed values quite closely. The largest deviations between the two curves occur in mid-August and mid-September. During these periods, observed soil moisture exceeds the modeled value. Because coincident meteorological and soil moisture observations were unavailable, these deviations most likely result from differences in the amount of precipitation received at Rock Springs and the rain gauge site at State College, PA which is located approximately 10 miles to the northeast. Prior to 8 August, errors (model - observed) averaged -0.06

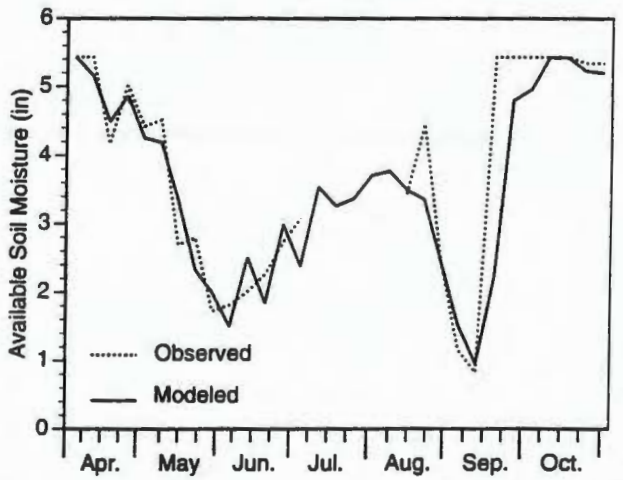

Figure 1. Comparison of modeled and observed soil moisture under grass during 1977 at Rock Springs, PA.

inches, while the mean absolute error and root mean square error were 0.34 and 0.40 inches, respectively. Over this period actual soil moisture averaged 3.40 inches. Similar agreement between observed and model-derived soil moisture values was achieved during other growing seasons and for bare soil.

Soil moisture observations taken within a deciduous forest were available from the Hubbard Brook Experimental Forest in New Hampshire. Figure 2a compares actual and model-derived soil moisture at this site during 1971. During this growing season, dry weather during the spring and early summer was followed by generally wet conditions during late-summer and autumn. As was the case for grass, the modeled values follow the observed values quite closely. However, particularly from July onward, a tendency for the model to overestimate soil moisture is apparent. This bias most likely results from runoff characteristics which are specific to the Hubbard Brook site. For instance, sharp increases in estimated soil moisture follow rainfalls of over

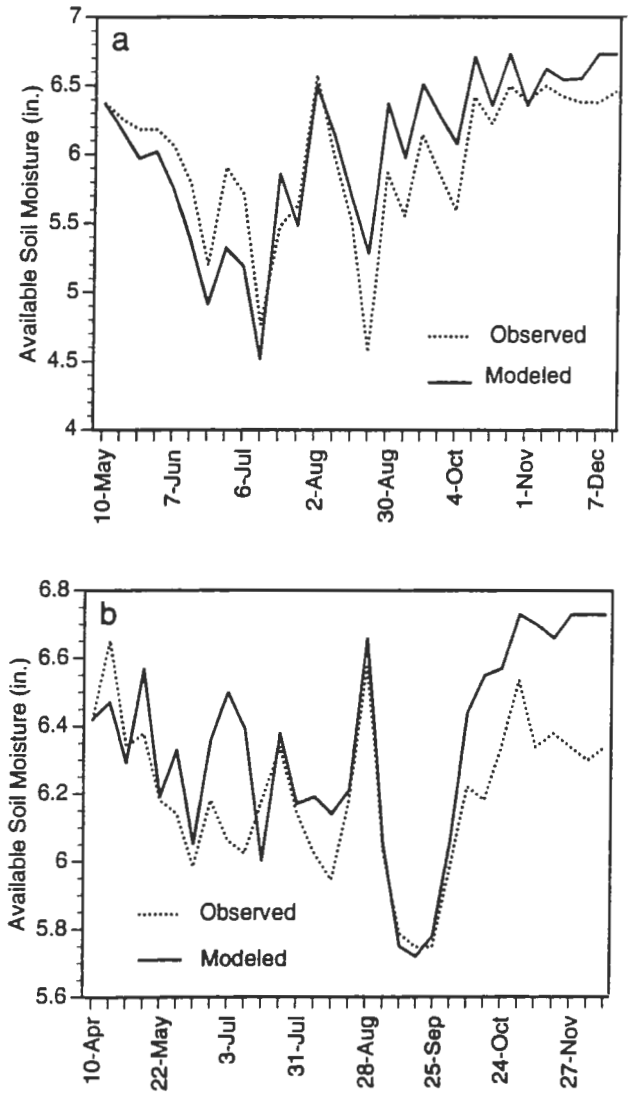

Figure 2. Comparison of modeled and observed soil moisture under a deciduous forest during (a) 1971 and (b) 1972. Growing season observations are at approximately seven day intervals.

1.8 inches on 27-28 August; 1.90 inches over the period from 12 to 14 September and 2.13 inches on October 9. Sharp increases in soil moisture are also associated with frequent rainfall events during 1972, particularly in autumn and the late spring and early summer (Fig. 2b). During 1971, mean errors averaged -0.07 inches, while the mean absolute and root mean square errors were 0.28 and 0.33 inches, respectively.

SUMMARY

Evapotranspiration and soil moisture measurements in the northeastern United States are relatively few in number and have limited periods of record. Since this semi-physical model requires only standard hourly surface observations and daily precipitation as inputs, current ET and soil moisture estimates can be generated at several dozen hourly observing sites within the region. Historical ET and soil moisture estimates dating back to 1948 can also be computed at approximately 30 sites in the Northeast. This data base of estimated ET and soil moisture values will provide essential data for applications ranging from drought and flood monitoring to the scheduling of urban lawn watering.

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REFERENCES

Blaney, H.F. and W.D. Criddle, 1950: Determining water requirements in irrigated areas from climatological and irrigation data. *USDA Soil Conservation Service Tech. Paper No. 96*, 48 pp.

DeGaetano, A.T., K.L. Eggleston and W.W. Knapp, 1993: *Daily solar radiation estimates for the northeastern United States*. Northeast Regional Climate Center Research Publication RR 93-4, 7 pp.

Helvey, J.D. and J.H. Patric, 1965: Canopy and litter interception of rainfall by hardwoods of eastern United States. *Water Resour. Res.*, **1**, 193-206.

Jensen, M.E. and H.R. Haise, 1963: Estimating evapotranspiration from solar radiation. *J. Irrigation Drainage Div. Amer. Soc. Civil Eng.*, **89**, 15-41.

Jones, C.A. and J.R. Kiniry, 1986: *CERES-Maize A Simulation Model of Maize Growth and Development*. Texas A&M University Press, 194 pp.

Kunkel, K.E., 1990: Operational soil moisture estimation for the midwestern United States. *J. Appl. Meteor.*, **29**, 1158-1166.

Linacre, E.T., 1968: Estimating the net radiation flux. *Agric. Meteorol.*, **5**, 49-63.

McKee, G.W., 1983: *Weather Observations 1969-1982 Agronomy Research Farm Rock Springs*. Agronomy Series 75, Department of Agronomy, The Pennsylvania State University, 209 pp.

Monteith, J.L., 1963: Gas exchange in plant communities. *Environmental Control of Plant Growth*, L.T. Evans, ed., Academic Press, New York, 95-112.

_____, 1965: Evaporation and environment. *Symp. Soc. Exp. Biol.*, **19**, 205-234.

Penman, H.L., 1948: Natural evaporation from open water, bare soil and grass. *Proc. Roy. Soc. A.*, **193**, 120-145.

Suomi, V.E. and C.B. Tanner, 1958: Evapotranspiration estimates from heat budget measurements over a field crop. *Trans. Amer. Geophys. Union*, **39**, 298-304.

Swinbank, W.C., 1951: The measurement of vertical transfer of heat and water vapor by eddies in the lower atmosphere. *J. Meteorol.*, **8**, 135-145.

Thompson, N., I.A. Barrie and M. Ayles, 1981: *The Meteorological Office Rainfall and Evaporation Calculation System (MORECS)*. United Kingdom Meteorological Office Hydrological Memorandum No. 45, 72 pp.

Thornthwaite, C.W., 1948: An approach toward a rational classification of climate. *Geogr. Rev.*, **38**, 55-94.

_____ and B. Holzman, 1942: *Measurement of evaporation from land and water surfaces*. USDA Tech. Bull. No. 817, 75 pp.

USDA, 1972: *Soil Conservation Service, National Engineering Handbook, Hydrology*, Section 4, Chapters 4-10.

Wales-Smith, B.G. and J.A. Arnott, 1980: *The evaporation calculation system used in the United Kingdom*. Unpublished paper available from the National Meteorological Library, Bracknell UK.

NRCC RESEARCH SERIES

Knapp, W.W. and K.L. Eggleston, *Some Impacts of Recent Climate Variability on the Northeast,* NRCC Research Publication RR 91-1.

Wilks, D.S., *Gamma Distribution Probability Tables for Use in Climatology,* NRCC Research Publication RR 91-2.

Samelson, D., *A Simple Method for Predicting Snowpack Water Equivalent in the Northeastern United States,* NRCC Research Publication RR 92-1.

Wilks, D.S., *Spline Interpolated Parameters for Adjusting Climatological Precipitation Distributions using the 30- and 90-Day Outlooks,* NRCC Research Publication RR 92-2.

Cember, R.P. and D.S. Wilks, *Climatological Atlas of Snowfall and Snow Depth for the Northeastern United States and Southeastern Canada,* NRCC Research Publication RR 93-1.

DeGaetano, A.T., K.L. Eggleston, and W.W. Knapp, *A Method to Produce Serially Complete Daily Maximum and Minimum Temperature Data for the Northeast,* NRCC Research Publication RR 93-2.

DeGaetano, A.T., W.W. Knapp, and K.L. Eggleston, *Standardizing Growing Degree Day Totals for Differences in Temperature Observing Schedules,* NRCC Research Publication RR 93-3.

DeGaetano, A.T., K.L. Eggleston, and W.W. Knapp, *Daily Solar Radiation Estimates for the Northeastern United States,* NRCC Research Publication RR 93-4.

Wilks, D.S. and R.P. Cember, *Atlas of Precipitation Extremes for the Northeastern United States and Southeastern Canada,* NRCC Research Publication RR 93-5.

DeGaetano, A.T., K.L. Eggleston, and W.W. Knapp, *Climatology of Extreme Maximum Temperature Occurrences for the Northeastern United States,* NRCC Research Publication RR 93-6.

NRCC DIGITAL DATA SETS

Eggleston, K.L. and D.S. Wilks, *Gridded Monthly Precipitation Distribution Parameters for the Continental United States,* NRCC Data Set DS 92-1.

Cember, R.P., K.L. Eggleston, and D.S. Wilks, *Digital Snowfall and Snow Depth Probabilities for the Northeastern United States and Southeastern Canada,* NRCC Data Set DS 93-1.

McKay, M., D.S. Wilks, and T.W. Schmidlin, *Quality-Controlled Snow Water Equivalent Data for the Northeastern Unites States,* NRCC Data Set DS 94-1.

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APPENDIX B

Preliminary Water Budget Calculations
(Q_{in} vs. Q_{out})

PRELIMINARY WATER BALANCE CALCULATIONS

RECHARGE CALCULATION (Qin)

Total Area of Active Model Grid:	150,413,697.20	square feet
Rechage from Precipitation:	0.001622	feet/year
Qin =	243,971.02	cu. feet/day

FLOW OUT OF AQUIFER INTO SENECA LAKE (Qout)

Qout for Layer 1:

Flow through west-facing cells:

Total N-S Length:	6,945.20	feet
Saturated Thickness:	6	feet
Area =	41,671.20	square feet

Flow through south-facing cells:

Total N-S Length:	2,278.08	feet
Saturated Thickness:	6	feet
Area =	13,668.48	square feet
Total area for Layer 1 =	55,339.68	square feet

Qout Layer 1

	K	A	I
	feet/day	square feet	
Qout =	1.03	55,339.68	0.02

Qout = 1,140.00 cu. feet/day

Qout for Layer 2:

Flow through west-facing cells:

Total N-S Length:	6,945.20	feet
Saturated Thickness:	20	feet
Area =	138,904.00	square feet

Flow through south-facing cells:

Total N-S Length:	2,278.08	feet
Saturated Thickness:	20	feet
Area =	45,561.60	square feet

Total area for Layer 1 = 184,465.60 square feet

Qout Layer 1

	K	A	I
	feet/day	square feet	
Qout =	0.2	184,465.60	0.03

Qout = 922.33 cu. feet/day

Qout for Layer 3:

Flow through west-facing cells:

Total N-S Length:	6,945.20	feet
Saturated Thickness:	20	feet
Area =	138,904.00	square feet

Flow through south-facing cells:

Total N-S Length:	2,278.08	feet
Saturated Thickness:	20	feet
Area =	45,561.60	square feet

Total area for Layer 1 = 184,465.60 square feet

Qout Layer 1

	K	A	I
	feet/day	square feet	
Qout =	0.04	184,465.60	0.03

Qout = 184.47 cu. feet/day

Qout for Layer 4:

Flow through west-facing cells:

Total N-S Length:		6,945.20	feet
Saturated Thickness:		20	feet
	Area =	138,904.00	square feet

Flow through south-facing cells:

Total N-S Length:		2,278.08	feet
Saturated Thickness:		20	feet
	Area =	45,561.60	square feet

Total area for Layer 1 = 184,465.60 square feet

Qout Layer 1

	K	A	I
	feet/day	square feet	
Qout =	0.0023	184,465.60	0.03

Qout = 10.61 cu. feet/day

Total Qout, Flow System

Qout Layer 1 =	1,140.00	cu feet/day
Qout Layer 2 =	922.33	cu feet/day
Qout Layer 3 =	184.47	cu feet/day
Qout Layer 4 =	10.61	cu feet/day
Total =	2,257.40	cu feet/day

APPENDIX C

MODFLOW Output File

```
1                  U.S. GEOLOGICAL SURVEY MODULAR FINITE-DIFFERENCE GROUND-WATER MODEL
0THREE DIMENSIONAL GROUNDWATER FLOW SIMULATION AT THE ASH LANDFILL
    3 LAYERS       220 ROWS        82 COLUMNS
   1 STRESS PERIOD(S) IN SIMULATION
 MODEL TIME UNITS ARE UNDEFINED
0I/O UNITS:
 ELEMENT OF IUNIT:  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
       I/O UNIT: 11  0  0  0  0  0  0 18  0  0  0 22 23  0  0  0  0  0  0  0  0 60  0  0
0BAS1 -- BASIC MODEL PACKAGE, VERSION 1, 9/1/87 INPUT READ FROM UNIT  1
 ARRAYS RHS AND BUFF WILL SHARE MEMORY.
 START HEAD WILL NOT BE SAVED -- DRAWDOWN CANNOT BE CALCULATED
   469354 ELEMENTS IN X ARRAY ARE USED BY BAS
   469354 ELEMENTS OF X ARRAY USED OUT OF 9999999
0BCF2 -- BLOCK-CENTERED FLOW PACKAGE, VERSION 2, 7/1/91 INPUT READ FROM UNIT 11
 STEADY-STATE SIMULATION
 CELL-BY-CELL FLOWS WILL BE RECORDED ON UNIT 41
 HEAD AT CELLS THAT CONVERT TO DRY=  0.10000E+31
 WETTING CAPABILITY IS ACTIVE
 WETTING FACTOR=   0.50000      WETTING ITERATION INTERVAL=    1
 FLAG THAT SPECIFIES THE EQUATION TO USE FOR HEAD AT WETTED CELLS=    0
      LAYER  AQUIFER TYPE
      ------------------
         1          0
         2          0
         3          0
    36083 ELEMENTS IN X ARRAY ARE USED BY BCF
   505437 ELEMENTS OF X ARRAY USED OUT OF 9999999
0RCH1 -- RECHARGE PACKAGE, VERSION 1, 9/1/87 INPUT READ FROM UNIT 18
 OPTION 3 -- RECHARGE TO HIGHEST ACTIVE NODE IN EACH VERTICAL COLUMN
 CELL-BY-CELL FLOW TERMS WILL BE RECORDED ON UNIT 41
    18040 ELEMENTS OF X ARRAY USED FOR RECHARGE
   523477 ELEMENTS OF X ARRAY USED OUT OF 9999999
0PCG2 -- CONJUGATE GRADIENT SOLUTION PACKAGE, VERSION 2, 5/1/88
 MAXIMUM OF  25 CALLS OF SOLUTION ROUTINE
 MAXIMUM OF  20 INTERNAL ITERATIONS PER CALL TO SOLUTION ROUTINE
 MATRIX PRECONDITIONING TYPE :   1
  220480 ELEMENTS IN X ARRAY ARE USED BY PCG
  7439957 ELEMENTS OF X ARRAY USED OUT OF9999999
1THREE DIMENSIONAL GROUNDWATER FLOW SIMULATION AT THE ASH LANDFILL
0
```

BOUNDARY ARRAY FOR LAYER 1 WILL BE READ ON UNIT 30 USING FORMAT: (82I9)

```
         1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25
        26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44  45  46  47  48  49  50
        51  52  53  54  55  56  57  58  59  60  61  62  63  64  65  66  67  68  69  70  71  72  73  74  75
        76  77  78  79  80  81  82
 ..........................................................................................................
0  1    0   1   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
        0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
        0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
        0   0   0   0   0   0   0
0  2    1   1   1   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
        0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
        0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
        0   0   0   0   0   0   0
0  3    1   1   I   1   1   1   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
        0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
        0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
        0   0   0   0   0   0   0
0  4    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        0   0   0   0   0   0   0
0  5    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0  6    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0  7    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0  8    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0  9    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0 10    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0 11    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0 12    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0 13    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0 14    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0 15    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0 16    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0 17    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
0 18    1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
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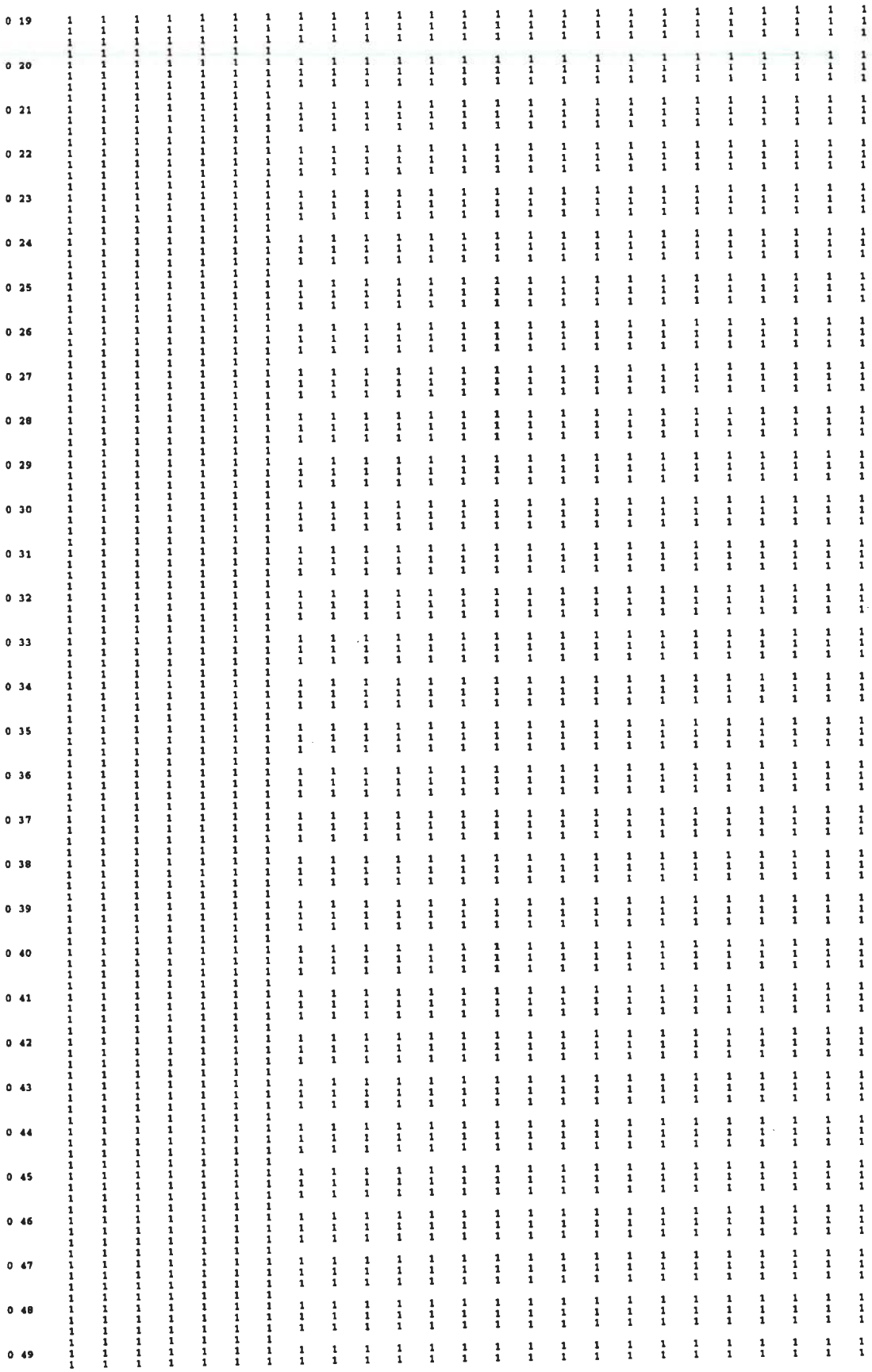
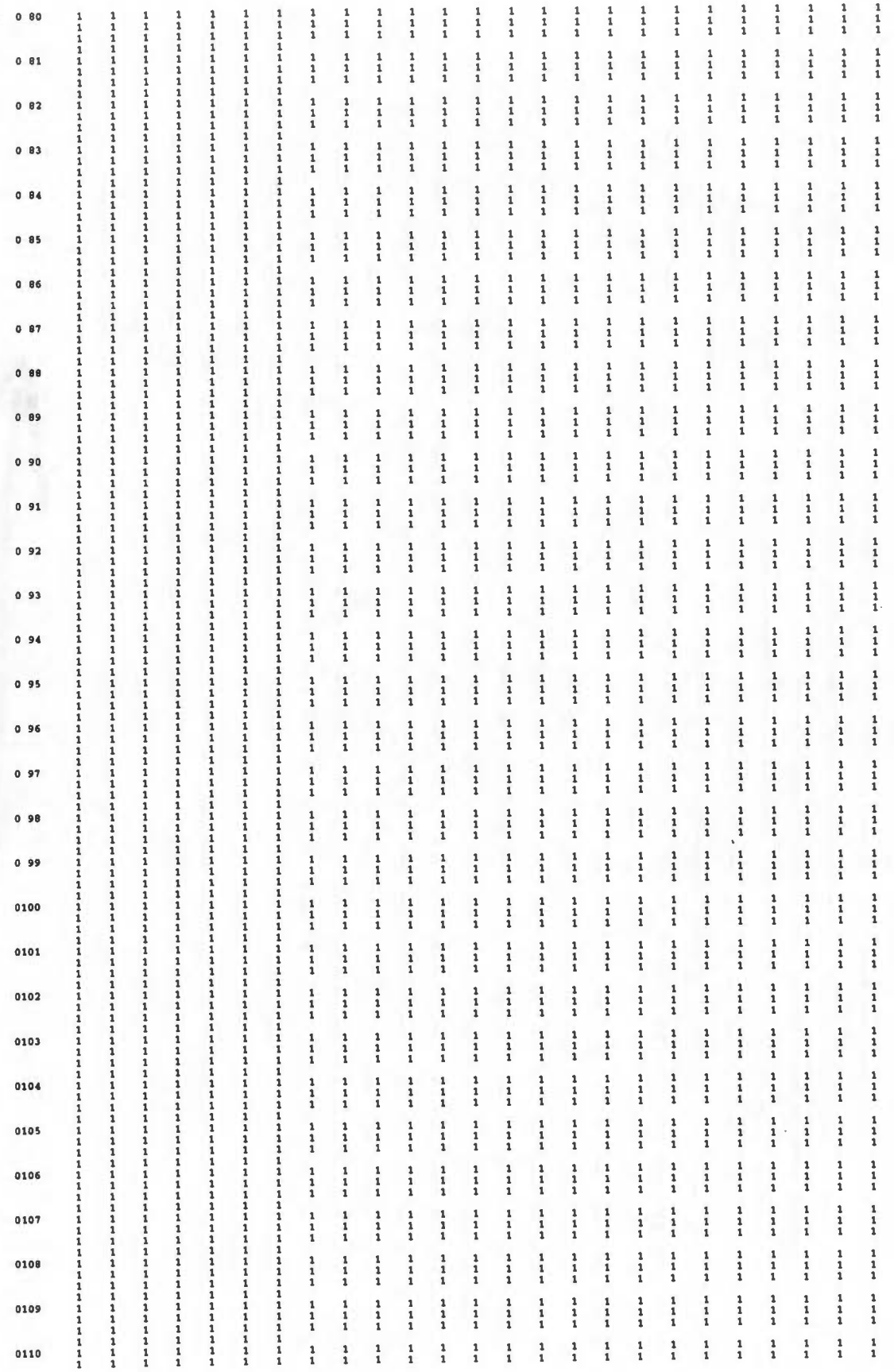
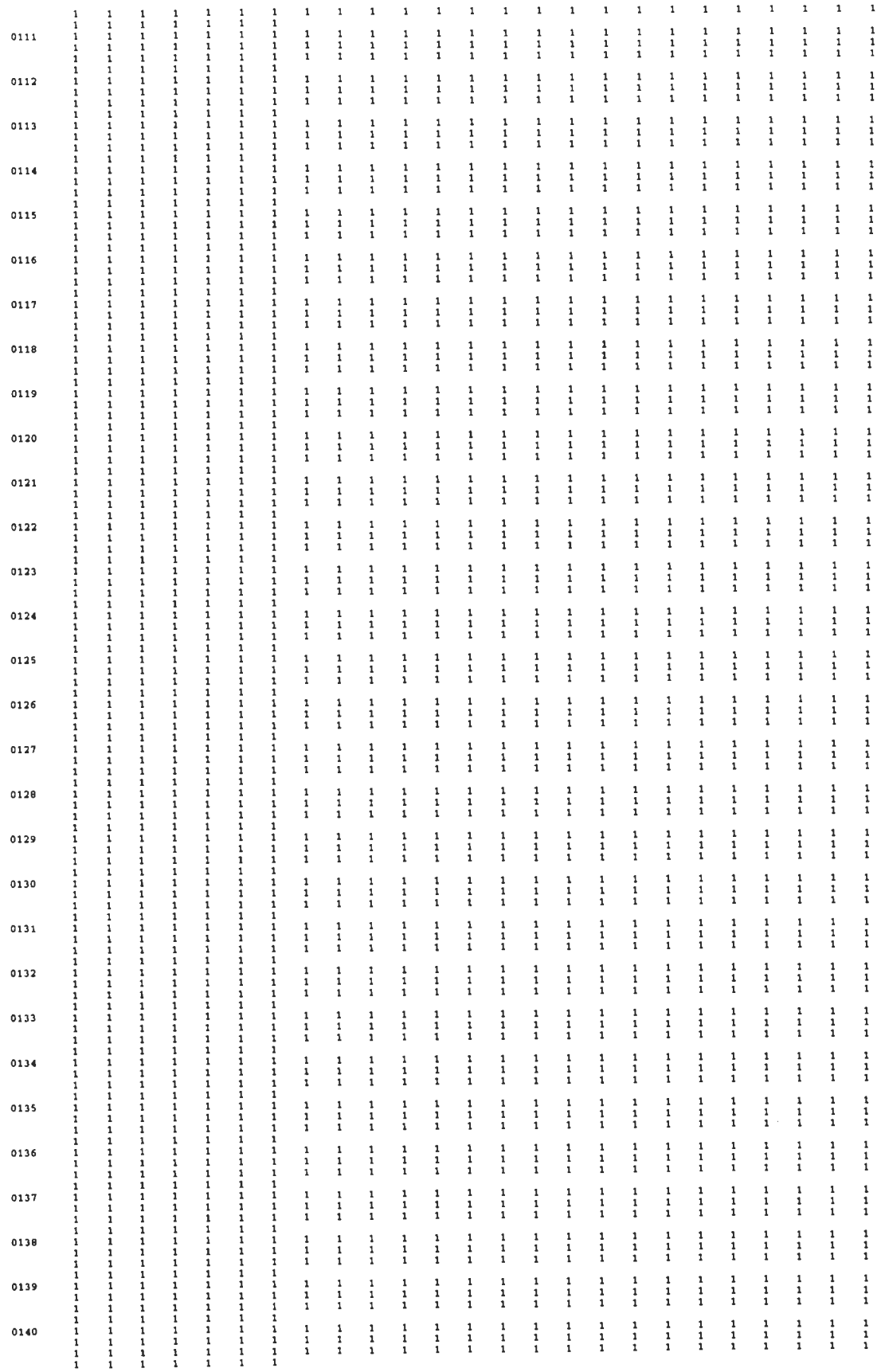
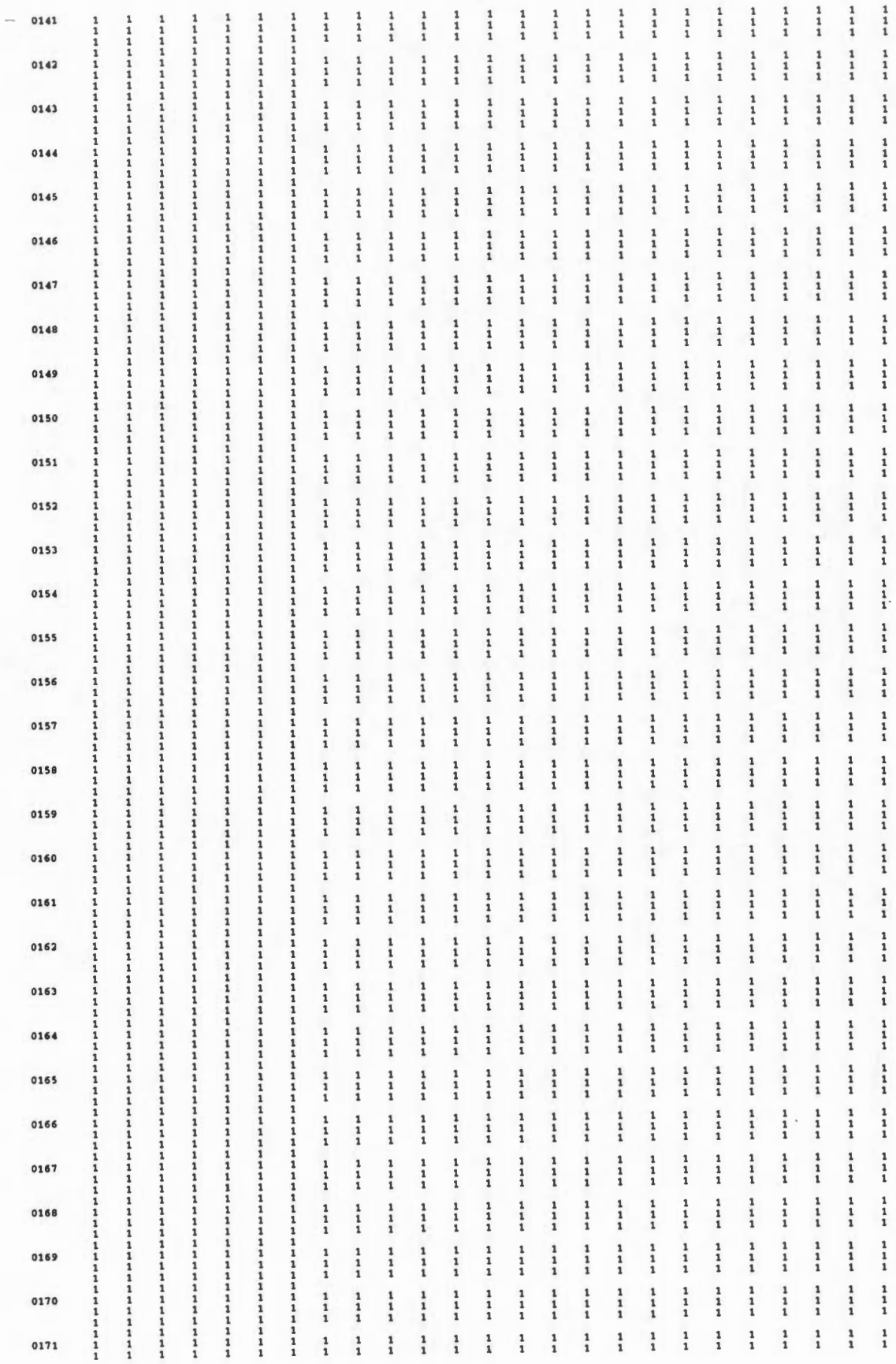
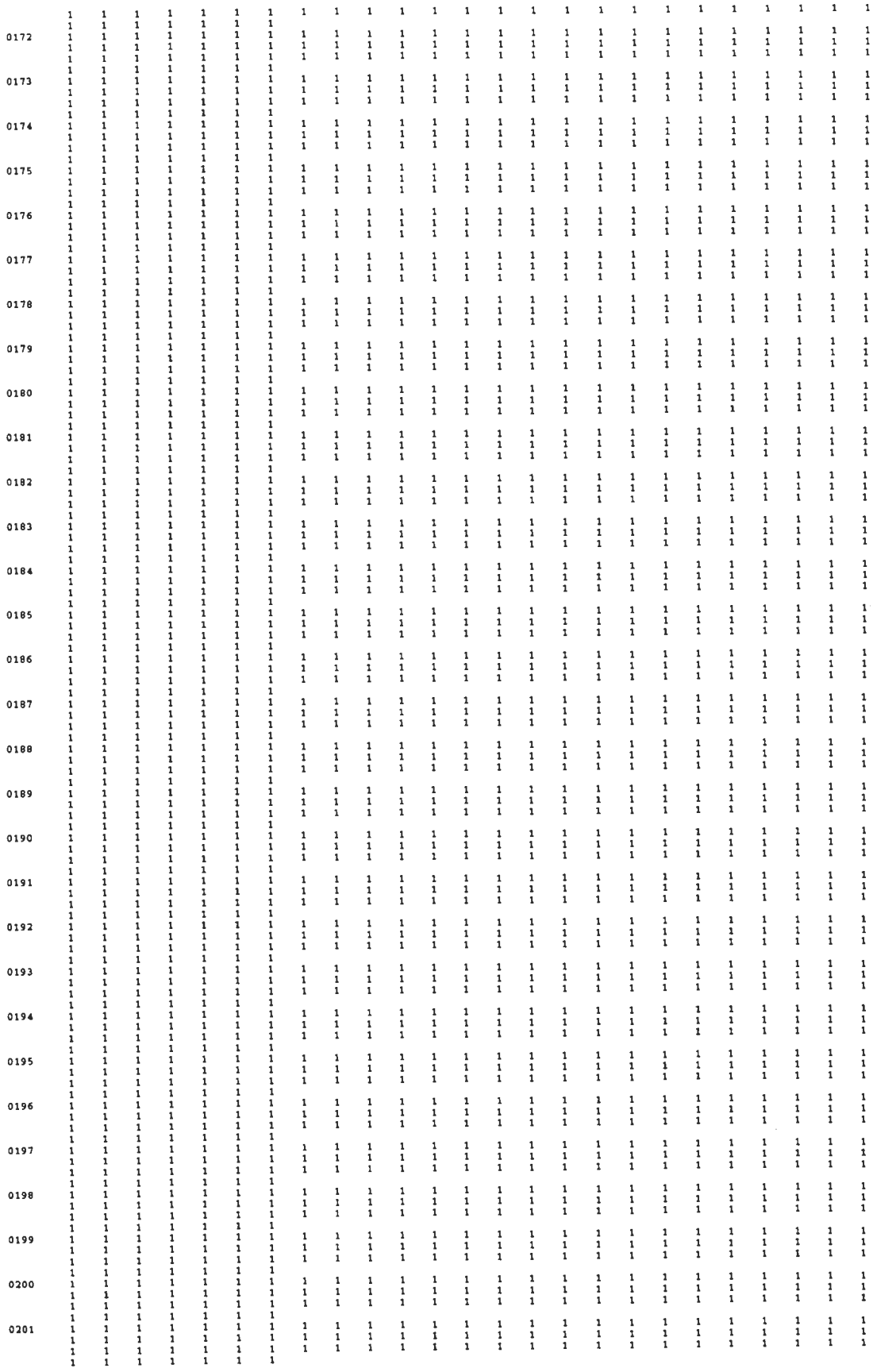
        1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1   1
        1   1   1   1   1   1   1
```











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       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
 0203  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
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       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
 0204  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
 0205  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
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       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
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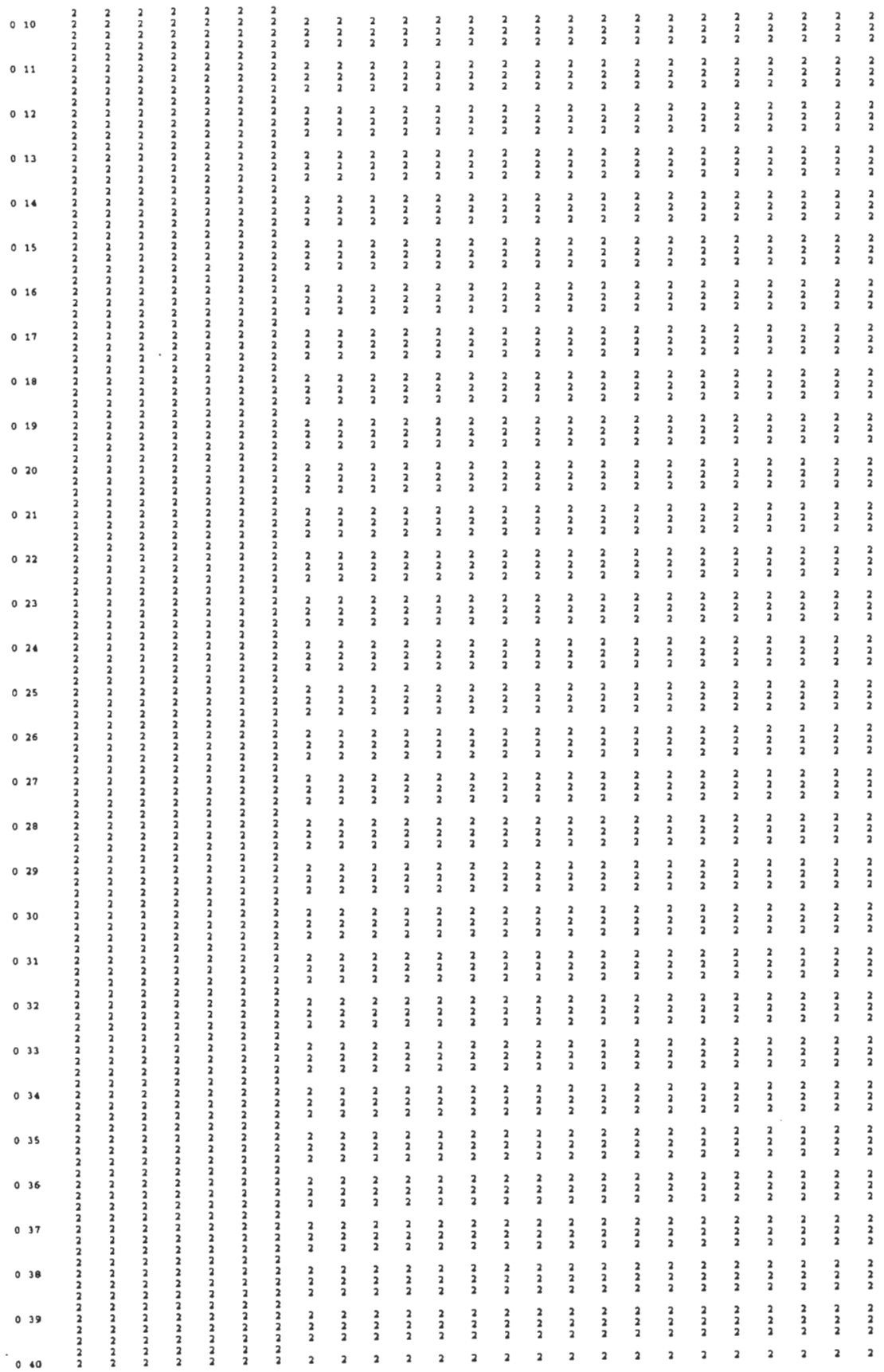
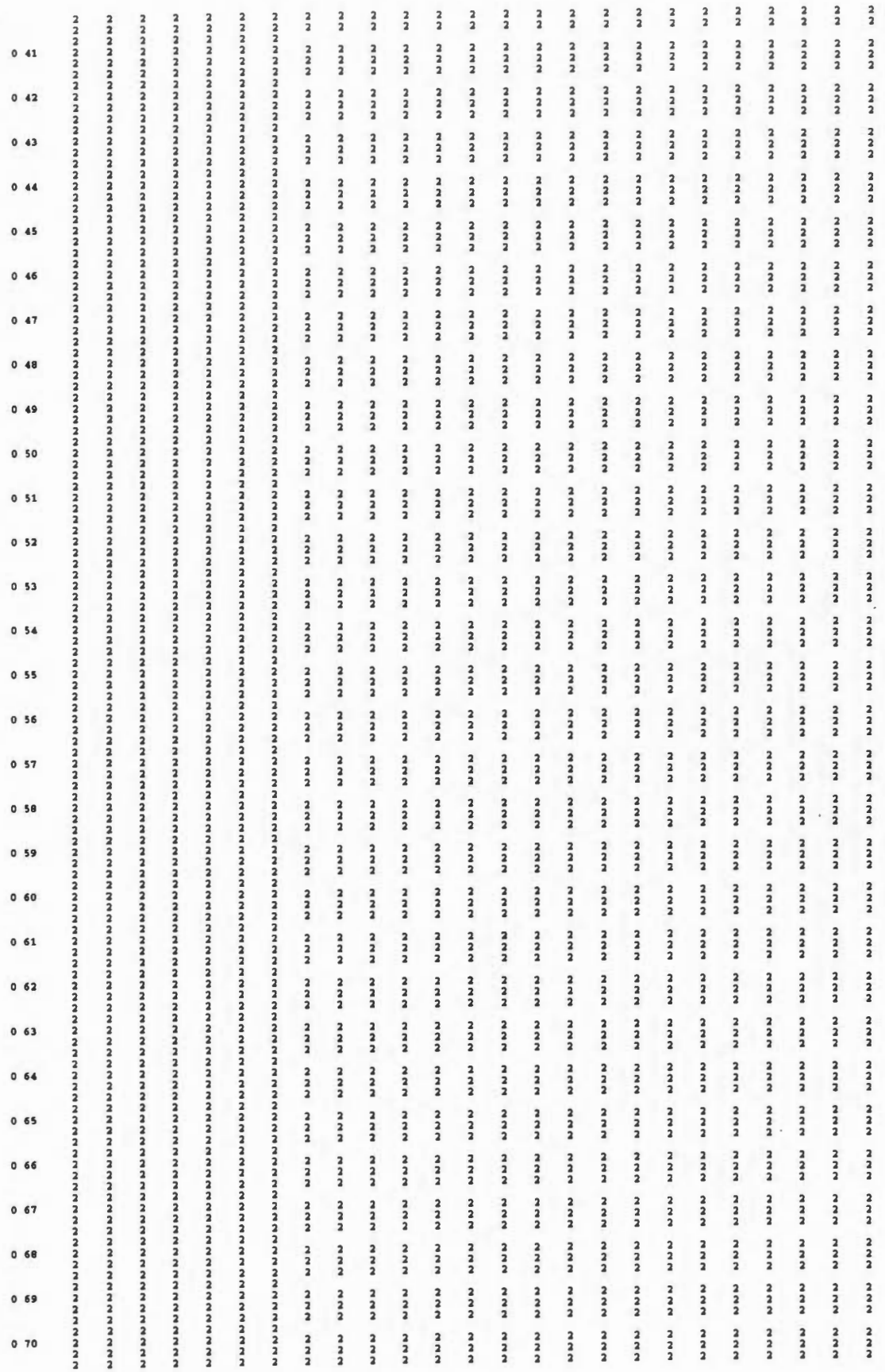
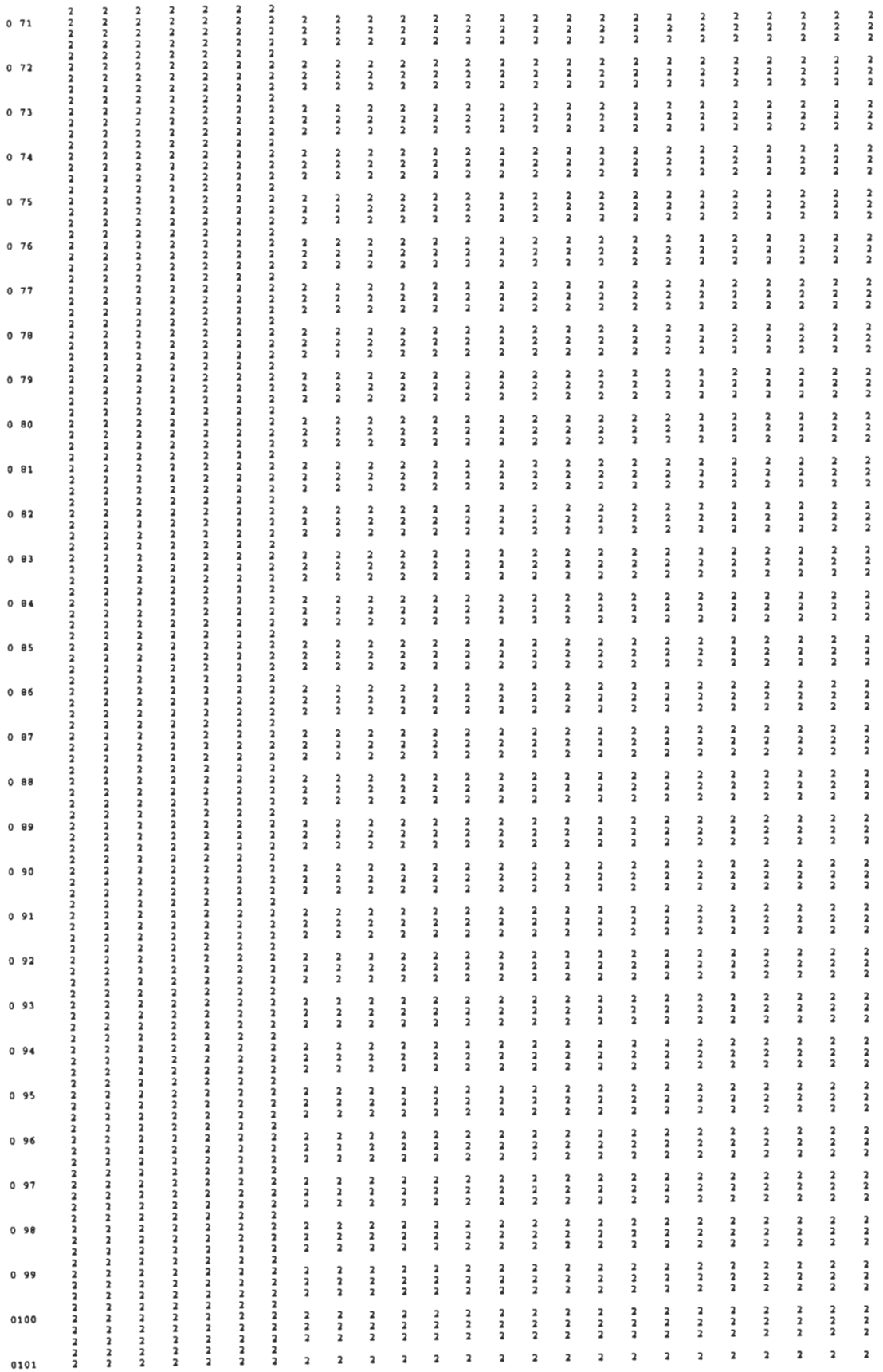
 0211  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
 0212  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
 0213  1  1  1  1  1 -1 -1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
 0214  1  1  1 -1 -1  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
 0215 -1 -1 -1  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
 0216  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
      -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1  0  0  0  0  0  0  0  0  0  0
 0217  0  0  0  0  0  0  0  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1  1
       1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
      -1 -1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 0218  0  0  0  0  0  0  0 -1 -1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       1  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 0219  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       1 -1 -1 -1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 0220  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
      -1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0
0
```

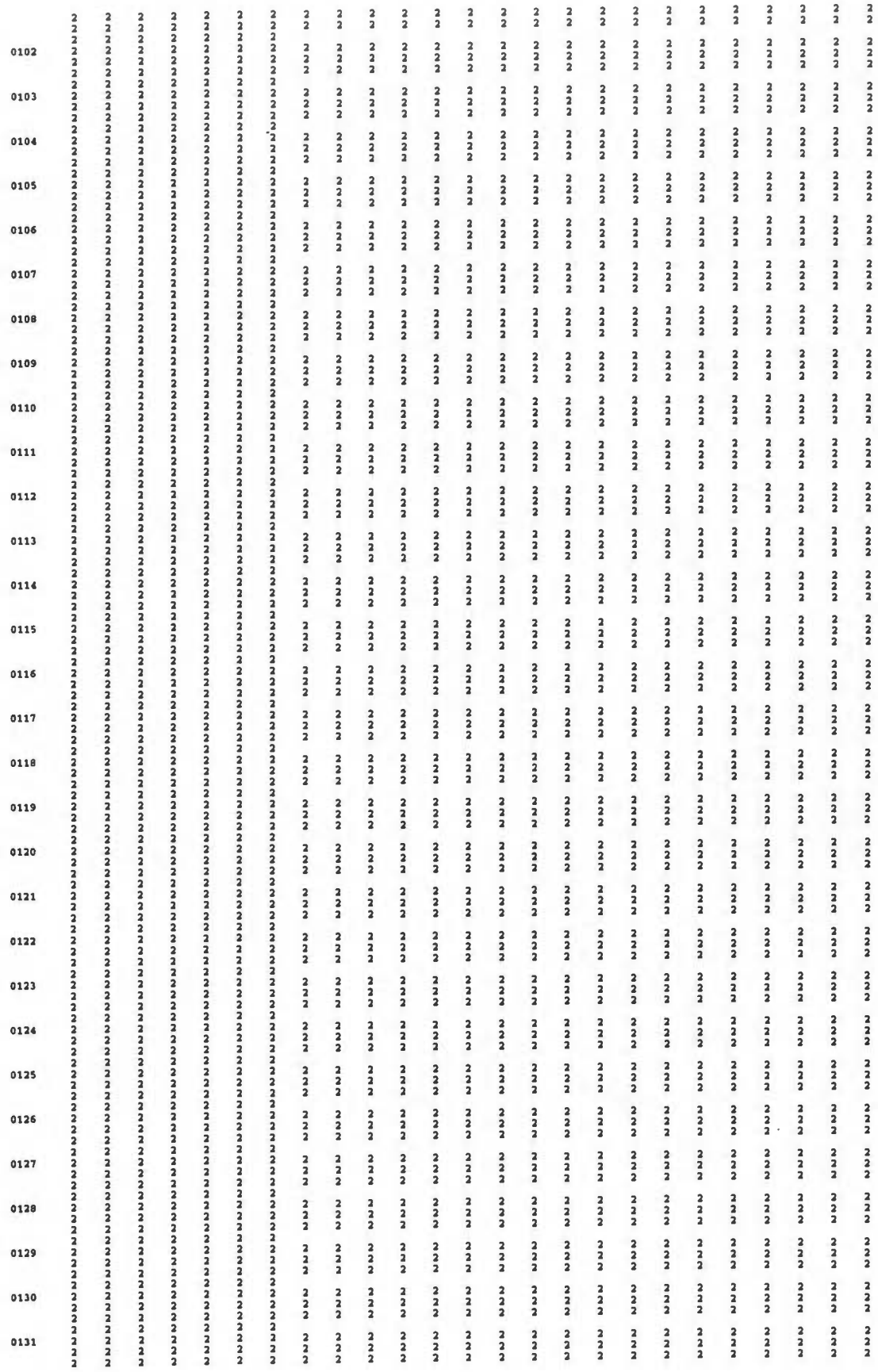
BOUNDARY ARRAY FOR LAYER 2 WILL BE READ ON UNIT 31 USING FORMAT: (8I2)

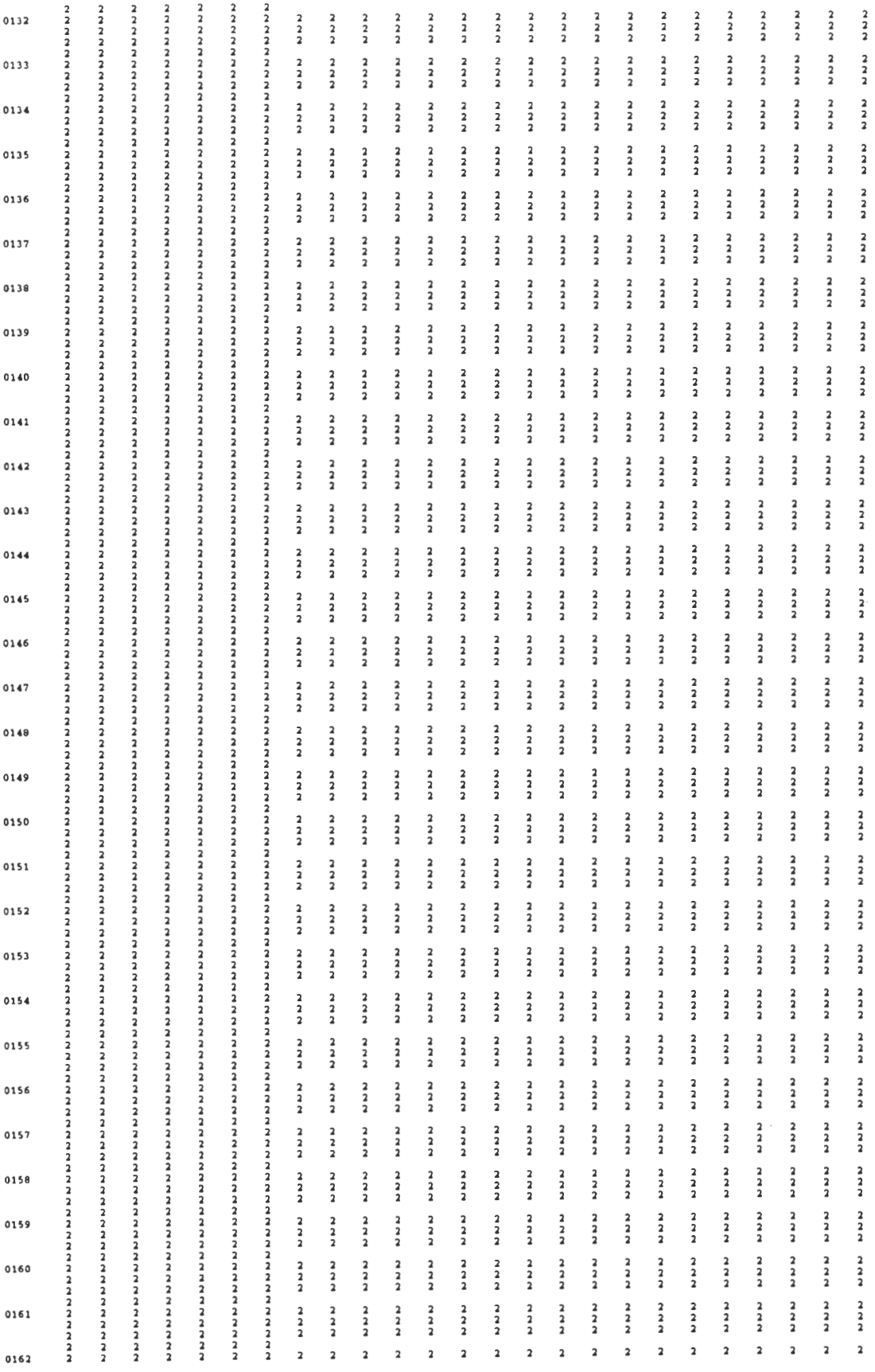
```
        1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
       26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
       51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75
       76 77 78 79 80 81 82
 ---------------------------------------------------------------------------------
 0  1   0  2  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 0  2   2  2  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 0  3   2  2  2  2  2  2  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
       0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
 0  4   2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       0  0  0  0  0  0  0  0
 0  5   2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2
 0  6   2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2
 0  7   2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2
 0  8   2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2
 0  9   2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2  2
       2  2  2  2  2  2  2  2
```

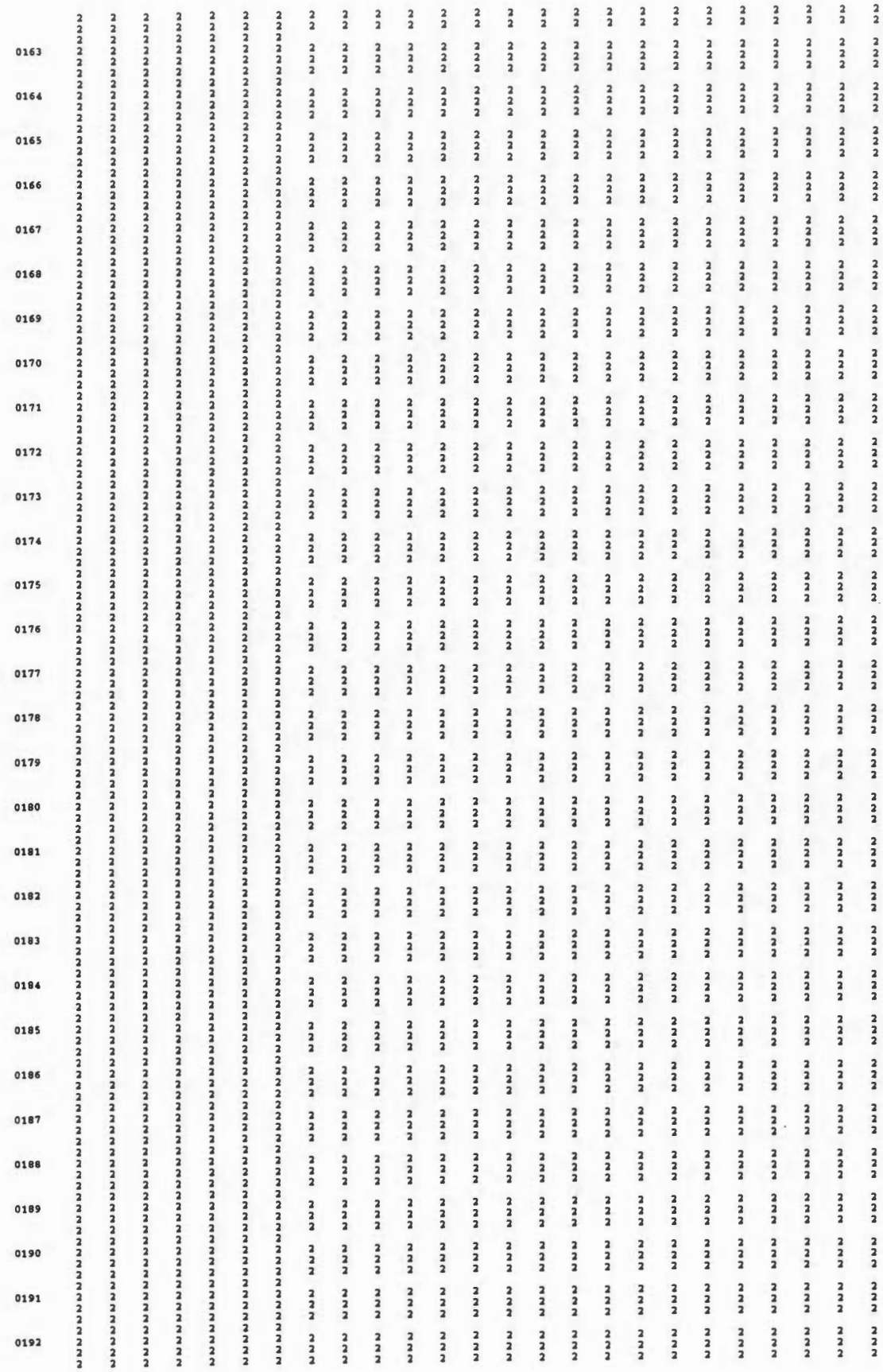


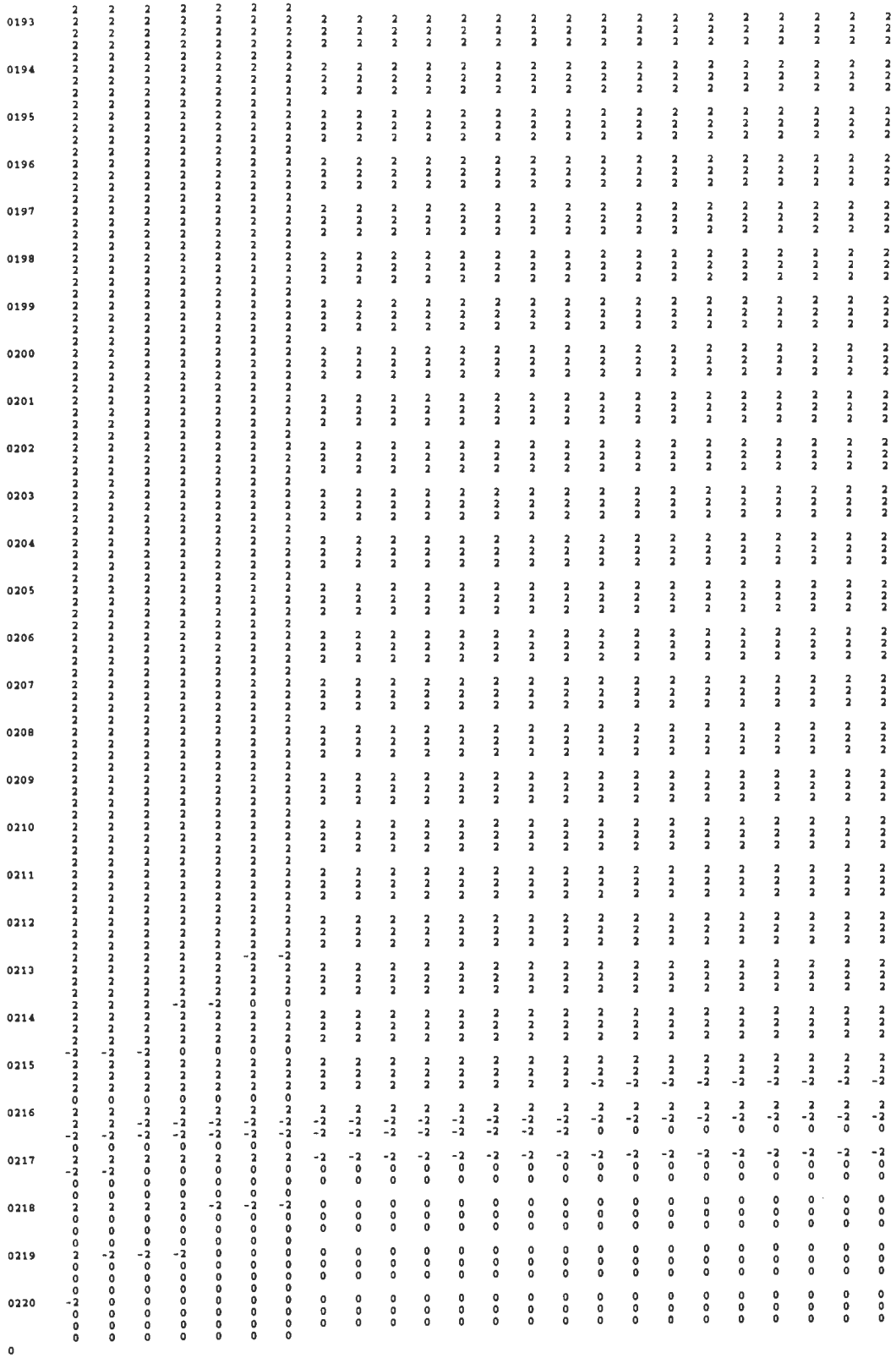






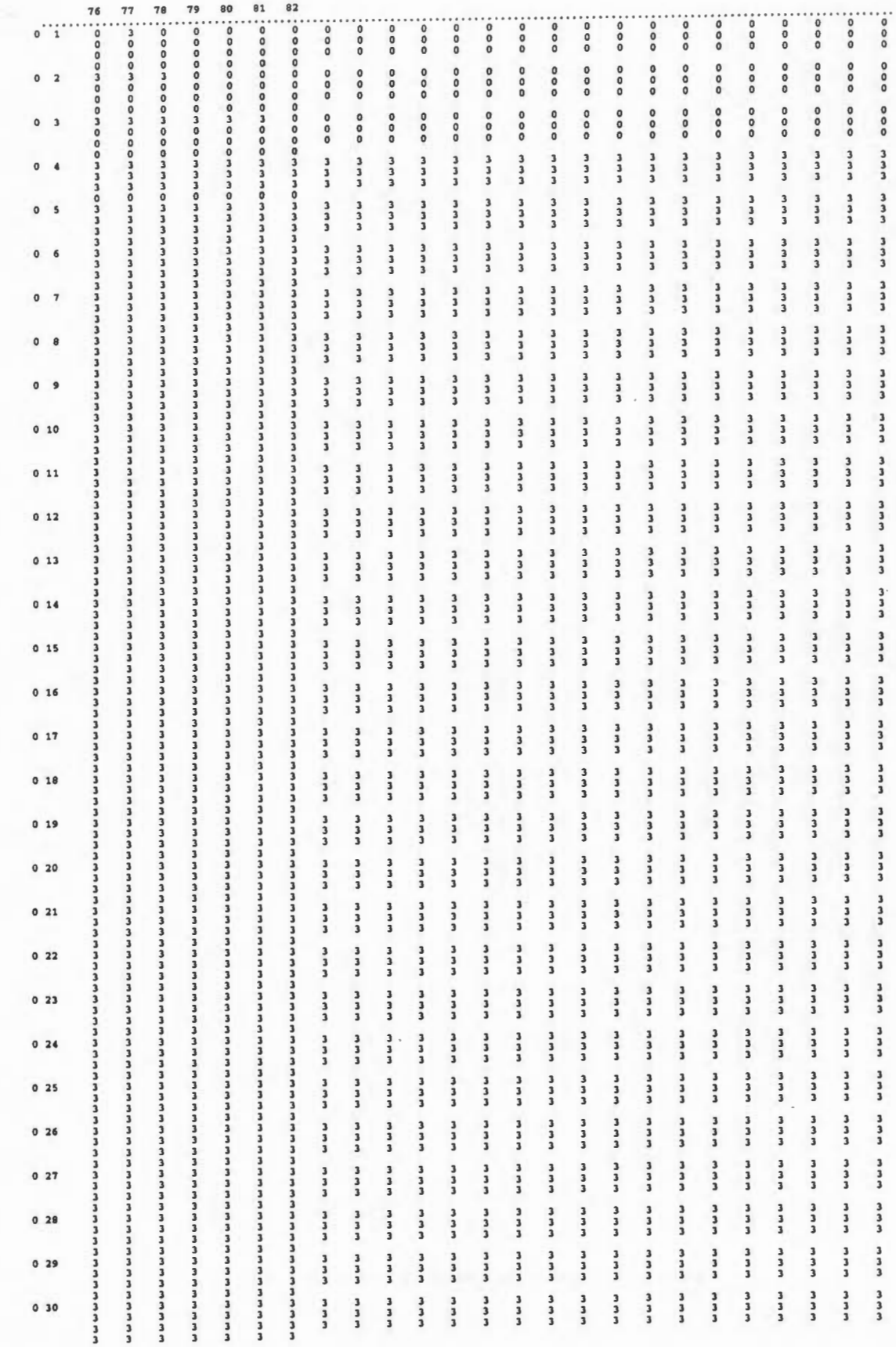


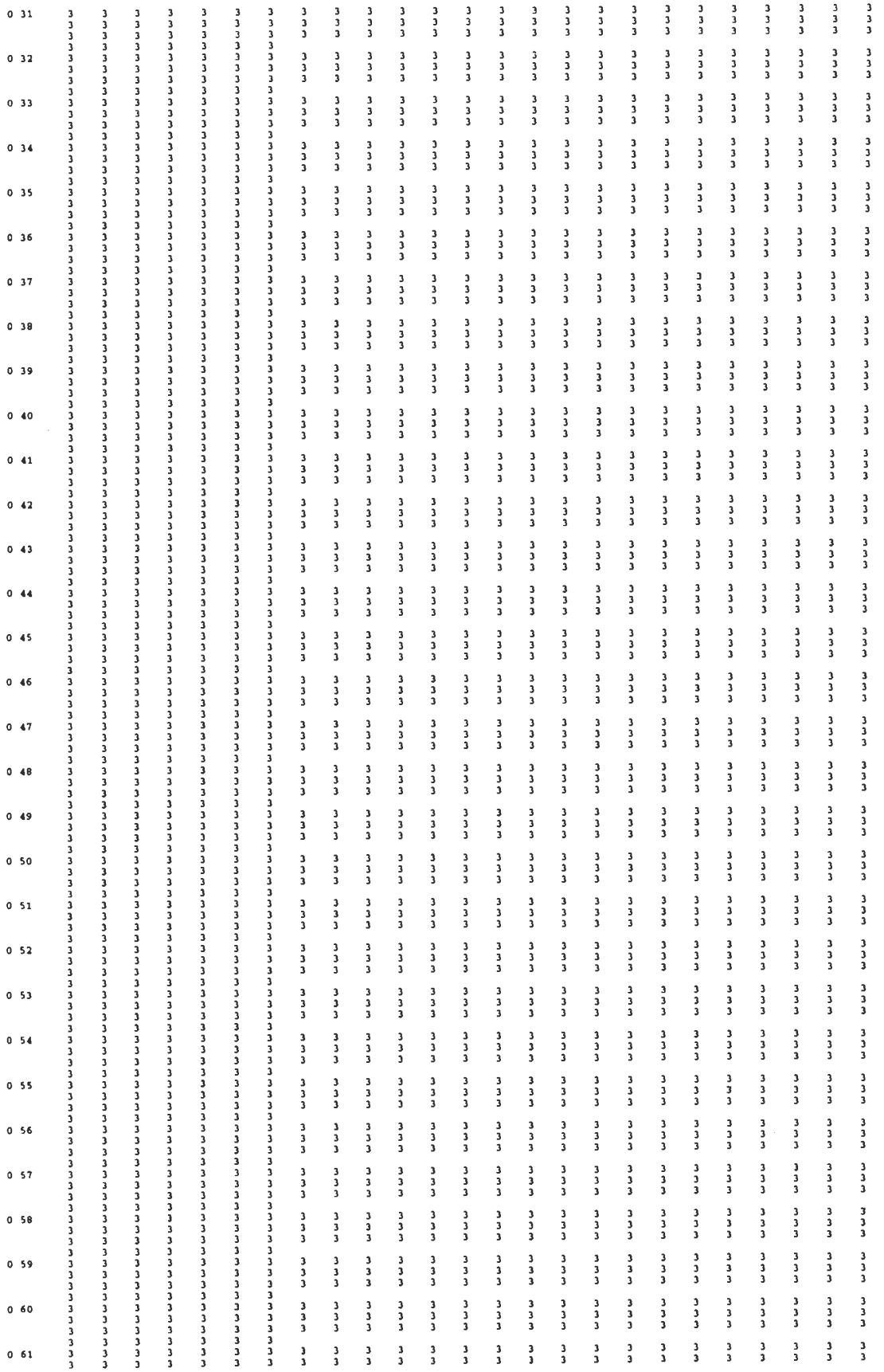


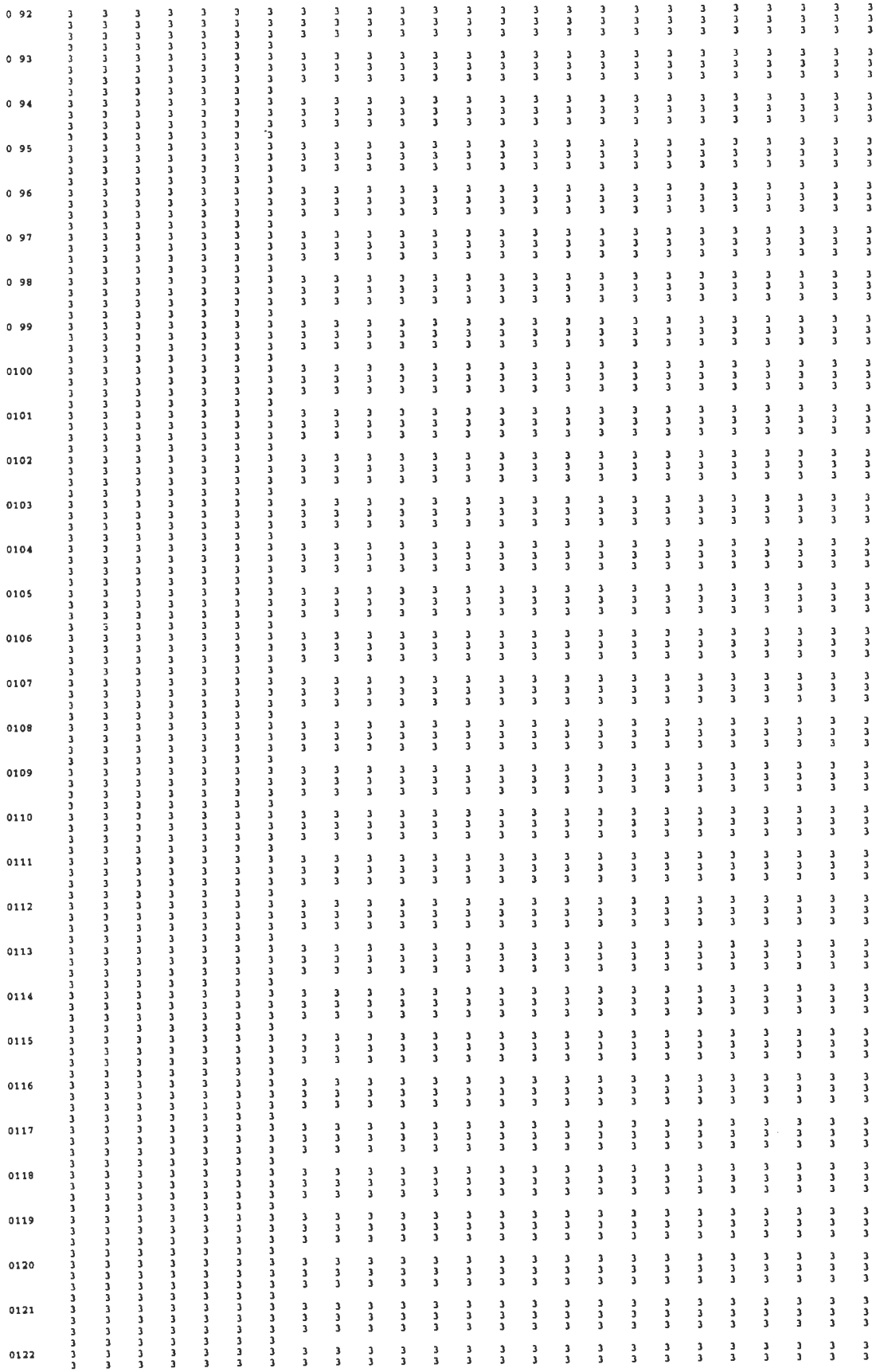


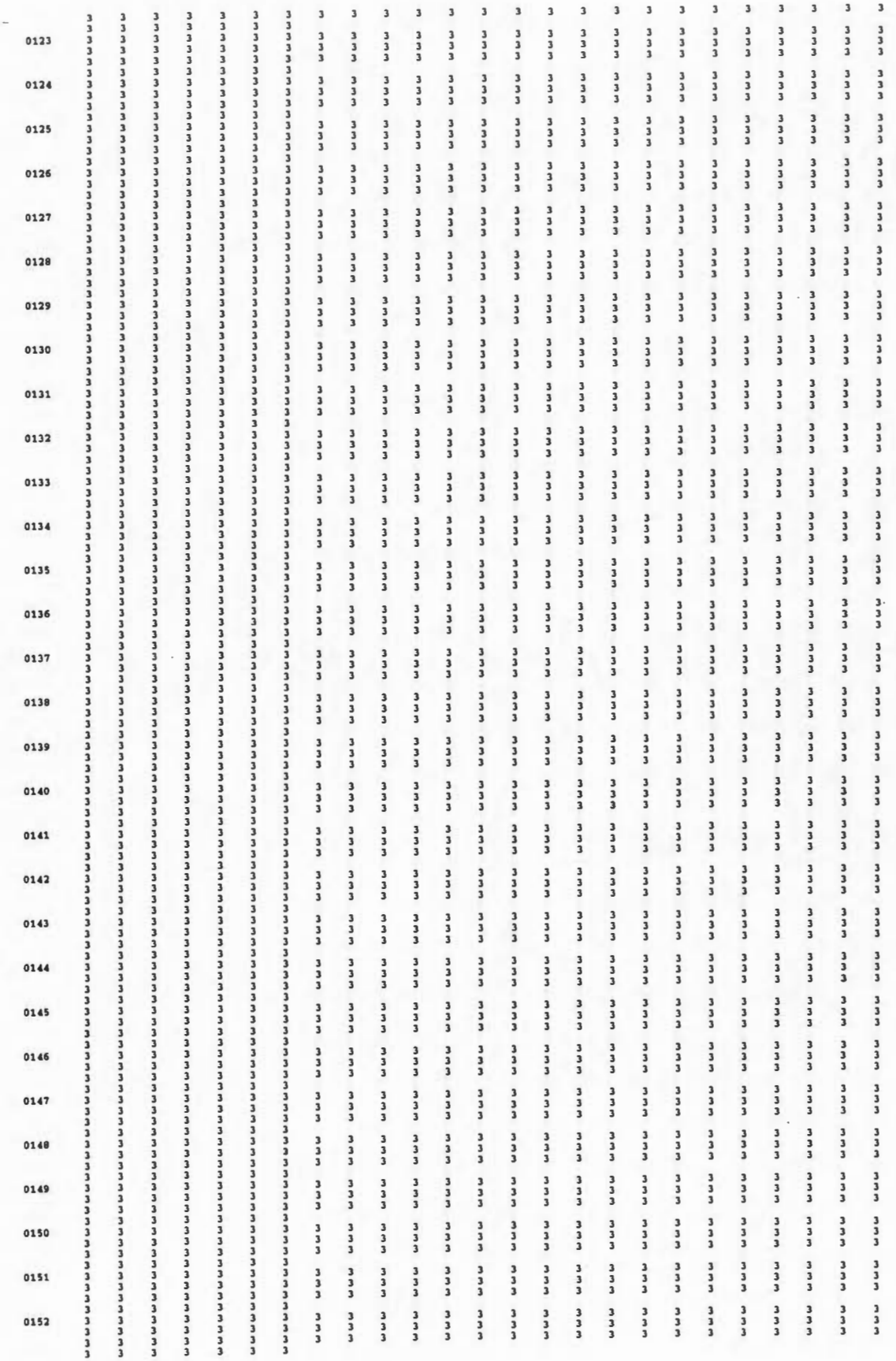
BOUNDARY ARRAY FOR LAYER 3 WILL BE READ ON UNIT 32 USING FORMAT: (8219)

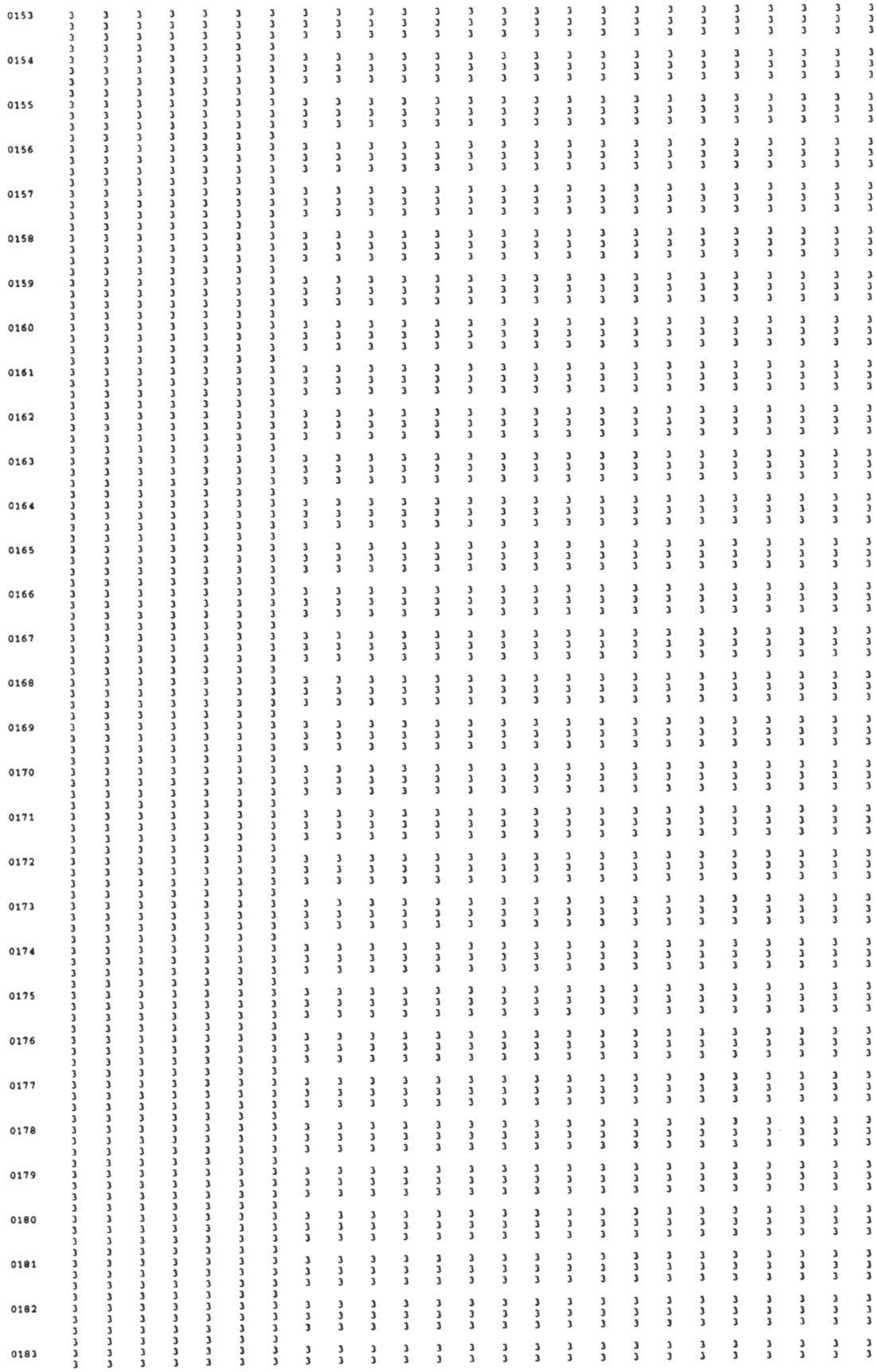
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75

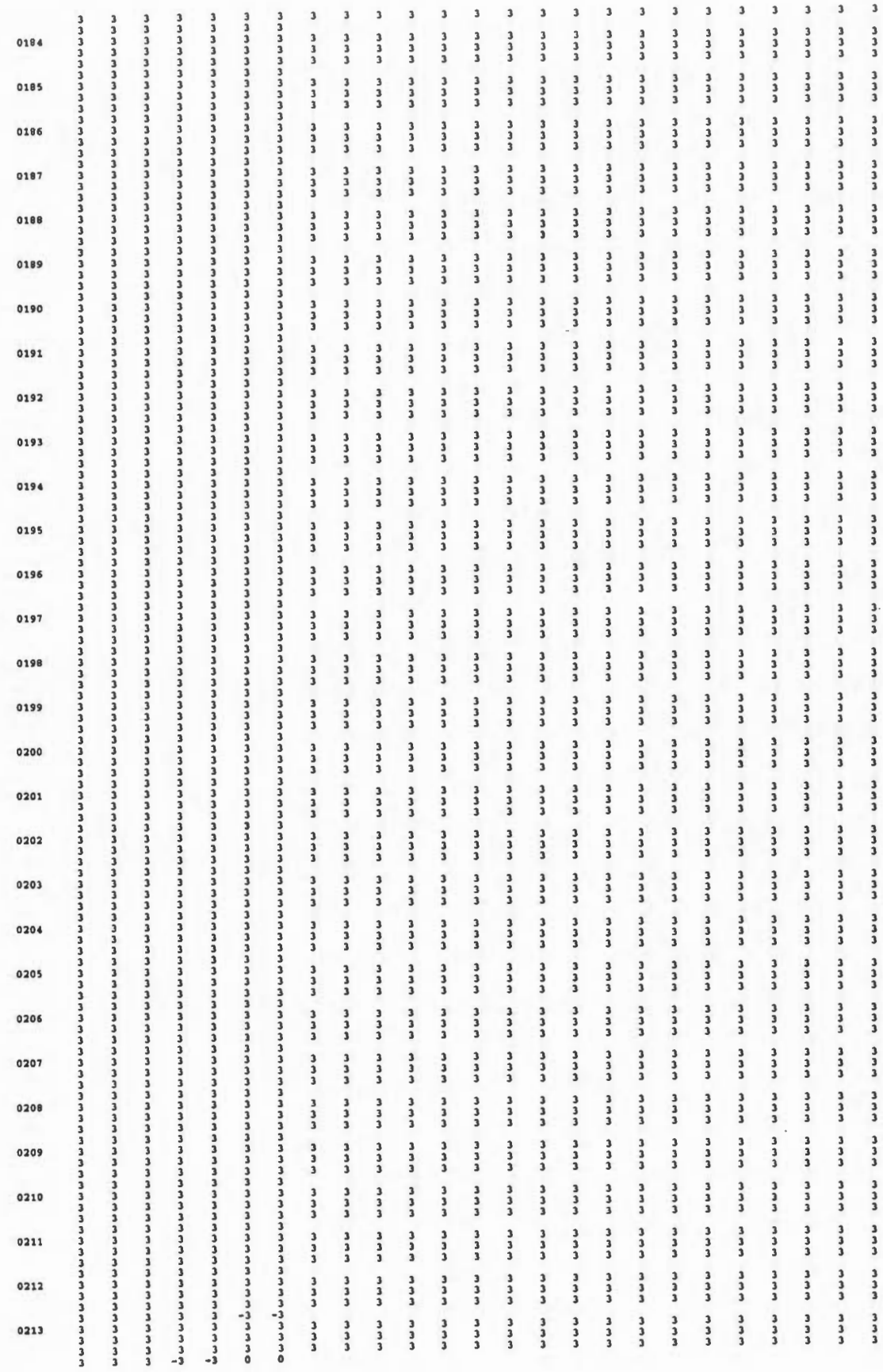

76 77 78 79 80 81 82
0 1
0 2
0 3
0 4
0 5
0 6
0 7
0 8
0 9
0 10
0 11
0 12
0 13
0 14
0 15
0 16
0 17
0 18
0 19
0 20
0 21
0 22
0 23
0 24
0 25
0 26
0 27
0 28
0 29
0 30











```
0214   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3
       3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3
       3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3
      -3  -3  -3   0   0   0   0
0215   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3
       3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3
       3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3  -3  -3  -3  -3  -3  -3  -3  -3
       0   0   0   0   0   0   0
0216   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3   3
       3   3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3
      -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0
0217   3   3   3   3   3   3   3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3  -3
      -3  -3   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0
0218   3   3   3   3  -3  -3  -3   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0
0219   3  -3  -3  -3   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0
0220  -3   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
       0   0   0   0   0   0   0
0AQUIFER HEAD WILL BE SET TO  999.99     AT ALL NO-FLOW NODES (IBOUND=0).
0
```

INITIAL HEAD FOR LAYER 1 WILL BE READ ON UNIT 33 USING FORMAT: (82F9.0)

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80
	81	82								

0 1	756.0	756.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0								
0 2	756.0	754.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0								
0 3	752.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0								
0 4	750.0	749.0	749.0	749.0	749.0	750.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0	751.0
	751.0	751.0								
0 5	747.0	747.0	747.0	747.0	747.0	747.0	748.0	748.0	748.0	748.0
	748.0	748.0	748.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	751.0	751.0								
0 6	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0
	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	747.0	747.0
	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0
	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0
	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0
	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0
	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0
	749.0	749.0								
0 7	743.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	743.0	743.0	743.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0
	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0
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	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0
	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0
	747.0	747.0								
0 8	740.0	740.0	740.0	740.0	740.0	739.0	739.0	739.0	739.0	739.0
	740.0	741.0	741.0	741.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0								
0 9	738.0	738.0	738.0	738.0	737.0	736.0	736.0	736.0	736.0	736.0
	738.0	738.0	738.0	739.0	739.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
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	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0

	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	741.0	741.0	741.0	741.0	741.0	742.0	742.0	742.0	742.0
	742.0	742.0								
0 10	736.0	736.0	736.0	736.0	736.0	735.0	734.0	734.0	734.0	735.0
	736.0	736.0	736.0	736.0	737.0	738.0	739.0	737.0	737.0	737.0
	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0
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	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0
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	738.0	738.0	738.0	738.0	739.0	739.0	740.0	740.0	740.0	740.0
	740.0	740.0								
0 11	734.0	734.0	733.0	733.0	733.0	733.0	732.0	732.0	732.0	732.0
	733.0	733.0	733.0	734.0	734.0	734.0	734.0	733.0	734.0	735.0
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	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	736.0	736.0	736.0	737.0	738.0	738.0	738.0	738.0
	738.0	738.0								
0 12	731.0	731.0	731.0	731.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	731.0	731.0	731.0	731.0	731.0	731.0	732.0	732.0
	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0
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	734.0	734.0	734.0	734.0	734.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0								
0 13	729.0	729.0	729.0	728.0	728.0	728.0	727.0	727.0	727.0	727.0
	727.0	728.0	728.0	728.0	728.0	729.0	729.0	729.0	729.0	729.0
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	731.0	731.0	731.0	731.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0								
0 14	726.0	726.0	726.0	726.0	726.0	725.0	725.0	725.0	725.0	725.0
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	729.0	729.0	729.0	729.0	729.0	729.0	729.0	728.0	728.0	727.0
	727.0	727.0								
0 15	724.0	724.0	724.0	724.0	723.0	723.0	722.0	722.0	722.0	722.0
	722.0	722.0	722.0	723.0	723.0	723.0	723.0	723.0	724.0	724.0
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	726.0	726.0	726.0	726.0	726.0	726.0	726.0	725.0	724.0	723.0
	722.0	722.0								
0 16	722.0	722.0	722.0	721.0	721.0	720.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	720.0	720.0	721.0	721.0	721.0	721.0	721.0
	721.0	721.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
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	716.0	718.0								
0 17	720.0	720.0	720.0	719.0	718.0	718.0	716.0	716.0	716.0	716.0
	716.0	716.0	716.0	717.0	718.0	719.0	718.0	717.0	718.0	718.0
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	719.0	719.0	719.0	719.0	719.0	719.0	719.0	720.0	720.0	721.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	721.0	721.0	721.0
	720.0	720.0	720.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0
	721.0	722.0	722.0	722.0	721.0	721.0	720.0	718.0	716.0	716.0
	716.0	716.0								
0 18	719.0	718.0	718.0	717.0	716.0	716.0	715.0	715.0	714.0	714.0
	714.0	714.0	714.0	715.0	715.0	715.0	713.0	714.0	715.0	716.0
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	719.0	719.0	719.0	719.0	719.0	719.0	718.0	716.0	715.0	715.0
	715.0	715.0								
0 19	717.0	717.0	716.0	716.0	715.0	714.0	713.0	713.0	713.0	713.0
	712.0	712.0	713.0	713.0	713.0	713.0	712.0	712.0	713.0	713.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
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	716.0	717.0	718.0	718.0	717.0	717.0	716.0	716.0	715.0	715.0
	713.0	713.0								
0 20	716.0	716.0	714.0	714.0	713.0	712.0	712.0	711.0	711.0	711.0
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	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0
	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0
	712.0	712.0	713.0	713.0	713.0	714.0	714.0	714.0	714.0	714.0
	715.0	716.0	716.0	716.0	716.0	716.0	714.0	713.0	712.0	712.0
	712.0	712.0								
0 21	713.0	713.0	712.0	712.0	711.0	710.0	710.0	709.0	709.0	709.0
	709.0	709.0	709.0	709.0	709.0	708.0	708.0	709.0	709.0	709.0
	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0
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	710.0	710.0	710.0	711.0	711.0	711.0	711.0	712.0	712.0	712.0
	712.0	713.0	713.0	713.0	713.0	713.0	712.0	711.0	711.0	710.0
	710.0	710.0								
0 22	711.0	710.0	710.0	709.0	709.0	708.0	708.0	707.0	707.0	707.0
	707.0	707.0	707.0	706.0	706.0	706.0	706.0	707.0	707.0	707.0
	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0
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	708.0	708.0	708.0	708.0	709.0	709.0	709.0	709.0	709.0	708.0
	710.0	710.0	710.0	710.0	710.0	710.0	710.0	709.0		
	708.0	708.0								
0 23	708.0	708.0	708.0	707.0	707.0	706.0	706.0	705.0	705.0	705.0

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	708.0	708.0	708.0	708.0	708.0	708.0	707.0	707.0	707.0	706.0
	706.0	706.0								
0 24	706.0	706.0	706.0	705.0	705.0	704.0	704.0	703.0	703.0	703.0
	703.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
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	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	704.0
	704.0	704.0								
0 25	704.0	704.0	704.0	703.0	702.0	702.0	701.0	701.0	701.0	701.0
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	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0
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	702.0	702.0								
0 26	702.0	702.0	702.0	701.0	700.0	700.0	699.0	699.0	698.0	698.0
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	700.0	701.0	701.0	701.0	701.0	701.0	700.0	700.0	700.0	700.0
	700.0	700.0								
0 27	701.0	700.0	700.0	699.0	698.0	697.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
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	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0								
0 28	699.0	699.0	699.0	698.0	696.0	696.0	696.0	695.0	695.0	695.0
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	695.0	695.0	695.0	695.0	695.0	695.0	696.0	696.0	694.0	695.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0								
0 29	698.0	698.0	697.0	697.0	696.0	695.0	695.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0								
0 30	697.0	697.0	697.0	696.0	695.0	694.0	694.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	693.0	693.0	693.0	693.0	693.0	692.0	692.0
	693.0	693.0	693.0	692.0	692.0	692.0	692.0	692.0	692.0	691.0
	691.0	691.0								
0 31	697.0	696.0	696.0	695.0	694.0	693.0	693.0	692.0	692.0	692.0
	692.0	692.0	692.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	690.0	690.0	690.0	689.0	689.0
	689.0	689.0								
0 32	696.0	696.0	696.0	694.0	693.0	692.0	692.0	691.0	691.0	691.0
	691.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	689.0	689.0	689.0	689.0	689.0	688.0	688.0	687.0	687.0
	686.0	686.0								
0 33	696.0	696.0	694.0	693.0	692.0	691.0	690.0	690.0	690.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	688.0	688.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	688.0	688.0
	688.0	688.0	688.0	687.0	687.0	687.0	686.0	686.0	685.0	684.0
	684.0	683.0								
0 34	696.0	696.0	693.0	691.0	690.0	689.0	689.0	689.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	686.0	686.0	685.0	685.0	684.0	684.0	683.0	682.0
	681.0	680.0								
0 35	696.0	692.0	690.0	689.0	688.0	688.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	685.0	685.0	685.0	684.0	684.0	683.0	683.0	682.0	681.0	680.0
	678.0	676.0								
0 36	689.0	687.0	687.0	686.0	686.0	686.0	686.0	686.0	686.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0

	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	684.0
	684.0	684.0	683.0	683.0	682.0	682.0	681.0	680.0	679.0	678.0
	676.0	676.0								
0 37	682.0	682.0	683.0	683.0	683.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	683.0	683.0
	683.0	683.0	682.0	682.0	681.0	680.0	680.0	679.0	677.0	676.0
	676.0	676.0								
0 38	676.0	676.0	679.0	680.0	681.0	682.0	682.0	682.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	682.0	682.0	682.0
	682.0	681.0	681.0	680.0	680.0	679.0	678.0	677.0	676.0	676.0
	676.0	676.0								
0 39	673.0	673.0	676.0	678.0	679.0	680.0	680.0	681.0	681.0	681.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	68220	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	681.0	681.0	681.0	681.0	681.0
	681.0	680.0	680.0	679.0	679.0	678.0	677.0	676.0	676.0	675.0
	675.0	675.0								
0 40	668.0	669.0	672.0	676.0	677.0	678.0	679.0	680.0	680.0	680.0
	680.0	680.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	679.0	679.0	678.0	678.0	677.0	676.0	676.0	675.0	675.0
	675.0	675.0								
0 41	663.0	664.0	667.0	671.0	676.0	677.0	678.0	678.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	678.0	678.0	678.0	677.0	676.0	676.0	675.0	675.0	675.0
	674.0	674.0								
0 42	656.0	656.0	661.0	666.0	671.0	676.0	677.0	677.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	677.0	677.0	677.0	676.0	676.0	675.0	675.0	674.0	674.0
	674.0	674.0								
0 43	654.0	655.0	656.0	661.0	666.0	671.0	676.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	676.0	676.0	676.0	675.0	674.0	674.0	673.0	673.0
	673.0	673.0								
0 44	651.0	652.0	655.0	656.0	661.0	667.0	671.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	675.0	675.0	674.0	674.0	673.0	673.0	673.0	672.0
	672.0	672.0								
0 45	646.0	650.0	654.0	655.0	656.0	663.0	667.0	671.0	672.0	673.0
	673.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	674.0	674.0	674.0	674.0	673.0	673.0	672.0	672.0	672.0	672.0
	671.0	671.0								
0 46	645.0	649.0	653.0	654.0	655.0	661.0	664.0	667.0	669.0	670.0
	671.0	672.0	672.0	672.0	672.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	672.0	672.0	672.0	671.0	671.0	671.0	671.0
	670.0	670.0								
0 47	645.0	646.0	652.0	653.0	655.0	660.0	662.0	665.0	667.0	668.0
	669.0	669.0	670.0	670.0	671.0	671.0	671.0	671.0	671.0	671.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	671.0	671.0	671.0	671.0	670.0	670.0	670.0	670.0	670.0
	670.0	669.0								
0 48	644.0	645.0	651.0	652.0	655.0	658.0	661.0	664.0	664.0	666.0
	667.0	668.0	668.0	669.0	669.0	669.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	670.0	670.0
	670.0	670.0	670.0	670.0	669.0	669.0	669.0	669.0	669.0	669.0
	668.0	668.0								
0 49	644.0	645.0	650.0	651.0	654.0	657.0	659.0	663.0	663.0	664.0
	665.0	666.0	667.0	667.0	668.0	668.0	668.0	668.0	668.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	668.0	668.0	668.0	668.0	668.0	668.0	667.0
	667.0	667.0								
0 50	644.0	644.0	649.0	650.0	654.0	657.0	658.0	662.0	661.0	663.0
	664.0	664.0	665.0	666.0	666.0	666.0	667.0	667.0	667.0	667.0

	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	666.0	666.0
	666.0	666.0								
0 51	643.0	644.0	648.0	649.0	653.0	656.0	658.0	661.0	660.0	661.0
	662.0	663.0	664.0	664.0	665.0	665.0	665.0	665.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	665.0	665.0	665.0	665.0
	665.0	665.0								
0 52	643.0	643.0	646.0	649.0	653.0	656.0	657.0	661.0	659.0	660.0
	661.0	662.0	662.0	663.0	663.0	664.0	664.0	664.0	664.0	664.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
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0 53	642.0	643.0	645.0	648.0	652.0	655.0	656.0	660.0	658.0	659.0
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0 54	642.0	642.0	645.0	648.0	652.0	655.0	655.0	659.0	658.0	658.0
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0 55	641.0	642.0	644.0	647.0	651.0	654.0	655.0	658.0	657.0	658.0
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0 56	641.0	641.0	644.0	647.0	651.0	654.0	655.0	658.0	657.0	657.0
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0 64	636.0	638.0	640.0	644.0	647.0	650.0	652.0	654.0	654.0	652.0
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0 65	636.0	637.0	640.0	643.0	646.0	649.0	652.0	654.0	654.0	651.0
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	643.0	643.0	643.0	643.0	643.0	643.0	644.0	644.0	644.0	645.0
	645.0	646.0								
0 75	631.0	633.0	636.0	639.0	642.0	643.0	647.0	649.0	649.0	647.0
	647.0	646.0	646.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	646.0	646.0	646.0	646.0	646.0
	646.0	645.0	645.0	645.0	645.0	644.0	644.0	644.0	644.0	644.0
	644.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	643.0	643.0	643.0	644.0
	646.0	646.0								
0 76	631.0	633.0	636.0	639.0	642.0	643.0	647.0	648.0	648.0	647.0
	647.0	646.0	646.0	646.0	646.0	647.0	647.0	647.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	645.0	645.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	644.0	643.0	643.0
	645.0	645.0	645.0	644.0	644.0	644.0	644.0	642.0	642.0	642.0
	643.0	643.0	643.0	643.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	641.0	641.0	641.0	642.0	642.0	642.0	642.0	643.0
	644.0	644.0								
0 77	631.0	633.0	636.0	638.0	641.0	643.0	646.0	648.0	648.0	647.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	645.0	645.0	645.0	645.0	645.0

	645.0	645.0	645.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	645.0	645.0	645.0	645.0
	644.0	644.0	644.0	644.0	644.0	643.0	643.0	643.0	643.0	643.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	642.0
	642.0	642.0								
0 78	630.0	632.0	635.0	638.0	642.0	643.0	646.0	647.0	647.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	644.0	644.0
	644.0	644.0	644.0	643.0	643.0	643.0	643.0	643.0	642.0	642.0
	642.0	642.0	642.0	641.0	641.0	641.0	641.0	641.0	641.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	641.0	641.0								
0 79	630.0	632.0	635.0	638.0	642.0	644.0	646.0	647.0	647.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	644.0	644.0	644.0	644.0	644.0
	643.0	643.0	643.0	643.0	643.0	642.0	642.0	642.0	642.0	642.0
	641.0	641.0	641.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0								
0 80	630.0	632.0	634.0	638.0	642.0	643.0	645.0	647.0	647.0	646.0
	646.0	646.0	646.0	646.0	646.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
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	644.0	644.0	644.0	644.0	644.0	644.0	644.0	643.0	643.0	643.0
	643.0	643.0	642.0	642.0	642.0	642.0	642.0	641.0	641.0	641.0
	641.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0	639.0	639.0
	639.0	639.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0	638.0
	638.0	638.0								
0 81	630.0	632.0	634.0	637.0	642.0	643.0	644.0	646.0	646.0	646.0
	646.0	646.0	646.0	645.0	645.0	645.0	645.0	645.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
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	642.0	642.0	642.0	642.0	642.0	641.0	641.0	641.0	641.0	641.0
	640.0	640.0	640.0	640.0	640.0	639.0	639.0	639.0	639.0	638.0
	638.0	638.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0
	637.0	637.0								
0 82	629.0	631.0	633.0	637.0	641.0	642.0	644.0	646.0	646.0	646.0
	646.0	645.0	645.0	645.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
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	642.0	642.0	641.0	641.0	641.0	641.0	641.0	640.0	640.0	640.0
	640.0	640.0	639.0	639.0	639.0	639.0	639.0	638.0	638.0	638.0
	638.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	637.0								
0 83	629.0	631.0	633.0	637.0	640.0	642.0	643.0	646.0	646.0	645.0
	645.0	645.0	644.0	644.0	644.0	644.0	644.0	644.0	643.0	643.0
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	641.0	641.0	641.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0
	639.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0	637.0	637.0
	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0								
0 84	629.0	631.0	633.0	636.0	639.0	641.0	642.0	644.0	645.0	644.0
	644.0	644.0	644.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	642.0	642.0	642.0	642.0	642.0
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	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0
	636.0	636.0								
0 85	628.0	631.0	632.0	636.0	638.0	640.0	641.0	642.0	644.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	642.0	642.0	642.0
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	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	636.0	636.0
	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0								
0 86	628.0	631.0	632.0	636.0	638.0	639.0	640.0	641.0	643.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
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	640.0	640.0	639.0	639.0	639.0	639.0	639.0	638.0	638.0	638.0
	638.0	638.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0								
0 87	628.0	630.0	631.0	635.0	637.0	638.0	639.0	640.0	642.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	639.0
	639.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0	637.0
	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0
	634.0	634.0								
0 88	627.0	630.0	631.0	635.0	636.0	637.0	638.0	639.0	641.0	641.0
	640.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0
	637.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0								
0 89	627.0	630.0	631.0	634.0	636.0	637.0	638.0	639.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
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	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	638.0
	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0	636.0
	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0								
0 90	626.0	630.0	630.0	634.0	635.0	637.0	638.0	638.0	639.0	640.0
	639.0	639.0	639.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0
	636.0	636.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0

	633.0	633.0								
0 91	626.0	630.0	630.0	634.0	635.0	637.0	637.0	638.0	638.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	637.0
	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0
	634.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0								
0 92	625.0	629.0	630.0	633.0	634.0	637.0	637.0	637.0	638.0	639.0
	638.0	638.0	638.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0
	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0
	632.0	632.0								
0 93	625.0	629.0	629.0	633.0	634.0	636.0	637.0	637.0	637.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
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	638.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0
	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0
	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0								
0 94	624.0	629.0	629.0	632.0	634.0	636.0	636.0	637.0	637.0	638.0
	637.0	637.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0
	636.0	636.0	636.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0
	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0
	631.0	631.0								
0 95	624.0	628.0	629.0	632.0	633.0	636.0	636.0	636.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0
	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0 96	624.0	628.0	628.0	631.0	633.0	636.0	636.0	636.0	636.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
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	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0
	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0 97	624.0	628.0	628.0	631.0	632.0	635.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
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	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0
	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0
	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0								
0 98	623.0	627.0	628.0	630.0	632.0	635.0	635.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0
	634.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0
	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0								
0 99	623.0	627.0	627.0	630.0	631.0	634.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0
	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0								
0100	623.0	626.0	627.0	629.0	631.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0
	632.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0
	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0								
0101	622.0	626.0	627.0	629.0	630.0	633.0	633.0	633.0	633.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0								
0102	622.0	625.0	626.0	628.0	630.0	632.0	632.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0
	633.0	632.0	632.0	632.0	632.0	631.0	630.0	630.0	630.0	630.0
	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0	628.0
	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0
	628.0	628.0								
0103	622.0	627.0	627.0							
	632.0	624.0	626.0	628.0	629.0	632.0	632.0	632.0	632.0	632.0
	633.0	632.0	632.0	632.0	632.0	632.0	632.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0104	621.0	624.0	626.0	628.0	629.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0

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	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	626.0								
0105	621.0	623.0	625.0	627.0	628.0	630.0	630.0	630.0	630.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0106	621.0	623.0	624.0	627.0	628.0	629.0	629.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0107	621.0	622.0	624.0	627.0	627.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0
	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0108	620.0	622.0	623.0	626.0	627.0	628.0	628.0	628.0	628.0	628.0
	628.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0
	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0
	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0								
0109	620.0	621.0	623.0	626.0	626.0	627.0	627.0	627.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0
	623.0	623.0								
0110	620.0	621.0	622.0	626.0	626.0	626.0	626.0	627.0	627.0	627.0
	627.0	627.0	627.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0111	620.0	620.0	622.0	625.0	625.0	626.0	626.0	626.0	626.0	626.0
	626.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0
	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0								
0112	619.0	620.0	621.0	624.0	625.0	625.0	625.0	625.0	625.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0
	623.0	623.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0
	621.0	621.0								
0113	619.0	619.0	621.0	623.0	624.0	624.0	624.0	624.0	625.0	625.0
	625.0	625.0	625.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0	622.0
	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0
	620.0	620.0								
0114	619.0	619.0	620.0	623.0	623.0	623.0	624.0	624.0	624.0	624.0
	624.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0
	622.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0115	619.0	619.0	620.0	622.0	622.0	622.0	623.0	623.0	623.0	624.0
	624.0	624.0	624.0	624.0	624.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0	621.0
	621.0	621.0	621.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0
	619.0	619.0								
0116	618.0	619.0	619.0	621.0	621.0	622.0	622.0	622.0	623.0	623.0
	623.0	623.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0
	621.0	620.0	620.0	620.0	619.0	619.0	618.0	618.0	618.0	618.0
	618.0	618.0								
0117	618.0	619.0	619.0	620.0	621.0	621.0	622.0	622.0	622.0	622.0
	623.0	623.0	623.0	623.0	623.0	623.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0
	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	621.0	621.0	620.0
	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0
	620.0	620.0	619.0	619.0	619.0	618.0	618.0	617.0	616.0	617.0
	617.0	617.0								

0118	618.0	618.0	618.0	620.0	620.0	621.0	621.0	621.0	622.0	622.0
	622.0	622.0	622.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0
	620.0	619.0	619.0	619.0	618.0	618.0	617.0	616.0	616.0	617.0
	617.0	617.0								
0119	618.0	618.0	618.0	619.0	620.0	620.0	620.0	621.0	621.0	621.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
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0120	617.0	618.0	618.0	619.0	619.0	620.0	620.0	620.0	621.0	621.0
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	619.0	618.0	618.0	618.0	617.0	617.0	616.0	616.0	616.0	616.0
	616.0	616.0								
0121	617.0	617.0	618.0	618.0	619.0	619.0	620.0	620.0	620.0	620.0
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	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0
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	616.0	616.0								
0122	617.0	617.0	617.0	618.0	618.0	619.0	619.0	619.0	620.0	620.0
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	618.0	618.0	617.0	617.0	616.0	616.0	616.0	616.0	616.0	616.0
	616.0	616.0								
0123	617.0	617.0	617.0	618.0	618.0	618.0	619.0	619.0	619.0	620.0
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	616.0	616.0								
0124	616.0	616.0	617.0	617.0	618.0	618.0	618.0	619.0	619.0	619.0
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	616.0	616.0								
0133	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	617.0	617.0
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	605.0	605.0								
0167	604.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0
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	605.0	605.0								
0168	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0
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	605.0	605.0								
0169	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0
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	604.0	604.0								
0170	602.0	602.0	602.0	602.0	602.0	603.0	603.0	603.0	603.0	603.0
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0171	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
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0180	597.0	597.0	597.0	596.0	597.0	597.0	598.0	598.0	598.0	598.0
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0181	597.0	597.0	596.0	596.0	597.0	597.0	597.0	598.0	598.0	598.0
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	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0								
0192	590.0	590.0	590.0	591.0	591.0	592.0	593.0	594.0	596.0	
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	
	596.0	596.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	
	597.0	597.0								
0193	588.0	588.0	588.0	589.0	589.0	590.0	590.0	591.0	592.0	594.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
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	596.0	597.0	597.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0								
0194	587.0	587.0	587.0	587.0	588.0	588.0	589.0	589.0	590.0	
	591.0	592.0	592.0	592.0	592.0	593.0	594.0	596.0	596.0	
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	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	
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	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	
	596.0	596.0								
0195	585.0	585.0	585.0	585.0	586.0	586.0	586.0	586.0	587.0	
	587.0	588.0	588.0	588.0	588.0	589.0	589.0	590.0	591.0	
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	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	
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0196	584.0	584.0	584.0	584.0	583.0	583.0	583.0	583.0	583.0	
	584.0	584.0	584.0	584.0	584.0	585.0	585.0	585.0	586.0	
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	586.0	586.0	586.0	586.0	586.0	587.0	587.0	586.0	585.0	585.0
	583.0	589.0	589.0	589.0	587.0					
	583.0	583.0								
0197	582.0	582.0	582.0	582.0	582.0	581.0	581.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	581.0	581.0	581.0
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	583.0	583.0	582.0	582.0	582.0	581.0	581.0	580.0	579.0	576.0
	576.0	576.0								
0198	581.0	581.0	581.0	580.0	580.0	579.0	578.0	578.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
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	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	573.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	
	572.0	571.0								
0199	580.0	580.0	579.0	579.0	578.0	577.0	576.0	576.0	574.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
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0200	579.0	578.0	578.0	578.0	577.0	576.0	574.0	573.0	571.0	570.0
	570.0	570.0	570.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
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	566.0	566.0	566.0	566.0	566.0	566.0	565.0	564.0	563.0	562.0
	562.0	561.0								
0201	578.0	577.0	577.0	577.0	576.0	573.0	571.0	569.0	568.0	567.0
	567.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
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	565.0	566.0	566.0	566.0	565.0	565.0	564.0	564.0	564.0	564.0
	564.0	563.0	563.0	563.0	563.0	563.0	564.0	564.0	563.0	563.0
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	561.0	561.0	561.0	561.0	561.0	561.0	560.0	559.0	556.0	556.0
	556.0	556.0								
0202	577.0	577.0	576.0	576.0	572.0	569.0	567.0	565.0	564.0	564.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
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	557.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0
	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	552.0	550.0
	550.0	550.0								
0203	576.0	576.0	572.0	569.0	567.0	564.0	562.0	561.0	560.0	560.0
	560.0	560.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0
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	558.0	561.0	560.0	559.0	558.0	557.0	556.0	556.0	556.0	556.0
	556.0	555.0	554.0	553.0	552.0	551.0	554.0	554.0	554.0	554.0
	553.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0
	552.0	552.0	551.0	551.0	551.0	550.0	550.0	549.0	546.0	544.0
	543.0	543.0								
0204	570.0	569.0	566.0	563.0	561.0	559.0	556.0	556.0	556.0	556.0
	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0
	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0
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	551.0	554.0	554.0	553.0	553.0	553.0	552.0	552.0	551.0	551.0
	551.0	550.0	550.0	549.0	548.0	548.0	549.0	549.0	549.0	549.0
	549.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	547.0	547.0	546.0	546.0	545.0	544.0	542.0	540.0	536.0
	536.0	536.0								
0205	564.0	563.0	560.0	556.0	556.0	556.0	553.0	552.0	552.0	551.0
	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0
	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0
	551.0	551.0	551.0	551.0	551.0	551.0	550.0	549.0	549.0	548.0
	548.0	548.0	549.0	548.0	548.0	548.0	548.0	547.0	547.0	547.0
	546.0	546.0	545.0	544.0	544.0	544.0	545.0	545.0	545.0	545.0
	545.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	544.0	543.0	542.0	541.0	541.0	540.0	539.0	536.0	536.0	532.0
	531.0	530.0								
0206	560.0	559.0	556.0	554.0	552.0	551.0	550.0	548.0	547.0	547.0
	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0
	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0
	546.0	546.0	546.0	546.0	546.0	546.0	545.0	545.0	545.0	544.0
	544.0	544.0	543.0	543.0	544.0	544.0	544.0	543.0	542.0	542.0
	541.0	541.0	541.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	540.0	539.0	538.0	536.0	536.0	536.0	536.0	531.0	529.0	526.0
	524.0	523.0								
0207	557.0	556.0	553.0	550.0	549.0	547.0	545.0	544.0	542.0	541.0
	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
	541.0	541.0	541.0	541.0	541.0	541.0	541.0	540.0	540.0	540.0
	539.0	539.0	538.0	538.0	538.0	541.0	540.0	539.0	538.0	537.0
	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0
	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0
	536.0	536.0	536.0	531.0	529.0	527.0	526.0	524.0	522.0	520.0
	516.0	516.0								
0208	556.0	552.0	549.0	547.0	545.0	543.0	541.0	539.0	536.0	536.0
	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0
	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0
	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0
	535.0	534.0	533.0	532.0	531.0	533.0	534.0	534.0	533.0	533.0
	532.0	531.0	531.0	531.0	530.0	530.0	530.0	530.0	529.0	529.0
	529.0	529.0	529.0	529.0	529.0	528.0	528.0	528.0	528.0	528.0
	527.0	527.0	526.0	523.0	521.0	516.0	516.0	516.0	516.0	516.0
	509.0	507.0								
0209	548.0	546.0	544.0	543.0	541.0	539.0	536.0	536.0	532.0	530.0
	530.0	529.0	529.0	529.0	529.0	529.0	529.0	529.0	529.0	529.0
	529.0	529.0	529.0	529.0	529.0	529.0	529.0	529.0	529.0	529.0
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	527.0	527.0	526.0	525.0	525.0	524.0	523.0	523.0	523.0	523.0
	523.0	523.0	522.0	522.0	521.0	521.0	520.0	520.0	521.0	520.0
	519.0	518.0	517.0	516.0	516.0	509.0	507.0	506.0	505.0	503.0
	496.0	496.0								
0210	542.0	541.0	540.0	539.0	536.0	536.0	531.0	528.0	525.0	524.0
	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0
	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	522.0
	523.0	523.0	523.0	523.0	523.0	523.0	523.0	521.0	526.0	525.0	524.0
	522.0	522.0	521.0	520.0	520.0	520.0	521.0	526.0	525.0	524.0
	523.0	522.0	521.0	520.0	519.0	518.0	517.0	516.0	516.0	516.0
	516.0	516.0	516.0	515.0	514.0	513.0	512.0	511.0	511.0	510.0
	509.0	508.0	507.0	506.0	503.0	496.0	496.0	496.0	496.0	496.0
	476.0	476.0								
0211	536.0	536.0	536.0	536.0	531.0	528.0	524.0	521.0	516.0	516.0
	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0
	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0
	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0
	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0
	516.0	516.0	515.0	514.0	513.0	512.0	511.0	514.0	515.0	514.0
	513.0	512.0	511.0	510.0	509.0	508.0	507.0	506.0	506.0	506.0
	506.0	506.0	506.0	505.0	505.0	504.0	503.0	502.0	501.0	500.0
	499.0	498.0	497.0	496.0	496.0	489.0	486.0	484.0	476.0	476.0
	456.0	456.0								
0212	529.0	529.0	528.0	526.0	523.0	521.0	516.0	516.0	511.0	509.0
	508.0	508.0	507.0	507.0	506.0	506.0	506.0	506.0	506.0	506.0
	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0
	506.0	506.0	506.0	506.0	506.0	506.0	506.0	505.0	505.0	504.0
	506.0	506.0	506.0	506.0	506.0	500.0	501.0	506.0	505.0	504.0
	504.0	503.0	502.0	502.0	501.0	498.0	497.0	496.0	496.0	496.0
	503.0	502.0	501.0	500.0	499.0	496.0	495.0	494.0	493.0	492.0	491.0
	496.0	496.0	496.0	496.0	496.0	476.0	476.0	476.0	476.0	456.0	456.0
	488.0	487.0	484.0	476.0	476.0					

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      455.0     455.0
0213  522.0     522.0     520.0     516.0     516.0     516.0     508.0     506.0     502.0     501.0
      500.0     499.0     498.0     497.0     496.0     496.0     496.0     496.0     496.0     496.0
      496.0     496.0     496.0     496.0     496.0     496.0     496.0     496.0     496.0     496.0
      496.0     496.0     496.0     496.0     496.0     496.0     496.0     495.0     494.0     493.0
      492.0     491.0     490.0     489.0     488.0     487.0     486.0     486.0     485.0     484.0
      483.0     482.0     481.0     480.0     479.0     478.0     477.0     476.0     476.0     476.0
      476.0     476.0     476.0     476.0     476.0     476.0     476.0     476.0     476.0     476.0
      476.0     476.0     476.0     466.0     456.0     456.0     456.0     456.0     455.0     455.0
      455.0     455.0
0214  516.0     516.0     516.0     509.0     506.0     504.0     496.0     496.0     491.0     481.0
      480.0     479.0     478.0     477.0     476.0     476.0     476.0     476.0     476.0     476.0
      476.0     476.0     476.0     476.0     476.0     476.0     476.0     476.0     476.0     476.0
      476.0     476.0     476.0     476.0     476.0     476.0     476.0     475.0     474.0     473.0
      472.0     471.0     470.0     469.0     468.0     467.0     466.0     466.0     465.0     464.0
      463.0     462.0     461.0     460.0     459.0     458.0     457.0     456.0     456.0     456.0
      456.0     456.0     456.0     456.0     456.0     456.0     456.0     456.0     456.0     456.0
      456.0     456.0     456.0     456.0     454.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0215  505.0     503.0     496.0     496.0     496.0     496.0     476.0     476.0     474.0     469.0
      466.0     461.0     460.0     459.0     458.0     457.0     456.0     456.0     456.0     456.0
      456.0     456.0     456.0     456.0     456.0     456.0     456.0     456.0     456.0     456.0
      456.0     456.0     456.0     456.0     456.0     456.0     456.0     456.0     456.0     456.0
      456.0     456.0     456.0     456.0     455.0     454.0     453.0     457.0     458.0     457.0
      457.0     456.0     456.0     456.0     455.0     455.0     454.0     454.0     454.0     454.0
      453.0     453.0     453.0     453.0     453.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0216  496.0     496.0     488.0     484.0     476.0     476.0     466.0     456.0     456.0     454.0
      453.0     455.0     455.0     455.0     454.0     454.0     454.0     454.0     454.0     454.0
      454.0     453.0     453.0     453.0     453.0     453.0     453.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0217  476.0     476.0     476.0     476.0     456.0     456.0     456.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0218  463.0     456.0     456.0     456.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0219  456.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0220  455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0
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INITIAL HEAD FOR LAYER 2 WILL BE READ ON UNIT 34 USING FORMAT: (82F9.0)

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                1         2         3         4         5         6         7         8         9        10
               11        12        13        14        15        16        17        18        19        20
               21        22        23        24        25        26        27        28        29        30
               31        32        33        34        35        36        37        38        39        40
               41        42        43        44        45        46        47        48        49        50
               51        52        53        54        55        56        57        58        59        60
               61        62        63        64        65        66        67        68        69        70
               71        72        73        74        75        76        77        78        79        80
               81        82
.....
0  1  755.0     755.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0
0  2  755.0     753.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0
0  3  751.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0
0  4  749.0     748.0     748.0     748.0     748.0     749.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
      750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0     750.0
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	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
	750.0	750.0								
	746.0	746.0	746.0	746.0	746.0	746.0	747.0	747.0	747.0	747.0
0 5	746.0	746.0	747.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0
	747.0	747.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0
	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0
	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0
	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0
	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0
	748.0	748.0	748.0	749.0	749.0	750.0	750.0	750.0	750.0	750.0
	750.0	750.0								
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
0 6	744.0	744.0	745.0	745.0	745.0	745.0	745.0	745.0	746.0	746.0
	745.0	745.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
	746.0	746.0	746.0	746.0	747.0	747.0	748.0	748.0	748.0	748.0
	748.0	748.0								
	742.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
0 7	742.0	742.0	742.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	744.0	745.0	745.0	745.0	745.0	745.0	746.0
	746.0	746.0								
	739.0	739.0	739.0	739.0	739.0	738.0	738.0	738.0	738.0	738.0
0 8	739.0	740.0	740.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	742.0	742.0
	742.0	742.0	742.0	742.0	742.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0								
	737.0	737.0	737.0	737.0	736.0	735.0	735.0	735.0	735.0	735.0
0 9	737.0	737.0	737.0	738.0	738.0	739.0	739.0	739.0	739.0	739.0
	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
	739.0	740.0	740.0	740.0	740.0	740.0	741.0	741.0	741.0	741.0
	741.0	741.0								
	735.0	735.0	735.0	735.0	735.0	734.0	733.0	733.0	733.0	734.0
0 10	735.0	735.0	735.0	735.0	736.0	737.0	738.0	736.0	736.0	736.0
	735.0	735.0	735.0	736.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	738.0	738.0	739.0	739.0	739.0	739.0
	739.0	739.0								
	733.0	733.0	732.0	732.0	732.0	732.0	731.0	731.0	731.0	731.0
0 11	732.0	732.0	732.0	733.0	733.0	733.0	733.0	732.0	733.0	734.0
	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	736.0	737.0	737.0	737.0	737.0
	737.0	737.0								
	730.0	730.0	730.0	730.0	729.0	729.0	729.0	729.0	729.0	729.0
0 12	729.0	729.0	730.0	730.0	730.0	730.0	730.0	730.0	731.0	731.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	733.0	733.0	733.0
	733.0	733.0	733.0	733.0	733.0	735.0	735.0	735.0	735.0	735.0
	735.0	735.0								
	728.0	728.0	728.0	727.0	727.0	727.0	726.0	726.0	726.0	726.0
0 13	726.0	727.0	727.0	727.0	727.0	728.0	728.0	728.0	728.0	728.0
	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0
	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0
	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0
	729.0	729.0	729.0	729.0	729.0	729.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	731.0	731.0	731.0	731.0	731.0	731.0
	731.0	731.0								
	725.0	725.0	725.0	725.0	725.0	724.0	724.0	724.0	724.0	724.0
0 14	724.0	724.0	724.0	724.0	725.0	725.0	725.0	725.0	726.0	726.0
	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0
	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0
	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0
	726.0	726.0	726.0	727.0	727.0	727.0	727.0	727.0	727.0	727.0
	726.0	726.0	726.0	727.0	727.0	727.0	727.0	728.0	728.0	728.0
	727.0	727.0	727.0	727.0	727.0	727.0	728.0	727.0	727.0	726.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0			
	726.0	726.0								
	723.0	723.0	723.0	723.0	722.0	722.0	721.0	721.0	721.0	721.0
0 15	721.0	721.0	721.0	722.0	722.0	722.0	722.0	722.0	723.0	723.0
	723.0	723.0	723.0	723.0	723.0	724.0	724.0	724.0	724.0	724.0
	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0
	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0
	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0
	724.0	724.0	724.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	724.0	723.0	722.0
	725.0	725.0								
	721.0	721.0	721.0	720.0	720.0	719.0	718.0	718.0	718.0	718.0
0 16	721.0	721.0	719.0	719.0	719.0	720.0	720.0	720.0	720.0	720.0
	718.0	718.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0
	720.0	720.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0
	721.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0
	721.0	721.0	721.0	721.0	721.0	721.0	721.0	721.0	722.0	722.0
	721.0	721.0	721.0	721.0	721.0	722.0	722.0	723.0	723.0	723.0
	722.0	722.0	722.0	722.0	722.0	722.0	722.0	720.0	719.0	718.0
	723.0	723.0	723.0	723.0	723.0	722.0	722.0			
	715.0	717.0								
0 17	719.0	719.0	719.0	718.0	717.0	717.0	715.0	715.0	715.0	715.0
	715.0	715.0	715.0	716.0	717.0	718.0	717.0	716.0	717.0	717.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	719.0	719.0	720.0
	718.0	718.0	718.0	718.0	718.0	718.0	720.0	720.0	720.0	720.0
	719.0	719.0	719.0	720.0	720.0	720.0	720.0	719.0	717.0	715.0
	720.0	721.0	721.0	721.0	720.0	720.0	719.0			
	715.0	715.0								
0 18	718.0	717.0	717.0	716.0	715.0	715.0	714.0	714.0	713.0	713.0
	713.0	713.0	713.0	714.0	714.0	714.0	712.0	713.0	714.0	715.0

	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0
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	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0	715.0
	715.0	715.0	715.0	715.0	715.0	715.0	715.0	716.0	717.0	718.0
	716.0	716.0	717.0	717.0	717.0	717.0	717.0	718.0	718.0	718.0
	718.0	718.0	718.0	718.0	718.0	718.0	717.0	715.0	714.0	714.0
	714.0	714.0								
0 19	716.0	716.0	715.0	715.0	714.0	713.0	712.0	712.0	712.0	712.0
	711.0	711.0	712.0	712.0	712.0	712.0	711.0	711.0	712.0	712.0
	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0
	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0
	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0
	713.0	713.0	713.0	713.0	713.0	713.0	713.0	714.0	714.0	714.0
	713.0	713.0	713.0	713.0	713.0	713.0	713.0	715.0	715.0	715.0
	712.0	713.0	714.0	715.0	715.0	715.0	715.0	714.0	713.0	713.0
	715.0	716.0	717.0	717.0	716.0	716.0	715.0			
	712.0	712.0								
0 20	715.0	715.0	713.0	713.0	712.0	711.0	711.0	710.0	710.0	710.0
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	710.0	710.0	710.0	710.0	711.0	711.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0
	711.0	711.0	712.0	712.0	712.0	713.0	713.0	713.0	713.0	713.0
	714.0	715.0	715.0	715.0	715.0	715.0	713.0	712.0	711.0	711.0
	711.0	711.0								
0 21	712.0	712.0	711.0	711.0	710.0	709.0	709.0	708.0	708.0	708.0
	708.0	708.0	708.0	708.0	708.0	707.0	707.0	708.0	708.0	708.0
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	711.0	712.0	712.0	712.0	712.0	712.0	711.0	710.0	710.0	709.0
	709.0	709.0								
0 22	710.0	709.0	709.0	708.0	708.0	707.0	707.0	706.0	706.0	706.0
	706.0	706.0	706.0	705.0	705.0	705.0	705.0	706.0	706.0	706.0
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	709.0	709.0	709.0	709.0	709.0	709.0	709.0	708.0	708.0	707.0
	707.0	707.0								
0 23	707.0	707.0	707.0	706.0	706.0	705.0	705.0	704.0	704.0	704.0
	704.0	704.0	703.0	703.0	703.0	703.0	703.0	703.0	704.0	704.0
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	707.0	707.0	707.0	707.0	707.0	707.0	706.0	706.0	706.0	705.0
	705.0	705.0								
0 24	705.0	705.0	705.0	704.0	704.0	703.0	703.0	702.0	702.0	702.0
	702.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	702.0	703.0	703.0	703.0	703.0	704.0	704.0	704.0
	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	703.0
	703.0	703.0								
0 25	703.0	703.0	703.0	702.0	701.0	701.0	700.0	700.0	700.0	700.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0
	700.0	700.0	700.0	700.0	700.0	701.0	701.0	701.0	702.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	701.0	701.0
	701.0	701.0								
0 26	701.0	701.0	701.0	700.0	699.0	699.0	698.0	698.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
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	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	698.0	698.0	698.0	698.0	699.0	699.0	699.0	699.0
	699.0	700.0	700.0	700.0	700.0	700.0	699.0	699.0	699.0	699.0
	699.0	699.0								
0 27	700.0	699.0	699.0	698.0	697.0	696.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
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	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0								
0 28	698.0	698.0	698.0	697.0	695.0	695.0	695.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
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	694.0	694.0	694.0	694.0	694.0	694.0	695.0	695.0	693.0	694.0
	694.0	694.0	694.0	694.0	694.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0			
	695.0	695.0								
0 29	697.0	697.0	696.0	696.0	695.0	694.0	694.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
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	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0								
0 30	696.0	696.0	696.0	695.0	694.0	693.0	693.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
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	692.0	692.0	692.0	691.0	691.0	691.0	691.0	691.0	691.0	690.0
	690.0	690.0								
0 31	696.0	695.0	695.0	694.0	693.0	692.0	692.0	691.0	691.0	691.0
	691.0	691.0	691.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
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	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0

	690.0	690.0	690.0	690.0	690.0	689.0	689.0	689.0	688.0	688.0
	688.0									
0 32	695.0	695.0	695.0	693.0	692.0	691.0	691.0	690.0	690.0	690.0
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	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
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	689.0	688.0	688.0	688.0	688.0	688.0	687.0	687.0	686.0	686.0
	685.0	685.0								
0 33	695.0	695.0	693.0	692.0	691.0	690.0	689.0	689.0	689.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
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	687.0	687.0	687.0	686.0	686.0	686.0	685.0	685.0	684.0	683.0
	683.0	682.0								
0 34	695.0	695.0	692.0	690.0	689.0	688.0	688.0	688.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
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	687.0	687.0	687.0	687.0	687.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	685.0	685.0	684.0	684.0	683.0	683.0	682.0	681.0
	680.0	679.0								
0 35	695.0	691.0	689.0	688.0	687.0	687.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
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	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	685.0
	686.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	684.0	683.0	683.0	682.0	682.0	681.0	680.0	679.0
	684.0	684.0	684.0	683.0	683.0	682.0	682.0	681.0	680.0	679.0
	677.0	675.0								
0 36	688.0	686.0	686.0	685.0	685.0	685.0	685.0	685.0	685.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
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	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	683.0
	683.0	683.0	682.0	682.0	681.0	681.0	680.0	679.0	678.0	677.0
	675.0	675.0								
0 37	681.0	681.0	682.0	682.0	682.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
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	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	682.0	682.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	682.0	682.0
	682.0	682.0	681.0	681.0	680.0	679.0	679.0	678.0	676.0	675.0
	675.0	675.0								
0 38	675.0	675.0	678.0	679.0	680.0	681.0	681.0	681.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	681.0	681.0	681.0
	681.0	680.0	680.0	679.0	679.0	678.0	677.0	676.0	675.0	675.0
	675.0	675.0								
0 39	672.0	672.0	675.0	677.0	678.0	679.0	679.0	680.0	680.0	680.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	680.0	680.0	680.0	680.0	680.0
	680.0	679.0	679.0	678.0	678.0	677.0	676.0	675.0	675.0	674.0
	674.0	674.0								
0 40	667.0	668.0	671.0	675.0	676.0	677.0	678.0	679.0	679.0	679.0
	679.0	679.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	678.0	678.0	677.0	677.0	676.0	675.0	675.0	674.0	674.0
	674.0	674.0								
0 41	662.0	663.0	666.0	670.0	675.0	676.0	677.0	677.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	678.0	678.0	678.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	677.0	677.0	677.0	676.0	675.0	675.0	674.0	674.0	674.0
	673.0	673.0								
0 42	655.0	655.0	660.0	665.0	670.0	675.0	676.0	676.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	676.0	676.0	676.0	675.0	675.0	674.0	674.0	673.0	673.0
	673.0	673.0								
0 43	653.0	654.0	655.0	660.0	665.0	670.0	675.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	675.0	675.0	675.0	674.0	673.0	673.0	672.0	672.0
	672.0	672.0								
0 44	650.0	651.0	654.0	655.0	660.0	666.0	670.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	674.0	674.0	673.0	673.0	672.0	672.0	672.0	671.0
	675.0	675.0								
0 45	671.0	671.0								
	645.0	649.0	653.0	654.0	655.0	662.0	666.0	670.0	671.0	672.0
	672.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0

	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	673.0	673.0	673.0	673.0	672.0	672.0	671.0	671.0	671.0	671.0
	670.0	670.0								
0 46	644.0	648.0	652.0	653.0	654.0	660.0	663.0	666.0	668.0	669.0
	670.0	671.0	671.0	671.0	671.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	671.0	671.0	671.0	670.0	670.0	670.0	670.0
	669.0	669.0								
0 47	644.0	645.0	651.0	652.0	654.0	659.0	661.0	664.0	666.0	667.0
	668.0	668.0	669.0	669.0	670.0	670.0	670.0	670.0	670.0	670.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
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	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	670.0	670.0	670.0	670.0	669.0	669.0	669.0	669.0	669.0
	669.0	668.0								
0 48	643.0	644.0	650.0	651.0	654.0	657.0	660.0	663.0	663.0	665.0
	666.0	667.0	668.0	668.0	668.0	668.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	669.0	669.0
	669.0	669.0	669.0	669.0	668.0	668.0	668.0	668.0	668.0	668.0
	667.0	667.0								
0 49	643.0	644.0	649.0	650.0	653.0	656.0	658.0	662.0	662.0	663.0
	664.0	665.0	666.0	666.0	667.0	667.0	667.0	667.0	667.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	667.0	667.0	667.0	667.0	667.0	667.0	666.0
	666.0	666.0								
0 50	643.0	643.0	648.0	649.0	653.0	656.0	657.0	661.0	660.0	662.0
	663.0	663.0	664.0	665.0	665.0	665.0	666.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	665.0	665.0
	665.0	665.0								
0 51	642.0	643.0	647.0	648.0	652.0	655.0	657.0	660.0	659.0	660.0
	661.0	662.0	663.0	663.0	664.0	664.0	664.0	664.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	664.0	664.0	664.0	664.0
	664.0	664.0								
0 52	642.0	642.0	645.0	648.0	652.0	655.0	656.0	660.0	658.0	659.0
	660.0	661.0	661.0	662.0	662.0	663.0	663.0	663.0	663.0	663.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	665.0	665.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0								
0 53	641.0	642.0	644.0	647.0	651.0	654.0	655.0	659.0	657.0	658.0
	659.0	660.0	660.0	661.0	661.0	661.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0								
0 54	641.0	641.0	644.0	647.0	651.0	654.0	654.0	658.0	657.0	657.0
	658.0	659.0	659.0	660.0	660.0	660.0	660.0	661.0	661.0	661.0
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	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0								
0 55	640.0	641.0	643.0	646.0	650.0	653.0	654.0	657.0	656.0	657.0
	657.0	658.0	658.0	659.0	659.0	659.0	659.0	659.0	660.0	660.0
	660.0	660.0	660.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
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	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	660.0
	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	659.0
	659.0	659.0								
0 56	640.0	640.0	643.0	646.0	650.0	653.0	654.0	657.0	656.0	656.0
	657.0	657.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
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	659.0	659.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
	658.0	658.0								
0 57	639.0	640.0	642.0	645.0	649.0	652.0	655.0	656.0	655.0	656.0
	656.0	656.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	656.0	656.0	656.0	656.0	656.0
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	658.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0								
0 58	638.0	639.0	642.0	645.0	649.0	652.0	654.0	656.0	655.0	655.0
	655.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
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	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	656.0	655.0	655.0	656.0	656.0	656.0	656.0	656.0	656.0

	656.0	655.0								
0 59	638.0	639.0	641.0	644.0	648.0	651.0	654.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	655.0	655.0	655.0	655.0
	655.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
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	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0								
0 60	637.0	638.0	641.0	644.0	648.0	651.0	653.0	655.0	655.0	655.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
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	654.0	654.0								
0 61	637.0	638.0	640.0	644.0	647.0	650.0	653.0	654.0	654.0	654.0
	653.0	653.0	653.0	654.0	653.0	653.0	654.0	654.0	654.0	654.0
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	654.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
	653.0	653.0								
0 62	636.0	637.0	640.0	643.0	647.0	650.0	652.0	654.0	654.0	653.0
	652.0	652.0	652.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
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	653.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
	652.0	652.0								
0 63	636.0	637.0	639.0	643.0	646.0	649.0	652.0	654.0	654.0	652.0
	651.0	651.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
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	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0
	651.0	651.0								
0 64	635.0	637.0	639.0	643.0	646.0	649.0	651.0	653.0	653.0	651.0
	650.0	651.0	651.0	651.0	651.0	651.0	651.0	652.0	652.0	652.0
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	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0								
0 65	635.0	636.0	639.0	642.0	645.0	648.0	651.0	653.0	653.0	650.0
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	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0								
0 66	634.0	636.0	638.0	642.0	645.0	648.0	650.0	652.0	652.0	650.0
	649.0	649.0	649.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
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	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	649.0								
0 67	634.0	636.0	638.0	642.0	644.0	647.0	650.0	652.0	652.0	649.0
	648.0	648.0	649.0	649.0	649.0	649.0	650.0	650.0	650.0	650.0
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	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	648.0
	648.0	648.0								
0 68	633.0	635.0	638.0	641.0	643.0	647.0	649.0	651.0	651.0	649.0
	648.0	648.0	648.0	648.0	649.0	649.0	649.0	649.0	649.0	649.0
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	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	647.0
	647.0	647.0								
0 69	633.0	635.0	637.0	641.0	643.0	646.0	649.0	651.0	651.0	648.0
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	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	646.0	646.0
	646.0	646.0								
0 70	632.0	634.0	637.0	641.0	643.0	646.0	648.0	650.0	650.0	648.0
	647.0	647.0	647.0	647.0	648.0	648.0	648.0	648.0	648.0	648.0
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	644.0	644.0	644.0	644.0	644.0	645.0	645.0	645.0	645.0	645.0
	645.0	646.0								
0 71	632.0	634.0	637.0	640.0	643.0	645.0	648.0	650.0	650.0	647.0
	647.0	646.0	647.0	647.0	647.0	647.0	647.0	648.0	648.0	648.0
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	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	645.0
	645.0	645.0								
0 72	631.0	633.0	636.0	640.0	643.0	645.0	647.0	649.0	649.0	647.0
	647.0	646.0	646.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
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	643.0	643.0	643.0	643.0	643.0	643.0	644.0	644.0	644.0	644.0
	645.0	645.0								
0 73	631.0	633.0	636.0	639.0	642.0	644.0	647.0	649.0	649.0	647.0
	646.0	646.0	646.0	646.0	646.0	646.0	647.0	647.0	647.0	647.0
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	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	644.0	644.0
	644.0	645.0								
0 74	631.0	633.0	636.0	639.0	642.0	643.0	646.0	648.0	648.0	646.0
	646.0	645.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
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	642.0	642.0	642.0	642.0	642.0	642.0	642.0	643.0	643.0	644.0
	644.0	645.0								
0 75	630.0	632.0	635.0	638.0	641.0	642.0	646.0	648.0	648.0	646.0
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	645.0	645.0								
0 76	630.0	632.0	635.0	638.0	641.0	642.0	646.0	647.0	647.0	646.0
	646.0	645.0	645.0	645.0	645.0	646.0	646.0	646.0	645.0	645.0
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	641.0	641.0	640.0	640.0	640.0	641.0	641.0	641.0	641.0	642.0
	643.0	643.0								
0 77	630.0	632.0	635.0	637.0	640.0	642.0	645.0	647.0	647.0	646.0
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	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	641.0
	641.0	641.0								
0 78	629.0	631.0	634.0	637.0	641.0	642.0	645.0	646.0	646.0	645.0
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	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	640.0	640.0								
0 79	629.0	631.0	634.0	637.0	641.0	643.0	645.0	646.0	646.0	645.0
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	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0								
0 80	629.0	631.0	633.0	637.0	641.0	642.0	644.0	646.0	646.0	645.0
	645.0	645.0	645.0	645.0	645.0	644.0	644.0	644.0	644.0	644.0
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	638.0	638.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	637.0
	637.0	637.0								
0 81	629.0	631.0	633.0	636.0	641.0	642.0	643.0	645.0	645.0	645.0
	645.0	645.0	645.0	644.0	644.0	644.0	644.0	644.0	643.0	643.0
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	637.0	637.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0
	636.0	636.0								
0 82	628.0	630.0	632.0	636.0	640.0	641.0	643.0	645.0	645.0	645.0
	645.0	644.0	644.0	644.0	643.0	643.0	643.0	643.0	643.0	643.0
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	637.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	636.0								
0 83	628.0	630.0	632.0	636.0	639.0	641.0	642.0	645.0	645.0	644.0
	644.0	644.0	643.0	643.0	643.0	643.0	643.0	643.0	642.0	642.0
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	640.0	640.0	640.0	640.0	640.0	639.0	639.0	639.0	639.0	639.0
	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	636.0	636.0
	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0								
0 84	628.0	630.0	632.0	635.0	638.0	640.0	641.0	643.0	644.0	643.0
	643.0	643.0	643.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	639.0	639.0	639.0	639.0	639.0	638.0	638.0	638.0
	638.0	638.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0
	635.0	635.0								
0 85	627.0	630.0	631.0	635.0	637.0	639.0	640.0	641.0	643.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	639.0
	639.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0	637.0
	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	635.0	635.0
	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0								

0 86	627.0	630.0	631.0	635.0	637.0	638.0	639.0	640.0	642.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0
	637.0	637.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0								
0 87	627.0	629.0	630.0	634.0	636.0	637.0	638.0	639.0	641.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	638.0
	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0	636.0
	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0
	633.0	633.0								
0 88	626.0	629.0	630.0	634.0	635.0	636.0	637.0	638.0	640.0	640.0
	639.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0
	636.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0								
0 89	626.0	629.0	630.0	633.0	635.0	636.0	637.0	638.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	637.0
	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0
	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0								
0 90	625.0	629.0	629.0	633.0	634.0	636.0	637.0	637.0	638.0	639.0
	638.0	638.0	638.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0								
0 91	625.0	629.0	629.0	633.0	634.0	636.0	636.0	637.0	637.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0
	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0
	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0								
0 92	624.0	628.0	629.0	632.0	633.0	636.0	636.0	636.0	637.0	638.0
	637.0	637.0	637.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0
	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0 93	624.0	628.0	628.0	632.0	633.0	635.0	636.0	636.0	636.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0 94	623.0	628.0	628.0	631.0	633.0	635.0	635.0	636.0	636.0	637.0
	636.0	636.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0
	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0								
0 95	623.0	627.0	628.0	631.0	632.0	635.0	635.0	635.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0
	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0								
0 96	623.0	627.0	627.0	630.0	632.0	635.0	635.0	635.0	635.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0
	634.0	634.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0
	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0								
0 97	623.0	627.0	627.0	630.0	631.0	634.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0
	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0								
0 98	622.0	626.0	627.0	629.0	631.0	634.0	634.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0
	633.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0
	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0								
0 99	622.0	626.0	626.0	629.0	630.0	633.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0

	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0								
0100	622.0	625.0	626.0	628.0	630.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0
	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0
	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0								
0101	621.0	625.0	626.0	628.0	629.0	632.0	632.0	632.0	632.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0102	621.0	624.0	625.0	627.0	629.0	631.0	631.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0
	626.0	626.0								
0103	621.0	623.0	625.0	627.0	628.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0
	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0104	620.0	623.0	625.0	627.0	628.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0105	620.0	622.0	624.0	626.0	627.0	629.0	629.0	629.0	629.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
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	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0106	620.0	622.0	623.0	626.0	627.0	628.0	628.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
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	629.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0								
0107	620.0	621.0	623.0	626.0	626.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0								
0108	619.0	621.0	622.0	625.0	626.0	627.0	627.0	627.0	627.0	627.0
	627.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0109	619.0	620.0	622.0	625.0	625.0	626.0	626.0	626.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0
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	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0
	622.0	622.0								
0110	619.0	620.0	621.0	625.0	625.0	625.0	625.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0
	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0								
0111	619.0	619.0	621.0	624.0	624.0	625.0	625.0	625.0	625.0	625.0
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	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0
	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0								
0112	618.0	619.0	620.0	623.0	624.0	624.0	624.0	624.0	624.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0
	622.0	622.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0
	620.0	620.0								
0113	618.0	618.0	620.0	622.0	623.0	623.0	623.0	623.0	624.0	624.0

	624.0	624.0	624.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0	621.0
	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0
	619.0	619.0								
0114	618.0	618.0	619.0	622.0	622.0	622.0	623.0	623.0	623.0	623.0
	623.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
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	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0
	621.0	620.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0								
0115	618.0	618.0	619.0	621.0	621.0	621.0	622.0	622.0	622.0	623.0
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	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0	620.0
	620.0	620.0	620.0	619.0	619.0	619.0	618.0	618.0	618.0	618.0
	618.0	618.0								
0116	617.0	618.0	618.0	620.0	620.0	621.0	621.0	621.0	622.0	622.0
	622.0	622.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
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	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0
	620.0	619.0	619.0	619.0	618.0	618.0	617.0	617.0	617.0	617.0
	617.0	617.0								
0117	617.0	618.0	618.0	619.0	620.0	620.0	621.0	621.0	621.0	621.0
	622.0	622.0	622.0	622.0	622.0	622.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	619.0
	619.0	619.0	618.0	618.0	618.0	617.0	617.0	616.0	615.0	616.0
	616.0	616.0								
0118	617.0	617.0	617.0	619.0	619.0	620.0	620.0	620.0	621.0	621.0
	621.0	621.0	621.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0	619.0
	619.0	618.0	618.0	618.0	617.0	617.0	616.0	615.0	615.0	616.0
	616.0	616.0								
0119	617.0	617.0	617.0	618.0	619.0	619.0	619.0	620.0	620.0	620.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0
	618.0	618.0	618.0	617.0	617.0	616.0	616.0	615.0	615.0	615.0
	616.0	616.0								
0120	616.0	617.0	617.0	618.0	618.0	619.0	619.0	619.0	620.0	620.0
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	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0
	618.0	617.0	617.0	617.0	616.0	616.0	615.0	615.0	615.0	615.0
	615.0	615.0								
0121	616.0	616.0	617.0	617.0	618.0	618.0	619.0	619.0	619.0	619.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	621.0	621.0	621.0
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	617.0	617.0	617.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0
	615.0	615.0								
0122	616.0	616.0	616.0	617.0	617.0	618.0	618.0	618.0	619.0	619.0
	619.0	619.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
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	619.0	619.0	619.0	619.0	619.0	618.0	618.0	618.0	618.0	617.0
	617.0	617.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0	615.0
	615.0	615.0								
0123	616.0	616.0	616.0	617.0	617.0	617.0	618.0	618.0	618.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	620.0	620.0	620.0	620.0
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	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0	617.0
	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0	617.0	617.0
	617.0	617.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0	615.0
	615.0	615.0								
0124	615.0	615.0	616.0	616.0	617.0	617.0	617.0	618.0	618.0	618.0
	618.0	618.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
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	618.0	618.0	618.0	619.0	619.0	618.0	618.0	618.0	617.0	617.0
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	617.0	616.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0	615.0
	615.0	615.0								
0125	615.0	615.0	616.0	616.0	616.0	617.0	617.0	617.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	619.0	619.0	619.0	619.0	619.0
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	616.0	616.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0	615.0
	615.0	615.0								
0126	615.0	615.0	615.0	616.0	616.0	616.0	617.0	617.0	617.0	617.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
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	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0

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	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
	602.0	602.0								
0175	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0								
0176	598.0	598.0	598.0	598.0	598.0	598.0	599.0	599.0	599.0	599.0
	599.0	599.0	599.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	601.0	601.0
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	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0								
0177	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	599.0
	599.0	599.0	599.0	599.0	599.0	599.0	599.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
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	600.0	600.0	600.0	600.0	600.0	600.0	601.0	601.0	601.0	601.0
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	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0								
0178	597.0	597.0	597.0	597.0	597.0	597.0	598.0	598.0	598.0	598.0
	598.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
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	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0								
0179	597.0	596.0	596.0	596.0	597.0	597.0	597.0	597.0	598.0	598.0
	598.0	598.0	598.0	598.0	599.0	599.0	599.0	599.0	599.0	599.0
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	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0								
0180	596.0	596.0	596.0	595.0	596.0	596.0	597.0	597.0	597.0	597.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	599.0	599.0	599.0
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	600.0	600.0								
0181	596.0	596.0	595.0	595.0	596.0	596.0	596.0	597.0	597.0	597.0
	597.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
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	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0								
0182	595.0	595.0	595.0	595.0	595.0	596.0	596.0	596.0	597.0	597.0
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	599.0	599.0								
0183	595.0	595.0	595.0	595.0	595.0	595.0	596.0	596.0	596.0	597.0
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	599.0	599.0								
0184	595.0	595.0	595.0	595.0	595.0	595.0	596.0	596.0	596.0	596.0
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	598.0	598.0								
0185	595.0	595.0	595.0	595.0	595.0	595.0	595.0	596.0	596.0	596.0
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	598.0	598.0								
0186	594.0	594.0	594.0	594.0	595.0	595.0	595.0	595.0	596.0	596.0
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	598.0	598.0								
0187	594.0	594.0	594.0	594.0	594.0	595.0	595.0	595.0	595.0	596.0
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	597.0	597.0								
0188	593.0	593.0	593.0	593.0	594.0	594.0	595.0	595.0	595.0	596.0
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	597.0	597.0								
0189	592.0	592.0	592.0	593.0	593.0	594.0	595.0	595.0	595.0	595.0
	595.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
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	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0								
0190	591.0	591.0	591.0	592.0	592.0	593.0	595.0	595.0	595.0	595.0
	595.0	595.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
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	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0								
0191	590.0	590.0	590.0	591.0	591.0	592.0	593.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	596.0	596.0	596.0	596.0
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	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0								
0192	589.0	589.0	589.0	589.0	590.0	590.0	591.0	592.0	593.0	595.0
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	596.0	596.0								
0193	587.0	587.0	587.0	588.0	588.0	589.0	589.0	590.0	591.0	593.0
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	595.0	595.0								
0194	586.0	586.0	586.0	586.0	586.0	587.0	587.0	588.0	588.0	589.0
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	595.0	595.0								
0195	584.0	584.0	584.0	584.0	584.0	585.0	585.0	585.0	585.0	586.0
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	595.0	595.0	595.0	595.0	592.0	591.0	590.0	590.0	589.0	589.0
	589.0	588.0								
0196	583.0	583.0	583.0	583.0	583.0	582.0	582.0	582.0	582.0	582.0
	583.0	583.0	583.0	583.0	583.0	583.0	584.0	584.0	584.0	585.0
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	588.0	588.0	588.0	586.0	586.0	585.0	584.0	584.0	584.0	582.0
	582.0	582.0								
0197	581.0	581.0	581.0	581.0	581.0	580.0	580.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	580.0	580.0	580.0
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	575.0	575.0								
0198	580.0	580.0	580.0	579.0	579.0	578.0	577.0	577.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
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	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	572.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	
	571.0	570.0								
0199	579.0	579.0	578.0	578.0	577.0	576.0	575.0	575.0	573.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	571.0	571.0	571.0	571.0
	571.0	572.0	572.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	569.0	569.0	568.0	567.0
	566.0	566.0								
0200	578.0	577.0	577.0	577.0	576.0	575.0	573.0	572.0	570.0	569.0
	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	567.0	567.0	567.0	567.0
	568.0	568.0	568.0	568.0	568.0	567.0	567.0	567.0	566.0	566.0
	567.0	567.0	566.0	566.0	566.0	566.0	567.0	567.0	566.0	566.0
	566.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	564.0	563.0	562.0	561.0
	561.0	560.0								
0201	577.0	576.0	576.0	576.0	575.0	572.0	570.0	568.0	567.0	566.0
	566.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	564.0	564.0	564.0	564.0
	564.0	565.0	565.0	565.0	564:0	564.0	563.0	563.0	563.0	563.0
	563.0	562.0	562.0	562.0	562.0	562.0	563.0	563.0	562.0	562.0
	561.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0
	560.0	560.0	560.0	560.0	560.0	560.0	559.0	558.0	555.0	555.0
	555.0	555.0								
0202	576.0	576.0	575.0	575.0	571.0	568.0	566.0	564.0	563.0	563.0
	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0
	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0
	562.0	562.0	562.0	562.0	561.0	561.0	561.0	561.0	560.0	560.0
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	559.0	558.0	558.0	557.0	557.0	557.0	560.0	559.0	559.0	557.0
	556.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0
	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	551.0	549.0
	549.0	549.0								
0203	575.0	575.0	571.0	568.0	566.0	563.0	561.0	560.0	559.0	559.0
	559.0	559.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	557.0	557.0	556.0	556.0
	557.0	560.0	559.0	558.0	557.0	556.0	555.0	555.0	555.0	555.0
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	551.0	551.0	550.0	550.0	550.0	549.0	549.0	548.0	545.0	543.0
	542.0	542.0								
0204	569.0	568.0	565.0	562.0	560.0	558.0	555.0	555.0	555.0	555.0
	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0
	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0
	555.0	555.0	555.0	555.0	555.0	555.0	554.0	553.0	552.0	551.0
	555.0	555.0	555.0	555.0	555.0	555.0	554.0	553.0	552.0	551.0
	550.0	553.0	553.0	552.0	552.0	551.0	551.0	551.0	550.0	550.0
	550.0	549.0	549.0	548.0	547.0	547.0	548.0	548.0	548.0	548.0
	550.0	549.0	547.0	547.0	547.0	547.0	547.0	547.0	547.0	547.0
	548.0	547.0	547.0	547.0	547.0	547.0	547.0	547.0	547.0	547.0
	547.0	546.0	546.0	545.0	545.0	544.0	543.0	541.0	539.0	535.0
	535.0	535.0								
0205	563.0	562.0	559.0	555.0	555.0	555.0	552.0	551.0	551.0	550.0
	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
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	547.0	547.0	548.0	548.0	547.0	547.0	547.0	546.0	546.0	546.0
	545.0	545.0	544.0	544.0	543.0	543.0	544.0	544.0	544.0	544.0
	544.0	543.0	543.0	542.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	542.0	541.0	540.0	540.0	539.0	538.0	535.0	535.0	531.0
	530.0	529.0								
0206	559.0	558.0	555.0	553.0	551.0	550.0	549.0	547.0	546.0	546.0
	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	544.0	544.0	544.0	543.0
	545.0	545.0	545.0	545.0	543.0	543.0	543.0	542.0	541.0	541.0
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	539.0	538.0	537.0	535.0	535.0	535.0	535.0	530.0	528.0	525.0
	523.0	522.0								
0207	556.0	555.0	552.0	549.0	548.0	546.0	544.0	543.0	541.0	540.0
	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	540.0	540.0	540.0	540.0	540.0	540.0	540.0	539.0	539.0	539.0
	540.0	540.0	537.0	537.0	537.0	540.0	539.0	538.0	537.0	536.0
	538.0	538.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0
	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0
	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0
	535.0	535.0	535.0	530.0	520.0	526.0	525.0	523.0	521.0	519.0
	515.0	515.0								

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0208  555.0  551.0  548.0  546.0  544.0  542.0  540.0  538.0  535.0  535.0
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      508.0  506.0
0209  547.0  545.0  543.0  542.0  540.0  538.0  535.0  535.0  531.0  529.0
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      495.0  495.0
0210  541.0  540.0  539.0  538.0  535.0  535.0  530.0  527.0  524.0  523.0
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      508.0  507.0  506.0  505.0  502.0  495.0  495.0  495.0  495.0  495.0
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0211  535.0  535.0  535.0  535.0  530.0  527.0  523.0  520.0  515.0  515.0
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      498.0  497.0  496.0  495.0  495.0  488.0  485.0  483.0  475.0  475.0
      455.0  455.0
0212  528.0  528.0  527.0  525.0  522.0  520.0  515.0  515.0  510.0  508.0
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      495.0  495.0  495.0  495.0  495.0  494.0  493.0  492.0  491.0  490.0
      487.0  486.0  483.0  475.0  475.0  475.0  475.0  475.0  455.0  455.0
      455.0  455.0
0213  521.0  521.0  519.0  515.0  515.0  515.0  507.0  505.0  501.0  500.0
      499.0  498.0  497.0  496.0  495.0  495.0  495.0  495.0  495.0  495.0
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      491.0  490.0  489.0  488.0  487.0  486.0  485.0  485.0  484.0  483.0
      482.0  481.0  480.0  479.0  478.0  477.0  476.0  475.0  475.0  475.0
      475.0  475.0  475.0  475.0  475.0  475.0  475.0  475.0  475.0  475.0
      475.0  475.0  475.0  475.0  465.0  455.0  455.0  455.0  455.0  455.0
      455.0  455.0
0214  515.0  515.0  515.0  508.0  505.0  503.0  495.0  495.0  490.0  480.0
      479.0  478.0  477.0  476.0  475.0  475.0  475.0  475.0  475.0  475.0
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      455.0  455.0
0215  504.0  502.0  495.0  495.0  495.0  495.0  475.0  475.0  473.0  468.0
      465.0  460.0  459.0  458.0  457.0  456.0  455.0  455.0  455.0  455.0
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      455.0  455.0
0216  495.0  495.0  487.0  483.0  475.0  475.0  465.0  455.0  455.0  453.0
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0217  475.0  475.0  475.0  475.0  455.0  455.0  455.0  455.0  455.0  455.0
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0218  462.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0
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0219  455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0
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0220  455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0
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      455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0  455.0
      455.0  455.0
0
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INITIAL HEAD FOR LAYER 3 WILL BE READ ON UNIT 35 USING FORMAT: (82F9.0)

	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80
	81	82								
0 1	754.0	754.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0								
0 2	754.0	752.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0								
0 3	750.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0								
0 4	748.0	747.0	747.0	747.0	747.0	748.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0								
0 5	745.0	745.0	745.0	745.0	745.0	745.0	746.0	746.0	746.0	746.0
	746.0	746.0	746.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0
	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0
	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0
	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0
	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0	747.0
	747.0	747.0	747.0	747.0	748.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0								
0 6	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	745.0	745.0
	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0
	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0
	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0
	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0
	745.0	745.0	745.0	745.0	746.0	746.0	747.0	747.0	747.0	747.0
	747.0	747.0								
0 7	741.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	741.0	741.0	741.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	744.0	744.0	744.0	744.0	744.0	745.0
	745.0	745.0								
0 8	738.0	738.0	738.0	738.0	738.0	737.0	737.0	737.0	737.0	737.0
	738.0	739.0	739.0	739.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0								
0 9	736.0	736.0	736.0	736.0	735.0	734.0	734.0	734.0	734.0	734.0
	736.0	736.0	736.0	737.0	737.0	738.0	738.0	738.0	738.0	738.0
	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0
	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0
	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0
	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0
	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0
	738.0	739.0	739.0	739.0	739.0	739.0	740.0	740.0	740.0	740.0
	740.0	740.0								
0 10	734.0	734.0	734.0	734.0	734.0	733.0	732.0	732.0	732.0	733.0
	734.0	734.0	734.0	734.0	735.0	736.0	737.0	735.0	735.0	735.0
	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	736.0	736.0	737.0	737.0	738.0	738.0	738.0	738.0
	738.0	738.0								
0 11	732.0	732.0	731.0	731.0	731.0	731.0	730.0	730.0	730.0	730.0
	731.0	731.0	731.0	732.0	732.0	732.0	732.0	731.0	732.0	733.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	735.0	736.0	736.0	736.0	736.0
	736.0	736.0								
0 12	729.0	729.0	729.0	729.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	729.0	729.0	729.0	729.0	729.0	729.0	730.0	730.0
	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0
	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0
	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0
	731.0	731.0	731.0	731.0	731.0	731.0	731.0	732.0	732.0	732.0
	731.0	731.0	731.0	731.0	732.0	732.0	734.0	734.0	734.0	734.0
	732.0	732.0	732.0	732.0						
	734.0	734.0								
0 13	727.0	727.0	727.0	726.0	726.0	726.0	725.0	725.0	725.0	725.0
	725.0	726.0	726.0	726.0	726.0	727.0	727.0	727.0	727.0	727.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0

	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	729.0	729.0	729.0	729.0
	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0
	729.0	729.0	729.0	729.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0								
0 14	724.0	724.0	724.0	724.0	724.0	723.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	724.0	724.0	724.0	724.0	724.0	724.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0
	726.0	726.0	726.0	726.0	726.0	726.0	726.0	727.0	727.0	727.0
	727.0	727.0	727.0	727.0	727.0	727.0	727.0	726.0	726.0	725.0
	725.0	725.0								
0 15	722.0	722.0	722.0	722.0	721.0	721.0	720.0	720.0	720.0	720.0
	720.0	720.0	720.0	721.0	721.0	721.0	721.0	721.0	722.0	722.0
	722.0	722.0	722.0	722.0	722.0	723.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0
	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0	724.0
	724.0	724.0	724.0	724.0	724.0	724.0	724.0	723.0	722.0	721.0
	720.0	720.0								
0 16	720.0	720.0	720.0	719.0	719.0	718.0	717.0	717.0	717.0	717.0
	717.0	717.0	718.0	718.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0
	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0
	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0
	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	721.0	721.0
	721.0	721.0	721.0	721.0	721.0	721.0	721.0	722.0	722.0	722.0
	722.0	722.0	722.0	722.0	722.0	721.0	721.0	719.0	718.0	717.0
	714.0	716.0								
0 17	718.0	718.0	718.0	717.0	716.0	716.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	715.0	716.0	717.0	716.0	715.0	716.0	716.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	718.0	718.0	719.0
	718.0	718.0	718.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	720.0	720.0	720.0	719.0	719.0	718.0	716.0	714.0	714.0
	714.0	714.0								
0 18	717.0	716.0	716.0	715.0	714.0	714.0	713.0	713.0	712.0	712.0
	712.0	712.0	712.0	713.0	713.0	713.0	711.0	712.0	713.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	715.0	716.0	717.0
	714.0	714.0	714.0	714.0	714.0	714.0	716.0	717.0	717.0	717.0
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	717.0	717.0	717.0	717.0	717.0	717.0	716.0	714.0	713.0	713.0
	713.0	713.0								
0 19	715.0	715.0	714.0	714.0	713.0	712.0	711.0	711.0	711.0	711.0
	710.0	710.0	711.0	711.0	711.0	711.0	710.0	710.0	711.0	711.0
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	711.0	712.0	713.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	715.0	716.0	716.0	715.0	715.0	714.0	713.0	712.0	712.0
	711.0	711.0								
0 20	714.0	714.0	712.0	712.0	711.0	710.0	710.0	709.0	709.0	709.0
	709.0	709.0	709.0	709.0	709.0	709.0	708.0	709.0	709.0	709.0
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	710.0	710.0	710.0	710.0	710.0	710.0	710.0	710.0	710.0	710.0
	710.0	710.0	711.0	711.0	711.0	712.0	712.0	712.0	712.0	712.0
	713.0	714.0	714.0	714.0	714.0	714.0	712.0	711.0	710.0	710.0
	710.0	710.0								
0 21	711.0	711.0	710.0	710.0	709.0	708.0	708.0	707.0	707.0	707.0
	707.0	707.0	707.0	707.0	707.0	706.0	706.0	707.0	707.0	707.0
	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0
	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0
	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0
	707.0	707.0	707.0	707.0	707.0	708.0	708.0	708.0	708.0	708.0
	708.0	708.0	708.0	709.0	709.0	709.0	709.0	710.0	710.0	710.0
	710.0	711.0	711.0	711.0	711.0	711.0	710.0	709.0	709.0	708.0
	708.0	708.0								
0 22	709.0	708.0	708.0	707.0	707.0	706.0	706.0	705.0	705.0	705.0
	705.0	705.0	705.0	704.0	704.0	704.0	704.0	705.0	705.0	705.0
	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0
	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0
	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0
	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	706.0	706.0
	706.0	706.0	706.0	706.0	707.0	707.0	707.0	707.0	707.0	708.0
	708.0	708.0	708.0	708.0	708.0	708.0	708.0	707.0	707.0	706.0
	706.0	706.0								
0 23	706.0	706.0	706.0	705.0	705.0	704.0	704.0	703.0	703.0	703.0
	703.0	703.0	702.0	702.0	702.0	702.0	702.0	702.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	704.0	704.0	704.0	704.0	704.0	705.0	705.0	705.0	705.0
	706.0	706.0	706.0	706.0	706.0	706.0	705.0	705.0	705.0	704.0
	704.0	704.0								
0 24	704.0	704.0	704.0	703.0	703.0	702.0	702.0	701.0	701.0	701.0
	701.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0
	700.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	702.0	702.0	702.0	702.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	702.0
	702.0	702.0								
0 25	702.0	702.0	702.0	701.0	700.0	700.0	699.0	699.0	699.0	699.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0	698.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	700.0	700.0	700.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	700.0	700.0
	700.0	700.0								
0 26	700.0	700.0	700.0	699.0	698.0	698.0	697.0	697.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	697.0	697.0	697.0	697.0	698.0	698.0	698.0	698.0
	698.0	699.0	699.0	699.0	699.0	699.0	698.0	698.0	698.0	698.0

	698.0	698.0								
0 27	699.0	698.0	698.0	697.0	696.0	695.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	695.0	696.0	697.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0								
0 28	697.0	697.0	697.0	696.0	694.0	694.0	694.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	694.0	694.0	692.0	693.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0								
0 29	696.0	696.0	695.0	695.0	694.0	693.0	693.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0								
0 30	695.0	695.0	695.0	694.0	693.0	692.0	692.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
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	690.0	690.0	690.0	691.0	691.0	691.0	691.0	690.0	690.0	690.0
	691.0	691.0	691.0	690.0	690.0	690.0	690.0	690.0	690.0	689.0
	689.0	689.0								
0 31	695.0	694.0	694.0	693.0	692.0	691.0	691.0	690.0	690.0	690.0
	690.0	690.0	690.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	688.0	688.0	688.0	687.0	687.0
	687.0	687.0								
0 32	694.0	694.0	694.0	692.0	691.0	690.0	690.0	689.0	689.0	689.0
	689.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	687.0	687.0	687.0	687.0	686.0	686.0	685.0	685.0	
	684.0	684.0								
0 33	694.0	694.0	692.0	691.0	690.0	689.0	688.0	688.0	688.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	686.0	686.0
	686.0	686.0	686.0	685.0	685.0	685.0	684.0	684.0	683.0	682.0
	682.0	681.0								
0 34	694.0	694.0	691.0	689.0	688.0	687.0	687.0	687.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	685.0	685.0	685.0	685.0	685.0
	686.0	686.0	686.0	686.0	686.0	683.0	683.0	682.0	682.0	681.0	680.0
	685.0	685.0	684.0	684.0	683.0					
	679.0	678.0								
0 35	694.0	690.0	688.0	687.0	686.0	686.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	684.0
	685.0	685.0	685.0	685.0	685.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	683.0	683.0	683.0	682.0	682.0	681.0	681.0	680.0	679.0	678.0
	676.0	674.0								
0 36	687.0	685.0	685.0	684.0	684.0	684.0	684.0	684.0	684.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	682.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	682.0	682.0
	682.0	682.0	681.0	681.0	680.0	680.0	679.0	678.0	677.0	676.0
	674.0	674.0								
0 37	680.0	680.0	681.0	681.0	681.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	681.0	681.0
	682.0	682.0	682.0	682.0	679.0	678.0	678.0	677.0	675.0	674.0
	681.0	681.0	680.0	680.0						
	674.0	674.0								
0 38	674.0	674.0	677.0	678.0	679.0	680.0	680.0	680.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
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	681.0	681.0	681.0	681.0	681.0	681.0	681.0	680.0	680.0	680.0
	681.0	679.0	679.0	678.0	678.0	677.0	676.0	675.0	674.0	674.0
	680.0	674.0								
0 39	674.0	671.0	674.0	676.0	677.0	678.0	678.0	679.0	679.0	679.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
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	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	679.0	679.0	679.0	679.0	679.0
	680.0	680.0	680.0	680.0	677.0	676.0	675.0	674.0	674.0	673.0
	679.0	678.0	678.0	677.0						
	673.0	673.0								
0 40	666.0	667.0	670.0	674.0	675.0	676.0	677.0	678.0	678.0	678.0
	678.0	678.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0

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	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	677.0	677.0	676.0	676.0	675.0	674.0	674.0	673.0	673.0
	673.0	673.0								
0 41	661.0	662.0	665.0	669.0	674.0	675.0	676.0	676.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	678.0	678.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	678.0	678.0	678.0	678.0	678.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	676.0	676.0	676.0	675.0	674.0	674.0	673.0	673.0	673.0
	672.0	672.0								
0 42	654.0	654.0	659.0	664.0	669.0	674.0	675.0	675.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	675.0	675.0	675.0	674.0	674.0	673.0	673.0	672.0	672.0
	672.0	672.0								
0 43	652.0	653.0	654.0	659.0	664.0	669.0	674.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	674.0	674.0	674.0	673.0	672.0	672.0	671.0	671.0
	671.0	671.0								
0 44	649.0	650.0	653.0	654.0	659.0	665.0	669.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	673.0	673.0	672.0	672.0	671.0	671.0	671.0	670.0
	670.0	670.0								
0 45	644.0	648.0	652.0	653.0	654.0	661.0	665.0	669.0	670.0	671.0
	671.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	672.0	672.0	672.0	672.0	671.0	671.0	670.0	670.0	670.0	670.0
	669.0	669.0								
0 46	643.0	647.0	651.0	652.0	653.0	659.0	662.0	665.0	667.0	668.0
	669.0	670.0	670.0	670.0	670.0	671.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	670.0	670.0	670.0	669.0	669.0	669.0	669.0
	668.0	668.0								
0 47	643.0	644.0	650.0	651.0	653.0	658.0	660.0	663.0	665.0	666.0
	667.0	667.0	668.0	668.0	669.0	669.0	669.0	669.0	669.0	669.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
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	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	669.0	669.0	669.0	669.0	668.0	668.0	668.0	668.0	668.0
	668.0	667.0								
0 48	642.0	643.0	649.0	650.0	653.0	656.0	659.0	662.0	662.0	664.0
	665.0	666.0	666.0	667.0	667.0	667.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	668.0	668.0
	668.0	668.0	668.0	668.0	667.0	667.0	667.0	667.0	667.0	667.0
	666.0	666.0								
0 49	642.0	643.0	648.0	649.0	652.0	655.0	657.0	661.0	661.0	662.0
	663.0	664.0	665.0	665.0	666.0	666.0	666.0	666.0	666.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	666.0	666.0	666.0	666.0	666.0	666.0	665.0
	665.0	665.0								
0 50	642.0	642.0	647.0	648.0	652.0	655.0	656.0	660.0	659.0	661.0
	662.0	662.0	663.0	664.0	664.0	664.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
	665.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
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	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	664.0	664.0
	664.0	664.0								
0 51	641.0	642.0	646.0	647.0	651.0	654.0	656.0	659.0	658.0	659.0
	660.0	661.0	662.0	662.0	663.0	663.0	663.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
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	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	663.0	663.0	663.0	663.0
	663.0	663.0								
0 52	641.0	641.0	644.0	647.0	651.0	654.0	655.0	659.0	657.0	658.0
	659.0	660.0	660.0	661.0	661.0	662.0	662.0	662.0	662.0	662.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	664.0	664.0	664.0	664.0	664.0	664.0
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	664.0	664.0	664.0	664.0	664.0	664.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0								
0 53	640.0	641.0	643.0	646.0	650.0	653.0	654.0	658.0	656.0	657.0
	658.0	659.0	659.0	660.0	660.0	660.0	661.0	661.0	661.0	661.0
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	663.0	663.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0								

0 54	640.0	640.0	643.0	646.0	650.0	653.0	653.0	657.0	656.0	656.0
	657.0	658.0	658.0	659.0	659.0	659.0	659.0	660.0	660.0	660.0
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	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	660.0								
0 55	639.0	640.0	642.0	645.0	649.0	652.0	653.0	656.0	655.0	656.0
	656.0	657.0	657.0	658.0	658.0	658.0	658.0	658.0	659.0	659.0
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	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	658.0
	658.0	658.0								
0 56	639.0	639.0	642.0	645.0	649.0	652.0	653.0	656.0	655.0	655.0
	656.0	656.0	656.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
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	658.0	658.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0								
0 57	638.0	639.0	641.0	644.0	648.0	651.0	654.0	655.0	654.0	655.0
	655.0	655.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	655.0	655.0	655.0	655.0	655.0
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	657.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0								
0 58	637.0	638.0	641.0	644.0	648.0	651.0	653.0	655.0	654.0	654.0
	654.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
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	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	655.0	654.0	654.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	654.0								
0 59	637.0	638.0	640.0	643.0	647.0	650.0	653.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	653.0	653.0	653.0	653.0	653.0
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	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0								
0 60	636.0	637.0	640.0	643.0	647.0	650.0	652.0	654.0	654.0	654.0
	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
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	654.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
	653.0	653.0								
0 61	636.0	637.0	639.0	643.0	646.0	649.0	652.0	653.0	653.0	653.0
	652.0	652.0	652.0	652.0	652.0	652.0	653.0	653.0	653.0	653.0
	653.0	653.0	653.0	653.0	652.0	652.0	652.0	652.0	652.0	652.0
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	653.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
	652.0	652.0								
0 62	635.0	636.0	639.0	642.0	646.0	649.0	651.0	653.0	653.0	652.0
	651.0	651.0	651.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
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	652.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0
	651.0									
0 63	635.0	636.0	638.0	642.0	645.0	648.0	651.0	653.0	653.0	651.0
	650.0	650.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0
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	650.0									
0 64	634.0	636.0	638.0	642.0	645.0	648.0	650.0	652.0	652.0	650.0
	649.0	650.0	650.0	650.0	650.0	650.0	650.0	651.0	651.0	651.0
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	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	
	649.0									
0 65	634.0	635.0	638.0	641.0	644.0	647.0	650.0	652.0	652.0	649.0
	648.0	649.0	649.0	649.0	649.0	650.0	650.0	650.0	650.0	650.0
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	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0									
0 66	633.0	635.0	637.0	641.0	644.0	647.0	649.0	651.0	651.0	649.0
	648.0	648.0	648.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
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	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	648.0								
0 67	633.0	635.0	637.0	641.0	643.0	646.0	649.0	651.0	651.0	648.0
	647.0	647.0	648.0	648.0	648.0	648.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
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	647.0	647.0								
0 68	632.0	634.0	637.0	640.0	642.0	646.0	648.0	650.0	650.0	648.0
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	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	646.0
	646.0	646.0								
0 69	632.0	634.0	636.0	640.0	642.0	645.0	648.0	650.0	650.0	647.0
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	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	645.0	645.0
	645.0	645.0								
0 70	631.0	633.0	636.0	640.0	642.0	645.0	647.0	649.0	649.0	647.0
	646.0	646.0	646.0	646.0	647.0	647.0	647.0	647.0	647.0	647.0
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	644.0	645.0								
0 71	631.0	633.0	636.0	639.0	642.0	644.0	647.0	649.0	649.0	646.0
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	644.0	644.0								
0 72	630.0	632.0	635.0	639.0	642.0	644.0	646.0	648.0	648.0	646.0
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	644.0	644.0								
0 73	630.0	632.0	635.0	638.0	641.0	643.0	646.0	648.0	648.0	646.0
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	643.0	644.0								
0 74	630.0	632.0	635.0	638.0	641.0	642.0	645.0	647.0	647.0	645.0
	645.0	644.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
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	643.0	644.0								
0 75	629.0	631.0	634.0	637.0	640.0	641.0	645.0	647.0	647.0	645.0
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	644.0	644.0								
0 76	629.0	631.0	634.0	637.0	640.0	641.0	645.0	646.0	646.0	645.0
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	642.0	642.0								
0 77	629.0	631.0	634.0	636.0	639.0	641.0	644.0	646.0	646.0	645.0
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	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	640.0
	640.0	640.0								
0 78	628.0	630.0	633.0	636.0	640.0	641.0	644.0	645.0	645.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
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	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	639.0	639.0								
0 79	628.0	630.0	633.0	636.0	640.0	642.0	644.0	645.0	645.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	643.0	643.0
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	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0								
0 80	628.0	630.0	632.0	636.0	640.0	641.0	643.0	645.0	645.0	644.0
	644.0	644.0	644.0	644.0	644.0	643.0	643.0	643.0	643.0	643.0
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	636.0	636.0								
0 81	628.0	630.0	632.0	635.0	640.0	641.0	642.0	644.0	644.0	644.0

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	636.0	636.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0
	635.0	635.0								
0 82	627.0	629.0	631.0	635.0	639.0	640.0	642.0	644.0	644.0	644.0
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	636.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	635.0								
0 83	627.0	629.0	631.0	635.0	638.0	640.0	641.0	644.0	644.0	643.0
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	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0								
0 84	627.0	629.0	631.0	634.0	637.0	639.0	640.0	642.0	643.0	642.0
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	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0
	634.0	634.0								
0 85	626.0	629.0	630.0	634.0	636.0	638.0	639.0	640.0	642.0	641.0
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	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0								
0 86	626.0	629.0	630.0	634.0	636.0	637.0	638.0	639.0	641.0	640.0
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	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0								
0 87	626.0	628.0	629.0	633.0	635.0	636.0	637.0	638.0	640.0	639.0
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	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0
	632.0	632.0								
0 88	625.0	628.0	629.0	633.0	634.0	635.0	636.0	637.0	639.0	639.0
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	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0								
0 89	625.0	628.0	629.0	632.0	634.0	635.0	636.0	637.0	638.0	638.0
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	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0								
0 90	624.0	628.0	628.0	632.0	633.0	635.0	636.0	636.0	637.0	638.0
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	638.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0 91	624.0	628.0	628.0	632.0	633.0	635.0	635.0	636.0	636.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
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	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	631.0	631.0	631.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0 92	623.0	627.0	628.0	631.0	632.0	635.0	635.0	635.0	636.0	637.0	637.0
	636.0	636.0	636.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0
	637.0	637.0	637.0	637.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	634.0	634.0	633.0	633.0	633.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0	631.0	631.0	631.0
	633.0	633.0	632.0	632.0	632.0	632.0	631.0	632.0	631.0	630.0	630.0	630.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0
	630.0	630.0								
0 93	623.0	627.0	627.0	631.0	632.0	634.0	635.0	635.0	635.0	635.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0	634.0
	636.0	635.0	635.0	635.0	635.0	635.0	633.0	633.0	633.0	633.0	633.0	633.0
	634.0	634.0	634.0	634.0	634.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0
	632.0	632.0	632.0	632.0	632.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0
	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0								
0 94	622.0	627.0	627.0	630.0	632.0	634.0	634.0	635.0	635.0	636.0	636.0
	635.0	635.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0
	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	632.0	632.0	632.0	632.0
	634.0	634.0	634.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0		

	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0								
0 95	622.0	626.0	627.0	630.0	631.0	634.0	634.0	634.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
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	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0								
0 96	622.0	626.0	626.0	629.0	631.0	634.0	634.0	634.0	634.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0
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	633.0	633.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0
	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0								
0 97	622.0	626.0	626.0	629.0	630.0	633.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
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	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0
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	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0								
0 98	621.0	625.0	626.0	628.0	630.0	633.0	633.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
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	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0								
0 99	621.0	625.0	625.0	628.0	629.0	632.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
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	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0100	621.0	624.0	625.0	627.0	629.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
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	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0101	620.0	624.0	625.0	627.0	628.0	631.0	631.0	631.0	631.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
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	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0
	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0102	620.0	623.0	624.0	626.0	628.0	630.0	630.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
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	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0
	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0
	625.0	625.0								
0103	620.0	622.0	624.0	626.0	627.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	631.0	631.0
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	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0
	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0104	619.0	622.0	624.0	626.0	627.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
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	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0
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	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	624.0								
0105	619.0	621.0	623.0	625.0	626.0	628.0	628.0	628.0	628.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0								
0106	619.0	621.0	622.0	625.0	626.0	627.0	627.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	629.0
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	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0107	619.0	620.0	622.0	625.0	625.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	628.0	628.0	628.0	628.0	628.0	628.0
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	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0108	618.0	620.0	621.0	624.0	625.0	626.0	626.0	626.0	626.0	626.0
	626.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0

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	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0								
0109	618.0	619.0	621.0	624.0	624.0	625.0	625.0	625.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0
	621.0	621.0								
0110	618.0	619.0	620.0	624.0	624.0	624.0	624.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0
	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0								
0111	618.0	618.0	620.0	623.0	623.0	624.0	624.0	624.0	624.0	624.0
	624.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0
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	620.0	620.0								
0112	617.0	618.0	619.0	622.0	623.0	623.0	623.0	623.0	623.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	625.0	625.0	625.0
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	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0
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	623.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0
	621.0	621.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0	619.0
	619.0	619.0								
0113	617.0	617.0	619.0	621.0	622.0	622.0	622.0	622.0	623.0	623.0
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	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
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	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0	620.0
	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0
	618.0	618.0								
0114	617.0	617.0	618.0	621.0	621.0	621.0	622.0	622.0	622.0	622.0
	622.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
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	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0
	620.0	619.0	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0								
0115	617.0	617.0	618.0	620.0	620.0	620.0	621.0	621.0	621.0	622.0
	622.0	622.0	622.0	622.0	622.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	619.0
	619.0	619.0	619.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0
	617.0	617.0								
0116	616.0	617.0	617.0	619.0	619.0	620.0	620.0	620.0	621.0	621.0
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	621.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0	619.0
	619.0	618.0	618.0	618.0	617.0	617.0	616.0	616.0	616.0	616.0
	616.0	616.0								
0117	616.0	617.0	617.0	618.0	619.0	619.0	620.0	620.0	620.0	620.0
	621.0	621.0	621.0	621.0	621.0	621.0	622.0	622.0	622.0	622.0
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	621.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0	618.0
	618.0	618.0	617.0	617.0	616.0	616.0	615.0	614.0	615.0	
	615.0	615.0								
0118	616.0	616.0	616.0	618.0	618.0	619.0	619.0	619.0	620.0	620.0
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	620.0	620.0	619.0	619.0	619.0	619.0	618.0	614.0	614.0	615.0
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0119	616.0	616.0	616.0	617.0	618.0	618.0	618.0	619.0	619.0	619.0
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	617.0	617.0	617.0	616.0	616.0	615.0	615.0			
	615.0	615.0								
0120	615.0	616.0	616.0	617.0	617.0	618.0	618.0	618.0	619.0	619.0
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	614.0	614.0								
0121	615.0	615.0	616.0	616.0	617.0	617.0	618.0	618.0	618.0	618.0
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	614.0	614.0								
0122	615.0	615.0	615.0	616.0	616.0	617.0	617.0	617.0	618.0	618.0
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	616.0	616.0	615.0	615.0	614.0	614.0	614.0	614.0	614.0	614.0
	614.0	614.0								
0123	615.0	615.0	615.0	616.0	616.0	616.0	617.0	617.0	617.0	618.0
	618.0	618.0	618.0	618.0	618.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
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	618.0	618.0	617.0	617.0	617.0	617.0	617.0	617.0	616.0	616.0
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0124	614.0	614.0	615.0	615.0	616.0	616.0	616.0	617.0	617.0	617.0
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	616.0	615.0	615.0	615.0	614.0	614.0	614.0	614.0	614.0	614.0
	614.0	614.0								
0125	614.0	614.0	615.0	615.0	615.0	616.0	616.0	616.0	617.0	617.0
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0126	614.0	614.0	614.0	615.0	615.0	615.0	616.0	616.0	616.0	616.0
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	614.0	614.0								
0127	614.0	614.0	614.0	615.0	615.0	615.0	615.0	616.0	616.0	616.0
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	614.0	614.0								
0128	614.0	614.0	614.0	614.0	615.0	615.0	615.0	615.0	616.0	616.0
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	614.0	614.0								
0129	614.0	614.0	614.0	614.0	615.0	615.0	615.0	615.0	615.0	616.0
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	615.0	615.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0
	614.0	614.0								
0130	614.0	614.0	614.0	614.0	614.0	615.0	615.0	615.0	615.0	615.0
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	614.0	614.0								
0131	614.0	614.0	614.0	614.0	614.0	614.0	615.0	615.0	615.0	615.0
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	614.0	614.0								
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	614.0	614.0								
0133	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	615.0	615.0
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	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0								
0183	594.0	594.0	594.0	594.0	594.0	594.0	595.0	595.0	595.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0								
0184	594.0	594.0	594.0	594.0	594.0	594.0	595.0	595.0	595.0	595.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0								
0185	594.0	594.0	594.0	594.0	594.0	594.0	594.0	595.0	595.0	595.0
	595.0	595.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0								
0186	593.0	593.0	593.0	594.0	594.0	594.0	594.0	595.0	595.0	596.0
	595.0	595.0	595.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0								
0187	593.0	593.0	593.0	593.0	593.0	594.0	594.0	594.0	594.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0								
0188	592.0	592.0	592.0	592.0	593.0	593.0	594.0	594.0	594.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0								
0189	591.0	591.0	591.0	592.0	592.0	593.0	594.0	594.0	594.0	594.0
	594.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0

	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0								
0190	590.0	590.0	590.0	591.0	591.0	592.0	594.0	594.0	594.0	594.0
	594.0	594.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0								
0191	589.0	589.0	589.0	590.0	590.0	591.0	592.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0								
0192	588.0	588.0	588.0	588.0	589.0	589.0	590.0	591.0	592.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0								
0193	586.0	586.0	586.0	587.0	587.0	588.0	588.0	589.0	590.0	592.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	595.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0								
0194	585.0	585.0	585.0	585.0	585.0	586.0	586.0	587.0	587.0	588.0
	589.0	590.0	590.0	590.0	590.0	590.0	591.0	592.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0								
0195	583.0	583.0	583.0	583.0	583.0	584.0	584.0	584.0	584.0	585.0
	585.0	586.0	586.0	586.0	586.0	586.0	587.0	587.0	588.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	590.0	591.0	594.0	594.0
	594.0	594.0	594.0	594.0	591.0	590.0	589.0	589.0	588.0	588.0
	588.0	587.0								
0196	582.0	582.0	582.0	582.0	582.0	581.0	581.0	581.0	581.0	581.0
	582.0	582.0	582.0	582.0	582.0	582.0	583.0	583.0	583.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	585.0	586.0	587.0	587.0
	587.0	587.0	587.0	587.0	585.0	585.0	584.0	583.0	583.0	581.0
	581.0	581.0								
0197	580.0	580.0	580.0	580.0	580.0	579.0	579.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	580.0	580.0	580.0
	581.0	581.0	580.0	580.0	580.0	579.0	579.0	578.0	577.0	574.0
	574.0	574.0								
0198	579.0	579.0	579.0	578.0	578.0	577.0	576.0	576.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	571.0
	570.0	569.0								
0199	578.0	578.0	577.0	577.0	576.0	575.0	574.0	574.0	572.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	570.0	570.0	570.0	570.0
	570.0	571.0	571.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	568.0	568.0	567.0	566.0
	565.0	565.0								
0200	577.0	576.0	576.0	576.0	575.0	574.0	572.0	571.0	569.0	568.0
	568.0	568.0	568.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	566.0	566.0	566.0	566.0
	566.0	566.0	565.0	565.0	565.0	565.0	566.0	566.0	565.0	565.0
	565.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	563.0	562.0	561.0	560.0
	560.0	559.0								
0201	576.0	575.0	575.0	575.0	574.0	571.0	569.0	567.0	566.0	565.0
	565.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	563.0	563.0	563.0	563.0
	563.0	564.0	564.0	564.0	563.0	563.0	562.0	562.0	562.0	562.0
	562.0	561.0	561.0	561.0	561.0	561.0	562.0	562.0	561.0	561.0
	560.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0
	559.0	559.0	559.0	559.0	559.0	559.0	558.0	557.0	554.0	554.0
	554.0	554.0								
0202	575.0	575.0	574.0	574.0	570.0	567.0	565.0	563.0	562.0	562.0
	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
	561.0	561.0	561.0	561.0	560.0	560.0	560.0	560.0	559.0	559.0
	560.0	561.0	561.0	560.0	560.0	559.0	558.0	558.0	558.0	558.0
	558.0	557.0	557.0	556.0	556.0	556.0	559.0	558.0	558.0	556.0
	555.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0
	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	550.0	548.0
	548.0	548.0								
0203	574.0	574.0	570.0	567.0	565.0	562.0	560.0	559.0	558.0	558.0

	558.0	558.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0
	557.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0
	557.0	557.0	557.0	557.0	557.0	557.0	556.0	556.0	555.0	555.0
	556.0	559.0	558.0	557.0	556.0	555.0	554.0	554.0	554.0	554.0
	554.0	553.0	552.0	551.0	550.0	549.0	552.0	552.0	552.0	552.0
	551.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0	549.0	549.0	549.0	548.0	548.0	547.0	544.0	542.0
	541.0	541.0								
0204	568.0	567.0	564.0	561.0	559.0	557.0	554.0	554.0	554.0	554.0
	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0
	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0
	554.0	554.0	554.0	554.0	554.0	554.0	553.0	552.0	551.0	550.0
	549.0	552.0	552.0	552.0	551.0	551.0	550.0	550.0	549.0	549.0
	549.0	548.0	548.0	547.0	546.0	546.0	547.0	547.0	547.0	547.0
	547.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0
	546.0	545.0	545.0	544.0	544.0	543.0	542.0	540.0	538.0	534.0
	534.0	534.0								
0205	562.0	561.0	558.0	554.0	554.0	554.0	551.0	550.0	550.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	548.0	547.0	547.0	546.0
	546.0	546.0	547.0	547.0	546.0	546.0	546.0	545.0	545.0	545.0
	544.0	544.0	543.0	543.0	542.0	542.0	543.0	543.0	543.0	543.0
	543.0	542.0	542.0	542.0	542.0	542.0	542.0	542.0	542.0	542.0
	542.0	541.0	540.0	539.0	539.0	538.0	537.0	534.0	534.0	530.0
	529.0	528.0								
0206	558.0	557.0	554.0	552.0	550.0	549.0	548.0	546.0	545.0	545.0
	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	544.0	544.0	544.0	544.0	544.0	544.0	543.0	543.0	543.0	542.0
	542.0	542.0	541.0	541.0	542.0	542.0	542.0	541.0	540.0	540.0
	539.0	539.0	539.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	537.0	536.0	534.0	534.0	534.0	534.0	529.0	527.0	524.0
	522.0	521.0								
0207	555.0	554.0	551.0	548.0	547.0	545.0	543.0	542.0	540.0	539.0
	539.0	539.0	539.0	539.0	539.0	539.0	539.0	539.0	539.0	539.0
	539.0	539.0	539.0	539.0	539.0	539.0	539.0	538.0	538.0	538.0
	539.0	539.0	539.0	539.0	539.0	539.0	539.0	537.0	536.0	535.0
	537.0	537.0	536.0	536.0	536.0	539.0	538.0	534.0	534.0	534.0
	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0
	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0
	534.0	534.0	534.0	529.0	527.0	525.0	524.0	522.0	520.0	518.0
	514.0	514.0								
0208	554.0	550.0	547.0	545.0	543.0	541.0	539.0	537.0	534.0	534.0
	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0
	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0
	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0	534.0
	533.0	532.0	531.0	530.0	529.0	531.0	532.0	532.0	531.0	531.0
	530.0	529.0	529.0	529.0	528.0	528.0	528.0	528.0	527.0	527.0
	527.0	527.0	527.0	527.0	527.0	526.0	526.0	526.0	526.0	526.0
	525.0	525.0	524.0	521.0	519.0	514.0	514.0	514.0	514.0	514.0
	507.0	505.0								
0209	546.0	544.0	542.0	541.0	539.0	537.0	534.0	534.0	530.0	528.0
	528.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0
	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0
	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0
	527.0	526.0	525.0	524.0	524.0	525.0	526.0	527.0	527.0	526.0
	525.0	525.0	524.0	523.0	523.0	522.0	521.0	521.0	521.0	521.0
	521.0	521.0	520.0	520.0	519.0	519.0	518.0	518.0	519.0	518.0
	517.0	516.0	515.0	514.0	514.0	507.0	505.0	504.0	503.0	501.0
	494.0	494.0								
0210	540.0	539.0	538.0	537.0	534.0	534.0	529.0	526.0	523.0	522.0
	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	520.0
	520.0	520.0	519.0	518.0	518.0	518.0	519.0	524.0	523.0	522.0
	521.0	520.0	519.0	518.0	517.0	516.0	515.0	514.0	514.0	514.0
	514.0	514.0	514.0	513.0	512.0	511.0	510.0	509.0	509.0	508.0
	507.0	506.0	505.0	504.0	501.0	494.0	494.0	494.0	494.0	494.0
	474.0	474.0								
0211	534.0	534.0	534.0	534.0	529.0	526.0	522.0	519.0	514.0	514.0
	514.0	514.0	514.0	514.0	514.0	514.0	514.0	514.0	514.0	514.0
	514.0	514.0	514.0	514.0	514.0	514.0	514.0	514.0	514.0	514.0
	514.0	514.0	514.0	514.0	514.0	514.0	514.0	514.0	514.0	514.0
	514.0	514.0	513.0	512.0	511.0	510.0	509.0	512.0	513.0	512.0
	511.0	510.0	509.0	508.0	507.0	506.0	505.0	504.0	504.0	504.0
	504.0	504.0	504.0	503.0	503.0	502.0	501.0	500.0	499.0	498.0
	497.0	496.0	495.0	494.0	494.0	487.0	484.0	482.0	474.0	474.0
	454.0	454.0								
0212	527.0	527.0	526.0	524.0	521.0	519.0	514.0	514.0	509.0	507.0
	506.0	506.0	505.0	505.0	504.0	504.0	504.0	504.0	504.0	504.0
	504.0	504.0	504.0	504.0	504.0	504.0	504.0	504.0	504.0	504.0
	504.0	504.0	504.0	504.0	504.0	504.0	504.0	503.0	503.0	502.0
	502.0	501.0	500.0	500.0	499.0	498.0	499.0	504.0	503.0	502.0
	501.0	500.0	499.0	498.0	497.0	496.0	495.0	494.0	494.0	494.0
	494.0	494.0	494.0	494.0	494.0	493.0	492.0	491.0	490.0	489.0
	486.0	485.0	482.0	474.0	474.0	474.0	474.0	474.0	454.0	454.0
	455.0	455.0								
0213	520.0	520.0	518.0	514.0	514.0	514.0	506.0	504.0	500.0	499.0
	498.0	497.0	496.0	495.0	494.0	494.0	494.0	494.0	494.0	494.0
	494.0	494.0	494.0	494.0	494.0	494.0	494.0	494.0	494.0	494.0
	494.0	494.0	494.0	494.0	494.0	494.0	494.0	493.0	492.0	491.0
	490.0	489.0	488.0	487.0	486.0	485.0	484.0	484.0	483.0	482.0
	481.0	480.0	479.0	478.0	477.0	476.0	475.0	474.0	474.0	474.0
	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0
	474.0	474.0	474.0	464.0	454.0	454.0	454.0	454.0	455.0	455.0
	455.0	455.0								
0214	514.0	514.0	514.0	507.0	504.0	502.0	494.0	494.0	489.0	479.0
	478.0	477.0	476.0	475.0	474.0	474.0	474.0	474.0	474.0	474.0
	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0
	474.0	474.0	474.0	474.0	474.0	474.0	474.0	473.0	472.0	471.0
	470.0	469.0	468.0	467.0	466.0	465.0	464.0	464.0	463.0	462.0
	461.0	460.0	459.0	458.0	457.0	456.0	455.0	454.0	454.0	454.0
	454.0	454.0	454.0	454.0	454.0	454.0	454.0	454.0	454.0	454.0
	454.0	454.0	454.0	454.0	452.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0								
0215	503.0	501.0	494.0	494.0	494.0	494.0	474.0	474.0	472.0	467.0
	464.0	459.0	458.0	457.0	456.0	455.0	454.0	454.0	454.0	454.0
	454.0	454.0	454.0	454.0	454.0	454.0	454.0	454.0	454.0	454.0
	454.0	454.0	454.0	454.0	454.0	454.0	454.0	454.0	454.0	454.0
	454.0	454.0	454.0	454.0	453.0	452.0	451.0	455.0	456.0	455.0
	455.0	454.0	454.0	454.0	453.0	453.0	452.0	452.0	452.0	452.0
	451.0	451.0	451.0	451.0	451.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0								
0216	494.0	494.0	486.0	482.0	474.0	474.0	464.0	454.0	454.0	452.0
	451.0	453.0	453.0	453.0	452.0	452.0	452.0	452.0	452.0	452.0
	452.0	451.0	451.0	451.0	451.0	451.0	451.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0

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      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0217  474.0     474.0     474.0     474.0     454.0     454.0     454.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0218  461.0     454.0     454.0     454.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0219  454.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0220  455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0HEAD PRINT FORMAT IS FORMAT NUMBER   0    DRAWDOWN PRINT FORMAT IS FORMAT NUMBER   0
0HEADS WILL BE SAVED ON UNIT 42     DRAWDOWNS WILL BE SAVED ON UNIT  0
0OUTPUT CONTROL IS SPECIFIED EVERY TIME STEP
                                        COLUMN TO ROW ANISOTROPY =   1.000000
0
0

                                DELR WILL BE READ ON UNIT 11 USING FORMAT:   (7F10.2)
                                ----------------------------------------------------

   284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80    189.80    126.60
    84.400    56.300    37.500    25.000    25.000    25.000    25.000    25.000    25.000    25.000
    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000
    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000
    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000
    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000    37.500
    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000    25.000
    56.300    84.400    126.60    189.80    284.80    284.80    284.80    284.80    284.80    284.80
    284.80    284.80
0

                                DELC WILL BE READ ON UNIT 11 USING FORMAT:   (7F10.2)
                                ----------------------------------------------------

   284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80
   284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80
   284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80
   284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80    284.80
   284.80    284.80    189.80    126.60    84.400    56.300    37.500    25.000    25.000    25.000
   25.000    25.000    25.000    25.000    25.000    25.000    25.000
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    1       1         0       1       0
    2       1         0       1       0
    3       1         0       1       0
*   CONSTANT HEAD* BUDGET VALUES WILL BE SAVED ON UNIT 41 AT END OF TIME STEP  1, STRESS PERIOD  1
*FLOW RIGHT FACE * BUDGET VALUES WILL BE SAVED ON UNIT 41 AT END OF TIME STEP  1, STRESS PERIOD  1
*FLOW FRONT FACE * BUDGET VALUES WILL BE SAVED ON UNIT 41 AT END OF TIME STEP  1, STRESS PERIOD  1
*FLOW LOWER FACE * BUDGET VALUES WILL BE SAVED ON UNIT 41 AT END OF TIME STEP  1, STRESS PERIOD  1
*       RECHARGE* BUDGET VALUES WILL BE SAVED ON UNIT 41 AT END OF TIME STEP  1, STRESS PERIOD  1

 HEADS AND FLOW TERMS SAVED ON UNIT 60 FOR USE BY MT3D TRANSPORT MODEL
1                    HEAD IN LAYER  1 AT END OF TIME STEP  1 IN STRESS PERIOD  1
                    ----------------------------------------------------------

                1         2         3         4         5         6         7         8         9        10
               11        12        13        14        15        16        17        18        19        20
               21        22        23        24        25        26        27        28        29        30
               31        32        33        34        35        36        37        38        39        40
               41        42        43        44        45        46        47        48        49        50
               51        52        53        54        55        56        57        58        59        60
               61        62        63        64        65        66        67        68        69        70
               71        72        73        74        75        76        77        78        79        80
               81        82

 .....................................................................................................................
 0  1    1000.     738.6     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.
 0  2     738.5     738.5     738.5     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.
 0  3     738.4     738.4     738.3     738.2     738.1     738.0     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
           1000.     1000.
 0  4     738.2     738.2     738.2     738.1     738.0     737.9     737.7     737.6     737.5     737.4
           737.4     737.4     737.3     737.3     737.3     737.3     737.3     737.3     737.3     737.3
           737.3     737.3     737.3     737.3     737.2     737.2     737.2     737.2     737.2     737.2
           737.2     737.2     737.2     737.2     737.2     737.2     737.2     737.2     737.2     737.1
           737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.1
           737.1     737.1     737.1     737.1     737.1     737.0     737.0     737.0     737.0     737.0
           737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
           736.9     736.9     736.9     736.9     736.8     1000.     1000.     1000.     1000.     1000.
           1000.     1000.
 0  5     738.0     738.0     737.9     737.8     737.8     737.7     737.5     737.4     737.4     737.3
           737.3     737.2     737.2     737.2     737.2     737.2     737.2     737.2     737.2     737.2
           737.2     737.2     737.2     737.2     737.1     737.1     737.1     737.1     737.1     737.1
           737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.0
           737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
           737.0     737.0     737.0     737.0     737.0     736.9     736.9     736.9     736.9     736.9
           736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.9
           736.8     736.8     736.8     736.8     736.7     736.5     736.4     736.4     736.3     736.3
           736.3     736.2
 0  6     737.6     737.6     737.6     737.5     737.5     737.4     737.3     737.2     737.1     737.1
           737.1     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
           737.0     737.0     737.0     736.9     736.9     736.9     736.9     736.9     736.9     736.9
           736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.8
           736.8     736.8     736.8     736.8     736.8     736.8     736.8     736.8     736.8     736.8
           736.8     736.8     736.8     736.8     736.8     736.8     736.7     736.7     736.7     736.7
           736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7
           736.6     736.6     736.6     736.6     736.5     736.4     736.3     736.3     736.2     736.2
           736.1     736.1
 0  7     737.2     737.2     737.2     737.1     737.1     737.0     736.9     736.9     736.8     736.8
           736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7
           736.7     736.6     736.6     736.6     736.6     736.6     736.6     736.6     736.6     736.6
           736.6     736.6     736.6     736.6     736.6     736.6     736.6     736.6     736.5     736.5
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           735.9     735.9
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           736.0     736.0     735.9     735.9     735.8     735.8     735.7     735.7     735.6     735.6
           735.6     735.6
 0  9     736.2     736.1     736.1     736.1     736.1     736.0     736.0     735.9     735.9     735.8
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           735.2     735.2
 0 10     735.5     735.5     735.5     735.4     735.4     735.4     735.3     735.3     735.2     735.2
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           734.6     734.6
 0 11     734.7     734.7     734.7     734.7     734.7     734.6     734.6     734.5     734.5     734.5
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           734.0     734.0
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	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5
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	733.2	733.2								
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	732.4	732.3								
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0 15	730.8	730.8	730.8	730.8	730.7	730.7	730.7	730.7	730.7	730.6
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	729.2	729.2								
0 17	728.3	728.3	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.1
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	727.9	727.9								
0 18	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.7
	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7
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	726.5	726.5								
0 19	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
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	725.1	725.1								
0 20	723.7	723.7	723.7	723.7	723.7	723.7	723.7	723.7	723.7	723.7
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	723.5	723.5								
0 21	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
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	712.0	712.0								
0 27	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8
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	709.7	709.7								
0 28	707.5	707.5	707.5	707.5	707.5	707.4	707.4	707.4	707.4	707.4
	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4
	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4
	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4
	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4
	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4
	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4
	707.4	707.4	707.4	707.4	707.3	707.3	707.3	707.3	707.3	707.3
	707.3	707.3								
0 29	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0
	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9
	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9
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	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9
	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9
	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9
	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9
	704.8	704.8								
0 30	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4
	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4
	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4
	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4
	702.4	702.4	702.4	702.4	702.4	702.4	702.3	702.3	702.3	702.3
	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3
	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3
	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3
	702.3	702.3								
0 31	699.8	699.8	699.8	699.8	699.8	699.7	699.7	699.7	699.7	699.7
	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
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	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
	699.7	699.7	699.7	699.7	699.6	699.6	699.6	699.6	699.6	699.6
	699.6	699.6								
0 32	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
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	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.8
	696.8	696.8								
0 33	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0								
0 34	691.2	691.2	691.2	691.2	691.2	691.2	691.2	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0								
0 35	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1
	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1
	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1
	688.1	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	687.9
	687.9	687.9								
0 36	685.0	685.0	685.0	685.0	685.0	685.0	685.0	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.8	684.8	684.8
	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8
	684.8	684.8								
0 37	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7
	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7
	681.7	681.7	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6
	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6
	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6
	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6
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	681.6	681.6	681.6	681.6	681.6	681.5	681.5	681.5	681.5	681.5
	681.5	681.5								
0 38	678.4	678.4	678.4	678.4	678.4	678.4	678.4	678.3	678.3	678.3
	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3
	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3
	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3
	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3
	678.3	678.3	678.3	678.3	678.3	678.2	678.2	678.2	678.2	678.2
	678.3	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2
	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.1
	678.1	678.1								
0 39	675.0	675.0	675.0	674.9	674.9	674.9	674.9	674.9	674.9	674.9

	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9
	674.9	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.7	674.7	674.7	674.7	674.7	674.7	674.7
	674.7	674.7								
0 40	671.4	671.4	671.4	671.4	671.4	671.4	671.4	671.3	671.3	671.3
	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3
	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3
	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3
	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3
	671.3	671.3	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2
	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2
	671.2	671.2	671.2	671.2	671.2	671.2	671.1	671.1	671.1	671.1
	671.2	671.2								
	671.1	671.1								
0 41	667.8	667.8	667.8	667.8	667.8	667.8	667.7	667.7	667.7	667.7
	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7
	667.7	667.7	667.7	667.7	667.6	667.6	667.6	667.6	667.6	667.6
	667.7	667.7	667.7	667.7	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.5	667.5	667.5	667.5	667.5	667.5	667.5	667.5	667.4
	667.4	667.4								
0 42	664.1	664.1	664.1	664.1	664.0	664.0	664.0	664.0	664.0	664.0
	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
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	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.8	663.8
	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8
	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8
	663.8	663.8	663.8	663.8	663.8	663.7	663.7	663.7	663.7	663.7
	663.7	663.7								
0 43	660.9	660.9	660.9	660.9	660.9	660.8	660.8	660.8	660.8	660.8
	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7
	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7
	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7
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	660.7	660.7	660.7	660.7	660.7	660.7	660.6	660.6	660.6	660.6
	660.6	660.6	660.6	660.6	660.6	660.6	660.6	660.6	660.6	660.6
	660.6	660.6	660.6	660.6	660.6	660.6	660.6	660.6	660.6	660.6
	660.6	660.6	660.6	660.6	660.5	660.5	660.5	660.5	660.5	660.4
	660.4	660.4								
0 44	658.7	658.7	658.7	658.7	658.7	658.7	658.7	658.6	658.6	658.6
	658.6	658.6	658.6	658.6	658.6	658.6	658.6	658.6	658.6	658.5
	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5
	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5
	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5
	658.5	658.5	658.5	658.5	658.5	658.5	658.4	658.4	658.4	658.4
	658.5	658.5	658.5	658.5	658.5	658.5	658.4	658.4	658.4	658.4
	658.4	658.4	658.4	658.4	658.4	658.4	658.4	658.4	658.4	658.4
	658.4	658.4	658.4	658.4	658.4	658.3	658.3	658.3	658.3	658.3
	658.3	658.2								
0 45	657.3	657.3	657.3	657.3	657.2	657.2	657.2	657.2	657.1	657.1
	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1
	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1
	657.1	657.1	657.1	657.1	657.1	657.1	657.0	657.0	657.0	657.0
	657.1	657.1	657.1	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	656.9	656.9
	657.0	657.0	657.0	657.0	657.0	657.0	656.8	656.8	656.8	656.8
	656.9	656.9	656.9	656.9	656.9	656.9				
	656.8	656.8								
0 46	656.3	656.3	656.3	656.3	656.3	656.2	656.2	656.2	656.2	656.1
	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1
	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1
	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.0	656.0
	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	655.9	655.9	655.9	655.9	655.9	655.8	655.8	655.8	655.8
	655.8	655.8								
0 47	655.6	655.6	655.6	655.6	655.6	655.6	655.6	655.5	655.5	655.5
	655.5	655.5	655.5	655.5	655.5	655.5	655.5	655.5	655.4	655.4
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	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4
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	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3
	655.3	655.3	655.3	655.3	655.2	655.2	655.2	655.2	655.1	655.1
	655.1	655.1								
0 48	655.2	655.2	655.2	655.2	655.2	655.1	655.1	655.1	655.1	655.1
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	654.9	654.9
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	654.9	654.9	654.9
	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9
	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9
	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9
	654.9	654.9	654.9	654.8	654.8	654.8	654.8	654.7	654.7	654.7
	654.9	654.8								
	654.7	654.7								
0 49	654.9	654.9	654.8	654.8	654.8	654.8	654.8	654.7	654.7	654.7
	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7
	654.7	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6
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	654.5	654.5	654.5	654.5	654.5	654.5	654.5	654.5	654.5	654.5
	654.5	654.5	654.5	654.5	654.4	654.4	654.4	654.4	654.3	654.3
	654.3	654.3								
0 50	654.5	654.5	654.5	654.5	654.5	654.4	654.4	654.4	654.4	654.3
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	654.0	654.0								
0 51	654.2	654.1	654.1	654.1	654.1	654.1	654.0	654.0	654.0	654.0
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0 52	653.8	653.8	653.8	653.8	653.8	653.7	653.7	653.7	653.7	653.6
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0 54	653.1	653.1	653.1	653.1	653.0	653.0	653.0	653.0	652.9	652.9
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0 55	652.7	652.7	652.7	652.7	652.7	652.7	652.6	652.6	652.6	652.6
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0 56	652.4	652.4	652.4	652.4	652.3	652.3	652.3	652.3	652.2	652.2
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0 57	652.0	652.0	652.0	652.0	652.0	652.0	651.9	651.9	651.9	651.9
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	651.4	651.4								
0 58	651.7	651.7	651.7	651.6	651.6	651.6	651.6	651.5	651.5	651.5
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0 60	651.0	650.9	650.9	650.9	650.9	650.9	650.9	650.8	650.8	650.8
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0 62	650.2	650.2	650.2	650.2	650.2	650.2	650.1	650.1	650.1	650.1
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	647.8	647.8								
0 68	648.1	648.1	648.0	648.0	648.0	648.0	648.0	647.9	647.9	647.9
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	646.7	646.6								
0 71	647.0	647.0	646.9	646.9	646.9	646.9	646.9	646.8	646.8	646.8
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	646.5	646.5	646.5	646.5	646.4	646.4	646.4	646.3	646.3	646.3
	646.3	646.3								
0 72	646.6	646.6	646.6	646.6	646.5	646.5	646.5	646.5	646.4	646.4
	646.4	646.4	646.4	646.4	646.4	646.4	646.3	646.3	646.3	646.3
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	645.9	645.9								
0 73	646.2	646.2	646.2	646.2	646.2	646.1	646.1	646.1	646.0	646.0
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	645.8	645.7	645.7	645.7	645.6	645.6	645.6	645.6	645.6	645.5
	645.5	645.5								
0 74	645.9	645.9	645.8	645.8	645.8	645.8	645.7	645.7	645.7	645.7
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	645.2	645.1								
0 75	645.5	645.5	645.5	645.5	645.4	645.4	645.4	645.3	645.3	645.3
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	644.8	644.8								
0 76	645.1	645.1	645.1	645.1	645.1	645.0	645.0	645.0	644.9	644.9
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	644.4	644.4								
0 77	644.8	644.7	644.7	644.7	644.7	644.7	644.6	644.6	644.6	644.5
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	644.0	644.0								
0 78	644.4	644.4	644.4	644.3	644.3	644.3	644.3	644.2	644.2	644.2
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	643.6	643.6								
0 79	644.0	644.0	644.0	644.0	643.9	643.9	643.9	643.8	643.8	643.8
	643.8	643.8	643.8	643.8	643.7	643.7	643.7	643.7	643.7	643.7
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	642.9	642.9								
0 81	643.3	643.3	643.2	643.2	643.2	643.2	643.1	643.1	643.1	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
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	642.9	642.9	642.9	642.9	642.9	642.9	642.9	642.9	642.9	642.9
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	642.5	642.5								
0 82	642.9	642.9	642.9	642.9	642.8	642.8	642.8	642.7	642.7	642.7
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	642.1	642.1								
0 83	642.5	642.5	642.5	642.5	642.5	642.4	642.4	642.3	642.3	642.3
	642.3	642.3	642.2	642.2	642.2	642.2	642.2	642.2	642.2	642.2
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	642.0	642.0	642.0	641.9	641.9	641.9	641.8	641.8	641.8	641.7
	641.7	641.7								
0 84	642.1	642.1	642.1	642.1	642.1	642.0	642.0	642.0	641.9	641.9
	641.9	641.9	641.9	641.9	641.9	641.9	641.9	641.8	641.8	641.8
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	641.3	641.3								
0 85	641.8	641.8	641.7	641.7	641.7	641.7	641.6	641.6	641.6	641.5
	641.5	641.5	641.5	641.5	641.5	641.5	641.5	641.5	641.5	641.5
	641.5	641.5	641.4	641.4	641.4	641.4	641.4	641.4	641.4	641.4
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0 86	641.4	641.4	641.4	641.3	641.3	641.3	641.3	641.2	641.2	641.1
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	640.6	640.6								
0 87	641.0	641.0	641.0	641.0	640.9	640.9	640.9	640.8	640.8	640.8
	640.8	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7
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	640.2	640.2								
0 88	640.6	640.6	640.6	640.6	640.6	640.5	640.5	640.5	640.4	640.4
	640.4	640.4	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3
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	639.8	639.8								
0 89	640.2	640.2	640.2	640.2	640.2	640.2	640.1	640.1	640.0	640.0
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0 90	639.9	639.9	639.8	639.8	639.8	639.8	639.7	639.7	639.7	639.6
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0 91	639.5	639.5	639.5	639.4	639.4	639.4	639.3	639.3	639.3	639.2
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	638.9	638.9	638.9	638.9	638.8	638.8	638.7	638.7	638.7	638.6
	638.6	638.6								
0 92	639.1	639.1	639.1	639.1	639.0	639.0	639.0	638.9	638.9	638.9
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	638.2	638.2								
0 93	638.7	638.7	638.7	638.7	638.7	638.6	638.6	638.5	638.5	638.5
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0 94	638.3	638.3	638.3	638.3	638.3	638.2	638.2	638.2	638.1	638.1
	638.1	638.1	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9
	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9
	637.9	637.9	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8
	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8
	637.8	637.7	637.7	637.7	637.6	637.6	637.6	637.5	637.5	637.5
	637.5	637.5								
0 95	638.0	638.0	637.9	637.9	637.9	637.9	637.8	637.8	637.7	637.7
	637.7	637.7	637.7	637.7	637.6	637.6	637.6	637.6	637.6	637.6
	637.6	637.6	637.6	637.6	637.6	637.6	637.6	637.6	637.6	637.6
	637.6	637.6	637.6	637.6	637.5	637.5	637.5	637.5	637.5	637.5
	637.5	637.5	637.5	637.5	637.5	637.5	637.5	637.5	637.5	637.5
	637.5	637.5	637.5	637.5	637.4	637.4	637.4	637.4	637.4	637.4
	637.4	637.4	637.4	637.4	637.4	637.4	637.4	637.4	637.4	637.4
	637.4	637.3	637.3	637.3	637.3	637.2	637.2	637.1	637.1	637.1
	637.1	637.1								
0 96	637.6	637.6	637.6	637.5	637.5	637.5	637.4	637.4	637.3	637.3
	637.3	637.3	637.3	637.3	637.3	637.3	637.3	637.2	637.2	637.2
	637.2	637.2	637.2	637.2	637.2	637.2	637.2	637.2	637.2	637.2
	637.2	637.2	637.2	637.2	637.2	637.2	637.1	637.1	637.1	637.1
	637.1	637.1	637.1	637.1	637.1	637.1	637.1	637.1	637.1	637.1
	637.1	637.1	637.1	637.1	637.1	637.1	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	636.9	636.9	636.9	636.8	636.8	636.7	636.7	636.7
	636.7	636.7								
0 97	637.2	637.2	637.2	637.1	637.1	637.1	637.0	637.0	637.0	636.9
	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.8
	636.9	636.9	636.9	636.9	636.9	636.9	636.8	636.8	636.8	636.8
	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.7	636.7
	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.7	636.7
	636.7	636.7	636.7	636.7	636.7	636.7	636.7	636.7	636.7	636.7
	636.7	636.7	636.7	636.7	636.7	636.7	636.7	636.7	636.6	636.6
	636.6	636.6	636.6	636.6	636.6	636.6	636.6	636.6	636.6	636.6
	636.6	636.6	636.5	636.5	636.5	636.4	636.4	636.3	636.3	636.3
	636.3	636.3								
0 98	636.8	636.8	636.8	636.8	636.7	636.7	636.7	636.6	636.6	636.5
	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5
	636.5	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4
	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4
	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.3	636.3	636.3
	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.2
	636.3	636.3	636.3	636.3	636.3	636.3	636.2	636.3	636.2	636.2
	636.2	636.2	636.2	636.2	636.2	636.2	636.2	636.2	636.2	636.2
	636.2	636.2	636.2	636.1	636.1	636.0	636.0	636.0	635.9	635.9
	635.9	635.9								
0 99	636.4	636.4	636.4	636.4	636.3	636.3	636.3	636.2	636.2	636.1
	636.1	636.1	636.1	636.1	636.1	636.1	636.1	636.1	636.1	636.1
	636.1	636.1	636.1	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9
	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9
	635.9	635.8	635.8	635.8	635.8	635.8	635.8	635.8	635.8	635.8
	635.8	635.8	635.8	635.7	635.7	635.6	635.6	635.6	635.5	635.5
	635.5	635.5								
0100	636.0	636.0	636.0	636.0	636.0	635.9	635.9	635.8	635.8	635.8
	635.7	635.7	635.7	635.7	635.7	635.7	635.7	635.7	635.7	635.7
	635.7	635.7	635.7	635.7	635.7	635.6	635.6	635.6	635.6	635.6
	635.7	635.7	635.7	635.7	635.6	635.6	635.6	635.6	635.6	635.6
	635.6	635.6	635.6	635.6	635.6	635.6	635.6	635.6	635.6	635.6
	635.6	635.6	635.6	635.5	635.5	635.5	635.5	635.5	635.5	635.5
	635.6	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5
	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5
	635.5	635.5	635.4	635.4	635.4	635.4	635.4	635.4	635.4	635.4
	635.4	635.4	635.4	635.3	635.3	635.2	635.2	635.2	635.1	635.1
	635.1	635.1								
0101	635.6	635.6	635.6	635.6	635.6	635.5	635.5	635.4	635.4	635.4
	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3
	635.3	635.3	635.3	635.3	635.3	635.3	635.2	635.2	635.2	635.2
	635.3	635.3	635.3	635.3	635.3	635.2	635.2	635.2	635.2	635.2
	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2
	635.2	635.2	635.2	635.2	635.2	635.1	635.1	635.1	635.1	635.1
	635.2	635.2	635.2	635.2	635.2	635.1	635.1	635.1	635.1	635.1
	635.1	635.1	635.1	635.1	635.1	635.1	635.1	635.1	635.1	635.1
	635.1	635.1	635.1	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.1	635.1	635.1	635.0	635.0	634.9	634.8	634.8	634.7	634.7
	635.0	635.0	635.0	634.9	634.9	634.8	634.8	634.8	634.7	634.7
	634.7	634.7								
0102	635.3	635.2	635.2	635.2	635.2	635.1	635.1	635.1	635.0	635.0
	635.0	634.9	634.9	634.9	634.9	634.9	634.9	634.9	634.9	634.9
	634.9	634.9	634.9	634.9	634.9	634.9	634.9	634.9	634.8	634.8
	634.9	634.9	634.9	634.9	634.9	634.9	634.8	634.8	634.8	634.8
	634.8	634.8	634.8	634.8	634.8	634.8	634.8	634.7	634.7	634.7
	634.8	634.8	634.8	634.8	634.8	634.8	634.7	634.7	634.7	634.7
	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7
	634.7	634.7	634.7	634.7	634.6	634.6	634.6	634.6	634.6	634.6
	634.6	634.6	634.6	634.5	634.5	634.4	634.4	634.4	634.3	634.3
	634.3	634.3								
0103	634.9	634.9	634.8	634.8	634.8	634.8	634.7	634.7	634.6	634.6
	634.6	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5
	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.4
	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.4	634.4	634.4
	634.4	634.4	634.4	634.4	634.4	634.4	634.4	634.3	634.3	634.3
	634.4	634.4	634.4	634.4	634.4	634.4	634.4	634.3	634.3	634.3
	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.2	634.2
	634.3	634.3	634.3	634.3	634.3	634.2	634.2	634.2	634.2	633.9
	634.2	634.2	634.2	634.1	634.1	634.0	634.0	634.0	633.9	
	633.9									
0104	634.5	634.5	634.5	634.4	634.4	634.4	634.3	634.3	634.2	634.2
	634.2	634.2	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1
	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.9	633.9
	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9
	633.9	633.9	633.9	633.9	633.9	633.9	633.8	633.8	633.8	633.8
	633.9	633.9	633.9	633.9	633.9	633.9	633.8	633.8	633.8	633.8
	633.8	633.8	633.8	633.7	633.7	633.7	633.6	633.6	633.5	633.5
	633.5	633.5								
0105	634.1	634.1	634.1	634.0	634.0	634.0	633.9	633.9	633.8	633.8
	633.8	633.8	633.8	633.7	633.7	633.7	633.7	633.7	633.7	633.7
	633.8	633.8	633.8	633.7	633.7	633.7	633.7	633.7	633.7	633.7
	633.7	633.7	633.7	633.7	633.7	633.7	633.7	633.6	633.6	633.6
	633.7	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.5	633.5
	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.5	633.5	633.5
	633.5	633.5	633.5	633.5	633.5	633.5	633.5	633.5	633.5	633.5
	633.5	633.5	633.5	633.5	633.5	633.5	633.4	633.4	633.4	633.4
	633.4	633.4	633.4	633.3	633.3	633.3	633.2	633.2	633.1	633.1
	633.1	633.1								
0106	633.7	633.7	633.7	633.6	633.6	633.6	633.5	633.5	633.4	633.4
	633.4	633.4	633.4	633.3	633.3	633.3	633.3	633.3	633.3	633.3
	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3
	633.3	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2
	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.1
	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1
	633.1	633.1	633.1	633.1	633.1	633.1	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	632.9	632.9	632.8	632.8	632.7	632.7

	632.7	632.7								
0107	633.3	633.3	633.3	633.3	633.2	633.2	633.1	633.1	633.0	633.0
	633.0	633.0	633.0	633.0	632.9	632.9	632.9	632.9	632.9	632.9
	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9
	632.9	632.9	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.8
	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.7
	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7
	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.6	632.6	632.6
	632.6	632.6	632.6	632.6	632.5	632.4	632.4	632.4	632.3	632.3
	632.3	632.3								
0108	632.9	632.9	632.9	632.9	632.8	632.8	632.7	632.7	632.6	632.6
	632.6	632.6	632.6	632.6	632.6	632.5	632.5	632.5	632.5	632.5
	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5
	632.5	632.5	632.5	632.4	632.4	632.4	632.4	632.4	632.4	632.4
	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.4
	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3
	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.2	632.2	632.2
	632.2	632.2	632.2	632.1	632.1	632.0	632.0	632.0	631.9	631.9
	631.9	631.9								
0109	632.5	632.5	632.5	632.5	632.4	632.4	632.4	632.3	632.3	632.2
	632.2	632.2	632.2	632.2	632.2	632.2	632.1	632.1	632.1	632.1
	632.1	632.1	632.1	632.1	632.1	632.1	632.1	632.1	632.1	632.1
	632.1	632.1	632.1	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.8	631.8	631.8
	631.8	631.8	631.8	631.7	631.7	631.6	631.6	631.6	631.5	631.5
	631.5	631.5								
0110	632.1	632.1	632.1	632.1	632.0	632.0	632.0	631.9	631.9	631.8
	631.8	631.8	631.8	631.8	631.8	631.8	631.7	631.7	631.7	631.7
	631.7	631.7	631.7	631.7	631.7	631.7	631.7	631.7	631.7	631.7
	631.7	631.7	631.7	631.6	631.6	631.6	631.6	631.6	631.6	631.6
	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.6
	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5
	631.5	631.5	631.5	631.5	631.5	631.5	631.4	631.4	631.4	631.4
	631.4	631.4	631.4	631.3	631.3	631.2	631.2	631.2	631.1	631.1
	631.1	631.1								
0111	631.7	631.7	631.7	631.7	631.6	631.6	631.6	631.5	631.5	631.4
	631.4	631.4	631.4	631.4	631.4	631.4	631.3	631.3	631.3	631.3
	631.3	631.3	631.3	631.3	631.3	631.3	631.3	631.3	631.3	631.3
	631.3	631.3	631.3	631.2	631.2	631.2	631.2	631.2	631.2	631.2
	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.1
	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1
	631.1	631.1	631.1	631.1	631.1	631.1	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	630.9	630.9	630.8	630.8	630.7	630.7	630.7
	630.7	630.7								
0112	631.3	631.3	631.3	631.3	631.3	631.2	631.2	631.1	631.1	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	630.9	630.9	630.9	630.9
	630.9	630.9	630.9	630.9	630.9	630.9	630.9	630.9	630.9	630.9
	630.9	630.9	630.9	630.8	630.8	630.8	630.8	630.8	630.8	630.8
	630.8	630.8	630.8	630.8	630.8	630.8	630.8	630.8	630.8	630.7
	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7
	630.7	630.7	630.7	630.7	630.7	630.7	630.6	630.6	630.6	630.6
	630.6	630.6	630.6	630.5	630.5	630.4	630.4	630.3	630.3	630.3
	630.3	630.2								
0113	630.9	630.9	630.9	630.9	630.9	630.8	630.8	630.7	630.7	630.6
	630.6	630.6	630.6	630.6	630.6	630.6	630.5	630.5	630.5	630.5
	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5
	630.5	630.5	630.5	630.4	630.4	630.4	630.4	630.4	630.4	630.4
	630.4	630.4	630.4	630.4	630.4	630.4	630.4	630.4	630.4	630.3
	630.3	630.3	630.3	630.3	630.3	630.3	630.3	630.3	630.3	630.3
	630.3	630.3	630.3	630.3	630.3	630.2	630.2	630.2	630.2	630.2
	630.2	630.2	630.2	630.1	630.1	630.0	630.0	629.9	629.9	629.9
	629.9	629.8								
0114	630.5	630.5	630.5	630.5	630.5	630.4	630.4	630.3	630.3	630.2
	630.2	630.2	630.2	630.2	630.2	630.2	630.1	630.1	630.1	630.1
	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1
	630.1	630.1	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.9	629.9
	629.9	629.9	629.9	629.9	629.9	629.9	629.9	629.9	629.9	629.9
	629.9	629.9	629.9	629.9	629.8	629.8	629.8	629.8	629.8	629.8
	629.8	629.8	629.8	629.7	629.7	629.6	629.6	629.5	629.5	629.5
	629.4	629.4								
0115	630.1	630.1	630.1	630.1	630.1	630.0	630.0	629.9	629.9	629.8
	629.8	629.8	629.8	629.8	629.8	629.8	629.7	629.7	629.7	629.7
	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7
	629.7	629.7	629.6	629.6	629.6	629.6	629.6	629.6	629.6	629.6
	629.6	629.6	629.6	629.6	629.6	629.6	629.6	629.6	629.5	629.5
	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5
	629.5	629.5	629.5	629.5	629.4	629.4	629.4	629.4	629.4	629.4
	629.4	629.4	629.4	629.3	629.3	629.2	629.2	629.1	629.1	629.1
	629.0	629.0								
0116	629.7	629.7	629.7	629.7	629.7	629.6	629.6	629.5	629.5	629.4
	629.4	629.4	629.4	629.4	629.4	629.4	629.3	629.3	629.3	629.3
	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3
	629.3	629.3	629.2	629.2	629.2	629.2	629.2	629.2	629.2	629.2
	629.2	629.2	629.2	629.2	629.2	629.2	629.2	629.1	629.1	629.1
	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1
	629.1	629.1	629.1	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	628.9	628.9	628.8	628.8	628.7	628.7	628.6
	628.6	628.6								
0117	629.3	629.3	629.3	629.3	629.3	629.2	629.2	629.1	629.1	629.0
	629.0	629.0	629.0	629.0	629.0	628.9	628.9	628.9	628.9	628.9
	628.9	628.9	628.9	628.9	628.9	628.9	628.9	628.9	628.9	628.9
	628.9	628.8	628.8	628.8	628.8	628.8	628.8	628.8	628.8	628.8
	628.8	628.8	628.8	628.8	628.8	628.8	628.7	628.7	628.7	628.7
	628.8	628.8	628.8	628.8	628.8	628.8	628.7	628.7	628.7	628.7
	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7
	628.7	628.7	628.6	628.6	628.6	628.6	628.6	628.6	628.6	628.6
	628.6	628.6	628.5	628.5	628.5	628.4	628.3	628.3	628.3	628.2
	628.2	628.2								
0118	628.9	628.9	628.9	628.9	628.9	628.8	628.8	628.7	628.7	628.6
	628.6	628.6	628.6	628.6	628.5	628.5	628.5	628.5	628.5	628.5
	628.5	628.5	628.5	628.5	628.5	628.5	628.5	628.5	628.5	628.5
	628.4	628.4	628.4	628.4	628.4	628.4	628.4	628.4	628.4	628.4
	628.4	628.4	628.4	628.4	628.4	628.3	628.3	628.3	628.3	628.3
	628.3	628.3	628.3	628.3	628.3	628.3	628.3	628.3	628.3	628.3
	628.3	628.2	628.2	628.2	628.2	628.2	628.2	628.2	628.2	628.2
	628.2	628.2	628.1	628.1	628.0	628.0	627.9	627.9	627.8	627.8
	627.8	627.8								
0119	628.5	628.5	628.5	628.5	628.5	628.4	628.4	628.3	628.3	628.2
	628.2	628.2	628.2	628.2	628.1	628.1	628.1	628.1	628.1	628.1
	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	627.9	627.9	627.9	627.9	627.9	627.9
	627.9	627.9	627.9	627.9	627.9	627.9	627.9	627.9	627.9	627.8
	627.8	627.8	627.8	627.8	627.8	627.8	627.8	627.8	627.8	627.8
	627.8	627.8	627.7	627.7	627.6	627.6	627.5	627.5	627.4	627.4
	627.4	627.4								
0120	628.1	628.1	628.1	628.1	628.1	628.0	628.0	627.9	627.8	627.8
	627.8	627.8	627.8	627.7	627.7	627.7	627.7	627.7	627.7	627.7
	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.6	627.6
	627.6	627.6	627.6	627.6	627.6	627.6	627.6	627.6	627.6	627.6

	627.6	627.6	627.6	627.5	627.5	627.5	627.5	627.5	627.5	627.5
	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.4	627.4
	627.4	627.4	627.4	627.4	627.4	627.4	627.4	627.4	627.4	627.4
	627.4	627.3	627.3	627.3	627.2	627.2	627.1	627.1	627.0	627.0
	627.0	627.0								
0121	627.7	627.7	627.7	627.7	627.7	627.6	627.6	627.5	627.4	627.4
	627.4	627.4	627.3	627.3	627.3	627.3	627.3	627.3	627.3	627.3
	627.3	627.3	627.3	627.3	627.3	627.3	627.3	627.2	627.2	627.2
	627.2	627.2	627.2	627.2	627.2	627.2	627.2	627.2	627.2	627.2
	627.2	627.2	627.1	627.1	627.1	627.1	627.1	627.1	627.1	627.1
	627.1	627.1	627.1	627.1	627.1	627.1	627.1	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	626.9	626.9	626.9	626.8	626.7	626.7	626.6	626.6	626.6
	626.6	626.5								
0122	627.3	627.3	627.3	627.3	627.3	627.2	627.2	627.1	627.0	627.0
	627.0	627.0	626.9	626.9	626.9	626.9	626.9	626.9	626.9	626.9
	626.9	626.9	626.9	626.9	626.9	626.9	626.8	626.8	626.8	626.8
	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8
	626.8	626.7	626.7	626.7	626.7	626.7	626.7	626.7	626.7	626.7
	626.7	626.7	626.7	626.7	626.7	626.6	626.6	626.6	626.6	626.6
	626.6	626.6	626.6	626.6	626.6	626.6	626.6	626.6	626.6	626.6
	626.5	626.5	626.5	626.4	626.3	626.3	626.2	626.2	626.2	626.2
	626.1	626.1								
0123	626.9	626.9	626.9	626.8	626.8	626.7	626.7	626.6	626.6	626.6
	626.6	626.5	626.5	626.5	626.5	626.5	626.5	626.5	626.5	626.5
	626.5	626.5	626.5	626.5	626.5	626.4	626.4	626.4	626.4	626.4
	626.4	626.4	626.4	626.4	626.4	626.4	626.4	626.4	626.4	626.4
	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3
	626.3	626.3	626.3	626.3	626.2	626.2	626.2	626.2	626.2	626.2
	626.2	626.2	626.2	626.2	626.2	626.2	626.2	626.2	626.2	626.1
	626.1	626.1	626.1	626.0	626.0	625.9	625.9	625.8	625.8	625.7
	625.7	625.7								
0124	626.5	626.5	626.5	626.5	626.4	626.4	626.3	626.3	626.2	626.2
	626.2	626.1	626.1	626.1	626.1	626.1	626.1	626.1	626.1	626.1
	626.1	626.1	626.1	626.1	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.9	625.9
	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9
	625.9	625.9	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8
	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.7	625.7	625.7
	625.7	625.7	625.7	625.6	625.6	625.5	625.5	625.4	625.4	625.3
	625.3	625.3								
0125	626.1	626.1	626.1	626.1	626.0	626.0	625.9	625.9	625.8	625.8
	625.7	625.7	625.7	625.7	625.7	625.7	625.7	625.7	625.7	625.7
	625.7	625.7	625.4	625.6	625.6	625.6	625.6	625.6	625.6	625.6
	625.6	625.6	625.6	625.6	625.6	625.6	625.6	625.5	625.5	625.5
	625.5	625.5	625.5	625.5	625.5	625.5	625.5	625.5	625.5	625.5
	625.5	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4
	625.4	625.4	625.4	625.4	625.4	625.3	625.3	625.3	625.3	625.3
	625.3	625.3	625.3	625.2	625.2	625.1	625.0	625.0	624.9	624.9
	624.9	624.9								
0126	625.7	625.7	625.7	625.7	625.6	625.6	625.5	625.5	625.4	625.4
	625.3	625.3	625.3	625.3	625.3	625.3	625.3	625.3	625.3	625.3
	625.3	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2
	625.3	625.2	625.2	625.2	625.2	625.1	625.1	625.1	625.1	625.1
	625.2	625.2	625.2	625.2	625.1	625.1	625.1	625.1	625.1	625.0
	625.1	625.1	625.1	625.1	625.1	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	624.9	624.9	624.9	624.9
	625.0	625.0	625.0	624.9	624.9	624.9	624.6	624.6	624.5	624.5
	624.9	624.9	624.8	624.8	624.7	624.7				
	624.5	624.5								
0127	625.3	625.3	625.3	625.3	625.2	625.2	625.1	625.1	625.0	625.0
	624.9	624.9	624.9	624.9	624.9	624.9	624.9	624.9	624.9	624.8
	624.9	624.9	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8
	624.8	624.8	624.8	624.7	624.7	624.7	624.7	624.7	624.7	624.7
	624.8	624.8	624.8	624.7	624.7	624.7	624.7	624.6	624.6	624.6
	624.7	624.7	624.7	624.7	624.6	624.6	624.6	624.6	624.6	624.6
	624.6	624.6	624.6	624.6	624.6	624.6	624.5	624.5	624.5	624.5
	624.6	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.5
	624.5	624.5	624.4	624.4	624.3	624.3	624.2	624.1	624.1	624.1
	624.1	624.0								
0128	624.9	624.9	624.9	624.9	624.8	624.8	624.7	624.6	624.6	624.5
	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.4	624.4
	624.5	624.4	624.4	624.4	624.4	624.4	624.4	624.4	624.4	624.4
	624.4	624.4	624.4	624.3	624.3	624.3	624.3	624.3	624.3	624.3
	624.4	624.4	624.3	624.3	624.3	624.3	624.2	624.2	624.2	624.2
	624.3	624.3	624.3	624.3	624.3	624.2	624.2	624.2	624.2	624.1
	624.2	624.2	624.2	624.2	624.2	624.2	624.2	624.2	624.1	624.1
	624.1	624.1	624.1	624.1	624.1	624.1	624.1	624.1	624.1	623.7
	624.1	624.0	624.0	624.0	623.9	623.8	623.8	623.7	623.7	
	623.6	623.6								
0129	624.5	624.5	624.5	624.5	624.4	624.4	624.3	624.2	624.2	624.1
	624.1	624.1	624.1	624.1	624.1	624.1	624.0	624.0	624.0	624.0
	624.1	624.1	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	623.9	623.9	623.9	623.9	623.9	623.9	623.9	623.9	623.9	623.9
	623.9	623.9	623.9	623.8	623.8	623.8	623.8	623.8	623.8	623.8
	623.9	623.8	623.8	623.8	623.8	623.8	623.8	623.7	623.7	623.7
	623.8	623.8	623.8	623.8	623.8	623.8	623.7	623.7	623.7	623.7
	623.7	623.7	623.7	623.7	623.7	623.7	623.4	623.3	623.3	623.2
	623.6	623.6	623.6	623.5	623.4	623.4				
	623.2	623.2								
0130	624.1	624.1	624.1	624.0	624.0	624.0	623.9	623.8	623.8	623.7
	623.7	623.7	623.7	623.7	623.6	623.6	623.6	623.6	623.6	623.6
	623.7	623.6	623.6	623.6	623.6	623.6	623.6	623.6	623.5	623.5
	623.6	623.6	623.6	623.6	623.5	623.5	623.5	623.5	623.5	623.5
	623.5	623.5	623.5	623.5	623.5	623.5	623.5	623.5	623.5	623.5
	623.5	623.4	623.4	623.4	623.4	623.4	623.4	623.4	623.4	623.4
	623.5	623.4	623.4	623.4	623.4	623.4	623.3	623.3	623.3	623.3
	623.4	623.4	623.4	623.4	623.4	623.3	623.3	623.3	623.2	623.2
	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.2	622.8
	623.2	623.2	623.2	623.1	623.1	623.0	622.9	622.9	622.8	622.8
	622.8	622.8								
0131	623.7	623.7	623.7	623.6	623.6	623.5	623.5	623.4	623.4	623.3
	623.3	623.3	623.3	623.2	623.2	623.2	623.2	623.2	623.2	623.2
	623.3	623.2	623.2	623.2	623.2	623.2	623.1	623.1	623.1	623.1
	623.2	623.2	623.1	623.1	623.1	623.1	623.1	623.1	623.1	623.0
	623.1	623.1	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	622.9	622.9	622.9	622.9	622.9	622.9	622.9
	623.0	623.0	623.0	622.9	622.9	622.9	622.8	622.8	622.8	622.8
	622.9	622.9	622.9	622.7	622.7	622.6	622.5	622.5	622.4	622.4
	622.8	622.8	622.8							
	622.4	622.4								
0132	623.3	623.3	623.3	623.2	623.2	623.1	623.1	623.0	622.9	622.9
	622.9	622.9	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8
	622.8	622.8	622.8	622.8	622.7	622.7	622.7	622.7	622.7	622.7
	622.7	622.7	622.7	622.7	622.7	622.7	622.7	622.6	622.6	622.6
	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6
	622.5	622.5	622.5	622.5	622.5	622.5	622.5	622.5	622.5	622.5
	622.5	622.5	622.5	622.4	622.4	622.4	622.4	622.4	622.4	622.4
	622.4	622.4	622.3	622.3	622.2	622.2	622.1	622.0	622.0	622.0
	621.9	621.9								
0133	622.9	622.9	622.8	622.8	622.8	622.7	622.7	622.6	622.5	622.5
	622.5	622.4	622.4	622.4	622.4	622.4	622.4	622.4	622.4	622.4
	622.4	622.4	622.3	622.3	622.3	622.3	622.3	622.3	622.3	622.3
	622.3	622.3	622.3	622.3	622.3	622.2	622.2	622.2	622.2	622.2
	622.2	622.2	622.2	622.2	622.2	622.2	622.2	622.2	622.1	622.1
	622.1	622.1	622.1	622.1	622.1	622.1	622.1	622.1	622.1	622.1
	622.1	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	621.9	621.9	621.9	621.8	621.7	621.7	621.6	621.6	621.5
	621.5	621.5								

0134	622.5	622.5	622.4	622.4	622.4	622.3	622.2	622.2	622.1	622.1
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	621.9	621.9	621.9	621.9	621.9	621.9	621.9	621.9	621.9	621.9
	621.9	621.9	621.9	621.8	621.8	621.8	621.8	621.8	621.8	621.8
	621.8	621.8	621.8	621.8	621.8	621.8	621.7	621.7	621.7	621.7
	621.7	621.7	621.7	621.7	621.7	621.7	621.7	621.7	621.7	621.6
	621.6	621.6	621.6	621.6	621.6	621.6	621.6	621.6	621.6	621.6
	621.5	621.5	621.5	621.4	621.3	621.3	621.2	621.1	621.1	621.1
	621.1	621.1								
0135	622.1	622.0	622.0	622.0	621.9	621.9	621.8	621.8	621.7	621.7
	621.6	621.6	621.6	621.6	621.6	621.6	621.6	621.5	621.5	621.5
	621.5	621.5	621.5	621.5	621.5	621.5	621.5	621.5	621.5	621.5
	621.5	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4
	621.4	621.4	621.3	621.3	621.3	621.3	621.3	621.3	621.3	621.3
	621.3	621.3	621.3	621.3	621.3	621.3	621.2	621.2	621.2	621.2
	621.2	621.2	621.2	621.2	621.2	621.2	621.2	621.2	621.2	621.1
	621.1	621.1	621.1	621.0	621.0	620.9	620.8	620.8	620.7	620.7
	620.7	620.7								
0136	621.6	621.6	621.6	621.6	621.5	621.5	621.4	621.4	621.3	621.2
	621.2	621.2	621.2	621.2	621.2	621.2	621.1	621.1	621.1	621.1
	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	620.9	620.9	620.9	620.9	620.9	620.9	620.9	620.9	620.9
	620.9	620.9	620.8	620.8	620.8	620.8	620.8	620.8	620.8	620.8
	620.8	620.8	620.8	620.8	620.8	620.8	620.7	620.7	620.7	620.7
	620.7	620.7	620.6	620.5	620.5	620.4	620.3	620.3	620.3	620.3
	620.2	620.2								
0137	621.2	621.2	621.2	621.2	621.1	621.1	621.0	620.9	620.9	620.8
	620.8	620.8	620.8	620.7	620.7	620.7	620.7	620.7	620.7	620.7
	620.7	620.7	620.7	620.7	620.7	620.7	620.6	620.6	620.6	620.6
	620.6	620.6	620.6	620.6	620.6	620.6	620.6	620.6	620.6	620.5
	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5
	620.5	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4
	620.4	620.4	620.3	620.3	620.3	620.3	620.3	620.3	620.3	620.3
	620.3	620.3	620.2	620.2	620.1	620.0	620.0	619.9	619.9	619.8
	619.8	619.8								
0138	620.8	620.8	620.8	620.8	620.7	620.7	620.6	620.5	620.5	620.4
	620.4	620.4	620.3	620.3	620.3	620.3	620.3	620.3	620.3	620.3
	620.3	620.3	620.3	620.2	620.2	620.2	620.2	620.2	620.2	620.2
	620.2	620.2	620.2	620.2	620.2	620.2	620.1	620.1	620.1	620.1
	620.1	620.1	620.1	620.1	620.1	620.1	620.1	620.1	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9
	619.9	619.8	619.8	619.8	619.7	619.6	619.5	619.5	619.4	619.4
	619.4	619.4								
0139	620.4	620.4	620.4	620.3	620.3	620.2	620.2	620.1	620.0	620.0
	620.0	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9
	619.9	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8
	619.8	619.8	619.8	619.8	619.7	619.7	619.7	619.7	619.7	619.7
	619.8	619.8	619.8	619.8	619.7	619.7	619.7	619.6	619.6	619.6
	619.7	619.7	619.7	619.7	619.7	619.7	619.6	619.6	619.6	619.6
	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.5	619.5
	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5
	619.4	619.4	619.4	619.3	619.3	619.2	619.1	619.1	619.0	619.0
	619.0	618.9								
0140	620.0	620.0	620.0	619.9	619.9	619.8	619.8	619.7	619.6	619.6
	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.4
	619.4	619.4	619.4	619.4	619.4	619.4	619.4	619.4	619.4	619.4
	619.4	619.3	619.3	619.3	619.3	619.3	619.3	619.3	619.3	619.3
	619.3	619.3	619.3	619.2	619.2	619.2	619.2	619.2	619.2	619.2
	619.3	619.3	619.2	619.2	619.2	619.2	619.1	619.1	619.1	619.1
	619.2	619.2	619.2	619.2	619.2	619.1	619.1	619.1	619.1	619.1
	619.1	619.1	619.1	619.1	619.1	619.1	619.1	619.0	619.0	619.0
	619.0	619.0	619.0	618.9	618.8	618.8	618.7	618.6	618.6	618.5
	618.5	618.5								
0141	619.6	619.6	619.5	619.5	619.5	619.4	619.3	619.3	619.2	619.2
	619.1	619.1	619.1	619.1	619.1	619.1	619.0	619.0	619.0	619.0
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	618.8	618.8	618.8	618.8	618.8	618.8	618.8	618.8	618.8	618.8
	618.8	618.8	618.7	618.7	618.7	618.7	618.7	618.7	618.7	618.7
	618.7	618.7	618.7	618.6	618.6	618.6	618.6	618.6	618.6	618.6
	618.6	618.6	618.5	618.5	618.4	618.3	618.3	618.2	618.2	618.1
	618.1	618.1								
0142	619.2	619.2	619.1	619.1	619.0	619.0	618.9	618.8	618.8	618.7
	618.7	618.7	618.7	618.6	618.6	618.6	618.6	618.6	618.6	618.6
	618.6	618.6	618.6	618.6	618.6	618.6	618.5	618.5	618.5	618.5
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	618.4	618.4	618.4	618.4	618.4	618.4	618.4	618.4	618.4	618.3
	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3
	618.3	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2
	618.2	618.1	618.1	618.0	617.9	617.8	617.8	617.7	617.7	617.7
	617.6									
0143	618.7	618.7	618.7	618.6	618.6	618.5	618.4	618.4	618.3	
	618.3	618.3	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2
	618.2	618.2	618.1	618.1	618.1	618.1	618.1	618.1	618.1	618.1
	618.1	618.1	618.1	618.1	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	617.9	617.9	617.9	617.9
	617.9	617.9	617.9	617.9	617.9	617.9	617.9	617.9	617.8	617.8
	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.7
	617.7	617.7	617.7	617.6	617.6	617.5	617.4	617.3	617.3	617.2
	617.2	617.2								
0144	618.3	618.3	618.3	618.3	618.2	618.2	618.1	618.0	617.9	617.9
	617.9	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8
	617.7	617.7	617.7	617.7	617.7	617.7	617.7	617.7	617.7	617.7
	617.7	617.7	617.6	617.6	617.6	617.6	617.6	617.6	617.6	617.6
	617.6	617.6	617.6	617.5	617.5	617.5	617.5	617.5	617.5	617.5
	617.5	617.5	617.5	617.5	617.5	617.4	617.4	617.4	617.4	617.4
	617.4	617.4	617.4	617.4	617.4	617.4	617.3	617.3	617.3	617.3
	617.3	617.3	617.2	617.2	617.1	617.0	617.0	616.9	616.9	616.8
	616.8	616.8								
0145	617.9	617.9	617.9	617.8	617.8	617.7	617.7	617.6	617.5	617.5
	617.4	617.4	617.4	617.4	617.4	617.4	617.4	617.3	617.3	617.3
	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.2
	617.2	617.2	617.2	617.2	617.2	617.2	617.2	617.2	617.2	617.2
	617.1	617.1	617.1	617.1	617.1	617.1	617.1	617.1	617.1	617.1
	617.1	617.1	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	616.9	616.9	616.9	616.9	616.9	616.9	616.9
	616.9	616.9	616.8	616.8	616.7	616.6	616.5	616.5	616.4	616.4
	616.4	616.3								
0146	617.5	617.5	617.5	617.4	617.4	617.3	617.2	617.2	617.1	617.0
	617.0	617.0	617.0	617.0	617.0	616.9	616.9	616.9	616.9	616.9
	616.9	616.9	616.9	616.9	616.9	616.9	616.8	616.8	616.8	616.8
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	616.7	616.7	616.7	616.7	616.7	616.7	616.7	616.7	616.7	616.6
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	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5
	616.4	616.4	616.4	616.3	616.3	616.2	616.1	616.0	616.0	615.9
	615.9	615.9								
0147	617.1	617.1	617.0	617.0	617.0	616.9	616.8	616.7	616.7	616.6
	616.6	616.6	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5
	616.5	616.5	616.5	616.4	616.4	616.4	616.4	616.4	616.4	616.4
	616.4	616.4	616.4	616.4	616.3	616.3	616.3	616.3	616.3	616.3
	616.3	616.3	616.3	616.3	616.3	616.2	616.2	616.2	616.2	616.2

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	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.0	616.0
	616.0	616.0	616.0	615.9	615.8	615.7	615.7	615.6	615.6	615.5
	615.5	615.5								
0148	616.7	616.6	616.6	616.6	616.5	616.5	616.4	616.3	616.2	616.2
	616.2	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0
	616.0	615.9	615.9	615.9	615.9	615.9	615.9	615.9	615.9	615.9
	615.9	615.9	615.8	615.8	615.8	615.8	615.8	615.8	615.8	615.8
	615.8	615.8	615.8	615.7	615.7	615.7	615.7	615.7	615.7	615.7
	615.7	615.7	615.7	615.7	615.6	615.6	615.6	615.6	615.6	615.6
	615.6	615.6	615.5	615.5	615.4	615.3	615.2	615.2	615.1	615.1
	615.0	615.0								
0149	616.2	616.2	616.2	616.2	616.1	616.0	616.0	615.9	615.8	615.8
	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.6	615.6	615.6
	615.6	615.6	615.6	615.6	615.6	615.6	615.6	615.6	615.5	615.5
	615.5	615.5	615.5	615.5	615.5	615.5	615.5	615.5	615.5	615.4
	615.4	615.4	615.4	615.4	615.4	615.4	615.4	615.4	615.4	615.4
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	615.3	615.2	615.2	615.2	615.2	615.2	615.2	615.2	615.2	615.2
	615.2	615.1	615.0	615.0	614.9	614.8	614.7	614.7	614.7	614.6
	614.6	614.6								
0150	615.8	615.8	615.8	615.7	615.7	615.6	615.6	615.5	615.4	615.3
	615.3	615.3	615.3	615.3	615.2	615.2	615.2	615.2	615.2	615.2
	615.2	615.2	615.2	615.2	615.2	615.1	615.1	615.1	615.1	615.1
	615.1	615.1	615.1	615.1	615.1	615.1	615.0	615.0	615.0	615.0
	615.0	615.0	615.0	615.0	615.0	615.0	615.0	614.9	614.9	614.9
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	614.2	614.2								
0151	615.4	615.4	615.4	615.3	615.3	615.2	615.1	615.0	615.0	614.9
	614.9	614.9	614.8	614.8	614.8	614.8	614.8	614.8	614.8	614.8
	614.8	614.8	614.7	614.7	614.7	614.7	614.7	614.7	614.7	614.7
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	614.3	614.3	614.2	614.2	614.1	614.0	613.9	613.9	613.8	613.8
	613.7	613.7								
0152	615.0	615.0	614.9	614.9	614.8	614.8	614.7	614.6	614.5	614.5
	614.5	614.4	614.4	614.4	614.4	614.4	614.4	614.4	614.3	614.3
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	613.9	613.8	613.8	613.7	613.7	613.6	613.5	613.4	613.4	613.3
	613.3	613.3								
0153	614.5	614.5	614.5	614.5	614.4	614.4	614.3	614.2	614.1	614.1
	614.0	614.0	614.0	614.0	614.0	614.0	613.9	613.9	613.9	613.9
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	613.4	613.4	613.3	613.2	613.1	613.0	613.0	613.0	612.9	612.9
	612.8	612.8								
0154	614.1	614.1	614.0	614.0	613.9	613.9	613.8	613.7	613.6	
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	613.5	613.5	613.5	613.4	613.4	613.4	613.4	613.4	613.4	
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	613.3	613.3	613.3	613.3	613.2	613.2	613.2	613.2	613.2	
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	612.4	612.4								
0155	613.7	613.7	613.7	613.6	613.6	613.5	613.4	613.3	613.3	613.2
	613.2	613.1	613.1	613.1	613.1	613.1	613.1	613.1	613.1	613.1
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	612.7	612.6	612.6	612.6	612.6	612.6	612.6	612.6	612.6	612.6
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	612.0	611.9								
0156	613.3	613.3	613.2	613.2	613.1	613.1	613.0	612.9	612.8	612.8
	612.7	612.7	612.7	612.7	612.7	612.7	612.7	612.6	612.6	612.6
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	612.5	612.5	612.5	612.5	612.5	612.5	612.5	612.4	612.4	612.4
	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.3	612.3	612.3
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	612.1	612.1	612.0	612.0	611.9	611.8	611.7	611.6	611.6	611.5
	611.5	611.5								
0157	612.9	612.8	612.8	612.8	612.7	612.6	612.6	612.5	612.4	612.3
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	611.9	611.9	611.9	611.8	611.8	611.8	611.8	611.8	611.8	611.8
	611.8	611.8	611.8	611.7	611.7	611.7	611.7	611.7	611.7	611.7
	611.7	611.6	611.6	611.5	611.5	611.4	611.3	611.2	611.1	611.1
	611.1	611.1								
0158	612.4	612.4	612.4	612.3	612.3	612.2	612.1	612.0	612.0	611.9
	611.9	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8
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0162	610.7	610.7	610.7	610.6	610.6	610.5	610.4	610.3	610.2	610.2
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0163	610.3	610.3	610.2	610.2	610.1	610.1	610.0	609.9	609.8	609.7
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	601.5	601.4	601.4	601.4	601.4	601.4	601.4	601.4	601.3	601.3
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	601.2	601.2	601.2	601.1	601.1	601.1	601.1	601.1	601.1	601.1
	601.1	601.0	601.0	601.0	601.0	601.0	601.0	601.0	600.9	600.9
	600.9	600.9	600.8	600.7	600.6	600.5	600.4	600.3	600.2	600.2
	600.1	600.1								
0182	602.0	602.0	602.0	601.9	601.8	601.7	601.6	601.5	601.4	601.3
	601.3	601.3	601.2	601.2	601.2	601.2	601.2	601.2	601.2	601.1
	601.1	601.1	601.1	601.1	601.1	601.1	601.1	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	600.9	600.9	600.9	600.9	600.9	600.9
	600.9	600.9	600.8	600.8	600.8	600.8	600.8	600.8	600.8	600.7
	600.7	600.7	600.7	600.7	600.7	600.7	600.7	600.6	600.6	600.6
	600.6	600.6	600.6	600.6	600.5	600.5	600.5	600.5	600.5	600.5
	600.5	600.4	600.4	600.3	600.2	600.0	599.9	599.8	599.7	599.7
	599.6	599.6								
0183	601.6	601.5	601.5	601.5	601.4	601.3	601.2	601.1	601.0	600.9
	600.8	600.8	600.8	600.8	600.8	600.7	600.7	600.7	600.7	600.7
	600.7	600.7	600.7	600.6	600.6	600.6	600.6	600.6	600.6	600.6
	600.5	600.5	600.5	600.5	600.5	600.5	600.5	600.5	600.4	600.4
	600.4	600.4	600.4	600.4	600.4	600.3	600.3	600.3	600.3	600.3
	600.3	600.3	600.2	600.2	600.2	600.2	600.2	600.2	600.2	600.2
	600.1	600.1	600.1	600.1	600.1	600.1	600.1	600.0	600.0	600.0
	600.0	600.0	599.9	599.8	599.7	599.6	599.5	599.4	599.3	599.2
	599.2	599.2								
0184	601.1	601.1	601.1	601.0	600.9	600.9	600.7	600.6	600.5	600.4
	600.4	600.4	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.2
	600.2	600.2	600.2	600.2	600.2	600.2	600.1	600.1	600.1	600.1
	600.1	600.1	600.1	600.1	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	599.9	599.9	599.9	599.9	599.9	599.9	599.9	599.8	599.8
	599.8	599.8	599.8	599.8	599.8	599.7	599.7	599.7	599.7	599.7
	599.8	599.8	599.8	599.8	599.6	599.6	599.6	599.6	599.6	599.6
	599.7	599.7	599.7	599.6	599.6	599.6	599.6	599.6	599.6	599.6
	599.5	599.5	599.4	599.4	599.2	599.1	599.0	598.9	598.8	598.8
	598.7	598.7								
0185	600.7	600.7	600.6	600.6	600.5	600.4	600.3	600.2	600.1	600.0
	599.9	599.9	599.9	599.9	599.9	599.8	599.8	599.8	599.8	599.8
	599.8	599.8	599.7	599.7	599.7	599.7	599.7	599.7	599.7	599.7
	599.6	599.6	599.6	599.6	599.6	599.6	599.6	599.5	599.5	599.5
	599.5	599.5	599.5	599.5	599.4	599.4	599.4	599.4	599.4	599.4
	599.4	599.3	599.3	599.3	599.3	599.3	599.3	599.3	599.2	599.2
	599.2	599.2	599.2	599.2	599.2	599.2	599.1	599.1	599.1	599.1
	599.1	599.0	599.0	598.9	598.8	598.6	598.5	598.4	598.3	598.3
	598.2	598.2								
0186	600.2	600.2	600.2	600.1	600.0	600.0	599.9	599.7	599.6	599.5
	599.5	599.5	599.4	599.4	599.4	599.4	599.4	599.4	599.3	599.3
	599.3	599.3	599.3	599.3	599.3	599.3	599.2	599.2	599.2	599.2
	599.2	599.2	599.2	599.1	599.1	599.1	599.1	599.1	599.1	599.1
	599.0	599.0	599.0	599.0	599.0	599.0	599.0	598.9	598.9	598.9
	598.9	598.9	598.9	598.9	598.8	598.8	598.8	598.8	598.8	598.8
	598.8	598.7	598.7	598.7	598.7	598.7	598.7	598.7	598.7	598.6
	598.6	598.6	598.5	598.4	598.3	598.2	598.1	598.0	597.9	597.8
	597.8	597.7								
0187	599.8	599.8	599.7	599.7	599.6	599.5	599.4	599.3	599.2	599.1
	599.0	599.0	599.0	599.0	598.9	598.9	598.9	598.9	598.9	598.9
	598.9	598.9	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.7
	598.7	598.7	598.7	598.7	598.7	598.7	598.6	598.6	598.6	598.6
	598.6	598.6	598.6	598.5	598.5	598.5	598.5	598.5	598.5	598.5
	598.4	598.4	598.4	598.4	598.4	598.4	598.4	598.3	598.3	598.3
	598.3	598.3	598.3	598.3	598.2	598.2	598.2	598.2	598.2	598.2
	598.1	598.1	598.1	598.0	597.8	597.7	597.6	597.5	597.4	597.3
	597.3	597.3								
0188	599.3	599.3	599.3	599.2	599.2	599.1	599.0	598.8	598.7	598.6
	598.6	598.5	598.5	598.5	598.5	598.5	598.5	598.5	598.4	598.4

	598.4	598.4	598.4	598.4	598.4	598.3	598.3	598.3	598.3	598.3
	598.3	598.3	598.2	598.2	598.2	598.2	598.2	598.2	598.2	598.1
	598.1	598.1	598.1	598.1	598.1	598.1	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	597.9	597.9	597.9	597.9	597.9	597.9	597.9
	597.8	597.8	597.8	597.8	597.8	597.8	597.8	597.7	597.7	597.7
	597.7	597.6	597.6	597.5	597.4	597.2	597.1	597.0	596.9	596.9
	596.8	596.8								
0189	598.9	598.9	598.8	598.8	598.7	598.6	598.5	598.4	598.3	598.2
	598.1	598.1	598.1	598.1	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	597.9	597.9	597.9	597.9	597.9	597.9	597.9	597.8	597.8
	597.8	597.8	597.8	597.8	597.8	597.7	597.7	597.7	597.7	597.7
	597.7	597.7	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.5
	597.5	597.5	597.5	597.5	597.5	597.5	597.4	597.4	597.4	597.4
	597.4	597.4	597.3	597.3	597.3	597.3	597.3	597.3	597.3	597.2
	597.2	597.2	597.1	597.0	596.9	596.8	596.7	596.5	596.5	596.4
	596.3	596.3								
0190	598.3	598.3	598.3	598.2	598.1	598.1	597.9	597.8	597.7	597.6
	597.6	597.5	597.5	597.5	597.5	597.5	597.4	597.4	597.4	597.4
	597.4	597.4	597.4	597.3	597.3	597.3	597.3	597.3	597.3	597.3
	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.1	597.1	597.1
	597.1	597.1	597.1	597.1	597.0	597.0	597.0	597.0	597.0	597.0
	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.8	596.8	596.8
	596.8	596.8	596.8	596.8	596.7	596.7	596.7	596.7	596.7	596.7
	596.6	596.6	596.5	596.5	596.3	596.2	596.1	596.0	595.9	595.8
	595.8	595.7								
0191	597.5	597.5	597.4	597.4	597.3	597.2	597.1	597.0	596.8	596.8
	596.7	596.7	596.6	596.6	596.6	596.6	596.6	596.6	596.6	596.5
	596.5	596.5	596.5	596.5	596.5	596.5	596.4	596.4	596.4	596.4
	596.4	596.4	596.4	596.3	596.3	596.3	596.3	596.3	596.3	596.2
	596.2	596.2	596.2	596.2	596.2	596.2	596.1	596.1	596.1	596.1
	596.1	596.1	596.0	596.0	596.0	596.0	596.0	596.0	596.0	595.9
	595.9	595.9	595.9	595.9	595.9	595.9	595.8	595.8	595.8	595.8
	595.8	595.7	595.7	595.6	595.4	595.3	595.2	595.1	595.0	594.9
	594.9	594.8								
0192	596.2	596.2	596.2	596.1	596.0	595.9	595.8	595.7	595.6	595.5
	595.4	595.4	595.4	595.3	595.3	595.3	595.3	595.3	595.3	595.3
	595.2	595.2	595.2	595.2	595.2	595.2	595.1	595.1	595.1	595.1
	595.1	595.1	595.1	595.0	595.0	595.0	595.0	595.0	595.0	594.9
	594.9	594.9	594.9	594.9	594.9	594.9	594.8	594.8	594.8	594.8
	594.8	594.8	594.7	594.7	594.7	594.7	594.7	594.7	594.7	594.6
	594.6	594.6	594.6	594.6	594.6	594.5	594.5	594.5	594.5	594.5
	594.4	594.4	594.3	594.3	594.1	594.0	593.8	593.7	593.6	593.6
	593.5	593.5								
0193	594.3	594.3	594.3	594.2	594.1	594.0	593.9	593.8	593.6	593.5
	593.5	593.4	593.4	593.4	593.4	593.4	593.4	593.3	593.3	593.3
	593.3	593.3	593.3	593.2	593.2	593.2	593.2	593.2	593.2	593.1
	593.1	593.1	593.1	593.1	593.1	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	592.9	592.9	592.9	592.9	592.9	592.9	592.8	592.8
	592.8	592.8	592.8	592.8	592.7	592.7	592.7	592.7	592.7	592.7
	592.6	592.6	592.6	592.6	592.6	592.6	592.5	592.5	592.5	592.5
	592.5	592.4	592.4	592.3	592.1	592.0	591.8	591.7	591.6	591.5
	591.5	591.5								
0194	591.5	591.5	591.4	591.3	591.2	591.1	591.0	590.9	590.7	590.6
	590.6	590.5	590.5	590.5	590.4	590.4	590.4	590.4	590.4	590.4
	590.3	590.3	590.3	590.3	590.3	590.3	590.2	590.2	590.2	590.2
	590.2	590.2	590.1	590.1	590.1	590.1	590.1	590.1	590.0	590.0
	590.0	590.0	590.0	590.0	589.9	589.9	589.9	589.9	589.9	589.8
	589.8	589.8	589.8	589.8	589.8	589.7	589.7	589.7	589.7	589.7
	589.7	589.6	589.6	589.6	589.6	589.6	589.5	589.5	589.5	589.5
	589.5	589.4	589.3	589.2	589.1	588.9	588.8	588.6	588.5	588.5
	588.4	588.4								
0195	587.1	587.1	587.1	587.0	586.9	586.8	586.6	586.4	586.3	586.2
	586.1	586.1	586.0	586.0	586.0	586.0	586.0	585.9	585.9	585.9
	585.9	585.9	585.8	585.8	585.8	585.8	585.8	585.8	585.7	585.7
	585.7	585.7	585.7	585.6	585.6	585.6	585.6	585.6	585.5	585.5
	585.5	585.5	585.5	585.4	585.4	585.4	585.4	585.4	585.3	585.3
	585.3	585.3	585.3	585.2	585.2	585.2	585.2	585.2	585.2	585.1
	585.1	585.1	585.1	585.1	585.0	585.0	585.0	585.0	585.0	584.9
	584.9	584.8	584.8	584.7	584.5	584.3	584.1	584.0	583.9	583.8
	583.7	583.7								
0196	581.8	581.8	581.8	581.7	581.6	581.4	581.3	581.1	580.9	580.8
	580.7	580.6	580.6	580.6	580.6	580.5	580.5	580.5	580.5	580.5
	580.4	580.4	580.4	580.4	580.4	580.3	580.3	580.3	580.3	580.2
	580.2	580.2	580.2	580.2	580.1	580.1	580.1	580.1	580.0	580.0
	580.0	580.0	580.0	579.9	579.9	579.9	579.9	579.9	579.8	579.8
	579.8	579.8	579.7	579.7	579.7	579.7	579.7	579.6	579.6	579.6
	579.6	579.5	579.5	579.5	579.5	579.5	579.4	579.4	579.4	579.4
	579.3	579.3	579.2	579.0	578.8	578.6	578.4	578.3	578.1	578.0
	578.0	577.9								
0197	576.5	576.5	576.4	576.3	576.2	576.0	575.8	575.6	575.4	575.3
	575.2	575.1	575.1	575.1	575.0	575.0	575.0	575.0	575.0	574.9
	574.9	574.9	574.9	574.8	574.8	574.8	574.8	574.7	574.7	574.7
	574.7	574.6	574.6	574.6	574.6	574.5	574.5	574.5	574.5	574.4
	574.4	574.4	574.4	574.3	574.3	574.3	574.3	574.2	574.2	574.2
	574.2	574.1	574.1	574.1	574.1	574.0	574.0	574.0	574.0	573.9
	573.9	573.9	573.9	573.8	573.8	573.8	573.8	573.7	573.7	573.7
	573.6	573.6	573.5	573.3	573.1	572.8	572.6	572.4	572.3	572.1
	572.1	572.0								
0198	571.1	571.0	571.0	570.8	570.7	570.5	570.3	570.1	569.9	569.7
	569.6	569.5	569.5	569.5	569.4	569.4	569.4	569.4	569.3	569.3
	569.3	569.3	569.2	569.2	569.2	569.1	569.1	569.1	569.1	569.0
	569.0	569.0	569.0	568.9	568.9	568.9	568.8	568.8	568.8	568.8
	568.7	568.7	568.7	568.6	568.6	568.6	568.6	568.5	568.5	568.5
	568.4	568.4	568.4	568.4	568.3	568.3	568.3	568.2	568.2	568.2
	568.2	568.1	568.1	568.1	568.0	568.0	568.0	568.0	567.9	567.9
	567.8	567.8	567.6	567.5	567.2	566.9	566.7	566.5	566.3	566.1
	566.0	566.0								
0199	565.6	565.5	565.5	565.3	565.2	565.0	564.8	564.5	564.2	564.1
	564.0	563.9	563.8	563.8	563.8	563.7	563.7	563.7	563.6	563.6
	563.6	563.5	563.5	563.5	563.5	563.4	563.4	563.4	563.3	563.3
	563.3	563.2	563.2	563.2	563.1	563.1	563.1	563.0	563.0	563.0
	563.0	562.9	562.9	562.9	562.8	562.8	562.8	562.7	562.7	562.7
	562.6	562.6	562.6	562.5	562.5	562.5	562.4	562.4	562.4	562.3
	562.3	562.3	562.2	562.2	562.2	562.1	562.1	562.1	562.0	562.0
	561.9	561.9	561.7	561.5	561.2	560.9	560.6	560.3	560.1	560.0
	559.8	559.8								
0200	560.0	560.0	559.9	559.8	559.6	559.4	559.1	558.8	558.5	558.4
	558.2	558.1	558.1	558.0	558.0	558.0	557.9	557.9	557.9	557.8
	557.8	557.8	557.7	557.7	557.7	557.6	557.6	557.6	557.5	557.5
	557.4	557.4	557.4	557.3	557.3	557.3	557.2	557.2	557.2	557.1
	557.1	557.1	557.0	557.0	556.9	556.9	556.9	556.8	556.8	556.8
	556.7	556.7	556.6	556.6	556.6	556.5	556.5	556.5	556.4	556.4
	556.3	556.3	556.3	556.2	556.2	556.2	556.1	556.1	556.1	556.0
	555.9	555.8	555.7	555.5	555.1	554.7	554.4	554.1	553.8	553.6
	553.5	553.4								
0201	554.5	554.4	554.3	554.1	553.9	553.7	553.4	553.1	552.8	552.6
	552.4	552.3	552.2	552.2	552.2	552.1	552.1	552.0	552.0	552.0
	551.9	551.9	551.9	551.8	551.8	551.7	551.7	551.7	551.6	551.6
	551.5	551.5	551.5	551.4	551.4	551.3	551.3	551.3	551.2	551.2
	551.1	551.1	551.1	551.0	551.0	550.9	550.9	550.8	550.8	550.8
	550.7	550.7	550.6	550.6	550.5	550.5	550.5	550.4	550.4	550.3
	550.3	550.3	550.2	550.2	550.1	550.1	550.0	550.0	550.0	549.9

	549.8	549.7	549.5	549.3	548.9	548.5	548.1	547.7	547.4	547.2
	547.0	546.9								
0202	548.8	548.8	548.6	548.5	548.3	548.0	547.7	547.3	546.9	546.7
	546.5	546.4	546.3	546.3	546.2	546.2	546.2	546.1	546.1	546.0
	546.0	545.9	545.9	545.9	545.8	545.8	545.7	545.7	545.6	545.6
	545.6	545.5	545.5	545.4	545.4	545.3	545.3	545.2	545.2	545.1
	545.1	545.0	545.0	545.0	544.9	544.9	544.8	544.8	544.7	544.7
	544.6	544.6	544.5	544.5	544.4	544.4	544.3	544.3	544.2	544.2
	544.1	544.1	544.0	544.0	544.0	543.9	543.9	543.8	543.8	543.7
	543.6	543.5	543.3	543.0	542.5	542.0	541.6	541.2	540.8	540.5
	540.3	540.2								
0203	543.1	543.1	542.9	542.8	542.5	542.2	541.8	541.4	541.0	540.8
	540.6	540.5	540.4	540.3	540.3	540.2	540.2	540.1	540.1	540.0
	540.0	539.9	539.9	539.8	539.8	539.7	539.7	539.6	539.6	539.5
	539.5	539.4	539.4	539.3	539.3	539.2	539.2	539.1	539.1	539.0
	539.0	538.9	538.9	538.8	538.8	538.7	538.7	538.6	538.5	538.5
	538.4	538.4	538.3	538.3	538.2	538.2	538.1	538.1	538.0	538.0
	537.9	537.8	537.8	537.7	537.7	537.6	537.6	537.5	537.5	537.4
	537.3	537.1	536.9	536.6	536.1	535.5	534.9	534.4	534.0	533.7
	533.5	533.3								
0204	537.4	537.4	537.2	537.0	536.7	536.4	536.0	535.5	535.1	534.8
	534.6	534.4	534.3	534.3	534.2	534.2	534.1	534.1	534.0	534.0
	533.9	533.8	533.8	533.7	533.7	533.6	533.6	533.5	533.5	533.4
	533.3	533.3	533.2	533.2	533.1	533.1	533.0	532.9	532.9	532.8
	532.8	532.7	532.7	532.6	532.5	532.5	532.4	532.4	532.3	532.2
	532.2	532.1	532.1	532.0	531.9	531.9	531.8	531.7	531.7	531.6
	531.6	531.5	531.4	531.4	531.3	531.3	531.2	531.1	531.1	531.0
	530.9	530.7	530.4	530.0	529.5	528.8	528.1	527.6	527.1	526.7
	526.4	526.2								
0205	531.7	531.6	531.4	531.2	530.9	530.5	530.1	529.6	529.1	528.7
	528.5	528.4	528.3	528.2	528.1	528.1	528.0	527.9	527.9	527.8
	527.8	527.7	527.6	527.6	527.5	527.5	527.4	527.3	527.3	527.2
	527.1	527.1	527.0	527.0	526.9	526.8	526.8	526.7	526.6	526.6
	526.5	526.4	526.4	526.3	526.2	526.2	526.1	526.0	526.0	525.9
	525.8	525.8	525.7	525.6	525.6	525.5	525.4	525.3	525.3	525.2
	525.1	525.1	525.0	524.9	524.9	524.8	524.7	524.6	524.6	524.5
	524.4	524.2	523.9	523.4	522.7	521.9	521.2	520.5	519.9	519.4
	519.1	518.9								
0206	525.9	525.8	525.7	525.4	525.1	524.6	524.1	523.6	523.0	522.7
	522.4	522.2	522.1	522.0	522.0	521.9	521.8	521.8	521.7	521.6
	521.6	521.5	521.4	521.4	521.3	521.2	521.2	521.1	521.0	521.0
	520.9	520.8	520.7	520.7	520.6	520.5	520.5	520.4	520.3	520.2
	520.2	520.1	520.0	519.9	519.9	519.8	519.7	519.6	519.6	519.5
	519.4	519.3	519.3	519.2	519.1	519.0	518.9	518.9	518.8	518.7
	518.6	518.6	518.5	518.4	518.3	518.2	518.2	518.1	518.0	517.9
	517.7	517.5	517.2	516.7	515.9	515.0	514.1	513.3	512.5	511.9
	511.5	511.3								
0207	520.2	520.1	519.9	519.6	519.2	518.7	518.2	517.5	517.0	516.5
	516.3	516.1	515.9	515.8	515.8	515.7	515.6	515.5	515.5	515.4
	515.3	515.3	515.2	515.1	515.0	514.9	514.9	514.8	514.7	514.6
	514.6	514.5	514.4	514.3	514.2	514.2	514.1	514.0	513.9	513.8
	513.8	513.7	513.6	513.5	513.4	513.3	513.3	513.2	513.1	513.0
	512.9	512.8	512.7	512.7	512.6	512.5	512.4	512.3	512.2	512.1
	512.1	512.0	511.9	511.8	511.7	511.6	511.5	511.4	511.3	511.2
	511.1	510.8	510.4	509.8	508.9	507.9	506.8	505.8	504.9	504.2
	503.6	503.3								
0208	514.4	514.3	514.1	513.7	513.3	512.8	512.2	511.5	510.8	510.4
	510.1	509.8	509.7	509.6	509.5	509.4	509.4	509.3	509.2	509.1
	509.0	509.0	508.9	508.8	508.7	508.6	508.5	508.5	508.4	508.3
	508.2	508.1	508.0	507.9	507.8	507.8	507.7	507.6	507.5	507.4
	507.3	507.2	507.1	507.0	506.9	506.8	506.8	506.7	506.6	506.5
	506.4	506.3	506.2	506.1	506.0	505.9	505.8	505.7	505.6	505.5
	505.4	505.3	505.2	505.1	505.0	504.9	504.8	504.7	504.6	504.5
	504.3	504.0	503.6	502.9	501.9	500.7	499.4	498.2	497.1	496.1
	495.4	495.0								
0209	508.6	508.5	508.3	507.9	507.4	506.9	506.2	505.4	504.7	504.2
	503.8	503.6	503.4	503.3	503.2	503.2	503.1	503.0	502.9	502.8
	502.7	502.6	502.5	502.4	502.3	502.3	502.2	502.1	502.0	501.9
	501.8	501.7	501.6	501.5	501.4	501.3	501.2	501.1	501.0	500.9
	500.8	500.7	500.6	500.5	500.4	500.3	500.2	500.1	500.0	499.9
	499.8	499.7	499.6	499.5	499.4	499.2	499.1	499.0	498.9	498.8
	498.7	498.6	498.5	498.4	498.3	498.2	498.0	497.9	497.8	497.7
	497.5	497.1	496.7	495.9	494.8	493.4	491.9	490.5	489.0	487.7
	486.7	486.1								
0210	502.9	502.8	502.5	502.1	501.6	500.9	500.2	499.3	498.5	498.0
	497.6	497.3	497.2	497.0	496.9	496.9	496.8	496.7	496.6	496.5
	496.4	496.3	496.2	496.1	496.0	495.9	495.8	495.7	495.5	495.4
	495.3	495.2	495.1	495.0	494.9	494.8	494.7	494.6	494.5	494.4
	494.3	494.2	494.0	493.9	493.8	493.7	493.6	493.5	493.4	493.3
	493.1	493.0	492.9	492.8	492.7	492.6	492.4	492.3	492.2	492.1
	492.0	491.8	491.7	491.6	491.5	491.4	491.2	491.1	491.0	490.8
	490.6	490.2	489.7	488.9	487.6	486.0	484.3	482.5	480.7	478.9
	477.4	476.6								
0211	497.2	497.1	496.8	496.3	495.7	495.0	494.2	493.2	492.4	491.8
	491.3	491.0	490.9	490.7	490.6	490.5	490.4	490.3	490.2	490.1
	490.0	489.9	489.8	489.7	489.5	489.4	489.3	489.2	489.1	489.0
	488.9	488.8	488.6	488.5	488.4	488.3	488.2	488.1	487.9	487.8
	487.7	487.6	487.5	487.3	487.2	487.1	487.0	486.8	486.7	486.6
	486.5	486.3	486.2	486.1	486.0	485.8	485.7	485.6	485.4	485.3
	485.2	485.1	484.9	484.8	484.7	484.5	484.4	484.3	484.1	483.9
	483.7	483.3	482.7	481.8	480.4	478.6	476.7	474.6	472.3	469.8
	467.1	466.3								
0212	491.6	491.4	491.1	490.5	489.9	489.1	488.1	487.1	486.2	485.5
	485.1	484.7	484.5	484.4	484.3	484.2	484.1	483.9	483.8	483.7
	483.6	483.5	483.3	483.2	483.1	483.0	482.9	482.7	482.6	482.5
	482.4	482.3	482.1	482.0	481.9	481.7	481.6	481.5	481.4	481.2
	481.1	481.0	480.8	480.7	480.6	480.4	480.3	480.2	480.0	479.9
	479.8	479.6	479.5	479.4	479.2	479.1	478.9	478.8	478.7	478.5
	478.4	478.2	478.1	477.9	477.8	477.7	477.5	477.4	477.2	477.0
	476.8	476.4	475.7	474.7	473.2	471.1	469.2	466.8	463.8	460.9
	455.0	455.0								
0213	486.0	485.8	485.4	484.8	484.1	483.2	482.1	481.0	480.0	479.3
	478.8	478.4	478.2	478.1	477.9	477.8	477.7	477.6	477.4	477.3
	477.2	477.0	476.9	476.8	476.7	476.5	476.4	476.3	476.1	476.0
	475.9	475.7	475.6	475.5	475.3	475.2	475.1	474.9	474.8	474.6
	474.5	474.4	474.2	474.1	473.9	473.8	473.6	473.5	473.4	473.2
	473.1	472.9	472.8	472.6	472.4	472.3	472.1	472.0	471.8	471.7
	471.5	471.4	471.2	471.0	470.9	470.7	470.6	470.4	470.3	470.1
	469.8	469.4	468.8	467.8	466.1	463.6	461.9	459.7	455.0	455.0
	1000.	1000.								
0214	480.6	480.4	479.9	479.2	478.3	477.3	476.2	474.9	473.8	473.0
	472.5	472.1	471.9	471.7	471.6	471.4	471.3	471.2	471.0	470.9
	470.7	470.6	470.4	470.3	470.2	470.0	469.9	469.7	469.6	469.5
	469.3	469.2	469.0	468.9	468.8	468.6	468.5	468.3	468.2	468.1
	467.9	467.8	467.6	467.5	467.3	467.2	467.0	466.9	466.7	466.5
	466.4	466.2	466.0	465.9	465.7	465.5	465.3	465.1	464.9	464.7
	464.5	464.3	464.2	464.0	463.8	463.6	463.4	463.3	463.1	463.0
	462.7	462.3	461.8	461.0	459.4	455.0	455.0	455.0	1000.	1000.
	1000.	1000.								
0215	475.3	475.0	474.5	473.7	472.7	471.5	470.2	468.7	467.6	466.8
	466.3	465.9	465.6	465.4	465.3	465.1	464.9	464.8	464.6	464.4
	464.3	464.1	463.9	463.7	463.6	463.4	463.2	463.0	462.9	462.7

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      462.6     462.5     462.3     462.2     462.1     462.0     461.9     461.7     461.6     461.5
      461.4     461.3     461.2     461.0     460.9     460.8     460.7     460.5     460.4     460.2
      460.0     459.9     459.7     459.5     459.2     459.0     458.8     458.5     458.2     457.8
      457.5     457.1     456.6     456.1     455.6     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     1000.     1000.     1000.     1000.     1000.
      1000.     1000.
0216  470.2     469.8     469.2     468.2     467.0     465.8     464.3     462.3     461.4     460.8
      460.3     460.0     459.7     459.5     459.3     459.1     458.9     458.7     458.5     458.2
      457.9     457.6     457.3     456.9     456.5     456.1     455.6     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.
0217  465.3     464.8     464.1     463.0     461.3     460.2     458.6     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.
0218  460.8     460.0     459.3     458.1     455.0     455.0     455.0     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.
0219  457.0     455.0     455.0     455.0     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.
0220  455.0     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.
1                  HEAD IN LAYER   2 AT END OF TIME STEP   1 IN STRESS PERIOD   1
                   ----------------------------------------------------------------

                1         2         3         4         5         6         7         8         9        10
               11        12        13        14        15        16        17        18        19        20
               21        22        23        24        25        26        27        28        29        30
               31        32        33        34        35        36        37        38        39        40
               41        42        43        44        45        46        47        48        49        50
               51        52        53        54        55        56        57        58        59        60
               61        62        63        64        65        66        67        68        69        70
               71        72        73        74        75        76        77        78        79        80
               81        82
 ..............................................................................................................................
0  1  1000.     738.6     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.
0  2  738.5     738.5     738.5     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.
0  3  738.4     738.4     738.3     738.2     738.1     738.0     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.     1000.
      1000.     1000.
0  4  738.2     738.2     738.2     738.1     738.0     737.9     737.7     737.6     737.5     737.4
      737.4     737.3     737.3     737.3     737.3     737.3     737.3     737.3     737.3     737.3
      737.3     737.3     737.3     737.3     737.2     737.2     737.2     737.2     737.2     737.2
      737.2     737.2     737.2     737.2     737.2     737.2     737.2     737.2     737.2     737.1
      737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.1
      737.1     737.1     737.1     737.1     737.0     737.0     737.0     737.0     737.0     737.0
      737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
      736.9     736.9     736.9     736.9     736.8     1000.     1000.     1000.     1000.     1000.
      1000.     1000.
0  5  738.0     738.0     737.9     737.8     737.8     737.7     737.5     737.4     737.3     737.3
      737.3     737.2     737.2     737.2     737.2     737.2     737.2     737.2     737.2     737.2
      737.2     737.2     737.2     737.1     737.1     737.1     737.1     737.1     737.1     737.1
      737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.1     737.0     737.0
      737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
      737.0     737.0     737.0     737.0     736.9     736.9     736.9     736.9     736.9     736.9
      736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.9
      736.8     736.8     736.8     736.8     736.7     736.5     736.4     736.4     736.3     736.3
      736.3     736.2
0  6  737.6     737.6     737.6     737.5     737.5     737.4     737.3     737.2     737.1     737.1
      737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
      737.0     737.0     736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.9
      736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.9     736.8     736.8
      736.8     736.8     736.8     736.8     736.8     736.8     736.8     736.8     736.8     736.8
      736.8     736.8     736.8     736.8     736.7     736.7     736.7     736.7     736.7     736.7
      736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7
      736.6     736.6     736.6     736.6     736.5     736.4     736.3     736.3     736.2     736.2
      736.1     736.1
0  7  737.2     737.2     737.2     737.1     737.1     737.0     736.9     736.9     736.8     736.8
      736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7     736.7
      736.7     736.6     736.6     736.6     736.6     736.6     736.6     736.6     736.6     736.6
      736.6     736.6     736.6     736.6     736.6     736.6     736.6     736.5     736.5     736.5
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	736.5	736.5	736.5	736.5	736.5	736.5	736.5	736.5	736.5	736.5
	736.5	736.5	736.5	736.5	736.5	736.4	736.4	736.4	736.4	736.4
	736.4	736.4	736.4	736.4	736.4	736.4	736.4	736.4	736.4	736.4
	736.4	736.3	736.3	736.3	736.2	736.1	736.1	736.0	736.0	735.9
	735.9	735.9								
0 8	736.7	736.7	736.7	736.7	736.6	736.6	736.5	736.4	736.4	736.3
	736.3	736.3	736.3	736.3	736.3	736.3	736.3	736.3	736.3	736.2
	736.2	736.2	736.2	736.2	736.2	736.2	736.2	736.2	736.2	736.2
	736.2	736.2	736.2	736.2	736.2	736.2	736.2	736.1	736.1	736.1
	736.2	736.1	736.1	736.1	736.1	736.1	736.1	736.1	736.1	736.1
	736.1	736.1	736.1	736.1	736.1	736.1	736.0	736.0	736.0	736.0
	736.1	736.1	736.1	736.1	736.1	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	735.9	735.9	735.8	735.8	735.7	735.7	735.6	735.6
	735.6	735.6								
0 9	736.2	736.1	736.1	736.1	736.0	736.0	736.0	735.9	735.8	735.8
	735.8	735.8	735.8	735.8	735.8	735.8	735.7	735.7	735.7	735.7
	735.7	735.7	735.7	735.7	735.7	735.7	735.7	735.7	735.7	735.7
	735.7	735.7	735.7	735.7	735.7	735.7	735.6	735.6	735.6	735.6
	735.6	735.6	735.6	735.6	735.6	735.6	735.6	735.6	735.6	735.6
	735.6	735.6	735.6	735.6	735.6	735.6	735.6	735.5	735.5	735.5
	735.5	735.5	735.5	735.5	735.5	735.5	735.5	735.5	735.5	735.5
	735.5	735.5	735.4	735.4	735.4	735.3	735.3	735.2	735.2	735.2
	735.2	735.1								
0 10	735.5	735.5	735.5	735.4	735.4	735.4	735.3	735.3	735.2	735.2
	735.2	735.2	735.2	735.2	735.1	735.1	735.1	735.1	735.1	735.1
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	735.1	735.1	735.1	735.1	735.1	735.1	735.0	735.0	735.0	735.0
	735.1	735.1	735.1	735.1	735.1	735.0	735.0	735.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	734.9	734.9
	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	734.9	734.9
	734.9	734.9	734.9	734.9	734.9	734.9	734.9	734.9	734.9	734.9
	734.9	734.9	734.9	734.8	734.8	734.8	734.7	734.7	734.6	734.6
	734.6	734.6								
0 11	734.7	734.7	734.7	734.7	734.7	734.6	734.6	734.5	734.5	734.5
	734.5	734.5	734.4	734.4	734.4	734.4	734.4	734.4	734.4	734.4
	734.4	734.4	734.4	734.4	734.4	734.4	734.4	734.4	734.4	734.4
	734.4	734.4	734.4	734.4	734.4	734.4	734.3	734.3	734.3	734.3
	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3
	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3
	734.3	734.2	734.2	734.2	734.2	734.2	734.2	734.2	734.2	734.2
	734.2	734.2	734.2	734.2	734.1	734.1	734.1	734.0	734.0	734.0
	734.0	734.0								
0 12	733.9	733.9	733.9	733.8	733.8	733.8	733.8	733.7	733.7	733.7
	733.7	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6
	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6	733.6
	733.6	733.6	733.6	733.6	733.6	733.6	733.5	733.5	733.5	733.5
	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5
	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5
	733.5	733.5	733.5	733.5	733.4	733.4	733.4	733.4	733.4	733.4
	733.4	733.4	733.4	733.4	733.3	733.3	733.3	733.3	733.2	733.2
	733.2	733.2								
0 13	732.9	732.9	732.9	732.9	732.9	732.9	732.8	732.8	732.8	732.8
	732.7	732.7	732.7	732.7	732.7	732.7	732.7	732.7	732.7	732.7
	732.7	732.7	732.7	732.7	732.7	732.7	732.7	732.7	732.7	732.7
	732.7	732.7	732.7	732.7	732.7	732.7	732.7	732.6	732.6	732.6
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	732.4	732.3								
0 14	731.9	731.9	731.9	731.9	731.9	731.8	731.8	731.8	731.8	731.7
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	731.7	731.7	731.7	731.7	731.7	731.7	731.7	731.7	731.7	731.7
	731.7	731.7	731.7	731.7	731.7	731.7	731.7	731.7	731.6	731.6
	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6
	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6	731.6
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	731.6	731.5	731.5	731.5	731.5	731.5	731.4	731.4	731.4	731.4
	731.4	731.4								
0 15	730.8	730.8	730.8	730.8	730.7	730.7	730.7	730.7	730.7	730.6
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	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
	730.5	730.5	730.5	730.4	730.4	730.4	730.4	730.4	730.3	730.3
	730.3	730.3								
0 16	729.6	729.6	729.6	729.5	729.5	729.5	729.5	729.5	729.5	729.4
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	729.4	729.4	729.4	729.4	729.4	729.4	729.4	729.4	729.4	729.4
	729.4	729.4	729.4	729.4	729.4	729.4	729.4	729.4	729.4	729.4
	729.4	729.4	729.4	729.4	729.3	729.3	729.3	729.3	729.3	729.3
	729.3	729.3	729.3	729.3	729.3	729.3	729.3	729.3	729.3	729.3
	729.3	729.3	729.3	729.3	729.3	729.3	729.3	729.3	729.3	729.3
	729.3	729.3	729.3	729.3	729.2	729.2	729.2	729.2	729.2	729.2
	729.2	729.2								
0 17	728.3	728.3	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.1
	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1
	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1
	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1
	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.1	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	727.9	727.9	727.9	727.9	727.9
	727.9	727.9								
0 18	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.7
	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7
	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7
	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7
	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.7
	726.7	726.7	726.7	726.7	726.7	726.7	726.7	726.6	726.6	726.6
	726.6	726.6	726.6	726.6	726.6	726.6	726.6	726.6	726.6	726.6
	726.6	726.6	726.6	726.6	726.6	726.6	726.6	726.5	726.5	726.5
	726.5	726.5								
0 19	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2
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	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2
	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2
	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2
	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.2	725.1	725.1
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	725.1	725.0								
0 20	723.7	723.7	723.7	723.7	723.7	723.7	723.7	723.7	723.7	723.7
	723.7	723.7	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6
	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6
	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6
	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6
	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6
	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6	723.6
	723.6	723.6	723.6	723.5	723.5	723.5	723.5	723.5	723.5	723.5
	723.5	723.5								

0 21	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
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	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9
	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9
	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9
	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9	721.9
	721.9	721.9	721.9	721.9	721.9	721.8	721.8	721.8	721.8	721.8
	721.8	721.8								
0 22	720.3	720.2	720.2	720.2	720.2	720.2	720.2	720.2	720.2	720.2
	720.2	720.2	720.2	720.2	720.2	720.2	720.2	720.2	720.2	720.2
	720.2	720.2	720.2	720.2	720.2	720.2	720.2	720.2	720.2	720.2
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	720.1	720.1	720.1	720.1	720.1	720.1	720.1	720.1	720.1	720.1
	720.1	720.1	720.1	720.1	720.1	720.1	720.1	720.1	720.1	720.1
	720.1	720.1	720.1	720.1	720.1	720.1	720.1	720.1	720.1	720.1
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	720.0	720.0								
0 23	718.4	718.4	718.4	718.4	718.3	718.3	718.3	718.3	718.3	718.3
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	718.3	718.3	718.3	718.3	718.3	718.3	718.3	718.3	718.3	718.3
	718.3	718.3	718.3	718.3	718.3	718.3	718.3	718.3	718.3	718.3
	718.3	718.3	718.3	718.2	718.2	718.2	718.2	718.2	718.2	718.2
	718.2	718.2	718.2	718.2	718.2	718.2	718.2	718.2	718.2	718.2
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	718.2	718.2								
0 24	716.4	716.4	716.4	716.4	716.4	716.4	716.3	716.3	716.3	716.3
	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3
	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3
	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3
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	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3
	716.3	716.3	716.3	716.2	716.2	716.2	716.2	716.2	716.2	716.2
	716.2	716.2								
0 25	714.3	714.3	714.3	714.3	714.3	714.3	714.3	714.3	714.2	714.2
	714.2	714.2	714.2	714.2	714.2	714.2	714.2	714.2	714.2	714.2
	714.2	714.2	714.2	714.2	714.2	714.2	714.2	714.2	714.2	714.2
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	714.2	714.2	714.2	714.2	714.2	714.2	714.1	714.1	714.1	714.1
	714.1	714.1								
0 26	712.1	712.1	712.1	712.1	712.1	712.1	712.1	712.1	712.1	712.1
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	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0
	712.0	712.0								
0 27	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8
	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8
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	709.7	709.7								
0 28	707.5	707.5	707.5	707.5	707.5	707.4	707.4	707.4	707.4	707.4
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	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4
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	707.4	707.4	707.4	707.4	707.3	707.3	707.3	707.3	707.3	707.3
	707.3	707.3								
0 29	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	704.9
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	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9
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	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9
	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9
	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9
	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.9	704.8
	704.8	704.8								
0 30	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4
	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4
	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4
	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4
	702.4	702.4	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3
	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3
	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3
	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3	702.3
	702.3	702.3								
0 31	699.8	699.8	699.8	699.8	699.7	699.7	699.7	699.7	699.7	699.7
	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
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	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7	699.7
	699.7	699.7	699.7	699.6	699.6	699.6	699.6	699.6	699.6	699.6
	699.6	699.6								
0 32	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9
	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.9	696.8	696.8
	696.8	696.8								
0 33	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.0	694.0
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	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0								
0 34	691.2	691.2	691.2	691.2	691.2	691.2	691.2	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
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	691.1	691.1	691.1	691.1	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0								
0 35	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1
	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1
	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.0	688.0
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	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	687.9	687.9
	687.9	687.9								
0 36	685.0	685.0	685.0	685.0	685.0	685.0	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.8	684.8	684.8	684.8	684.8	684.8
	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8
	684.8	684.8								
0 37	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7
	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.6
	681.7	681.7	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6
	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6
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	681.6	681.6	681.6	681.6	681.6	681.5	681.5	681.5	681.5	681.5
	681.5	681.5								
0 38	678.4	678.4	678.4	678.4	678.4	678.4	678.3	678.3	678.3	678.3
	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3
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	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.1	678.1
	678.1	678.1								
0 39	675.0	675.0	675.0	674.9	674.9	674.9	674.9	674.9	674.9	674.9
	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.7	674.7	674.7	674.7	674.7	674.7	674.7
	674.7	674.7								
0 40	671.4	671.4	671.4	671.4	671.4	671.4	671.4	671.3	671.3	671.3
	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3
	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3
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	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.2	671.2
	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.2	671.2	671.2
	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2
	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2
	671.2	671.2	671.2	671.2	671.2	671.2	671.1	671.1	671.1	671.1
	671.1	671.1								
0 41	667.8	667.8	667.8	667.8	667.7	667.7	667.7	667.7	667.7	667.7
	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7
	667.7	667.7	667.7	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.5	667.5	667.5	667.5	667.5	667.5	667.5	667.4	667.4
	667.4	667.4								
0 42	664.1	664.1	664.1	664.0	664.0	664.0	664.0	664.0	664.0	663.9
	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
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	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.8	663.8
	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.8	663.8
	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8
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	663.8	663.8	663.8	663.8	663.7	663.7	663.7	663.7	663.7	663.7
	663.7	663.7								
0 43	660.9	660.9	660.9	660.9	660.8	660.8	660.8	660.8	660.8	660.8
	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7
	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7
	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7
	660.7	660.7	660.7	660.7	660.7	660.6	660.6	660.6	660.6	660.6
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	660.6	660.6	660.6	660.6	660.6	660.6	660.6	660.6	660.6	660.6
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0 44	658.7	658.7	658.7	658.7	658.7	658.7	658.6	658.6	658.6	658.6
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	658.4	658.4	658.4	658.4	658.4	658.4	658.4	658.3	658.3	658.3
	658.4	658.4	658.4	658.4	658.4	658.3	658.3	658.3	658.3	658.3
	658.2	658.2								
0 45	657.3	657.3	657.3	657.2	657.2	657.2	657.2	657.2	657.1	657.1
	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1
	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1
	657.1	657.1	657.1	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.1	657.1	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	656.9	656.9	656.9
	657.0	657.0	657.0	656.9	656.9	656.9	656.8	656.8	656.8	656.8
	656.9	656.9	656.9							
	656.8	656.8								
0 46	656.3	656.3	656.3	656.3	656.3	656.2	656.2	656.2	656.2	656.1
	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1
	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1
	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.0	656.0	656.0
	656.1	656.1	656.1	656.1	656.1	656.1	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	655.9	655.9	655.9	655.9	655.9	655.8	655.8	655.8	655.8
	655.8	655.8								
0 47	655.6	655.6	655.6	655.6	655.6	655.6	655.5	655.5	655.5	655.5
	655.5	655.5	655.5	655.5	655.5	655.5	655.4	655.4	655.4	655.4
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	655.3	655.3	655.3	655.3	655.2	655.2	655.2	655.2	655.1	655.1
	655.3	655.3								
	655.1	655.1								
0 48	655.2	655.2	655.2	655.2	655.2	655.1	655.1	655.1	655.1	655.0

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	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	654.9	654.9	654.9
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	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9
	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9
	654.8	654.8	654.8	654.8	654.8	654.8	654.7	654.7	654.7	654.7
	654.7	654.7								
0 49	654.9	654.8	654.8	654.8	654.8	654.8	654.8	654.7	654.7	654.7
	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7
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	654.5	654.5	654.5	654.5	654.4	654.4	654.4	654.4	654.3	654.3
	654.3	654.3								
0 50	654.5	654.5	654.5	654.5	654.5	654.4	654.4	654.4	654.4	654.3
	654.3	654.3	654.3	654.3	654.3	654.3	654.3	654.3	654.3	654.3
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0 51	654.2	654.1	654.1	654.1	654.1	654.1	654.1	654.0	654.0	654.0
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	653.8	653.8	653.8	653.7	653.7	653.7	653.7	653.6	653.6	653.6
	653.6	653.6								
0 52	653.8	653.8	653.8	653.8	653.8	653.7	653.7	653.7	653.7	653.6
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0 53	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.3	653.3	653.3
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	652.9	652.9								
0 54	653.1	653.1	653.1	653.1	653.0	653.0	653.0	652.9	652.9	652.9
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	652.5	652.5								
0 55	652.7	652.7	652.7	652.7	652.7	652.7	652.6	652.6	652.6	652.6
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	652.2	652.2								
0 56	652.4	652.4	652.4	652.4	652.3	652.3	652.3	652.3	652.2	652.2
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	651.8	651.8								
0 57	652.0	652.0	652.0	652.0	652.0	652.0	651.9	651.9	651.9	651.9
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0 58	651.7	651.7	651.7	651.6	651.6	651.6	651.6	651.5	651.5	651.5
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0 60	651.0	650.9	650.9	650.9	650.9	650.9	650.9	650.8	650.8	650.8
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	650.0	650.0								
0 62	650.2	650.2	650.2	650.2	650.2	650.2	650.1	650.1	650.1	650.1
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	649.2	649.2								
0 64	649.5	649.5	649.5	649.5	649.5	649.4	649.4	649.4	649.3	649.3
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0 65	649.1	649.1	649.1	649.1	649.1	649.1	649.0	649.0	649.0	649.0
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	648.7	648.7	648.7							
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0 67	648.4	648.4	648.4	648.4	648.4	648.3	648.3	648.3	648.3	648.2
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	647.8	647.8								
0 68	648.1	648.1	648.0	648.0	648.0	648.0	648.0	647.9	647.9	647.9
	647.9	647.8	647.8	647.8	647.8	647.8	647.8	647.8	647.8	647.8
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	646.7	646.6								
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	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8	645.8
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	645.8	645.7	645.7	645.7	645.7	645.6	645.6	645.6	645.6	645.5
	645.5	645.5								
0 74	645.9	645.9	645.8	645.8	645.8	645.8	645.7	645.7	645.7	645.7
	645.6	645.6	645.6	645.6	645.6	645.6	645.6	645.6	645.6	645.6
	645.6	645.6	645.6	645.6	645.6	645.6	645.6	645.6	645.6	645.6
	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5	645.5
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	645.4	645.4	645.4	645.3	645.3	645.3	645.2	645.2	645.2	645.2
	645.4	645.4								
0 75	645.2	645.1								
	645.5	645.5	645.5	645.5	645.4	645.4	645.4	645.3	645.3	645.3
	645.3	645.3	645.2	645.2	645.2	645.2	645.2	645.2	645.2	645.2

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	645.1	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	644.9	644.9	644.9	644.8	644.8	644.8
	644.8	644.8								
0 76	645.1	645.1	645.1	645.1	645.1	645.0	645.0	645.0	644.9	644.9
	644.9	644.9	644.9	644.9	644.9	644.9	644.9	644.9	644.8	644.8
	644.8	644.8	644.8	644.8	644.8	644.8	644.8	644.8	644.8	644.8
	644.8	644.8	644.8	644.8	644.8	644.8	644.8	644.8	644.8	644.8
	644.8	644.8	644.8	644.7	644.7	644.7	644.7	644.7	644.7	644.7
	644.7	644.7	644.7	644.7	644.7	644.7	644.7	644.7	644.7	644.7
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	644.6	644.6	644.6	644.6	644.5	644.5	644.5	644.4	644.4	644.4
	644.4	644.4								
0 77	644.7	644.7	644.7	644.7	644.7	644.7	644.6	644.6	644.6	644.5
	644.5	644.5	644.5	644.5	644.5	644.5	644.5	644.5	644.5	644.5
	644.5	644.5	644.5	644.5	644.5	644.4	644.4	644.4	644.4	644.4
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	644.3	644.2	644.2	644.2	644.2	644.1	644.1	644.1	644.0	644.0
	644.0	644.0								
0 78	644.4	644.4	644.4	644.3	644.3	644.3	644.3	644.2	644.2	644.2
	644.1	644.1	644.1	644.1	644.1	644.1	644.1	644.1	644.1	644.1
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	644.1	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	643.9	643.9	643.9	643.9	643.9
	643.9	643.9	643.9	643.9	643.9	643.9	643.9	643.9	643.9	643.9
	643.9	643.9	643.9	643.8	643.8	643.8	643.7	643.7	643.7	643.6
	643.6	643.6								
0 79	644.0	644.0	644.0	644.0	643.9	643.9	643.9	643.8	643.8	643.8
	643.8	643.8	643.8	643.7	643.7	643.7	643.7	643.7	643.7	643.7
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	643.5	643.5	643.5	643.5	643.4	643.4	643.3	643.3	643.3	643.3
	643.3	643.3								
0 80	643.6	643.6	643.6	643.6	643.6	643.5	643.5	643.5	643.4	643.4
	643.4	643.4	643.4	643.4	643.4	643.4	643.4	643.4	643.4	643.3
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	643.1	643.1	643.1	643.1	643.0	643.0	643.0	642.9	642.9	642.9
	642.9	642.9								
0 81	643.3	643.3	643.2	643.2	643.2	643.2	643.1	643.1	643.1	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
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	642.7	642.7	642.7	642.7	642.7	642.6	642.6	642.6	642.5	642.5
	642.5	642.5								
0 82	642.9	642.9	642.9	642.8	642.8	642.8	642.8	642.7	642.7	642.7
	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6
	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.5
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	642.5	642.5	642.5	642.5	642.5	642.5	642.5	642.5	642.5	642.5
	642.5	642.5	642.4	642.4	642.4	642.4	642.4	642.4	642.4	642.4
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	642.4	642.4	642.3	642.3	642.2	642.2	642.2	642.2	642.1	642.1
	642.1	642.1								
0 83	642.5	642.5	642.5	642.5	642.4	642.4	642.4	642.3	642.3	642.3
	642.3	642.3	642.2	642.2	642.2	642.2	642.2	642.2	642.2	642.2
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	642.0	642.0	642.0	641.9	641.9	641.9	641.8	641.8	641.8	641.7
	641.7	641.7								
0 84	642.1	642.1	642.1	642.1	642.1	642.0	642.0	642.0	641.9	641.9
	641.9	641.9	641.9	641.9	641.9	641.9	641.8	641.8	641.8	641.8
	641.8	641.8	641.8	641.8	641.8	641.8	641.8	641.8	641.8	641.8
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	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7
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0 85	641.8	641.8	641.7	641.7	641.7	641.7	641.6	641.6	641.6	641.5
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	641.5	641.4	641.4	641.4	641.4	641.4	641.4	641.4	641.4	641.4
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	641.4	641.4	641.4	641.3	641.3	641.3	641.3	641.3	641.3	641.3
	641.3	641.3	641.3	641.3	641.3	641.3	641.3	641.3	641.3	641.3
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	641.2	641.2	641.2	641.2	641.1	641.1	641.1	641.0	641.0	641.0
	641.0	641.0								
0 86	641.4	641.4	641.4	641.3	641.3	641.3	641.2	641.2	641.2	641.1
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	641.1	641.1	641.1	641.1	641.1	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	640.9	640.9	640.9
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	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.8
	640.8	640.8	640.8	640.8	640.7	640.7	640.7	640.6	640.6	640.6
	640.6	640.6								
0 87	641.0	641.0	641.0	641.0	640.9	640.9	640.9	640.8	640.8	640.8
	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7
	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.6
	640.6	640.6	640.6	640.6	640.6	640.6	640.6	640.6	640.6	640.6
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	640.5	640.5	640.5	640.5	640.5	640.5	640.5	640.5	640.5	640.5
	640.5	640.4	640.4	640.4	640.4	640.3	640.3	640.2	640.2	640.2
	640.2	640.2								
0 88	640.6	640.6	640.6	640.6	640.6	640.5	640.5	640.4	640.4	640.4
	640.4	640.4	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3
	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3
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	640.1	640.1	640.1	640.1	640.1	640.1	640.1	640.1	640.1	640.1

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	639.8	639.8								
0 89	640.2	640.2	640.2	640.2	640.2	640.1	640.1	640.1	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	639.9	639.9	639.9	639.9	639.9
	639.9	639.9	639.9	639.9	639.9	639.9	639.9	639.9	639.9	639.9
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	639.8	639.8	639.8	639.8	639.8	639.8	639.8	639.8	639.8	639.8
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	639.7	639.7	639.7	639.7	639.7	639.7	639.7	639.7	639.7	639.7
	639.7	639.7	639.7	639.6	639.6	639.5	639.5	639.5	639.4	639.4
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0 90	639.9	639.9	639.8	639.8	639.8	639.8	639.7	639.7	639.6	639.6
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	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4
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	639.3	639.3	639.3	639.2	639.2	639.2	639.1	639.1	639.1	639.0
	639.0	639.0								
0 91	639.5	639.5	639.5	639.4	639.4	639.4	639.3	639.3	639.3	639.2
	639.2	639.2	639.2	639.2	639.2	639.2	639.2	639.2	639.2	639.2
	639.2	639.2	639.1	639.1	639.1	639.1	639.1	639.1	639.1	639.1
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	639.0	639.0	639.0	639.0	638.9	638.9	638.9	638.9	638.9	638.9
	639.0	639.0	639.0	639.0	638.9	638.9	638.7	638.7	638.7	638.6
	638.9	638.9	638.9	638.9	638.8	638.8	638.7	638.7	638.7	638.6
	638.6	638.6								
0 92	639.1	639.1	639.1	639.1	639.0	639.0	639.0	638.9	638.9	638.9
	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8
	638.8	638.8	638.8	638.8	638.8	638.8	638.7	638.7	638.7	638.7
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	638.7	638.7	638.7	638.7	638.7	638.7	638.6	638.6	638.6	638.6
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	638.6	638.6	638.6	638.6	638.6	638.6	638.5	638.5	638.5	638.5
	638.5	638.5	638.5	638.5	638.4	638.4	638.3	638.3	638.3	638.3
	638.2	638.2								
0 93	638.7	638.7	638.7	638.7	638.7	638.6	638.6	638.5	638.5	638.5
	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4
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	637.8	637.8								
0 94	638.3	638.3	638.3	638.3	638.3	638.2	638.2	638.2	638.1	638.1
	638.1	638.1	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
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	638.0	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9
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	637.9	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8
	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8
	637.7	637.7	637.7	637.7	637.6	637.6	637.6	637.5	637.5	637.5
	637.5	637.4								
0 95	638.0	637.9	637.9	637.9	637.9	637.9	637.8	637.8	637.7	637.7
	637.7	637.7	637.7	637.6	637.6	637.6	637.6	637.6	637.6	637.6
	637.6	637.6	637.6	637.6	637.6	637.6	637.6	637.6	637.6	637.6
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	637.5	637.5	637.5	637.4	637.4	637.4	637.4	637.4	637.4	637.4
	637.4	637.4	637.4	637.4	637.4	637.4	637.4	637.4	637.4	637.4
	637.4	637.3	637.3	637.3	637.3	637.2	637.2	637.1	637.1	637.1
	637.1	637.1								
0 96	637.6	637.6	637.5	637.5	637.5	637.5	637.4	637.4	637.3	637.3
	637.3	637.3	637.3	637.3	637.3	637.3	637.2	637.2	637.2	637.2
	637.2	637.2	637.2	637.2	637.2	637.2	637.2	637.2	637.2	637.2
	637.2	637.2	637.2	637.2	637.2	637.2	637.1	637.1	637.1	637.1
	637.1	637.1	637.1	637.1	637.1	637.1	637.1	637.1	637.1	637.1
	637.1	637.1	637.1	637.1	637.1	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	636.9	636.9	636.9	636.8	636.8	636.7	636.7	636.7
	636.7	636.7								
0 97	637.2	637.2	637.2	637.1	637.1	637.1	637.0	637.0	637.0	636.9
	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.8	636.8
	636.9	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8
	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.7	636.7
	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.7	636.7	636.7
	636.7	636.7	636.7	636.7	636.7	636.7	636.7	636.6	636.6	636.6
	636.7	636.7	636.7	636.7	636.7	636.7	636.7	636.6	636.6	636.6
	636.6	636.6	636.6	636.6	636.6	636.6	636.6	636.6	636.6	636.6
	636.6	636.6	636.5	636.5	636.5	636.4	636.4	636.3	636.3	636.3
	636.3	636.3								
0 98	636.8	636.8	636.8	636.8	636.7	636.7	636.7	636.6	636.6	636.5
	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5
	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4
	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4
	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3
	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.3	636.2
	636.3	636.3	636.3	636.3	636.3	636.2	636.2	636.2	636.2	636.2
	636.2	636.2	636.2	636.2	636.2	636.2	636.0	635.9	635.9	635.9
	636.2	636.2	636.1	636.1	636.1	636.0	636.0	635.9	635.9	635.9
	635.9	635.9								
0 99	636.4	636.4	636.4	636.4	636.3	636.3	636.3	636.2	636.2	636.1
	636.1	636.1	636.1	636.1	636.1	636.1	636.1	636.1	636.1	636.1
	636.1	636.1	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.1	636.1	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9
	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9
	635.8	635.8	635.8	635.8	635.8	635.8	635.8	635.8	635.8	635.8
	635.8	635.8	635.8	635.7	635.7	635.6	635.6	635.6	635.5	635.5
	635.5	635.5								
0100	636.0	636.0	636.0	636.0	636.0	635.9	635.9	635.8	635.8	635.8
	635.7	635.7	635.7	635.7	635.7	635.7	635.7	635.7	635.7	635.7
	635.7	635.7	635.7	635.7	635.6	635.6	635.6	635.6	635.6	635.6
	635.6	635.6	635.6	635.6	635.6	635.6	635.6	635.6	635.6	635.6
	635.6	635.6	635.6	635.5	635.5	635.5	635.5	635.5	635.5	635.5
	635.6	635.6	635.6	635.5	635.5	635.5	635.5	635.5	635.5	635.5
	635.5	635.5	635.5	635.5	635.5	635.5	635.4	635.4	635.4	635.4
	635.5	635.4	635.4	635.4	635.4	635.4	635.2	635.2	635.1	635.1
	635.4	635.4	635.4	635.3	635.3	635.2	635.2	635.2	635.1	635.1
	635.1	635.1								
0101	635.6	635.6	635.6	635.6	635.6	635.5	635.5	635.4	635.4	635.4
	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3
	635.3	635.3	635.3	635.3	635.3	635.3	635.2	635.2	635.2	635.2
	635.3	635.3	635.3	635.3	635.3	635.2	635.2	635.2	635.2	635.2
	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2
	635.2	635.2	635.2	635.2	635.1	635.1	635.1	635.1	635.1	635.1
	635.2	635.2	635.2	635.2	635.1	635.1	635.1	635.1	635.1	635.1
	635.1	635.1	635.1	635.1	635.1	635.1	635.1	635.1	635.1	635.1
	635.1	635.1	635.1	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.1	635.1	635.1	635.0	635.0	635.0	634.8	634.8	634.7	634.7
	635.0	635.0	635.0	634.9	634.9	634.8				
	634.7	634.7								
0102	635.3	635.2	635.2	635.2	635.2	635.1	635.1	635.0	635.0	635.0
	635.0	634.9	634.9	634.9	634.9	634.9	634.9	634.9	634.9	634.9
	634.9	634.9	634.9	634.9	634.9	634.9	634.9	634.8	634.8	634.8

	634.8	634.8	634.8	634.8	634.8	634.8	634.8	634.8	634.8	634.8
	634.8	634.8	634.8	634.8	634.8	634.7	634.7	634.7	634.7	634.7
	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7
	634.7	634.7	634.7	634.7	634.6	634.6	634.6	634.6	634.6	634.6
	634.6	634.6	634.6	634.5	634.5	634.4	634.4	634.4	634.3	634.3
	634.3	634.3								
0103	634.9	634.9	634.8	634.8	634.8	634.7	634.7	634.7	634.6	634.6
	634.6	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5
	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.4	634.4
	634.4	634.4	634.4	634.4	634.4	634.4	634.4	634.4	634.4	634.4
	634.4	634.4	634.4	634.4	634.4	634.4	634.3	634.3	634.3	634.3
	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3
	634.3	634.3	634.3	634.3	634.2	634.2	634.2	634.2	634.2	634.2
	634.2	634.2	634.2	634.1	634.1	634.0	634.0	634.0	633.9	633.9
	633.9	633.9								
0104	634.5	634.5	634.5	634.4	634.4	634.4	634.3	634.3	634.2	634.2
	634.2	634.2	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1
	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.9	633.9	633.9
	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9
	633.9	633.9	633.9	633.9	633.9	633.8	633.8	633.8	633.8	633.8
	633.8	633.8	633.8	633.7	633.7	633.6	633.6	633.6	633.5	633.5
	633.5	633.5								
0105	634.1	634.1	634.1	634.0	634.0	634.0	633.9	633.9	633.8	633.8
	633.8	633.8	633.7	633.7	633.7	633.7	633.7	633.7	633.7	633.7
	633.7	633.7	633.7	633.7	633.7	633.7	633.7	633.7	633.7	633.7
	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.6
	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.5	633.5
	633.5	633.5	633.5	633.5	633.5	633.5	633.5	633.5	633.5	633.5
	633.5	633.5	633.5	633.5	633.5	633.5	633.4	633.4	633.4	633.4
	633.4	633.4	633.4	633.3	633.3	633.2	633.2	633.2	633.1	633.1
	633.1	633.1								
0106	633.7	633.7	633.7	633.6	633.6	633.6	633.5	633.5	633.4	633.4
	633.4	633.4	633.4	633.3	633.3	633.3	633.3	633.3	633.3	633.3
	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3
	633.3	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2
	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.1	633.1
	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1
	633.1	633.1	633.1	633.1	633.1	633.1	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	632.9	632.9	632.8	632.8	632.8	632.7	632.7
	632.7	632.7								
0107	633.3	633.3	633.3	633.3	633.2	633.2	633.1	633.1	633.0	633.0
	633.0	633.0	633.0	633.0	632.9	632.9	632.9	632.9	632.9	632.9
	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9
	632.9	632.9	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.8
	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.7
	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7
	632.7	632.7	632.7	632.7	632.7	632.7	632.6	632.6	632.6	632.6
	632.6	632.6	632.6	632.5	632.5	632.4	632.4	632.4	632.3	632.3
	632.3	632.3								
0108	632.9	632.9	632.9	632.9	632.8	632.8	632.7	632.7	632.6	632.6
	632.6	632.6	632.6	632.6	632.6	632.5	632.5	632.5	632.5	632.5
	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5
	632.5	632.5	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.4
	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.3
	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3
	632.3	632.3	632.3	632.3	632.3	632.3	632.2	632.2	632.2	632.2
	632.2	632.2	632.2	632.1	632.1	632.0	632.0	632.0	631.9	631.9
	631.9	631.9								
0109	632.5	632.5	632.5	632.5	632.4	632.4	632.3	632.3	632.2	632.2
	632.2	632.2	632.2	632.2	632.2	632.1	632.1	632.1	632.1	632.1
	632.1	632.1	632.1	632.1	632.1	632.1	632.1	632.1	632.1	632.1
	632.1	632.1	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.9
	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
	631.9	631.9	631.9	631.9	631.9	631.9	631.8	631.8	631.8	631.8
	631.8	631.8	631.8	631.7	631.7	631.6	631.6	631.6	631.5	631.5
	631.5	631.5								
0110	632.1	632.1	632.1	632.1	632.0	632.0	632.0	631.9	631.9	631.8
	631.8	631.8	631.8	631.8	631.8	631.7	631.7	631.7	631.7	631.7
	631.7	631.7	631.7	631.7	631.7	631.7	631.7	631.7	631.7	631.7
	631.7	631.7	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.6
	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.5
	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5
	631.5	631.5	631.5	631.5	631.5	631.5	631.4	631.4	631.4	631.4
	631.4	631.4	631.4	631.3	631.3	631.2	631.2	631.1	631.1	631.1
	631.1	631.1								
0111	631.7	631.7	631.7	631.7	631.6	631.6	631.6	631.5	631.5	631.4
	631.4	631.4	631.4	631.4	631.4	631.4	631.3	631.3	631.3	631.3
	631.3	631.3	631.3	631.3	631.3	631.3	631.3	631.3	631.3	631.3
	631.3	631.3	631.3	631.2	631.2	631.2	631.2	631.2	631.2	631.2
	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.1
	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1
	631.1	631.1	631.1	631.1	631.1	631.1	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	630.9	630.9	630.8	630.8	630.7	630.7	630.7
	630.7	630.7								
0112	631.3	631.3	631.3	631.3	631.2	631.2	631.2	631.1	631.1	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	630.9	630.9	630.9	630.9
	630.9	630.9	630.9	630.9	630.9	630.9	630.9	630.9	630.9	630.9
	630.9	630.9	630.8	630.8	630.8	630.8	630.8	630.8	630.8	630.8
	630.8	630.8	630.8	630.8	630.8	630.8	630.8	630.8	630.8	630.7
	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7
	630.7	630.7	630.7	630.7	630.7	630.6	630.6	630.6	630.6	630.6
	630.6	630.6	630.6	630.5	630.5	630.4	630.4	630.3	630.3	630.3
	630.3	630.2								
0113	630.9	630.9	630.9	630.9	630.9	630.8	630.8	630.7	630.7	630.6
	630.6	630.6	630.6	630.6	630.6	630.6	630.5	630.5	630.5	630.5
	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5
	630.5	630.5	630.4	630.4	630.4	630.4	630.4	630.4	630.4	630.4
	630.4	630.4	630.4	630.4	630.4	630.4	630.4	630.4	630.3	630.3
	630.3	630.3	630.3	630.3	630.3	630.3	630.3	630.3	630.3	630.3
	630.3	630.3	630.3	630.3	630.3	630.2	630.2	630.2	630.2	630.2
	630.2	630.2	630.2	630.1	630.1	630.0	630.0	629.9	629.9	629.9
	629.8	629.8								
0114	630.5	630.5	630.5	630.5	630.5	630.4	630.4	630.3	630.3	630.2
	630.2	630.2	630.2	630.2	630.2	630.2	630.1	630.1	630.1	630.1
	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1
	630.1	630.1	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.9	629.9
	629.9	629.9	629.9	629.9	629.9	629.9	629.9	629.9	629.9	629.9
	629.9	629.9	629.9	629.9	629.8	629.8	629.8	629.8	629.8	629.8
	629.8	629.8	629.8	629.7	629.7	629.6	629.6	629.5	629.5	629.5
	629.4	629.4								
0115	630.1	630.1	630.1	630.1	630.1	630.0	630.0	629.9	629.9	629.8
	629.8	629.8	629.8	629.8	629.8	629.7	629.7	629.7	629.7	629.7
	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7
	629.7	629.7	629.6	629.6	629.6	629.6	629.6	629.6	629.6	629.6
	629.6	629.6	629.6	629.6	629.6	629.6	629.6	629.5	629.5	629.5
	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5
	629.5	629.5	629.5	629.4	629.4	629.4	629.4	629.4	629.4	629.4
	629.4	629.4	629.4	629.3	629.3	629.2	629.2	629.1	629.1	629.0

	629.0	629.0								
0116	629.7	629.7	629.7	629.7	629.7	629.6	629.6	629.5	629.5	629.4
	629.4	629.4	629.4	629.4	629.4	629.3	629.3	629.3	629.3	629.3
	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3
	629.3	629.2	629.2	629.2	629.2	629.2	629.2	629.2	629.2	629.2
	629.2	629.2	629.2	629.2	629.2	629.2	629.2	629.1	629.1	629.1
	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1
	629.1	629.1	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.9	628.9	628.9	628.8	628.7	628.7	628.7	628.6
	628.6	628.6								
0117	629.3	629.3	629.3	629.3	629.3	629.2	629.2	629.1	629.1	629.0
	629.0	629.0	629.0	629.0	629.0	628.9	628.9	628.9	628.9	628.9
	628.9	628.9	628.9	628.9	628.9	628.9	628.9	628.9	628.9	628.9
	628.8	628.8	628.8	628.8	628.8	628.8	628.8	628.8	628.8	628.8
	628.8	628.8	628.8	628.8	628.8	628.8	628.7	628.7	628.7	628.7
	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7
	628.7	628.6	628.6	628.6	628.6	628.6	628.6	628.6	628.6	628.6
	628.6	628.6	628.5	628.5	628.5	628.4	628.3	628.3	628.3	628.2
	628.2	628.2								
0118	628.9	628.9	628.9	628.9	628.9	628.8	628.8	628.7	628.7	628.6
	628.6	628.6	628.6	628.6	628.5	628.5	628.5	628.5	628.5	628.5
	628.5	628.5	628.5	628.5	628.5	628.5	628.5	628.5	628.5	628.5
	628.4	628.4	628.4	628.4	628.4	628.4	628.4	628.4	628.4	628.4
	628.4	628.4	628.4	628.4	628.4	628.3	628.3	628.3	628.3	628.3
	628.3	628.3	628.3	628.3	628.3	628.3	628.3	628.3	628.3	628.3
	628.2	628.2	628.2	628.2	628.2	628.2	628.2	628.2	628.2	628.2
	628.2	628.2	628.1	628.1	628.0	628.0	627.9	627.9	627.8	627.8
	627.8	627.8								
0119	628.5	628.5	628.5	628.5	628.5	628.4	628.4	628.3	628.2	628.2
	628.2	628.2	628.2	628.1	628.1	628.1	628.1	628.1	628.1	628.1
	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	627.9	627.9	627.9	627.9	627.9	627.9
	627.9	627.9	627.9	627.9	627.9	627.9	627.9	627.9	627.9	627.8
	627.8	627.8	627.8	627.8	627.8	627.8	627.8	627.8	627.8	627.8
	627.8	627.8	627.7	627.7	627.6	627.6	627.5	627.5	627.4	627.4
	627.4	627.4								
0120	628.1	628.1	628.1	628.1	628.1	628.0	628.0	627.9	627.8	627.8
	627.8	627.8	627.8	627.7	627.7	627.7	627.7	627.7	627.7	627.7
	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.6	627.6
	627.6	627.6	627.6	627.6	627.6	627.6	627.6	627.6	627.6	627.6
	627.6	627.6	627.6	627.5	627.5	627.5	627.5	627.5	627.5	627.5
	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.4	627.4
	627.4	627.4	627.4	627.4	627.4	627.4	627.4	627.4	627.4	627.4
	627.4	627.3	627.3	627.2	627.2	627.1	627.1	627.0	627.0	627.0
	627.0	627.0								
0121	627.7	627.7	627.7	627.7	627.7	627.6	627.6	627.5	627.4	627.4
	627.4	627.4	627.3	627.3	627.3	627.3	627.3	627.3	627.3	627.3
	627.3	627.3	627.3	627.3	627.3	627.3	627.3	627.2	627.2	627.2
	627.2	627.2	627.2	627.2	627.2	627.2	627.2	627.2	627.2	627.2
	627.2	627.2	627.1	627.1	627.1	627.1	627.1	627.1	627.1	627.1
	627.1	627.1	627.1	627.1	627.1	627.1	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	626.9	626.9	626.9	626.9	626.8	626.7	626.7	626.6	626.6	626.6
	626.6	626.5								
0122	627.3	627.3	627.3	627.3	627.2	627.2	627.1	627.1	627.0	627.0
	627.0	627.0	626.9	626.9	626.9	626.9	626.9	626.9	626.9	626.9
	626.9	626.9	626.9	626.9	626.9	626.9	626.8	626.8	626.8	626.8
	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8
	626.7	626.7	626.7	626.7	626.7	626.7	626.7	626.7	626.7	626.7
	626.7	626.7	626.7	626.7	626.7	626.6	626.6	626.6	626.6	626.6
	626.6	626.6	626.6	626.6	626.6	626.6	626.6	626.6	626.6	626.6
	626.5	626.5	626.5	626.5	626.4	626.3	626.3	626.2	626.2	626.2
	626.1	626.1								
0123	626.9	626.9	626.9	626.9	626.8	626.8	626.7	626.7	626.6	626.6
	626.6	626.5	626.5	626.5	626.5	626.5	626.5	626.5	626.5	626.5
	626.5	626.5	626.5	626.5	626.5	626.4	626.4	626.4	626.4	626.4
	626.4	626.4	626.4	626.4	626.4	626.4	626.4	626.4	626.4	626.3
	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3
	626.3	626.3	626.3	626.2	626.2	626.2	626.2	626.2	626.2	626.2
	626.2	626.2	626.2	626.2	626.2	626.2	626.2	626.2	626.1	626.1
	626.1	626.1	626.1	626.0	626.0	625.9	625.9	625.8	625.8	625.7
	625.7	625.7								
0124	626.5	626.5	626.5	626.5	626.4	626.4	626.3	626.3	626.2	626.2
	626.2	626.1	626.1	626.1	626.1	626.1	626.1	626.1	626.1	626.1
	626.1	626.1	626.1	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.9	625.9
	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9
	625.9	625.9	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8
	625.8	625.8	625.8	625.8	625.8	625.8	625.7	625.7	625.7	625.7
	625.7	625.7	625.7	625.6	625.6	625.5	625.4	625.4	625.4	625.3
	625.3	625.3								
0125	626.1	626.1	626.1	626.1	626.0	626.0	625.9	625.9	625.8	625.8
	625.7	625.7	625.7	625.7	625.7	625.7	625.7	625.7	625.7	625.7
	625.7	625.7	625.7	625.6	625.6	625.6	625.6	625.6	625.6	625.6
	625.6	625.6	625.6	625.6	625.6	625.6	625.5	625.5	625.5	625.5
	625.5	625.5	625.5	625.5	625.5	625.5	625.5	625.5	625.5	625.5
	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4
	625.4	625.4	625.4	625.4	625.3	625.3	625.3	625.3	625.3	625.3
	625.3	625.3	625.3	625.2	625.2	625.1	625.0	625.0	624.9	624.9
	624.9	624.9								
0126	625.7	625.7	625.7	625.7	625.6	625.6	625.5	625.5	625.4	625.4
	625.3	625.3	625.3	625.3	625.3	625.3	625.3	625.3	625.3	625.3
	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2
	625.2	625.2	625.2	625.2	625.2	625.1	625.1	625.1	625.1	625.1
	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	624.9	624.9	624.9	624.9	624.9	624.9	624.9
	624.9	624.9	624.8	624.8	624.7	624.7	624.6	624.6	624.5	624.5
	624.5	624.5								
0127	625.3	625.3	625.3	625.3	625.2	625.2	625.1	625.1	625.0	625.0
	624.9	624.9	624.9	624.9	624.9	624.9	624.9	624.9	624.9	624.8
	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8
	624.8	624.8	624.8	624.8	624.7	624.7	624.7	624.7	624.7	624.7
	624.8	624.8	624.8	624.7	624.7	624.7	624.7	624.6	624.6	624.6
	624.7	624.7	624.7	624.7	624.7	624.6	624.6	624.6	624.6	624.6
	624.6	624.6	624.6	624.6	624.6	624.6	624.6	624.6	624.6	624.6
	624.6	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.5
	624.5	624.5	624.4	624.4	624.3	624.3	624.2	624.1	624.1	624.1
	624.0	624.0								
0128	624.9	624.9	624.9	624.9	624.8	624.8	624.7	624.6	624.6	624.5
	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.4	624.4	624.4
	624.4	624.4	624.4	624.4	624.4	624.4	624.4	624.4	624.4	624.4
	624.4	624.3	624.3	624.3	624.3	624.3	624.3	624.3	624.3	624.3
	624.3	624.3	624.3	624.3	624.3	624.2	624.2	624.2	624.2	624.2
	624.3	624.3	624.3	624.3	624.2	624.2	624.2	624.2	624.2	624.1
	624.2	624.2	624.2	624.2	624.2	624.1	624.1	624.1	624.1	624.1
	624.1	624.1	624.1	624.1	624.1	624.1	624.1	623.7	623.7	623.7
	624.1	624.0	624.0	624.0	623.9	623.8	623.8	623.7	623.7	623.7
	623.6	623.6								
0129	624.5	624.5	624.5	624.4	624.4	624.4	624.3	624.2	624.2	624.1
	624.1	624.1	624.1	624.1	624.1	624.1	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.9
	623.9	623.9	623.9	623.9	623.9	623.9	623.9	623.9	623.9	623.9

	623.9	623.9	623.9	623.8	623.8	623.8	623.8	623.8	623.8	623.8
	623.8	623.8	623.8	623.8	623.8	623.8	623.7	623.7	623.7	623.7
	623.7	623.7	623.7	623.7	623.7	623.7	623.7	623.7	623.7	623.7
	623.6	623.6	623.6	623.5	623.5	623.4	623.4	623.3	623.3	623.2
	623.2	623.2								
0130	624.1	624.1	624.1	624.0	624.0	623.9	623.9	623.8	623.8	623.7
	623.7	623.7	623.7	623.7	623.6	623.6	623.6	623.6	623.6	623.6
	623.6	623.6	623.6	623.6	623.6	623.6	623.6	623.6	623.5	623.5
	623.5	623.5	623.5	623.5	623.5	623.5	623.5	623.5	623.5	623.5
	623.5	623.4	623.4	623.4	623.4	623.4	623.4	623.4	623.4	623.4
	623.4	623.4	623.4	623.4	623.3	623.3	623.3	623.3	623.3	623.3
	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.2	623.2
	623.2	623.2	623.2	623.1	623.1	623.0	622.9	622.9	622.8	622.8
	622.8	622.8								
0131	623.7	623.7	623.7	623.6	623.6	623.5	623.5	623.4	623.4	623.3
	623.3	623.3	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2
	623.2	623.2	623.2	623.2	623.2	623.2	623.1	623.1	623.1	623.1
	623.1	623.1	623.1	623.1	623.1	623.1	623.1	623.1	623.1	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	622.9	622.9	622.9	622.9	622.9	622.9	622.9	622.9
	622.9	622.9	622.9	622.9	622.9	622.8	622.8	622.8	622.8	622.8
	622.8	622.8	622.8	622.7	622.6	622.6	622.5	622.5	622.4	622.4
	622.4	622.4								
0132	623.3	623.3	623.3	623.2	623.2	623.1	623.1	623.0	622.9	622.9
	622.9	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8
	622.8	622.8	622.8	622.8	622.7	622.7	622.7	622.7	622.7	622.7
	622.8	622.8	622.8	622.8	622.7	622.7	622.7	622.6	622.6	622.6
	622.7	622.7	622.7	622.7	622.7	622.7	622.7	622.6	622.6	622.6
	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6
	622.5	622.5	622.5	622.5	622.5	622.5	622.5	622.5	622.5	622.5
	622.5	622.5	622.5	622.4	622.4	622.4	622.4	622.4	622.4	622.4
	622.4	622.4	622.3	622.3	622.2	622.2	622.1	622.0	622.0	622.0
	621.9	621.9								
0133	622.9	622.9	622.8	622.8	622.8	622.7	622.7	622.6	622.5	622.5
	622.5	622.4	622.4	622.4	622.4	622.4	622.4	622.4	622.4	622.4
	622.4	622.4	622.3	622.3	622.3	622.3	622.3	622.3	622.3	622.3
	622.3	622.3	622.3	622.3	622.3	622.2	622.2	622.2	622.2	622.2
	622.2	622.2	622.2	622.2	622.2	622.2	622.2	622.2	622.1	622.1
	622.1	622.1	622.1	622.1	622.1	622.1	622.1	622.1	622.1	622.1
	622.1	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	621.9	621.9	621.8	621.7	621.7	621.6	621.6	621.6	621.5
	621.5	621.5								
0134	622.5	622.5	622.4	622.4	622.4	622.3	622.2	622.2	622.1	622.1
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	621.9	621.9	621.9	621.9	621.9	621.9	621.9	621.9	621.9	621.9
	621.9	621.9	621.9	621.8	621.8	621.8	621.8	621.8	621.8	621.8
	621.8	621.8	621.8	621.8	621.8	621.7	621.7	621.7	621.7	621.7
	621.7	621.7	621.7	621.7	621.7	621.7	621.7	621.7	621.6	621.6
	621.6	621.6	621.6	621.6	621.6	621.6	621.6	621.6	621.6	621.6
	621.5	621.5	621.5	621.4	621.4	621.3	621.2	621.2	621.1	621.1
	621.1	621.1								
0135	622.1	622.0	622.0	622.0	621.9	621.9	621.8	621.8	621.7	621.7
	621.6	621.6	621.6	621.6	621.6	621.6	621.6	621.5	621.5	621.5
	621.5	621.5	621.5	621.5	621.5	621.5	621.5	621.5	621.5	621.5
	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4
	621.4	621.4	621.4	621.3	621.3	621.3	621.3	621.3	621.3	621.3
	621.4	621.4	621.4	621.3	621.3	621.3	621.2	621.2	621.2	621.2
	621.3	621.3	621.3	621.3	621.3	621.3	621.2	621.2	621.1	621.1
	621.2	621.2	621.2	621.2	621.2	621.2	621.2	621.1	620.7	620.7
	621.1	621.1	621.1	621.0	621.0	620.9	620.8	620.8	620.7	620.7
	620.7	620.6								
0136	621.6	621.6	621.6	621.6	621.5	621.5	621.4	621.3	621.3	621.2
	621.2	621.2	621.2	621.2	621.2	621.1	621.1	621.1	621.1	621.1
	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	620.9	620.9	620.9	620.9	620.9	620.9	620.9	620.9	620.9
	620.9	620.9	620.9	620.8	620.8	620.8	620.8	620.8	620.8	620.8
	620.8	620.8	620.8	620.8	620.8	620.8	620.7	620.7	620.7	620.7
	620.7	620.7	620.7	620.6	620.5	620.5	620.4	620.3	620.3	620.3
	620.2	620.2								
0137	621.2	621.2	621.2	621.2	621.1	621.1	621.0	620.9	620.9	620.8
	620.8	620.8	620.8	620.7	620.7	620.7	620.7	620.7	620.7	620.7
	620.7	620.7	620.7	620.7	620.7	620.7	620.6	620.6	620.6	620.6
	620.6	620.6	620.6	620.6	620.6	620.6	620.6	620.6	620.5	620.5
	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5
	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4
	620.4	620.4	620.4	620.3	620.3	620.3	620.3	620.3	620.3	620.3
	620.3	620.3	620.2	620.2	620.1	620.0	620.0	619.9	619.9	619.8
	619.8	619.8								
0138	620.8	620.8	620.8	620.7	620.7	620.7	620.6	620.5	620.5	620.4
	620.4	620.4	620.3	620.3	620.3	620.3	620.3	620.3	620.3	620.3
	620.3	620.3	620.3	620.2	620.2	620.2	620.2	620.2	620.2	620.2
	620.2	620.2	620.2	620.2	620.2	620.2	620.1	620.1	620.1	620.1
	620.1	620.1	620.1	620.1	620.1	620.1	620.1	620.1	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9
	619.9	619.8	619.8	619.8	619.7	619.6	619.5	619.5	619.4	619.4
	619.4	619.4								
0139	620.4	620.4	620.4	620.3	620.3	620.2	620.2	620.1	620.0	620.0
	620.0	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9
	619.9	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8
	619.8	619.8	619.8	619.7	619.7	619.7	619.7	619.7	619.7	619.7
	619.7	619.7	619.7	619.7	619.7	619.6	619.6	619.6	619.6	619.6
	619.7	619.6	619.6	619.6	619.6	619.6	619.6	619.5	619.5	619.5
	619.6	619.6	619.6	619.5	619.5	619.5	619.5	619.5	619.5	619.4
	619.5	619.5	619.5	619.5	619.3	619.2	619.1	619.1	619.0	619.0
	619.4	619.4	619.4	619.3						
0140	620.0	620.0	620.0	619.9	619.9	619.8	619.8	619.7	619.6	619.6
	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.4	619.4
	619.4	619.4	619.4	619.4	619.4	619.4	619.4	619.4	619.4	619.4
	619.4	619.3	619.3	619.3	619.3	619.3	619.3	619.3	619.3	619.3
	619.3	619.3	619.3	619.2	619.2	619.2	619.2	619.2	619.2	619.2
	619.2	619.2	619.2	619.2	619.1	619.1	619.1	619.1	619.1	619.1
	619.1	619.1	619.1	619.1	619.1	619.1	619.1	619.0	619.0	619.0
	619.0	619.0	619.0	618.9	618.8	618.8	618.7	618.6	618.6	618.5
	618.5	618.5								
0141	619.6	619.6	619.5	619.5	619.5	619.4	619.3	619.3	619.2	619.1
	619.1	619.1	619.1	619.1	619.1	619.1	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.9	618.9
	618.9	618.9	618.9	618.9	618.9	618.9	618.9	618.9	618.9	618.9
	618.8	618.8	618.8	618.8	618.8	618.8	618.8	618.8	618.8	618.8
	618.8	618.8	618.8	618.7	618.7	618.7	618.7	618.7	618.7	618.7
	618.7	618.7	618.7	618.6	618.6	618.6	618.6	618.6	618.6	618.6
	618.6	618.6	618.5	618.5	618.4	618.3	618.3	618.2	618.1	618.1
	618.1	618.1								
0142	619.2	619.1	619.1	619.1	619.0	619.0	618.9	618.8	618.8	618.7
	618.7	618.7	618.7	618.6	618.6	618.6	618.6	618.6	618.6	618.6
	618.6	618.6	618.6	618.6	618.6	618.5	618.5	618.5	618.5	618.5
	618.5	618.5	618.5	618.5	618.5	618.5	618.5	618.4	618.4	618.4
	618.4	618.4	618.4	618.4	618.4	618.4	618.4	618.4	618.4	618.3
	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3
	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2
	618.2	618.1	618.1	618.0	618.0	617.9	617.8	617.8	617.7	617.7
	617.7	617.6								

0143	618.7	618.7	618.7	618.7	618.6	618.6	618.5	618.4	618.4	618.3
	618.3	618.3	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2
	618.2	618.2	618.2	618.1	618.1	618.1	618.1	618.1	618.1	618.1
	618.1	618.1	618.1	618.1	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	617.9	617.9	617.9	617.9
	617.9	617.9	617.9	617.9	617.9	617.9	617.9	617.8	617.8	617.8
	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.7
	617.7	617.7	617.7	617.6	617.5	617.5	617.4	617.3	617.3	617.2
	617.2	617.2								
0144	618.3	618.3	618.3	618.3	618.2	618.1	618.1	618.0	617.9	617.9
	617.9	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8
	617.7	617.7	617.7	617.7	617.7	617.7	617.7	617.7	617.7	617.7
	617.7	617.7	617.6	617.6	617.6	617.6	617.6	617.6	617.6	617.6
	617.6	617.6	617.6	617.5	617.5	617.5	617.5	617.5	617.5	617.5
	617.5	617.5	617.5	617.5	617.4	617.4	617.4	617.4	617.4	617.4
	617.4	617.4	617.4	617.4	617.4	617.4	617.3	617.3	617.3	617.3
	617.3	617.3	617.2	617.2	617.1	617.0	617.0	616.9	616.9	616.8
	616.8	616.8								
0145	617.9	617.9	617.9	617.8	617.8	617.7	617.7	617.6	617.5	617.5
	617.4	617.4	617.4	617.4	617.4	617.4	617.4	617.3	617.3	617.3
	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.2
	617.2	617.2	617.2	617.2	617.2	617.2	617.2	617.2	617.2	617.2
	617.1	617.1	617.1	617.1	617.1	617.1	617.1	617.1	617.1	617.1
	617.1	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	616.9	616.9	616.9	616.9	616.9	616.9	616.9
	616.9	616.8	616.8	616.8	616.7	616.6	616.5	616.5	616.4	616.4
	616.4	616.3								
0146	617.5	617.5	617.5	617.4	617.4	617.3	617.2	617.2	617.1	617.0
	617.0	617.0	617.0	617.0	616.9	616.9	616.9	616.9	616.9	616.9
	616.9	616.9	616.9	616.9	616.9	616.9	616.8	616.8	616.8	616.8
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	616.7	616.7	616.7	616.7	616.7	616.7	616.7	616.7	616.6	616.6
	616.6	616.6	616.6	616.6	616.6	616.6	616.6	616.6	616.6	616.5
	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5
	616.4	616.4	616.4	616.3	616.3	616.2	616.1	616.0	616.0	615.9
	615.9	615.9								
0147	617.1	617.1	617.0	617.0	616.9	616.9	616.8	616.7	616.7	616.6
	616.6	616.6	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5
	616.5	616.5	616.5	616.4	616.4	616.4	616.4	616.4	616.4	616.4
	616.4	616.4	616.4	616.4	616.3	616.3	616.3	616.3	616.3	616.3
	616.3	616.3	616.3	616.3	616.3	616.2	616.2	616.2	616.2	616.2
	616.2	616.2	616.2	616.2	616.2	616.2	616.1	616.1	616.1	616.1
	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.0	616.0	616.0
	616.0	616.0	616.0	615.9	615.8	615.7	615.7	615.6	615.5	615.5
	615.5	615.5								
0148	616.7	616.6	616.6	616.6	616.5	616.5	616.4	616.3	616.2	616.2
	616.2	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0
	616.0	615.9	615.9	615.9	615.9	615.9	615.9	615.9	615.9	615.9
	615.9	615.9	615.8	615.8	615.8	615.8	615.8	615.8	615.8	615.8
	615.8	615.8	615.8	615.7	615.7	615.7	615.7	615.7	615.7	615.7
	615.7	615.7	615.7	615.7	615.6	615.6	615.6	615.6	615.6	615.6
	615.6	615.6	615.5	615.4	615.3	615.2	615.2	615.1	615.1	615.1
	615.0	615.0								
0149	616.2	616.2	616.2	616.2	616.1	616.0	616.0	615.9	615.8	615.8
	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.6	615.6	615.6
	615.6	615.6	615.6	615.6	615.6	615.6	615.6	615.6	615.5	615.5
	615.5	615.5	615.5	615.5	615.5	615.5	615.5	615.5	615.5	615.4
	615.4	615.4	615.4	615.4	615.4	615.4	615.4	615.4	615.4	615.4
	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3	615.3
	615.2	615.2	615.2	615.2	615.2	615.2	615.2	615.2	615.2	615.2
	615.1	615.1	615.1	615.0	615.0	614.9	614.8	614.7	614.7	614.6
	614.6	614.6								
0150	615.8	615.8	615.8	615.7	615.7	615.6	615.5	615.5	615.4	615.3
	615.3	615.3	615.3	615.3	615.2	615.2	615.2	615.2	615.2	615.2
	615.2	615.2	615.2	615.2	615.2	615.1	615.1	615.1	615.1	615.1
	615.1	615.1	615.1	615.1	615.1	615.1	615.0	615.0	615.0	615.0
	615.0	615.0	615.0	615.0	615.0	615.0	614.9	614.9	614.9	614.9
	614.9	614.9	614.9	614.9	614.9	614.9	614.9	614.8	614.8	614.8
	614.8	614.8	614.8	614.8	614.8	614.8	614.8	614.8	614.7	614.7
	614.7	614.7	614.6	614.5	614.4	614.4	614.4	614.3	614.2	614.2
	614.2	614.1								
0151	615.4	615.4	615.4	615.3	615.3	615.2	615.1	615.0	615.0	614.9
	614.9	614.9	614.8	614.8	614.8	614.8	614.8	614.8	614.8	614.8
	614.8	614.8	614.7	614.7	614.7	614.7	614.7	614.7	614.7	614.7
	614.7	614.7	614.7	614.6	614.6	614.6	614.6	614.6	614.6	614.6
	614.6	614.6	614.6	614.5	614.5	614.5	614.5	614.5	614.5	614.5
	614.5	614.5	614.5	614.5	614.4	614.4	614.4	614.4	614.4	614.4
	614.4	614.4	614.4	614.4	614.3	614.3	614.3	614.3	614.3	614.3
	614.3	614.3	614.2	614.2	614.1	614.0	613.9	613.9	613.8	613.8
	613.7	613.7								
0152	615.0	615.0	614.9	614.9	614.8	614.8	614.7	614.6	614.5	614.5
	614.5	614.4	614.4	614.4	614.4	614.4	614.4	614.4	614.4	614.3
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	614.1	614.1	614.1	614.1	614.1	614.1	614.1	614.1	614.1	614.1
	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0
	614.0	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9	613.9
	613.8	613.8	613.8	613.7	613.6	613.6	613.5	613.4	613.4	613.3
	613.3	613.3								
0153	614.5	614.5	614.5	614.4	614.3	614.3	614.2	614.1	614.1	614.1
	614.0	614.0	614.0	614.0	614.0	613.9	613.9	613.9	613.9	613.9
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	613.8	613.8	613.8	613.8	613.8	613.8	613.8	613.7	613.7	613.7
	613.7	613.7	613.7	613.7	613.7	613.7	613.7	613.6	613.6	613.6
	613.6	613.6	613.6	613.6	613.6	613.6	613.6	613.5	613.5	613.5
	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.4	613.4
	613.4	613.4	613.3	613.3	613.2	613.1	613.0	613.0	612.9	612.9
	612.8	612.8								
0154	614.1	614.1	614.1	614.0	614.0	613.9	613.8	613.8	613.7	613.6
	613.6	613.6	613.5	613.5	613.5	613.5	613.5	613.5	613.5	613.5
	613.5	613.5	613.5	613.4	613.4	613.4	613.4	613.4	613.4	613.4
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	613.1	613.1	613.1	613.1	613.0	613.0	613.0	613.0	613.0	613.0
	613.0	613.0	612.9	612.8	612.7	612.6	612.5	612.5	612.5	612.4
	612.4	612.4								
0155	613.7	613.7	613.7	613.6	613.6	613.5	613.4	613.3	613.3	613.2
	613.2	613.1	613.1	613.1	613.1	613.1	613.1	613.1	613.1	613.1
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	612.8	612.8	612.8	612.8	612.8	612.8	612.8	612.8	612.8	612.8
	612.7	612.7	612.7	612.7	612.7	612.7	612.7	612.7	612.7	612.7
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	612.5	612.5	612.5	612.4	612.3	612.2	612.2	612.1	612.0	612.0
	612.0	611.9								
0156	613.3	613.3	613.2	613.2	613.1	613.1	613.0	612.9	612.8	612.8
	612.7	612.7	612.7	612.7	612.7	612.7	612.6	612.6	612.6	612.6
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	612.4	612.4	612.4	612.4	612.4	612.4	612.4	612.3	612.3	612.3

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	612.1	612.1	612.0	612.0	611.9	611.8	611.7	611.6	611.6	611.5
	611.5	611.5								
0157	612.8	612.8	612.8	612.8	612.7	612.6	612.6	612.5	612.4	612.3
	612.3	612.3	612.3	612.2	612.2	612.2	612.2	612.2	612.2	612.2
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	612.1	612.1	612.1	612.0	612.0	612.0	612.0	612.0	612.0	612.0
	612.0	612.0	612.0	611.9	611.9	611.9	611.9	611.9	611.9	611.9
	611.9	611.9	611.9	611.8	611.8	611.8	611.8	611.8	611.8	611.8
	611.8	611.8	611.8	611.7	611.7	611.7	611.7	611.7	611.7	611.7
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	611.1	611.0								
0158	612.4	612.4	612.4	612.3	612.3	612.2	612.1	612.0	612.0	611.9
	611.9	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8
	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7
	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6	611.6
	611.5	611.5	611.5	611.5	611.5	611.5	611.5	611.5	611.5	611.4
	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.4	611.3
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	610.6	610.6								
0159	612.0	612.0	612.0	611.9	611.9	611.8	611.7	611.6	611.5	611.5
	611.4	611.4	611.4	611.4	611.4	611.4	611.3	611.3	611.3	611.3
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	611.0	611.0	611.0	611.0	611.0	610.9	610.9	610.9	610.9	610.9
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	610.2	610.2								
0160	611.6	611.6	611.5	611.5	611.4	611.4	611.3	611.2	611.1	611.0
	611.0	611.0	611.0	610.9	610.9	610.9	610.9	610.9	610.9	610.9
	610.9	610.9	610.9	610.8	610.8	610.8	610.8	610.8	610.8	610.8
	610.8	610.8	610.8	610.7	610.7	610.7	610.7	610.7	610.7	610.7
	610.7	610.7	610.6	610.6	610.6	610.6	610.6	610.6	610.6	610.6
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	610.5	610.4	610.4	610.4	610.4	610.4	610.4	610.4	610.4	610.4
	610.3	610.3	610.3	610.2	610.1	610.0	609.9	609.9	609.8	609.8
	609.7	609.7								
0161	611.1	611.1	611.1	611.1	611.0	610.9	610.8	610.8	610.7	610.6
	610.6	610.5	610.5	610.5	610.5	610.5	610.5	610.5	610.4	610.4
	610.4	610.4	610.4	610.4	610.4	610.4	610.4	610.4	610.4	610.3
	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.2
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0162	610.7	610.7	610.7	610.6	610.6	610.5	610.4	610.3	610.2	610.2
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	599.8	599.8	599.8	599.8	599.8	599.7	599.7	599.7	599.7	599.7
	599.7	599.7	599.7	599.6	599.6	599.6	599.6	599.6	599.6	599.6
	599.5	599.5	599.4	599.4	599.2	599.1	599.0	598.9	598.8	598.7
	598.7	598.7								
0185	600.7	600.7	600.6	600.6	600.5	600.4	600.3	600.2	600.1	600.0
	599.9	599.9	599.9	599.9	599.8	599.8	599.8	599.8	599.8	599.8
	599.8	599.8	599.7	599.7	599.7	599.7	599.7	599.7	599.7	599.6
	599.6	599.6	599.6	599.6	599.6	599.6	599.6	599.5	599.5	599.5
	599.5	599.5	599.5	599.5	599.4	599.4	599.4	599.4	599.4	599.4
	599.4	599.3	599.3	599.3	599.3	599.3	599.3	599.3	599.2	599.2
	599.2	599.2	599.2	599.2	599.2	599.2	599.1	599.1	599.1	599.1
	599.1	599.0	599.0	598.9	598.8	598.6	598.5	598.4	598.3	598.3
	598.2	598.2								
0186	600.2	600.2	600.2	600.1	600.0	600.0	599.8	599.7	599.6	599.5
	599.5	599.5	599.4	599.4	599.4	599.4	599.4	599.4	599.3	599.3
	599.3	599.3	599.3	599.3	599.3	599.2	599.2	599.2	599.2	599.2
	599.2	599.2	599.2	599.1	599.1	599.1	599.1	599.1	599.1	599.1
	599.0	599.0	599.0	599.0	599.0	599.0	599.0	598.9	598.9	598.9
	598.9	598.9	598.9	598.9	598.8	598.8	598.8	598.8	598.8	598.8
	598.8	598.7	598.7	598.7	598.7	598.7	598.7	598.7	598.6	598.6
	598.6	598.6	598.5	598.4	598.3	598.2	598.1	598.0	597.9	597.8
	597.8	597.7								
0187	599.8	599.8	599.7	599.7	599.6	599.5	599.4	599.3	599.2	599.1
	599.0	599.0	599.0	599.0	598.9	598.9	598.9	598.9	598.9	598.9
	598.9	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.7
	598.7	598.7	598.7	598.7	598.7	598.7	598.6	598.6	598.6	598.6
	598.6	598.6	598.6	598.5	598.5	598.5	598.5	598.5	598.5	598.5
	598.4	598.4	598.4	598.4	598.4	598.4	598.4	598.3	598.3	598.3
	598.3	598.3	598.3	598.3	598.2	598.2	598.2	598.2	598.2	598.2
	598.1	598.1	598.0	598.0	597.8	597.7	597.6	597.5	597.4	597.3
	597.3	597.3								
0188	599.3	599.3	599.3	599.2	599.2	599.1	599.0	598.8	598.7	598.6
	598.6	598.5	598.5	598.5	598.5	598.5	598.5	598.4	598.4	598.4
	598.4	598.4	598.4	598.4	598.4	598.3	598.3	598.3	598.3	598.3
	598.3	598.3	598.2	598.2	598.2	598.2	598.2	598.2	598.2	598.1
	598.1	598.1	598.1	598.1	598.1	598.1	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	597.9	597.9	597.9	597.9	597.9	597.9	597.9
	597.8	597.8	597.8	597.8	597.8	597.8	597.8	597.7	597.7	597.7
	597.7	597.6	597.6	597.5	597.4	597.2	597.1	597.0	596.9	596.9
	596.8	596.8								
0189	598.9	598.9	598.8	598.8	598.7	598.6	598.5	598.4	598.3	598.2
	598.1	598.1	598.1	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	597.9	597.9	597.9	597.9	597.9	597.9	597.9	597.8	597.8
	597.8	597.8	597.8	597.8	597.8	597.7	597.7	597.7	597.7	597.7
	597.7	597.7	597.6	597.6	597.6	597.6	597.6	597.6	597.5	597.5
	597.5	597.5	597.5	597.5	597.5	597.4	597.4	597.4	597.4	597.4
	597.4	597.4	597.3	597.3	597.3	597.3	597.3	597.3	597.3	597.2
	597.2	597.2	597.1	597.0	596.9	596.8	596.7	596.5	596.5	596.4
	596.3	596.3								
0190	598.3	598.3	598.3	598.2	598.1	598.0	597.9	597.8	597.7	597.6
	597.6	597.5	597.5	597.5	597.5	597.5	597.4	597.4	597.4	597.4
	597.4	597.4	597.4	597.3	597.3	597.3	597.3	597.3	597.3	597.3
	597.2	597.2	597.2	597.2	597.2	597.2	597.2	597.1	597.1	597.1
	597.1	597.1	597.1	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.8	596.8	596.8
	596.8	596.8	596.8	596.8	596.7	596.7	596.7	596.7	596.7	596.7
	596.6	596.6	596.5	596.4	596.3	596.2	596.1	596.0	595.9	595.8
	595.7	595.7								
0191	597.5	597.5	597.4	597.4	597.3	597.2	597.1	597.0	596.8	596.8
	596.7	596.7	596.6	596.6	596.6	596.6	596.6	596.6	596.6	596.5
	596.5	596.5	596.5	596.5	596.5	596.5	596.4	596.4	596.4	596.4
	596.4	596.4	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.2
	596.2	596.2	596.2	596.2	596.2	596.2	596.1	596.1	596.1	596.1
	596.1	596.1	596.0	596.0	596.0	596.0	596.0	596.0	596.0	595.9
	595.9	595.9	595.9	595.9	595.9	595.9	595.8	595.8	595.8	595.8
	595.8	595.7	595.7	595.6	595.4	595.3	595.2	595.1	595.0	594.9
	594.9	594.8								
0192	596.2	596.2	596.2	596.1	596.0	595.9	595.8	595.7	595.6	595.5
	595.4	595.4	595.4	595.3	595.3	595.3	595.3	595.3	595.3	595.2
	595.2	595.2	595.2	595.2	595.2	595.2	595.1	595.1	595.1	595.1
	595.1	595.1	595.1	595.0	595.0	595.0	595.0	595.0	595.0	594.9
	594.9	594.9	594.9	594.9	594.9	594.8	594.8	594.8	594.8	594.8
	594.8	594.8	594.7	594.7	594.7	594.7	594.7	594.7	594.6	594.6
	594.6	594.6	594.6	594.6	594.6	594.5	594.5	594.5	594.5	594.5
	594.4	594.4	594.3	594.2	594.1	594.0	593.8	593.7	593.6	593.6
	593.5	593.5								
0193	594.3	594.3	594.3	594.2	594.1	594.0	593.9	593.8	593.6	593.5
	593.5	593.4	593.4	593.4	593.4	593.4	593.3	593.3	593.3	593.3
	593.3	593.3	593.3	593.2	593.2	593.2	593.2	593.2	593.2	593.1
	593.1	593.1	593.1	593.1	593.1	593.0	593.0	593.0	593.0	593.0
	593.0	592.9	592.9	592.9	592.9	592.9	592.9	592.9	592.8	592.8
	592.8	592.8	592.8	592.8	592.7	592.7	592.7	592.7	592.7	592.7
	592.6	592.6	592.6	592.6	592.6	592.6	592.5	592.5	592.5	592.5
	592.5	592.4	592.4	592.3	592.1	592.0	591.8	591.7	591.6	591.5
	591.5	591.4								
0194	591.5	591.4	591.4	591.3	591.2	591.1	591.0	590.9	590.7	590.6
	590.6	590.5	590.5	590.5	590.4	590.4	590.4	590.4	590.4	590.4
	590.3	590.3	590.3	590.3	590.3	590.3	590.2	590.2	590.2	590.2
	590.2	590.2	590.1	590.1	590.1	590.1	590.1	590.1	590.0	590.0
	590.0	590.0	590.0	589.9	589.9	589.9	589.9	589.9	589.9	589.8
	589.8	589.8	589.8	589.8	589.8	589.7	589.7	589.7	589.7	589.7
	589.7	589.6	589.6	589.6	589.6	589.6	589.5	589.5	589.5	589.5
	589.5	589.4	589.3	589.2	589.1	588.9	588.8	588.6	588.5	588.5
	588.4	588.4								
0195	587.1	587.1	587.1	587.0	586.9	586.7	586.6	586.4	586.3	586.2
	586.1	586.1	586.0	586.0	586.0	586.0	586.0	585.9	585.9	585.9
	585.9	585.9	585.8	585.8	585.8	585.8	585.8	585.7	585.7	585.7
	585.7	585.7	585.7	585.6	585.6	585.6	585.6	585.6	585.5	585.5
	585.5	585.5	585.5	585.4	585.4	585.4	585.4	585.4	585.3	585.3
	585.3	585.3	585.3	585.2	585.2	585.2	585.2	585.2	585.1	585.1
	585.1	585.1	585.1	585.1	585.0	585.0	585.0	585.0	585.0	584.9
	584.9	584.8	584.8	584.6	584.5	584.3	584.1	584.0	583.9	583.8
	583.7	583.7								
0196	581.8	581.8	581.8	581.7	581.6	581.4	581.3	581.1	580.9	580.8
	580.7	580.6	580.6	580.6	580.6	580.5	580.5	580.5	580.5	580.5
	580.4	580.4	580.4	580.4	580.3	580.3	580.3	580.3	580.3	580.2
	580.2	580.2	580.2	580.2	580.1	580.1	580.1	580.1	580.0	580.0
	580.0	580.0	580.0	579.9	579.9	579.9	579.9	579.8	579.8	579.8
	579.8	579.8	579.7	579.7	579.7	579.7	579.6	579.6	579.6	579.6
	579.6	579.5	579.5	579.5	579.5	579.5	579.4	579.4	579.4	579.4
	579.3	579.3	579.2	579.0	578.8	578.6	578.4	578.3	578.1	578.0
	577.9	577.9								
0197	576.5	576.5	576.4	576.3	576.2	576.0	575.8	575.6	575.4	575.3
	575.2	575.1	575.1	575.1	575.0	575.0	575.0	575.0	574.9	574.9

	574.9	574.9	574.9	574.8	574.8	574.8	574.8	574.7	574.7	574.7
	574.7	574.6	574.6	574.6	574.6	574.5	574.5	574.5	574.5	574.4
	574.4	574.4	574.4	574.3	574.3	574.3	574.3	574.2	574.2	574.2
	574.2	574.1	574.1	574.1	574.1	574.0	574.0	574.0	574.0	573.9
	573.9	573.9	573.9	573.8	573.8	573.8	573.8	573.7	573.7	573.7
	573.6	573.6	573.5	573.3	573.1	572.8	572.6	572.4	572.3	572.1
	572.1	572.0								
0198	571.1	571.0	571.0	570.8	570.7	570.5	570.3	570.1	569.9	569.7
	569.6	569.5	569.5	569.4	569.4	569.4	569.4	569.4	569.3	569.3
	569.3	569.3	569.2	569.2	569.2	569.1	569.1	569.1	569.1	569.0
	569.0	569.0	569.0	568.9	568.9	568.9	568.8	568.8	568.8	568.8
	568.7	568.7	568.7	568.6	568.6	568.6	568.6	568.5	568.5	568.5
	568.4	568.4	568.4	568.4	568.3	568.3	568.3	568.2	568.2	568.2
	568.2	568.1	568.1	568.1	568.0	568.0	568.0	568.0	567.9	567.9
	567.8	567.8	567.6	567.5	567.2	566.9	566.7	566.5	566.3	566.1
	566.0	566.0								
0199	565.6	565.5	565.5	565.3	565.2	565.0	564.7	564.5	564.2	564.1
	564.0	563.9	563.8	563.8	563.8	563.7	563.7	563.7	563.6	563.6
	563.6	563.5	563.5	563.5	563.5	563.4	563.4	563.4	563.3	563.3
	563.3	563.2	563.2	563.2	563.1	563.1	563.1	563.0	563.0	563.0
	563.0	562.9	562.9	562.9	562.8	562.8	562.8	562.7	562.7	562.7
	562.6	562.6	562.6	562.5	562.5	562.5	562.4	562.4	562.4	562.3
	562.3	562.3	562.2	562.2	562.2	562.1	562.1	562.1	562.0	562.0
	561.9	561.8	561.7	561.5	561.2	560.9	560.6	560.3	560.1	560.0
	559.8	559.8								
0200	560.0	560.0	559.9	559.8	559.6	559.4	559.1	558.8	558.5	558.3
	558.2	558.1	558.1	558.0	558.0	558.0	557.9	557.9	557.9	557.8
	557.8	557.8	557.7	557.7	557.7	557.6	557.6	557.5	557.5	557.5
	557.4	557.4	557.4	557.3	557.3	557.3	557.2	557.2	557.2	557.1
	557.1	557.0	557.0	557.0	556.9	556.9	556.9	556.8	556.8	556.8
	556.7	556.7	556.6	556.6	556.6	556.5	556.5	556.5	556.4	556.4
	556.3	556.3	556.3	556.2	556.2	556.2	556.1	556.1	556.1	556.0
	555.9	555.8	555.7	555.5	555.1	554.7	554.4	554.1	553.8	553.6
	553.5	553.4								
0201	554.5	554.4	554.3	554.1	553.9	553.7	553.4	553.1	552.8	552.6
	552.4	552.3	552.2	552.2	552.2	552.1	552.1	552.0	552.0	552.0
	551.9	551.9	551.8	551.8	551.8	551.7	551.7	551.7	551.6	551.6
	551.5	551.5	551.5	551.4	551.4	551.3	551.3	551.3	551.2	551.2
	551.1	551.1	551.0	551.0	551.0	550.9	550.9	550.8	550.8	550.8
	550.7	550.7	550.6	550.6	550.5	550.5	550.5	550.4	550.4	550.3
	550.3	550.3	550.2	550.2	550.1	550.1	550.0	550.0	550.0	549.9
	549.8	549.7	549.5	549.3	548.9	548.5	548.1	547.7	547.4	547.2
	547.0	546.9								
0202	548.8	548.8	548.6	548.5	548.2	548.0	547.6	547.3	546.9	546.7
	546.5	546.4	546.3	546.3	546.2	546.2	546.2	546.1	546.1	546.0
	546.0	545.9	545.9	545.9	545.8	545.8	545.7	545.7	545.6	545.6
	545.5	545.5	545.5	545.4	545.4	545.3	545.3	545.2	545.2	545.1
	545.1	545.0	545.0	544.9	544.9	544.9	544.8	544.8	544.7	544.7
	544.6	544.6	544.5	544.5	544.4	544.4	544.3	544.3	544.2	544.2
	544.1	544.1	544.0	544.0	543.9	543.9	543.9	543.8	543.8	543.7
	543.6	543.5	543.3	543.0	542.5	542.0	541.6	541.2	540.8	540.5
	540.3	540.2								
0203	543.1	543.1	542.9	542.8	542.5	542.2	541.8	541.4	541.0	540.8
	540.6	540.5	540.4	540.3	540.3	540.2	540.2	540.1	540.1	540.0
	540.0	539.9	539.9	539.8	539.8	539.7	539.7	539.6	539.6	539.5
	539.5	539.4	539.4	539.3	539.3	539.2	539.2	539.1	539.1	539.0
	539.0	538.9	538.9	538.8	538.8	538.7	538.7	538.6	538.5	538.5
	538.4	538.4	538.3	538.3	538.2	538.2	538.1	538.1	538.0	538.0
	537.9	537.8	537.8	537.7	537.7	537.6	537.6	537.5	537.5	537.4
	537.3	537.1	536.9	536.6	536.1	535.5	534.9	534.4	534.0	533.7
	533.5	533.3								
0204	537.4	537.4	537.2	537.0	536.7	536.4	536.0	535.5	535.1	534.8
	534.6	534.4	534.3	534.3	534.2	534.2	534.1	534.1	534.0	534.0
	533.9	533.8	533.8	533.7	533.7	533.6	533.6	533.5	533.5	533.4
	533.3	533.3	533.2	533.2	533.1	533.1	533.0	532.9	532.9	532.8
	532.8	532.7	532.6	532.6	532.5	532.5	532.4	532.4	532.3	532.2
	532.2	532.1	532.0	532.0	531.9	531.9	531.8	531.7	531.7	531.6
	531.6	531.5	531.4	531.4	531.3	531.2	531.2	531.1	531.1	531.0
	530.9	530.7	530.4	530.0	529.5	528.8	528.1	527.6	527.1	526.7
	526.4	526.2								
0205	531.7	531.6	531.4	531.2	530.9	530.5	530.1	529.6	529.1	528.7
	528.5	528.4	528.2	528.2	528.1	528.1	528.0	527.9	527.9	527.8
	527.8	527.7	527.6	527.6	527.5	527.5	527.4	527.3	527.3	527.2
	527.1	527.1	527.0	527.0	526.9	526.8	526.8	526.7	526.6	526.6
	526.5	526.4	526.4	526.3	526.2	526.2	526.1	526.0	526.0	525.9
	525.8	525.8	525.7	525.6	525.5	525.5	525.4	525.3	525.3	525.2
	525.1	525.1	525.0	524.9	524.9	524.8	524.7	524.6	524.6	524.5
	524.4	524.2	523.9	523.4	522.7	521.9	521.2	520.5	519.9	519.4
	519.1	518.9								
0206	525.9	525.8	525.7	525.4	525.1	524.6	524.1	523.6	523.0	522.7
	522.4	522.2	522.1	522.0	522.0	521.9	521.8	521.8	521.7	521.6
	521.6	521.5	521.4	521.4	521.3	521.2	521.2	521.1	521.0	520.9
	520.9	520.8	520.7	520.7	520.6	520.5	520.4	520.4	520.3	520.2
	520.2	520.1	520.0	519.9	519.9	519.8	519.7	519.6	519.6	519.5
	519.4	519.3	519.3	519.2	519.1	519.0	518.9	518.9	518.8	518.7
	518.6	518.5	518.5	518.4	518.3	518.2	518.2	518.1	518.0	517.9
	517.7	517.5	517.2	516.7	515.9	515.0	514.1	513.3	512.5	511.9
	511.5	511.3								
0207	520.2	520.1	519.9	519.6	519.2	518.7	518.2	517.5	517.0	516.5
	516.3	516.1	515.9	515.8	515.8	515.7	515.6	515.5	515.5	515.4
	515.3	515.2	515.2	515.1	515.0	514.9	514.9	514.8	514.7	514.6
	514.6	514.5	514.4	514.3	514.2	514.2	514.1	514.0	513.9	513.8
	513.8	513.7	513.6	513.5	513.4	513.3	513.3	513.2	513.1	513.0
	512.9	512.8	512.7	512.7	512.6	512.5	512.4	512.3	512.2	512.1
	512.0	512.0	511.9	511.8	511.7	511.6	511.5	511.4	511.3	511.2
	511.1	510.8	510.4	509.8	508.9	507.9	506.8	505.8	504.9	504.2
	503.6	503.3								
0208	514.4	514.3	514.1	513.7	513.3	512.8	512.2	511.5	510.8	510.4
	510.1	509.8	509.7	509.6	509.5	509.4	509.4	509.3	509.2	509.1
	509.0	509.0	508.9	508.8	508.7	508.6	508.5	508.4	508.4	508.3
	508.2	508.1	508.0	507.9	507.8	507.8	507.7	507.6	507.5	507.4
	507.3	507.2	507.1	507.0	506.9	506.8	506.7	506.7	506.6	506.5
	506.4	506.3	506.2	506.1	506.0	505.9	505.8	505.7	505.6	505.5
	505.4	505.3	505.2	505.1	505.0	504.9	504.8	504.7	504.6	504.5
	504.3	504.0	503.6	502.9	501.9	500.7	499.4	498.2	497.1	496.1
	495.4	495.0								
0209	508.6	508.5	508.3	507.9	507.4	506.8	506.2	505.4	504.7	504.2
	503.8	503.6	503.4	503.3	503.2	503.2	503.1	503.0	502.9	502.8
	502.7	502.6	502.5	502.4	502.3	502.3	502.2	502.1	502.0	501.9
	501.8	501.7	501.6	501.5	501.4	501.3	501.2	501.1	501.0	500.9
	500.8	500.7	500.6	500.5	500.4	500.3	500.2	500.1	500.0	499.9
	499.8	499.7	499.6	499.5	499.4	499.2	499.1	499.0	498.9	498.8
	498.7	498.6	498.5	498.4	498.3	498.2	498.0	497.9	497.8	497.7
	497.5	497.1	496.7	495.9	494.8	493.4	491.9	490.4	489.0	487.7
	486.7	486.1								
0210	502.9	502.8	502.5	502.1	501.6	500.9	500.2	499.3	498.5	498.0
	497.6	497.3	497.2	497.0	496.9	496.8	496.8	496.7	496.6	496.5
	496.4	496.3	496.2	496.1	496.0	495.9	495.8	495.6	495.5	495.4
	495.3	495.2	495.1	495.0	494.9	494.8	494.7	494.6	494.5	494.4
	494.3	494.2	494.0	493.9	493.8	493.7	493.6	493.5	493.4	493.3
	493.1	493.0	492.9	492.8	492.7	492.6	492.4	492.3	492.2	492.1
	492.0	491.8	491.7	491.6	491.5	491.4	491.2	491.1	491.0	490.8

	490.6	490.2	489.7	488.9	487.6	486.0	484.3	482.5	480.7	478.9
	477.4	476.6								
0211	497.2	497.1	496.7	496.3	495.7	495.0	494.1	493.2	492.4	491.7
	491.3	491.0	490.9	490.7	490.6	490.5	490.4	490.3	490.2	490.1
	490.0	489.9	489.8	489.7	489.5	489.4	489.3	489.2	489.1	489.0
	488.9	488.8	488.6	488.5	488.4	488.3	488.2	488.1	487.9	487.8
	487.7	487.6	487.5	487.3	487.2	487.1	487.0	486.8	486.7	486.6
	486.5	486.3	486.2	486.1	486.0	485.8	485.7	485.6	485.4	485.3
	485.2	485.0	484.9	484.8	484.7	484.5	484.4	484.2	484.1	483.9
	483.7	483.3	482.7	481.8	480.4	478.6	476.7	474.6	472.3	469.8
	467.1	466.3								
0212	491.6	491.4	491.1	490.5	489.9	489.1	488.1	487.1	486.2	485.5
	485.1	484.7	484.5	484.4	484.3	484.2	484.0	483.9	483.8	483.7
	483.6	483.5	483.3	483.2	483.1	483.0	482.9	482.7	482.6	482.5
	482.4	482.2	482.1	482.0	481.9	481.7	481.6	481.5	481.4	481.2
	481.1	481.0	480.8	480.7	480.6	480.4	480.3	480.2	480.0	479.9
	479.8	479.6	479.5	479.4	479.2	479.1	478.9	478.8	478.6	478.5
	478.4	478.2	478.1	477.9	477.8	477.7	477.5	477.4	477.2	477.0
	476.8	476.3	475.7	474.7	473.2	471.1	469.2	466.8	463.8	460.9
	455.0	455.0								
0213	486.0	485.8	485.4	484.8	484.1	483.2	482.1	481.0	480.0	479.3
	478.8	478.4	478.2	478.0	477.9	477.8	477.7	477.5	477.4	477.3
	477.2	477.0	476.9	476.8	476.7	476.5	476.4	476.3	476.1	476.0
	475.9	475.7	475.6	475.5	475.3	475.2	475.1	474.9	474.8	474.6
	474.5	474.4	474.2	474.1	473.9	473.8	473.6	473.5	473.3	473.2
	473.1	472.9	472.7	472.6	472.4	472.3	472.1	472.0	471.8	471.7
	471.5	471.4	471.2	471.0	470.9	470.7	470.6	470.4	470.3	470.1
	469.8	469.4	468.7	467.8	466.1	463.5	461.9	459.7	455.0	455.0
	1000.	1000.								
0214	480.6	480.3	479.9	479.2	478.3	477.3	476.2	474.9	473.8	473.0
	472.5	472.1	471.9	471.7	471.6	471.4	471.3	471.2	471.0	470.9
	470.7	470.6	470.4	470.3	470.2	470.0	469.9	469.7	469.6	469.5
	469.3	469.2	469.0	468.9	468.8	468.6	468.5	468.3	468.2	468.1
	467.9	467.8	467.6	467.5	467.3	467.2	467.0	466.9	466.7	466.5
	466.4	466.2	466.0	465.9	465.7	465.5	465.3	465.1	464.9	464.7
	464.5	464.3	464.2	464.0	463.8	463.6	463.4	463.3	463.1	462.9
	462.7	462.3	461.8	461.0	459.4	455.0	455.0	455.0	1000.	1000.
	1000.	1000.								
0215	475.3	475.0	474.5	473.7	472.7	471.5	470.2	468.7	467.6	466.8
	466.3	465.9	465.6	465.4	465.3	465.1	464.9	464.8	464.6	464.4
	464.3	464.1	463.9	463.7	463.5	463.4	463.2	463.0	462.9	462.7
	462.6	462.5	462.3	462.2	462.1	462.0	461.9	461.7	461.6	461.5
	461.4	461.3	461.2	461.0	460.9	460.8	460.7	460.5	460.4	460.2
	460.0	459.9	459.7	459.5	459.2	459.0	458.8	458.5	458.2	457.8
	457.5	457.1	456.6	456.1	455.6	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0216	470.2	469.8	469.2	468.2	467.0	465.8	464.3	462.3	461.4	460.8
	460.3	460.0	459.7	459.5	459.3	459.1	458.9	458.7	458.5	458.2
	457.9	457.6	457.3	456.9	456.5	456.1	455.6	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0217	465.3	464.8	464.1	463.0	461.3	460.2	458.6	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0218	460.8	460.0	459.3	458.1	455.0	455.0	455.0	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0219	457.0	455.0	455.0	455.0	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0220	455.0	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								

1 HEAD IN LAYER 3 AT END OF TIME STEP 1 IN STRESS PERIOD 1

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82								

0 1	1000.	738.6	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0 2	738.5	738.5	738.5	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.

	1000.	1000.								
0 3	738.4	738.4	738.3	738.2	738.1	738.0	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0 4	738.2	738.2	738.1	738.1	738.0	737.9	737.7	737.5	737.5	737.4
	737.4	737.3	737.3	737.3	737.3	737.3	737.3	737.3	737.3	737.3
	737.3	737.3	737.3	737.2	737.2	737.2	737.2	737.2	737.2	737.2
	737.2	737.2	737.2	737.2	737.2	737.2	737.2	737.2	737.1	737.1
	737.1	737.1	737.1	737.1	737.1	737.1	737.1	737.1	737.1	737.1
	737.1	737.1	737.1	737.1	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	736.9	736.9	736.9	736.9	736.8	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0 5	738.0	738.0	737.9	737.8	737.8	737.7	737.5	737.4	737.3	737.3
	737.3	737.2	737.2	737.2	737.2	737.2	737.2	737.2	737.2	737.2
	737.2	737.2	737.2	737.1	737.1	737.1	737.1	737.1	737.1	737.1
	737.1	737.1	737.1	737.1	737.1	737.1	737.1	737.1	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	736.9	736.9	736.9	736.9	736.9	736.9
	736.9	736.9	736.9	736.9	736.9	736.9	736.9	736.9	736.9	736.9
	736.8	736.8	736.8	736.8	736.7	736.5	736.4	736.4	736.3	736.3
	736.3	736.2								
0 6	737.6	737.6	737.6	737.5	737.5	737.4	737.3	737.2	737.1	737.1
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	736.9	736.9	736.9	736.9	736.9	736.9	736.9	736.9
	736.9	736.9	736.9	736.9	736.9	736.9	736.9	736.9	736.8	736.8
	736.8	736.8	736.8	736.8	736.8	736.8	736.8	736.8	736.8	736.8
	736.8	736.8	736.8	736.8	736.7	736.7	736.7	736.7	736.7	736.7
	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7
	736.6	736.6	736.6	736.6	736.5	736.4	736.3	736.2	736.2	736.2
	736.1	736.1								
0 7	737.2	737.2	737.2	737.1	737.1	737.0	736.9	736.9	736.8	736.8
	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7
	736.6	736.6	736.6	736.6	736.6	736.6	736.6	736.6	736.6	736.6
	736.6	736.6	736.6	736.6	736.6	736.6	736.6	736.5	736.5	736.5
	736.5	736.5	736.5	736.5	736.5	736.5	736.5	736.5	736.5	736.5
	736.5	736.5	736.5	736.5	736.4	736.4	736.4	736.4	736.4	736.4
	736.4	736.4	736.4	736.4	736.4	736.4	736.4	736.4	736.4	736.4
	736.4	736.3	736.3	736.2	736.1	736.1	736.0	736.0	735.9	
	735.9	735.9								
0 8	736.7	736.7	736.7	736.7	736.6	736.6	736.5	736.4	736.4	736.3
	736.3	736.3	736.3	736.3	736.3	736.3	736.3	736.3	736.2	736.2
	736.2	736.2	736.2	736.2	736.2	736.2	736.2	736.2	736.2	736.2
	736.2	736.2	736.2	736.2	736.2	736.2	736.1	736.1	736.1	736.1
	736.1	736.1	736.1	736.1	736.1	736.1	736.1	736.1	736.1	736.1
	736.1	736.1	736.1	736.1	736.1	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	735.9	735.9	735.9	735.8	735.8	735.7	735.7	735.6	735.6
	735.6	735.6								
0 9	736.2	736.1	736.1	736.1	736.0	736.0	735.9	735.9	735.8	735.8
	735.8	735.8	735.8	735.8	735.8	735.8	735.7	735.7	735.7	735.7
	735.7	735.7	735.7	735.7	735.7	735.7	735.7	735.7	735.7	735.7
	735.7	735.7	735.7	735.7	735.7	735.7	735.6	735.6	735.6	735.6
	735.6	735.6	735.6	735.6	735.6	735.6	735.6	735.6	735.6	735.6
	735.6	735.6	735.6	735.6	735.6	735.6	735.5	735.5	735.5	735.5
	735.5	735.5	735.5	735.5	735.5	735.5	735.5	735.5	735.5	735.5
	735.5	735.5	735.4	735.4	735.4	735.3	735.3	735.2	735.2	735.2
	735.2	735.1								
0 10	735.5	735.5	735.5	735.4	735.4	735.4	735.3	735.3	735.2	735.2
	735.2	735.2	735.2	735.1	735.1	735.1	735.1	735.1	735.1	735.1
	735.1	735.1	735.1	735.1	735.1	735.1	735.1	735.1	735.1	735.1
	735.1	735.1	735.1	735.1	735.1	735.0	735.0	735.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	734.9	734.9
	734.9	734.9	734.9	734.9	734.9	734.9	734.9	734.9	734.9	734.9
	734.9	734.9	734.9	734.8	734.8	734.8	734.7	734.7	734.6	734.6
	734.6	734.6								
0 11	734.7	734.7	734.7	734.7	734.7	734.6	734.6	734.5	734.5	734.5
	734.5	734.4	734.4	734.4	734.4	734.4	734.4	734.4	734.4	734.4
	734.4	734.4	734.4	734.4	734.4	734.4	734.4	734.4	734.4	734.4
	734.4	734.4	734.4	734.4	734.4	734.3	734.3	734.3	734.3	734.3
	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3
	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3	734.3
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	734.2	734.2	734.2	734.2	734.1	734.1	734.0	734.0	734.0	734.0
	734.0	734.0								
0 12	733.9	733.9	733.9	733.8	733.8	733.8	733.8	733.7	733.7	733.7
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	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5	733.5
	733.5	733.5	733.5	733.4	733.4	733.4	733.4	733.4	733.4	733.4
	733.4	733.4	733.4	733.4	733.3	733.3	733.3	733.3	733.2	733.2
	733.2	733.2								
0 13	732.9	732.9	732.9	732.9	732.9	732.9	732.8	732.8	732.8	732.8
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	732.7	732.7	732.7	732.7	732.7	732.7	732.7	732.7	732.7	732.7
	732.7	732.7	732.7	732.7	732.7	732.7	732.6	732.6	732.6	732.6
	732.6	732.6	732.6	732.6	732.6	732.6	732.6	732.6	732.6	732.6
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	732.6	732.6	732.6	732.6	732.6	732.6	732.6	732.5	732.5	732.5
	732.6	732.6	732.6	732.6	732.6	732.6	732.4	732.4	732.4	732.4
	732.5	732.5	732.5	732.5	732.5	732.4	732.4	732.4	732.4	732.4
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0 14	731.9	731.9	731.9	731.9	731.9	731.8	731.8	731.8	731.8	731.7
	731.7	731.7	731.7	731.7	731.7	731.7	731.7	731.7	731.7	731.7
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0 15	730.8	730.8	730.8	730.8	730.7	730.7	730.7	730.7	730.7	730.6
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	730.5	730.5	730.5	730.5	730.4	730.4	730.4	730.4	730.3	730.3
	730.3	730.3								
0 16	729.6	729.6	729.6	729.5	729.5	729.5	729.5	729.5	729.5	729.4
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0 17	728.3	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.1
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	728.0	728.0	728.0	728.0	728.0	727.9	727.9	727.9	727.9	727.9
	727.9	727.9								
0 18	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.8	726.7
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	726.7	726.7	726.7	726.7	726.7	726.6	726.6	726.6	726.6	726.6
	726.6	726.6	726.6	726.6	726.6	726.6	726.6	726.6	726.6	726.6
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0 20	723.7	723.7	723.7	723.7	723.7	723.7	723.7	723.7	723.7	723.7
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	723.5	723.5								
0 21	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
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	720.0	720.0								
0 23	718.4	718.4	718.4	718.3	718.3	718.3	718.3	718.3	718.3	718.3
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	716.2	716.2								
0 25	714.3	714.3	714.3	714.3	714.3	714.3	714.3	714.2	714.2	714.2
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0 27	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8	709.8
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0 28	707.5	707.5	707.5	707.5	707.4	707.4	707.4	707.4	707.4	707.4
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	707.3	707.3								
0 29	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0	704.9
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0 30	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4	702.4
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0 32	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	696.9
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	696.9	696.9	696.9	696.9	696.9	696.9	696.8	696.8	696.8	696.8
	696.8	696.8								
0 33	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1	694.1
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	694.1	694.1	694.1	694.1	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0								
0 34	691.2	691.2	691.2	691.2	691.2	691.2	691.2	691.1	691.1	691.1
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	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1	691.1
	691.1	691.1	691.1	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0								
0 35	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1
	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1	688.1
	688.1	688.1	688.1	688.1	688.1	688.0	688.0	688.0	688.0	688.0
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	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	687.9	687.9
	687.9	687.9								
0 36	685.0	685.0	685.0	685.0	685.0	685.0	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9	684.9
	684.9	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8
	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8	684.8
	684.8	684.8								
0 37	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.7
	681.7	681.7	681.7	681.7	681.7	681.7	681.7	681.6	681.6	681.6
	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6
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	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6	681.6
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	681.6	681.6	681.6	681.6	681.6	681.5	681.5	681.5	681.5	681.5
	681.5	681.5								
0 38	678.4	678.4	678.4	678.4	678.4	678.4	678.3	678.3	678.3	678.3
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	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3	678.3
	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2
	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2
	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.2	678.1	678.1
	678.1	678.1								
0 39	675.0	675.0	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.9
	674.9	674.9	674.9	674.9	674.9	674.9	674.9	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8	674.8
	674.8	674.8	674.8	674.7	674.7	674.7	674.7	674.7	674.7	674.7
	674.7	674.7								
0 40	671.4	671.4	671.4	671.4	671.4	671.4	671.4	671.3	671.3	671.3
	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3
	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3
	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3	671.3
	671.3	671.3	671.3	671.3	671.3	671.3	671.2	671.2	671.2	671.2
	671.3	671.3	671.3	671.3	671.3	671.2	671.2	671.2	671.2	671.2
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	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2	671.2
	671.2	671.2	671.2	671.2	671.2	671.2	671.1	671.1	671.1	671.1
	671.1	671.1								
0 41	667.8	667.8	667.8	667.8	667.8	667.7	667.7	667.7	667.7	667.7
	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7
	667.7	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6	667.6
	667.5	667.5	667.5	667.5	667.5	667.5	667.5	667.5	667.4	667.4
	667.4	667.4								
0 42	664.1	664.1	664.1	664.0	664.0	664.0	664.0	664.0	664.0	663.9
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	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9	663.9
	663.9	663.9	663.9	663.9	663.9	663.9	663.8	663.8	663.8	663.8
	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8
	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8
	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8	663.8
	663.8	663.8	663.8	663.8	663.7	663.7	663.7	663.7	663.7	663.7
	663.7	663.7								
0 43	660.9	660.9	660.9	660.9	660.8	660.8	660.8	660.8	660.8	660.8
	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7
	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7	660.7
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	660.6	660.6	660.6	660.5	660.5	660.5	660.5	660.5	660.5	660.4
	660.4	660.4								
0 44	658.7	658.7	658.7	658.7	658.7	658.7	658.6	658.6	658.6	658.6
	658.6	658.6	658.6	658.6	658.6	658.6	658.6	658.5	658.5	658.5
	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5
	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5
	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5	658.5
	658.5	658.5	658.5	658.5	658.4	658.4	658.4	658.4	658.4	658.4
	658.4	658.4	658.4	658.4	658.4	658.4	658.4	658.4	658.4	658.4
	658.4	658.4	658.4	658.4	658.3	658.3	658.3	658.3	658.3	658.3
	658.2	658.2								
0 45	657.3	657.3	657.3	657.2	657.2	657.2	657.2	657.2	657.1	657.1
	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1
	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1	657.1
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	656.9	656.9	656.9	656.9
	656.9	656.9	656.9	656.9	656.9	656.8	656.8	656.8	656.8	656.8
	656.8	656.8								
0 46	656.3	656.3	656.3	656.3	656.3	656.2	656.2	656.2	656.2	656.1
	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1
	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1	656.1
	656.1	656.1	656.1	656.1	656.1	656.1	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	655.9	655.9	655.9	655.9	655.9	655.9	655.8	655.8	655.8	655.8
	655.8	655.8								
0 47	655.6	655.6	655.6	655.6	655.6	655.6	655.6	655.5	655.5	655.5
	655.5	655.5	655.5	655.5	655.5	655.5	655.4	655.4	655.4	655.4
	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4
	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4
	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4
	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4	655.4
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	655.3	655.3	655.1	655.3	655.3	655.3	655.1	655.3	655.3	655.3
	655.3	655.3	655.3	655.2	655.2	655.2	655.2	655.2	655.1	655.1
	655.1	655.1								
0 48	655.2	655.2	655.2	655.2	655.2	655.1	655.1	655.1	655.1	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	654.9	654.9	654.9	654.9
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	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.9	654.8
	654.8	654.8	654.8	654.8	654.8	654.8	654.7	654.7	654.7	654.7
	654.7	654.7								
0 49	654.9	654.8	654.8	654.8	654.8	654.8	654.8	654.7	654.7	654.7
	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.6
	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6
	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6
	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6	654.6
	654.6	654.6	654.5	654.5	654.5	654.5	654.5	654.5	654.5	654.5
	654.5	654.5	654.5	654.5	654.5	654.5	654.5	654.5	654.5	654.5
	654.5	654.5	654.5	654.5	654.4	654.4	654.4	654.4	654.3	654.3
	654.3	654.3								
0 50	654.5	654.5	654.5	654.5	654.5	654.4	654.4	654.4	654.4	654.3
	654.3	654.3	654.3	654.3	654.3	654.3	654.3	654.3	654.3	654.3
	654.3	654.3	654.3	654.3	654.3	654.3	654.3	654.3	654.3	654.3
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	654.0	654.0								
0 51	654.1	654.1	654.1	654.1	654.1	654.1	654.1	654.0	654.0	654.0
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	653.9	653.9	653.9	653.9	653.9	653.9	653.9	653.9	653.9	653.9
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	653.9	653.9	653.9	653.9	653.9	653.9	653.9	653.9	653.8	653.8
	653.8	653.8	653.8	653.8	653.8	653.8	653.8	653.8	653.8	653.8
	653.8	653.8	653.8	653.8	653.8	653.8	653.8	653.8	653.8	653.8
	653.8	653.8	653.8	653.7	653.7	653.7	653.7	653.6	653.6	653.6
	653.6	653.6								
0 52	653.8	653.8	653.8	653.8	653.8	653.7	653.7	653.7	653.7	653.6
	653.6	653.6	653.6	653.6	653.6	653.6	653.6	653.6	653.6	653.6
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	653.6	653.5	653.5	653.5	653.5	653.5	653.5	653.5	653.5	653.5
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	653.5	653.5	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4
	653.4	653.4	653.4	653.4	653.4	653.3	653.3	653.3	653.3	653.2
	653.2	653.2								
0 53	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.3	653.3	653.3
	653.3	653.3	653.3	653.2	653.2	653.2	653.2	653.2	653.2	653.2
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	653.1	653.1	653.0	653.0	653.0	653.0	652.9	652.9	652.9	652.9
	652.9	652.9								
0 54	653.1	653.1	653.1	653.0	653.0	653.0	653.0	653.0	652.9	652.9
	652.9	652.9	652.9	652.9	652.9	652.9	652.9	652.9	652.9	652.9
	652.9	652.9	652.9	652.9	652.9	652.9	652.9	652.8	652.8	652.8
	652.8	652.8	652.8	652.8	652.8	652.8	652.8	652.8	652.8	652.8
	652.8	652.8	652.8	652.8	652.8	652.8	652.8	652.8	652.8	652.8
	652.8	652.8	652.8	652.8	652.8	652.8	652.8	652.8	652.7	652.7
	652.7	652.7	652.7	652.7	652.7	652.7	652.7	652.7	652.7	652.7
	652.7	652.7	652.7	652.7	652.6	652.6	652.6	652.6	652.5	652.5
	652.5	652.5								
0 55	652.7	652.7	652.7	652.7	652.7	652.7	652.6	652.6	652.6	652.6
	652.6	652.5	652.5	652.5	652.5	652.5	652.5	652.5	652.5	652.5
	652.5	652.5	652.5	652.5	652.5	652.5	652.5	652.5	652.5	652.5
	652.5	652.5	652.5	652.5	652.5	652.5	652.5	652.5	652.5	652.5
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	652.4	652.4	652.4	652.4	652.4	652.4	652.4	652.4	652.4	652.4
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0 56	652.4	652.4	652.4	652.3	652.3	652.3	652.3	652.3	652.2	652.2
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	652.0	652.0	652.0	651.9	651.9	651.9	651.9	651.8	651.8	651.8
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0 58	651.7	651.7	651.6	651.6	651.6	651.6	651.6	651.5	651.5	651.5
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	650.7	650.7								
0 60	650.9	650.9	650.9	650.9	650.9	650.9	650.8	650.8	650.8	650.8
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	650.3	650.3								
0 61	650.6	650.6	650.6	650.6	650.5	650.5	650.5	650.5	650.4	650.4
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0 63	649.9	649.9	649.9	649.8	649.8	649.8	649.8	649.7	649.7	649.7
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	648.5	648.5								
0 66	648.8	648.8	648.8	648.8	648.7	648.7	648.7	648.6	648.6	648.6
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	647.8	647.8								
0 68	648.1	648.0	648.0	648.0	648.0	648.0	647.9	647.9	647.9	647.9
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	647.0	647.0								
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	646.5	646.5	646.5	646.4	646.4	646.4	646.4	646.3	646.3	646.3
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0 72	646.6	646.6	646.6	646.6	646.5	646.5	646.5	646.4	646.4	646.4
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	645.1	645.1								
0 75	645.5	645.5	645.5	645.5	645.4	645.4	645.4	645.3	645.3	645.3
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	644.8	644.8								
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	644.4	644.4								
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0 78	644.4	644.4	644.4	644.3	644.3	644.3	644.3	644.2	644.2	644.2
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	644.1	644.1	644.1	644.1	644.1	644.1	644.1	644.1	644.1	644.1
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	643.9	643.9	643.9	643.9	643.9	643.9
	643.9	643.9	643.9	643.9	643.9	643.9	643.9	643.9	643.9	643.9
	643.9	643.9	643.8	643.8	643.8	643.8	643.7	643.7	643.7	643.6
	643.6	643.6								
0 79	644.0	644.0	644.0	644.0	643.9	643.9	643.9	643.8	643.8	643.8
	643.8	643.8	643.7	643.7	643.7	643.7	643.7	643.7	643.7	643.7
	643.7	643.7	643.7	643.7	643.7	643.7	643.7	643.7	643.7	643.7
	643.7	643.7	643.7	643.7	643.7	643.7	643.6	643.6	643.6	643.6
	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6
	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.5
	643.5	643.5	643.5	643.5	643.5	643.5	643.5	643.5	643.5	643.5
	643.5	643.5	643.5	643.4	643.4	643.4	643.3	643.3	643.3	643.3
	643.3	643.2								
0 80	643.6	643.6	643.6	643.6	643.6	643.5	643.5	643.5	643.4	643.4
	643.4	643.4	643.4	643.4	643.4	643.4	643.4	643.4	643.3	643.3
	643.3	643.3	643.3	643.3	643.3	643.3	643.3	643.3	643.3	643.3
	643.3	643.3	643.3	643.3	643.3	643.3	643.3	643.3	643.3	643.3
	643.3	643.3	643.2	643.2	643.2	643.2	643.2	643.2	643.2	643.2
	643.2	643.2	643.2	643.2	643.2	643.2	643.2	643.2	643.2	643.2
	643.2	643.2	643.2	643.2	643.2	643.1	643.1	643.1	643.1	643.1
	643.1	643.1	643.1	643.1	643.0	643.0	643.0	642.9	642.9	642.9
	642.9	642.9								
0 81	643.3	643.2	643.2	643.2	643.2	643.2	643.1	643.1	643.1	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	642.9	642.9	642.9	642.9	642.9	642.9
	642.9	642.9	642.9	642.9	642.9	642.9	642.9	642.9	642.9	642.9
	642.9	642.9	642.9	642.9	642.9	642.9	642.9	642.8	642.8	642.8
	642.9	642.9	642.9	642.9	642.9	642.9	642.8	642.8	642.8	642.8
	642.8	642.8	642.8	642.8	642.8	642.8	642.8	642.8	642.8	642.8
	642.8	642.8	642.8	642.8	642.8	642.8	642.8	642.8	642.8	642.8
	642.8	642.8	642.8	642.8	642.8	642.8	642.8	642.8	642.8	642.8
	642.7	642.7	642.7	642.7	642.7	642.6	642.6	642.5	642.5	642.5
	642.5	642.5								
0 82	642.9	642.9	642.9	642.8	642.8	642.8	642.8	642.7	642.7	642.7
	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6
	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.5
	642.6	642.6	642.6	642.6	642.5	642.5	642.5	642.5	642.5	642.5
	642.5	642.5	642.5	642.5	642.5	642.5	642.5	642.5	642.5	642.5
	642.5	642.5	642.5	642.5	642.5	642.5	642.5	642.5	642.5	642.5
	642.5	642.4	642.4	642.4	642.4	642.4	642.4	642.4	642.4	642.4
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	642.4	642.4	642.4	642.3	642.3	642.2	642.2	642.2	642.1	642.1
	642.1	642.1								
0 83	642.5	642.5	642.5	642.5	642.4	642.4	642.4	642.3	642.3	642.3
	642.3	642.3	642.2	642.2	642.2	642.2	642.2	642.2	642.2	642.2
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	642.2	642.2	642.2	642.2	642.1	642.1	642.1	642.1	642.1	642.1
	642.1	642.1	642.1	642.1	642.1	642.1	642.1	642.1	642.1	642.1
	642.1	642.1	642.1	642.1	642.1	642.1	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	641.9	641.9	641.9	641.8	641.8	641.8	641.7
	641.7	641.7								
0 84	642.1	642.1	642.1	642.1	642.1	642.0	642.0	642.0	641.9	641.9
	641.9	641.9	641.9	641.9	641.9	641.9	641.8	641.8	641.8	641.8

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	641.8	641.8	641.8	641.8	641.8	641.8	641.8	641.8	641.7	641.7
	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7
	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7	641.7
	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6	641.6
	641.6	641.6	641.6	641.5	641.5	641.5	641.4	641.4	641.4	641.4
	641.3	641.3								
0 85	641.8	641.7	641.7	641.7	641.7	641.7	641.6	641.6	641.5	641.5
	641.5	641.5	641.5	641.5	641.5	641.5	641.5	641.5	641.5	641.5
	641.4	641.4	641.4	641.4	641.4	641.4	641.4	641.4	641.4	641.4
	641.4	641.4	641.4	641.4	641.4	641.4	641.4	641.4	641.4	641.4
	641.4	641.4	641.3	641.3	641.3	641.3	641.3	641.3	641.3	641.3
	641.3	641.3	641.3	641.3	641.3	641.3	641.3	641.3	641.3	641.3
	641.3	641.3	641.3	641.3	641.2	641.2	641.2	641.2	641.2	641.2
	641.3	641.3	641.3	641.3	641.2	641.2	641.0	641.0	641.0	641.0
	641.2	641.2	641.2	641.2	641.1	641.1				
	641.0	640.9								
0 86	641.4	641.4	641.4	641.3	641.3	641.3	641.2	641.2	641.2	641.1
	641.1	641.1	641.1	641.1	641.1	641.1	641.1	641.1	641.1	641.1
	641.1	641.1	641.1	641.1	641.1	641.0	641.0	641.0	641.0	641.0
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	641.0	641.0	641.0	641.0	641.0	641.0	640.9	640.9	640.9	640.9
	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9
	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.9	640.8	640.8
	640.8	640.8	640.8	640.8	640.7	640.7	640.7	640.6	640.6	640.6
	640.6	640.6								
0 87	641.0	641.0	641.0	641.0	640.9	640.9	640.9	640.8	640.8	640.8
	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7
	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.7	640.6
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	640.5	640.5	640.5	640.5	640.5	640.5	640.5	640.5	640.5	640.5
	640.5	640.4	640.4	640.4	640.4	640.3	640.3	640.2	640.2	640.2
	640.2	640.2								
0 88	640.6	640.6	640.6	640.6	640.6	640.5	640.5	640.4	640.4	640.4
	640.4	640.4	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3
	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3
	640.3	640.3	640.3	640.2	640.2	640.2	640.2	640.2	640.2	640.2
	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2	640.2
	640.2	640.2	640.2	640.2	640.1	640.1	640.1	640.1	640.1	640.1
	640.2	640.2	640.2	640.2	640.1	640.1	640.1	640.1	640.1	640.1
	640.1	640.1	640.1	640.1	640.1	640.1	639.9	639.9	639.8	639.8
	640.1	640.1	640.0	640.0	640.0	639.9				
	639.8	639.8								
0 89	640.2	640.2	640.2	640.2	640.2	640.1	640.1	640.1	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	639.9	639.9	639.9	639.9	639.9
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	639.9	639.9	639.9	639.9	639.9	639.9	639.8	639.8	639.8	639.8
	639.8	639.8	639.8	639.8	639.8	639.8	639.8	639.8	639.8	639.8
	639.8	639.8	639.8	639.8	639.8	639.8	639.8	639.7	639.7	639.7
	639.8	639.8	639.8	639.8	639.8	639.8	639.7	639.7	639.7	639.7
	639.7	639.7	639.7	639.7	639.7	639.7	639.7	639.7	639.7	639.7
	639.7	639.7	639.7	639.6	639.6	639.5	639.5	639.5	639.4	639.4
	639.4	639.4								
0 90	639.9	639.9	639.8	639.8	639.8	639.8	639.7	639.7	639.6	639.6
	639.6	639.6	639.6	639.6	639.6	639.6	639.6	639.6	639.5	639.5
	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.5
	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.5	639.4
	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4
	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4	639.4
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	639.3	639.3	639.3	639.2	639.2	639.2	639.1	639.1	639.1	639.0
	639.0	639.0								
0 91	639.5	639.5	639.5	639.4	639.4	639.4	639.3	639.3	639.3	639.2
	639.2	639.2	639.2	639.2	639.2	639.2	639.2	639.2	639.2	639.2
	639.2	639.2	639.1	639.1	639.1	639.1	639.1	639.1	639.1	639.1
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	639.1	639.1	639.1	639.0	639.0	639.0	639.0	639.0	639.0	639.0
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	639.0	639.0	639.0	639.0	639.0	639.0	638.9	638.9	638.9	638.9
	639.0	639.0	639.0	638.9	638.9	638.9	638.7	638.7	638.7	638.6
	638.9	638.9	638.9	638.8	638.8	638.8				
	638.6	638.6								
0 92	639.1	639.1	639.1	639.1	639.0	639.0	639.0	638.9	638.9	638.9
	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8	638.8
	638.8	638.8	638.8	638.8	638.8	638.7	638.7	638.7	638.7	638.7
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	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7	638.7
	638.7	638.7	638.7	638.7	638.7	638.6	638.6	638.6	638.6	638.6
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	638.6	638.6	638.6	638.6	638.6	638.6	638.5	638.5	638.5	638.5
	638.5	638.5	638.5	638.5	638.4	638.4	638.3	638.3	638.3	638.3
	638.2	638.2								
0 93	638.7	638.7	638.7	638.7	638.6	638.6	638.6	638.5	638.5	638.5
	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4
	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.3	638.3
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	638.2	638.2	638.2	638.2	638.2	638.2	638.2	638.2	638.1	638.1
	638.2	638.2	638.2	638.2	638.2	638.2	638.2	638.2	638.1	638.1
	638.1	638.1	638.1	638.1	638.0	638.0	637.9	637.9	637.9	637.9
	637.8	637.8								
0 94	638.3	638.3	638.3	638.3	638.3	638.2	638.2	638.1	638.1	638.1
	638.1	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9
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	637.9	637.9	637.9	637.9	637.8	637.8	637.8	637.8	637.8	637.8
	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8	637.8
	637.8	637.8	637.8	637.8	637.8	637.8	637.6	637.5	637.5	637.5
	637.7	637.7	637.7	637.7	637.6	637.6				
	637.5	637.4								
0 95	638.0	637.9	637.9	637.9	637.9	637.8	637.8	637.8	637.7	637.7
	637.7	637.7	637.7	637.6	637.6	637.6	637.6	637.6	637.6	637.6
	637.6	637.6	637.6	637.6	637.6	637.6	637.6	637.6	637.6	637.6
	637.6	637.6	637.6	637.5	637.5	637.5	637.5	637.5	637.5	637.5
	637.6	637.6	637.6	637.5	637.5	637.5	637.5	637.5	637.5	637.5
	637.5	637.5	637.5	637.5	637.5	637.5	637.5	637.5	637.5	637.5
	637.5	637.5	637.5	637.4	637.4	637.4	637.4	637.4	637.4	637.4
	637.4	637.4	637.4	637.4	637.4	637.4	637.4	637.4	637.4	637.4
	637.4	637.3	637.3	637.3	637.3	637.2	637.2	637.1	637.1	637.1
	637.1	637.1								
0 96	637.6	637.6	637.5	637.5	637.5	637.5	637.4	637.4	637.3	637.3
	637.3	637.3	637.3	637.3	637.3	637.2	637.2	637.2	637.2	637.2
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	637.1	637.1	637.1	637.1	637.1	637.0	637.0	637.0	637.0	637.0
	637.1	637.1	637.1	637.1	637.1	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	636.8	636.7	636.7	636.7
	637.0	637.0	636.9	636.9	636.9	636.8				
	636.7	636.7								
0 97	637.2	637.2	637.2	637.1	637.1	637.1	637.0	637.0	636.9	636.9
	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.8	636.8
	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8
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	636.7	636.7	636.7	636.7	636.7	636.7	636.7	636.7	636.7	636.7
	636.7	636.7	636.7	636.7	636.7	636.7	636.6	636.6	636.6	636.6
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	636.6	636.6	636.5	636.5	636.5	636.4	636.4	636.3	636.3	636.3
	636.3	636.3								
0 98	636.8	636.8	636.8	636.8	636.7	636.7	636.6	636.6	636.6	636.5
	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5	636.5
	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4
	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.4	636.3
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	636.2	636.2	636.1	636.1	636.1	636.0	636.0	635.9	635.9	635.9
	635.9	635.9								
0 99	636.4	636.4	636.4	636.4	636.3	636.3	636.3	636.2	636.2	636.1
	636.1	636.1	636.1	636.1	636.1	636.1	636.1	636.1	636.1	636.1
	636.1	636.1	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9
	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9	635.9
	635.8	635.8	635.8	635.8	635.8	635.8	635.8	635.8	635.8	635.8
	635.8	635.8	635.8	635.7	635.7	635.6	635.6	635.5	635.5	635.5
	635.5	635.5								
0100	636.0	636.0	636.0	636.0	636.0	635.9	635.9	635.8	635.8	635.8
	635.7	635.7	635.7	635.7	635.7	635.7	635.7	635.7	635.7	635.7
	635.7	635.7	635.7	635.7	635.6	635.6	635.6	635.6	635.6	635.6
	635.6	635.6	635.6	635.6	635.6	635.6	635.6	635.6	635.6	635.6
	635.6	635.6	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5
	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5
	635.5	635.4	635.4	635.4	635.4	635.4	635.4	635.4	635.4	635.4
	635.4	635.4	635.4	635.3	635.3	635.2	635.2	635.2	635.1	635.1
	635.1	635.1								
0101	635.6	635.6	635.6	635.6	635.6	635.5	635.5	635.4	635.4	635.4
	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3
	635.3	635.3	635.3	635.3	635.3	635.2	635.2	635.2	635.2	635.2
	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2	635.2
	635.2	635.2	635.2	635.2	635.1	635.1	635.1	635.1	635.1	635.1
	635.1	635.1	635.1	635.1	635.1	635.1	635.1	635.1	635.1	635.1
	635.1	635.1	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	634.9	634.9	634.8	634.8	634.8	634.7	634.7
	634.7	634.7								
0102	635.2	635.2	635.2	635.2	635.2	635.1	635.1	635.0	635.0	635.0
	634.9	634.9	634.9	634.9	634.9	634.9	634.9	634.9	634.9	634.9
	634.9	634.9	634.9	634.9	634.9	634.9	634.8	634.8	634.8	634.8
	634.8	634.8	634.8	634.8	634.8	634.8	634.8	634.8	634.8	634.8
	634.8	634.8	634.8	634.8	634.8	634.7	634.7	634.7	634.7	634.7
	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7	634.7
	634.7	634.7	634.7	634.6	634.6	634.6	634.6	634.6	634.6	634.6
	634.6	634.6	634.6	634.5	634.5	634.4	634.4	634.4	634.3	634.3
	634.3	634.3								
0103	634.9	634.9	634.8	634.8	634.8	634.7	634.7	634.7	634.6	634.6
	634.6	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5
	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.5	634.4	634.4
	634.4	634.4	634.4	634.4	634.4	634.4	634.4	634.4	634.4	634.4
	634.4	634.4	634.4	634.4	634.4	634.4	634.3	634.3	634.3	634.3
	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3	634.3
	634.3	634.3	634.3	634.3	634.2	634.2	634.2	634.2	634.2	634.2
	634.2	634.2	634.2	634.1	634.1	634.0	634.0	634.0	633.9	633.9
	633.9	633.9								
0104	634.5	634.5	634.4	634.4	634.4	634.4	634.3	634.3	634.2	634.2
	634.2	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1
	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.1	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.9	633.9	633.9
	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9
	633.9	633.9	633.9	633.9	633.8	633.8	633.8	633.8	633.8	633.8
	633.8	633.8	633.8	633.7	633.7	633.6	633.6	633.6	633.5	633.5
	633.5	633.5								
0105	634.1	634.1	634.1	634.0	634.0	634.0	633.9	633.9	633.8	633.8
	633.8	633.8	633.7	633.7	633.7	633.7	633.7	633.7	633.7	633.7
	633.7	633.7	633.7	633.7	633.7	633.7	633.7	633.7	633.7	633.7
	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.6
	633.6	633.6	633.6	633.6	633.6	633.6	633.6	633.5	633.5	633.5
	633.5	633.5	633.5	633.5	633.5	633.5	633.5	633.5	633.5	633.5
	633.5	633.5	633.5	633.5	633.5	633.4	633.4	633.4	633.4	633.4
	633.4	633.4	633.4	633.3	633.3	633.2	633.2	633.2	633.1	633.1
	633.1	633.1								
0106	633.7	633.7	633.7	633.6	633.6	633.6	633.5	633.5	633.4	633.4
	633.4	633.4	633.4	633.3	633.3	633.3	633.3	633.3	633.3	633.3
	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3	633.3
	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2
	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.2	633.1	633.1
	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1
	633.1	633.1	633.1	633.1	633.1	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	632.9	632.9	632.8	632.8	632.8	632.7	632.7
	632.7	632.7								
0107	633.3	633.3	633.3	633.2	633.2	633.2	633.1	633.1	633.0	633.0
	633.0	633.0	633.0	632.9	632.9	632.9	632.9	632.9	632.9	632.9
	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9	632.9
	632.9	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.8
	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.8	632.7	632.7
	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7	632.7
	632.7	632.7	632.7	632.7	632.7	632.7	632.6	632.6	632.6	632.6
	632.7	632.6	632.6	632.5	632.5	632.4	632.4	632.4	632.3	632.3
	632.3	632.3								
0108	632.9	632.9	632.9	632.9	632.8	632.8	632.7	632.7	632.6	632.6
	632.6	632.6	632.6	632.6	632.5	632.5	632.5	632.5	632.5	632.5
	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5	632.5
	632.5	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.4
	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.4	632.3	632.3
	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3
	632.3	632.3	632.3	632.3	632.3	632.3	632.2	632.2	632.2	632.2
	632.2	632.2	632.2	632.1	632.1	632.0	632.0	632.0	631.9	631.9
	631.9	631.9								
0109	632.5	632.5	632.5	632.5	632.4	632.4	632.3	632.3	632.2	632.2
	632.2	632.2	632.2	632.2	632.1	632.1	632.1	632.1	632.1	632.1
	632.1	632.1	632.1	632.1	632.1	632.1	632.1	632.1	632.1	632.1
	632.1	632.1	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.9
	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9	631.9
	631.9	631.9	631.9	631.9	631.9	631.9	631.8	631.8	631.8	631.8
	631.8	631.8	631.8	631.7	631.7	631.6	631.6	631.5	631.5	631.5
	631.5	631.5								
0110	632.1	632.1	632.1	632.1	632.0	632.0	631.9	631.9	631.8	631.8
	631.8	631.8	631.8	631.8	631.8	631.7	631.7	631.7	631.7	631.7
	631.7	631.7	631.7	631.7	631.7	631.7	631.7	631.7	631.7	631.7
	631.7	631.7	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.6
	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.6	631.5
	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5	631.5
	631.5	631.5	631.5	631.5	631.5	631.4	631.4	631.4	631.4	631.4
	631.4	631.4	631.4	631.3	631.3	631.2	631.2	631.1	631.1	631.1
	631.1	631.1								
0111	631.7	631.7	631.7	631.7	631.6	631.6	631.6	631.5	631.5	631.4
	631.4	631.4	631.4	631.4	631.4	631.3	631.3	631.3	631.3	631.3
	631.3	631.3	631.3	631.3	631.3	631.3	631.3	631.3	631.3	631.3

	631.3	631.3	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2
	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.1	631.1
	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1	631.1
	631.1	631.1	631.1	631.1	631.1	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	630.9	630.9	630.8	630.8	630.7	630.7	630.7
	630.7	630.6								
0112	631.3	631.3	631.3	631.3	631.2	631.2	631.2	631.1	631.1	631.0
	631.0	631.0	631.0	631.0	631.0	630.9	630.9	630.9	630.9	630.9
	630.9	630.9	630.9	630.9	630.9	630.9	630.9	630.9	630.9	630.9
	630.9	630.9	630.8	630.8	630.8	630.8	630.8	630.8	630.8	630.8
	630.8	630.8	630.8	630.8	630.8	630.8	630.8	630.8	630.7	630.7
	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7	630.7
	630.7	630.7	630.7	630.7	630.7	630.6	630.6	630.6	630.6	630.6
	630.6	630.6	630.6	630.5	630.5	630.4	630.4	630.3	630.3	630.3
	630.3	630.2								
0113	630.9	630.9	630.9	630.9	630.8	630.8	630.8	630.7	630.7	630.6
	630.6	630.6	630.6	630.6	630.6	630.5	630.5	630.5	630.5	630.5
	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5
	630.5	630.5	630.4	630.4	630.4	630.4	630.4	630.4	630.4	630.4
	630.4	630.4	630.4	630.4	630.4	630.4	630.4	630.4	630.3	630.3
	630.3	630.3	630.3	630.3	630.3	630.3	630.3	630.3	630.3	630.3
	630.3	630.3	630.3	630.3	630.2	630.2	630.2	630.2	630.2	630.2
	630.2	630.2	630.2	630.1	630.1	630.0	630.0	629.9	629.9	629.9
	629.8	629.8								
0114	630.5	630.5	630.5	630.5	630.4	630.4	630.4	630.3	630.3	630.2
	630.2	630.2	630.2	630.2	630.2	630.1	630.1	630.1	630.1	630.1
	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1
	630.1	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.9	629.9	629.9
	629.9	629.9	629.9	629.9	629.9	629.9	629.9	629.9	629.9	629.9
	629.9	629.9	629.9	629.8	629.8	629.8	629.8	629.8	629.8	629.8
	629.8	629.8	629.8	629.7	629.7	629.6	629.6	629.5	629.5	629.5
	629.4	629.4								
0115	630.1	630.1	630.1	630.1	630.1	630.0	630.0	629.9	629.9	629.8
	629.8	629.8	629.8	629.8	629.8	629.7	629.7	629.7	629.7	629.7
	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7	629.7
	629.7	629.6	629.6	629.6	629.6	629.6	629.6	629.6	629.6	629.6
	629.6	629.6	629.6	629.6	629.6	629.6	629.6	629.5	629.5	629.5
	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5	629.5
	629.5	629.5	629.5	629.4	629.4	629.4	629.4	629.4	629.4	629.4
	629.4	629.4	629.4	629.3	629.3	629.2	629.2	629.1	629.1	629.0
	629.0	629.0								
0116	629.7	629.7	629.7	629.7	629.7	629.6	629.6	629.5	629.5	629.4
	629.4	629.4	629.4	629.4	629.3	629.3	629.3	629.3	629.3	629.3
	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3	629.3
	629.2	629.2	629.2	629.2	629.2	629.2	629.2	629.2	629.2	629.2
	629.2	629.2	629.2	629.2	629.2	629.2	629.1	629.1	629.1	629.1
	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1
	629.1	629.1	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.9	628.9	628.9	628.8	628.7	628.7	628.7	628.6
	628.6	628.6								
0117	629.3	629.3	629.3	629.3	629.3	629.2	629.2	629.1	629.1	629.0
	629.0	629.0	629.0	629.0	628.9	628.9	628.9	628.9	628.9	628.9
	628.9	628.9	628.9	628.9	628.9	628.9	628.9	628.9	628.9	628.9
	628.8	628.8	628.8	628.8	628.8	628.8	628.8	628.8	628.8	628.8
	628.8	628.8	628.8	628.8	628.8	628.7	628.7	628.7	628.7	628.7
	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7
	628.7	628.6	628.6	628.6	628.6	628.6	628.6	628.6	628.6	628.6
	628.6	628.6	628.5	628.5	628.4	628.4	628.3	628.3	628.3	628.2
	628.2	628.2								
0118	628.9	628.9	628.9	628.9	628.9	628.8	628.8	628.7	628.6	628.6
	628.6	628.6	628.6	628.5	628.5	628.5	628.5	628.5	628.5	628.5
	628.5	628.5	628.5	628.5	628.5	628.5	628.5	628.5	628.5	628.4
	628.4	628.4	628.4	628.4	628.4	628.4	628.4	628.4	628.4	628.4
	628.4	628.4	628.4	628.4	628.3	628.3	628.3	628.3	628.3	628.3
	628.3	628.3	628.3	628.3	628.3	628.3	628.3	628.3	628.3	628.3
	628.2	628.2	628.2	628.2	628.2	628.2	628.2	628.2	628.2	628.2
	628.2	628.2	628.1	628.1	628.0	628.0	627.9	627.9	627.8	627.8
	627.8	627.8								
0119	628.5	628.5	628.5	628.5	628.5	628.4	628.4	628.3	628.2	628.2
	628.2	628.2	628.2	628.1	628.1	628.1	628.1	628.1	628.1	628.1
	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.1	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	627.9	627.9	627.9	627.9	627.9	627.9	627.9
	627.9	627.9	627.9	627.9	627.9	627.9	627.9	627.9	627.9	627.8
	627.8	627.8	627.8	627.8	627.8	627.8	627.8	627.8	627.8	627.8
	627.8	627.7	627.7	627.7	627.6	627.6	627.5	627.5	627.4	627.4
	627.4	627.4								
0120	628.1	628.1	628.1	628.1	628.0	628.0	628.0	627.9	627.8	627.8
	627.8	627.8	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.7
	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.6	627.6	627.6
	627.6	627.6	627.6	627.6	627.6	627.6	627.6	627.6	627.6	627.6
	627.6	627.6	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5
	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.4	627.4	627.4
	627.4	627.4	627.4	627.4	627.4	627.4	627.4	627.4	627.4	627.4
	627.4	627.3	627.3	627.2	627.2	627.2	627.1	627.1	627.0	627.0
	627.0	627.0								
0121	627.7	627.7	627.7	627.7	627.6	627.6	627.5	627.5	627.4	627.4
	627.4	627.4	627.3	627.3	627.3	627.3	627.3	627.3	627.3	627.3
	627.3	627.3	627.3	627.3	627.3	627.3	627.2	627.2	627.2	627.2
	627.2	627.2	627.2	627.2	627.2	627.2	627.2	627.2	627.2	627.2
	627.2	627.1	627.1	627.1	627.1	627.1	627.1	627.1	627.1	627.1
	627.1	627.1	627.1	627.1	627.1	627.1	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	626.9	626.9	626.9	626.9	626.8	626.7	626.7	626.6	626.6	626.6
	626.6	626.5								
0122	627.3	627.3	627.3	627.3	627.2	627.2	627.1	627.1	627.0	627.0
	627.0	626.9	626.9	626.9	626.9	626.9	626.9	626.9	626.9	626.9
	626.9	626.9	626.9	626.9	626.9	626.8	626.8	626.8	626.8	626.8
	626.9	626.9	626.9	626.8	626.8	626.8	626.8	626.8	626.8	626.8
	626.8	626.8	626.8	626.8	626.8	626.8	626.7	626.7	626.7	626.7
	626.7	626.7	626.7	626.7	626.7	626.7	626.6	626.6	626.6	626.6
	626.7	626.7	626.7	626.7	626.6	626.6	626.6	626.6	626.6	626.5
	626.6	626.6	626.6	626.6	626.6	626.6	626.6	626.2	626.2	626.2
	626.5	626.5	626.5	626.4	626.4	626.3	626.3	626.2	626.2	626.2
	626.1	626.1								
0123	626.9	626.9	626.9	626.9	626.8	626.8	626.7	626.7	626.6	626.6
	626.6	626.5	626.5	626.5	626.5	626.5	626.5	626.5	626.5	626.5
	626.5	626.5	626.5	626.5	626.4	626.4	626.4	626.4	626.4	626.4
	626.4	626.4	626.4	626.4	626.4	626.4	626.4	626.4	626.4	626.3
	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3	626.3
	626.3	626.3	626.3	626.2	626.2	626.2	626.2	626.2	626.2	626.2
	626.2	626.2	626.2	626.2	626.2	626.2	626.2	626.2	626.1	626.1
	626.1	626.1	626.1	626.0	626.0	625.9	625.9	625.8	625.8	625.7
	625.7	625.7								
0124	626.5	626.5	626.5	626.5	626.4	626.4	626.3	626.3	626.2	626.2
	626.2	626.1	626.1	626.1	626.1	626.1	626.1	626.1	626.1	626.1
	626.1	626.1	626.1	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.9	625.9	625.9
	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9
	625.9	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8
	625.8	625.8	625.8	625.8	625.8	625.8	625.7	625.7	625.7	625.7
	625.8	625.8	625.8	625.8	625.8	625.8	625.7	625.4	625.4	625.3
	625.7	625.7	625.7	625.6	625.6	625.5	625.4			

	625.3	625.3								
0125	626.1	626.1	626.1	626.1	626.0	626.0	625.9	625.9	625.8	625.8
	625.7	625.7	625.7	625.7	625.7	625.7	625.7	625.7	625.7	625.7
	625.7	625.6	625.6	625.6	625.6	625.6	625.6	625.6	625.6	625.6
	625.6	625.6	625.6	625.6	625.6	625.6	625.5	625.5	625.5	625.5
	625.5	625.5	625.5	625.5	625.5	625.5	625.5	625.5	625.5	625.5
	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4	625.4
	625.4	625.4	625.4	625.4	625.3	625.3	625.3	625.3	625.3	625.3
	625.3	625.3	625.3	625.2	625.2	625.1	625.0	625.0	624.9	624.9
	624.9	624.9								
0126	625.7	625.7	625.7	625.7	625.6	625.6	625.5	625.5	625.4	625.4
	625.3	625.3	625.3	625.3	625.3	625.3	625.3	625.3	625.3	625.3
	625.3	625.3	625.2	625.2	625.2	625.2	625.2	625.2	625.2	625.2
	625.2	625.2	625.2	625.2	625.1	625.1	625.1	625.1	625.1	625.1
	625.2	625.2	625.2	625.2	625.1	625.1	625.1	625.1	625.0	625.0
	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.1	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	624.9	624.9	624.9	624.9	624.9	624.9	624.9	624.9
	624.9	624.9	624.8	624.8	624.7	624.7	624.6	624.6	624.5	624.5
	624.5	624.5								
0127	625.3	625.3	625.3	625.3	625.2	625.2	625.1	625.1	625.0	625.0
	624.9	624.9	624.9	624.9	624.9	624.9	624.9	624.9	624.8	624.8
	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8
	624.8	624.8	624.8	624.7	624.7	624.7	624.7	624.7	624.7	624.7
	624.7	624.7	624.7	624.7	624.7	624.7	624.6	624.6	624.6	624.6
	624.6	624.6	624.6	624.6	624.6	624.6	624.6	624.6	624.6	624.6
	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.5	624.5
	624.5	624.4	624.4	624.3	624.3	624.2	624.1	624.1	624.1	624.1
	624.0	624.0								
0128	624.9	624.9	624.9	624.8	624.8	624.7	624.6	624.6	624.5	
	624.5	624.5	624.5	624.5	624.5	624.5	624.4	624.4	624.4	
	624.4	624.4	624.4	624.4	624.4	624.4	624.4	624.4	624.4	
	624.4	624.3	624.3	624.3	624.3	624.3	624.3	624.3	624.3	
	624.3	624.3	624.3	624.2	624.2	624.2	624.2	624.2	624.2	
	624.2	624.2	624.2	624.2	624.2	624.2	624.2	624.1	624.1	
	624.1	624.1	624.1	624.1	624.1	624.1	624.1	624.1	624.1	
	624.1	624.0	624.0	623.9	623.8	623.8	623.7	623.7	623.6	
	623.6	623.6								
0129	624.5	624.5	624.4	624.4	624.4	624.3	624.2	624.2	624.1	
	624.1	624.1	624.1	624.1	624.0	624.0	624.0	624.0	624.0	
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.9	
	623.9	623.9	623.9	623.9	623.9	623.9	623.9	623.9	623.9	
	623.9	623.9	623.8	623.8	623.8	623.8	623.8	623.8	623.8	
	623.8	623.8	623.8	623.8	623.8	623.8	623.7	623.7	623.7	
	623.7	623.7	623.7	623.7	623.7	623.7	623.7	623.7	623.7	
	623.6	623.6	623.5	623.5	623.4	623.4	623.3	623.3	623.2	
	623.2	623.2								
0130	624.1	624.1	624.0	624.0	623.9	623.9	623.8	623.8	623.7	
	623.7	623.7	623.6	623.6	623.6	623.6	623.6	623.6	623.6	
	623.6	623.6	623.6	623.6	623.6	623.6	623.5	623.5	623.5	
	623.5	623.5	623.5	623.5	623.5	623.5	623.5	623.5	623.5	
	623.5	623.4	623.4	623.4	623.4	623.4	623.4	623.4	623.4	
	623.4	623.4	623.4	623.3	623.3	623.3	623.3	623.3	623.3	
	623.3	623.3	623.3	623.3	623.3	623.3	623.2	623.2	623.2	
	623.2	623.2	623.1	623.1	623.0	622.9	622.9	622.8	622.8	
	622.8	622.8								
0131	623.7	623.7	623.6	623.6	623.5	623.5	623.4	623.4	623.3	
	623.3	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2	
	623.2	623.2	623.2	623.2	623.1	623.1	623.1	623.1	623.1	
	623.1	623.1	623.1	623.1	623.1	623.1	623.1	623.1	623.0	
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	
	623.0	622.9	622.9	622.9	622.9	622.9	622.9	622.9	622.9	
	622.9	622.9	622.9	622.9	622.8	622.8	622.8	622.8	622.8	
	622.8	622.8	622.7	622.6	622.6	622.5	622.5	622.4	622.4	
	622.4	622.3								
0132	623.3	623.2	623.2	623.2	623.1	623.1	623.0	622.9	622.9	
	622.9	622.8	622.8	622.8	622.8	622.8	622.8	622.8	622.8	
	622.8	622.8	622.7	622.7	622.7	622.7	622.7	622.7	622.7	
	622.7	622.7	622.7	622.7	622.7	622.7	622.6	622.6	622.6	
	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	
	622.5	622.5	622.5	622.5	622.5	622.5	622.5	622.5	622.5	
	622.5	622.5	622.4	622.4	622.4	622.4	622.4	622.4	622.4	
	622.4	622.4	622.3	622.3	622.2	622.2	622.1	622.0	622.0	
	621.9	621.9								
0133	622.9	622.9	622.8	622.8	622.8	622.7	622.7	622.6	622.5	622.5
	622.5	622.4	622.4	622.4	622.4	622.4	622.4	622.4	622.4	622.4
	622.4	622.3	622.3	622.3	622.3	622.3	622.3	622.3	622.3	622.3
	622.3	622.3	622.3	622.3	622.2	622.2	622.2	622.2	622.2	622.2
	622.2	622.2	622.2	622.2	622.2	622.2	622.2	622.1	622.1	622.1
	622.1	622.1	622.1	622.1	622.1	622.1	622.1	622.1	622.1	622.1
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	621.9	621.9	621.8	621.7	621.7	621.6	621.6	621.5	
	621.5	621.5								
0134	622.5	622.4	622.4	622.4	622.3	622.2	622.2	622.1	622.1	
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.9	
	621.9	621.9	621.9	621.9	621.9	621.9	621.9	621.9	621.9	
	621.9	621.8	621.8	621.8	621.8	621.8	621.8	621.8	621.8	
	621.8	621.8	621.8	621.8	621.8	621.7	621.7	621.7	621.7	
	621.7	621.7	621.7	621.7	621.7	621.7	621.7	621.6	621.6	
	621.6	621.6	621.6	621.6	621.6	621.6	621.6	621.6	621.6	
	621.5	621.5	621.4	621.4	621.3	621.2	621.2	621.1	621.1	
	621.1	621.1								
0135	622.1	622.0	622.0	621.9	621.9	621.8	621.8	621.7	621.7	
	621.6	621.6	621.6	621.6	621.6	621.6	621.5	621.5	621.5	
	621.5	621.5	621.5	621.5	621.5	621.5	621.5	621.5	621.5	
	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	621.4	
	621.4	621.4	621.3	621.3	621.3	621.3	621.3	621.3	621.3	
	621.3	621.3	621.3	621.3	621.2	621.2	621.2	621.2	621.2	
	621.2	621.2	621.2	621.2	621.2	621.2	621.2	621.1	621.1	
	621.1	621.1	621.1	621.0	621.0	620.9	620.8	620.8	620.7	620.7
	620.7	620.6								
0136	621.6	621.6	621.6	621.5	621.5	621.4	621.3	621.3	621.2	
	621.2	621.2	621.2	621.2	621.1	621.1	621.1	621.1	621.1	
	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.0	621.0	
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	
	620.9	620.9	620.9	620.9	620.9	620.9	620.9	620.9	620.9	
	620.9	620.9	620.9	620.8	620.8	620.8	620.8	620.8	620.8	
	620.8	620.8	620.8	620.8	620.8	620.7	620.7	620.7	620.7	
	620.7	620.7	620.6	620.6	620.5	620.5	620.4	620.3	620.3	
	620.2	620.2								
0137	621.2	621.2	621.2	621.2	621.1	621.1	621.0	620.9	620.9	620.8
	620.8	620.8	620.8	620.7	620.7	620.7	620.7	620.7	620.7	620.7
	620.7	620.7	620.7	620.7	620.7	620.6	620.6	620.6	620.6	620.6
	620.6	620.6	620.6	620.6	620.6	620.6	620.6	620.6	620.5	620.5
	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5
	620.5	620.5	620.5	620.4	620.4	620.4	620.4	620.4	620.4	620.4
	620.4	620.4	620.4	620.3	620.3	620.3	620.3	620.3	620.3	620.3
	620.4	620.4	620.3	620.3	620.3	620.3	620.3	620.3	620.3	620.3
	620.3	620.3	620.2	620.2	620.1	620.0	620.0	619.9	619.9	619.8
	619.8	619.8								
0138	620.8	620.8	620.8	620.7	620.7	620.6	620.6	620.5	620.4	620.4
	620.4	620.3	620.3	620.3	620.3	620.3	620.3	620.3	620.3	620.3
	620.3	620.3	620.3	620.2	620.2	620.2	620.2	620.2	620.2	620.2
	620.2	620.2	620.2	620.2	620.2	620.1	620.1	620.1	620.1	620.1

	620.1	620.1	620.1	620.1	620.1	620.1	620.1	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9
	619.9	619.8	619.8	619.8	619.7	619.6	619.5	619.5	619.4	619.4
	619.4	619.4								
0139	620.4	620.4	620.4	620.3	620.3	620.2	620.2	620.1	620.0	620.0
	620.0	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9	619.9
	619.9	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8	619.8
	619.8	619.8	619.8	619.7	619.7	619.7	619.7	619.7	619.7	619.7
	619.7	619.7	619.7	619.7	619.7	619.6	619.6	619.6	619.6	619.6
	619.6	619.6	619.6	619.6	619.6	619.6	619.6	619.5	619.5	619.5
	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.4
	619.4	619.4	619.4	619.3	619.3	619.2	619.1	619.1	619.0	619.0
	618.9	618.9								
0140	620.0	620.0	620.0	619.9	619.9	619.8	619.8	619.7	619.6	619.6
	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.5	619.4	619.4
	619.4	619.4	619.4	619.4	619.4	619.4	619.4	619.4	619.4	619.4
	619.3	619.3	619.3	619.3	619.3	619.3	619.3	619.3	619.3	619.3
	619.3	619.3	619.2	619.2	619.2	619.2	619.2	619.2	619.2	619.2
	619.2	619.2	619.2	619.2	619.1	619.1	619.1	619.1	619.1	619.1
	619.1	619.1	619.1	619.1	619.1	619.1	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	618.9	618.8	618.8	618.7	618.6	618.6	618.5
	618.5	618.5								
0141	619.6	619.6	619.5	619.5	619.5	619.4	619.3	619.3	619.2	619.1
	619.1	619.1	619.1	619.1	619.1	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.9	618.9
	618.9	618.9	618.9	618.9	618.9	618.9	618.9	618.9	618.9	618.8
	618.8	618.8	618.8	618.8	618.8	618.8	618.8	618.8	618.8	618.8
	618.8	618.7	618.7	618.7	618.7	618.7	618.7	618.7	618.7	618.7
	618.7	618.7	618.7	618.6	618.6	618.6	618.6	618.6	618.6	618.6
	618.6	618.6	618.5	618.5	618.4	618.3	618.3	618.2	618.1	618.1
	618.1	618.1								
0142	619.2	619.1	619.1	619.1	619.0	619.0	618.9	618.8	618.8	618.7
	618.7	618.7	618.7	618.6	618.6	618.6	618.6	618.6	618.6	618.6
	618.6	618.6	618.6	618.6	618.6	618.5	618.5	618.5	618.5	618.5
	618.5	618.5	618.5	618.5	618.5	618.5	618.5	618.4	618.4	618.4
	618.4	618.4	618.4	618.4	618.4	618.4	618.4	618.4	618.3	618.3
	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3	618.3
	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2
	618.2	618.1	618.1	618.0	618.0	617.9	617.8	617.8	617.7	617.7
	617.7	617.6								
0143	618.7	618.7	618.7	618.7	618.6	618.6	618.5	618.4	618.4	618.3
	618.3	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2	618.2
	618.2	618.2	618.1	618.1	618.1	618.1	618.1	618.1	618.1	618.1
	618.1	618.1	618.1	618.1	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	617.9	617.9	617.9	617.9	617.9
	617.9	617.9	617.9	617.9	617.9	617.9	617.9	617.8	617.8	617.8
	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.7
	617.7	617.7	617.7	617.6	617.5	617.5	617.4	617.3	617.3	617.2
	617.2	617.2								
0144	618.3	618.3	618.3	618.3	618.2	618.1	618.1	618.0	617.9	617.9
	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8	617.8
	617.7	617.7	617.7	617.7	617.7	617.7	617.7	617.7	617.7	617.7
	617.7	617.6	617.6	617.6	617.6	617.6	617.6	617.6	617.6	617.6
	617.6	617.6	617.6	617.5	617.5	617.5	617.5	617.5	617.5	617.5
	617.6	617.6	617.6	617.5	617.5	617.4	617.4	617.4	617.4	617.4
	617.5	617.5	617.5	617.5	617.4	617.4	617.4	617.4	617.4	617.4
	617.4	617.4	617.4	617.4	617.4	617.3	617.3	617.3	617.3	617.3
	617.3	617.3	617.2	617.2	617.1	617.0	617.0	616.9	616.8	616.8
	616.8	616.8								
0145	617.9	617.9	617.9	617.8	617.8	617.7	617.7	617.6	617.5	617.5
	617.4	617.4	617.4	617.4	617.4	617.4	617.4	617.3	617.3	617.3
	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.3	617.2	617.2
	617.2	617.2	617.2	617.2	617.2	617.2	617.2	617.2	617.2	617.2
	617.1	617.1	617.1	617.1	617.1	617.1	617.1	617.1	617.1	617.1
	617.1	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	616.9	616.9	616.9	616.9	616.9	616.9	616.9	616.9
	616.9	616.8	616.8	616.8	616.7	616.6	616.5	616.5	616.4	616.4
	616.3	616.3								
0146	617.5	617.5	617.5	617.4	617.4	617.3	617.2	617.2	617.1	617.0
	617.0	617.0	617.0	617.0	616.9	616.9	616.9	616.9	616.9	616.9
	616.9	616.9	616.9	616.9	616.9	616.8	616.8	616.8	616.8	616.8
	616.8	616.8	616.8	616.8	616.8	616.8	616.8	616.7	616.7	616.7
	616.7	616.7	616.7	616.7	616.7	616.7	616.7	616.7	616.6	616.6
	616.6	616.6	616.6	616.6	616.6	616.6	616.6	616.6	616.6	616.5
	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5
	616.4	616.4	616.4	616.3	616.3	616.2	616.1	616.0	616.0	615.9
	615.9	615.9								
0147	617.1	617.1	617.0	617.0	616.9	616.9	616.8	616.7	616.7	616.6
	616.6	616.6	616.5	616.5	616.5	616.5	616.5	616.5	616.5	616.5
	616.5	616.5	616.5	616.4	616.4	616.4	616.4	616.4	616.4	616.4
	616.4	616.4	616.4	616.4	616.3	616.3	616.3	616.3	616.3	616.3
	616.3	616.3	616.3	616.3	616.3	616.2	616.2	616.2	616.2	616.2
	616.2	616.2	616.2	616.2	616.2	616.2	616.1	616.1	616.1	616.1
	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.0	616.0	616.0
	616.0	616.0	615.9	615.9	615.8	615.7	615.7	615.6	615.5	615.5
	615.5	615.5								
0148	616.6	616.6	616.6	616.6	616.5	616.5	616.4	616.3	616.2	616.2
	616.2	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1	616.1
	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0
	616.0	615.9	615.9	615.9	615.9	615.9	615.9	615.9	615.9	615.9
	615.9	615.9	615.8	615.8	615.8	615.8	615.8	615.8	615.8	615.8
	615.8	615.8	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.7
	615.7	615.7	615.7	615.7	615.6	615.6	615.6	615.6	615.6	615.6
	615.6	615.6	615.5	615.5	615.4	615.3	615.2	615.2	615.1	615.1
	615.0	615.0								
0149	616.2	616.2	616.2	616.2	616.1	616.0	616.0	615.9	615.8	615.8
	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.6	615.6	615.6
	615.6	615.6	615.6	615.6	615.6	615.6	615.6	615.6	615.5	615.5
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	615.4	615.4	615.4	615.4	615.4	615.4	615.4	615.4	615.4	615.3
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	615.2	615.2	615.2	615.2	615.2	615.2	615.2	615.2	615.2	615.2
	615.1	615.1	615.1	615.0	615.0	614.9	614.8	614.7	614.7	614.6
	614.6	614.6								
0150	615.8	615.8	615.8	615.7	615.7	615.6	615.5	615.5	615.4	615.3
	615.3	615.3	615.3	615.3	615.2	615.2	615.2	615.2	615.2	615.2
	615.2	615.2	615.2	615.2	615.2	615.1	615.1	615.1	615.1	615.1
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	615.0	615.0	615.0	615.0	615.0	615.0	614.9	614.9	614.9	614.9
	614.9	614.9	614.9	614.9	614.9	614.9	614.9	614.8	614.8	614.8
	614.8	614.8	614.8	614.8	614.8	614.8	614.8	614.8	614.7	614.7
	614.7	614.7	614.7	614.6	614.5	614.4	614.4	614.3	614.2	614.2
	614.2	614.1								
0151	615.4	615.4	615.3	615.3	615.3	615.2	615.1	615.0	615.0	614.9
	614.9	614.9	614.8	614.8	614.8	614.8	614.8	614.8	614.8	614.8
	614.8	614.7	614.7	614.7	614.7	614.7	614.7	614.7	614.7	614.7
	614.7	614.7	614.6	614.6	614.6	614.6	614.6	614.6	614.6	614.6
	614.6	614.6	614.6	614.5	614.5	614.5	614.5	614.5	614.5	614.5
	614.5	614.5	614.5	614.4	614.4	614.4	614.4	614.4	614.4	614.4
	614.4	614.4	614.4	614.4	614.3	614.3	614.3	614.3	614.3	614.3
	614.3	614.3	614.2	614.2	614.1	614.0	613.9	613.8	613.8	613.7
	613.7	613.7								

0152	615.0	615.0	614.9	614.9	614.8	614.8	614.7	614.6	614.5	614.5
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	613.8	613.8	613.8	613.7	613.6	613.6	613.5	613.4	613.4	613.3
	613.3	613.3								
0153	614.5	614.5	614.5	614.5	614.4	614.3	614.3	614.2	614.1	614.1
	614.0	614.0	614.0	614.0	614.0	613.9	613.9	613.9	613.9	613.9
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	613.8	613.8	613.8	613.8	613.8	613.8	613.7	613.7	613.7	613.7
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	613.4	613.4	613.3	613.3	613.2	613.1	613.0	613.0	612.9	612.9
	612.8	612.8								
0154	614.1	614.1	614.1	614.0	614.0	613.9	613.8	613.8	613.7	613.6
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	613.5	613.5	613.5	613.4	613.4	613.4	613.4	613.4	613.4	613.4
	613.4	613.4	613.4	613.3	613.3	613.3	613.3	613.3	613.3	613.3
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	613.2	613.2	613.2	613.1	613.1	613.1	613.1	613.1	613.1	613.1
	613.1	613.1	613.1	613.1	613.0	613.0	613.0	613.0	613.0	613.0
	613.0	612.9	612.9	612.9	612.8	612.7	612.6	612.5	612.5	612.4
	612.4	612.4								
0155	613.7	613.7	613.7	613.6	613.6	613.5	613.4	613.3	613.3	613.2
	613.2	613.1	613.1	613.1	613.1	613.1	613.1	613.1	613.1	613.0
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	612.0	611.9								
0156	613.3	613.3	613.2	613.2	613.1	613.1	613.0	612.9	612.8	612.8
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	612.5	612.5	612.5	612.5	612.5	612.5	612.4	612.4	612.4	612.4
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	612.2	612.2	612.2	612.2	612.2	612.2	612.1	612.1	612.1	612.1
	612.1	612.1	612.0	612.0	611.9	611.8	611.7	611.6	611.6	611.5
	611.5	611.5								
0157	612.8	612.8	612.8	612.8	612.7	612.6	612.6	612.5	612.4	612.3
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	611.9	611.9	611.9	611.8	611.8	611.8	611.8	611.8	611.8	611.8
	611.8	611.8	611.8	611.7	611.7	611.7	611.7	611.7	611.7	611.7
	611.7	611.6	611.6	611.5	611.4	611.4	611.3	611.2	611.1	611.1
	611.1	611.0								
0158	612.4	612.4	612.4	612.3	612.3	612.2	612.1	612.0	612.0	611.9
	611.9	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8	611.8
	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7	611.7
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	611.2	611.2	611.2	611.1	611.0	610.9	610.8	610.8	610.7	610.6
	610.6	610.6								
0159	612.0	612.0	611.9	611.9	611.9	611.8	611.7	611.6	611.5	611.5
	611.4	611.4	611.4	611.4	611.4	611.4	611.3	611.3	611.3	611.3
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	611.0	611.0	611.0	611.0	611.0	610.9	610.9	610.9	610.9	610.9
	610.9	610.9	610.9	610.9	610.9	610.8	610.8	610.8	610.8	610.8
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	610.2	610.2								
0160	611.6	611.5	611.5	611.5	611.4	611.4	611.3	611.2	611.1	611.0
	611.0	611.0	611.0	610.9	610.9	610.9	610.9	610.9	610.9	610.9
	610.9	610.9	610.9	610.8	610.8	610.8	610.8	610.8	610.8	610.8
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	610.3	610.3	610.3	610.2	610.1	610.0	609.9	609.9	609.8	609.8
	609.7	609.7								
0161	611.1	611.1	611.1	611.0	611.0	610.9	610.8	610.7	610.7	610.6
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	610.0	610.0	610.0	610.0	610.0	610.0	610.0	609.9	609.9	609.9
	609.9	609.9	609.8	609.8	609.7	609.6	609.5	609.4	609.4	609.3
	609.3	609.3								
0162	610.7	610.7	610.7	610.6	610.6	610.5	610.4	610.3	610.2	610.2
	610.1	610.1	610.1	610.1	610.1	610.1	610.0	610.0	610.0	610.0
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	609.5	609.4	609.4	609.3	609.2	609.1	609.0	609.0	608.9	608.9
	608.8	608.8								
0163	610.3	610.3	610.2	610.2	610.1	610.1	610.0	609.9	609.8	609.7
	609.7	609.7	609.6	609.6	609.6	609.6	609.6	609.6	609.6	609.6
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	609.0	609.0	608.9	608.9	608.8	608.7	608.6	608.5	608.5	608.4
	608.4	608.4								
0164	609.8	609.8	609.8	609.8	609.7	609.6	609.5	609.4	609.4	609.3
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	608.6	608.5	608.5	608.4	608.3	608.2	608.1	608.1	608.0	608.0
	607.9	607.9								
0165	609.4	609.4	609.4	609.3	609.3	609.2	609.1	609.0	608.9	608.9
	608.8	608.8	608.8	608.8	608.8	608.7	608.7	608.7	608.7	608.7
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	608.1	608.1	608.1	608.0	607.9	607.8	607.7	607.6	607.6	607.5
	607.5	607.4								
0166	609.0	609.0	608.9	608.9	608.8	608.8	608.7	608.6	608.5	608.4
	608.4	608.4	608.3	608.3	608.3	608.3	608.3	608.3	608.3	608.3
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0167	608.6	608.5	608.5	608.5	608.4	608.3	608.2	608.1	608.1	608.0
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0168	608.1	608.1	608.1	608.0	608.0	607.9	607.8	607.7	607.6	607.6
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0175	605.1	605.1	605.0	605.0	604.9	604.8	604.7	604.6	604.5	604.5
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0181	602.4	602.4	602.4	602.3	602.3	602.2	602.1	602.0	601.9	601.8
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0183	601.6	601.5	601.5	601.4	601.4	601.3	601.2	601.1	601.0	600.9
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	597.8	597.8	597.8	597.8	597.8	597.7	597.7	597.7	597.7	597.7
	597.7	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.5	597.5
	597.5	597.5	597.5	597.5	597.5	597.4	597.4	597.4	597.4	597.4
	597.4	597.4	597.3	597.3	597.3	597.3	597.3	597.3	597.3	597.2
	597.2	597.2	597.1	597.0	596.9	596.8	596.6	596.5	596.5	596.4
	596.3	596.3								
0190	598.3	598.3	598.3	598.2	598.1	598.0	597.9	597.8	597.7	597.6
	597.6	597.5	597.5	597.5	597.5	597.4	597.4	597.4	597.4	597.4
	597.4	597.4	597.4	597.3	597.3	597.3	597.3	597.3	597.3	597.2
	597.2	597.2	597.2	597.2	597.2	597.2	597.1	597.1	597.1	597.1
	597.1	597.1	597.1	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	596.9	596.9	596.9	596.9	596.9	596.9	596.9	596.8	596.8	596.8
	596.8	596.8	596.8	596.8	596.7	596.7	596.7	596.7	596.7	596.7
	596.6	596.6	596.5	596.4	596.3	596.2	596.1	596.0	595.9	595.8
	595.7	595.7								
0191	597.5	597.5	597.4	597.4	597.3	597.2	597.1	597.0	596.8	596.8
	596.7	596.7	596.6	596.6	596.6	596.6	596.6	596.6	596.5	596.5
	596.5	596.5	596.5	596.5	596.5	596.4	596.4	596.4	596.4	596.4
	596.4	596.4	596.3	596.3	596.3	596.3	596.3	596.3	596.3	596.2
	596.2	596.2	596.2	596.2	596.2	596.1	596.1	596.1	596.1	596.1
	596.1	596.1	596.0	596.0	596.0	596.0	596.0	596.0	596.0	595.9
	595.9	595.9	595.9	595.9	595.9	595.8	595.8	595.8	595.8	595.8
	595.8	595.7	595.7	595.6	595.4	595.3	595.2	595.1	595.0	594.9
	594.9	594.8								
0192	596.2	596.2	596.2	596.1	596.0	595.9	595.8	595.7	595.6	595.5
	595.4	595.4	595.3	595.3	595.3	595.3	595.3	595.3	595.3	595.2
	595.2	595.2	595.2	595.2	595.2	595.2	595.1	595.1	595.1	595.1
	595.1	595.1	595.0	595.0	595.0	595.0	595.0	595.0	595.0	594.9
	594.9	594.9	594.9	594.9	594.9	594.8	594.8	594.8	594.8	594.8
	594.8	594.8	594.7	594.7	594.7	594.7	594.7	594.7	594.6	594.6

	594.6	594.6	594.6	594.6	594.6	594.5	594.5	594.5	594.5	594.5
	594.4	594.4	594.3	594.2	594.1	594.0	593.8	593.7	593.6	593.6
	593.5	593.5								
0193	594.3	594.3	594.3	594.2	594.1	594.0	593.9	593.8	593.6	593.5
	593.5	593.4	593.4	593.4	593.4	593.4	593.3	593.3	593.3	593.3
	593.3	593.3	593.3	593.2	593.2	593.2	593.2	593.2	593.2	593.1
	593.1	593.1	593.1	593.1	593.1	593.0	593.0	593.0	593.0	593.0
	593.0	592.9	592.9	592.9	592.9	592.9	592.9	592.8	592.8	592.8
	592.8	592.8	592.8	592.8	592.7	592.7	592.7	592.7	592.7	592.7
	592.6	592.6	592.6	592.6	592.6	592.6	592.5	592.5	592.5	592.5
	592.5	592.4	592.3	592.3	592.1	592.0	591.8	591.7	591.6	591.5
	591.5	591.4								
0194	591.5	591.4	591.4	591.3	591.2	591.1	591.0	590.8	590.7	590.6
	590.5	590.5	590.5	590.5	590.4	590.4	590.4	590.4	590.4	590.4
	590.3	590.3	590.3	590.3	590.3	590.3	590.2	590.2	590.2	590.2
	590.2	590.2	590.1	590.1	590.1	590.1	590.1	590.0	590.0	590.0
	590.0	590.0	590.0	589.9	589.9	589.9	589.9	589.9	589.9	589.8
	589.8	589.8	589.8	589.8	589.8	589.7	589.7	589.7	589.7	589.7
	589.6	589.6	589.6	589.6	589.6	589.6	589.5	589.5	589.5	589.5
	589.5	589.4	589.3	589.2	589.1	588.9	588.8	588.6	588.5	588.4
	588.4	588.4								
0195	587.1	587.1	587.0	587.0	586.9	586.7	586.6	586.4	586.3	586.2
	586.1	586.1	586.0	586.0	586.0	586.0	586.0	585.9	585.9	585.9
	585.9	585.9	585.8	585.8	585.8	585.8	585.8	585.7	585.7	585.7
	585.7	585.7	585.7	585.6	585.6	585.6	585.6	585.6	585.5	585.5
	585.5	585.5	585.5	585.4	585.4	585.4	585.4	585.4	585.3	585.3
	585.3	585.3	585.3	585.2	585.2	585.2	585.2	585.2	585.1	585.1
	585.1	585.1	585.1	585.0	585.0	585.0	585.0	585.0	585.0	584.9
	584.9	584.8	584.8	584.6	584.5	584.3	584.1	584.0	583.9	583.8
	583.7	583.7								
0196	581.8	581.8	581.8	581.7	581.6	581.4	581.2	581.1	580.9	580.8
	580.7	580.6	580.6	580.6	580.6	580.5	580.5	580.5	580.5	580.5
	580.4	580.4	580.4	580.4	580.3	580.3	580.3	580.3	580.3	580.2
	580.2	580.2	580.2	580.2	580.1	580.1	580.1	580.1	580.0	580.0
	580.0	580.0	580.0	579.9	579.9	579.9	579.9	579.8	579.8	579.8
	579.8	579.8	579.7	579.7	579.7	579.7	579.6	579.6	579.6	579.6
	579.6	579.5	579.5	579.5	579.5	579.4	579.4	579.4	579.4	579.4
	579.3	579.3	579.2	579.0	578.8	578.6	578.4	578.3	578.1	578.0
	577.9	577.9								
0197	576.5	576.5	576.4	576.3	576.2	576.0	575.8	575.6	575.4	575.3
	575.2	575.1	575.1	575.1	575.0	575.0	575.0	575.0	574.9	574.9
	574.9	574.9	574.8	574.8	574.8	574.8	574.8	574.7	574.7	574.7
	574.7	574.6	574.6	574.6	574.6	574.5	574.5	574.5	574.5	574.4
	574.4	574.4	574.4	574.3	574.3	574.3	574.3	574.2	574.2	574.2
	574.2	574.1	574.1	574.1	574.1	574.0	574.0	574.0	574.0	573.9
	573.9	573.9	573.9	573.8	573.8	573.8	573.8	573.7	573.7	573.7
	573.6	573.6	573.5	573.3	573.1	572.8	572.6	572.4	572.3	572.1
	572.1	572.0								
0198	571.1	571.0	571.0	570.8	570.7	570.5	570.3	570.1	569.9	569.7
	569.6	569.5	569.5	569.4	569.4	569.4	569.4	569.4	569.3	569.3
	569.3	569.2	569.2	569.2	569.2	569.1	569.1	569.1	569.1	569.0
	569.0	569.0	568.9	568.9	568.9	568.9	568.8	568.8	568.8	568.8
	568.7	568.7	568.7	568.6	568.6	568.6	568.6	568.5	568.5	568.5
	568.4	568.4	568.4	568.4	568.3	568.3	568.3	568.2	568.2	568.2
	568.2	568.1	568.1	568.1	568.0	568.0	568.0	568.0	567.9	567.9
	567.8	567.8	567.6	567.5	567.2	566.9	566.7	566.5	566.3	566.1
	566.0	566.0								
0199	565.6	565.5	565.5	565.3	565.2	565.0	564.7	564.5	564.2	564.1
	564.0	563.9	563.8	563.8	563.8	563.7	563.7	563.7	563.6	563.6
	563.6	563.5	563.5	563.5	563.5	563.4	563.4	563.4	563.3	563.3
	563.3	563.2	563.2	563.2	563.1	563.1	563.1	563.0	563.0	563.0
	562.9	562.9	562.9	562.9	562.8	562.8	562.8	562.7	562.7	562.7
	562.6	562.6	562.6	562.5	562.5	562.5	562.4	562.4	562.4	562.3
	562.3	562.3	562.2	562.2	562.2	562.1	562.1	562.1	562.0	562.0
	561.9	561.8	561.7	561.5	561.2	560.9	560.6	560.3	560.1	560.0
	559.8	559.8								
0200	560.0	560.0	559.9	559.8	559.6	559.4	559.1	558.8	558.5	558.3
	558.2	558.1	558.1	558.0	558.0	558.0	557.9	557.9	557.9	557.8
	557.8	557.8	557.7	557.7	557.6	557.6	557.6	557.5	557.5	557.5
	557.4	557.4	557.4	557.3	557.3	557.3	557.2	557.2	557.2	557.1
	557.1	557.0	557.0	557.0	556.9	556.9	556.9	556.8	556.8	556.8
	556.7	556.7	556.6	556.6	556.6	556.5	556.5	556.5	556.4	556.4
	556.3	556.3	556.3	556.2	556.2	556.2	556.1	556.1	556.0	556.0
	555.9	555.8	555.7	555.4	555.1	554.7	554.4	554.1	553.8	553.6
	553.5	553.4								
0201	554.4	554.4	554.3	554.1	553.9	553.7	553.4	553.1	552.8	552.6
	552.4	552.3	552.2	552.2	552.1	552.1	552.1	552.0	552.0	552.0
	551.9	551.9	551.8	551.8	551.8	551.7	551.7	551.7	551.6	551.6
	551.5	551.5	551.5	551.4	551.4	551.3	551.3	551.2	551.2	551.2
	551.1	551.1	551.0	551.0	551.0	550.9	550.9	550.8	550.8	550.8
	550.7	550.7	550.6	550.6	550.5	550.5	550.5	550.4	550.4	550.3
	550.3	550.2	550.2	550.2	550.1	550.1	550.0	550.0	550.0	549.9
	549.8	549.7	549.5	549.3	548.9	548.5	548.1	547.7	547.4	547.2
	547.0	546.9								
0202	548.8	548.8	548.6	548.5	548.2	548.0	547.6	547.3	546.9	546.7
	546.5	546.4	546.3	546.3	546.2	546.2	546.2	546.1	546.1	546.0
	546.0	545.9	545.9	545.9	545.8	545.8	545.7	545.7	545.6	545.6
	545.5	545.5	545.5	545.4	545.4	545.3	545.3	545.2	545.2	545.1
	545.1	545.0	545.0	544.9	544.9	544.9	544.8	544.8	544.7	544.7
	544.6	544.6	544.5	544.5	544.4	544.4	544.3	544.3	544.2	544.2
	544.1	544.1	544.0	544.0	543.9	543.9	543.9	543.8	543.8	543.7
	543.6	543.5	543.3	543.0	542.5	542.0	541.6	541.1	540.8	540.5
	540.3	540.2								
0203	543.1	543.1	542.9	542.7	542.5	542.2	541.8	541.4	541.0	540.8
	540.6	540.4	540.4	540.3	540.3	540.2	540.2	540.1	540.1	540.0
	540.0	539.9	539.9	539.8	539.8	539.7	539.7	539.6	539.6	539.5
	539.5	539.4	539.4	539.3	539.3	539.2	539.2	539.1	539.1	539.0
	539.0	538.9	538.9	538.8	538.8	538.7	538.6	538.6	538.5	538.5
	538.4	538.4	538.3	538.3	538.2	538.2	538.1	538.1	538.0	537.9
	537.9	537.8	537.8	537.7	537.7	537.6	537.6	537.5	537.5	537.4
	537.3	537.1	536.9	536.6	536.1	535.5	534.9	534.4	534.0	533.7
	533.5	533.3								
0204	537.4	537.3	537.2	537.0	536.7	536.4	536.0	535.5	535.1	534.8
	534.6	534.4	534.3	534.3	534.2	534.2	534.1	534.1	534.0	534.0
	533.9	533.8	533.8	533.7	533.7	533.6	533.6	533.5	533.5	533.4
	533.3	533.3	533.2	533.2	533.1	533.1	533.0	532.9	532.9	532.8
	532.8	532.7	532.6	532.6	532.5	532.5	532.4	532.3	532.3	532.2
	532.2	532.1	532.0	532.0	531.9	531.9	531.8	531.7	531.7	531.6
	531.6	531.5	531.4	531.4	531.3	531.2	531.2	531.1	531.1	531.0
	530.9	530.7	530.4	530.0	529.5	528.8	528.1	527.6	527.1	526.7
	526.4	526.2								
0205	531.7	531.6	531.4	531.2	530.9	530.5	530.1	529.6	529.1	528.7
	528.5	528.4	528.2	528.2	528.1	528.1	528.0	527.9	527.9	527.8
	527.8	527.7	527.6	527.6	527.5	527.5	527.4	527.3	527.3	527.2
	527.1	527.1	527.0	526.9	526.9	526.8	526.8	526.7	526.6	526.6
	526.5	526.4	526.4	526.3	526.2	526.2	526.1	526.0	526.0	525.9
	525.8	525.8	525.7	525.6	525.5	525.5	525.4	525.3	525.3	525.2
	525.1	525.1	525.0	524.9	524.9	524.8	524.7	524.6	524.6	524.5
	524.3	524.1	523.8	523.4	522.7	521.9	521.2	520.5	519.9	519.4
	519.1	518.9								
0206	525.9	525.8	525.7	525.6	525.0	524.6	524.1	523.6	523.0	522.7
	522.4	522.2	522.1	522.0	522.0	521.9	521.8	521.8	521.7	521.6

	521.6	521.5	521.4	521.4	521.3	521.2	521.2	521.1	521.0	520.9
	520.9	520.8	520.7	520.7	520.6	520.5	520.4	520.4	520.3	520.2
	520.2	520.1	520.0	519.9	519.9	519.8	519.7	519.6	519.6	519.5
	519.4	519.3	519.2	519.2	519.1	519.0	518.9	518.9	518.8	518.7
	518.6	518.5	518.5	518.4	518.3	518.2	518.1	518.1	518.0	517.9
	517.7	517.5	517.2	516.7	515.9	515.0	514.1	513.3	512.5	511.9
	511.5	511.3								
0207	520.2	520.1	519.9	519.6	519.2	518.7	518.2	517.5	516.9	516.5
	516.2	516.1	515.9	515.8	515.8	515.7	515.6	515.5	515.5	515.4
	515.3	515.2	515.2	515.1	515.0	514.9	514.9	514.8	514.7	514.6
	514.6	514.5	514.4	514.3	514.2	514.2	514.1	514.0	513.9	513.8
	513.8	513.7	513.6	513.5	513.4	513.3	513.3	513.2	513.1	513.0
	512.9	512.8	512.7	512.7	512.6	512.5	512.4	512.3	512.2	512.1
	512.0	512.0	511.9	511.8	511.7	511.6	511.5	511.4	511.3	511.2
	511.0	510.8	510.4	509.8	508.9	507.9	506.8	505.8	504.9	504.2
	503.6	503.3								
0208	514.4	514.3	514.1	513.7	513.3	512.8	512.2	511.5	510.8	510.4
	510.1	509.8	509.7	509.6	509.5	509.4	509.4	509.3	509.2	509.1
	509.0	509.0	508.9	508.8	508.7	508.6	508.5	508.4	508.4	508.3
	508.2	508.1	508.0	507.9	507.8	507.7	507.7	507.6	507.5	507.4
	507.3	507.2	507.1	507.0	506.9	506.8	506.7	506.7	506.6	506.5
	506.4	506.3	506.2	506.1	506.0	505.9	505.8	505.7	505.6	505.5
	505.4	505.3	505.2	505.1	505.0	504.9	504.8	504.7	504.6	504.5
	504.3	504.0	503.6	502.9	501.9	500.7	499.4	498.2	497.1	496.1
	495.3	495.0								
0209	508.6	508.5	508.3	507.9	507.4	506.8	506.2	505.4	504.7	504.2
	503.8	503.6	503.4	503.3	503.2	503.2	503.1	503.0	502.9	502.8
	502.7	502.6	502.5	502.4	502.3	502.3	502.2	502.1	502.0	501.9
	501.8	501.7	501.6	501.5	501.4	501.3	501.3	501.2	501.1	501.0	500.9
	500.8	500.7	500.6	500.5	500.4	500.3	500.2	500.1	500.0	499.9
	499.8	499.7	499.6	499.5	499.3	499.2	499.1	499.0	498.9	498.8
	498.7	498.6	498.5	498.4	498.3	498.1	498.0	497.9	497.8	497.7
	497.5	497.1	496.7	495.9	494.8	493.4	491.9	490.4	489.0	487.7
	486.7	486.1								
0210	502.9	502.8	502.5	502.1	501.6	500.9	500.2	499.3	498.5	498.0
	497.6	497.3	497.2	497.0	496.9	496.8	496.7	496.7	496.6	496.5
	496.4	496.3	496.2	496.1	496.0	495.9	495.7	495.6	495.5	495.4
	495.3	495.2	495.1	495.0	494.9	494.8	494.7	494.6	494.5	494.4
	494.3	494.1	494.0	493.9	493.8	493.7	493.6	493.5	493.4	493.2
	493.1	493.0	492.9	492.8	492.7	492.6	492.4	492.3	492.2	492.1
	492.0	491.8	491.7	491.6	491.5	491.3	491.2	491.1	491.0	490.8
	490.6	490.2	489.7	488.9	487.6	486.0	484.3	482.5	480.7	478.9
	477.4	476.6								
0211	497.2	497.1	496.7	496.3	495.7	495.0	494.1	493.2	492.4	491.7
	491.3	491.0	490.8	490.7	490.6	490.5	490.4	490.3	490.2	490.1
	490.0	489.9	489.8	489.6	489.5	489.4	489.3	489.2	489.1	489.0
	488.9	488.7	488.6	488.5	488.4	488.3	488.2	488.0	487.9	487.8
	487.7	487.6	487.4	487.3	487.2	487.1	487.0	486.8	486.7	486.6
	486.5	486.3	486.2	486.1	486.0	485.8	485.7	485.6	485.4	485.3
	485.2	485.0	484.9	484.8	484.6	484.5	484.4	484.2	484.1	483.9
	483.7	483.3	482.7	481.8	480.4	478.6	476.7	474.6	472.3	469.8
	467.1	466.3								
0212	491.6	491.4	491.0	490.5	489.9	489.1	488.1	487.1	486.2	485.5
	485.1	484.7	484.5	484.4	484.3	484.2	484.0	483.9	483.8	483.7
	483.6	483.5	483.3	483.2	483.1	483.0	482.9	482.7	482.6	482.5
	482.4	482.2	482.1	482.0	481.9	481.7	481.6	481.5	481.4	481.2
	481.1	481.0	480.8	480.7	480.6	480.4	480.3	480.2	480.0	479.9
	479.8	479.6	479.5	479.3	479.2	479.1	478.9	478.8	478.6	478.5
	478.4	478.2	478.1	477.9	477.8	477.6	477.5	477.4	477.2	477.0
	476.8	476.3	475.7	474.7	473.2	471.1	469.2	466.8	463.8	460.9
	455.0	455.0								
0213	486.0	485.8	485.4	484.8	484.1	483.2	482.1	481.0	480.0	479.3
	478.8	478.4	478.2	478.0	477.9	477.8	477.7	477.5	477.4	477.3
	477.2	477.0	476.9	476.8	476.6	476.5	476.4	476.3	476.1	476.0
	475.9	475.7	475.6	475.5	475.3	475.2	475.0	474.9	474.8	474.6
	474.5	474.4	474.2	474.1	473.9	473.8	473.6	473.5	473.3	473.2
	473.0	472.9	472.7	472.6	472.4	472.3	472.1	472.0	471.8	471.7
	471.5	471.3	471.2	471.0	470.9	470.7	470.6	470.4	470.3	470.1
	469.8	469.4	468.7	467.8	466.1	463.5	461.9	459.7	455.0	455.0
	1000.	1000.								
0214	480.6	480.3	479.9	479.2	478.3	477.3	476.2	474.9	473.8	473.0
	472.5	472.1	471.9	471.7	471.6	471.4	471.3	471.2	471.0	470.9
	470.7	470.6	470.4	470.3	470.2	470.0	469.9	469.7	469.6	469.4
	469.3	469.2	469.0	468.9	468.8	468.6	468.5	468.3	468.2	468.1
	467.9	467.8	467.6	467.5	467.3	467.2	467.0	466.9	466.7	466.5
	466.4	466.2	466.0	465.9	465.7	465.5	465.3	465.1	464.9	464.7
	464.5	464.3	464.1	464.0	463.8	463.6	463.4	463.3	463.1	462.9
	462.7	462.3	461.8	461.0	459.4	455.0	455.0	455.0	1000.	1000.
	1000.	1000.								
0215	475.3	475.0	474.4	473.7	472.7	471.5	470.2	468.7	467.6	466.8
	466.3	465.9	465.6	465.4	465.3	465.1	464.9	464.8	464.6	464.4
	464.3	464.1	463.9	463.7	463.5	463.4	463.2	463.0	462.9	462.7
	462.6	462.5	462.3	462.2	462.1	462.0	461.9	461.7	461.6	461.5
	461.4	461.3	461.2	461.0	460.9	460.8	460.6	460.5	460.4	460.2
	460.0	459.9	459.7	459.5	459.2	459.0	458.7	458.5	458.2	457.8
	457.5	457.1	456.6	456.1	455.6	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0216	470.2	469.8	469.2	468.2	467.0	465.8	464.2	462.3	461.4	460.8
	460.3	460.0	459.7	459.5	459.3	459.1	458.9	458.7	458.5	458.2
	457.9	457.6	457.3	456.9	456.5	456.1	455.6	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0217	465.3	464.8	464.1	463.0	461.3	460.2	458.6	455.0	455.0	455.0
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	455.0	1000.	1000.
	455.0	455.0	455.0	455.0	455.0	455.0	455.0	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0218	460.8	460.0	459.3	458.1	455.0	455.0	455.0	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.								
0219	457.0	455.0	455.0	455.0	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.
	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.

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         1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.
         1000.       1000.
 0220    455.0       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.
         1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.
         1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.
         1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.
         1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.
         1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.
         1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.
         1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.       1000.
         1000.       1000.
 0HEAD WILL BE SAVED ON UNIT 42 AT END OF TIME STEP  1, STRESS PERIOD  1
 0


                          VOLUMETRIC BUDGET FOR ENTIRE MODEL AT END OF TIME STEP  1 IN STRESS PERIOD  1
                          ------------------------------------------------------------------------------
 0                   CUMULATIVE VOLUMES      L**3                        RATES FOR THIS TIME STEP      L**3/T
                     ------------------                                  ------------------------

                          IN:                                                 IN:
                          ---                                                 ---
                            STORAGE =   0.00000                                 STORAGE =   0.00000
                       CONSTANT HEAD =   0.00000                           CONSTANT HEAD =   0.00000
                            RECHARGE =   2003.9                                 RECHARGE =   2003.9
 0                       TOTAL IN =   2003.9                                 TOTAL IN =   2003.9
 0                        OUT:                                                OUT:
                          ----                                                ----
                            STORAGE =   0.00000                                 STORAGE =   0.00000
                       CONSTANT HEAD =   2004.0                            CONSTANT HEAD =   2004.0
                            RECHARGE =   0.00000                                RECHARGE =   0.00000
 0                       TOTAL OUT =   2004.0                                TOTAL OUT =   2004.0
 0                         IN - OUT =  -0.77393E-01                            IN - OUT =  -0.77393E-01
 0                PERCENT DISCREPANCY =         0.00                  PERCENT DISCREPANCY =         0.00


 0


               TIME SUMMARY AT END OF TIME STEP  1 IN STRESS PERIOD  1
                                  TIME STEP LENGTH =    1.00000
                               STRESS PERIOD TIME =    1.00000
                            TOTAL SIMULATION TIME =    1.00000
 1
```

APPENDIX D

MODFLOW Model Sensitivity Analysis Results

- **Sensitivity of Heads to Net Recharge**
- **Sensitivity of Heads to K_h**
- **Sensitivity of Heads to K_v**

- **Sensitivity of Header to Net Recharge**

Sensitivity of Heads to Net Recharge

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	0% Recharge: MODEL HEAD	1.332E-05 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	736.1	-4.7	4.7
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	734.0	-3.9	3.9
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	733.2	-2.1	2.1
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	730.8	-1.0	1.0
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	732.9	1.9	1.9
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	731.9	2.1	2.1
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	729.5	1.4	1.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	663.9	-22.9	22.9
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	660.6	-17.7	17.7
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	658.5	-15.0	15.0
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	658.3	-5.1	5.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	650.4	-6.7	6.7
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	649.8	-7.2	7.2
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	650.7	-5.0	5.0
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	648.8	-5.8	5.8
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	648.7	-5.1	5.1
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	649.6	-4.2	4.2
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	648.4	-3.3	3.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	646.2	-3.7	3.7
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	645.9	-2.7	2.7
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	642.6	-4.3	4.3
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	642.2	-3.4	3.4
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	642.2	-3.3	3.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	646.0	0.7	0.7
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	642.9	-2.0	2.0
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	642.2	-2.5	2.5
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	639.9	-3.9	3.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	640.2	-0.8	0.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	640.2	-0.7	0.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	641.3	1.1	1.1
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	639.8	-0.2	0.2
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	637.0	1.9	1.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	635.2	0.1	0.1
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	635.5	1.3	1.3
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	632.9	-1.1	1.1
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	634.4	0.9	0.9
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	632.9	-0.5	0.5
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	636.2	2.8	2.8
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	635.1	2.0	2.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	638.4	6.6	6.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	634.3	2.6	2.6
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	634.3	2.7	2.7
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	634.3	2.7	2.7
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	633.6	2.0	2.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	634.4	3.2	3.2
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	632.0	1.0	1.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	633.9	3.3	3.3
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	635.8	5.5	5.5
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	632.8	2.6	2.6
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	629.6	0.5	0.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	629.9	0.8	0.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	629.9	0.9	0.9
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	635.3	6.9	6.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	627.9	0.6	0.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	627.9	1.0	1.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	627.9	1.0	1.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	624.3	0.3	0.3
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	624.3	0.3	0.3
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	624.3	1.8	1.8
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	604.0	-4.3	4.3

Statistical Calculations:

Monitoring Wells	
ME=	-1.58
MAE=	4.03

Sensitivity of Heads to Net Recharge

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Recharge: MODEL HEAD	-5% 1.260E-05 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	720.9	-19.9	19.9
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	718.9	-19.0	19.0
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	718.2	-17.1	17.1
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	715.9	-15.9	15.9
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	717.9	-13.1	13.1
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	716.9	-12.9	12.9
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	714.7	-13.4	13.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	652.6	-34.2	34.2
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	649.5	-28.8	28.8
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	647.5	-26.0	26.0
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	647.3	-16.1	16.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	639.8	-17.3	17.3
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	639.3	-17.7	17.7
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	640.2	-15.5	15.5
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	638.3	-16.3	16.3
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	638.2	-15.6	15.6
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	639.1	-14.7	14.7
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	637.9	-13.8	13.8
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	635.9	-14.0	14.0
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	635.6	-13.0	13.0
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	632.4	-14.5	14.5
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	632.0	-13.6	13.6
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	632.0	-13.5	13.5
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	635.7	-9.6	9.6
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	632.7	-12.2	12.2
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	632.0	-12.7	12.7
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	629.9	-13.9	13.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	630.2	-10.8	10.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	630.2	-10.7	10.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	631.2	-9.0	9.0
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	629.8	-10.2	10.2
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	627.2	-7.9	7.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	625.5	-9.6	9.6
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	625.7	-8.5	8.5
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	623.3	-10.7	10.7
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	624.7	-8.8	8.8
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	623.3	-10.1	10.1
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	626.4	-7.0	7.0
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	625.4	-7.7	7.7
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	628.5	-3.3	3.3
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	624.7	-7.0	7.0
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	624.6	-7.0	7.0
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	624.7	-6.9	6.9
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	624.0	-7.6	7.6
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	624.7	-6.5	6.5
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	622.4	-8.6	8.6
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	624.2	-6.4	6.4
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	626.0	-4.3	4.3
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	623.2	-7.0	7.0
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	620.1	-9.0	9.0
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	620.4	-8.7	8.7
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	620.4	-8.6	8.6
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	625.5	-2.9	2.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	618.6	-8.7	8.7
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	618.6	-8.3	8.3
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	618.6	-8.3	8.3
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	615.2	-8.8	8.8
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	615.2	-8.8	8.8
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	615.2	-7.3	7.3
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	596.0	-12.3	12.3

Statistical Calculations:

Monitoring Wells	
ME=	-13.95
MAE=	13.95

Sensitivity of Heads to Net Recharge

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Recharge: -15% 1.132E-05 MODEL HEAD	Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	693.9	-46.9	46.9
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	692.1	-45.8	45.8
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	691.4	-43.9	43.9
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	689.4	-42.4	42.4
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	691.2	-39.8	39.8
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	690.3	-39.5	39.5
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	688.3	-39.8	39.8
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	632.6	-54.2	54.2
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	629.7	-48.6	48.6
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	627.9	-45.6	45.6
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	627.8	-35.6	35.6
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	621.0	-36.1	36.1
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	620.6	-36.4	36.4
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	621.3	-34.4	34.4
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	619.7	-34.9	34.9
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	619.6	-34.2	34.2
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	620.4	-33.4	33.4
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	619.3	-32.4	32.4
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	617.5	-32.4	32.4
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	617.2	-31.4	31.4
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	614.4	-32.5	32.5
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	614.1	-31.5	31.5
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	614.1	-31.4	31.4
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	617.3	-28.0	28.0
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	614.7	-30.2	30.2
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	614.1	-30.6	30.6
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	612.1	-31.7	31.7
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	612.4	-28.6	28.6
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	612.4	-28.5	28.5
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	613.3	-26.9	26.9
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	612.0	-28.0	28.0
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	609.7	-25.4	25.4
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	608.2	-26.9	26.9
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	608.4	-25.8	25.8
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	606.2	-27.8	27.8
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	607.5	-26.0	26.0
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	606.2	-27.2	27.2
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	609.0	-24.4	24.4
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	608.1	-25.0	25.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	610.9	-20.9	20.9
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	607.4	-24.3	24.3
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	607.4	-24.2	24.2
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	607.4	-24.2	24.2
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	606.8	-24.8	24.8
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	607.4	-23.8	23.8
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	605.4	-25.6	25.6
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	607.0	-23.6	23.6
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	608.6	-21.7	21.7
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	606.1	-24.1	24.1
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	603.4	-25.7	25.7
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	603.6	-25.5	25.5
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	603.6	-25.4	25.4
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	608.2	-20.2	20.2
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	602.0	-25.3	25.3
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	602.0	-24.9	24.9
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	602.0	-24.9	24.9
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	598.9	-25.1	25.1
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	598.9	-25.1	25.1
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	598.9	-23.6	23.6
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	581.6	-26.7	26.7

Statistical Calculations:

Monitoring Wells	
ME=	-35.95
MAE=	35.95

Sensitivity of Heads to Net Recharge

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Recharge: MODEL HEAD	-25% 1.001E-05 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	666.2	-74.6	74.6
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	664.6	-73.3	73.3
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	664.1	-71.2	71.2
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	662.2	-69.6	69.6
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	663.9	-67.1	67.1
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	663.1	-66.7	66.7
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	661.3	-66.8	66.8
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	612.0	-74.8	74.8
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	609.5	-68.8	68.8
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	607.9	-65.6	65.6
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	607.8	-55.6	55.6
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	601.8	-55.3	55.3
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	601.4	-55.6	55.6
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	602.1	-53.6	53.6
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	600.7	-53.9	53.9
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	600.6	-53.2	53.2
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	601.2	-52.6	52.6
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	600.3	-51.4	51.4
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	598.7	-51.2	51.2
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	598.5	-50.1	50.1
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	596.0	-50.9	50.9
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	595.6	-50.0	50.0
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	595.6	-49.9	49.9
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	598.5	-46.8	46.8
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	596.2	-48.7	48.7
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	595.6	-49.1	49.1
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	594.0	-49.8	49.8
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	594.2	-46.8	46.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	594.2	-46.7	46.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	595.0	-45.2	45.2
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	593.9	-46.1	46.1
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	591.8	-43.3	43.3
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	590.4	-44.7	44.7
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	590.6	-43.6	43.6
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	588.7	-45.3	45.3
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	589.8	-43.7	43.7
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	588.7	-44.7	44.7
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	591.2	-42.2	42.2
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	590.3	-42.8	42.8
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	592.8	-39.0	39.0
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	589.8	-41.9	41.9
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	589.7	-41.9	41.9
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	589.8	-41.8	41.8
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	589.2	-42.4	42.4
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	589.8	-41.4	41.4
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	588.0	-43.0	43.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	589.4	-41.2	41.2
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	590.9	-39.4	39.4
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	588.6	-41.6	41.6
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	586.2	-42.9	42.9
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	586.4	-42.7	42.7
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	586.4	-42.6	42.6
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	590.5	-37.9	37.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	585.0	-42.3	42.3
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	585.0	-41.9	41.9
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	585.0	-41.9	41.9
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	582.2	-41.8	41.8
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	582.3	-41.7	41.7
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	582.2	-40.3	40.3
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	566.9	-41.4	41.4

Statistical Calculations:

Monitoring Wells	
ME=	-58.47
MAE=	58.47

Sensitivity of Heads to Net Recharge

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Recharge: MODEL HEAD	+5% 1.399E-05 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	750.2	9.4	9.4
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	748.0	10.1	10.1
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	747.2	11.9	11.9
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	744.6	12.8	12.8
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	746.9	15.9	15.9
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	745.8	16.0	16.0
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	743.4	15.3	15.3
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	674.5	-12.3	12.3
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	670.9	-7.4	7.4
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	668.7	-4.8	4.8
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	668.5	5.1	5.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	660.2	3.1	3.1
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	659.6	2.6	2.6
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	660.6	4.9	4.9
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	658.6	4.0	4.0
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	658.5	4.7	4.7
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	659.4	5.6	5.6
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	658.1	6.4	6.4
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	655.9	6.0	6.0
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	655.5	6.9	6.9
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	652.0	5.1	5.1
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	651.6	6.0	6.0
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	651.6	6.1	6.1
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	655.6	10.3	10.3
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	652.3	7.4	7.4
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	651.6	6.9	6.9
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	649.2	5.4	5.4
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	649.5	8.5	8.5
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	649.5	8.6	8.6
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	650.7	10.5	10.5
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	649.1	9.1	9.1
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	645.0	9.9	9.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	644.3	9.2	9.2
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	644.6	10.4	10.4
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	641.9	7.9	7.9
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	643.5	10.0	10.0
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	641.9	8.5	8.5
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	645.3	11.9	11.9
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	644.2	11.1	11.1
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	647.7	15.9	15.9
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	643.4	11.7	11.7
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	643.3	11.7	11.7
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	643.4	11.8	11.8
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	642.6	11.0	11.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	643.4	12.2	12.2
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	640.9	9.9	9.9
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	642.9	12.3	12.3
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	644.9	14.6	14.6
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	641.7	11.5	11.5
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	638.3	9.2	9.2
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	638.7	9.6	9.6
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	638.7	9.7	9.7
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	644.4	16.0	16.0
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	636.6	9.3	9.3
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	636.6	9.7	9.7
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	636.6	9.7	9.7
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	632.8	8.8	8.8
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	632.8	8.8	8.8
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	632.8	10.3	10.3
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	611.5	3.2	3.2

Statistical Calculations:

Monitoring Wells	
ME=	9.92
MAE=	10.88

Sensitivity of Heads to Net Recharge

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Recharge: MODEL HEAD	+15% 1.532E-05 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	778.3	37.5	37.5
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	775.8	37.9	37.9
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	775.0	39.7	39.7
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	772.2	40.4	40.4
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	774.7	43.7	43.7
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	773.5	43.7	43.7
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	770.8	42.7	42.7
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	695.3	8.5	8.5
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	691.5	13.2	13.2
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	689.0	15.5	15.5
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	688.8	25.4	25.4
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	697.7	40.6	40.6
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	679.1	22.1	22.1
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	680.1	24.4	24.4
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	677.9	23.3	23.3
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	677.8	24.0	24.0
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	678.8	25.0	25.0
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	677.4	25.7	25.7
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	674.9	25.0	25.0
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	674.6	26.0	26.0
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	670.7	23.8	23.8
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	670.3	24.7	24.7
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	670.3	24.8	24.8
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	674.7	29.4	29.4
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	671.1	26.2	26.2
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	670.3	25.6	25.6
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	667.7	23.9	23.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	668.0	27.0	27.0
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	668.0	27.1	27.1
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	669.3	29.1	29.1
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	667.5	27.5	27.5
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	664.4	29.3	29.3
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	662.3	27.2	27.2
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	662.6	28.4	28.4
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	659.6	25.6	25.6
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	661.4	27.9	27.9
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	659.6	26.2	26.2
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	663.4	30.0	30.0
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	662.1	29.0	29.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	666.0	34.2	34.2
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	661.3	29.6	29.6
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	661.2	29.6	29.6
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	661.3	29.7	29.7
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	660.4	28.8	28.8
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	661.3	30.1	30.1
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	658.6	27.6	27.6
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	660.7	30.1	30.1
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	662.9	32.6	32.6
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	659.5	29.3	29.3
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	655.8	26.7	26.7
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	656.1	27.0	27.0
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	656.1	27.1	27.1
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	662.4	34.0	34.0
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	653.9	26.6	26.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	653.9	27.0	27.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	653.9	27.0	27.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	649.7	25.7	25.7
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	649.8	25.8	25.8
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	649.7	27.2	27.2
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	626.4	18.1	18.1

Statistical Calculations:

Monitoring Wells	
ME=	33.15
MAE=	33.15

Sensitivity of Heads to Net Recharge

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Recharge: MODEL HEAD	+25% 1.665E-05 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	806.4	65.6	65.6
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	803.7	65.8	65.8
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	802.8	67.5	67.5
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	799.7	67.9	67.9
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	802.4	71.4	71.4
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	801.1	71.3	71.3
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	798.2	70.1	70.1
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	716.2	29.4	29.4
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	725.3	47.0	47.0
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	709.3	35.8	35.8
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	709.1	45.7	45.7
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	699.2	42.1	42.1
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	698.5	41.5	41.5
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	699.7	44.0	44.0
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	697.3	42.7	42.7
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	697.1	43.3	43.3
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	698.2	44.4	44.4
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	696.7	45.0	45.0
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	694.0	44.1	44.1
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	693.6	45.0	45.0
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	689.5	42.6	42.6
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	688.9	43.3	43.3
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	688.9	43.4	43.4
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	693.7	48.4	48.4
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	689.8	44.9	44.9
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	688.9	44.2	44.2
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	686.1	42.3	42.3
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	686.5	45.5	45.5
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	686.5	45.6	45.6
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	687.9	47.7	47.7
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	686.0	46.0	46.0
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	682.6	47.5	47.5
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	680.3	45.2	45.2
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	680.6	46.4	46.4
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	677.4	43.4	43.4
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	697.3	63.8	63.8
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	677.4	44.0	44.0
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	681.5	48.1	48.1
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	680.1	47.0	47.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	684.3	52.5	52.5
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	679.2	47.5	47.5
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	679.1	47.5	47.5
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	679.2	47.6	47.6
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	678.3	46.7	46.7
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	679.2	48.0	48.0
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	676.3	45.3	45.3
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	678.6	48.0	48.0
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	681.0	50.7	50.7
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	677.2	47.0	47.0
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	673.2	44.1	44.1
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	673.6	44.5	44.5
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	673.6	44.6	44.6
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	680.4	52.0	52.0
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	671.2	43.9	43.9
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	671.2	44.3	44.3
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	671.2	44.3	44.3
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	666.7	42.7	42.7
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	666.7	42.7	42.7
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	666.7	44.2	44.2
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	641.3	33.0	33.0

Statistical Calculations:

Monitoring Wells	
ME=	56.28
MAE=	56.28

- **Sensitivity of Heads to K_h**

Sensitivity of Heads to Kh

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kh: MODEL HEAD	0% 1.0300 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	736.1	-4.7	4.7
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	734.0	-3.9	3.9
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	733.2	-2.1	2.1
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	730.8	-1.0	1.0
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	732.9	1.9	1.9
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	731.9	2.1	2.1
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	729.5	1.4	1.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	663.9	-22.9	22.9
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	660.6	-17.7	17.7
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	658.5	-15.0	15.0
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	658.3	-5.1	5.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	650.4	-6.7	6.7
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	649.8	-7.2	7.2
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	650.7	-5.0	5.0
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	648.8	-5.8	5.8
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	648.7	-5.1	5.1
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	649.6	-4.2	4.2
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	648.4	-3.3	3.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	646.2	-3.7	3.7
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	645.9	-2.7	2.7
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	642.6	-4.3	4.3
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	642.2	-3.4	3.4
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	642.2	-3.3	3.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	646.0	0.7	0.7
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	642.9	-2.0	2.0
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	642.2	-2.5	2.5
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	639.9	-3.9	3.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	640.2	-0.8	0.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	640.2	-0.7	0.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	641.3	1.1	1.1
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	639.8	-0.2	0.2
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	637.0	1.9	1.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	635.2	0.1	0.1
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	635.5	1.3	1.3
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	632.9	-1.1	1.1
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	634.4	0.9	0.9
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	632.9	-0.5	0.5
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	636.2	2.8	2.8
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	635.1	2.0	2.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	638.4	6.6	6.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	634.3	2.6	2.6
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	634.3	2.7	2.7
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	634.3	2.7	2.7
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	633.6	2.0	2.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	634.4	3.2	3.2
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	632.0	1.0	1.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	633.9	3.3	3.3
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	635.8	5.5	5.5
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	632.8	2.6	2.6
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	629.6	0.5	0.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	629.9	0.8	0.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	629.9	0.9	0.9
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	635.3	6.9	6.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	627.9	0.6	0.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	627.9	1.0	1.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	627.9	1.0	1.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	624.3	0.3	0.3
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	624.3	0.3	0.3
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	624.3	1.8	1.8
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	604.0	-4.3	4.3

Statistical Calculations:

Monitoring Wells	
ME=	-1.58
MAE=	4.03

Sensitivity of Heads to Kh

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kh: MODEL HEAD	-5% 0.9785 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	744.2	3.4	3.4
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	742.0	4.1	4.1
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	741.3	6.0	6.0
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	738.7	6.9	6.9
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	741.0	10.0	10.0
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	739.9	10.1	10.1
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	737.5	9.4	9.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	670.0	-16.8	16.8
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	666.5	-11.8	11.8
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	664.4	-9.1	9.1
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	664.2	0.8	0.8
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	656.0	-1.1	1.1
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	655.0	-2.0	2.0
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	656.4	0.7	0.7
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	654.4	-0.2	0.2
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	654.3	0.5	0.5
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	655.2	1.4	1.4
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	654.0	2.3	2.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	651.8	1.9	1.9
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	651.4	2.8	2.8
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	648.0	1.1	1.1
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	647.6	2.0	2.0
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	647.6	2.1	2.1
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	651.5	6.2	6.2
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	648.3	3.4	3.4
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	647.6	2.9	2.9
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	645.3	1.5	1.5
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	645.6	4.6	4.6
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	645.6	4.7	4.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	646.7	6.5	6.5
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	645.1	5.1	5.1
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	642.3	7.2	7.2
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	640.4	5.3	5.3
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	640.7	6.5	6.5
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	638.1	4.1	4.1
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	639.6	6.1	6.1
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	638.1	4.7	4.7
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	641.5	8.1	8.1
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	640.3	7.2	7.2
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	643.7	11.9	11.9
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	639.5	7.8	7.8
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	639.5	7.9	7.9
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	639.5	7.9	7.9
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	638.8	7.2	7.2
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	639.5	8.3	8.3
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	637.1	6.1	6.1
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	639.0	8.4	8.4
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	641.0	10.7	10.7
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	637.9	7.7	7.7
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	634.6	5.5	5.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	634.9	5.8	5.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	634.9	5.9	5.9
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	640.5	12.1	12.1
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	632.9	5.6	5.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	632.9	6.0	6.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	632.9	6.0	6.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	629.2	5.2	5.2
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	629.2	5.2	5.2
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	629.2	6.7	6.7
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	608.3	0.0	0.0

Statistical Calculations:

Monitoring Wells	
ME=	5.03
MAE=	6.64

Sensitivity of Heads to Kh

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kh: MODEL HEAD	-15% 0.8755 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	762.0	21.2	21.2
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	759.7	21.8	21.8
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	758.8	23.5	23.5
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	756.2	24.4	24.4
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	758.5	27.5	27.5
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	757.4	27.6	27.6
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	754.8	26.7	26.7
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	683.2	-3.6	3.6
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	679.5	1.2	1.2
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	677.2	3.7	3.7
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	677.0	13.6	13.6
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	668.4	11.3	11.3
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	667.8	10.8	10.8
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	668.8	13.1	13.1
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	666.7	12.1	12.1
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	666.6	12.8	12.8
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	667.5	13.7	13.7
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	666.2	14.5	14.5
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	663.9	14.0	14.0
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	663.5	14.9	14.9
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	659.9	13.0	13.0
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	659.4	13.8	13.8
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	659.4	13.9	13.9
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	663.6	18.3	18.3
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	660.2	15.3	15.3
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	659.4	14.7	14.7
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	656.9	13.1	13.1
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	657.3	16.3	16.3
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	657.3	16.4	16.4
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	658.4	18.2	18.2
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	656.8	16.8	16.8
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	653.8	18.7	18.7
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	651.8	16.7	16.7
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	652.1	17.9	17.9
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	649.3	15.3	15.3
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	651.0	17.5	17.5
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	649.3	15.9	15.9
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	652.9	19.5	19.5
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	651.7	18.6	18.6
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	655.3	23.5	23.5
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	650.9	19.2	19.2
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	650.8	19.2	19.2
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	650.9	19.3	19.3
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	650.1	18.5	18.5
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	650.9	19.7	19.7
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	648.3	17.3	17.3
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	650.3	19.7	19.7
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	652.4	22.1	22.1
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	649.1	18.9	18.9
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	645.6	16.5	16.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	646.0	16.9	16.9
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	646.0	17.0	17.0
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	651.9	23.5	23.5
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	643.9	16.6	16.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	643.9	17.0	17.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	643.9	17.0	17.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	639.9	15.9	15.9
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	639.9	15.9	15.9
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	639.9	17.4	17.4
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	617.7	9.4	9.4

Statistical Calculations:

Monitoring Wells	
ME=	19.52
MAE=	19.66

Sensitivity of Heads to Kh

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kh: MODEL HEAD	-25% 0.7725 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	782.1	41.3	41.3
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	779.6	41.7	41.7
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	778.7	43.4	43.4
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	775.9	44.1	44.1
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	778.4	47.4	47.4
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	777.2	47.4	47.4
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	774.5	46.4	46.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	698.1	11.3	11.3
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	694.2	15.9	15.9
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	691.8	18.3	18.3
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	691.6	28.2	28.2
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	682.3	25.2	25.2
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	681.7	24.7	24.7
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	682.8	27.1	27.1
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	680.5	25.9	25.9
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	680.4	26.6	26.6
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	681.4	27.6	27.6
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	680.0	28.3	28.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	677.5	27.6	27.6
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	677.1	28.5	28.5
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	673.3	26.4	26.4
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	672.8	27.2	27.2
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	672.8	27.3	27.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	677.2	31.9	31.9
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	673.6	28.7	28.7
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	672.8	28.1	28.1
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	670.2	26.4	26.4
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	670.5	29.5	29.5
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	670.5	29.6	29.6
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	671.8	31.6	31.6
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	670.0	30.0	30.0
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	666.8	31.7	31.7
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	664.7	29.6	29.6
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	665.0	30.8	30.8
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	662.0	28.0	28.0
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	663.8	30.3	30.3
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	662.0	28.6	28.6
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	665.9	32.5	32.5
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	664.5	31.4	31.4
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	668.4	36.6	36.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	656.2	24.5	24.5
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	663.6	32.0	32.0
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	663.7	32.1	32.1
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	662.8	31.2	31.2
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	663.7	32.5	32.5
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	661.0	30.0	30.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	663.1	32.5	32.5
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	665.4	35.1	35.1
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	661.9	31.7	31.7
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	658.1	29.0	29.0
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	658.5	29.4	29.4
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	658.5	29.5	29.5
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	664.8	36.4	36.4
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	656.2	28.9	28.9
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	656.2	29.3	29.3
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	656.2	29.3	29.3
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	652.0	28.0	28.0
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	652.0	28.0	28.0
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	652.0	29.5	29.5
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	628.4	20.1	20.1

Statistical Calculations:

Monitoring Wells	
ME=	35.73
MAE=	35.73

Sensitivity of Heads to Kh

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kh: MODEL HEAD	+5% 1.0800 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	728.6	-12.2	12.2
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	726.5	-11.4	11.4
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	725.8	-9.5	9.5
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	723.4	-8.4	8.4
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	725.6	-5.4	5.4
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	724.6	-5.2	5.2
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	722.3	-5.8	5.8
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	658.4	-28.4	28.4
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	655.1	-23.2	23.2
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	653.1	-20.4	20.4
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	652.9	-10.5	10.5
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	645.2	-11.9	11.9
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	644.6	-12.4	12.4
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	645.5	-10.2	10.2
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	643.7	-10.9	10.9
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	643.6	-10.2	10.2
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	644.4	-9.4	9.4
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	643.2	-8.5	8.5
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	641.2	-8.7	8.7
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	640.8	-7.8	7.8
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	637.6	-9.3	9.3
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	637.2	-8.4	8.4
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	637.2	-8.3	8.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	640.9	-4.4	4.4
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	637.9	-7.0	7.0
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	637.2	-7.5	7.5
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	635.0	-8.8	8.8
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	635.3	-5.7	5.7
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	635.3	-5.6	5.6
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	636.3	-3.9	3.9
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	634.9	-5.1	5.1
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	632.2	-2.9	2.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	630.4	-4.7	4.7
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	630.7	-3.5	3.5
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	628.2	-5.8	5.8
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	629.7	-3.8	3.8
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	628.2	-5.2	5.2
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	631.4	-2.0	2.0
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	630.3	-2.8	2.8
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	633.6	1.8	1.8
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	629.6	-2.1	2.1
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	629.5	-2.1	2.1
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	629.6	-2.0	2.0
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	628.9	-2.7	2.7
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	629.6	-1.6	1.6
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	627.3	-3.7	3.7
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	629.1	-1.5	1.5
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	631.0	0.7	0.7
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	628.0	-2.2	2.2
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	624.9	-4.2	4.2
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	625.2	-3.9	3.9
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	625.2	-3.8	3.8
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	630.5	2.1	2.1
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	623.3	-4.0	4.0
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	623.3	-3.6	3.6
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	623.3	-3.6	3.6
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	619.8	-4.2	4.2
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	619.8	-4.2	4.2
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	619.8	-2.7	2.7
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	600.1	-8.2	8.2

Statistical Calculations:

Monitoring Wells	
ME=	-7.66
MAE=	7.84

Sensitivity of Heads to Kh

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kh: MODEL HEAD	+15% 1.1845 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	714.2	-26.6	26.6
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	712.3	-25.6	25.6
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	711.6	-23.7	23.7
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	709.3	-22.5	22.5
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	711.3	-19.7	19.7
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	710.4	-19.4	19.4
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	708.2	-19.9	19.9
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	647.7	-39.1	39.1
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	644.6	-33.7	33.7
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	642.6	-30.9	30.9
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	642.6	-20.8	20.8
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	635.2	-21.9	21.9
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	634.7	-22.3	22.3
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	635.5	-20.2	20.2
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	633.7	-20.9	20.9
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	633.7	-20.1	20.1
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	634.4	-19.4	19.4
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	633.3	-18.4	18.4
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	631.4	-18.5	18.5
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	631.1	-17.5	17.5
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	628.0	-18.9	18.9
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	627.6	-18.0	18.0
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	627.6	-17.9	17.9
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	631.1	-14.2	14.2
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	628.3	-16.6	16.6
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	627.6	-17.1	17.1
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	625.5	-18.3	18.3
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	625.8	-15.2	15.2
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	625.8	-15.1	15.1
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	626.8	-13.4	13.4
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	625.4	-14.6	14.6
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	622.9	-12.2	12.2
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	621.2	-13.9	13.9
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	621.5	-12.7	12.7
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	619.1	-14.9	14.9
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	620.5	-13.0	13.0
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	619.1	-14.3	14.3
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	622.1	-11.3	11.3
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	621.1	-12.0	12.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	624.2	-7.6	7.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	620.4	-11.3	11.3
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	620.3	-11.3	11.3
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	620.4	-11.2	11.2
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	619.7	-11.9	11.9
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	620.4	-10.8	10.8
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	618.2	-12.8	12.8
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	619.9	-10.7	10.7
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	621.7	-8.6	8.6
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	618.9	-11.3	11.3
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	616.0	-13.1	13.1
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	616.3	-12.8	12.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	616.3	-12.7	12.7
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	621.3	-7.1	7.1
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	614.5	-12.8	12.8
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	614.5	-12.4	12.4
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	614.5	-12.4	12.4
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	611.2	-12.8	12.8
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	611.2	-12.8	12.8
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	611.2	-11.3	11.3
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	592.4	-15.9	15.9

Statistical Calculations:

Monitoring Wells	
ME=	-19.38
MAE=	19.38

Sensitivity of Heads to Kh

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kh: MODEL HEAD	+25% 1.2875 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	701.4	-39.4	39.4
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	699.6	-38.3	38.3
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	698.9	-36.4	36.4
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	696.8	-35.0	35.0
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	698.7	-32.3	32.3
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	697.8	-32.0	32.0
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	695.7	-32.4	32.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	638.2	-48.6	48.6
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	635.2	-43.1	43.1
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	633.4	-40.1	40.1
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	633.2	-30.2	30.2
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	626.3	-30.8	30.8
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	625.8	-31.2	31.2
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	626.6	-29.1	29.1
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	624.9	-29.7	29.7
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	624.8	-29.0	29.0
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	625.6	-28.2	28.2
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	624.5	-27.2	27.2
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	622.7	-27.2	27.2
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	622.4	-26.2	26.2
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	619.5	-27.4	27.4
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	619.1	-26.5	26.5
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	619.1	-26.4	26.4
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	622.4	-22.9	22.9
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	619.7	-25.2	25.2
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	619.1	-25.6	25.6
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	617.1	-26.7	26.7
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	617.4	-23.6	23.6
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	617.4	-23.5	23.5
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	618.3	-21.9	21.9
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	617.0	-23.0	23.0
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	614.6	-20.5	20.5
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	613.0	-22.1	22.1
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	613.3	-20.9	20.9
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	611.0	-23.0	23.0
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	612.3	-21.2	21.2
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	611.0	-22.4	22.4
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	613.9	-19.5	19.5
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	612.9	-20.2	20.2
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	615.8	-16.0	16.0
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	612.2	-19.5	19.5
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	612.2	-19.4	19.4
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	612.2	-19.4	19.4
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	611.6	-20.0	20.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	612.2	-19.0	19.0
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	610.2	-20.8	20.8
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	611.8	-18.8	18.8
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	613.5	-16.8	16.8
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	610.9	-19.3	19.3
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	608.1	-21.0	21.0
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	608.3	-20.8	20.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	608.3	-20.7	20.7
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	613.1	-15.3	15.3
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	606.6	-20.7	20.7
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	606.6	-20.3	20.3
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	606.6	-20.3	20.3
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	603.5	-20.5	20.5
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	603.5	-20.5	20.5
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	603.5	-19.0	19.0
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	585.6	-22.7	22.7

Statistical Calculations:

Monitoring Wells	
ME=	-29.80
MAE=	29.80

Sensitivity of Heads to Kv

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kv: MODEL HEAD	0% 0.0018 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	736.1	-4.7	4.7
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	734.0	-3.9	3.9
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	733.2	-2.1	2.1
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	730.8	-1.0	1.0
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	732.9	1.9	1.9
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	731.9	2.1	2.1
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	729.5	1.4	1.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	663.9	-22.9	22.9
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	660.6	-17.7	17.7
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	658.5	-15.0	15.0
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	658.3	-5.1	5.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	650.4	-6.7	6.7
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	649.8	-7.2	7.2
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	650.7	-5.0	5.0
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	648.8	-5.8	5.8
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	648.7	-5.1	5.1
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	649.6	-4.2	4.2
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	648.4	-3.3	3.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	646.2	-3.7	3.7
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	645.9	-2.7	2.7
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	642.6	-4.3	4.3
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	642.2	-3.4	3.4
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	642.2	-3.3	3.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	646.0	0.7	0.7
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	642.9	-2.0	2.0
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	642.2	-2.5	2.5
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	639.9	-3.9	3.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	640.2	-0.8	0.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	640.2	-0.7	0.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	641.3	1.1	1.1
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	639.8	-0.2	0.2
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	637.0	1.9	1.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	635.2	0.1	0.1
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	635.5	1.3	1.3
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	632.9	-1.1	1.1
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	634.4	0.9	0.9
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	632.9	-0.5	0.5
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	636.2	2.8	2.8
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	635.1	2.0	2.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	638.4	6.6	6.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	634.3	2.6	2.6
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	634.3	2.7	2.7
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	634.3	2.7	2.7
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	633.6	2.0	2.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	634.4	3.2	3.2
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	632.0	1.0	1.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	633.9	3.3	3.3
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	635.8	5.5	5.5
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	632.8	2.6	2.6
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	629.6	0.5	0.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	629.9	0.8	0.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	629.9	0.9	0.9
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	635.3	6.9	6.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	627.9	0.6	0.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	627.9	1.0	1.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	627.9	1.0	1.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	624.3	0.3	0.3
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	624.3	0.3	0.3
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	624.3	1.8	1.8
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	604.0	-4.3	4.3

Statistical Calculations:

Monitoring Wells	
ME=	-1.58
MAE=	4.03

Sensitivity of Heads to Kv

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kv: MODEL HEAD	-5% 0.0017 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	736.1	-4.7	4.7
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	734.0	-3.9	3.9
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	733.2	-2.1	2.1
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	730.8	-1.0	1.0
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	732.9	1.9	1.9
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	731.9	2.1	2.1
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	729.5	1.4	1.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	663.9	-22.9	22.9
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	660.6	-17.7	17.7
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	658.5	-15.0	15.0
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	658.3	-5.1	5.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	650.4	-6.7	6.7
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	649.8	-7.2	7.2
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	650.7	-5.0	5.0
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	648.8	-5.8	5.8
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	648.7	-5.1	5.1
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	649.6	-4.2	4.2
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	648.4	-3.3	3.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	646.2	-3.7	3.7
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	645.9	-2.7	2.7
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	642.6	-4.3	4.3
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	642.2	-3.4	3.4
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	642.2	-3.3	3.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	646.0	0.7	0.7
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	642.9	-2.0	2.0
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	642.2	-2.5	2.5
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	639.9	-3.9	3.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	640.2	-0.8	0.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	640.2	-0.7	0.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	641.3	1.1	1.1
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	639.8	-0.2	0.2
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	637.0	1.9	1.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	635.2	0.1	0.1
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	635.5	1.3	1.3
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	632.9	-1.1	1.1
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	634.4	0.9	0.9
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	632.9	-0.5	0.5
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	636.2	2.8	2.8
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	635.1	2.0	2.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	638.4	6.6	6.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	634.3	2.6	2.6
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	634.3	2.7	2.7
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	634.3	2.7	2.7
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	633.6	2.0	2.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	634.4	3.2	3.2
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	632.0	1.0	1.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	633.9	3.3	3.3
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	635.8	5.5	5.5
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	632.8	2.6	2.6
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	629.6	0.5	0.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	629.9	0.8	0.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	629.9	0.9	0.9
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	635.3	6.9	6.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	627.9	0.6	0.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	627.9	1.0	1.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	627.9	1.0	1.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	624.3	0.3	0.3
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	624.3	0.3	0.3
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	624.3	1.8	1.8
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	604.0	-4.3	4.3

Statistical Calculations:

Monitoring Wells	
ME=	-1.58
MAE=	4.03

Sensitivity of Heads to Kv

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kv: MODEL HEAD	-15% 0.0015 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	736.1	-4.7	4.7
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	734.0	-3.9	3.9
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	733.2	-2.1	2.1
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	730.8	-1.0	1.0
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	732.9	1.9	1.9
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	731.9	2.1	2.1
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	729.5	1.4	1.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	663.9	-22.9	22.9
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	660.6	-17.7	17.7
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	658.5	-15.0	15.0
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	658.3	-5.1	5.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	650.4	-6.7	6.7
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	649.8	-7.2	7.2
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	650.7	-5.0	5.0
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	648.8	-5.8	5.8
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	648.7	-5.1	5.1
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	649.6	-4.2	4.2
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	648.4	-3.3	3.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	646.2	-3.7	3.7
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	645.9	-2.7	2.7
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	642.6	-4.3	4.3
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	642.2	-3.4	3.4
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	642.2	-3.3	3.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	646.0	0.7	0.7
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	642.9	-2.0	2.0
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	642.2	-2.5	2.5
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	639.9	-3.9	3.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	640.2	-0.8	0.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	640.2	-0.7	0.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	641.3	1.1	1.1
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	639.8	-0.2	0.2
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	637.0	1.9	1.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	635.2	0.1	0.1
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	635.5	1.3	1.3
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	632.9	-1.1	1.1
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	634.4	0.9	0.9
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	632.9	-0.5	0.5
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	636.2	2.8	2.8
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	635.1	2.0	2.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	638.4	6.6	6.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	634.3	2.6	2.6
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	634.3	2.7	2.7
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	634.3	2.7	2.7
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	633.6	2.0	2.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	634.4	3.2	3.2
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	632.0	1.0	1.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	633.9	3.3	3.3
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	635.8	5.5	5.5
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	632.8	2.6	2.6
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	629.6	0.5	0.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	629.9	0.8	0.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	629.9	0.9	0.9
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	635.3	6.9	6.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	627.9	0.6	0.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	627.9	1.0	1.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	627.9	1.0	1.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	624.3	0.3	0.3
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	624.3	0.3	0.3
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	624.3	1.8	1.8
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	604.0	-4.3	4.3

Statistical Calculations:

Monitoring Wells	
ME=	-1.58
MAE=	4.03

Sensitivity of Heads to Kv

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kv: MODEL HEAD	-25% 0.0014 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	736.1	-4.7	4.7
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	734.0	-3.9	3.9
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	733.2	-2.1	2.1
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	730.8	-1.0	1.0
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	732.9	1.9	1.9
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	731.9	2.1	2.1
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	729.5	1.4	1.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	663.9	-22.9	22.9
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	660.6	-17.7	17.7
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	658.5	-15.0	15.0
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	658.3	-5.1	5.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	650.4	-6.7	6.7
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	649.8	-7.2	7.2
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	650.7	-5.0	5.0
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	648.8	-5.8	5.8
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	648.7	-5.1	5.1
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	649.6	-4.2	4.2
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	648.4	-3.3	3.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	646.2	-3.7	3.7
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	645.9	-2.7	2.7
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	642.6	-4.3	4.3
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	642.2	-3.4	3.4
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	642.2	-3.3	3.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	646.0	0.7	0.7
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	642.9	-2.0	2.0
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	642.2	-2.5	2.5
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	639.9	-3.9	3.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	640.2	-0.8	0.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	640.2	-0.7	0.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	641.3	1.1	1.1
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	639.8	-0.2	0.2
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	637.0	1.9	1.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	635.2	0.1	0.1
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	635.5	1.3	1.3
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	632.9	-1.1	1.1
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	634.4	0.9	0.9
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	632.9	-0.5	0.5
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	636.2	2.8	2.8
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	635.1	2.0	2.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	638.4	6.6	6.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	634.3	2.6	2.6
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	634.3	2.7	2.7
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	634.3	2.7	2.7
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	633.6	2.0	2.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	634.4	3.2	3.2
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	632.0	1.0	1.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	633.9	3.3	3.3
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	635.8	5.5	5.5
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	632.8	2.6	2.6
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	629.6	0.5	0.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	629.9	0.8	0.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	629.9	0.9	0.9
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	635.3	6.9	6.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	627.9	0.6	0.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	627.9	1.0	1.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	627.9	1.0	1.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	624.3	0.3	0.3
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	624.3	0.3	0.3
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	624.3	1.8	1.8
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	604.0	-4.3	4.3

Statistical Calculations:

Monitoring Wells	
ME=	-1.58
MAE=	4.03

Sensitivity of Heads to Kv

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kv: MODEL HEAD	+5% 0.0019 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	736.1	-4.7	4.7
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	734.0	-3.9	3.9
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	733.2	-2.1	2.1
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	730.8	-1.0	1.0
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	732.9	1.9	1.9
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	731.9	2.1	2.1
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	729.5	1.4	1.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	663.9	-22.9	22.9
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	660.6	-17.7	17.7
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	658.5	-15.0	15.0
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	658.3	-5.1	5.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	650.4	-6.7	6.7
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	649.8	-7.2	7.2
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	650.7	-5.0	5.0
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	648.8	-5.8	5.8
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	648.7	-5.1	5.1
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	649.6	-4.2	4.2
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	648.4	-3.3	3.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	646.2	-3.7	3.7
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	645.9	-2.7	2.7
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	642.6	-4.3	4.3
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	642.2	-3.4	3.4
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	642.2	-3.3	3.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	646.0	0.7	0.7
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	642.9	-2.0	2.0
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	642.2	-2.5	2.5
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	639.9	-3.9	3.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	640.2	-0.8	0.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	640.2	-0.7	0.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	641.3	1.1	1.1
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	639.8	-0.2	0.2
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	637.0	1.9	1.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	635.2	0.1	0.1
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	635.5	1.3	1.3
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	632.9	-1.1	1.1
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	634.4	0.9	0.9
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	632.9	-0.5	0.5
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	636.2	2.8	2.8
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	635.1	2.0	2.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	638.4	6.6	6.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	634.3	2.6	2.6
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	634.3	2.7	2.7
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	634.3	2.7	2.7
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	633.6	2.0	2.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	634.4	3.2	3.2
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	632.0	1.0	1.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	633.9	3.3	3.3
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	635.8	5.5	5.5
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	632.8	2.6	2.6
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	629.6	0.5	0.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	629.9	0.8	0.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	629.9	0.9	0.9
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	635.3	6.9	6.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	627.9	0.6	0.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	627.9	1.0	1.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	627.9	1.0	1.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	624.3	0.3	0.3
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	624.3	0.3	0.3
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	624.3	1.8	1.8
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	604.0	-4.3	4.3

Statistical Calculations:

Monitoring Wells	
ME=	-1.58
MAE=	4.03

Sensitivity of Heads to Kv

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kv: MODEL HEAD	+15% 0.0021 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	736.1	-4.7	4.7
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	734.0	-3.9	3.9
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	733.2	-2.1	2.1
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	730.8	-1.0	1.0
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	732.9	1.9	1.9
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	731.9	2.1	2.1
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	729.5	1.4	1.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	663.9	-22.9	22.9
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	660.6	-17.7	17.7
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	658.5	-15.0	15.0
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	658.3	-5.1	5.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	650.4	-6.7	6.7
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	649.8	-7.2	7.2
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	650.7	-5.0	5.0
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	648.8	-5.8	5.8
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	648.7	-5.1	5.1
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	649.6	-4.2	4.2
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	648.4	-3.3	3.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	646.2	-3.7	3.7
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	645.9	-2.7	2.7
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	642.6	-4.3	4.3
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	642.2	-3.4	3.4
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	642.2	-3.3	3.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	646.0	0.7	0.7
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	642.9	-2.0	2.0
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	642.2	-2.5	2.5
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	639.9	-3.9	3.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	640.2	-0.8	0.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	640.2	-0.7	0.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	641.3	1.1	1.1
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	639.8	-0.2	0.2
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	637.0	1.9	1.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	635.2	0.1	0.1
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	635.5	1.3	1.3
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	632.9	-1.1	1.1
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	634.4	0.9	0.9
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	632.9	-0.5	0.5
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	636.2	2.8	2.8
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	635.1	2.0	2.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	638.4	6.6	6.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	634.3	2.6	2.6
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	634.3	2.7	2.7
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	634.3	2.7	2.7
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	633.6	2.0	2.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	634.4	3.2	3.2
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	632.0	1.0	1.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	633.9	3.3	3.3
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	635.8	5.5	5.5
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	632.8	2.6	2.6
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	629.6	0.5	0.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	629.9	0.8	0.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	629.9	0.9	0.9
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	635.3	6.9	6.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	627.9	0.6	0.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	627.9	1.0	1.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	627.9	1.0	1.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	624.3	0.3	0.3
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	624.3	0.3	0.3
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	624.3	1.8	1.8
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	604.0	-4.3	4.3

Statistical Calculations:

Monitoring Wells	
ME=	-1.58
MAE=	4.03

Sensitivity of Heads to Kv

WELL	MODEL COLUMN	MODEL ROW	MODEL LAYER	MEAS. HIGH	MEAS. LOW	TARGET MEAN	TARGET HIGH	TARGET LOW	Kv: MODEL HEAD	+25% 0.0023 Difference (feet)	(ft/day) Absolute Difference
MW25-3	4	9	1	742.41	742.41	740.75	743.75	737.75	736.1	-4.7	4.7
MW64A-1	82	11	1	736.63	736.63	737.87	740.87	734.87	734.0	-3.9	3.9
MW64A-3	82	12	1	734.08	734.08	735.32	738.32	732.32	733.2	-2.1	2.1
MW17-1	4	15	1	733.47	733.47	731.81	734.81	728.81	730.8	-1.0	1.0
MW16-1	2	13	1	732.14	732.14	730.97	733.97	727.97	732.9	1.9	1.9
MW16-2	2	14	1	731.01	731.01	729.84	732.84	726.84	731.9	2.1	2.1
MW17-3	4	16	1	729.77	729.77	728.11	731.11	725.11	729.5	1.4	1.4
MW-41D	11	42	2	687.96	685.74	686.82	687.32	686.32	663.9	-22.9	22.9
MW-42D	70	43	2	680.66	674.94	678.34	678.84	677.84	660.6	-17.7	17.7
PT-10	47	44	2	677.79	670.57	673.51	674.01	673.01	658.5	-15.0	15.0
MW64D-1	77	44	1	665.03	664.36	663.37	663.87	662.87	658.3	-5.1	5.1
MW-39	17	61	1	657.99	656.37	657.12	657.62	656.62	650.4	-6.7	6.7
MW-60	72	62	1	658.13	654.83	656.99	657.49	656.49	649.8	-7.2	7.2
MW64D-4	79	59	1	657.39	655.10	655.73	656.23	655.23	650.7	-5.0	5.0
MW-40	46	65	1	656.40	652.18	654.55	655.05	654.05	648.8	-5.8	5.8
MW-59	71	65	1	654.95	651.61	653.78	654.28	653.28	648.7	-5.1	5.1
MW-43	35	63	1	655.42	652.46	653.76	654.26	653.26	649.6	-4.2	4.2
PT-11	66	66	1	654.02	648.49	651.68	652.18	651.18	648.4	-3.3	3.3
PT-18	46	72	1	651.78	646.72	649.85	650.35	649.35	646.2	-3.7	3.7
MW-44	34	73	1	648.63	646.98	648.59	649.09	648.09	645.9	-2.7	2.7
MW-45	24	82	1	648.47	644.75	646.88	647.38	646.38	642.6	-4.3	4.3
MW-46	34	83	1	647.28	642.61	645.62	646.12	645.12	642.2	-3.4	3.4
MW-49D	34	83	2	647.11	642.74	645.45	645.95	644.95	642.2	-3.3	3.3
MW64D-3	77	72	1	646.91	645.89	645.25	645.75	644.75	646.0	0.7	0.7
PT-12	44	81	1	647.25	641.73	644.90	645.40	644.40	642.9	-2.0	2.0
MW-50D	34	83	3	646.39	642.90	644.73	645.23	644.23	642.2	-2.5	2.5
MW-48	26	89	1	645.47	641.57	643.75	644.25	643.25	639.9	-3.9	3.9
PT-21	43	88	2	647.51	635.37	641.03	641.53	640.53	640.2	-0.8	0.8
PT-22	43	88	1	645.45	637.85	640.95	641.45	640.45	640.2	-0.7	0.7
PT-19	58	85	1	642.35	637.81	640.17	640.67	639.67	641.3	1.1	1.1
PT-20	51	89	1	644.21	636.11	640.02	640.52	639.52	639.8	-0.2	0.2
MW-32	58	96	1	637.84	632.40	635.11	635.61	634.61	637.0	1.9	1.9
PT-23	30	101	1	638.71	632.56	635.05	635.55	634.55	635.2	0.1	0.1
PT-17	53	100	1	636.85	630.12	634.21	634.71	633.71	635.5	1.3	1.3
MW-38D	18	107	2	634.67	632.76	633.97	634.47	633.47	632.9	-1.1	1.1
MW-27	33	103	1	635.62	630.37	633.45	633.95	632.95	634.4	0.9	0.9
PT-16	18	107	1	635.06	630.17	633.43	633.93	632.93	632.9	-0.5	0.5
MW-33	63	98	1	635.95	630.02	633.41	633.91	632.91	636.2	2.8	2.8
MW-30	56	101	1	636.37	629.73	633.13	633.63	632.63	635.1	2.0	2.0
MW64D-2	75	92	1	633.49	630.75	631.83	632.33	631.33	638.4	6.6	6.6
MW-55D	47	103	3	633.37	630.23	631.71	632.21	631.21	634.3	2.6	2.6
MW-31	61	103	1	634.60	627.21	631.64	632.14	631.14	634.3	2.7	2.7
MW-54D	47	103	2	633.29	629.88	631.63	632.13	631.13	634.3	2.7	2.7
MW-28	36	105	1	633.28	628.26	631.58	632.08	631.08	633.6	2.0	2.0
MW-53	47	103	1	632.83	630.13	631.17	631.67	630.67	634.4	3.2	3.2
PT-24	40	109	1	633.19	627.85	631.02	631.52	630.52	632.0	1.0	1.0
PT-25	64	104	1	633.66	625.45	630.56	631.06	630.06	633.9	3.3	3.3
PT-15	71	99	1	634.09	627.40	630.35	630.85	629.85	635.8	5.5	5.5
MW-29	46	107	1	631.82	626.83	630.19	630.69	629.69	632.8	2.6	2.6
MW-37	7	116	1	630.91	626.65	629.14	629.64	628.64	629.6	0.5	0.5
MW-35D	61	114	2	629.66	628.01	629.08	629.58	628.58	629.9	0.8	0.8
MW-36	61	114	1	629.94	626.43	629.02	629.52	628.52	629.9	0.9	0.9
MW-34	75	100	1	630.28	626.39	628.38	628.88	627.88	635.3	6.9	6.9
MW-56	48	119	1	627.78	626.67	627.27	627.77	626.77	627.9	0.6	0.6
MW-57D	48	119	2	628.60	627.11	626.94	627.44	626.44	627.9	1.0	1.0
MW-58D	48	119	3	628.53	625.66	626.87	627.37	626.37	627.9	1.0	1.0
MW-51D	35	128	2	625.68	621.56	624.02	624.52	623.52	624.3	0.3	0.3
MW-47	35	128	1	625.69	621.47	623.96	624.46	623.46	624.3	0.3	0.3
MW-52D	35	128	3	624.20	620.04	622.54	623.04	622.04	624.3	1.8	1.8
PT-26	73	174	1	611.82	603.10	608.28	608.78	607.78	604.0	-4.3	4.3

Statistical Calculations:

Monitoring Wells	
ME=	-1.58
MAE=	4.03

APPENDIX E

MODPATH Output File

```
MODPATH Version 3.00 (V3, Release 1, 9-94)

 FILE UNIT NUMBER   70 HAS BEEN CONNECTED TO <ASHGW2.MP>
 FILE UNIT NUMBER   36 HAS BEEN CONNECTED TO <DELROW.DAT>
 FILE UNIT NUMBER   37 HAS BEEN CONNECTED TO <DELCOL.DAT>
 SKIPPING UNRECOGNIZED FILE TYPE: GUA
 FILE UNIT NUMBER   18 HAS BEEN CONNECTED TO <ASHGW2.BCH>
 FILE UNIT NUMBER    1 HAS BEEN CONNECTED TO <ASHGW2.BAS>
 FILE UNIT NUMBER    2 HAS BEEN CONNECTED TO <ASHGW2.BUD>

 MAXIMUM NUMBER OF PARTICLES IS    10000
  849220 ELEMENTS OUT OF 14000000 USED IN THE "A" ARRAY

   82 COLUMNS  220 ROWS    3 LAYERS    0 CONFINING LAYERS
 IGRID (GRID TYPE CODE) IS 0

LAYCON (LAYER TYPE CODES):
  0  0  0

NO CONFINING LAYERS.  NCON = 0 FOR ALL LAYERS.


          DELR
 READING ON UNIT  36 WITH FORMAT: (82F9.2)
   284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76      189.84      126.56
   84.370      56.250      37.500      25.000      25.000      25.000      25.000      25.000      25.000      25.000
   25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000
   25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000
   25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000
   25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000
   25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000      25.000      37.500
   56.250      84.370      126.56      189.84      284.76      284.76      284.76      284.76      284.76      284.76
   284.76      284.76


          DELC
 READING ON UNIT  37 WITH FORMAT: (F9.2)
   284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76
   284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76
   284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76
   284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76      284.76
   284.76      284.76      189.84      126.56      84.370      56.250      37.500      25.000      25.000      25.000
   25.000      25.000      25.000      25.000      25.000      25.000      25.000
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	755.0	755.0	755.0	755.0	755.0	755.0	755.0	755.0	755.0	755.0
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	751.0	751.0	751.0	751.0	752.0	752.0	753.0	753.0	753.0	753.0
	753.0	753.0								
0 7	747.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
	747.0	747.0	747.0	748.0	748.0	748.0	748.0	748.0	748.0	748.0
	748.0	748.0	748.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0	749.0
	749.0	749.0	749.0	749.0	750.0	750.0	750.0	750.0	750.0	751.0
	751.0	751.0								
0 8	744.0	744.0	744.0	744.0	744.0	743.0	743.0	743.0	743.0	743.0
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	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0
	746.0	746.0	746.0	746.0	746.0	746.0	746.0	746.0	747.0	747.0
	747.0	747.0	747.0	747.0	747.0	748.0	748.0	748.0	748.0	748.0
	748.0	748.0								
0 9	742.0	742.0	742.0	742.0	741.0	740.0	740.0	740.0	740.0	740.0
	742.0	742.0	742.0	743.0	743.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0	744.0
	744.0	745.0	745.0	745.0	745.0	745.0	746.0	746.0	746.0	746.0
	746.0	746.0								
0 10	740.0	740.0	740.0	740.0	740.0	739.0	738.0	738.0	738.0	739.0
	740.0	740.0	740.0	740.0	741.0	742.0	743.0	741.0	741.0	741.0
	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0	742.0
	742.0	742.0	742.0	742.0	743.0	743.0	744.0	744.0	744.0	744.0
	744.0	744.0								
0 11	738.0	738.0	737.0	737.0	737.0	737.0	736.0	736.0	736.0	736.0
	737.0	737.0	737.0	738.0	738.0	738.0	738.0	737.0	738.0	739.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	740.0	740.0	741.0	742.0	742.0	742.0	742.0
	742.0	742.0								
0 12	735.0	735.0	735.0	735.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	735.0	735.0	735.0	735.0	735.0	735.0	736.0	736.0

	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	738.0	738.0	738.0
	738.0	738.0	738.0	738.0	738.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0								
0 13	733.0	733.0	733.0	732.0	732.0	732.0	731.0	731.0	731.0	731.0
	731.0	732.0	732.0	732.0	732.0	733.0	733.0	733.0	733.0	733.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	735.0	735.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0	735.0
	735.0	735.0	735.0	735.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0								
0 14	730.0	730.0	730.0	730.0	730.0	729.0	729.0	729.0	729.0	729.0
	729.0	729.0	729.0	729.0	730.0	730.0	730.0	730.0	730.0	731.0
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	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0
	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0	731.0
	731.0	731.0	731.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	733.0	733.0	733.0
	733.0	733.0	733.0	733.0	733.0	733.0	733.0	732.0	732.0	731.0
	731.0	731.0								
0 15	728.0	728.0	728.0	728.0	727.0	727.0	726.0	726.0	726.0	726.0
	726.0	726.0	726.0	727.0	727.0	727.0	727.0	727.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	729.0	729.0	729.0	729.0	729.0
	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0
	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0
	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0	729.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	729.0	728.0	727.0
	726.0	726.0								
0 16	726.0	726.0	726.0	725.0	725.0	724.0	723.0	723.0	723.0	723.0
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	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0
	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0
	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	727.0	727.0
	727.0	727.0	727.0	727.0	727.0	727.0	727.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	727.0	727.0	725.0	724.0	723.0
	720.0	722.0								
0 17	724.0	724.0	724.0	723.0	722.0	722.0	720.0	720.0	720.0	720.0
	720.0	720.0	720.0	721.0	722.0	723.0	722.0	721.0	722.0	722.0
	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	723.0	723.0	723.0	724.0	724.0	725.0
	724.0	724.0	724.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	726.0	726.0	726.0	725.0	725.0	724.0	722.0	720.0	720.0
	720.0	720.0								
0 18	723.0	722.0	722.0	721.0	720.0	720.0	719.0	719.0	718.0	718.0
	718.0	718.0	718.0	719.0	719.0	719.0	717.0	718.0	719.0	720.0
	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0
	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0
	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0
	720.0	720.0	720.0	720.0	720.0	720.0	720.0	721.0	722.0	723.0
	721.0	721.0	722.0	722.0	722.0	722.0	722.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	723.0	723.0	722.0	720.0	719.0	719.0
	719.0	719.0								
0 19	721.0	721.0	720.0	720.0	719.0	718.0	717.0	717.0	717.0	717.0
	716.0	716.0	717.0	717.0	717.0	717.0	716.0	716.0	717.0	717.0
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	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	719.0	719.0	719.0
	717.0	718.0	719.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0
	720.0	721.0	722.0	722.0	721.0	721.0	720.0	719.0	718.0	718.0
	717.0	717.0								
0 20	720.0	720.0	718.0	718.0	717.0	716.0	716.0	715.0	715.0	715.0
	715.0	715.0	715.0	715.0	715.0	715.0	714.0	715.0	715.0	715.0
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	716.0	716.0	716.0	716.0	716.0	716.0	716.0	716.0	716.0	716.0
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	716.0	716.0	717.0	717.0	717.0	718.0	718.0	718.0	718.0	718.0
	719.0	720.0	720.0	720.0	720.0	720.0	718.0	717.0	716.0	716.0
	716.0	716.0								
0 21	717.0	717.0	716.0	716.0	715.0	714.0	714.0	713.0	713.0	713.0
	713.0	713.0	713.0	713.0	713.0	712.0	712.0	713.0	713.0	713.0
	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0
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	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0
	713.0	713.0	713.0	713.0	713.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	715.0	715.0	715.0	715.0	716.0	716.0	716.0
	716.0	717.0	717.0	717.0	717.0	717.0	716.0	715.0	715.0	714.0
	714.0	714.0								
0 22	715.0	714.0	714.0	713.0	713.0	712.0	712.0	711.0	711.0	711.0
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	714.0	714.0	714.0	714.0	714.0	714.0	714.0	713.0	713.0	712.0
	712.0	712.0								
0 23	712.0	712.0	712.0	711.0	711.0	710.0	710.0	709.0	709.0	709.0
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	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0
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	710.0	710.0								
0 24	710.0	710.0	710.0	709.0	709.0	708.0	708.0	707.0	707.0	707.0
	707.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0
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	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0
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	707.0	707.0	707.0	708.0	708.0	708.0	708.0	709.0	709.0	709.0
	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	709.0	708.0
	708.0	708.0								
0 25	708.0	708.0	708.0	707.0	706.0	706.0	705.0	705.0	705.0	705.0
	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0
	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0
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	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0
	704.0	704.0	704.0	705.0	705.0	705.0	705.0	705.0	705.0	705.0
	705.0	705.0	705.0	705.0	705.0	706.0	706.0	706.0	707.0	707.0
	707.0	707.0	707.0	707.0	707.0	707.0	707.0	707.0	706.0	706.0
	706.0	706.0								
0 26	706.0	706.0	706.0	705.0	704.0	704.0	703.0	703.0	702.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	703.0	703.0	703.0	703.0	704.0	704.0	704.0	704.0
	704.0	705.0	705.0	705.0	705.0	705.0	704.0	704.0	704.0	704.0
	704.0	704.0								
0 27	705.0	704.0	704.0	703.0	702.0	701.0	700.0	700.0	700.0	700.0
	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0
	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0
	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0
	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0
	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0
	700.0	700.0	700.0	700.0	700.0	701.0	702.0	703.0	702.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0								
0 28	703.0	703.0	703.0	702.0	700.0	700.0	700.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	700.0	700.0	698.0	699.0
	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0
	700.0	700.0								
0 29	702.0	702.0	701.0	701.0	700.0	699.0	699.0	698.0	698.0	698.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0
	698.0	698.0								
0 30	701.0	701.0	701.0	700.0	699.0	698.0	698.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	697.0	697.0	697.0	697.0	697.0	696.0	696.0
	697.0	697.0	697.0	696.0	696.0	696.0	696.0	696.0	696.0	695.0
	695.0	695.0								
0 31	701.0	700.0	700.0	699.0	698.0	697.0	697.0	696.0	696.0	696.0
	696.0	696.0	696.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	694.0	694.0	694.0	693.0	693.0
	693.0	693.0								
0 32	700.0	700.0	700.0	698.0	697.0	696.0	696.0	695.0	695.0	695.0
	695.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0

	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	693.0	693.0	693.0	693.0	693.0	692.0	692.0	691.0	691.0
	690.0	690.0								
0 33	700.0	700.0	698.0	697.0	696.0	695.0	694.0	694.0	694.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0	692.0	692.0
	692.0	692.0	692.0	691.0	691.0	691.0	690.0	690.0	689.0	688.0
	688.0	687.0								
0 34	700.0	700.0	697.0	695.0	694.0	693.0	693.0	693.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	690.0	690.0	689.0	689.0	688.0	688.0	687.0	686.0
	685.0	684.0								
0 35	700.0	696.0	694.0	693.0	692.0	692.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0
	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	689.0	689.0	689.0	688.0	688.0	687.0	687.0	686.0	685.0	684.0
	682.0	680.0								
0 36	693.0	691.0	691.0	690.0	690.0	690.0	690.0	690.0	690.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	688.0
	688.0	688.0	687.0	687.0	686.0	686.0	685.0	684.0	683.0	682.0
	680.0	680.0								
0 37	686.0	686.0	687.0	687.0	687.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
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	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	687.0	687.0
	687.0	687.0	686.0	686.0	685.0	684.0	684.0	683.0	681.0	680.0
	680.0	680.0								
0 38	680.0	680.0	683.0	684.0	685.0	686.0	686.0	686.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	686.0	686.0	686.0
	686.0	685.0	685.0	684.0	684.0	683.0	682.0	681.0	680.0	680.0
	680.0	680.0								
0 39	677.0	677.0	680.0	682.0	683.0	684.0	684.0	685.0	685.0	685.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
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	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	685.0	685.0	685.0	685.0	685.0
	685.0	684.0	684.0	683.0	683.0	682.0	681.0	680.0	680.0	679.0
	679.0	679.0								
0 40	672.0	673.0	676.0	680.0	681.0	682.0	683.0	684.0	684.0	684.0
	684.0	684.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0
	685.0	685.0	685.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	683.0	683.0	682.0	682.0	681.0	680.0	680.0	679.0	679.0
	679.0	679.0								
0 41	667.0	668.0	671.0	675.0	680.0	681.0	682.0	682.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	682.0	682.0	682.0	681.0	680.0	680.0	679.0	679.0	679.0
	678.0	678.0								
0 42	660.0	660.0	665.0	670.0	675.0	680.0	681.0	681.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0

	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	681.0	681.0	681.0	680.0	680.0	679.0	679.0	678.0	678.0
	678.0	678.0								
0 43	658.0	659.0	660.0	665.0	670.0	675.0	680.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	680.0	680.0	680.0	679.0	678.0	678.0	677.0	677.0
	677.0	677.0								
0 44	655.0	656.0	659.0	660.0	665.0	671.0	675.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
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	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	679.0	679.0	678.0	678.0	677.0	677.0	677.0	676.0
	676.0	676.0								
0 45	650.0	654.0	658.0	659.0	660.0	667.0	671.0	675.0	676.0	677.0
	677.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
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	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	678.0	678.0	678.0	678.0	677.0	677.0	676.0	676.0	676.0	676.0
	675.0	675.0								
0 46	649.0	653.0	657.0	658.0	659.0	665.0	668.0	671.0	673.0	674.0
	675.0	676.0	676.0	676.0	676.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
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	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	676.0	676.0	676.0	675.0	675.0	675.0	675.0
	674.0	674.0								
0 47	649.0	650.0	656.0	657.0	659.0	664.0	666.0	669.0	671.0	672.0
	673.0	673.0	674.0	674.0	675.0	675.0	675.0	675.0	675.0	675.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	675.0	675.0	675.0	675.0	674.0	674.0	674.0	674.0	674.0
	674.0	673.0								
0 48	648.0	649.0	655.0	656.0	659.0	662.0	665.0	668.0	668.0	670.0
	671.0	672.0	672.0	673.0	673.0	673.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	674.0	674.0
	674.0	674.0	674.0	674.0	673.0	673.0	673.0	673.0	673.0	673.0
	672.0	672.0								
0 49	648.0	649.0	654.0	655.0	658.0	661.0	663.0	667.0	667.0	668.0
	669.0	670.0	671.0	671.0	672.0	672.0	672.0	672.0	672.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	672.0	672.0	672.0	672.0	672.0	672.0	671.0
	671.0	671.0								
0 50	648.0	648.0	653.0	654.0	658.0	661.0	662.0	666.0	665.0	667.0
	668.0	668.0	669.0	670.0	670.0	670.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
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	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
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	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	670.0	670.0
	670.0	670.0								
0 51	647.0	648.0	652.0	653.0	657.0	660.0	662.0	665.0	664.0	665.0
	666.0	667.0	668.0	668.0	669.0	669.0	669.0	669.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
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	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	669.0	669.0	669.0	669.0
	669.0	669.0								
0 52	647.0	647.0	650.0	653.0	657.0	660.0	661.0	665.0	663.0	664.0
	665.0	666.0	666.0	667.0	667.0	668.0	668.0	668.0	668.0	668.0

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	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	670.0	670.0	670.0	670.0	670.0	670.0
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	670.0	670.0	670.0	670.0	670.0	670.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0								
0 53	646.0	647.0	649.0	652.0	656.0	659.0	660.0	664.0	662.0	663.0
	664.0	665.0	665.0	666.0	666.0	666.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0								
0 54	646.0	646.0	649.0	652.0	656.0	659.0	659.0	663.0	662.0	662.0
	663.0	664.0	664.0	665.0	665.0	665.0	665.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0								
0 55	645.0	646.0	648.0	651.0	655.0	658.0	659.0	662.0	661.0	662.0
	662.0	663.0	663.0	664.0	664.0	664.0	664.0	664.0	665.0	665.0
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	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	664.0
	664.0	664.0								
0 56	645.0	645.0	648.0	651.0	655.0	658.0	659.0	662.0	661.0	661.0
	662.0	662.0	662.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
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	664.0	664.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0								
0 57	644.0	645.0	647.0	650.0	654.0	657.0	660.0	661.0	660.0	661.0
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	663.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0								
0 58	643.0	644.0	647.0	650.0	654.0	657.0	659.0	661.0	660.0	660.0
	660.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
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	661.0	660.0								
0 59	643.0	644.0	646.0	649.0	653.0	656.0	659.0	660.0	660.0	660.0
	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
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	661.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	660.0								
0 60	642.0	643.0	646.0	649.0	653.0	656.0	658.0	660.0	660.0	660.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
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	659.0	659.0								
0 61	642.0	643.0	645.0	649.0	652.0	655.0	658.0	659.0	659.0	659.0
	658.0	658.0	658.0	658.0	658.0	658.0	659.0	659.0	659.0	659.0
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	659.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
	658.0	658.0								
0 62	641.0	642.0	645.0	648.0	652.0	655.0	657.0	659.0	659.0	658.0
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	657.0	657.0								
0 63	641.0	642.0	644.0	648.0	651.0	654.0	657.0	659.0	659.0	657.0
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	656.0	656.0								
0 64	640.0	642.0	644.0	648.0	651.0	654.0	656.0	658.0	658.0	656.0
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	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0								
0 65	640.0	641.0	644.0	647.0	650.0	653.0	656.0	658.0	658.0	655.0
	654.0	655.0	655.0	655.0	655.0	656.0	656.0	656.0	656.0	656.0
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	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0								
0 66	639.0	641.0	643.0	647.0	650.0	653.0	655.0	657.0	657.0	655.0
	654.0	654.0	654.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
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	653.0	654.0								
0 67	639.0	641.0	643.0	647.0	649.0	652.0	655.0	657.0	657.0	654.0
	653.0	653.0	654.0	654.0	654.0	654.0	655.0	655.0	655.0	655.0
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	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	653.0
	653.0	653.0								
0 68	638.0	640.0	643.0	646.0	648.0	652.0	654.0	656.0	656.0	654.0
	653.0	653.0	653.0	653.0	654.0	654.0	654.0	654.0	654.0	654.0
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	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	652.0
	652.0	652.0								
0 69	638.0	640.0	642.0	646.0	648.0	651.0	654.0	656.0	656.0	653.0
	652.0	652.0	653.0	653.0	653.0	653.0	653.0	654.0	654.0	654.0
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	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	651.0	651.0
	651.0	651.0								
0 70	637.0	639.0	642.0	646.0	648.0	651.0	653.0	655.0	655.0	653.0
	652.0	652.0	652.0	652.0	653.0	653.0	653.0	653.0	653.0	653.0
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	650.0	651.0								
0 71	637.0	639.0	642.0	645.0	648.0	650.0	653.0	655.0	655.0	652.0
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	650.0	650.0								
0 72	636.0	638.0	641.0	645.0	648.0	650.0	652.0	654.0	654.0	652.0
	652.0	651.0	651.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0

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	650.0	650.0								
0 73	636.0	638.0	641.0	644.0	647.0	649.0	652.0	654.0	654.0	652.0
	651.0	651.0	651.0	651.0	651.0	651.0	652.0	652.0	652.0	652.0
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	649.0	650.0								
0 74	636.0	638.0	641.0	644.0	647.0	648.0	651.0	653.0	653.0	651.0
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	647.0	647.0	647.0	647.0	647.0	647.0	647.0	648.0	648.0	649.0
	649.0	650.0								
0 75	635.0	637.0	640.0	643.0	646.0	647.0	651.0	653.0	653.0	651.0
	651.0	650.0	650.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0
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	651.0	651.0	651.0	651.0	651.0	650.0	650.0	650.0	650.0	650.0
	650.0	649.0	649.0	649.0	649.0	648.0	648.0	648.0	648.0	648.0
	648.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	647.0	647.0	647.0	648.0
	650.0	650.0								
0 76	635.0	637.0	640.0	643.0	646.0	647.0	651.0	652.0	652.0	651.0
	651.0	650.0	650.0	650.0	650.0	651.0	651.0	651.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	649.0	649.0
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	647.0	647.0	647.0	647.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	645.0	645.0	645.0	646.0	646.0	646.0	646.0	647.0
	648.0	648.0								
0 77	635.0	637.0	640.0	642.0	645.0	647.0	650.0	652.0	652.0	651.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
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	648.0	648.0	648.0	648.0	648.0	647.0	647.0	647.0	647.0	647.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	646.0
	646.0	646.0								
0 78	634.0	636.0	639.0	642.0	646.0	647.0	650.0	651.0	651.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
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	648.0	648.0	648.0	647.0	647.0	647.0	647.0	647.0	646.0	646.0
	646.0	646.0	646.0	645.0	645.0	645.0	645.0	645.0	645.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	645.0	645.0								
0 79	634.0	636.0	639.0	642.0	646.0	648.0	650.0	651.0	651.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
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	647.0	647.0	647.0	647.0	647.0	646.0	646.0	646.0	646.0	646.0
	645.0	645.0	645.0	645.0	645.0	644.0	644.0	644.0	644.0	644.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0								
0 80	634.0	636.0	638.0	642.0	646.0	647.0	649.0	651.0	651.0	650.0
	650.0	650.0	650.0	650.0	650.0	649.0	649.0	649.0	649.0	649.0
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	645.0	645.0	645.0	644.0	644.0	644.0	644.0	644.0	643.0	643.0
	643.0	643.0	642.0	642.0	641.0	641.0	641.0	641.0	641.0	642.0
	642.0	642.0								
0 81	634.0	636.0	638.0	641.0	646.0	647.0	648.0	650.0	650.0	650.0
	650.0	650.0	650.0	649.0	649.0	649.0	649.0	649.0	648.0	648.0
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	644.0	644.0	644.0	644.0	644.0	643.0	643.0	643.0	643.0	642.0
	642.0	642.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0	640.0
	641.0	641.0								
0 82	633.0	635.0	637.0	641.0	645.0	646.0	648.0	650.0	650.0	650.0
	650.0	649.0	649.0	649.0	648.0	648.0	648.0	648.0	648.0	648.0

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	642.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	641.0								
0 83	633.0	635.0	637.0	641.0	644.0	646.0	647.0	650.0	650.0	649.0
	649.0	649.0	648.0	648.0	648.0	648.0	648.0	648.0	647.0	647.0
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	641.0	641.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0								
0 84	633.0	635.0	637.0	640.0	643.0	645.0	646.0	648.0	649.0	648.0
	648.0	648.0	648.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
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	640.0	640.0								
0 85	632.0	635.0	636.0	640.0	642.0	644.0	645.0	646.0	648.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	646.0	646.0	646.0
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	642.0	642.0	642.0	642.0	641.0	641.0	641.0	641.0	640.0	640.0
	640.0	640.0	640.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0								
0 86	632.0	635.0	636.0	640.0	642.0	643.0	644.0	645.0	647.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
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	640.0	640.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0								
0 87	632.0	634.0	635.0	639.0	641.0	642.0	643.0	644.0	646.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
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	643.0	643.0	643.0	643.0	642.0	642.0	642.0	642.0	642.0	641.0
	641.0	641.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0
	638.0	638.0								
0 88	631.0	634.0	635.0	639.0	640.0	641.0	642.0	643.0	645.0	645.0
	644.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
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	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0								
0 89	631.0	634.0	635.0	638.0	640.0	641.0	642.0	643.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
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	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0								
0 90	630.0	634.0	634.0	638.0	639.0	641.0	642.0	642.0	643.0	644.0
	643.0	643.0	643.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
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	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0								
0 91	630.0	634.0	634.0	638.0	639.0	641.0	641.0	642.0	642.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
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	638.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0								
0 92	629.0	633.0	634.0	637.0	638.0	641.0	641.0	641.0	642.0	643.0
	642.0	642.0	642.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0

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	637.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0
	636.0	636.0								
0 93	629.0	633.0	633.0	637.0	638.0	640.0	641.0	641.0	641.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
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	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0								
0 94	628.0	633.0	633.0	636.0	638.0	640.0	640.0	641.0	641.0	642.0
	641.0	641.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
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	638.0	638.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0
	635.0	635.0								
0 95	628.0	632.0	633.0	636.0	637.0	640.0	640.0	640.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
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	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0								
0 96	628.0	632.0	632.0	635.0	637.0	640.0	640.0	640.0	640.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
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	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0								
0 97	628.0	632.0	632.0	635.0	636.0	639.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
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	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0								
0 98	627.0	631.0	632.0	634.0	636.0	639.0	639.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0
	638.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0
	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0								
0 99	627.0	631.0	631.0	634.0	635.0	638.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0
	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	635.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0								
0100	627.0	630.0	631.0	633.0	635.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0	637.0
	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0								
0101	626.0	630.0	631.0	633.0	634.0	637.0	637.0	637.0	637.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0
	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0								
0102	626.0	629.0	630.0	632.0	634.0	636.0	636.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0

	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0
	631.0	631.0								
0103	626.0	628.0	630.0	632.0	633.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0104	625.0	628.0	630.0	632.0	633.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0
	630.0	630.0								
0105	625.0	627.0	629.0	631.0	632.0	634.0	634.0	634.0	634.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0								
0106	625.0	627.0	628.0	631.0	632.0	633.0	633.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0								
0107	625.0	626.0	628.0	631.0	631.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0
	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0								
0108	624.0	626.0	627.0	630.0	631.0	632.0	632.0	632.0	632.0	632.0
	632.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0								
0109	624.0	625.0	627.0	630.0	630.0	631.0	631.0	631.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0
	627.0	627.0								
0110	624.0	625.0	626.0	630.0	630.0	630.0	630.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0
	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0111	624.0	624.0	626.0	629.0	629.0	630.0	630.0	630.0	630.0	630.0
	630.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0
	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0112	623.0	624.0	625.0	628.0	629.0	629.0	629.0	629.0	629.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	631.0	631.0	631.0

	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0
	627.0	627.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0
	625.0	625.0								
0113	623.0	623.0	625.0	627.0	628.0	628.0	628.0	628.0	629.0	629.0
	629.0	629.0	629.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	626.0
	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0
	624.0	624.0								
0114	623.0	623.0	624.0	627.0	627.0	627.0	628.0	628.0	628.0	628.0
	628.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0								
0115	623.0	623.0	624.0	626.0	626.0	626.0	627.0	627.0	627.0	628.0
	628.0	628.0	628.0	628.0	628.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	625.0
	625.0	625.0	625.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0116	622.0	623.0	623.0	625.0	625.0	626.0	626.0	626.0	627.0	627.0
	627.0	627.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0
	625.0	624.0	624.0	624.0	623.0	623.0	622.0	622.0	622.0	622.0
	622.0	622.0								
0117	622.0	623.0	623.0	624.0	625.0	625.0	626.0	626.0	626.0	626.0
	627.0	627.0	627.0	627.0	627.0	627.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	624.0
	624.0	624.0	623.0	623.0	623.0	622.0	622.0	621.0	620.0	621.0
	621.0	621.0								
0118	622.0	622.0	622.0	624.0	624.0	625.0	625.0	625.0	626.0	626.0
	626.0	626.0	626.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	623.0	623.0	623.0	622.0	622.0	621.0	620.0	620.0	621.0
	621.0	621.0								
0119	622.0	622.0	622.0	623.0	624.0	624.0	624.0	625.0	625.0	625.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0
	623.0	623.0	623.0	622.0	622.0	621.0	621.0	620.0	620.0	620.0
	621.0	621.0								
0120	621.0	622.0	622.0	623.0	623.0	624.0	624.0	624.0	625.0	625.0
	625.0	625.0	625.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0
	623.0	622.0	622.0	622.0	621.0	621.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0121	621.0	621.0	622.0	622.0	623.0	623.0	624.0	624.0	624.0	624.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
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	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0
	622.0	622.0	622.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0122	621.0	621.0	621.0	622.0	622.0	623.0	623.0	623.0	624.0	624.0
	624.0	624.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0

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	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	622.0
	622.0	622.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0123	621.0	621.0	621.0	622.0	622.0	622.0	623.0	623.0	623.0	624.0
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	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0
	622.0	622.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0124	620.0	620.0	621.0	621.0	622.0	622.0	622.0	623.0	623.0	623.0
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	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0
	622.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0125	620.0	620.0	621.0	621.0	621.0	622.0	622.0	622.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	624.0	624.0	624.0	624.0	624.0
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	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0
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	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0
	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0126	620.0	620.0	620.0	621.0	621.0	621.0	622.0	622.0	622.0	622.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
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	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
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	620.0	620.0								
0127	620.0	620.0	620.0	621.0	621.0	621.0	621.0	622.0	622.0	622.0
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	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0
	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0128	620.0	620.0	620.0	620.0	621.0	621.0	621.0	621.0	622.0	622.0
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	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0129	620.0	620.0	620.0	620.0	621.0	621.0	621.0	621.0	622.0	622.0
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	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0130	620.0	620.0	620.0	620.0	620.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
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	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0131	620.0	620.0	620.0	620.0	620.0	620.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
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	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
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	621.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0132	620.0	620.0	620.0	620.0	620.0	620.0	620.0	621.0	621.0	621.0
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	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0133	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
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	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0
	619.0	619.0								
0134	619.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0
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	619.0	619.0								
0135	619.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
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	619.0	619.0	619.0	619.0	620.0	620.0	620.0	620.0	620.0	620.0
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	619.0	619.0								
0136	619.0	619.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
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	619.0	619.0								
0137	619.0	619.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
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	619.0	619.0								
0138	619.0	619.0	619.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
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	618.0	618.0								
0139	619.0	619.0	619.0	619.0	619.0	620.0	620.0	620.0	620.0	620.0
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	618.0	618.0								
0140	619.0	619.0	619.0	619.0	619.0	619.0	620.0	620.0	620.0	620.0
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	618.0	618.0								
0141	619.0	619.0	619.0	619.0	619.0	619.0	619.0	620.0	620.0	619.0
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	617.0	617.0								
0145	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
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	616.0	616.0								
0146	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
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	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
	602.0	602.0								
0189	597.0	597.0	597.0	598.0	598.0	599.0	600.0	600.0	600.0	600.0
	600.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
	602.0	602.0								
0190	596.0	596.0	596.0	597.0	597.0	598.0	600.0	600.0	600.0	600.0
	600.0	600.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0								
0191	595.0	595.0	595.0	596.0	596.0	597.0	598.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0								
0192	594.0	594.0	594.0	594.0	595.0	595.0	596.0	597.0	598.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0

	600.0	600.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0								
0193	592.0	592.0	592.0	593.0	593.0	594.0	594.0	595.0	596.0	598.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	601.0	601.0	601.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0								
0194	591.0	591.0	591.0	591.0	591.0	592.0	592.0	593.0	593.0	594.0
	595.0	596.0	596.0	596.0	596.0	596.0	597.0	598.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0								
0195	589.0	589.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0	591.0
	591.0	592.0	592.0	592.0	592.0	592.0	593.0	593.0	594.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	596.0	597.0	600.0	600.0
	600.0	600.0	600.0	600.0	597.0	596.0	595.0	595.0	594.0	594.0
	594.0	593.0								
0196	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0
	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	591.0	592.0	593.0	593.0
	593.0	593.0	593.0	593.0	591.0	591.0	590.0	589.0	589.0	587.0
	587.0	587.0								
0197	586.0	586.0	586.0	586.0	586.0	585.0	585.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	586.0	586.0
	587.0	587.0	586.0	586.0	586.0	585.0	585.0	584.0	583.0	580.0
	580.0	580.0								
0198	585.0	585.0	585.0	584.0	584.0	583.0	582.0	582.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	577.0
	576.0	575.0								
0199	584.0	584.0	583.0	583.0	582.0	581.0	580.0	580.0	578.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	576.0	576.0	576.0	576.0
	576.0	577.0	577.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	574.0	574.0	573.0	572.0
	571.0	571.0								
0200	583.0	582.0	582.0	582.0	581.0	580.0	578.0	577.0	575.0	574.0
	574.0	574.0	574.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	572.0	572.0	572.0	572.0
	572.0	572.0	571.0	571.0	571.0	571.0	572.0	572.0	571.0	571.0
	571.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	569.0	568.0	567.0	566.0
	566.0	565.0								
0201	582.0	581.0	581.0	581.0	580.0	577.0	575.0	573.0	572.0	571.0
	571.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	569.0	569.0	569.0	569.0
	569.0	570.0	570.0	570.0	569.0	569.0	568.0	568.0	568.0	568.0
	568.0	567.0	567.0	567.0	567.0	567.0	568.0	568.0	567.0	567.0
	566.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	564.0	563.0	560.0	560.0
	560.0	560.0								
0202	581.0	581.0	580.0	580.0	576.0	573.0	571.0	569.0	568.0	568.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0

	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	566.0	566.0	566.0	566.0	565.0	565.0
	566.0	567.0	567.0	566.0	566.0	565.0	564.0	564.0	564.0	564.0
	564.0	563.0	563.0	562.0	562.0	562.0	565.0	564.0	564.0	562.0
	561.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0
	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	556.0	554.0
	554.0	554.0								
0203	580.0	580.0	576.0	573.0	571.0	568.0	566.0	565.0	564.0	564.0
	564.0	564.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	562.0	562.0	561.0	561.0
	562.0	565.0	564.0	563.0	562.0	561.0	560.0	560.0	560.0	560.0
	560.0	559.0	558.0	557.0	556.0	555.0	558.0	558.0	558.0	558.0
	557.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0
	556.0	556.0	555.0	555.0	555.0	554.0	554.0	553.0	550.0	548.0
	547.0	547.0								
0204	574.0	573.0	570.0	567.0	565.0	563.0	560.0	560.0	560.0	560.0
	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0
	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0
	560.0	560.0	560.0	560.0	560.0	560.0	559.0	558.0	557.0	556.0
	555.0	558.0	558.0	558.0	557.0	557.0	556.0	556.0	555.0	555.0
	555.0	554.0	554.0	553.0	552.0	552.0	553.0	553.0	553.0	553.0
	553.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0
	552.0	551.0	551.0	550.0	550.0	549.0	548.0	546.0	544.0	540.0
	540.0	540.0								
0205	568.0	567.0	564.0	560.0	560.0	560.0	557.0	556.0	556.0	555.0
	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0
	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0
	555.0	555.0	555.0	555.0	555.0	555.0	554.0	553.0	553.0	552.0
	552.0	552.0	553.0	553.0	552.0	552.0	552.0	551.0	551.0	551.0
	550.0	550.0	549.0	549.0	548.0	548.0	549.0	549.0	549.0	549.0
	549.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	547.0	546.0	545.0	545.0	544.0	543.0	540.0	540.0	536.0
	535.0	534.0								
0206	564.0	563.0	560.0	558.0	556.0	555.0	554.0	552.0	551.0	551.0
	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0	550.0	550.0	550.0	550.0	549.0	549.0	549.0	548.0
	548.0	548.0	547.0	547.0	548.0	548.0	548.0	547.0	546.0	546.0
	545.0	545.0	545.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	544.0	543.0	542.0	540.0	540.0	540.0	540.0	535.0	533.0	530.0
	528.0	527.0								
0207	561.0	560.0	557.0	554.0	553.0	551.0	549.0	548.0	546.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	545.0	544.0	544.0	544.0
	543.0	543.0	542.0	542.0	542.0	545.0	544.0	543.0	542.0	541.0
	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	540.0	540.0	540.0	535.0	533.0	531.0	530.0	528.0	526.0	524.0
	520.0	520.0								
0208	560.0	556.0	553.0	551.0	549.0	547.0	545.0	543.0	540.0	540.0
	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	539.0	538.0	537.0	536.0	535.0	537.0	538.0	538.0	537.0	537.0
	536.0	535.0	535.0	535.0	534.0	534.0	534.0	534.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	532.0	532.0	532.0	532.0	532.0
	531.0	531.0	530.0	527.0	525.0	520.0	520.0	520.0	520.0	520.0
	513.0	511.0								
0209	552.0	550.0	548.0	547.0	545.0	543.0	540.0	540.0	536.0	534.0
	534.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	532.0	531.0	530.0	530.0	531.0	532.0	533.0	533.0	532.0
	531.0	531.0	530.0	529.0	529.0	528.0	527.0	527.0	527.0	527.0
	527.0	527.0	526.0	526.0	525.0	525.0	524.0	524.0	525.0	524.0
	523.0	522.0	521.0	520.0	520.0	513.0	511.0	510.0	509.0	507.0
	500.0	500.0								
0210	546.0	545.0	544.0	543.0	540.0	540.0	535.0	532.0	529.0	528.0
	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0
	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0
	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	527.0	526.0
	526.0	526.0	525.0	524.0	524.0	524.0	525.0	530.0	529.0	528.0
	527.0	526.0	525.0	524.0	523.0	522.0	521.0	520.0	520.0	520.0
	520.0	520.0	520.0	519.0	518.0	517.0	516.0	515.0	515.0	514.0
	513.0	512.0	511.0	510.0	507.0	500.0	500.0	500.0	500.0	500.0
	480.0	480.0								
0211	540.0	540.0	540.0	540.0	535.0	532.0	528.0	525.0	520.0	520.0
	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0
	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0
	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0
	520.0	520.0	519.0	518.0	517.0	516.0	515.0	518.0	519.0	518.0
	517.0	516.0	515.0	514.0	513.0	512.0	511.0	510.0	510.0	510.0
	510.0	510.0	510.0	509.0	509.0	508.0	507.0	506.0	505.0	504.0
	503.0	502.0	501.0	500.0	500.0	493.0	490.0	488.0	480.0	480.0
	460.0	460.0								
0212	533.0	533.0	532.0	530.0	527.0	525.0	520.0	520.0	515.0	513.0
	512.0	512.0	511.0	511.0	510.0	510.0	510.0	510.0	510.0	510.0

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      510.0     510.0     510.0     510.0     510.0     510.0     510.0     510.0     510.0     510.0
      510.0     510.0     510.0     510.0     510.0     510.0     510.0     509.0     509.0     508.0
      508.0     507.0     506.0     506.0     505.0     504.0     505.0     510.0     509.0     508.0
      507.0     506.0     505.0     504.0     503.0     502.0     501.0     500.0     500.0     500.0
      500.0     500.0     500.0     500.0     500.0     499.0     498.0     497.0     496.0     495.0
      492.0     491.0     488.0     480.0     480.0     480.0     480.0     480.0     460.0     460.0
      455.0     455.0
0213  526.0     526.0     524.0     520.0     520.0     520.0     512.0     510.0     506.0     505.0
      504.0     503.0     502.0     501.0     500.0     500.0     500.0     500.0     500.0     500.0
      500.0     500.0     500.0     500.0     500.0     500.0     500.0     500.0     500.0     500.0
      500.0     500.0     500.0     500.0     500.0     500.0     500.0     499.0     498.0     497.0
      496.0     495.0     494.0     493.0     492.0     491.0     490.0     490.0     489.0     488.0
      487.0     486.0     485.0     484.0     483.0     482.0     481.0     480.0     480.0     480.0
      480.0     480.0     480.0     480.0     480.0     480.0     480.0     480.0     480.0     480.0
      480.0     480.0     480.0     470.0     460.0     460.0     460.0     460.0     455.0     455.0
      455.0     455.0
0214  520.0     520.0     520.0     513.0     510.0     508.0     500.0     500.0     495.0     485.0
      484.0     483.0     482.0     481.0     480.0     480.0     480.0     480.0     480.0     480.0
      480.0     480.0     480.0     480.0     480.0     480.0     480.0     480.0     480.0     480.0
      480.0     480.0     480.0     480.0     480.0     480.0     480.0     479.0     478.0     477.0
      476.0     475.0     474.0     473.0     472.0     471.0     470.0     470.0     469.0     468.0
      467.0     466.0     465.0     464.0     463.0     462.0     461.0     460.0     460.0     460.0
      460.0     460.0     460.0     460.0     460.0     460.0     460.0     460.0     460.0     460.0
      460.0     460.0     460.0     460.0     458.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0215  509.0     507.0     500.0     500.0     500.0     500.0     480.0     480.0     478.0     473.0
      470.0     465.0     464.0     463.0     462.0     461.0     460.0     460.0     460.0     460.0
      460.0     460.0     460.0     460.0     460.0     460.0     460.0     460.0     460.0     460.0
      460.0     460.0     460.0     460.0     460.0     460.0     460.0     460.0     460.0     460.0
      460.0     460.0     460.0     460.0     459.0     458.0     457.0     461.0     462.0     461.0
      461.0     460.0     460.0     460.0     459.0     459.0     458.0     458.0     458.0     458.0
      457.0     457.0     457.0     457.0     457.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0216  500.0     500.0     492.0     488.0     480.0     480.0     470.0     460.0     460.0     458.0
      457.0     459.0     459.0     459.0     458.0     458.0     458.0     458.0     458.0     458.0
      458.0     457.0     457.0     457.0     457.0     457.0     457.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0217  480.0     480.0     480.0     480.0     460.0     460.0     460.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0218  467.0     460.0     460.0     460.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0219  460.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0
0220  455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0     455.0
      455.0     455.0

OPENING FILE ON UNIT  99:
BOTL1.DAT


          ZBOT (BOTTOM ELEVATION)  FOR LAYER   1
READING ON UNIT  99 WITH FORMAT: (82F9.0)

            1         2         3         4         5         6         7         8         9        10
           11        12        13        14        15        16        17        18        19        20
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	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80
	81	82								
0 1	748.0	748.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0								
0 2	748.0	746.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0								
0 3	744.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0								
0 4	742.0	741.0	741.0	741.0	741.0	742.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0								
0 5	739.0	739.0	739.0	739.0	739.0	740.0	740.0	740.0	740.0	740.0
	740.0	740.0	740.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0	741.0
	741.0	741.0	741.0	741.0	742.0	743.0	743.0	743.0	743.0	743.0
	743.0	743.0								
0 6	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	738.0	738.0	738.0	738.0	738.0	738.0	738.0	738.0	739.0	739.0
	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0	739.0
	739.0	739.0	739.0	739.0	740.0	740.0	741.0	741.0	741.0	741.0
	741.0	741.0								
0 7	735.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	735.0	735.0	735.0	736.0	736.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0	736.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0	737.0
	737.0	737.0	737.0	737.0	738.0	738.0	738.0	738.0	738.0	739.0
	739.0	739.0								
0 8	732.0	732.0	732.0	732.0	732.0	731.0	731.0	731.0	731.0	731.0
	732.0	733.0	733.0	733.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0								
0 9	730.0	730.0	730.0	730.0	729.0	728.0	728.0	728.0	728.0	728.0
	730.0	730.0	730.0	731.0	731.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	733.0	733.0	733.0	733.0	733.0	734.0	734.0	734.0	734.0
	734.0	734.0								
0 10	728.0	728.0	728.0	728.0	728.0	727.0	726.0	726.0	726.0	727.0

	728.0	728.0	728.0	728.0	729.0	730.0	731.0	729.0	729.0	729.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	731.0	731.0	732.0	732.0	732.0	732.0
	732.0	732.0								
0 11	726.0	726.0	725.0	725.0	725.0	725.0	724.0	724.0	724.0	724.0
	725.0	725.0	725.0	726.0	726.0	726.0	726.0	725.0	726.0	727.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	729.0	730.0	730.0	730.0	730.0
	730.0	730.0								
0 12	723.0	723.0	723.0	723.0	722.0	722.0	722.0	722.0	722.0	722.0
	722.0	722.0	723.0	723.0	723.0	723.0	723.0	723.0	724.0	724.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	726.0	726.0	726.0
	726.0	726.0	726.0	726.0	726.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0								
0 13	721.0	721.0	721.0	720.0	720.0	720.0	719.0	719.0	719.0	719.0
	719.0	720.0	720.0	720.0	720.0	721.0	721.0	721.0	721.0	721.0
	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
	722.0	722.0	722.0	722.0	722.0	722.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	724.0	724.0	724.0	724.0	724.0	724.0
	724.0	724.0								
0 14	718.0	718.0	718.0	718.0	718.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	718.0	718.0	718.0	718.0	718.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0
	720.0	720.0	720.0	720.0	720.0	720.0	720.0	721.0	721.0	721.0
	721.0	721.0	721.0	721.0	721.0	721.0	721.0	720.0	720.0	719.0
	719.0	719.0								
0 15	716.0	716.0	716.0	716.0	715.0	715.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	715.0	715.0	715.0	715.0	715.0	716.0	716.0
	716.0	716.0	716.0	716.0	716.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	717.0	716.0	715.0
	714.0	714.0								
0 16	714.0	714.0	714.0	713.0	713.0	712.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	712.0	712.0	713.0	713.0	713.0	713.0	713.0
	713.0	713.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	715.0	715.0
	715.0	715.0	715.0	715.0	715.0	715.0	715.0	716.0	716.0	716.0
	716.0	716.0	716.0	716.0	716.0	715.0	715.0	713.0	712.0	711.0
	708.0	710.0								
0 17	712.0	712.0	712.0	711.0	710.0	710.0	708.0	708.0	708.0	708.0
	708.0	708.0	708.0	709.0	710.0	711.0	710.0	709.0	710.0	710.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	712.0	712.0	713.0
	712.0	712.0	712.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0
	713.0	714.0	714.0	714.0	713.0	713.0	712.0	710.0	708.0	708.0
	708.0	708.0								
0 18	711.0	710.0	710.0	709.0	708.0	708.0	707.0	707.0	706.0	706.0
	706.0	706.0	706.0	707.0	707.0	707.0	705.0	706.0	707.0	708.0
	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0
	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0
	708.0	709.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0
	708.0	708.0	708.0	708.0	708.0	708.0	708.0	709.0	710.0	711.0
	709.0	709.0	710.0	710.0	710.0	710.0	710.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	710.0	708.0	707.0	707.0
	707.0	707.0								
0 19	709.0	709.0	708.0	708.0	707.0	706.0	705.0	705.0	705.0	705.0
	704.0	704.0	705.0	705.0	705.0	705.0	704.0	704.0	705.0	705.0
	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0
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	706.0	706.0	706.0	706.0	706.0	706.0	706.0	707.0	707.0	707.0
	705.0	706.0	707.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0
	708.0	709.0	710.0	710.0	709.0	709.0	708.0	707.0	706.0	706.0
	705.0	705.0								
0 20	708.0	708.0	706.0	706.0	705.0	704.0	704.0	703.0	703.0	703.0

	703.0	703.0	703.0	703.0	703.0	703.0	702.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	704.0	704.0	704.0	704.0	704.0	704.0
	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0
	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0
	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0
	704.0	704.0	705.0	705.0	705.0	706.0	706.0	706.0	706.0	706.0
	707.0	708.0	708.0	708.0	708.0	708.0	706.0	705.0	704.0	704.0
	704.0	704.0								
0 21	705.0	705.0	704.0	704.0	703.0	702.0	702.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	700.0	700.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	702.0	703.0	703.0	703.0	703.0	704.0	704.0	704.0
	704.0	705.0	705.0	705.0	705.0	705.0	704.0	703.0	703.0	702.0
	702.0	702.0								
0 22	703.0	702.0	702.0	701.0	701.0	700.0	700.0	699.0	699.0	699.0
	699.0	699.0	699.0	698.0	698.0	698.0	698.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	700.0	700.0
	700.0	700.0	700.0	700.0	701.0	701.0	701.0	701.0	701.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	701.0	701.0	700.0
	700.0	700.0								
0 23	700.0	700.0	700.0	699.0	699.0	698.0	698.0	697.0	697.0	697.0
	697.0	697.0	696.0	696.0	696.0	696.0	696.0	696.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	698.0	698.0	698.0	698.0	698.0	699.0	699.0	699.0	699.0
	700.0	700.0	700.0	700.0	700.0	700.0	699.0	699.0	699.0	698.0
	698.0	698.0								
0 24	698.0	698.0	698.0	697.0	697.0	696.0	696.0	695.0	695.0	695.0
	695.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	696.0	696.0	696.0	696.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	696.0
	696.0	696.0								
0 25	696.0	696.0	696.0	695.0	694.0	694.0	693.0	693.0	693.0	693.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	694.0	694.0	694.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	694.0	694.0
	694.0	694.0								
0 26	694.0	694.0	694.0	693.0	692.0	692.0	691.0	691.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	691.0	691.0	691.0	691.0	692.0	692.0	692.0	692.0
	692.0	693.0	693.0	693.0	693.0	693.0	692.0	692.0	692.0	692.0
	692.0	692.0								
0 27	693.0	692.0	692.0	691.0	690.0	689.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	689.0	690.0	691.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0								
0 28	691.0	691.0	691.0	690.0	688.0	688.0	688.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	688.0	688.0	686.0	687.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0								
0 29	690.0	690.0	689.0	689.0	688.0	687.0	687.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0								
0 30	689.0	689.0	689.0	688.0	687.0	686.0	686.0	685.0	685.0	685.0

	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
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	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	685.0	685.0	685.0	685.0	685.0	684.0	684.0
	685.0	685.0	685.0	684.0	684.0	684.0	684.0	684.0	684.0	683.0
	683.0	683.0								
0 31	689.0	688.0	688.0	687.0	686.0	685.0	685.0	684.0	684.0	684.0
	684.0	684.0	684.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	682.0	682.0	682.0	681.0	681.0
	681.0	681.0								
0 32	688.0	688.0	688.0	686.0	685.0	684.0	684.0	683.0	683.0	683.0
	683.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	681.0	681.0	681.0	681.0	681.0	680.0	680.0	679.0	679.0
	678.0	678.0								
0 33	688.0	688.0	686.0	685.0	684.0	683.0	682.0	682.0	682.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
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	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	680.0	680.0
	680.0	680.0	680.0	679.0	679.0	679.0	678.0	678.0	677.0	676.0
	676.0	675.0								
0 34	688.0	688.0	685.0	683.0	682.0	681.0	681.0	681.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	678.0	678.0	677.0	677.0	676.0	676.0	675.0	674.0
	673.0	672.0								
0 35	688.0	684.0	682.0	681.0	680.0	680.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	677.0	677.0	677.0	676.0	676.0	675.0	675.0	674.0	673.0	672.0
	670.0	668.0								
0 36	681.0	679.0	679.0	678.0	678.0	678.0	678.0	678.0	678.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	676.0
	676.0	676.0	675.0	675.0	674.0	674.0	673.0	672.0	671.0	670.0
	668.0	668.0								
0 37	674.0	674.0	675.0	675.0	675.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	675.0	675.0
	675.0	675.0	674.0	674.0	673.0	672.0	672.0	671.0	669.0	668.0
	668.0	668.0								
0 38	668.0	668.0	671.0	672.0	673.0	674.0	674.0	674.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	674.0	674.0	674.0
	674.0	673.0	673.0	672.0	672.0	671.0	670.0	669.0	668.0	668.0
	668.0	668.0								
0 39	665.0	665.0	668.0	670.0	671.0	672.0	672.0	673.0	673.0	673.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	673.0	673.0	673.0	673.0	673.0
	673.0	672.0	672.0	671.0	671.0	670.0	669.0	668.0	668.0	667.0
	667.0	667.0								
0 40	660.0	661.0	664.0	668.0	669.0	670.0	671.0	672.0	672.0	672.0

	672.0	672.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	671.0	671.0	670.0	670.0	669.0	668.0	668.0	667.0	667.0
	667.0	667.0								
0 41	655.0	656.0	659.0	663.0	668.0	669.0	670.0	670.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	671.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	670.0	670.0	670.0	669.0	668.0	668.0	667.0	667.0	667.0
	666.0	666.0								
0 42	648.0	648.0	653.0	658.0	663.0	668.0	669.0	669.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	669.0	669.0	669.0	668.0	668.0	667.0	667.0	666.0	666.0
	666.0	666.0								
0 43	646.0	647.0	648.0	653.0	658.0	663.0	668.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
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	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	668.0	668.0	668.0	667.0	666.0	666.0	665.0	665.0
	665.0	665.0								
0 44	643.0	644.0	647.0	648.0	653.0	659.0	663.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
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	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	667.0	667.0	666.0	666.0	665.0	665.0	665.0	664.0
	664.0	664.0								
0 45	638.0	642.0	646.0	647.0	648.0	655.0	659.0	663.0	664.0	665.0
	665.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
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	666.0	666.0	666.0	666.0	665.0	665.0	664.0	664.0	664.0	664.0
	663.0	663.0								
0 46	637.0	641.0	645.0	646.0	647.0	653.0	656.0	659.0	661.0	662.0
	663.0	664.0	664.0	664.0	664.0	665.0	665.0	665.0	665.0	665.0
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	665.0	665.0	665.0	664.0	664.0	664.0	663.0	663.0	663.0	663.0
	662.0	662.0								
0 47	637.0	638.0	644.0	645.0	647.0	652.0	654.0	657.0	659.0	660.0
	661.0	661.0	662.0	662.0	663.0	663.0	663.0	663.0	663.0	663.0
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	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
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	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	663.0	663.0	663.0	663.0	662.0	662.0	662.0	662.0	662.0
	662.0	661.0								
0 48	636.0	637.0	643.0	644.0	647.0	650.0	653.0	656.0	656.0	658.0
	659.0	660.0	660.0	661.0	661.0	661.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	662.0	662.0
	662.0	662.0	662.0	662.0	661.0	661.0	661.0	661.0	661.0	661.0
	660.0	660.0								
0 49	636.0	637.0	642.0	643.0	646.0	649.0	651.0	655.0	655.0	656.0
	657.0	658.0	659.0	659.0	660.0	660.0	660.0	660.0	660.0	661.0
	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
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	662.0	662.0	662.0	662.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0	661.0	660.0	660.0	660.0	660.0	660.0	660.0	659.0
	659.0	659.0								
0 50	636.0	636.0	641.0	642.0	646.0	649.0	650.0	654.0	653.0	655.0

	656.0	656.0	657.0	658.0	658.0	658.0	659.0	659.0	659.0	659.0
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	659.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
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	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	658.0	658.0
	658.0	658.0								
0 51	635.0	636.0	640.0	641.0	645.0	648.0	650.0	653.0	652.0	653.0
	654.0	655.0	656.0	656.0	657.0	657.0	657.0	657.0	658.0	658.0
	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
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	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	658.0
	658.0	658.0	658.0	658.0	658.0	658.0	657.0	657.0	657.0	657.0
	657.0	657.0								
0 52	635.0	635.0	638.0	641.0	645.0	648.0	649.0	653.0	651.0	652.0
	653.0	654.0	654.0	655.0	655.0	656.0	656.0	656.0	656.0	656.0
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	657.0	657.0	657.0	657.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0								
0 53	634.0	635.0	637.0	640.0	644.0	647.0	648.0	652.0	650.0	651.0
	652.0	653.0	653.0	654.0	654.0	654.0	655.0	655.0	655.0	655.0
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	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	656.0	656.0
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	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0								
0 54	634.0	634.0	637.0	640.0	644.0	647.0	647.0	651.0	650.0	650.0
	651.0	652.0	652.0	653.0	653.0	653.0	653.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
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	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0								
0 55	633.0	634.0	636.0	639.0	643.0	646.0	647.0	650.0	649.0	650.0
	650.0	651.0	651.0	652.0	652.0	652.0	652.0	652.0	653.0	653.0
	653.0	653.0	653.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
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	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	652.0
	652.0	652.0								
0 56	633.0	633.0	636.0	639.0	643.0	646.0	647.0	650.0	649.0	649.0
	650.0	650.0	650.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0
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	652.0	652.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0
	651.0	651.0								
0 57	632.0	633.0	635.0	638.0	642.0	645.0	648.0	649.0	648.0	649.0
	649.0	649.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
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	652.0	652.0	652.0	652.0	652.0	651.0	651.0	651.0	651.0	651.0
	651.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0								
0 58	631.0	632.0	635.0	638.0	642.0	645.0	647.0	649.0	648.0	648.0
	648.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
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	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	649.0	648.0	648.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	648.0								
0 59	631.0	632.0	634.0	637.0	641.0	644.0	647.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	647.0	647.0	647.0	647.0	647.0
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	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
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	649.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0								
0 60	630.0	631.0	634.0	637.0	641.0	644.0	646.0	648.0	648.0	648.0

	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0								
0 61	630.0	631.0	633.0	637.0	640.0	643.0	646.0	647.0	647.0	647.0
	646.0	646.0	646.0	646.0	646.0	646.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0								
0 62	629.0	630.0	633.0	636.0	640.0	643.0	645.0	647.0	647.0	646.0
	645.0	645.0	645.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	647.0	647.0	647.0	647.0	647.0	646.0	646.0
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	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0								
0 63	629.0	630.0	632.0	636.0	639.0	642.0	645.0	647.0	647.0	645.0
	644.0	644.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0								
0 64	628.0	630.0	632.0	636.0	639.0	642.0	644.0	646.0	646.0	644.0
	643.0	644.0	644.0	644.0	644.0	644.0	644.0	645.0	645.0	645.0
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	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0								
0 65	628.0	629.0	632.0	635.0	638.0	641.0	644.0	646.0	646.0	643.0
	642.0	643.0	643.0	643.0	643.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
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	643.0	643.0	643.0	643.0	643.0	643.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0								
0 66	627.0	629.0	631.0	635.0	638.0	641.0	643.0	645.0	645.0	643.0
	642.0	642.0	642.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
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	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	642.0								
0 67	627.0	629.0	631.0	635.0	637.0	640.0	643.0	645.0	645.0	642.0
	641.0	641.0	642.0	642.0	642.0	642.0	643.0	643.0	643.0	643.0
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	641.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	641.0
	641.0	641.0								
0 68	626.0	628.0	631.0	634.0	636.0	640.0	642.0	644.0	644.0	642.0
	641.0	641.0	641.0	641.0	642.0	642.0	642.0	642.0	642.0	642.0
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	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	640.0
	640.0	640.0								
0 69	626.0	628.0	630.0	634.0	636.0	639.0	642.0	644.0	644.0	641.0
	640.0	640.0	641.0	641.0	641.0	641.0	641.0	642.0	642.0	642.0
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	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	639.0	639.0
	639.0	639.0								
0 70	625.0	627.0	630.0	634.0	636.0	639.0	641.0	643.0	643.0	641.0

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	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
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	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	640.0	640.0	640.0	639.0	639.0	639.0	639.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	638.0	638.0	638.0	638.0	638.0
	638.0	639.0								
0 71	625.0	627.0	630.0	633.0	636.0	638.0	641.0	643.0	643.0	640.0
	640.0	639.0	640.0	640.0	640.0	640.0	640.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	640.0	640.0	640.0
	640.0	640.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0
	638.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	638.0	638.0
	638.0	638.0								
0 72	624.0	626.0	629.0	633.0	636.0	638.0	640.0	642.0	642.0	640.0
	640.0	639.0	639.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	639.0
	639.0	639.0	639.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	637.0	637.0	637.0	637.0
	638.0	638.0								
0 73	624.0	626.0	629.0	632.0	635.0	637.0	640.0	642.0	642.0	640.0
	639.0	639.0	639.0	639.0	639.0	639.0	640.0	640.0	640.0	640.0
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	639.0	639.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0
	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	637.0	637.0
	637.0	638.0								
0 74	624.0	626.0	629.0	632.0	635.0	636.0	639.0	641.0	641.0	639.0
	639.0	638.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
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	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
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	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	636.0	636.0	637.0
	637.0	638.0								
0 75	623.0	625.0	628.0	631.0	634.0	635.0	639.0	641.0	641.0	639.0
	639.0	638.0	638.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
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	634.0	634.0	634.0	634.0	634.0	634.0	635.0	635.0	635.0	636.0
	638.0	638.0								
0 76	623.0	625.0	628.0	631.0	634.0	635.0	639.0	640.0	640.0	639.0
	639.0	638.0	638.0	638.0	638.0	639.0	639.0	639.0	638.0	638.0
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	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	633.0	633.0	633.0	634.0	634.0	634.0	634.0	635.0
	636.0	636.0								
0 77	623.0	625.0	628.0	630.0	633.0	635.0	638.0	640.0	640.0	639.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
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	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	634.0
	634.0	634.0								
0 78	622.0	624.0	627.0	630.0	634.0	635.0	638.0	639.0	639.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
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	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	633.0	633.0								
0 79	622.0	624.0	627.0	630.0	634.0	636.0	638.0	639.0	639.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0
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	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0 80	622.0	624.0	626.0	630.0	634.0	635.0	637.0	639.0	639.0	638.0

	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0
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	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
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	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0
	631.0	631.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0	630.0
	630.0	630.0								
0 81	622.0	624.0	626.0	629.0	634.0	635.0	636.0	638.0	638.0	638.0
	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
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	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0
	629.0	629.0								
0 82	621.0	623.0	625.0	629.0	633.0	634.0	636.0	638.0	638.0	638.0
	638.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0
	634.0	634.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0
	632.0	632.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0
	630.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	629.0								
0 83	621.0	623.0	625.0	629.0	632.0	634.0	635.0	638.0	638.0	637.0
	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0
	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0								
0 84	621.0	623.0	625.0	628.0	631.0	633.0	634.0	636.0	637.0	636.0
	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0
	631.0	631.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0
	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0
	628.0	628.0								
0 85	620.0	623.0	624.0	628.0	630.0	632.0	633.0	634.0	636.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0
	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	628.0	628.0
	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0 86	620.0	623.0	624.0	628.0	630.0	631.0	632.0	633.0	635.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0
	630.0	630.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0 87	620.0	622.0	623.0	627.0	629.0	630.0	631.0	632.0	634.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0
	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0 88	619.0	622.0	623.0	627.0	628.0	629.0	630.0	631.0	633.0	633.0
	632.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0
	629.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0
	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0 89	619.0	622.0	623.0	626.0	628.0	629.0	630.0	631.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0	628.0
	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0 90	618.0	622.0	622.0	626.0	627.0	629.0	630.0	630.0	631.0	632.0

	631.0	631.0	631.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0
	628.0	628.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0 91	618.0	622.0	622.0	626.0	627.0	629.0	629.0	630.0	630.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0
	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0 92	617.0	621.0	622.0	625.0	626.0	629.0	629.0	629.0	630.0	631.0
	630.0	630.0	630.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0
	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	624.0								
0 93	617.0	621.0	621.0	625.0	626.0	628.0	629.0	629.0	629.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0
	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0
	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0								
0 94	616.0	621.0	621.0	624.0	626.0	628.0	628.0	629.0	629.0	630.0
	629.0	629.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0
	628.0	628.0	628.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0
	623.0	623.0								
0 95	616.0	620.0	621.0	624.0	625.0	628.0	628.0	628.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0
	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0 96	616.0	620.0	620.0	623.0	625.0	628.0	628.0	628.0	628.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0
	627.0	627.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0
	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0 97	616.0	620.0	620.0	623.0	624.0	627.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0
	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0
	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0								
0 98	615.0	619.0	620.0	622.0	624.0	627.0	627.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0								
0 99	615.0	619.0	619.0	622.0	623.0	626.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0	623.0
	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0								
0100	615.0	618.0	619.0	621.0	623.0	626.0	626.0	626.0	626.0	626.0

	626.0	626.0	626.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0
	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0
	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0								
0101	614.0	618.0	619.0	621.0	622.0	625.0	625.0	625.0	625.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0
	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0102	614.0	617.0	618.0	620.0	622.0	624.0	624.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0
	622.0	622.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0
	619.0	619.0								
0103	614.0	616.0	618.0	620.0	621.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0
	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0								
0104	613.0	616.0	618.0	620.0	621.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
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	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0	618.0
	618.0	618.0								
0105	613.0	615.0	617.0	619.0	620.0	622.0	622.0	622.0	622.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0								
0106	613.0	615.0	616.0	619.0	620.0	621.0	621.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0								
0107	613.0	614.0	616.0	619.0	619.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	622.0	622.0	622.0	622.0	622.0	622.0
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	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0
	619.0	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0								
0108	612.0	614.0	615.0	618.0	619.0	620.0	620.0	620.0	620.0	620.0
	620.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	421.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	618.0	618.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	616.0	616.0	616.0	616.0	616.0	616.0
	616.0	616.0								
0109	612.0	613.0	615.0	618.0	618.0	619.0	619.0	619.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0	617.0	617.0
	616.0	616.0	616.0	616.0	616.0	616.0	616.0	615.0	615.0	615.0
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0110	612.0	613.0	614.0	618.0	618.0	618.0	618.0	619.0	619.0	619.0

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	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	617.0	617.0	617.0	617.0	617.0	617.0	616.0	616.0	616.0
	616.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0
	615.0	615.0								
0111	612.0	612.0	614.0	617.0	617.0	618.0	618.0	618.0	618.0	618.0
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	614.0	614.0								
0112	611.0	612.0	613.0	616.0	617.0	617.0	617.0	617.0	617.0	618.0
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	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
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	615.0	615.0	614.0	614.0	614.0	614.0	614.0	613.0	613.0	613.0
	613.0	613.0								
0113	611.0	611.0	613.0	615.0	616.0	616.0	616.0	616.0	617.0	617.0
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	616.0	616.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0	614.0
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0114	611.0	611.0	612.0	615.0	615.0	615.0	616.0	616.0	616.0	616.0
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	614.0	613.0	613.0	613.0	613.0	612.0	612.0	612.0	612.0	612.0
	612.0	612.0								
0115	611.0	611.0	612.0	614.0	614.0	614.0	615.0	615.0	615.0	616.0
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	613.0	613.0	613.0	612.0	612.0	612.0	611.0	611.0	611.0	611.0
	611.0	611.0								
0116	610.0	611.0	611.0	613.0	613.0	614.0	614.0	614.0	615.0	615.0
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	613.0	612.0	612.0	612.0	611.0	611.0	610.0	610.0	610.0	610.0
	610.0	610.0								
0117	610.0	611.0	611.0	612.0	613.0	613.0	614.0	614.0	614.0	614.0
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	609.0	609.0								
0118	610.0	610.0	610.0	612.0	612.0	613.0	613.0	613.0	614.0	614.0
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	609.0	609.0								
0119	610.0	610.0	610.0	611.0	612.0	612.0	612.0	613.0	613.0	613.0
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0120	609.0	610.0	610.0	611.0	611.0	612.0	612.0	612.0	613.0	613.0

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	608.0	608.0								
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	608.0	608.0								
0122	609.0	609.0	609.0	610.0	610.0	611.0	611.0	611.0	612.0	612.0
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	608.0	608.0								
0124	608.0	608.0	609.0	609.0	610.0	610.0	610.0	611.0	611.0	611.0
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0150	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0

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0151	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0
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	602.0	602.0								
0152	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
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0153	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
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0154	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
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	601.0	601.0								
0155	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
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0156	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
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0157	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
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0166	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
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	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
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	595.0	595.0								
0175	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
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	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0								
0176	591.0	591.0	591.0	591.0	591.0	591.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0								
0177	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0								
0178	590.0	590.0	590.0	590.0	590.0	590.0	591.0	591.0	591.0	591.0
	591.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0								
0179	590.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0	591.0	591.0
	591.0	591.0	591.0	591.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
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	593.0	593.0								
0180	589.0	589.0	589.0	588.0	589.0	589.0	590.0	590.0	590.0	590.0

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	592.0	592.0	592.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0								
0181	589.0	589.0	588.0	588.0	589.0	589.0	589.0	590.0	590.0	590.0
	590.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
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	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0								
0182	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	590.0	590.0
	590.0	590.0	590.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	592.0	592.0	592.0	592.0
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	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0								
0183	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0								
0184	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
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	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0								
0185	588.0	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0
	589.0	589.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
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	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0								
0186	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0	589.0	589.0
	589.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0	590.0	590.0
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	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0								
0187	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0								
0188	586.0	586.0	586.0	586.0	587.0	587.0	588.0	588.0	588.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0								
0189	585.0	585.0	585.0	586.0	586.0	587.0	588.0	588.0	588.0	588.0
	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
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	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0								
0190	584.0	584.0	584.0	585.0	585.0	586.0	588.0	588.0	588.0	588.0

	588.0	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
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	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
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	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0								
0191	583.0	583.0	583.0	584.0	584.0	585.0	586.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0								
0192	582.0	582.0	582.0	582.0	583.0	583.0	584.0	585.0	586.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
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	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0								
0193	580.0	580.0	580.0	581.0	581.0	582.0	582.0	583.0	584.0	586.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0194	579.0	579.0	579.0	579.0	579.0	580.0	580.0	581.0	581.0	582.0
	583.0	584.0	584.0	584.0	584.0	584.0	585.0	586.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0195	577.0	577.0	577.0	577.0	577.0	578.0	578.0	578.0	578.0	579.0
	579.0	580.0	580.0	580.0	580.0	580.0	581.0	581.0	582.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	584.0	585.0	588.0	588.0
	588.0	588.0	588.0	588.0	585.0	584.0	583.0	583.0	582.0	582.0
	582.0	581.0								
0196	576.0	576.0	576.0	576.0	576.0	575.0	575.0	575.0	575.0	575.0
	576.0	576.0	576.0	576.0	576.0	576.0	577.0	577.0	577.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	579.0	580.0	581.0	581.0
	581.0	581.0	581.0	581.0	579.0	579.0	578.0	577.0	577.0	575.0
	575.0	575.0								
0197	574.0	574.0	574.0	574.0	574.0	573.0	573.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	574.0	574.0	574.0
	575.0	575.0	574.0	574.0	574.0	573.0	573.0	572.0	571.0	568.0
	568.0	568.0								
0198	573.0	573.0	573.0	572.0	572.0	571.0	570.0	570.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	565.0
	564.0	563.0								
0199	572.0	572.0	571.0	571.0	570.0	569.0	568.0	568.0	566.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	564.0	564.0	564.0	564.0
	564.0	565.0	565.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	562.0	562.0	561.0	560.0
	559.0	559.0								
0200	571.0	570.0	570.0	570.0	569.0	568.0	566.0	565.0	563.0	562.0

	562.0	562.0	562.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
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	561.0	561.0	561.0	561.0	561.0	561.0	560.0	560.0	560.0	560.0
	560.0	560.0	559.0	559.0	559.0	559.0	560.0	560.0	559.0	559.0
	559.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	557.0	556.0	555.0	554.0
	554.0	553.0								
0201	570.0	569.0	569.0	569.0	568.0	565.0	563.0	561.0	560.0	559.0
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	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
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	557.0	558.0	558.0	558.0	557.0	557.0	556.0	556.0	556.0	556.0
	556.0	555.0	555.0	555.0	555.0	555.0	556.0	556.0	555.0	555.0
	554.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
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	548.0	548.0								
0202	569.0	569.0	568.0	568.0	564.0	561.0	559.0	557.0	556.0	556.0
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	555.0	555.0	555.0	555.0	554.0	554.0	554.0	554.0	553.0	553.0
	554.0	555.0	555.0	554.0	554.0	553.0	552.0	552.0	552.0	552.0
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	549.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	544.0	542.0
	542.0	542.0								
0203	568.0	568.0	564.0	561.0	559.0	556.0	554.0	553.0	552.0	552.0
	552.0	552.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0
	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0
	551.0	551.0	551.0	551.0	551.0	551.0	550.0	550.0	549.0	549.0
	550.0	553.0	552.0	551.0	550.0	549.0	548.0	548.0	548.0	548.0
	548.0	547.0	546.0	545.0	544.0	543.0	546.0	546.0	546.0	546.0
	545.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	544.0	544.0	543.0	543.0	543.0	542.0	542.0	541.0	538.0	536.0
	535.0	535.0								
0204	562.0	561.0	558.0	555.0	553.0	551.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	547.0	546.0	545.0	544.0
	543.0	546.0	546.0	546.0	545.0	545.0	544.0	544.0	543.0	543.0
	543.0	542.0	542.0	541.0	540.0	540.0	541.0	541.0	541.0	541.0
	541.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	540.0	539.0	539.0	538.0	538.0	537.0	536.0	534.0	532.0	528.0
	528.0	528.0								
0205	556.0	555.0	552.0	548.0	548.0	548.0	545.0	544.0	544.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	542.0	541.0	541.0	540.0
	540.0	540.0	541.0	541.0	540.0	540.0	540.0	539.0	539.0	539.0
	538.0	538.0	537.0	537.0	536.0	536.0	537.0	537.0	537.0	537.0
	537.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0
	536.0	535.0	534.0	533.0	533.0	532.0	531.0	528.0	528.0	524.0
	523.0	522.0								
0206	552.0	551.0	548.0	546.0	544.0	543.0	542.0	540.0	539.0	539.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	537.0	537.0	537.0	536.0
	536.0	536.0	535.0	535.0	536.0	536.0	536.0	535.0	534.0	534.0
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	532.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0
	532.0	531.0	530.0	528.0	528.0	528.0	528.0	523.0	521.0	518.0
	516.0	515.0								
0207	549.0	548.0	545.0	542.0	541.0	539.0	537.0	536.0	534.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
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	533.0	533.0	533.0	533.0	533.0	533.0	533.0	532.0	532.0	532.0
	531.0	531.0	530.0	530.0	530.0	533.0	532.0	531.0	530.0	529.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	523.0	521.0	519.0	518.0	516.0	514.0	512.0
	508.0	508.0								
0208	548.0	544.0	541.0	539.0	537.0	535.0	533.0	531.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	529.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	527.0	526.0	525.0	524.0	523.0	525.0	526.0	526.0	525.0	525.0
	524.0	523.0	523.0	523.0	522.0	522.0	522.0	522.0	521.0	521.0
	521.0	521.0	521.0	521.0	521.0	520.0	520.0	520.0	520.0	520.0
	519.0	519.0	518.0	515.0	513.0	508.0	508.0	508.0	508.0	508.0
	501.0	499.0								
0209	540.0	538.0	536.0	535.0	533.0	531.0	528.0	528.0	524.0	522.0
	522.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
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	521.0	520.0	519.0	518.0	518.0	519.0	520.0	521.0	521.0	520.0
	519.0	519.0	518.0	517.0	517.0	516.0	515.0	515.0	515.0	515.0
	515.0	515.0	514.0	514.0	513.0	513.0	512.0	512.0	513.0	512.0
	511.0	510.0	509.0	508.0	508.0	501.0	499.0	498.0	497.0	495.0
	488.0	488.0								
0210	534.0	533.0	532.0	531.0	528.0	528.0	523.0	520.0	517.0	516.0

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	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0
	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	514.0
	514.0	514.0	513.0	512.0	512.0	512.0	513.0	518.0	517.0	516.0
	515.0	514.0	513.0	512.0	511.0	510.0	509.0	508.0	508.0	508.0
	508.0	508.0	508.0	507.0	506.0	505.0	504.0	503.0	503.0	502.0
	501.0	500.0	499.0	498.0	495.0	488.0	488.0	488.0	488.0	488.0
	468.0	468.0								
0211	528.0	528.0	528.0	528.0	523.0	520.0	516.0	513.0	508.0	508.0
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	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	507.0	506.0	505.0	504.0	503.0	506.0	507.0	506.0
	505.0	504.0	503.0	502.0	501.0	500.0	499.0	498.0	498.0	498.0
	498.0	498.0	498.0	497.0	497.0	496.0	495.0	494.0	493.0	492.0
	491.0	490.0	489.0	488.0	488.0	481.0	478.0	476.0	468.0	468.0
	448.0	448.0								
0212	521.0	521.0	520.0	518.0	515.0	513.0	508.0	508.0	503.0	501.0
	500.0	500.0	499.0	499.0	498.0	498.0	498.0	498.0	498.0	498.0
	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0
	498.0	498.0	498.0	498.0	498.0	498.0	498.0	497.0	497.0	496.0
	496.0	495.0	494.0	494.0	493.0	492.0	493.0	498.0	497.0	496.0
	495.0	494.0	493.0	492.0	491.0	490.0	489.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	487.0	486.0	485.0	484.0	483.0
	480.0	479.0	476.0	468.0	468.0	468.0	468.0	468.0	448.0	448.0
	443.0	443.0								
0213	514.0	514.0	512.0	508.0	508.0	508.0	500.0	498.0	494.0	493.0
	492.0	491.0	490.0	489.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	487.0	486.0	485.0
	484.0	483.0	482.0	481.0	480.0	479.0	478.0	478.0	477.0	476.0
	475.0	474.0	473.0	472.0	471.0	470.0	469.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	458.0	448.0	448.0	448.0	448.0	443.0	443.0
	443.0	443.0								
0214	508.0	508.0	508.0	501.0	498.0	496.0	488.0	488.0	483.0	473.0
	472.0	471.0	470.0	469.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	467.0	466.0	465.0
	464.0	463.0	462.0	461.0	460.0	459.0	458.0	458.0	457.0	456.0
	455.0	454.0	453.0	452.0	451.0	450.0	449.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	446.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0								
0215	497.0	495.0	488.0	488.0	488.0	488.0	468.0	468.0	466.0	461.0
	458.0	453.0	452.0	451.0	450.0	449.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	447.0	446.0	445.0	449.0	450.0	449.0
	449.0	448.0	448.0	448.0	447.0	447.0	446.0	446.0	446.0	446.0
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	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0								
0216	488.0	488.0	480.0	476.0	468.0	468.0	458.0	448.0	448.0	446.0
	445.0	447.0	447.0	447.0	446.0	446.0	446.0	446.0	446.0	446.0
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	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0								
0217	468.0	468.0	468.0	468.0	448.0	448.0	448.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
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	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0								
0218	455.0	448.0	448.0	448.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
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	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0								
0219	448.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
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	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0								
0220	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0

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      443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0
      443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0
      443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0
      443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0
      443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0
      443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0
      443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0     443.0
      443.0     443.0

OPENING FILE ON UNIT  99:
BOTL1.DAT


          ZTOP (TOP ELEVATION)     FOR LAYER   2
READING ON UNIT  99 WITH FORMAT: (82F9.0)

          1         2         3         4         5         6         7         8         9        10
         11        12        13        14        15        16        17        18        19        20
         21        22        23        24        25        26        27        28        29        30
         31        32        33        34        35        36        37        38        39        40
         41        42        43        44        45        46        47        48        49        50
         51        52        53        54        55        56        57        58        59        60
         61        62        63        64        65        66        67        68        69        70
         71        72        73        74        75        76        77        78        79        80
         81        82
.....
0  1   748.0     748.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0
0  2   748.0     746.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0
0  3   744.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0
0  4   742.0     741.0     741.0     741.0     741.0     742.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0
0  5   739.0     739.0     739.0     739.0     739.0     739.0     740.0     740.0     740.0     740.0
      740.0     740.0     740.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0
      741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0
      741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0
      741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0
      741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0
      741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0     741.0
      741.0     741.0     741.0     741.0     742.0     743.0     743.0     743.0     743.0     743.0
      743.0     743.0
0  6   737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
      738.0     738.0     738.0     738.0     738.0     738.0     738.0     738.0     739.0     739.0
      739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0
      739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0
      739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0
      739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0
      739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0     739.0
      739.0     739.0     739.0     739.0     740.0     740.0     741.0     741.0     741.0     741.0
      741.0     741.0
0  7   735.0     734.0     734.0     734.0     734.0     734.0     734.0     734.0     734.0     734.0
      735.0     735.0     735.0     736.0     736.0     736.0     736.0     736.0     736.0     736.0
      736.0     736.0     736.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
      737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
      737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
      737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
      737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0     737.0
      737.0     737.0     737.0     737.0     738.0     738.0     738.0     738.0     738.0     739.0
      739.0     739.0
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0 8	732.0	732.0	732.0	732.0	732.0	731.0	731.0	731.0	731.0	731.0
	732.0	733.0	733.0	733.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0
	734.0	734.0	734.0	734.0	734.0	734.0	734.0	734.0	735.0	735.0
	735.0	735.0	735.0	735.0	735.0	736.0	736.0	736.0	736.0	736.0
	736.0	736.0								
0 9	730.0	730.0	730.0	730.0	729.0	728.0	728.0	728.0	728.0	728.0
	730.0	730.0	730.0	731.0	731.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0	732.0
	732.0	733.0	733.0	733.0	733.0	733.0	734.0	734.0	734.0	734.0
	734.0	734.0								
0 10	728.0	728.0	728.0	728.0	728.0	727.0	726.0	726.0	726.0	727.0
	728.0	728.0	728.0	728.0	729.0	730.0	731.0	729.0	729.0	729.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0	730.0
	730.0	730.0	730.0	730.0	731.0	731.0	732.0	732.0	732.0	732.0
	732.0	732.0								
0 11	726.0	726.0	725.0	725.0	725.0	725.0	724.0	724.0	724.0	724.0
	725.0	725.0	725.0	726.0	726.0	726.0	726.0	725.0	726.0	727.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0	728.0	728.0	728.0	729.0	730.0	730.0	730.0	730.0
	730.0	730.0								
0 12	723.0	723.0	723.0	723.0	722.0	722.0	722.0	722.0	722.0	722.0
	722.0	722.0	723.0	723.0	723.0	723.0	723.0	723.0	724.0	724.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0	725.0
	725.0	725.0	725.0	725.0	725.0	725.0	725.0	726.0	726.0	726.0
	726.0	726.0	726.0	726.0	726.0	728.0	728.0	728.0	728.0	728.0
	728.0	728.0								
0 13	721.0	721.0	721.0	720.0	720.0	720.0	719.0	719.0	719.0	719.0
	719.0	720.0	720.0	720.0	720.0	721.0	721.0	721.0	721.0	721.0
	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0	722.0
	722.0	722.0	722.0	722.0	722.0	722.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0	723.0
	723.0	723.0	723.0	723.0	724.0	724.0	724.0	724.0	724.0	724.0
	724.0	724.0								
0 14	718.0	718.0	718.0	718.0	718.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	718.0	718.0	718.0	718.0	718.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	720.0	720.0	720.0	720.0	720.0	720.0	720.0
	720.0	720.0	720.0	720.0	720.0	720.0	720.0	721.0	721.0	721.0
	721.0	721.0	721.0	721.0	721.0	721.0	721.0	720.0	720.0	719.0
	719.0	719.0								
0 15	716.0	716.0	716.0	716.0	715.0	715.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	715.0	715.0	715.0	715.0	715.0	716.0	716.0
	716.0	716.0	716.0	716.0	716.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	717.0	716.0	715.0
	714.0	714.0								
0 16	714.0	714.0	714.0	713.0	713.0	712.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	712.0	712.0	713.0	713.0	713.0	713.0	713.0
	713.0	713.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	715.0	715.0
	715.0	715.0	715.0	715.0	715.0	715.0	715.0	716.0	716.0	716.0
	716.0	716.0	716.0	716.0	716.0	715.0	715.0	713.0	712.0	711.0
	708.0	710.0								
0 17	712.0	712.0	712.0	711.0	710.0	710.0	708.0	708.0	708.0	708.0
	708.0	708.0	708.0	709.0	710.0	711.0	710.0	709.0	710.0	710.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	711.0	712.0	712.0	713.0
	712.0	712.0	712.0	713.0	713.0	713.0	713.0	713.0	713.0	713.0
	713.0	714.0	714.0	714.0	713.0	713.0	712.0	710.0	708.0	708.0
	708.0	708.0								

0 18	711.0	710.0	710.0	709.0	708.0	708.0	707.0	707.0	706.0	706.0
	706.0	706.0	706.0	707.0	707.0	707.0	705.0	706.0	707.0	708.0
	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0
	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0
	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0
	708.0	708.0	708.0	708.0	708.0	708.0	708.0	709.0	710.0	711.0
	709.0	709.0	710.0	710.0	710.0	710.0	710.0	711.0	711.0	711.0
	711.0	711.0	711.0	711.0	711.0	711.0	710.0	708.0	707.0	707.0
	707.0	707.0								
0 19	709.0	709.0	708.0	708.0	707.0	706.0	705.0	705.0	705.0	705.0
	704.0	704.0	705.0	705.0	705.0	705.0	704.0	704.0	705.0	705.0
	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0
	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0
	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0	706.0
	706.0	706.0	706.0	706.0	706.0	706.0	706.0	707.0	707.0	707.0
	705.0	706.0	707.0	708.0	708.0	708.0	708.0	708.0	708.0	708.0
	708.0	709.0	710.0	710.0	709.0	709.0	708.0	707.0	706.0	706.0
	705.0	705.0								
0 20	708.0	708.0	706.0	706.0	705.0	704.0	704.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	702.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	704.0	704.0	704.0	704.0	704.0	704.0
	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0
	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0
	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0	704.0
	704.0	704.0	705.0	705.0	705.0	706.0	706.0	706.0	706.0	706.0
	707.0	708.0	708.0	708.0	708.0	708.0	706.0	705.0	704.0	704.0
	704.0	704.0								
0 21	705.0	705.0	704.0	704.0	703.0	702.0	702.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	700.0	700.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	702.0	703.0	703.0	703.0	703.0	704.0	704.0	704.0
	704.0	705.0	705.0	705.0	705.0	705.0	704.0	703.0	703.0	702.0
	702.0	702.0								
0 22	703.0	702.0	702.0	701.0	701.0	700.0	700.0	699.0	699.0	699.0
	699.0	699.0	699.0	698.0	698.0	698.0	698.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	700.0	700.0
	700.0	700.0	700.0	700.0	701.0	701.0	701.0	701.0	701.0	702.0
	702.0	702.0	702.0	702.0	702.0	702.0	702.0	701.0	701.0	700.0
	700.0	700.0								
0 23	700.0	700.0	700.0	699.0	699.0	698.0	698.0	697.0	697.0	697.0
	697.0	697.0	696.0	696.0	696.0	696.0	696.0	696.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	698.0	698.0	698.0	698.0	698.0	699.0	699.0	699.0	699.0
	700.0	700.0	700.0	700.0	700.0	700.0	699.0	699.0	699.0	698.0
	698.0	698.0								
0 24	698.0	698.0	698.0	697.0	697.0	696.0	696.0	695.0	695.0	695.0
	695.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	694.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0
	695.0	695.0	695.0	696.0	696.0	696.0	696.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	696.0
	696.0	696.0								
0 25	696.0	696.0	696.0	695.0	694.0	694.0	693.0	693.0	693.0	693.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
	692.0	692.0	692.0	693.0	693.0	693.0	693.0	693.0	693.0	693.0
	693.0	693.0	693.0	693.0	693.0	694.0	694.0	694.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	695.0	695.0	695.0	694.0	694.0
	694.0	694.0								
0 26	694.0	694.0	694.0	693.0	692.0	692.0	691.0	691.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0	691.0	691.0	691.0	691.0	692.0	692.0	692.0	692.0
	692.0	693.0	693.0	693.0	693.0	693.0	692.0	692.0	692.0	692.0
	692.0	692.0								
0 27	693.0	692.0	692.0	691.0	690.0	689.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0	688.0	688.0	688.0	689.0	690.0	691.0	690.0	690.0
	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0	690.0
	690.0	690.0								

0 28	691.0	691.0	691.0	690.0	688.0	688.0	688.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0
	687.0	687.0	687.0	687.0	687.0	687.0	688.0	688.0	686.0	687.0
	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0	688.0
	688.0	688.0								
0 29	690.0	690.0	689.0	689.0	688.0	687.0	687.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0	686.0
	686.0	686.0								
0 30	689.0	689.0	689.0	688.0	687.0	686.0	686.0	685.0	685.0	685.0
	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	685.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0	684.0
	684.0	684.0	684.0	685.0	685.0	685.0	685.0	685.0	684.0	684.0
	685.0	685.0	685.0	684.0	684.0	684.0	684.0	684.0	684.0	683.0
	683.0	683.0								
0 31	689.0	688.0	688.0	687.0	686.0	685.0	685.0	684.0	684.0	684.0
	684.0	684.0	684.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0	683.0
	683.0	683.0	683.0	683.0	683.0	682.0	682.0	682.0	681.0	681.0
	681.0	681.0								
0 32	688.0	688.0	688.0	686.0	685.0	684.0	684.0	683.0	683.0	683.0
	683.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0	682.0
	682.0	681.0	681.0	681.0	681.0	681.0	680.0	680.0	679.0	679.0
	678.0	678.0								
0 33	688.0	688.0	686.0	685.0	684.0	683.0	682.0	682.0	682.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0
	681.0	681.0	681.0	681.0	681.0	681.0	681.0	681.0	680.0	680.0
	680.0	680.0	680.0	679.0	679.0	679.0	678.0	678.0	677.0	676.0
	676.0	675.0								
0 34	688.0	688.0	685.0	683.0	682.0	681.0	681.0	681.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0	680.0
	680.0	680.0	680.0	680.0	680.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	678.0	678.0	677.0	677.0	676.0	676.0	675.0	674.0
	673.0	672.0								
0 35	688.0	684.0	682.0	681.0	680.0	680.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0
	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	679.0	678.0
	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0	678.0
	677.0	677.0	677.0	676.0	676.0	675.0	675.0	674.0	673.0	672.0
	670.0	668.0								
0 36	681.0	679.0	679.0	678.0	678.0	678.0	678.0	678.0	678.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0
	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	677.0	676.0
	676.0	676.0	675.0	675.0	674.0	674.0	673.0	672.0	671.0	670.0
	668.0	668.0								
0 37	674.0	674.0	675.0	675.0	675.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0
	676.0	676.0	676.0	676.0	676.0	676.0	676.0	676.0	675.0	675.0
	675.0	675.0	674.0	674.0	673.0	672.0	672.0	671.0	669.0	668.0
	668.0	668.0								

0 38	668.0	668.0	671.0	672.0	673.0	674.0	674.0	674.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0
	674.0	673.0	673.0	672.0	672.0	671.0	670.0	669.0	668.0	668.0
	668.0	668.0								
0 39	665.0	665.0	668.0	670.0	671.0	672.0	672.0	673.0	673.0	673.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	674.0	674.0	673.0	673.0	673.0	673.0	673.0
	673.0	672.0	672.0	671.0	671.0	670.0	669.0	668.0	668.0	667.0
	667.0	667.0								
0 40	660.0	661.0	664.0	668.0	669.0	670.0	671.0	672.0	672.0	672.0
	672.0	672.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0	673.0
	673.0	673.0	673.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	671.0	671.0	670.0	670.0	669.0	668.0	668.0	667.0	667.0
	667.0	667.0								
0 41	655.0	656.0	659.0	663.0	668.0	669.0	670.0	670.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0	672.0
	672.0	672.0	672.0	672.0	672.0	672.0	671.0	671.0	671.0	671.0
	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0	671.0
	671.0	670.0	670.0	670.0	669.0	668.0	668.0	667.0	667.0	667.0
	666.0	666.0								
0 42	648.0	648.0	653.0	658.0	663.0	668.0	669.0	669.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	669.0	669.0	669.0	668.0	668.0	667.0	667.0	666.0	666.0
	666.0	666.0								
0 43	646.0	647.0	648.0	653.0	658.0	663.0	668.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0	669.0
	669.0	669.0	668.0	668.0	668.0	667.0	666.0	666.0	665.0	665.0
	665.0	665.0								
0 44	643.0	644.0	647.0	648.0	653.0	659.0	663.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0	667.0	667.0	666.0	666.0	665.0	665.0	665.0	664.0
	664.0	664.0								
0 45	638.0	642.0	646.0	647.0	648.0	655.0	659.0	663.0	664.0	665.0
	665.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
	666.0	666.0	666.0	666.0	665.0	665.0	664.0	664.0	664.0	664.0
	663.0	663.0								
0 46	637.0	641.0	645.0	646.0	647.0	653.0	656.0	659.0	661.0	662.0
	663.0	664.0	664.0	664.0	664.0	665.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0
	665.0	665.0	665.0	664.0	664.0	664.0	663.0	663.0	663.0	663.0
	662.0	662.0								
0 47	637.0	638.0	644.0	645.0	647.0	652.0	654.0	657.0	659.0	660.0
	661.0	661.0	662.0	662.0	663.0	663.0	663.0	663.0	663.0	663.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	663.0	663.0	663.0	663.0	662.0	662.0	662.0	662.0	662.0
	662.0	661.0								

0 48	636.0	637.0	643.0	644.0	647.0	650.0	653.0	656.0	656.0	658.0
	659.0	660.0	660.0	661.0	661.0	661.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	662.0	662.0
	662.0	662.0	662.0	662.0	661.0	661.0	661.0	661.0	661.0	661.0
	660.0	660.0								
0 49	636.0	637.0	642.0	643.0	646.0	649.0	651.0	655.0	655.0	656.0
	657.0	658.0	659.0	659.0	660.0	660.0	660.0	660.0	660.0	661.0
	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0	661.0	661.0	661.0	661.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0	661.0	660.0	660.0	660.0	660.0	660.0	660.0	659.0
	659.0	659.0								
0 50	636.0	636.0	641.0	642.0	646.0	649.0	650.0	654.0	653.0	655.0
	656.0	656.0	657.0	658.0	658.0	658.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
	659.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
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	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	658.0	658.0
	658.0	658.0								
0 51	635.0	636.0	640.0	641.0	645.0	648.0	650.0	653.0	652.0	653.0
	654.0	655.0	656.0	656.0	657.0	657.0	657.0	657.0	658.0	658.0
	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
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	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	658.0
	658.0	658.0	658.0	658.0	658.0	658.0	657.0	657.0	657.0	657.0
	657.0	657.0								
0 52	635.0	635.0	638.0	641.0	645.0	648.0	649.0	653.0	651.0	652.0
	653.0	654.0	654.0	655.0	655.0	656.0	656.0	656.0	656.0	656.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
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	658.0	658.0	658.0	658.0	658.0	658.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0								
0 53	634.0	635.0	637.0	640.0	644.0	647.0	648.0	652.0	650.0	651.0
	652.0	653.0	653.0	654.0	654.0	654.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0								
0 54	634.0	634.0	637.0	640.0	644.0	647.0	647.0	651.0	650.0	650.0
	651.0	652.0	652.0	653.0	653.0	653.0	653.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
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	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0								
0 55	633.0	634.0	636.0	639.0	643.0	646.0	647.0	650.0	649.0	650.0
	650.0	651.0	651.0	652.0	652.0	652.0	652.0	652.0	653.0	653.0
	653.0	653.0	653.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
	652.0	652.0	652.0	652.0	652.0	652.0	653.0	653.0	653.0	653.0
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	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	653.0
	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	652.0
	652.0	652.0								
0 56	633.0	633.0	636.0	639.0	643.0	646.0	647.0	650.0	649.0	649.0
	650.0	650.0	650.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0
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	652.0	652.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0
	651.0	651.0								
0 57	632.0	633.0	635.0	638.0	642.0	645.0	648.0	649.0	648.0	649.0
	649.0	649.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	650.0	650.0	650.0	650.0
	650.0	651.0	651.0	651.0	651.0	651.0	651.0	652.0	652.0	652.0
	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
	652.0	652.0	652.0	652.0	652.0	651.0	651.0	651.0	651.0	651.0
	651.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0								

0 58	631.0	632.0	635.0	638.0	642.0	645.0	647.0	649.0	648.0	648.0
	648.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	649.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	649.0	648.0	648.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	648.0								
0 59	631.0	632.0	634.0	637.0	641.0	644.0	647.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
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	649.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0								
0 60	630.0	631.0	634.0	637.0	641.0	644.0	646.0	648.0	648.0	648.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
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	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0								
0 61	630.0	631.0	633.0	637.0	640.0	643.0	646.0	647.0	647.0	647.0
	646.0	646.0	646.0	646.0	646.0	646.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
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	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0								
0 62	629.0	630.0	633.0	636.0	640.0	643.0	645.0	647.0	647.0	646.0
	645.0	645.0	645.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	647.0	647.0	647.0	647.0	647.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0								
0 63	629.0	630.0	632.0	636.0	639.0	642.0	645.0	647.0	647.0	645.0
	644.0	644.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	646.0	646.0
	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	646.0	646.0	646.0	646.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0								
0 64	628.0	630.0	632.0	636.0	639.0	642.0	644.0	646.0	646.0	644.0
	643.0	644.0	644.0	644.0	644.0	644.0	644.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
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	645.0	645.0	645.0	645.0	645.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0								
0 65	628.0	629.0	632.0	635.0	638.0	641.0	644.0	646.0	646.0	643.0
	642.0	643.0	643.0	643.0	643.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
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	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0								
0 66	627.0	629.0	631.0	635.0	638.0	641.0	643.0	645.0	645.0	643.0
	642.0	642.0	642.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
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	642.0	642.0	642.0	642.0	642.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	642.0								
0 67	627.0	629.0	631.0	635.0	637.0	640.0	643.0	645.0	645.0	642.0
	641.0	641.0	642.0	642.0	642.0	642.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	642.0	642.0	642.0	642.0	642.0	642.0	641.0	641.0	641.0
	641.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	641.0
	641.0	641.0								

0 68	626.0	628.0	631.0	634.0	636.0	640.0	642.0	644.0	644.0	642.0
	641.0	641.0	641.0	641.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	641.0	641.0	641.0	641.0	640.0	640.0	640.0
	640.0	640.0	640.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	640.0
	640.0	640.0								
0 69	626.0	628.0	630.0	634.0	636.0	639.0	642.0	644.0	644.0	641.0
	640.0	640.0	641.0	641.0	641.0	641.0	641.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	641.0
	641.0	641.0	641.0	641.0	640.0	640.0	640.0	640.0	639.0	639.0
	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	639.0	639.0
	639.0	639.0								
0 70	625.0	627.0	630.0	634.0	636.0	639.0	641.0	643.0	643.0	641.0
	640.0	640.0	640.0	640.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	640.0	640.0	640.0	639.0	639.0	639.0	639.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	638.0	638.0	638.0	638.0	638.0
	638.0	639.0								
0 71	625.0	627.0	630.0	633.0	636.0	638.0	641.0	643.0	643.0	640.0
	640.0	639.0	640.0	640.0	640.0	640.0	640.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	640.0	640.0	640.0
	640.0	640.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0
	638.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	638.0	638.0
	638.0	638.0								
0 72	624.0	626.0	629.0	633.0	636.0	638.0	640.0	642.0	642.0	640.0
	640.0	639.0	639.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	639.0
	639.0	639.0	639.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	637.0	637.0	637.0	637.0
	638.0	638.0								
0 73	624.0	626.0	629.0	632.0	635.0	637.0	640.0	642.0	642.0	640.0
	639.0	639.0	639.0	639.0	639.0	639.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	639.0	639.0	639.0	639.0
	639.0	639.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0
	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	637.0	637.0
	637.0	638.0								
0 74	624.0	626.0	629.0	632.0	635.0	636.0	639.0	641.0	641.0	639.0
	639.0	638.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	638.0	638.0
	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	636.0	636.0	637.0
	637.0	638.0								
0 75	623.0	625.0	628.0	631.0	634.0	635.0	639.0	641.0	641.0	639.0
	639.0	638.0	638.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0
	638.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0
	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	635.0	635.0	635.0	636.0
	638.0	638.0								
0 76	623.0	625.0	628.0	631.0	634.0	635.0	639.0	640.0	640.0	639.0
	639.0	638.0	638.0	638.0	638.0	639.0	639.0	639.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0
	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0
	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	633.0	633.0	633.0	634.0	634.0	634.0	634.0	635.0
	636.0	636.0								
0 77	623.0	625.0	628.0	630.0	633.0	635.0	638.0	640.0	640.0	639.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0
	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	634.0
	634.0	634.0								

0 78	622.0	624.0	627.0	630.0	634.0	635.0	638.0	639.0	639.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0
	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0
	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	633.0	633.0								
0 79	622.0	624.0	627.0	630.0	634.0	636.0	638.0	639.0	639.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0 80	622.0	624.0	626.0	630.0	634.0	635.0	637.0	639.0	639.0	638.0
	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0	635.0
	635.0	635.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0
	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0
	631.0	631.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0	630.0
	630.0	630.0								
0 81	622.0	624.0	626.0	629.0	634.0	635.0	636.0	638.0	638.0	638.0
	638.0	638.0	638.0	637.0	637.0	637.0	637.0	637.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0
	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0
	629.0	629.0								
0 82	621.0	623.0	625.0	629.0	633.0	634.0	636.0	638.0	638.0	638.0
	638.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0
	634.0	634.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0
	632.0	632.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0
	630.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	629.0								
0 83	621.0	623.0	625.0	629.0	632.0	634.0	635.0	638.0	638.0	637.0
	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0
	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0								
0 84	621.0	623.0	625.0	628.0	631.0	633.0	634.0	636.0	637.0	636.0
	636.0	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0
	631.0	631.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0
	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0
	628.0	628.0								
0 85	620.0	623.0	624.0	628.0	630.0	632.0	633.0	634.0	636.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0
	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	628.0	628.0
	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0 86	620.0	623.0	624.0	628.0	630.0	631.0	632.0	633.0	635.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0
	630.0	630.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0 87	620.0	622.0	623.0	627.0	629.0	630.0	631.0	632.0	634.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	631.0
	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0
	626.0	626.0								

0 88	619.0	622.0	623.0	627.0	628.0	629.0	630.0	631.0	633.0	633.0
	632.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0
	629.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0 89	619.0	622.0	623.0	626.0	628.0	629.0	630.0	631.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	630.0
	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0	628.0
	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0 90	618.0	622.0	622.0	626.0	627.0	629.0	630.0	630.0	631.0	632.0
	631.0	631.0	631.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0
	628.0	628.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0 91	618.0	622.0	622.0	626.0	627.0	629.0	629.0	630.0	630.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	629.0
	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0
	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0 92	617.0	621.0	622.0	625.0	626.0	629.0	629.0	629.0	630.0	631.0
	630.0	630.0	630.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0
	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	624.0								
0 93	617.0	621.0	621.0	625.0	626.0	628.0	629.0	629.0	629.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0
	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0
	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0								
0 94	616.0	621.0	621.0	624.0	626.0	628.0	628.0	629.0	629.0	630.0
	629.0	629.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0
	628.0	628.0	628.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0
	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0
	623.0	623.0								
0 95	616.0	620.0	621.0	624.0	625.0	628.0	628.0	628.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0
	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0 96	616.0	620.0	620.0	623.0	625.0	628.0	628.0	628.0	628.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0
	627.0	627.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0	625.0
	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0 97	616.0	620.0	620.0	623.0	624.0	627.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	626.0
	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0
	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0								

0 98	615.0	619.0	620.0	622.0	624.0	627.0	627.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0
	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0								
0 99	615.0	619.0	619.0	622.0	623.0	626.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0	623.0
	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0								
0100	615.0	618.0	619.0	621.0	623.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0
	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0
	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0								
0101	614.0	618.0	619.0	621.0	622.0	625.0	625.0	625.0	625.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0
	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0								
0102	614.0	617.0	618.0	620.0	622.0	624.0	624.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0
	622.0	622.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0
	619.0	619.0								
0103	614.0	616.0	618.0	620.0	621.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0
	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0								
0104	613.0	616.0	618.0	620.0	621.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0	618.0
	618.0	618.0								
0105	613.0	615.0	617.0	619.0	620.0	622.0	622.0	622.0	622.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0								
0106	613.0	615.0	616.0	619.0	620.0	621.0	621.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0								
0107	613.0	614.0	616.0	619.0	619.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0
	619.0	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0								

0108	612.0	614.0	615.0	618.0	619.0	620.0	620.0	620.0	620.0	620.0
	620.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	618.0	618.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	616.0	616.0	616.0	616.0	616.0	616.0
	616.0	616.0								
0109	612.0	613.0	615.0	618.0	618.0	619.0	619.0	619.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0	617.0	617.0
	616.0	616.0	616.0	616.0	616.0	616.0	616.0	615.0	615.0	615.0
	615.0	615.0								
0110	612.0	613.0	614.0	618.0	618.0	618.0	618.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	617.0	617.0	617.0	617.0	617.0	617.0	616.0	616.0	616.0
	616.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0
	615.0	615.0								
0111	612.0	612.0	614.0	617.0	617.0	618.0	618.0	618.0	618.0	618.0
	618.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0	618.0
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0112	611.0	612.0	613.0	616.0	617.0	617.0	617.0	617.0	617.0	618.0
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0113	611.0	611.0	613.0	615.0	616.0	616.0	616.0	616.0	617.0	617.0
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	612.0	612.0								
0114	611.0	611.0	612.0	615.0	615.0	615.0	616.0	616.0	616.0	616.0
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	614.0	613.0	613.0	613.0	613.0	612.0	612.0	612.0	612.0	612.0
	612.0	612.0								
0115	611.0	611.0	612.0	614.0	614.0	614.0	615.0	615.0	615.0	616.0
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	611.0	611.0								
0116	610.0	611.0	611.0	613.0	613.0	614.0	614.0	614.0	615.0	615.0
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0158	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
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	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0								
0159	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0								
0160	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
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	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
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	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0								
0161	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	599.0	599.0	599.0	599.0
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	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0								
0162	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
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	599.0	599.0								
0163	597.0	597.0	597.0	597.0	597.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
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	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0								
0164	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
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	598.0	598.0								
0165	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
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	598.0	598.0								
0166	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
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	597.0	597.0								
0167	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
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0168	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
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	597.0	597.0								
0169	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
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	596.0	596.0								
0170	594.0	594.0	594.0	594.0	594.0	594.0	594.0	595.0	595.0	595.0
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	596.0	596.0								
0171	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
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	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0								
0172	593.0	593.0	593.0	593.0	593.0	593.0	594.0	594.0	594.0	594.0
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	595.0	595.0								
0173	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
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	595.0	595.0								
0174	592.0	592.0	592.0	592.0	592.0	593.0	593.0	593.0	593.0	593.0
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	595.0	595.0								
0175	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
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	594.0	594.0								
0176	591.0	591.0	591.0	591.0	591.0	591.0	592.0	592.0	592.0	592.0
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	594.0	594.0								
0177	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	592.0
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0178	590.0	590.0	590.0	590.0	590.0	590.0	591.0	591.0	591.0	591.0
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	593.0	593.0								
0179	590.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0	591.0	591.0
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	593.0	593.0								
0180	589.0	589.0	589.0	588.0	589.0	589.0	590.0	590.0	590.0	590.0
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	593.0	593.0								
0181	589.0	589.0	588.0	588.0	589.0	589.0	589.0	590.0	590.0	590.0
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	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
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	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0								
0182	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	590.0	590.0
	590.0	590.0	590.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0								
0183	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0								
0184	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0								
0185	588.0	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0
	589.0	589.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0								
0186	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0	589.0	589.0
	589.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0								
0187	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0								

0188	586.0	586.0	586.0	586.0	587.0	587.0	588.0	588.0	588.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0								
0189	585.0	585.0	585.0	586.0	586.0	587.0	588.0	588.0	588.0	588.0
	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0								
0190	584.0	584.0	584.0	585.0	585.0	586.0	588.0	588.0	588.0	588.0
	588.0	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0								
0191	583.0	583.0	583.0	584.0	584.0	585.0	586.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0								
0192	582.0	582.0	582.0	582.0	583.0	583.0	584.0	585.0	586.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0								
0193	580.0	580.0	580.0	581.0	581.0	582.0	582.0	583.0	584.0	586.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0194	579.0	579.0	579.0	579.0	579.0	580.0	580.0	581.0	581.0	582.0
	583.0	584.0	584.0	584.0	584.0	584.0	585.0	586.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0195	577.0	577.0	577.0	577.0	577.0	578.0	578.0	578.0	578.0	579.0
	579.0	580.0	580.0	580.0	580.0	580.0	581.0	581.0	582.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	584.0	585.0	588.0	588.0
	588.0	588.0	588.0	588.0	585.0	584.0	583.0	583.0	582.0	582.0
	582.0	581.0								
0196	576.0	576.0	576.0	576.0	576.0	575.0	575.0	575.0	575.0	575.0
	576.0	576.0	576.0	576.0	576.0	576.0	577.0	577.0	577.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	579.0	580.0	581.0	581.0
	581.0	581.0	581.0	581.0	579.0	579.0	578.0	577.0	577.0	575.0
	575.0	575.0								
0197	574.0	574.0	574.0	574.0	574.0	573.0	573.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	574.0	574.0	574.0
	575.0	575.0	574.0	574.0	574.0	573.0	573.0	572.0	571.0	568.0
	568.0	568.0								

0198	573.0	573.0	573.0	572.0	572.0	571.0	570.0	570.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	565.0
	564.0	563.0								
0199	572.0	572.0	571.0	571.0	570.0	569.0	568.0	568.0	566.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	564.0	564.0	564.0	564.0
	564.0	565.0	565.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	562.0	562.0	561.0	560.0
	559.0	559.0								
0200	571.0	570.0	570.0	570.0	569.0	568.0	566.0	565.0	563.0	562.0
	562.0	562.0	562.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
	561.0	561.0	561.0	561.0	561.0	561.0	560.0	560.0	560.0	560.0
	560.0	560.0	559.0	559.0	559.0	559.0	560.0	560.0	559.0	559.0
	559.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	557.0	556.0	555.0	554.0
	554.0	553.0								
0201	570.0	569.0	569.0	569.0	568.0	565.0	563.0	561.0	560.0	559.0
	559.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	557.0	557.0	557.0	557.0
	557.0	558.0	558.0	558.0	557.0	557.0	556.0	556.0	556.0	556.0
	556.0	555.0	555.0	555.0	555.0	555.0	556.0	556.0	555.0	555.0
	554.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	552.0	551.0	548.0	548.0
	548.0	548.0								
0202	569.0	569.0	568.0	568.0	564.0	561.0	559.0	557.0	556.0	556.0
	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0
	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0
	555.0	555.0	555.0	555.0	554.0	554.0	554.0	554.0	553.0	553.0
	554.0	555.0	555.0	554.0	554.0	553.0	552.0	552.0	552.0	552.0
	552.0	551.0	551.0	550.0	550.0	550.0	553.0	552.0	552.0	550.0
	549.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	544.0	542.0
	542.0	542.0								
0203	568.0	568.0	564.0	561.0	559.0	556.0	554.0	553.0	552.0	552.0
	552.0	552.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0
	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0
	551.0	551.0	551.0	551.0	551.0	551.0	550.0	550.0	549.0	549.0
	550.0	553.0	552.0	551.0	550.0	549.0	548.0	548.0	548.0	548.0
	548.0	547.0	546.0	545.0	544.0	543.0	546.0	546.0	546.0	546.0
	545.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	544.0	544.0	543.0	543.0	543.0	542.0	542.0	541.0	538.0	536.0
	535.0	535.0								
0204	562.0	561.0	558.0	555.0	553.0	551.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	547.0	546.0	545.0	544.0
	543.0	546.0	546.0	546.0	545.0	545.0	544.0	544.0	543.0	543.0
	543.0	542.0	542.0	541.0	540.0	540.0	541.0	541.0	541.0	541.0
	541.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0	540.0
	540.0	539.0	539.0	538.0	538.0	537.0	536.0	534.0	532.0	528.0
	528.0	528.0								
0205	556.0	555.0	552.0	548.0	548.0	548.0	545.0	544.0	544.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	542.0	541.0	541.0	540.0
	540.0	540.0	541.0	541.0	540.0	540.0	540.0	539.0	539.0	539.0
	538.0	538.0	537.0	537.0	536.0	536.0	537.0	537.0	537.0	537.0
	537.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0	536.0
	536.0	535.0	534.0	533.0	533.0	532.0	531.0	528.0	528.0	524.0
	523.0	522.0								
0206	552.0	551.0	548.0	546.0	544.0	543.0	542.0	540.0	539.0	539.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	537.0	537.0	537.0	536.0
	536.0	536.0	535.0	535.0	536.0	536.0	536.0	535.0	534.0	534.0
	533.0	533.0	533.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0
	532.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0
	532.0	531.0	530.0	528.0	528.0	528.0	528.0	523.0	521.0	518.0
	516.0	515.0								
0207	549.0	548.0	545.0	542.0	541.0	539.0	537.0	536.0	534.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	532.0	532.0	532.0
	531.0	531.0	530.0	530.0	530.0	533.0	532.0	531.0	530.0	529.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	523.0	521.0	519.0	518.0	516.0	514.0	512.0
	508.0	508.0								

0208	548.0	544.0	541.0	539.0	537.0	535.0	533.0	531.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	527.0	526.0	525.0	524.0	523.0	525.0	526.0	526.0	525.0	525.0
	524.0	523.0	523.0	523.0	522.0	522.0	522.0	522.0	521.0	521.0
	521.0	521.0	521.0	521.0	521.0	520.0	520.0	520.0	520.0	520.0
	519.0	519.0	518.0	515.0	513.0	508.0	508.0	508.0	508.0	508.0
	501.0	499.0								
0209	540.0	538.0	536.0	535.0	533.0	531.0	528.0	528.0	524.0	522.0
	522.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
	521.0	520.0	519.0	518.0	518.0	519.0	520.0	521.0	521.0	520.0
	519.0	519.0	518.0	517.0	517.0	516.0	515.0	515.0	515.0	515.0
	515.0	515.0	514.0	514.0	513.0	513.0	512.0	512.0	513.0	512.0
	511.0	510.0	509.0	508.0	508.0	501.0	499.0	498.0	497.0	495.0
	488.0	488.0								
0210	534.0	533.0	532.0	531.0	528.0	528.0	523.0	520.0	517.0	516.0
	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0
	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0
	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	514.0
	514.0	514.0	513.0	512.0	512.0	512.0	513.0	518.0	517.0	516.0
	515.0	514.0	513.0	512.0	511.0	510.0	509.0	508.0	508.0	508.0
	508.0	508.0	508.0	507.0	506.0	505.0	504.0	503.0	503.0	502.0
	501.0	500.0	499.0	498.0	495.0	488.0	488.0	488.0	488.0	488.0
	468.0	468.0								
0211	528.0	528.0	528.0	528.0	523.0	520.0	516.0	513.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	507.0	506.0	505.0	504.0	503.0	506.0	507.0	506.0
	505.0	504.0	503.0	502.0	501.0	500.0	499.0	498.0	498.0	498.0
	498.0	498.0	498.0	497.0	497.0	496.0	495.0	494.0	493.0	492.0
	491.0	490.0	489.0	488.0	488.0	481.0	478.0	476.0	468.0	468.0
	448.0	448.0								
0212	521.0	521.0	520.0	518.0	515.0	513.0	508.0	508.0	503.0	501.0
	500.0	500.0	499.0	499.0	498.0	498.0	498.0	498.0	498.0	498.0
	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0
	498.0	498.0	498.0	498.0	498.0	498.0	498.0	497.0	497.0	496.0
	496.0	495.0	494.0	494.0	493.0	492.0	493.0	498.0	497.0	496.0
	495.0	494.0	493.0	492.0	491.0	490.0	489.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	487.0	486.0	485.0	484.0	483.0
	480.0	479.0	476.0	468.0	468.0	468.0	468.0	468.0	448.0	448.0
	443.0	443.0								
0213	514.0	514.0	512.0	508.0	508.0	508.0	500.0	498.0	494.0	493.0
	492.0	491.0	490.0	489.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	487.0	486.0	485.0
	484.0	483.0	482.0	481.0	480.0	479.0	478.0	478.0	477.0	476.0
	475.0	474.0	473.0	472.0	471.0	470.0	469.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	458.0	448.0	448.0	448.0	448.0	443.0	443.0
	443.0	443.0								
0214	508.0	508.0	508.0	501.0	498.0	496.0	488.0	488.0	483.0	473.0
	472.0	471.0	470.0	469.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	467.0	466.0	465.0
	464.0	463.0	462.0	461.0	460.0	459.0	458.0	458.0	457.0	456.0
	455.0	454.0	453.0	452.0	451.0	450.0	449.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	446.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0								
0215	497.0	495.0	488.0	488.0	488.0	488.0	468.0	468.0	466.0	461.0
	458.0	453.0	452.0	451.0	450.0	449.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	447.0	446.0	445.0	449.0	450.0	449.0
	449.0	448.0	448.0	448.0	447.0	447.0	446.0	446.0	446.0	446.0
	445.0	445.0	445.0	445.0	445.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0								
0216	488.0	488.0	480.0	476.0	468.0	468.0	458.0	448.0	448.0	446.0
	445.0	447.0	447.0	447.0	446.0	446.0	446.0	446.0	446.0	446.0
	446.0	445.0	445.0	445.0	445.0	445.0	445.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0								
0217	468.0	468.0	468.0	468.0	448.0	448.0	448.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0	443.0
	443.0	443.0								

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0218  455.0  448.0  448.0  448.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0
0219  448.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0
0220  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0  443.0
      443.0  443.0

OPENING FILE ON UNIT  99:
BOTL2.DAT


          ZBOT (BOTTOM ELEVATION)  FOR LAYER   2
READING ON UNIT  99 WITH FORMAT: (82F9.0)

         1      2      3      4      5      6      7      8      9     10
        11     12     13     14     15     16     17     18     19     20
        21     22     23     24     25     26     27     28     29     30
        31     32     33     34     35     36     37     38     39     40
        41     42     43     44     45     46     47     48     49     50
        51     52     53     54     55     56     57     58     59     60
        61     62     63     64     65     66     67     68     69     70
        71     72     73     74     75     76     77     78     79     80
        81     82
.....
0  1  728.0  728.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0
0  2  728.0  726.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0
0  3  724.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0
0  4  722.0  721.0  721.0  721.0  721.0  722.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0  723.0
      723.0  723.0
0  5  719.0  719.0  719.0  719.0  719.0  719.0  720.0  720.0  720.0  720.0
      720.0  720.0  720.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0
      721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0
      721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0
      721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0
      721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0
      721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0  721.0
      721.0  721.0  721.0  721.0  722.0  723.0  723.0  723.0  723.0  723.0
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	723.0	723.0								
0 6	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	718.0	718.0	718.0	718.0	718.0	718.0	718.0	718.0	719.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0	719.0
	719.0	719.0	719.0	719.0	720.0	720.0	721.0	721.0	721.0	721.0
	721.0	721.0								
0 7	715.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	715.0	715.0	715.0	716.0	716.0	716.0	716.0	716.0	716.0	716.0
	716.0	716.0	716.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0	717.0
	717.0	717.0	717.0	717.0	718.0	718.0	718.0	718.0	718.0	719.0
	719.0	719.0								
0 8	712.0	712.0	712.0	712.0	712.0	711.0	711.0	711.0	711.0	711.0
	712.0	713.0	713.0	713.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0
	714.0	714.0	714.0	714.0	714.0	714.0	714.0	714.0	715.0	715.0
	715.0	715.0	715.0	715.0	715.0	716.0	716.0	716.0	716.0	716.0
	716.0	716.0								
0 9	710.0	710.0	710.0	710.0	709.0	708.0	708.0	708.0	708.0	708.0
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	712.0	713.0	713.0	713.0	713.0	713.0	714.0	714.0	714.0	714.0
	714.0	714.0								
0 10	708.0	708.0	708.0	708.0	708.0	707.0	706.0	706.0	706.0	707.0
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	712.0	712.0								
0 11	706.0	706.0	705.0	705.0	705.0	705.0	704.0	704.0	704.0	704.0
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	708.0	708.0	708.0	708.0	708.0	709.0	710.0	710.0	710.0	710.0
	710.0	710.0								
0 12	703.0	703.0	703.0	703.0	702.0	702.0	702.0	702.0	702.0	702.0
	702.0	702.0	703.0	703.0	703.0	703.0	703.0	703.0	704.0	704.0
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	706.0	706.0	706.0	706.0	706.0	708.0	708.0	708.0	708.0	708.0
	708.0	708.0								
0 13	701.0	701.0	701.0	700.0	700.0	700.0	699.0	699.0	699.0	699.0
	699.0	700.0	700.0	700.0	700.0	701.0	701.0	701.0	701.0	701.0
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	704.0	704.0								
0 14	698.0	698.0	698.0	698.0	698.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	698.0	698.0	698.0	698.0	698.0	699.0
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	701.0	701.0	701.0	701.0	701.0	701.0	701.0	700.0	700.0	699.0
	699.0	699.0								
0 15	696.0	696.0	696.0	696.0	695.0	695.0	694.0	694.0	694.0	694.0
	694.0	694.0	694.0	695.0	695.0	695.0	695.0	695.0	696.0	696.0
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	694.0	694.0								
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	696.0	696.0	696.0	696.0	696.0	695.0	695.0	693.0	692.0	691.0
	688.0	690.0								
0 17	692.0	692.0	692.0	691.0	690.0	690.0	688.0	688.0	688.0	688.0
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	693.0	694.0	694.0	694.0	693.0	693.0	692.0	690.0	688.0	688.0
	688.0	688.0								
0 18	691.0	690.0	690.0	689.0	688.0	688.0	687.0	687.0	686.0	686.0
	686.0	686.0	686.0	687.0	687.0	687.0	685.0	686.0	687.0	688.0
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	687.0	687.0								
0 19	689.0	689.0	688.0	688.0	687.0	686.0	685.0	685.0	685.0	685.0
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	688.0	689.0	690.0	690.0	689.0	689.0	688.0	687.0	686.0	686.0
	685.0	685.0								
0 20	688.0	688.0	686.0	686.0	685.0	684.0	684.0	683.0	683.0	683.0
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	684.0	684.0								
0 21	685.0	685.0	684.0	684.0	683.0	682.0	682.0	681.0	681.0	681.0
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	684.0	685.0	685.0	685.0	685.0	685.0	684.0	683.0	683.0	682.0
	682.0	682.0								
0 22	683.0	682.0	682.0	681.0	681.0	680.0	680.0	679.0	679.0	679.0
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	680.0	680.0								
0 23	680.0	680.0	680.0	679.0	679.0	678.0	678.0	677.0	677.0	677.0
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	680.0	680.0	680.0	680.0	680.0	680.0	679.0	679.0	679.0	678.0
	678.0	678.0								
0 24	678.0	678.0	678.0	677.0	677.0	676.0	676.0	675.0	675.0	675.0
	675.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0	674.0
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	676.0	676.0								
0 25	676.0	676.0	676.0	675.0	674.0	674.0	673.0	673.0	673.0	673.0
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	675.0	675.0	675.0	675.0	675.0	675.0	675.0	675.0	674.0	674.0

	674.0	674.0								
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	672.0	673.0	673.0	673.0	673.0	673.0	672.0	672.0	672.0	672.0
	672.0	672.0								
0 27	673.0	672.0	672.0	671.0	670.0	669.0	668.0	668.0	668.0	668.0
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	668.0	668.0	668.0	668.0	668.0	669.0	670.0	671.0	670.0	670.0
	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0	670.0
	670.0	670.0								
0 28	671.0	671.0	671.0	670.0	668.0	668.0	668.0	667.0	667.0	667.0
	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0	667.0
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	667.0	667.0	667.0	667.0	667.0	667.0	668.0	668.0	666.0	667.0
	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0	668.0
	668.0	668.0								
0 29	670.0	670.0	669.0	669.0	668.0	667.0	667.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
	666.0	666.0								
0 30	669.0	669.0	669.0	668.0	667.0	666.0	666.0	665.0	665.0	665.0
	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	665.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0	664.0
	664.0	664.0	664.0	665.0	665.0	665.0	665.0	665.0	664.0	664.0
	665.0	665.0	665.0	664.0	664.0	664.0	664.0	664.0	664.0	663.0
	663.0	663.0								
0 31	669.0	668.0	668.0	667.0	666.0	665.0	665.0	664.0	664.0	664.0
	664.0	664.0	664.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0	663.0
	663.0	663.0	663.0	663.0	663.0	662.0	662.0	662.0	661.0	661.0
	661.0	661.0								
0 32	668.0	668.0	668.0	666.0	665.0	664.0	664.0	663.0	663.0	663.0
	663.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0	662.0
	662.0	661.0	661.0	661.0	661.0	661.0	660.0	660.0	659.0	659.0
	658.0	658.0								
0 33	668.0	668.0	666.0	665.0	664.0	663.0	662.0	662.0	662.0	661.0
	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0
	661.0	661.0	661.0	661.0	661.0	661.0	661.0	661.0	660.0	660.0
	660.0	660.0	660.0	659.0	659.0	659.0	658.0	658.0	657.0	656.0
	656.0	655.0								
0 34	668.0	668.0	665.0	663.0	662.0	661.0	661.0	661.0	660.0	660.0
	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
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	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	660.0	660.0	660.0	660.0	659.0	659.0	659.0	659.0	659.0
	659.0	659.0	658.0	658.0	657.0	657.0	656.0	656.0	655.0	654.0
	653.0	652.0								
0 35	668.0	664.0	662.0	661.0	660.0	660.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	658.0
	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
	657.0	657.0	657.0	656.0	656.0	655.0	655.0	654.0	653.0	652.0

	650.0	648.0								
0 36	661.0	659.0	659.0	658.0	658.0	658.0	658.0	658.0	658.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
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	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	656.0
	656.0	656.0	655.0	655.0	654.0	654.0	653.0	652.0	651.0	650.0
	648.0	648.0								
0 37	654.0	654.0	655.0	655.0	655.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
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	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	655.0	655.0
	655.0	655.0	654.0	654.0	653.0	652.0	652.0	651.0	649.0	648.0
	648.0	648.0								
0 38	648.0	648.0	651.0	652.0	653.0	654.0	654.0	654.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
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	655.0	655.0	655.0	655.0	655.0	655.0	655.0	654.0	654.0	654.0
	654.0	653.0	653.0	652.0	652.0	651.0	650.0	649.0	648.0	648.0
	648.0	648.0								
0 39	645.0	645.0	648.0	650.0	651.0	652.0	652.0	653.0	653.0	653.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
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	654.0	654.0	654.0	654.0	654.0	653.0	653.0	653.0	653.0	653.0
	653.0	652.0	652.0	651.0	651.0	650.0	649.0	648.0	648.0	647.0
	647.0	647.0								
0 40	640.0	641.0	644.0	648.0	649.0	650.0	651.0	652.0	652.0	652.0
	652.0	652.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
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	653.0	653.0	653.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
	652.0	651.0	651.0	650.0	650.0	649.0	648.0	648.0	647.0	647.0
	647.0	647.0								
0 41	635.0	636.0	639.0	643.0	648.0	649.0	650.0	650.0	651.0	651.0
	651.0	651.0	651.0	651.0	651.0	651.0	652.0	652.0	652.0	652.0
	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
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	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0
	651.0	650.0	650.0	650.0	649.0	648.0	648.0	647.0	647.0	647.0
	646.0	646.0								
0 42	628.0	628.0	633.0	638.0	643.0	648.0	649.0	649.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
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	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	649.0	649.0	649.0	648.0	648.0	647.0	647.0	646.0	646.0
	646.0	646.0								
0 43	626.0	627.0	628.0	633.0	638.0	643.0	648.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
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	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	648.0	648.0	648.0	647.0	646.0	646.0	645.0	645.0
	645.0	645.0								
0 44	623.0	624.0	627.0	628.0	633.0	639.0	643.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
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	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	647.0	647.0	646.0	646.0	645.0	645.0	645.0	644.0
	644.0	644.0								
0 45	618.0	622.0	626.0	627.0	628.0	635.0	639.0	643.0	644.0	645.0
	645.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	646.0	646.0	646.0	646.0	645.0	645.0	644.0	644.0	644.0	644.0

	643.0	643.0								
0 46	617.0	621.0	625.0	626.0	627.0	633.0	636.0	639.0	641.0	642.0
	643.0	644.0	644.0	644.0	644.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	644.0	644.0	644.0	643.0	643.0	643.0	643.0
	642.0	642.0								
0 47	617.0	618.0	624.0	625.0	627.0	632.0	634.0	637.0	639.0	640.0
	641.0	641.0	642.0	642.0	643.0	643.0	643.0	643.0	643.0	643.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	643.0	643.0	643.0	643.0	642.0	642.0	642.0	642.0	642.0
	642.0	641.0								
0 48	616.0	617.0	623.0	624.0	627.0	630.0	633.0	636.0	636.0	638.0
	639.0	640.0	640.0	641.0	641.0	641.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
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	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	642.0	642.0
	642.0	642.0	642.0	642.0	641.0	641.0	641.0	641.0	641.0	641.0
	640.0	640.0								
0 49	616.0	617.0	622.0	623.0	626.0	629.0	631.0	635.0	635.0	636.0
	637.0	638.0	639.0	639.0	640.0	640.0	640.0	640.0	640.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0	640.0	639.0
	639.0	639.0								
0 50	616.0	616.0	621.0	622.0	626.0	629.0	630.0	634.0	633.0	635.0
	636.0	636.0	637.0	638.0	638.0	638.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	638.0	638.0
	638.0	638.0								
0 51	615.0	616.0	620.0	621.0	625.0	628.0	630.0	633.0	632.0	633.0
	634.0	635.0	636.0	636.0	637.0	637.0	637.0	637.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0
	637.0	637.0								
0 52	615.0	615.0	618.0	621.0	625.0	628.0	629.0	633.0	631.0	632.0
	633.0	634.0	634.0	635.0	635.0	636.0	636.0	636.0	636.0	636.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0								
0 53	614.0	615.0	617.0	620.0	624.0	627.0	628.0	632.0	630.0	631.0
	632.0	633.0	633.0	634.0	634.0	634.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0								
0 54	614.0	614.0	617.0	620.0	624.0	627.0	627.0	631.0	630.0	630.0
	631.0	632.0	632.0	633.0	633.0	633.0	633.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0								
0 55	613.0	614.0	616.0	619.0	623.0	626.0	627.0	630.0	629.0	630.0
	630.0	631.0	631.0	632.0	632.0	632.0	632.0	632.0	633.0	633.0
	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0

	632.0	632.0								
0 56	613.0	613.0	616.0	619.0	623.0	626.0	627.0	630.0	629.0	629.0
	630.0	630.0	630.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	632.0	632.0	632.0	632.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0
	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0 57	612.0	613.0	615.0	618.0	622.0	625.0	628.0	629.0	628.0	629.0
	629.0	629.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	630.0	630.0	630.0	630.0
	630.0	631.0	631.0	631.0	631.0	631.0	631.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0
	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0								
0 58	611.0	612.0	615.0	618.0	622.0	625.0	627.0	629.0	628.0	628.0
	628.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	629.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	629.0	628.0	628.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	628.0								
0 59	611.0	612.0	614.0	617.0	621.0	624.0	627.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	628.0	628.0	628.0	628.0
	628.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0								
0 60	610.0	611.0	614.0	617.0	621.0	624.0	626.0	628.0	628.0	628.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0 61	610.0	611.0	613.0	617.0	620.0	623.0	626.0	627.0	627.0	627.0
	626.0	626.0	626.0	626.0	626.0	626.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0 62	609.0	610.0	613.0	616.0	620.0	623.0	625.0	627.0	627.0	626.0
	625.0	625.0	625.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0 63	609.0	610.0	612.0	616.0	619.0	622.0	625.0	627.0	627.0	625.0
	624.0	624.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0								
0 64	608.0	610.0	612.0	616.0	619.0	622.0	624.0	626.0	626.0	624.0
	623.0	624.0	624.0	624.0	624.0	624.0	624.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0 65	608.0	609.0	612.0	615.0	618.0	621.0	624.0	626.0	626.0	623.0
	622.0	623.0	623.0	623.0	623.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0

	622.0	622.0								
0 66	607.0	609.0	611.0	615.0	618.0	621.0	623.0	625.0	625.0	623.0
	622.0	622.0	622.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	622.0								
0 67	607.0	609.0	611.0	615.0	617.0	620.0	623.0	625.0	625.0	622.0
	621.0	621.0	622.0	622.0	622.0	622.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0
	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	621.0
	621.0	621.0								
0 68	606.0	608.0	611.0	614.0	616.0	620.0	622.0	624.0	624.0	622.0
	621.0	621.0	621.0	621.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0
	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	620.0
	620.0	620.0								
0 69	606.0	608.0	610.0	614.0	616.0	619.0	622.0	624.0	624.0	621.0
	620.0	620.0	621.0	621.0	621.0	621.0	621.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0
	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	619.0	619.0
	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	619.0	619.0
	619.0	619.0								
0 70	605.0	607.0	610.0	614.0	616.0	619.0	621.0	623.0	623.0	621.0
	620.0	620.0	620.0	620.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	618.0	618.0	618.0	618.0	618.0
	618.0	619.0								
0 71	605.0	607.0	610.0	613.0	616.0	618.0	621.0	623.0	623.0	620.0
	620.0	619.0	620.0	620.0	620.0	620.0	620.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0
	620.0	620.0	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0
	618.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	618.0	618.0
	618.0	618.0								
0 72	604.0	606.0	609.0	613.0	616.0	618.0	620.0	622.0	622.0	620.0
	620.0	619.0	619.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0
	619.0	619.0	619.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	616.0	616.0	616.0	616.0	616.0
	616.0	616.0	616.0	616.0	616.0	616.0	617.0	617.0	617.0	617.0
	618.0	618.0								
0 73	604.0	606.0	609.0	612.0	615.0	617.0	620.0	622.0	622.0	620.0
	619.0	619.0	619.0	619.0	619.0	619.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0
	619.0	619.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0	617.0
	617.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0
	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	617.0	617.0
	617.0	618.0								
0 74	604.0	606.0	609.0	612.0	615.0	616.0	619.0	621.0	621.0	619.0
	619.0	618.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0
	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0	616.0	616.0
	616.0	616.0	616.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0
	615.0	615.0	615.0	615.0	615.0	615.0	615.0	616.0	616.0	617.0
	617.0	618.0								
0 75	603.0	605.0	608.0	611.0	614.0	615.0	619.0	621.0	621.0	619.0
	619.0	618.0	618.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0
	618.0	617.0	617.0	617.0	617.0	616.0	616.0	616.0	616.0	616.0
	616.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0	614.0	614.0
	614.0	614.0	614.0	614.0	614.0	614.0	615.0	615.0	615.0	616.0

	618.0	618.0								
0 76	603.0	605.0	608.0	611.0	614.0	615.0	619.0	620.0	620.0	619.0
	619.0	618.0	618.0	618.0	618.0	619.0	619.0	619.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	617.0	617.0
	617.0	617.0	617.0	616.0	616.0	616.0	616.0	616.0	615.0	615.0
	615.0	615.0	615.0	615.0	614.0	614.0	614.0	614.0	614.0	614.0
	614.0	614.0	613.0	613.0	613.0	614.0	614.0	614.0	614.0	615.0
	616.0	616.0								
0 77	603.0	605.0	608.0	610.0	613.0	615.0	618.0	620.0	620.0	619.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0
	616.0	616.0	616.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0
	614.0	614.0	614.0	614.0	614.0	614.0	614.0	613.0	613.0	613.0
	613.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0	614.0
	614.0	614.0								
0 78	602.0	604.0	607.0	610.0	614.0	615.0	618.0	619.0	619.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	616.0	616.0
	616.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0	614.0	614.0
	614.0	614.0	614.0	613.0	613.0	613.0	613.0	613.0	613.0	612.0
	612.0	612.0	612.0	612.0	612.0	612.0	612.0	612.0	612.0	612.0
	613.0	613.0								
0 79	602.0	604.0	607.0	610.0	614.0	616.0	618.0	619.0	619.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	616.0	616.0	616.0	616.0	616.0
	615.0	615.0	615.0	615.0	615.0	614.0	614.0	614.0	614.0	614.0
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	611.0	611.0	611.0	611.0	611.0	611.0	611.0	611.0	611.0	611.0
	611.0	611.0								
0 80	602.0	604.0	606.0	610.0	614.0	615.0	617.0	619.0	619.0	618.0
	618.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0
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	611.0	611.0	610.0	610.0	609.0	609.0	609.0	609.0	609.0	610.0
	610.0	610.0								
0 81	602.0	604.0	606.0	609.0	614.0	615.0	616.0	618.0	618.0	618.0
	618.0	618.0	618.0	617.0	617.0	617.0	617.0	617.0	616.0	616.0
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	610.0	610.0	609.0	609.0	608.0	608.0	608.0	608.0	608.0	608.0
	609.0	609.0								
0 82	601.0	603.0	605.0	609.0	613.0	614.0	616.0	618.0	618.0	618.0
	618.0	617.0	617.0	617.0	616.0	616.0	616.0	616.0	616.0	616.0
	616.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0
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	610.0	609.0	609.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0
	608.0	609.0								
0 83	601.0	603.0	605.0	609.0	612.0	614.0	615.0	618.0	618.0	617.0
	617.0	617.0	616.0	616.0	616.0	616.0	616.0	616.0	615.0	615.0
	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0
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	609.0	609.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0
	608.0	608.0								
0 84	601.0	603.0	605.0	608.0	611.0	613.0	614.0	616.0	617.0	616.0
	616.0	616.0	616.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0
	615.0	615.0	615.0	615.0	615.0	614.0	614.0	614.0	614.0	614.0
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	608.0	608.0	608.0	608.0	608.0	607.0	607.0	607.0	607.0	607.0
	608.0	608.0								
0 85	600.0	603.0	604.0	608.0	610.0	612.0	613.0	614.0	616.0	615.0
	615.0	615.0	615.0	615.0	615.0	615.0	615.0	614.0	614.0	614.0
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	608.0	608.0	608.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0

	607.0	607.0								
0 86	600.0	603.0	604.0	608.0	610.0	611.0	612.0	613.0	615.0	614.0
	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0	614.0
	614.0	614.0	614.0	614.0	614.0	614.0	613.0	613.0	613.0	613.0
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	608.0	608.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0
	607.0	607.0								
0 87	600.0	602.0	603.0	607.0	609.0	610.0	611.0	612.0	614.0	613.0
	613.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0
	613.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0
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	607.0	607.0	607.0	607.0	607.0	607.0	606.0	606.0	606.0	606.0
	606.0	606.0								
0 88	599.0	602.0	603.0	607.0	608.0	609.0	610.0	611.0	613.0	613.0
	612.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0	613.0
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	607.0	607.0	607.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0
	606.0	606.0								
0 89	599.0	602.0	603.0	606.0	608.0	609.0	610.0	611.0	612.0	612.0
	612.0	612.0	612.0	612.0	612.0	612.0	612.0	612.0	612.0	612.0
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	606.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0
	606.0	606.0								
0 90	598.0	602.0	602.0	606.0	607.0	609.0	610.0	610.0	611.0	612.0
	611.0	611.0	611.0	612.0	612.0	612.0	612.0	612.0	612.0	612.0
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	606.0	606.0	606.0	606.0	606.0	605.0	605.0	605.0	605.0	605.0
	605.0	605.0								
0 91	598.0	602.0	602.0	606.0	607.0	609.0	609.0	610.0	610.0	611.0
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	606.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0
	605.0	605.0								
0 92	597.0	601.0	602.0	605.0	606.0	609.0	609.0	609.0	610.0	611.0
	610.0	610.0	610.0	611.0	611.0	611.0	611.0	611.0	611.0	611.0
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	605.0	605.0	605.0	605.0	605.0	605.0	605.0	604.0	604.0	604.0
	604.0	604.0								
0 93	597.0	601.0	601.0	605.0	606.0	608.0	609.0	609.0	609.0	610.0
	610.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0
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	605.0	605.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0
	604.0	604.0								
0 94	596.0	601.0	601.0	604.0	606.0	608.0	608.0	609.0	609.0	610.0
	609.0	609.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0
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	604.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0	603.0
	603.0	603.0								
0 95	596.0	600.0	601.0	604.0	605.0	608.0	608.0	608.0	609.0	609.0
	609.0	609.0	609.0	609.0	609.0	609.0	609.0	609.0	609.0	609.0
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	604.0	604.0	604.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0

	603.0	603.0								
0 96	596.0	600.0	600.0	603.0	605.0	608.0	608.0	608.0	608.0	609.0
	609.0	609.0	609.0	609.0	609.0	609.0	609.0	609.0	609.0	609.0
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	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0
	603.0	603.0								
0 97	596.0	600.0	600.0	603.0	604.0	607.0	608.0	608.0	608.0	608.0
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	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0
	608.0	608.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	606.0
	606.0	606.0	606.0	606.0	605.0	605.0	605.0	605.0	605.0	605.0
	604.0	604.0	604.0	604.0	604.0	603.0	603.0	603.0	603.0	603.0
	603.0	603.0	603.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
	602.0	602.0								
0 98	595.0	599.0	600.0	602.0	604.0	607.0	607.0	608.0	608.0	608.0
	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0
	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0	608.0
	608.0	608.0	608.0	608.0	608.0	608.0	608.0	607.0	607.0	607.0
	607.0	607.0	607.0	607.0	607.0	607.0	606.0	606.0	606.0	606.0
	606.0	605.0	605.0	605.0	605.0	605.0	605.0	604.0	604.0	604.0
	604.0	604.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	602.0
	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0
	602.0	602.0								
0 99	595.0	599.0	599.0	602.0	603.0	606.0	607.0	607.0	607.0	607.0
	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0
	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0
	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0
	607.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0	605.0	605.0
	605.0	605.0	605.0	605.0	604.0	604.0	604.0	604.0	604.0	603.0
	603.0	603.0	603.0	603.0	603.0	602.0	602.0	602.0	602.0	602.0
	602.0	602.0	602.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0								
0100	595.0	598.0	599.0	601.0	603.0	606.0	606.0	606.0	606.0	606.0
	606.0	606.0	606.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0
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	607.0	607.0	607.0	607.0	606.0	606.0	606.0	606.0	606.0	606.0
	606.0	606.0	606.0	606.0	605.0	605.0	605.0	605.0	605.0	605.0
	604.0	604.0	604.0	604.0	604.0	604.0	603.0	603.0	603.0	603.0
	603.0	603.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	601.0
	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0								
0101	594.0	598.0	599.0	601.0	602.0	605.0	605.0	605.0	605.0	606.0
	606.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0
	606.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0
	606.0	606.0	606.0	606.0	606.0	606.0	606.0	606.0	605.0	605.0
	605.0	605.0	605.0	605.0	605.0	605.0	604.0	604.0	604.0	604.0
	604.0	604.0	604.0	603.0	603.0	603.0	603.0	603.0	603.0	602.0
	602.0	602.0	602.0	602.0	602.0	601.0	601.0	601.0	601.0	601.0
	601.0	601.0	601.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0								
0102	594.0	597.0	598.0	600.0	602.0	604.0	604.0	605.0	605.0	605.0
	605.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0
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	602.0	602.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	599.0
	599.0	599.0								
0103	594.0	596.0	598.0	600.0	601.0	604.0	604.0	604.0	604.0	604.0
	604.0	604.0	604.0	604.0	604.0	604.0	604.0	605.0	605.0	605.0
	605.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0
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	604.0	604.0	604.0	604.0	604.0	603.0	603.0	603.0	603.0	603.0
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	601.0	601.0	601.0	601.0	601.0	600.0	600.0	600.0	600.0	600.0
	600.0	600.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0								
0104	593.0	596.0	598.0	600.0	601.0	603.0	603.0	603.0	603.0	603.0
	603.0	603.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0
	604.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0	604.0
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	601.0	601.0	600.0	600.0	600.0	600.0	600.0	600.0	599.0	599.0
	599.0	599.0	599.0	599.0	599.0	599.0	599.0	598.0	598.0	598.0
	598.0	598.0								
0105	593.0	595.0	597.0	599.0	600.0	602.0	602.0	602.0	602.0	603.0
	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0	603.0
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	600.0	600.0	600.0	600.0	600.0	599.0	599.0	599.0	599.0	599.0
	599.0	599.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0

	598.0	598.0								
0106	593.0	595.0	596.0	599.0	600.0	601.0	601.0	602.0	602.0	602.0
	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	602.0	603.0
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	598.0	598.0	598.0	598.0	598.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0								
0107	593.0	594.0	596.0	599.0	599.0	601.0	601.0	601.0	601.0	601.0
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	598.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0								
0108	592.0	594.0	595.0	598.0	599.0	600.0	600.0	600.0	600.0	600.0
	600.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
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	599.0	598.0	598.0	598.0	598.0	598.0	598.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0								
0109	592.0	593.0	595.0	598.0	598.0	599.0	599.0	599.0	600.0	600.0
	600.0	600.0	600.0	600.0	600.0	600.0	600.0	600.0	601.0	601.0
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	596.0	596.0	596.0	596.0	596.0	596.0	596.0	595.0	595.0	595.0
	595.0	595.0								
0110	592.0	593.0	594.0	598.0	598.0	598.0	598.0	599.0	599.0	599.0
	599.0	599.0	599.0	599.0	600.0	600.0	600.0	600.0	600.0	600.0
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	598.0	597.0	597.0	597.0	597.0	597.0	597.0	596.0	596.0	596.0
	596.0	596.0	596.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0								
0111	592.0	592.0	594.0	597.0	597.0	598.0	598.0	598.0	598.0	598.0
	598.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0	599.0
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	597.0	597.0	597.0	597.0	596.0	596.0	596.0	596.0	596.0	596.0
	595.0	595.0	595.0	595.0	595.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0								
0112	591.0	592.0	593.0	596.0	597.0	597.0	597.0	597.0	597.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	599.0	599.0	599.0
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	597.0	596.0	596.0	596.0	596.0	596.0	596.0	595.0	595.0	595.0
	595.0	595.0	594.0	594.0	594.0	594.0	594.0	593.0	593.0	593.0
	593.0	593.0								
0113	591.0	591.0	593.0	595.0	596.0	596.0	596.0	596.0	597.0	597.0
	597.0	597.0	597.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
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	596.0	596.0	596.0	596.0	595.0	595.0	595.0	595.0	595.0	594.0
	594.0	594.0	594.0	593.0	593.0	593.0	593.0	593.0	592.0	592.0
	592.0	592.0								
0114	591.0	591.0	592.0	595.0	595.0	595.0	596.0	596.0	596.0	596.0
	596.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
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	597.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	595.0	595.0	595.0	595.0	595.0	595.0	594.0	594.0	594.0
	594.0	593.0	593.0	593.0	593.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0								
0115	591.0	591.0	592.0	594.0	594.0	594.0	595.0	595.0	595.0	596.0
	596.0	596.0	596.0	596.0	596.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
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	597.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	594.0	594.0	594.0	594.0	594.0	593.0
	593.0	593.0	593.0	592.0	592.0	592.0	591.0	591.0	591.0	591.0

	$91.0	$91.0								
0116	$90.0	$91.0	$91.0	$93.0	$93.0	$94.0	$94.0	$94.0	$95.0	$95.0
	$95.0	$95.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0
	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0
	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0
	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0
	$96.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0
	$95.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$93.0	$93.0	$93.0
	$93.0	$92.0	$92.0	$92.0	$91.0	$91.0	$90.0	$90.0	$90.0	$90.0
	$90.0	$90.0								
0117	$90.0	$91.0	$91.0	$92.0	$93.0	$93.0	$94.0	$94.0	$94.0	$94.0
	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$96.0	$96.0	$96.0	$96.0
	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0
	$96.0	$96.0	$96.0	$96.0	$96.0	$96.0	$95.0	$95.0	$95.0	$95.0
	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0
	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$94.0	$94.0	$94.0
	$94.0	$94.0	$94.0	$94.0	$94.0	$93.0	$93.0	$93.0	$93.0	$92.0
	$92.0	$92.0	$91.0	$91.0	$91.0	$90.0	$90.0	$89.0	$88.0	$89.0
	$89.0	$89.0								
0118	$90.0	$90.0	$90.0	$92.0	$92.0	$93.0	$93.0	$93.0	$94.0	$94.0
	$94.0	$94.0	$94.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0
	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0
	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0
	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$94.0
	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0
	$94.0	$94.0	$93.0	$93.0	$93.0	$93.0	$93.0	$92.0	$92.0	$92.0
	$92.0	$91.0	$91.0	$91.0	$90.0	$90.0	$89.0	$88.0	$88.0	$89.0
	$89.0	$89.0								
0119	$90.0	$90.0	$90.0	$91.0	$92.0	$92.0	$92.0	$93.0	$93.0	$93.0
	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$95.0	$95.0	$95.0
	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0	$95.0
	$95.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0
	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0
	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$93.0	$93.0
	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$92.0	$92.0	$92.0	$92.0
	$91.0	$91.0	$91.0	$90.0	$90.0	$89.0	$89.0	$88.0	$88.0	$88.0
	$89.0	$89.0								
0120	$89.0	$90.0	$90.0	$91.0	$91.0	$92.0	$92.0	$92.0	$93.0	$93.0
	$93.0	$93.0	$93.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0
	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0
	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0
	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0
	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0
	$93.0	$93.0	$93.0	$92.0	$92.0	$92.0	$92.0	$92.0	$91.0	$91.0
	$91.0	$90.0	$90.0	$90.0	$89.0	$89.0	$88.0	$88.0	$88.0	$88.0
	$88.0	$88.0								
0121	$89.0	$89.0	$90.0	$90.0	$91.0	$91.0	$92.0	$92.0	$92.0	$92.0
	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$94.0	$94.0	$94.0
	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$94.0	$93.0	$93.0
	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0
	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0
	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0
	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$91.0	$91.0	$91.0
	$90.0	$90.0	$90.0	$89.0	$89.0	$88.0	$88.0	$88.0	$88.0	$88.0
	$88.0	$88.0								
0122	$89.0	$89.0	$89.0	$90.0	$90.0	$91.0	$91.0	$91.0	$92.0	$92.0
	$92.0	$92.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0
	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0
	$93.0	$93.0	$93.0	$93.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0
	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0
	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0
	$92.0	$92.0	$92.0	$92.0	$92.0	$91.0	$91.0	$91.0	$91.0	$90.0
	$90.0	$90.0	$89.0	$89.0	$88.0	$88.0	$88.0	$88.0	$88.0	$88.0
	$88.0	$88.0								
0123	$89.0	$89.0	$89.0	$90.0	$90.0	$90.0	$91.0	$91.0	$91.0	$92.0
	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$93.0	$93.0	$93.0	$93.0
	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$93.0	$92.0	$92.0	$92.0
	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0
	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0
	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0
	$92.0	$92.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$90.0	$90.0
	$90.0	$90.0	$89.0	$89.0	$88.0	$88.0	$88.0	$88.0	$88.0	$88.0
	$88.0	$88.0								
0124	$88.0	$88.0	$89.0	$89.0	$90.0	$90.0	$90.0	$91.0	$91.0	$91.0
	$91.0	$91.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0
	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0
	$92.0	$92.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0
	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0
	$91.0	$91.0	$91.0	$92.0	$92.0	$91.0	$91.0	$91.0	$91.0	$91.0
	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$90.0	$90.0	$90.0
	$90.0	$89.0	$89.0	$89.0	$88.0	$88.0	$88.0	$88.0	$88.0	$88.0
	$88.0	$88.0								
0125	$88.0	$88.0	$89.0	$89.0	$89.0	$90.0	$90.0	$90.0	$91.0	$91.0
	$91.0	$91.0	$91.0	$91.0	$91.0	$92.0	$92.0	$92.0	$92.0	$92.0
	$92.0	$92.0	$92.0	$92.0	$92.0	$92.0	$91.0	$91.0	$91.0	$91.0
	$91.0	$91.0	$91.0	$91.0	$91.0	$90.0	$90.0	$90.0	$90.0	$90.0
	$90.0	$90.0	$90.0	$90.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0
	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0	$91.0
	$91.0	$91.0	$91.0	$91.0	$91.0	$90.0	$90.0	$90.0	$90.0	$90.0
	$89.0	$89.0	$89.0	$89.0	$88.0	$88.0	$88.0	$88.0	$88.0	$88.0

	588.0	588.0								
0126	588.0	588.0	588.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0127	588.0	588.0	588.0	589.0	589.0	589.0	589.0	590.0	590.0	590.0
	590.0	590.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	589.0	589.0
	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0128	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	591.0	591.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	589.0	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0129	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0	589.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	589.0	589.0	589.0
	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0130	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0131	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0132	588.0	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0133	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0
	587.0	587.0								
0134	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0
	587.0	587.0								
0135	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0

	587.0	587.0								
0136	587.0	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0								
0137	587.0	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0								
0138	587.0	587.0	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	586.0	586.0
	586.0	586.0								
0139	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0	588.0
	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0								
0140	587.0	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0								
0141	587.0	587.0	587.0	587.0	587.0	587.0	587.0	588.0	588.0	587.0
	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0								
0142	586.0	586.0	586.0	586.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	585.0	585.0	585.0	585.0
	585.0	585.0								
0143	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	584.0	584.0
	584.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0								
0144	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0								
0145	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	584.0	584.0	584.0	584.0

	584.0	584.0								
0146	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0								
0147	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0								
0148	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0								
0149	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0								
0150	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0								
0151	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0								
0152	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0								
0153	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0								
0154	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0								
0155	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0

	581.0	581.0								
0156	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0								
0157	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0								
0158	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0								
0159	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0								
0160	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0								
0161	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0								
0162	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0								
0163	577.0	577.0	577.0	577.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0								
0164	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0								
0165	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
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	578.0	578.0								
0166	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0								
0167	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0								
0168	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0								
0169	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0								
0170	574.0	574.0	574.0	574.0	574.0	574.0	574.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0								
0171	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0								
0172	573.0	573.0	573.0	573.0	573.0	573.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0								
0173	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
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	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0								
0174	572.0	572.0	572.0	572.0	572.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0								
0175	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
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	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
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	574.0	574.0								
0176	571.0	571.0	571.0	571.0	571.0	571.0	572.0	572.0	572.0	572.0
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	574.0	574.0								
0177	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	572.0
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	574.0	574.0								
0178	570.0	570.0	570.0	570.0	570.0	570.0	571.0	571.0	571.0	571.0
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	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0								
0179	570.0	569.0	569.0	569.0	570.0	570.0	570.0	570.0	571.0	571.0
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	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0								
0180	569.0	569.0	569.0	568.0	569.0	569.0	570.0	570.0	570.0	570.0
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	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0								
0181	569.0	569.0	568.0	568.0	569.0	569.0	569.0	570.0	570.0	570.0
	570.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
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	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0								
0182	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	570.0	570.0
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	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0								
0183	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	570.0
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	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
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	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0								
0184	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	569.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0								
0185	568.0	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0
	569.0	569.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0

	571.0	571.0								
0186	567.0	567.0	567.0	567.0	568.0	568.0	568.0	568.0	569.0	569.0
	569.0	569.0	569.0	569.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0								
0187	567.0	567.0	567.0	567.0	567.0	568.0	568.0	568.0	568.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0								
0188	566.0	566.0	566.0	566.0	567.0	567.0	568.0	568.0	568.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0								
0189	565.0	565.0	565.0	566.0	566.0	567.0	568.0	568.0	568.0	568.0
	568.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0								
0190	564.0	564.0	564.0	565.0	565.0	566.0	568.0	568.0	568.0	568.0
	568.0	568.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0								
0191	563.0	563.0	563.0	564.0	564.0	565.0	566.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0								
0192	562.0	562.0	562.0	562.0	563.0	563.0	564.0	565.0	566.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0								
0193	560.0	560.0	560.0	561.0	561.0	562.0	562.0	563.0	564.0	566.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0194	559.0	559.0	559.0	559.0	559.0	560.0	560.0	561.0	561.0	562.0
	563.0	564.0	564.0	564.0	564.0	564.0	565.0	566.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0195	557.0	557.0	557.0	557.0	557.0	558.0	558.0	558.0	558.0	559.0
	559.0	560.0	560.0	560.0	560.0	560.0	561.0	561.0	562.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	564.0	565.0	568.0	568.0
	568.0	568.0	568.0	568.0	565.0	564.0	563.0	563.0	562.0	562.0

	562.0	561.0								
0196	556.0	556.0	556.0	556.0	556.0	555.0	555.0	555.0	555.0	555.0
	556.0	556.0	556.0	556.0	556.0	556.0	557.0	557.0	557.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	559.0	560.0	561.0	561.0
	561.0	561.0	561.0	561.0	559.0	559.0	558.0	557.0	557.0	555.0
	555.0	555.0								
0197	554.0	554.0	554.0	554.0	554.0	553.0	553.0	552.0	552.0	552.0
	552.0	552.0	552.0	552.0	552.0	552.0	552.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	553.0	554.0	554.0	554.0
	555.0	555.0	554.0	554.0	554.0	553.0	553.0	552.0	551.0	548.0
	548.0	548.0								
0198	553.0	553.0	553.0	552.0	552.0	551.0	550.0	550.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	545.0
	544.0	543.0								
0199	552.0	552.0	551.0	551.0	550.0	549.0	548.0	548.0	546.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	544.0	544.0	544.0	544.0
	544.0	545.0	545.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	542.0	542.0	541.0	540.0
	539.0	539.0								
0200	551.0	550.0	550.0	550.0	549.0	548.0	546.0	545.0	543.0	542.0
	542.0	542.0	542.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
	541.0	541.0	541.0	541.0	541.0	541.0	540.0	540.0	540.0	540.0
	540.0	540.0	539.0	539.0	539.0	539.0	540.0	540.0	539.0	539.0
	539.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	537.0	536.0	535.0	534.0
	534.0	533.0								
0201	550.0	549.0	549.0	549.0	548.0	545.0	543.0	541.0	540.0	539.0
	539.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	537.0	537.0	537.0	537.0
	537.0	538.0	538.0	538.0	537.0	537.0	536.0	536.0	536.0	536.0
	536.0	535.0	535.0	535.0	535.0	535.0	536.0	536.0	535.0	535.0
	534.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	532.0	531.0	528.0	528.0
	528.0	528.0								
0202	549.0	549.0	548.0	548.0	544.0	541.0	539.0	537.0	536.0	536.0
	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0
	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0
	535.0	535.0	535.0	535.0	534.0	534.0	534.0	534.0	533.0	533.0
	534.0	535.0	535.0	534.0	534.0	533.0	532.0	532.0	532.0	532.0
	532.0	531.0	531.0	530.0	530.0	530.0	533.0	532.0	532.0	530.0
	529.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	524.0	522.0
	522.0	522.0								
0203	548.0	548.0	544.0	541.0	539.0	536.0	534.0	533.0	532.0	532.0
	532.0	532.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0
	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0
	531.0	531.0	531.0	531.0	531.0	531.0	530.0	530.0	529.0	529.0
	530.0	533.0	532.0	531.0	530.0	529.0	528.0	528.0	528.0	528.0
	528.0	527.0	526.0	525.0	524.0	523.0	526.0	526.0	526.0	526.0
	525.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0
	524.0	524.0	523.0	523.0	523.0	522.0	522.0	521.0	518.0	516.0
	515.0	515.0								
0204	542.0	541.0	538.0	535.0	533.0	531.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	527.0	526.0	525.0	524.0
	523.0	526.0	526.0	526.0	525.0	525.0	524.0	524.0	523.0	523.0
	523.0	522.0	522.0	521.0	520.0	520.0	521.0	521.0	521.0	521.0
	521.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0
	520.0	519.0	519.0	518.0	518.0	517.0	516.0	514.0	512.0	508.0
	508.0	508.0								
0205	536.0	535.0	532.0	528.0	528.0	528.0	525.0	524.0	524.0	523.0
	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0
	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0
	523.0	523.0	523.0	523.0	523.0	523.0	522.0	521.0	521.0	520.0
	520.0	520.0	521.0	521.0	520.0	520.0	520.0	519.0	519.0	519.0
	518.0	518.0	517.0	517.0	516.0	516.0	517.0	517.0	517.0	517.0
	517.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0
	516.0	515.0	514.0	513.0	513.0	512.0	511.0	508.0	508.0	504.0

	503.0	502.0								
0206	532.0	531.0	528.0	526.0	524.0	523.0	522.0	520.0	519.0	519.0
	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
	518.0	518.0	518.0	518.0	518.0	518.0	517.0	517.0	517.0	516.0
	516.0	516.0	515.0	515.0	516.0	516.0	516.0	515.0	514.0	514.0
	513.0	513.0	513.0	512.0	512.0	512.0	512.0	512.0	512.0	512.0
	512.0	512.0	512.0	512.0	512.0	512.0	512.0	512.0	512.0	512.0
	512.0	511.0	510.0	508.0	508.0	508.0	508.0	503.0	501.0	498.0
	496.0	495.0								
0207	529.0	528.0	525.0	522.0	521.0	519.0	517.0	516.0	514.0	513.0
	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0
	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0
	513.0	513.0	513.0	513.0	513.0	513.0	513.0	512.0	512.0	512.0
	511.0	511.0	510.0	510.0	510.0	513.0	512.0	511.0	510.0	509.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	503.0	501.0	499.0	498.0	496.0	494.0	492.0
	488.0	488.0								
0208	528.0	524.0	521.0	519.0	517.0	515.0	513.0	511.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	507.0	506.0	505.0	504.0	503.0	505.0	506.0	506.0	505.0	505.0
	504.0	503.0	503.0	503.0	502.0	502.0	502.0	502.0	501.0	501.0
	501.0	501.0	501.0	501.0	501.0	500.0	500.0	500.0	500.0	500.0
	499.0	499.0	498.0	495.0	493.0	488.0	488.0	488.0	488.0	488.0
	481.0	479.0								
0209	520.0	518.0	516.0	515.0	513.0	511.0	508.0	508.0	504.0	502.0
	502.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0
	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0
	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0
	501.0	500.0	499.0	498.0	498.0	499.0	500.0	501.0	501.0	500.0
	499.0	499.0	498.0	497.0	497.0	496.0	495.0	495.0	495.0	495.0
	495.0	495.0	494.0	494.0	493.0	493.0	492.0	492.0	493.0	492.0
	491.0	490.0	489.0	488.0	488.0	481.0	479.0	478.0	477.0	475.0
	468.0	468.0								
0210	514.0	513.0	512.0	511.0	508.0	508.0	503.0	500.0	497.0	496.0
	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0
	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0
	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	494.0
	494.0	494.0	493.0	492.0	492.0	492.0	493.0	498.0	497.0	496.0
	495.0	494.0	493.0	492.0	491.0	490.0	489.0	488.0	488.0	488.0
	488.0	488.0	488.0	487.0	486.0	485.0	484.0	483.0	483.0	482.0
	481.0	480.0	479.0	478.0	475.0	468.0	468.0	468.0	468.0	468.0
	448.0	448.0								
0211	508.0	508.0	508.0	508.0	503.0	500.0	496.0	493.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	487.0	486.0	485.0	484.0	483.0	486.0	487.0	486.0
	485.0	484.0	483.0	482.0	481.0	480.0	479.0	478.0	478.0	478.0
	478.0	478.0	478.0	477.0	477.0	476.0	475.0	474.0	473.0	472.0
	471.0	470.0	469.0	468.0	468.0	461.0	458.0	456.0	448.0	448.0
	428.0	428.0								
0212	501.0	501.0	500.0	498.0	495.0	493.0	488.0	488.0	483.0	481.0
	480.0	480.0	479.0	479.0	478.0	478.0	478.0	478.0	478.0	478.0
	478.0	478.0	478.0	478.0	478.0	478.0	478.0	478.0	478.0	478.0
	478.0	478.0	478.0	478.0	478.0	478.0	478.0	477.0	477.0	476.0
	476.0	475.0	474.0	474.0	473.0	472.0	473.0	478.0	477.0	476.0
	475.0	474.0	473.0	472.0	471.0	470.0	469.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	467.0	466.0	465.0	464.0	463.0
	460.0	459.0	456.0	448.0	448.0	448.0	448.0	448.0	428.0	428.0
	423.0	423.0								
0213	494.0	494.0	492.0	488.0	488.0	488.0	480.0	478.0	474.0	473.0
	472.0	471.0	470.0	469.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	467.0	466.0	465.0
	464.0	463.0	462.0	461.0	460.0	459.0	458.0	458.0	457.0	456.0
	455.0	454.0	453.0	452.0	451.0	450.0	449.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	438.0	428.0	428.0	428.0	428.0	423.0	423.0
	423.0	423.0								
0214	488.0	488.0	488.0	481.0	478.0	476.0	468.0	468.0	463.0	453.0
	452.0	451.0	450.0	449.0	448.0	448.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	448.0	448.0	447.0	446.0	445.0
	444.0	443.0	442.0	441.0	440.0	439.0	438.0	438.0	437.0	436.0
	435.0	434.0	433.0	432.0	431.0	430.0	429.0	428.0	428.0	428.0
	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0
	428.0	428.0	428.0	428.0	426.0	423.0	423.0	423.0	423.0	423.0
	423.0	423.0								
0215	477.0	475.0	468.0	468.0	468.0	468.0	448.0	448.0	446.0	441.0
	438.0	433.0	432.0	431.0	430.0	429.0	428.0	428.0	428.0	428.0
	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0
	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0
	428.0	428.0	428.0	428.0	427.0	426.0	425.0	429.0	430.0	429.0
	429.0	428.0	428.0	428.0	427.0	427.0	426.0	426.0	426.0	426.0
	425.0	425.0	425.0	425.0	425.0	423.0	423.0	423.0	423.0	423.0
	423.0	423.0	423.0	423.0	423.0	423.0	423.0	423.0	423.0	423.0

	660.0	660.0	660.0	659.0	659.0	659.0	658.0	658.0	657.0	656.0
	656.0	655.0								
0 34	668.0	668.0	665.0	663.0	662.0	661.0	661.0	661.0	660.0	660.0
	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0	660.0
	660.0	660.0	660.0	660.0	660.0	659.0	659.0	659.0	659.0	659.0
	659.0	659.0	658.0	658.0	657.0	657.0	656.0	656.0	655.0	654.0
	653.0	652.0								
0 35	668.0	664.0	662.0	661.0	660.0	660.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0
	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	659.0	658.0
	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0	658.0
	657.0	657.0	657.0	656.0	656.0	655.0	655.0	654.0	653.0	652.0
	650.0	648.0								
0 36	661.0	659.0	659.0	658.0	658.0	658.0	658.0	658.0	658.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	656.0
	656.0	656.0	655.0	655.0	654.0	654.0	653.0	652.0	651.0	650.0
	648.0	648.0								
0 37	654.0	654.0	655.0	655.0	655.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0
	656.0	656.0	656.0	656.0	656.0	656.0	656.0	656.0	655.0	655.0
	655.0	655.0	654.0	654.0	653.0	652.0	652.0	651.0	649.0	648.0
	648.0	648.0								
0 38	648.0	648.0	651.0	652.0	653.0	654.0	654.0	654.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
	655.0	655.0	655.0	655.0	655.0	655.0	655.0	654.0	654.0	654.0
	654.0	653.0	653.0	652.0	652.0	651.0	650.0	649.0	648.0	648.0
	648.0	648.0								
0 39	645.0	645.0	648.0	650.0	651.0	652.0	652.0	653.0	653.0	653.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0	654.0
	654.0	654.0	654.0	654.0	654.0	653.0	653.0	653.0	653.0	653.0
	653.0	652.0	652.0	651.0	651.0	650.0	649.0	648.0	648.0	647.0
	647.0	647.0								
0 40	640.0	641.0	644.0	648.0	649.0	650.0	651.0	652.0	652.0	652.0
	652.0	652.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0	653.0
	653.0	653.0	653.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
	652.0	651.0	651.0	650.0	650.0	649.0	648.0	648.0	647.0	647.0
	647.0	647.0								
0 41	635.0	636.0	639.0	643.0	648.0	649.0	650.0	650.0	651.0	651.0
	651.0	651.0	651.0	651.0	651.0	651.0	652.0	652.0	652.0	652.0
	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0	652.0
	652.0	652.0	652.0	652.0	652.0	651.0	651.0	651.0	651.0	651.0
	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0	651.0
	651.0	650.0	650.0	650.0	649.0	648.0	648.0	647.0	647.0	647.0
	646.0	646.0								
0 42	628.0	628.0	633.0	638.0	643.0	648.0	649.0	649.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0	650.0
	650.0	649.0	649.0	649.0	648.0	648.0	647.0	647.0	646.0	646.0
	646.0	646.0								
0 43	626.0	627.0	628.0	633.0	638.0	643.0	648.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0

	649.0	649.0	648.0	648.0	648.0	647.0	646.0	646.0	645.0	645.0
	645.0	645.0								
0 44	623.0	624.0	627.0	628.0	633.0	639.0	643.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
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	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0	648.0
	648.0	648.0	647.0	647.0	646.0	646.0	645.0	645.0	645.0	644.0
	644.0	644.0								
0 45	618.0	622.0	626.0	627.0	628.0	635.0	639.0	643.0	644.0	645.0
	645.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0	647.0
	646.0	646.0	646.0	646.0	645.0	645.0	644.0	644.0	644.0	644.0
	643.0	643.0								
0 46	617.0	621.0	625.0	626.0	627.0	633.0	636.0	639.0	641.0	642.0
	643.0	644.0	644.0	644.0	644.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0	645.0
	645.0	645.0	645.0	644.0	644.0	644.0	643.0	643.0	643.0	643.0
	642.0	642.0								
0 47	617.0	618.0	624.0	625.0	627.0	632.0	634.0	637.0	639.0	640.0
	641.0	641.0	642.0	642.0	643.0	643.0	643.0	643.0	643.0	643.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	643.0	643.0	643.0	643.0	642.0	642.0	642.0	642.0	642.0
	642.0	641.0								
0 48	616.0	617.0	623.0	624.0	627.0	630.0	633.0	636.0	636.0	638.0
	639.0	640.0	640.0	641.0	641.0	641.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	642.0	642.0
	642.0	642.0	642.0	642.0	641.0	641.0	641.0	641.0	641.0	641.0
	640.0	640.0								
0 49	616.0	617.0	622.0	623.0	626.0	629.0	631.0	635.0	635.0	636.0
	637.0	638.0	639.0	639.0	640.0	640.0	640.0	640.0	640.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	640.0	640.0	640.0	640.0	640.0	640.0	639.0
	639.0	639.0								
0 50	616.0	616.0	621.0	622.0	626.0	629.0	630.0	634.0	633.0	635.0
	636.0	636.0	637.0	638.0	638.0	638.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	638.0	638.0
	638.0	638.0								
0 51	615.0	616.0	620.0	621.0	625.0	628.0	630.0	633.0	632.0	633.0
	634.0	635.0	636.0	636.0	637.0	637.0	637.0	637.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0
	637.0	637.0								
0 52	615.0	615.0	618.0	621.0	625.0	628.0	629.0	633.0	631.0	632.0
	633.0	634.0	634.0	635.0	635.0	636.0	636.0	636.0	636.0	636.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0								
0 53	614.0	615.0	617.0	620.0	624.0	627.0	628.0	632.0	630.0	631.0
	632.0	633.0	633.0	634.0	634.0	634.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0

	636.0	636.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0								
0 54	614.0	614.0	617.0	620.0	624.0	627.0	627.0	631.0	630.0	630.0
	631.0	632.0	632.0	633.0	633.0	633.0	633.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0								
0 55	613.0	614.0	616.0	619.0	623.0	626.0	627.0	630.0	629.0	630.0
	630.0	631.0	631.0	632.0	632.0	632.0	632.0	632.0	633.0	633.0
	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0
	632.0	632.0								
0 56	613.0	613.0	616.0	619.0	623.0	626.0	627.0	630.0	629.0	629.0
	630.0	630.0	630.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	632.0	632.0	632.0	632.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	632.0	632.0	632.0
	632.0	632.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	631.0								
0 57	612.0	613.0	615.0	618.0	622.0	625.0	628.0	629.0	628.0	629.0
	629.0	629.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	630.0	630.0	630.0	630.0
	630.0	631.0	631.0	631.0	631.0	631.0	631.0	632.0	632.0	632.0
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	631.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0								
0 58	611.0	612.0	615.0	618.0	622.0	625.0	627.0	629.0	628.0	628.0
	628.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	629.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	629.0	628.0	628.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	628.0								
0 59	611.0	612.0	614.0	617.0	621.0	624.0	627.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	628.0	628.0	628.0	628.0
	628.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0								
0 60	610.0	611.0	614.0	617.0	621.0	624.0	626.0	628.0	628.0	628.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0								
0 61	610.0	611.0	613.0	617.0	620.0	623.0	626.0	627.0	627.0	627.0
	626.0	626.0	626.0	626.0	626.0	626.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0								
0 62	609.0	610.0	613.0	616.0	620.0	623.0	625.0	627.0	627.0	626.0
	625.0	625.0	625.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	627.0	627.0	627.0	627.0	627.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0								
0 63	609.0	610.0	612.0	616.0	619.0	622.0	625.0	627.0	627.0	625.0
	624.0	624.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	626.0	626.0
	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	626.0	626.0	626.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0

	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0								
0 64	608.0	610.0	612.0	616.0	619.0	622.0	624.0	626.0	626.0	624.0
	623.0	624.0	624.0	624.0	624.0	624.0	624.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0								
0 65	608.0	609.0	612.0	615.0	618.0	621.0	624.0	626.0	626.0	623.0
	622.0	623.0	623.0	623.0	623.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0								
0 66	607.0	609.0	611.0	615.0	618.0	621.0	623.0	625.0	625.0	623.0
	622.0	622.0	622.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	622.0								
0 67	607.0	609.0	611.0	615.0	617.0	620.0	623.0	625.0	625.0	622.0
	621.0	621.0	622.0	622.0	622.0	622.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0	621.0	621.0
	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	621.0
	621.0	621.0								
0 68	606.0	608.0	611.0	614.0	616.0	620.0	622.0	624.0	624.0	622.0
	621.0	621.0	621.0	621.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0
	620.0	620.0	620.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	620.0
	620.0	620.0								
0 69	606.0	608.0	610.0	614.0	616.0	619.0	622.0	624.0	624.0	621.0
	620.0	620.0	621.0	621.0	621.0	621.0	621.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	621.0
	621.0	621.0	621.0	621.0	620.0	620.0	620.0	620.0	619.0	619.0
	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	619.0	619.0
	619.0	619.0								
0 70	605.0	607.0	610.0	614.0	616.0	619.0	621.0	623.0	623.0	621.0
	620.0	620.0	620.0	620.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
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	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	620.0	620.0	620.0	619.0	619.0	619.0	619.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	618.0	618.0	618.0	618.0	618.0
	618.0	619.0								
0 71	605.0	607.0	610.0	613.0	616.0	618.0	621.0	623.0	623.0	620.0
	620.0	619.0	620.0	620.0	620.0	620.0	620.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	620.0	620.0	620.0
	620.0	620.0	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0
	618.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	618.0	618.0
	618.0	618.0								
0 72	604.0	606.0	609.0	613.0	616.0	618.0	620.0	622.0	622.0	620.0
	620.0	619.0	619.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
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	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0
	619.0	619.0	619.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	616.0	616.0	616.0	616.0	616.0
	616.0	616.0	616.0	616.0	616.0	616.0	617.0	617.0	617.0	617.0
	618.0	618.0								
0 73	604.0	606.0	609.0	612.0	615.0	617.0	620.0	622.0	622.0	620.0
	619.0	619.0	619.0	619.0	619.0	619.0	620.0	620.0	620.0	620.0
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	619.0	619.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0	617.0
	617.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0

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0 74	604.0	606.0	609.0	612.0	615.0	616.0	619.0	621.0	621.0	619.0
	619.0	618.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
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	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0	616.0	616.0
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	617.0	618.0								
0 75	603.0	605.0	608.0	611.0	614.0	615.0	619.0	621.0	621.0	619.0
	619.0	618.0	618.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
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	618.0	617.0	617.0	617.0	617.0	616.0	616.0	616.0	616.0	616.0
	616.0	615.0	615.0	615.0	615.0	615.0	615.0	615.0	614.0	614.0
	614.0	614.0	614.0	614.0	614.0	614.0	615.0	615.0	615.0	616.0
	618.0	618.0								
0 76	603.0	605.0	608.0	611.0	614.0	615.0	619.0	620.0	620.0	619.0
	619.0	618.0	618.0	618.0	618.0	619.0	619.0	619.0	618.0	618.0
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	614.0	614.0	613.0	613.0	613.0	614.0	614.0	614.0	614.0	615.0
	616.0	616.0								
0 77	603.0	605.0	608.0	610.0	613.0	615.0	618.0	620.0	620.0	619.0
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	614.0	614.0								
0 78	602.0	604.0	607.0	610.0	614.0	615.0	618.0	619.0	619.0	618.0
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	613.0	613.0								
0 79	602.0	604.0	607.0	610.0	614.0	616.0	618.0	619.0	619.0	618.0
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	611.0	611.0								
0 80	602.0	604.0	606.0	610.0	614.0	615.0	617.0	619.0	619.0	618.0
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	610.0	610.0								
0 81	602.0	604.0	606.0	609.0	614.0	615.0	616.0	618.0	618.0	618.0
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	609.0	609.0								
0 82	601.0	603.0	605.0	609.0	613.0	614.0	616.0	618.0	618.0	618.0
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	608.0	609.0								
0 83	601.0	603.0	605.0	609.0	612.0	614.0	615.0	618.0	618.0	617.0
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	608.0	608.0								
0 84	601.0	603.0	605.0	608.0	611.0	613.0	614.0	616.0	617.0	616.0
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	608.0	608.0								
0 85	600.0	603.0	604.0	608.0	610.0	612.0	613.0	614.0	616.0	615.0
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	607.0	607.0								
0 86	600.0	603.0	604.0	608.0	610.0	611.0	612.0	613.0	615.0	614.0
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	607.0	607.0								
0 87	600.0	602.0	603.0	607.0	609.0	610.0	611.0	612.0	614.0	613.0
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	606.0	606.0								
0 89	599.0	602.0	603.0	606.0	608.0	609.0	610.0	611.0	612.0	612.0
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	606.0	606.0								
0 90	598.0	602.0	602.0	606.0	607.0	609.0	610.0	610.0	611.0	612.0
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	605.0	605.0								
0 91	598.0	602.0	602.0	606.0	607.0	609.0	609.0	610.0	610.0	611.0
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	606.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0	605.0
	605.0	605.0								
0 92	597.0	601.0	602.0	605.0	606.0	609.0	609.0	609.0	610.0	611.0
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	603.0	603.0								
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0102	594.0	597.0	598.0	600.0	602.0	604.0	604.0	605.0	605.0	605.0
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0104	593.0	596.0	598.0	600.0	601.0	603.0	603.0	603.0	603.0	603.0
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0116	590.0	591.0	591.0	593.0	593.0	594.0	594.0	594.0	595.0	595.0
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	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	594.0	594.0	594.0	594.0	594.0	594.0	593.0	593.0	593.0
	593.0	592.0	592.0	592.0	591.0	591.0	590.0	590.0	590.0	590.0
	590.0	590.0								
0117	590.0	591.0	591.0	592.0	593.0	593.0	594.0	594.0	594.0	594.0
	595.0	595.0	595.0	595.0	595.0	595.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	593.0	593.0	593.0	593.0	592.0
	592.0	592.0	591.0	591.0	591.0	590.0	590.0	589.0	588.0	589.0
	589.0	589.0								
0118	590.0	590.0	590.0	592.0	592.0	593.0	593.0	593.0	594.0	594.0
	594.0	594.0	594.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	593.0	593.0	593.0	593.0	593.0	592.0	592.0	592.0
	592.0	591.0	591.0	591.0	590.0	590.0	589.0	588.0	588.0	589.0
	589.0	589.0								
0119	590.0	590.0	590.0	591.0	592.0	592.0	592.0	593.0	593.0	593.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	592.0	592.0	592.0	592.0
	591.0	591.0	591.0	590.0	590.0	589.0	589.0	588.0	588.0	588.0
	589.0	589.0								
0120	589.0	590.0	590.0	591.0	591.0	592.0	592.0	592.0	593.0	593.0
	593.0	593.0	593.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	592.0	592.0	592.0	592.0	592.0	591.0	591.0
	591.0	590.0	590.0	590.0	589.0	589.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0121	589.0	589.0	590.0	590.0	591.0	591.0	592.0	592.0	592.0	592.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	591.0	591.0	591.0
	590.0	590.0	590.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0122	589.0	589.0	589.0	590.0	590.0	591.0	591.0	591.0	592.0	592.0
	592.0	592.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	591.0	591.0	591.0	591.0	590.0
	590.0	590.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0123	589.0	589.0	589.0	590.0	590.0	590.0	591.0	591.0	591.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	591.0	591.0	591.0	591.0	591.0	591.0	590.0	590.0

	590.0	590.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0124	588.0	588.0	589.0	589.0	590.0	590.0	590.0	591.0	591.0	591.0
	591.0	591.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
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	591.0	591.0	591.0	592.0	592.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	590.0	590.0	590.0
	590.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0125	588.0	588.0	589.0	589.0	589.0	590.0	590.0	590.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	590.0	590.0	590.0	590.0	590.0
	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0126	588.0	588.0	588.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0127	588.0	588.0	588.0	589.0	589.0	589.0	589.0	590.0	590.0	590.0
	590.0	590.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	589.0	589.0
	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0128	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	591.0	591.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	589.0	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0129	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0	589.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	589.0	589.0	589.0
	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0130	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0131	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0132	588.0	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0133	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0	588.0

	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0
	587.0	587.0								
0134	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0
	587.0	587.0								
0135	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0
	587.0	587.0								
0136	587.0	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0								
0137	587.0	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
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	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0								
0138	587.0	587.0	587.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0
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	587.0	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	586.0	586.0
	586.0	586.0								
0139	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0	588.0
	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0								
0140	587.0	587.0	587.0	587.0	587.0	587.0	588.0	588.0	588.0	588.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0								
0141	587.0	587.0	587.0	587.0	587.0	587.0	587.0	588.0	588.0	587.0
	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0								
0142	586.0	586.0	586.0	586.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	585.0	585.0	585.0	585.0
	585.0	585.0								
0143	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	584.0	584.0
	584.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0

	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0								
0144	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0								
0145	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	584.0	584.0	584.0	584.0
	584.0	584.0								
0146	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0								
0147	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0								
0148	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0								
0149	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0								
0150	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0								
0151	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0								
0152	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0								
0153	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0

	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0								
0154	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0								
0155	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0								
0156	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0								
0157	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0								
0158	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0								
0159	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0								
0160	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0								
0161	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0								
0162	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0								
0163	577.0	577.0	577.0	577.0	577.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0

	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0								
0164	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0								
0165	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0								
0166	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0								
0167	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0								
0168	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0								
0169	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
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	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
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	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0								
0170	574.0	574.0	574.0	574.0	574.0	574.0	574.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
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	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0								
0171	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0								
0172	573.0	573.0	573.0	573.0	573.0	573.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
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	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0								
0173	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0

	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0								
0174	572.0	572.0	572.0	572.0	572.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0								
0175	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
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	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0								
0176	571.0	571.0	571.0	571.0	571.0	571.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
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	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0								
0177	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
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	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0								
0178	570.0	570.0	570.0	570.0	570.0	570.0	571.0	571.0	571.0	571.0
	571.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
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	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0								
0179	570.0	569.0	569.0	569.0	570.0	570.0	570.0	570.0	571.0	571.0
	571.0	571.0	571.0	571.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0								
0180	569.0	569.0	569.0	568.0	569.0	569.0	570.0	570.0	570.0	570.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	572.0	572.0	572.0
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	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
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	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0								
0181	569.0	569.0	568.0	568.0	569.0	569.0	569.0	570.0	570.0	570.0
	570.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
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	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
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	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0								
0182	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	570.0	570.0
	570.0	570.0	570.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0								
0183	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0

	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0								
0184	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	569.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0								
0185	568.0	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0
	569.0	569.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0								
0186	567.0	567.0	567.0	567.0	568.0	568.0	568.0	568.0	569.0	569.0
	569.0	569.0	569.0	569.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0								
0187	567.0	567.0	567.0	567.0	567.0	568.0	568.0	568.0	568.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0								
0188	566.0	566.0	566.0	566.0	567.0	567.0	568.0	568.0	568.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0								
0189	565.0	565.0	565.0	566.0	566.0	567.0	568.0	568.0	568.0	568.0
	568.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0								
0190	564.0	564.0	564.0	565.0	565.0	566.0	568.0	568.0	568.0	568.0
	568.0	568.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0								
0191	563.0	563.0	563.0	564.0	564.0	565.0	566.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0								
0192	562.0	562.0	562.0	562.0	563.0	563.0	564.0	565.0	566.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0								
0193	560.0	560.0	560.0	561.0	561.0	562.0	562.0	563.0	564.0	566.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0

	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0194	559.0	559.0	559.0	559.0	559.0	560.0	560.0	561.0	561.0	562.0
	563.0	564.0	564.0	564.0	564.0	564.0	565.0	566.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0195	557.0	557.0	557.0	557.0	557.0	558.0	558.0	558.0	558.0	559.0
	559.0	560.0	560.0	560.0	560.0	560.0	561.0	561.0	562.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	564.0	565.0	568.0	568.0
	568.0	568.0	568.0	568.0	565.0	564.0	563.0	563.0	562.0	562.0
	562.0	561.0								
0196	556.0	556.0	556.0	556.0	556.0	555.0	555.0	555.0	555.0	555.0
	556.0	556.0	556.0	556.0	556.0	556.0	557.0	557.0	557.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
	558.0	558.0	558.0	558.0	558.0	558.0	559.0	560.0	561.0	561.0
	561.0	561.0	561.0	561.0	559.0	559.0	558.0	557.0	557.0	555.0
	555.0	555.0								
0197	554.0	554.0	554.0	554.0	554.0	553.0	553.0	552.0	552.0	552.0
	552.0	552.0	552.0	552.0	552.0	552.0	552.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
	553.0	553.0	553.0	553.0	553.0	553.0	553.0	554.0	554.0	554.0
	555.0	555.0	554.0	554.0	554.0	553.0	553.0	552.0	551.0	548.0
	548.0	548.0								
0198	553.0	553.0	553.0	552.0	552.0	551.0	550.0	550.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	545.0
	544.0	543.0								
0199	552.0	552.0	551.0	551.0	550.0	549.0	548.0	548.0	546.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0	545.0
	545.0	545.0	545.0	545.0	545.0	545.0	544.0	544.0	544.0	544.0
	544.0	545.0	545.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0
	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	542.0	542.0	541.0	540.0
	539.0	539.0								
0200	551.0	550.0	550.0	550.0	549.0	548.0	546.0	545.0	543.0	542.0
	542.0	542.0	542.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
	541.0	541.0	541.0	541.0	541.0	541.0	540.0	540.0	540.0	540.0
	540.0	540.0	539.0	539.0	539.0	539.0	540.0	540.0	539.0	539.0
	539.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	537.0	536.0	535.0	534.0
	534.0	533.0								
0201	550.0	549.0	549.0	549.0	548.0	545.0	543.0	541.0	540.0	539.0
	539.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	537.0	537.0	537.0	537.0
	537.0	538.0	538.0	538.0	537.0	537.0	536.0	536.0	536.0	536.0
	536.0	535.0	535.0	535.0	535.0	535.0	536.0	536.0	535.0	535.0
	534.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	532.0	531.0	528.0	528.0
	528.0	528.0								
0202	549.0	549.0	548.0	548.0	544.0	541.0	539.0	537.0	536.0	536.0
	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0
	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0	535.0
	535.0	535.0	535.0	535.0	534.0	534.0	534.0	534.0	533.0	533.0
	534.0	535.0	535.0	534.0	534.0	533.0	532.0	532.0	532.0	532.0
	532.0	531.0	531.0	530.0	530.0	530.0	533.0	532.0	532.0	530.0
	529.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	524.0	522.0
	522.0	522.0								
0203	548.0	548.0	544.0	541.0	539.0	536.0	534.0	533.0	532.0	532.0
	532.0	532.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0
	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0	531.0
	531.0	531.0	531.0	531.0	531.0	531.0	530.0	530.0	529.0	529.0
	530.0	533.0	532.0	531.0	530.0	529.0	528.0	528.0	528.0	528.0
	528.0	527.0	526.0	525.0	524.0	523.0	526.0	526.0	526.0	526.0
	525.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0

	524.0	524.0	523.0	523.0	523.0	522.0	522.0	521.0	518.0	516.0
	515.0	515.0								
0204	542.0	541.0	538.0	535.0	533.0	531.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	527.0	526.0	525.0	524.0
	523.0	526.0	526.0	526.0	525.0	525.0	524.0	524.0	523.0	523.0
	523.0	522.0	522.0	521.0	520.0	520.0	521.0	521.0	521.0	521.0
	521.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0	520.0
	520.0	519.0	519.0	518.0	518.0	517.0	516.0	514.0	512.0	508.0
	508.0	508.0								
0205	536.0	535.0	532.0	528.0	528.0	528.0	525.0	524.0	524.0	523.0
	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0
	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0
	523.0	523.0	523.0	523.0	523.0	523.0	522.0	521.0	521.0	520.0
	520.0	520.0	521.0	521.0	520.0	520.0	520.0	519.0	519.0	519.0
	518.0	518.0	517.0	517.0	516.0	516.0	517.0	517.0	517.0	517.0
	517.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0	516.0
	516.0	515.0	514.0	513.0	513.0	512.0	511.0	508.0	508.0	504.0
	503.0	502.0								
0206	532.0	531.0	528.0	526.0	524.0	523.0	522.0	520.0	519.0	519.0
	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
	518.0	518.0	518.0	518.0	518.0	518.0	517.0	517.0	517.0	516.0
	516.0	516.0	515.0	515.0	516.0	516.0	516.0	515.0	514.0	514.0
	513.0	513.0	513.0	512.0	512.0	512.0	512.0	512.0	512.0	512.0
	512.0	512.0	512.0	512.0	512.0	512.0	512.0	512.0	512.0	512.0
	512.0	511.0	510.0	508.0	508.0	508.0	508.0	503.0	501.0	498.0
	496.0	495.0								
0207	529.0	528.0	525.0	522.0	521.0	519.0	517.0	516.0	514.0	513.0
	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0
	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0
	513.0	513.0	513.0	513.0	513.0	513.0	513.0	512.0	512.0	512.0
	511.0	511.0	510.0	510.0	510.0	513.0	512.0	511.0	510.0	509.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	503.0	501.0	499.0	498.0	496.0	494.0	492.0
	488.0	488.0								
0208	528.0	524.0	521.0	519.0	517.0	515.0	513.0	511.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	507.0	506.0	505.0	504.0	503.0	505.0	506.0	506.0	505.0	505.0
	504.0	503.0	503.0	503.0	502.0	502.0	502.0	502.0	501.0	501.0
	501.0	501.0	501.0	501.0	501.0	500.0	500.0	500.0	500.0	500.0
	499.0	499.0	498.0	495.0	493.0	488.0	488.0	488.0	488.0	488.0
	481.0	479.0								
0209	520.0	518.0	516.0	515.0	513.0	511.0	508.0	508.0	504.0	502.0
	502.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0
	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0
	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0	501.0
	501.0	500.0	499.0	498.0	498.0	499.0	500.0	501.0	501.0	500.0
	499.0	499.0	498.0	497.0	497.0	496.0	495.0	495.0	495.0	495.0
	495.0	495.0	494.0	494.0	493.0	493.0	492.0	492.0	493.0	492.0
	491.0	490.0	489.0	488.0	488.0	481.0	479.0	478.0	477.0	475.0
	468.0	468.0								
0210	514.0	513.0	512.0	511.0	508.0	508.0	503.0	500.0	497.0	496.0
	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0
	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0
	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	495.0	494.0
	494.0	494.0	493.0	492.0	492.0	492.0	493.0	498.0	497.0	496.0
	495.0	494.0	493.0	492.0	491.0	490.0	489.0	488.0	488.0	488.0
	488.0	488.0	488.0	487.0	486.0	485.0	484.0	483.0	483.0	482.0
	481.0	480.0	479.0	478.0	475.0	468.0	468.0	468.0	468.0	468.0
	448.0	448.0								
0211	508.0	508.0	508.0	508.0	503.0	500.0	496.0	493.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	487.0	486.0	485.0	484.0	483.0	486.0	487.0	486.0
	485.0	484.0	483.0	482.0	481.0	480.0	479.0	478.0	478.0	478.0
	478.0	478.0	478.0	477.0	477.0	476.0	475.0	474.0	473.0	472.0
	471.0	470.0	469.0	468.0	468.0	461.0	458.0	456.0	448.0	448.0
	428.0	428.0								
0212	501.0	501.0	500.0	498.0	495.0	493.0	488.0	488.0	483.0	481.0
	480.0	480.0	479.0	479.0	478.0	478.0	478.0	478.0	478.0	478.0
	478.0	478.0	478.0	478.0	478.0	478.0	478.0	478.0	478.0	478.0
	478.0	478.0	478.0	478.0	478.0	478.0	478.0	477.0	477.0	476.0
	476.0	475.0	474.0	474.0	473.0	472.0	473.0	478.0	477.0	476.0
	475.0	474.0	473.0	472.0	471.0	470.0	469.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	467.0	466.0	465.0	464.0	463.0
	460.0	459.0	456.0	448.0	448.0	448.0	448.0	448.0	428.0	428.0
	423.0	423.0								
0213	494.0	494.0	492.0	488.0	488.0	488.0	480.0	478.0	474.0	473.0
	472.0	471.0	470.0	469.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	467.0	466.0	465.0
	464.0	463.0	462.0	461.0	460.0	459.0	458.0	458.0	457.0	456.0
	455.0	454.0	453.0	452.0	451.0	450.0	449.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0	448.0

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        448.0     448.0     448.0     438.0     428.0     428.0     428.0     428.0     423.0     423.0
        423.0     423.0
0214    488.0     488.0     488.0     481.0     478.0     476.0     468.0     468.0     463.0     453.0
        452.0     451.0     450.0     449.0     448.0     448.0     448.0     448.0     448.0     448.0
        448.0     448.0     448.0     448.0     448.0     448.0     448.0     448.0     448.0     448.0
        448.0     448.0     448.0     448.0     448.0     448.0     448.0     447.0     446.0     445.0
        444.0     443.0     442.0     441.0     440.0     439.0     438.0     438.0     437.0     436.0
        435.0     434.0     433.0     432.0     431.0     430.0     429.0     428.0     428.0     428.0
        428.0     428.0     428.0     428.0     428.0     428.0     428.0     428.0     428.0     428.0
        428.0     428.0     428.0     428.0     426.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0
0215    477.0     475.0     468.0     468.0     468.0     468.0     448.0     448.0     446.0     441.0
        438.0     433.0     432.0     431.0     430.0     429.0     428.0     428.0     428.0     428.0
        428.0     428.0     428.0     428.0     428.0     428.0     428.0     428.0     428.0     428.0
        428.0     428.0     428.0     428.0     428.0     428.0     428.0     428.0     428.0     428.0
        428.0     428.0     428.0     428.0     427.0     426.0     425.0     429.0     430.0     429.0
        429.0     428.0     428.0     428.0     427.0     427.0     426.0     426.0     426.0     426.0
        425.0     425.0     425.0     425.0     425.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0
0216    468.0     468.0     460.0     456.0     448.0     448.0     438.0     428.0     428.0     426.0
        425.0     427.0     427.0     427.0     426.0     426.0     426.0     426.0     426.0     426.0
        426.0     425.0     425.0     425.0     425.0     425.0     425.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0
0217    448.0     448.0     448.0     448.0     428.0     428.0     428.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0
0218    435.0     428.0     428.0     428.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0
0219    428.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0
0220    423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0     423.0
        423.0     423.0

OPENING FILE ON UNIT  99:
BOTL3.DAT


          ZBOT (BOTTOM ELEVATION)  FOR LAYER   3
READING ON UNIT  99 WITH FORMAT: (02F9.0)

          1         2         3         4         5         6         7         8         9        10
         11        12        13        14        15        16        17        18        19        20
         21        22        23        24        25        26        27        28        29        30
         31        32        33        34        35        36        37        38        39        40
         41        42        43        44        45        46        47        48        49        50
         51        52        53        54        55        56        57        58        59        60
         61        62        63        64        65        66        67        68        69        70
         71        72        73        74        75        76        77        78        79        80
         81        82
.....
0  1    708.0     708.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0
        703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0
        703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0
        703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0
        703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0
        703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0     703.0
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	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0								
0 2	708.0	706.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0								
0 3	704.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0								
0 4	702.0	701.0	701.0	701.0	701.0	702.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0								
0 5	699.0	699.0	699.0	699.0	699.0	699.0	700.0	700.0	700.0	700.0
	700.0	700.0	700.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0	701.0
	701.0	701.0	701.0	701.0	702.0	703.0	703.0	703.0	703.0	703.0
	703.0	703.0								
0 6	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	698.0	698.0	698.0	698.0	698.0	698.0	698.0	698.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0	699.0
	699.0	699.0	699.0	699.0	700.0	700.0	701.0	701.0	701.0	701.0
	701.0	701.0								
0 7	695.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
	695.0	695.0	695.0	696.0	696.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0	696.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0	697.0
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	697.0	697.0	697.0	697.0	698.0	698.0	698.0	698.0	698.0	699.0
	699.0	699.0								
0 8	692.0	692.0	692.0	692.0	692.0	691.0	691.0	691.0	691.0	691.0
	692.0	693.0	693.0	693.0	694.0	694.0	694.0	694.0	694.0	694.0
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	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0
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	694.0	694.0	694.0	694.0	694.0	694.0	694.0	694.0	695.0	695.0
	695.0	695.0	695.0	695.0	695.0	696.0	696.0	696.0	696.0	696.0
	696.0	696.0								
0 9	690.0	690.0	690.0	690.0	689.0	688.0	688.0	688.0	688.0	688.0
	690.0	690.0	690.0	691.0	691.0	692.0	692.0	692.0	692.0	692.0
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	692.0	693.0	693.0	693.0	693.0	693.0	694.0	694.0	694.0	694.0
	694.0	694.0								
0 10	688.0	688.0	688.0	688.0	688.0	687.0	686.0	686.0	686.0	687.0
	688.0	688.0	688.0	688.0	689.0	690.0	691.0	689.0	689.0	689.0
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	692.0	692.0								
0 11	686.0	686.0	685.0	685.0	685.0	685.0	684.0	684.0	684.0	684.0
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	688.0	688.0								
0 13	681.0	681.0	681.0	680.0	680.0	680.0	679.0	679.0	679.0	679.0
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	684.0	684.0								
0 14	678.0	678.0	678.0	678.0	678.0	677.0	677.0	677.0	677.0	677.0
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	679.0	679.0								
0 15	676.0	676.0	676.0	676.0	675.0	675.0	674.0	674.0	674.0	674.0
	674.0	674.0	674.0	675.0	675.0	675.0	675.0	675.0	676.0	676.0
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	674.0	674.0								
0 16	674.0	674.0	674.0	673.0	673.0	672.0	671.0	671.0	671.0	671.0
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	668.0	670.0								
0 17	672.0	672.0	672.0	671.0	670.0	670.0	668.0	668.0	668.0	668.0
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	673.0	674.0	674.0	674.0	673.0	673.0	672.0	670.0	668.0	668.0
	668.0	668.0								
0 18	671.0	670.0	670.0	669.0	668.0	668.0	667.0	667.0	666.0	666.0
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	667.0	667.0								
0 19	669.0	669.0	668.0	668.0	667.0	666.0	665.0	665.0	665.0	665.0
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	665.0	665.0								
0 20	668.0	668.0	666.0	666.0	665.0	664.0	664.0	663.0	663.0	663.0
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	667.0	668.0	668.0	668.0	668.0	668.0	666.0	665.0	664.0	664.0
	664.0	664.0								
0 21	665.0	665.0	664.0	664.0	663.0	662.0	662.0	661.0	661.0	661.0
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	660.0	660.0								
0 23	660.0	660.0	660.0	659.0	659.0	658.0	658.0	657.0	657.0	657.0
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0 24	658.0	658.0	658.0	657.0	657.0	656.0	656.0	655.0	655.0	655.0
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0 28	651.0	651.0	651.0	650.0	648.0	648.0	648.0	647.0	647.0	647.0
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0 29	650.0	650.0	649.0	649.0	648.0	647.0	647.0	646.0	646.0	646.0
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	646.0	646.0								
0 30	649.0	649.0	649.0	648.0	647.0	646.0	646.0	645.0	645.0	645.0
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	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
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	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0	644.0
	644.0	644.0	644.0	645.0	645.0	645.0	645.0	645.0	644.0	644.0
	645.0	645.0	645.0	644.0	644.0	644.0	644.0	644.0	644.0	643.0
	643.0	643.0								
0 31	649.0	648.0	648.0	647.0	646.0	645.0	645.0	644.0	644.0	644.0
	644.0	644.0	644.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0

	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0	643.0
	643.0	643.0	643.0	643.0	643.0	642.0	642.0	642.0	641.0	641.0
	641.0	641.0								
0 32	648.0	648.0	648.0	646.0	645.0	644.0	644.0	643.0	643.0	643.0
	643.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0	642.0
	642.0	641.0	641.0	641.0	641.0	641.0	640.0	640.0	639.0	639.0
	638.0	638.0								
0 33	648.0	648.0	646.0	645.0	644.0	643.0	642.0	642.0	642.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	640.0	640.0
	640.0	640.0	640.0	639.0	639.0	639.0	638.0	638.0	637.0	636.0
	636.0	635.0								
0 34	648.0	648.0	645.0	643.0	642.0	641.0	641.0	641.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0	640.0
	640.0	640.0	640.0	640.0	640.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	638.0	638.0	637.0	637.0	636.0	636.0	635.0	634.0
	633.0	632.0								
0 35	648.0	644.0	642.0	641.0	640.0	640.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0
	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	639.0	638.0
	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0	638.0
	637.0	637.0	637.0	636.0	636.0	635.0	635.0	634.0	633.0	632.0
	630.0	628.0								
0 36	641.0	639.0	639.0	638.0	638.0	638.0	638.0	638.0	638.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0
	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	637.0	636.0
	636.0	636.0	635.0	635.0	634.0	634.0	633.0	632.0	631.0	630.0
	628.0	628.0								
0 37	634.0	634.0	635.0	635.0	635.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	635.0	635.0
	635.0	635.0	634.0	634.0	633.0	632.0	632.0	631.0	629.0	628.0
	628.0	628.0								
0 38	628.0	628.0	631.0	632.0	633.0	634.0	634.0	634.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0	635.0
	635.0	635.0	635.0	635.0	635.0	635.0	635.0	634.0	634.0	634.0
	634.0	633.0	633.0	632.0	632.0	631.0	630.0	629.0	628.0	628.0
	628.0	628.0								
0 39	625.0	625.0	628.0	630.0	631.0	632.0	632.0	633.0	633.0	633.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0	634.0
	634.0	634.0	634.0	634.0	634.0	633.0	633.0	633.0	633.0	633.0
	633.0	632.0	632.0	631.0	631.0	630.0	629.0	628.0	628.0	627.0
	627.0	627.0								
0 40	620.0	621.0	624.0	628.0	629.0	630.0	631.0	632.0	632.0	632.0
	632.0	632.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0	633.0
	633.0	633.0	633.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	631.0	631.0	630.0	630.0	629.0	628.0	628.0	627.0	627.0
	627.0	627.0								
0 41	615.0	616.0	619.0	623.0	628.0	629.0	630.0	630.0	631.0	631.0
	631.0	631.0	631.0	631.0	631.0	631.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0	632.0
	632.0	632.0	632.0	632.0	632.0	631.0	631.0	631.0	631.0	631.0

	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0	631.0
	631.0	630.0	630.0	630.0	629.0	628.0	628.0	627.0	627.0	627.0
	626.0	626.0								
0 42	608.0	608.0	613.0	618.0	623.0	628.0	629.0	629.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0	630.0
	630.0	629.0	629.0	629.0	628.0	628.0	627.0	627.0	626.0	626.0
	626.0	626.0								
0 43	606.0	607.0	608.0	613.0	618.0	623.0	628.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0	629.0
	629.0	629.0	628.0	628.0	628.0	627.0	626.0	626.0	625.0	625.0
	625.0	625.0								
0 44	603.0	604.0	607.0	608.0	613.0	619.0	623.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0	628.0
	628.0	628.0	627.0	627.0	626.0	626.0	625.0	625.0	625.0	624.0
	624.0	624.0								
0 45	598.0	602.0	606.0	607.0	608.0	615.0	619.0	623.0	624.0	625.0
	625.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0	626.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0	627.0
	626.0	626.0	626.0	626.0	625.0	625.0	624.0	624.0	624.0	624.0
	623.0	623.0								
0 46	597.0	601.0	605.0	606.0	607.0	613.0	616.0	619.0	621.0	622.0
	623.0	624.0	624.0	624.0	624.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0	625.0
	625.0	625.0	625.0	624.0	624.0	624.0	623.0	623.0	623.0	623.0
	622.0	622.0								
0 47	597.0	598.0	604.0	605.0	607.0	612.0	614.0	617.0	619.0	620.0
	621.0	621.0	622.0	622.0	623.0	623.0	623.0	623.0	623.0	623.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
	624.0	623.0	623.0	623.0	623.0	622.0	622.0	622.0	622.0	622.0
	622.0	621.0								
0 48	596.0	597.0	603.0	604.0	607.0	610.0	613.0	616.0	616.0	618.0
	619.0	620.0	620.0	621.0	621.0	621.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0
	623.0	623.0	623.0	623.0	623.0	623.0	623.0	623.0	622.0	622.0
	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0	621.0
	620.0	620.0								
0 49	596.0	597.0	602.0	603.0	606.0	609.0	611.0	615.0	615.0	616.0
	617.0	618.0	619.0	619.0	620.0	620.0	620.0	620.0	620.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	621.0	621.0	621.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
	622.0	622.0	622.0	622.0	621.0	621.0	621.0	621.0	621.0	621.0
	621.0	621.0	621.0	620.0	620.0	620.0	620.0	620.0	620.0	619.0
	619.0	619.0								
0 50	596.0	596.0	601.0	602.0	606.0	609.0	610.0	614.0	613.0	615.0
	616.0	616.0	617.0	618.0	618.0	618.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0	620.0
	620.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0	618.0
	618.0	618.0								
0 51	595.0	596.0	600.0	601.0	605.0	608.0	610.0	613.0	612.0	613.0
	614.0	615.0	616.0	616.0	617.0	617.0	617.0	617.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0
	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0

	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	619.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	617.0	617.0	617.0	617.0
	617.0	617.0								
0 52	595.0	595.0	598.0	601.0	605.0	608.0	609.0	613.0	611.0	612.0
	613.0	614.0	614.0	615.0	615.0	616.0	616.0	616.0	616.0	616.0
	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
	617.0	617.0	617.0	617.0	618.0	618.0	618.0	618.0	618.0	618.0
	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0	618.0
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	616.0	616.0								
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	615.0	615.0								
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	604.0	604.0								
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	603.0	603.0								
0 65	588.0	589.0	592.0	595.0	598.0	601.0	604.0	606.0	606.0	603.0
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	602.0	602.0								
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	601.0	602.0								
0 67	587.0	589.0	591.0	595.0	597.0	600.0	603.0	605.0	605.0	602.0
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	601.0	601.0								
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	599.0	599.0								
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0 73	584.0	586.0	589.0	592.0	595.0	597.0	600.0	602.0	602.0	600.0
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0 74	584.0	586.0	589.0	592.0	595.0	596.0	599.0	601.0	601.0	599.0
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	597.0	598.0								
0 75	583.0	585.0	588.0	591.0	594.0	595.0	599.0	601.0	601.0	599.0
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	594.0	594.0	594.0	594.0	594.0	594.0	595.0	595.0	595.0	596.0
	598.0	598.0								
0 76	583.0	585.0	588.0	591.0	594.0	595.0	599.0	600.0	600.0	599.0
	599.0	598.0	598.0	598.0	598.0	599.0	599.0	599.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	597.0	597.0
	597.0	597.0	597.0	596.0	596.0	596.0	596.0	596.0	595.0	595.0
	595.0	595.0	595.0	595.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	593.0	593.0	593.0	594.0	594.0	594.0	594.0	595.0
	596.0	596.0								
0 77	583.0	585.0	588.0	590.0	593.0	595.0	598.0	600.0	600.0	599.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	597.0	597.0	597.0	597.0
	596.0	596.0	596.0	596.0	596.0	595.0	595.0	595.0	595.0	595.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	594.0
	594.0	594.0								
0 78	582.0	584.0	587.0	590.0	594.0	595.0	598.0	599.0	599.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0
	598.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	596.0	596.0
	596.0	596.0	596.0	595.0	595.0	595.0	595.0	595.0	594.0	594.0
	594.0	594.0	594.0	593.0	593.0	593.0	593.0	593.0	593.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	593.0	593.0								
0 79	582.0	584.0	587.0	590.0	594.0	596.0	598.0	599.0	599.0	598.0
	598.0	598.0	598.0	598.0	598.0	598.0	598.0	598.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	597.0	597.0	597.0	596.0	596.0	596.0	596.0	596.0
	595.0	595.0	595.0	595.0	595.0	594.0	594.0	594.0	594.0	594.0
	593.0	593.0	593.0	593.0	593.0	592.0	592.0	592.0	592.0	592.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0								
0 80	582.0	584.0	586.0	590.0	594.0	595.0	597.0	599.0	599.0	598.0
	598.0	598.0	598.0	598.0	598.0	597.0	597.0	597.0	597.0	597.0
	597.0	597.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	595.0	595.0	595.0
	595.0	595.0	594.0	594.0	594.0	594.0	594.0	593.0	593.0	593.0
	593.0	593.0	593.0	592.0	592.0	592.0	592.0	592.0	591.0	591.0
	591.0	591.0	590.0	590.0	589.0	589.0	589.0	589.0	589.0	590.0
	590.0	590.0								
0 81	582.0	584.0	586.0	589.0	594.0	595.0	596.0	598.0	598.0	598.0
	598.0	598.0	598.0	597.0	597.0	597.0	597.0	597.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	594.0	594.0	594.0	594.0	594.0	593.0	593.0	593.0	593.0	593.0

	592.0	592.0	592.0	592.0	592.0	591.0	591.0	591.0	591.0	590.0
	590.0	590.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0
	589.0	589.0								
0 82	581.0	583.0	585.0	589.0	593.0	594.0	596.0	598.0	598.0	598.0
	598.0	597.0	597.0	597.0	596.0	596.0	596.0	596.0	596.0	596.0
	596.0	596.0	596.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	594.0	594.0	594.0	594.0
	594.0	594.0	593.0	593.0	593.0	593.0	593.0	592.0	592.0	592.0
	592.0	592.0	591.0	591.0	591.0	591.0	591.0	590.0	590.0	590.0
	590.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	589.0								
0 83	581.0	583.0	585.0	589.0	592.0	594.0	595.0	598.0	598.0	597.0
	597.0	597.0	596.0	596.0	596.0	596.0	596.0	596.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	593.0
	593.0	593.0	593.0	593.0	593.0	592.0	592.0	592.0	592.0	592.0
	591.0	591.0	591.0	591.0	590.0	590.0	590.0	590.0	589.0	589.0
	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0								
0 84	581.0	583.0	585.0	588.0	591.0	593.0	594.0	596.0	597.0	596.0
	596.0	596.0	596.0	595.0	595.0	595.0	595.0	595.0	595.0	595.0
	595.0	595.0	595.0	595.0	595.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	592.0	592.0	592.0	592.0	592.0	591.0	591.0	591.0
	591.0	591.0	590.0	590.0	590.0	590.0	589.0	589.0	589.0	589.0
	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0
	588.0	588.0								
0 85	580.0	583.0	584.0	588.0	590.0	592.0	593.0	594.0	596.0	595.0
	595.0	595.0	595.0	595.0	595.0	595.0	595.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	592.0
	592.0	592.0	592.0	592.0	591.0	591.0	591.0	591.0	591.0	590.0
	590.0	590.0	590.0	590.0	589.0	589.0	589.0	589.0	588.0	588.0
	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0								
0 86	580.0	583.0	584.0	588.0	590.0	591.0	592.0	593.0	595.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
	594.0	594.0	594.0	594.0	594.0	594.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	591.0	591.0	591.0	591.0	591.0	590.0	590.0	590.0
	590.0	590.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0								
0 87	580.0	582.0	583.0	587.0	589.0	590.0	591.0	592.0	594.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	591.0
	591.0	591.0	591.0	591.0	590.0	590.0	590.0	590.0	590.0	589.0
	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0
	586.0	586.0								
0 88	579.0	582.0	583.0	587.0	588.0	589.0	590.0	591.0	593.0	593.0
	592.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0
	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	593.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	590.0	590.0	590.0	590.0	590.0	589.0	589.0	589.0
	589.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0								
0 89	579.0	582.0	583.0	586.0	588.0	589.0	590.0	591.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	590.0
	590.0	590.0	590.0	590.0	589.0	589.0	589.0	589.0	589.0	588.0
	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0								
0 90	578.0	582.0	582.0	586.0	587.0	589.0	590.0	590.0	591.0	592.0
	591.0	591.0	591.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0
	592.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	589.0	589.0	589.0	589.0	589.0	588.0	588.0	588.0
	588.0	588.0	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0								
0 91	578.0	582.0	582.0	586.0	587.0	589.0	589.0	590.0	590.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	589.0
	589.0	589.0	589.0	589.0	589.0	588.0	588.0	588.0	588.0	588.0

	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0
	586.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0								
0 92	577.0	581.0	582.0	585.0	586.0	589.0	589.0	589.0	590.0	591.0
	590.0	590.0	590.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0	591.0
	591.0	591.0	591.0	591.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	589.0	589.0	589.0	589.0
	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0
	587.0	587.0	586.0	586.0	586.0	586.0	586.0	586.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	584.0	584.0	584.0
	584.0	584.0								
0 93	577.0	581.0	581.0	585.0	586.0	588.0	589.0	589.0	589.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0
	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0	587.0	587.0
	586.0	586.0	586.0	586.0	586.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0								
0 94	576.0	581.0	581.0	584.0	586.0	588.0	588.0	589.0	589.0	590.0
	589.0	589.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0	590.0
	590.0	590.0	590.0	590.0	590.0	590.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0	588.0	588.0
	588.0	588.0	588.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0
	586.0	586.0	585.0	585.0	585.0	585.0	585.0	585.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	583.0
	583.0	583.0								
0 95	576.0	580.0	581.0	584.0	585.0	588.0	588.0	588.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0
	585.0	585.0	585.0	585.0	585.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0								
0 96	576.0	580.0	580.0	583.0	585.0	588.0	588.0	588.0	588.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0	589.0
	589.0	589.0	589.0	589.0	589.0	589.0	589.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0
	587.0	587.0	586.0	586.0	586.0	586.0	586.0	585.0	585.0	585.0
	585.0	585.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0								
0 97	576.0	580.0	580.0	583.0	584.0	587.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	586.0
	586.0	586.0	586.0	586.0	585.0	585.0	585.0	585.0	585.0	585.0
	584.0	584.0	584.0	584.0	584.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0								
0 98	575.0	579.0	580.0	582.0	584.0	587.0	587.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0	588.0
	588.0	588.0	588.0	588.0	588.0	588.0	588.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0
	586.0	585.0	585.0	585.0	585.0	585.0	585.0	584.0	584.0	584.0
	584.0	584.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0								
0 99	575.0	579.0	579.0	582.0	583.0	586.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	585.0	585.0
	585.0	585.0	585.0	585.0	584.0	584.0	584.0	584.0	584.0	583.0
	583.0	583.0	583.0	583.0	583.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0								
0100	575.0	578.0	579.0	581.0	583.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0	587.0
	587.0	587.0	587.0	587.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	585.0	585.0	585.0	585.0	585.0	585.0
	584.0	584.0	584.0	584.0	584.0	584.0	583.0	583.0	583.0	583.0
	583.0	583.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0								
0101	574.0	578.0	579.0	581.0	582.0	585.0	585.0	585.0	585.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0
	586.0	586.0	586.0	586.0	586.0	586.0	586.0	586.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	583.0	583.0	583.0	583.0	583.0	583.0	582.0

	582.0	582.0	582.0	582.0	582.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0								
0102	574.0	577.0	578.0	580.0	582.0	584.0	584.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	582.0	582.0	582.0	582.0
	582.0	582.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	579.0
	579.0	579.0								
0103	574.0	576.0	578.0	580.0	581.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	585.0	585.0
	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0	585.0
	585.0	585.0	585.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	581.0
	581.0	581.0	581.0	581.0	581.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0								
0104	573.0	576.0	578.0	580.0	581.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0
	584.0	584.0	584.0	584.0	584.0	584.0	584.0	584.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	580.0	580.0	580.0	580.0	580.0	580.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	578.0	578.0	578.0
	578.0	578.0								
0105	573.0	575.0	577.0	579.0	580.0	582.0	582.0	582.0	582.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0								
0106	573.0	575.0	576.0	579.0	580.0	581.0	581.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	583.0
	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0	583.0
	583.0	583.0	583.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0								
0107	573.0	574.0	576.0	579.0	579.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	579.0	579.0
	579.0	579.0	579.0	579.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0								
0108	572.0	574.0	575.0	578.0	579.0	580.0	580.0	580.0	580.0	580.0
	580.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	578.0	578.0	578.0	578.0	578.0	578.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0								
0109	572.0	573.0	575.0	578.0	578.0	579.0	579.0	579.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0	581.0
	581.0	581.0	581.0	581.0	581.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	577.0	577.0	577.0	577.0	577.0	577.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	575.0	575.0	575.0
	575.0	575.0								
0110	572.0	573.0	574.0	578.0	578.0	578.0	578.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0	580.0
	580.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	577.0	577.0	577.0	577.0	577.0	577.0	576.0	576.0	576.0
	576.0	576.0	576.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0								
0111	572.0	572.0	574.0	577.0	577.0	578.0	578.0	578.0	578.0	578.0
	578.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	577.0	577.0	577.0

	577.0	577.0	577.0	577.0	576.0	576.0	576.0	576.0	576.0	576.0
	575.0	575.0	575.0	575.0	575.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0								
0112	571.0	572.0	573.0	576.0	577.0	577.0	577.0	577.0	577.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	576.0	576.0	576.0	576.0	576.0	576.0	575.0	575.0	575.0
	575.0	575.0	574.0	574.0	574.0	574.0	574.0	573.0	573.0	573.0
	573.0	573.0								
0113	571.0	571.0	573.0	575.0	576.0	576.0	576.0	576.0	577.0	577.0
	577.0	577.0	577.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	578.0	578.0	578.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	575.0	575.0	575.0	575.0	575.0	574.0
	574.0	574.0	574.0	573.0	573.0	573.0	573.0	573.0	572.0	572.0
	572.0	572.0								
0114	571.0	571.0	572.0	575.0	575.0	575.0	576.0	576.0	576.0	576.0
	576.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0	578.0
	578.0	578.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	575.0	575.0	575.0	575.0	575.0	575.0	574.0	574.0	574.0
	574.0	573.0	573.0	573.0	573.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0								
0115	571.0	571.0	572.0	574.0	574.0	574.0	575.0	575.0	575.0	576.0
	576.0	576.0	576.0	576.0	576.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0	577.0
	577.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	574.0	574.0	574.0	574.0	574.0	573.0
	573.0	573.0	573.0	572.0	572.0	572.0	571.0	571.0	571.0	571.0
	571.0	571.0								
0116	570.0	571.0	571.0	573.0	573.0	574.0	574.0	574.0	575.0	575.0
	575.0	575.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	574.0	574.0	574.0	574.0	574.0	574.0	573.0	573.0	573.0
	573.0	572.0	572.0	572.0	571.0	571.0	570.0	570.0	570.0	570.0
	570.0	570.0								
0117	570.0	571.0	571.0	572.0	573.0	573.0	574.0	574.0	574.0	574.0
	575.0	575.0	575.0	575.0	575.0	575.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0
	576.0	576.0	576.0	576.0	576.0	576.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	573.0	573.0	573.0	573.0	572.0
	572.0	572.0	571.0	571.0	571.0	570.0	570.0	569.0	568.0	569.0
	569.0	569.0								
0118	570.0	570.0	570.0	572.0	572.0	573.0	573.0	573.0	574.0	574.0
	574.0	574.0	574.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	573.0	573.0	573.0	573.0	573.0	572.0	572.0	572.0
	572.0	571.0	571.0	571.0	570.0	570.0	569.0	568.0	568.0	569.0
	569.0	569.0								
0119	570.0	570.0	570.0	571.0	572.0	572.0	572.0	573.0	573.0	573.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	575.0	575.0	575.0
	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0	575.0
	575.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	572.0	572.0	572.0
	571.0	571.0	571.0	570.0	570.0	570.0	569.0	568.0	568.0	568.0
	569.0	569.0								
0120	569.0	570.0	570.0	571.0	571.0	572.0	572.0	572.0	573.0	573.0
	573.0	573.0	573.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	572.0	572.0	572.0	572.0	572.0	571.0	571.0
	571.0	570.0	570.0	570.0	569.0	569.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0121	569.0	569.0	570.0	570.0	571.0	571.0	572.0	572.0	572.0	572.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	574.0	574.0	574.0
	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0

	572.0	572.0	572.0	572.0	572.0	572.0	572.0	571.0	571.0	571.0
	570.0	570.0	570.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0122	569.0	569.0	569.0	570.0	570.0	571.0	571.0	571.0	572.0	572.0
	572.0	572.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	571.0	571.0	571.0	571.0	570.0
	570.0	570.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0123	569.0	569.0	569.0	570.0	570.0	570.0	571.0	571.0	571.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	573.0	573.0	573.0	573.0
	573.0	573.0	573.0	573.0	573.0	573.0	573.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	571.0	571.0	571.0	571.0	571.0	571.0	570.0	570.0
	570.0	570.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0124	568.0	568.0	569.0	569.0	570.0	570.0	570.0	571.0	571.0	571.0
	571.0	571.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	572.0	572.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	570.0	570.0	570.0
	570.0	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0125	568.0	568.0	569.0	569.0	569.0	570.0	570.0	570.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	572.0	572.0	572.0	572.0	572.0
	572.0	572.0	572.0	572.0	572.0	572.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	570.0	570.0	570.0	570.0	570.0
	569.0	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0126	568.0	568.0	568.0	569.0	569.0	569.0	570.0	570.0	570.0	570.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	569.0	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0127	568.0	568.0	568.0	569.0	569.0	569.0	569.0	570.0	570.0	570.0
	570.0	570.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0	571.0
	571.0	571.0	571.0	571.0	571.0	571.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	569.0	569.0
	569.0	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0128	568.0	568.0	568.0	568.0	569.0	569.0	569.0	569.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	571.0	571.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	569.0	569.0	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0129	568.0	568.0	568.0	568.0	569.0	569.0	569.0	569.0	569.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	570.0	570.0	570.0	569.0	569.0	569.0
	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	570.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0130	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0	570.0
	570.0	570.0	570.0	569.0	569.0	569.0	569.0	569.0	569.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0131	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0

	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0132	568.0	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0								
0133	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	569.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0
	569.0	569.0	569.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	569.0
	569.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	567.0	567.0
	567.0	567.0								
0134	567.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	569.0	569.0	569.0	569.0	569.0	569.0	569.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	567.0	567.0	567.0	567.0
	567.0	567.0								
0135	567.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0								
0136	567.0	567.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0								
0137	567.0	567.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0								
0138	567.0	567.0	567.0	568.0	568.0	568.0	568.0	568.0	568.0	568.0
	568.0	568.0	568.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	568.0	568.0	568.0	568.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	566.0	566.0
	566.0	566.0								
0139	567.0	567.0	567.0	567.0	567.0	568.0	568.0	568.0	568.0	568.0
	568.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	567.0	567.0	567.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0								
0140	567.0	567.0	567.0	567.0	567.0	567.0	568.0	568.0	568.0	568.0
	567.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	567.0	567.0	567.0	567.0	567.0	567.0	567.0
	567.0	567.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0								
0141	567.0	567.0	567.0	567.0	567.0	567.0	567.0	568.0	568.0	567.0
	567.0	567.0	567.0	567.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0

	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0								
0142	566.0	566.0	566.0	566.0	567.0	567.0	567.0	567.0	567.0	567.0
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	566.0	566.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	565.0	565.0	565.0	565.0
	565.0	565.0								
0143	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	566.0	566.0	566.0	566.0	566.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	564.0	564.0
	564.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0								
0144	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0	566.0
	566.0	566.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0								
0145	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	565.0	565.0	564.0	564.0	564.0	564.0
	564.0	564.0								
0146	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0	565.0
	565.0	565.0	565.0	565.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0								
0147	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
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	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0								
0148	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0
	564.0	564.0	564.0	564.0	564.0	564.0	564.0	564.0	563.0	563.0
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	564.0	564.0	564.0	564.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0								
0149	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
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	563.0	563.0								
0150	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
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	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0								
0151	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0	563.0
	563.0	563.0	563.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0
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	562.0	562.0								
0152	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0
	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0
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	562.0	562.0								
0153	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0
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	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0	562.0
	562.0	562.0								
0154	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
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	561.0	561.0								
0155	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
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	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0	561.0
	561.0	561.0								
0156	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0
	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0
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	561.0	561.0								
0157	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0
	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0
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	560.0	560.0								
0158	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0	560.0
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	560.0	560.0								
0159	559.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0
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	560.0	560.0								
0160	559.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0	559.0
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	559.0	559.0								
0161	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
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	559.0	559.0								
0162	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0	558.0
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0163	557.0	557.0	557.0	557.0	557.0	558.0	558.0	558.0	558.0	558.0
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	558.0	558.0								
0164	557.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0
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	558.0	558.0								
0165	557.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0	557.0
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	558.0	558.0								
0166	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0
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	557.0	557.0								
0167	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0	556.0
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	557.0	557.0								
0168	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0
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0169	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0	555.0
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0170	554.0	554.0	554.0	554.0	554.0	554.0	554.0	555.0	555.0	555.0
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0171	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0	554.0
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0172	553.0	553.0	553.0	553.0	553.0	553.0	554.0	554.0	554.0	554.0
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0173	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0	553.0
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0174	552.0	552.0	552.0	552.0	552.0	553.0	553.0	553.0	553.0	553.0
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	555.0	555.0								
0175	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0
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	554.0	554.0								
0176	551.0	551.0	551.0	551.0	551.0	551.0	552.0	552.0	552.0	552.0
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	554.0	554.0								
0177	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	551.0	552.0
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	554.0	554.0								
0178	550.0	550.0	550.0	550.0	550.0	550.0	551.0	551.0	551.0	551.0
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0179	550.0	549.0	549.0	549.0	550.0	550.0	550.0	550.0	551.0	551.0
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0180	549.0	549.0	549.0	548.0	549.0	549.0	550.0	550.0	550.0	550.0
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0181	549.0	549.0	548.0	548.0	549.0	549.0	549.0	550.0	550.0	550.0
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0182	548.0	548.0	548.0	548.0	548.0	549.0	549.0	549.0	550.0	550.0
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	552.0	552.0								
0183	548.0	548.0	548.0	548.0	548.0	548.0	549.0	549.0	549.0	550.0
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	552.0	552.0								
0184	548.0	548.0	548.0	548.0	548.0	548.0	549.0	549.0	549.0	549.0
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0185	548.0	548.0	548.0	548.0	548.0	548.0	548.0	549.0	549.0	549.0
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0186	547.0	547.0	547.0	547.0	548.0	548.0	548.0	548.0	549.0	549.0
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0187	547.0	547.0	547.0	547.0	547.0	548.0	548.0	548.0	548.0	549.0
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	550.0	550.0								
0188	546.0	546.0	546.0	546.0	547.0	547.0	548.0	548.0	548.0	549.0
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	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0								
0189	545.0	545.0	545.0	546.0	546.0	547.0	548.0	548.0	548.0	548.0
	548.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0	550.0
	550.0	550.0								
0190	544.0	544.0	544.0	545.0	545.0	546.0	548.0	548.0	548.0	548.0
	548.0	548.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0								
0191	543.0	543.0	543.0	544.0	544.0	545.0	546.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0

	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0								
0192	542.0	542.0	542.0	542.0	543.0	543.0	544.0	545.0	546.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0	549.0
	549.0	549.0								
0193	540.0	540.0	540.0	541.0	541.0	542.0	542.0	543.0	544.0	546.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	549.0	549.0	549.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0								
0194	539.0	539.0	539.0	539.0	539.0	540.0	540.0	541.0	541.0	542.0
	543.0	544.0	544.0	544.0	544.0	544.0	545.0	546.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
	548.0	548.0								
0195	537.0	537.0	537.0	537.0	537.0	538.0	538.0	538.0	538.0	539.0
	539.0	540.0	540.0	540.0	540.0	540.0	541.0	541.0	542.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0	543.0
	543.0	543.0	543.0	543.0	543.0	543.0	544.0	545.0	548.0	548.0
	548.0	548.0	548.0	548.0	545.0	544.0	543.0	543.0	542.0	542.0
	542.0	541.0								
0196	536.0	536.0	536.0	536.0	536.0	535.0	535.0	535.0	535.0	535.0
	536.0	536.0	536.0	536.0	536.0	536.0	537.0	537.0	537.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0	538.0
	538.0	538.0	538.0	538.0	538.0	538.0	539.0	540.0	541.0	541.0
	541.0	541.0	541.0	541.0	539.0	539.0	538.0	537.0	537.0	535.0
	535.0	535.0								
0197	534.0	534.0	534.0	534.0	534.0	533.0	533.0	532.0	532.0	532.0
	532.0	532.0	532.0	532.0	532.0	532.0	532.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0	533.0
	533.0	533.0	533.0	533.0	533.0	533.0	533.0	534.0	534.0	534.0
	535.0	535.0	534.0	534.0	534.0	533.0	533.0	532.0	531.0	528.0
	528.0	528.0								
0198	533.0	533.0	533.0	532.0	532.0	531.0	530.0	530.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0
	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	528.0	525.0
	524.0	523.0								
0199	532.0	532.0	531.0	531.0	530.0	529.0	528.0	528.0	526.0	525.0
	525.0	525.0	525.0	525.0	525.0	525.0	525.0	525.0	525.0	525.0
	525.0	525.0	525.0	525.0	525.0	525.0	525.0	525.0	525.0	525.0
	525.0	525.0	525.0	525.0	525.0	525.0	524.0	524.0	524.0	524.0
	524.0	525.0	525.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0
	524.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0	524.0
	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0	523.0
	523.0	523.0	523.0	523.0	523.0	523.0	522.0	522.0	521.0	520.0
	519.0	519.0								
0200	531.0	530.0	530.0	530.0	529.0	528.0	526.0	525.0	523.0	522.0
	522.0	522.0	522.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
	521.0	521.0	521.0	521.0	521.0	521.0	520.0	520.0	520.0	520.0
	520.0	520.0	519.0	519.0	519.0	519.0	520.0	520.0	519.0	519.0
	519.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
	518.0	518.0	518.0	518.0	518.0	518.0	517.0	516.0	515.0	514.0
	514.0	513.0								
0201	530.0	529.0	529.0	529.0	528.0	525.0	523.0	521.0	520.0	519.0
	519.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0	518.0
	518.0	518.0	518.0	518.0	518.0	518.0	517.0	517.0	517.0	517.0
	517.0	518.0	518.0	518.0	517.0	517.0	516.0	516.0	516.0	516.0
	516.0	515.0	515.0	515.0	515.0	515.0	516.0	516.0	515.0	515.0

	514.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0	513.0
	513.0	513.0	513.0	513.0	513.0	513.0	512.0	511.0	508.0	508.0
	508.0	508.0								
0202	529.0	529.0	528.0	528.0	524.0	521.0	519.0	517.0	516.0	516.0
	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0
	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0	515.0
	515.0	515.0	515.0	515.0	514.0	514.0	514.0	514.0	513.0	513.0
	514.0	515.0	515.0	514.0	514.0	513.0	512.0	512.0	512.0	512.0
	512.0	511.0	511.0	510.0	510.0	510.0	513.0	512.0	512.0	510.0
	509.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	504.0	502.0
	502.0	502.0								
0203	528.0	528.0	524.0	521.0	519.0	516.0	514.0	513.0	512.0	512.0
	512.0	512.0	511.0	511.0	511.0	511.0	511.0	511.0	511.0	511.0
	511.0	511.0	511.0	511.0	511.0	511.0	511.0	511.0	511.0	511.0
	511.0	511.0	511.0	511.0	511.0	511.0	510.0	510.0	509.0	509.0
	510.0	513.0	512.0	511.0	510.0	509.0	508.0	508.0	508.0	508.0
	508.0	507.0	506.0	505.0	504.0	503.0	506.0	506.0	506.0	506.0
	505.0	504.0	504.0	504.0	504.0	504.0	504.0	504.0	504.0	504.0
	504.0	504.0	503.0	503.0	503.0	502.0	502.0	501.0	498.0	496.0
	495.0	495.0								
0204	522.0	521.0	518.0	515.0	513.0	511.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0	508.0
	508.0	508.0	508.0	508.0	508.0	508.0	507.0	506.0	505.0	504.0
	503.0	506.0	506.0	506.0	505.0	505.0	504.0	504.0	503.0	503.0
	503.0	502.0	502.0	501.0	500.0	500.0	501.0	501.0	501.0	501.0
	501.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0	500.0
	500.0	499.0	499.0	498.0	498.0	497.0	496.0	494.0	492.0	488.0
	488.0	488.0								
0205	516.0	515.0	512.0	508.0	508.0	508.0	505.0	504.0	504.0	503.0
	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0
	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0	503.0
	503.0	503.0	503.0	503.0	503.0	503.0	502.0	501.0	501.0	500.0
	500.0	500.0	501.0	501.0	500.0	500.0	500.0	499.0	499.0	499.0
	498.0	498.0	497.0	497.0	496.0	496.0	497.0	497.0	497.0	497.0
	497.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0
	496.0	495.0	494.0	493.0	493.0	492.0	491.0	488.0	488.0	484.0
	483.0	482.0								
0206	512.0	511.0	508.0	506.0	504.0	503.0	502.0	500.0	499.0	499.0
	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0
	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0	498.0
	498.0	498.0	498.0	498.0	498.0	498.0	497.0	497.0	497.0	496.0
	496.0	496.0	495.0	495.0	496.0	496.0	496.0	495.0	494.0	494.0
	493.0	493.0	493.0	492.0	492.0	492.0	492.0	492.0	492.0	492.0
	492.0	492.0	492.0	492.0	492.0	492.0	492.0	492.0	492.0	492.0
	492.0	491.0	490.0	488.0	488.0	488.0	488.0	483.0	481.0	478.0
	476.0	475.0								
0207	509.0	508.0	505.0	502.0	501.0	499.0	497.0	496.0	494.0	493.0
	493.0	493.0	493.0	493.0	493.0	493.0	493.0	493.0	493.0	493.0
	493.0	493.0	493.0	493.0	493.0	493.0	493.0	493.0	493.0	493.0
	493.0	493.0	493.0	493.0	493.0	493.0	493.0	492.0	492.0	492.0
	491.0	491.0	490.0	490.0	490.0	493.0	492.0	491.0	490.0	489.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	483.0	481.0	479.0	478.0	476.0	474.0	472.0
	468.0	468.0								
0208	508.0	504.0	501.0	499.0	497.0	495.0	493.0	491.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
	487.0	486.0	485.0	484.0	483.0	485.0	486.0	486.0	485.0	485.0
	484.0	483.0	483.0	483.0	482.0	482.0	482.0	482.0	481.0	481.0
	481.0	481.0	481.0	481.0	481.0	480.0	480.0	480.0	480.0	480.0
	479.0	479.0	478.0	475.0	473.0	468.0	468.0	468.0	468.0	468.0
	461.0	459.0								
0209	500.0	498.0	496.0	495.0	493.0	491.0	488.0	488.0	484.0	482.0
	482.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0
	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0
	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0
	481.0	480.0	479.0	478.0	478.0	479.0	480.0	481.0	481.0	480.0
	479.0	479.0	478.0	477.0	477.0	476.0	475.0	475.0	475.0	475.0
	475.0	475.0	474.0	474.0	473.0	473.0	472.0	472.0	473.0	472.0
	471.0	470.0	469.0	468.0	468.0	461.0	459.0	458.0	457.0	455.0
	448.0	448.0								
0210	494.0	493.0	492.0	491.0	488.0	488.0	483.0	480.0	477.0	476.0
	475.0	475.0	475.0	475.0	475.0	475.0	475.0	475.0	475.0	475.0
	475.0	475.0	475.0	475.0	475.0	475.0	475.0	475.0	475.0	475.0
	475.0	475.0	475.0	475.0	475.0	475.0	475.0	475.0	475.0	474.0
	474.0	474.0	473.0	472.0	472.0	472.0	473.0	478.0	477.0	476.0
	475.0	474.0	473.0	472.0	471.0	470.0	469.0	468.0	468.0	468.0
	468.0	468.0	468.0	467.0	466.0	465.0	464.0	463.0	463.0	462.0
	461.0	460.0	459.0	458.0	455.0	448.0	448.0	448.0	448.0	448.0
	428.0	428.0								
0211	488.0	488.0	488.0	488.0	483.0	480.0	476.0	473.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0	468.0
	468.0	468.0	467.0	466.0	465.0	464.0	463.0	466.0	467.0	466.0
	465.0	464.0	463.0	462.0	461.0	460.0	459.0	458.0	458.0	458.0

	458.0	458.0	458.0	457.0	457.0	456.0	455.0	454.0	453.0	452.0
	451.0	450.0	449.0	448.0	448.0	441.0	438.0	436.0	428.0	428.0
	408.0	408.0								
0212	481.0	481.0	480.0	478.0	475.0	473.0	468.0	468.0	463.0	461.0
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	458.0	458.0	458.0	459.0	458.0	458.0	458.0	457.0	457.0	456.0
	456.0	455.0	454.0	454.0	453.0	452.0	453.0	458.0	457.0	456.0
	455.0	454.0	453.0	452.0	451.0	450.0	449.0	448.0	448.0	448.0
	448.0	448.0	448.0	448.0	448.0	447.0	446.0	445.0	444.0	443.0
	440.0	439.0	436.0	428.0	428.0	428.0	428.0	428.0	408.0	408.0
	403.0	403.0								
0213	474.0	474.0	472.0	468.0	468.0	468.0	460.0	458.0	454.0	453.0
	452.0	451.0	450.0	449.0	448.0	448.0	448.0	448.0	448.0	448.0
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	444.0	443.0	442.0	441.0	440.0	439.0	438.0	438.0	437.0	436.0
	435.0	434.0	433.0	432.0	431.0	430.0	429.0	428.0	428.0	428.0
	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0	428.0
	428.0	428.0	428.0	418.0	408.0	408.0	408.0	408.0	403.0	403.0
	403.0	403.0								
0214	468.0	468.0	468.0	461.0	458.0	456.0	448.0	448.0	443.0	433.0
	432.0	431.0	430.0	429.0	428.0	428.0	428.0	428.0	428.0	428.0
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0215	457.0	455.0	448.0	448.0	448.0	448.0	428.0	428.0	426.0	421.0
	418.0	413.0	412.0	411.0	410.0	409.0	408.0	408.0	408.0	408.0
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0216	448.0	448.0	440.0	436.0	428.0	428.0	418.0	408.0	408.0	406.0
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0219	408.0	403.0	403.0	403.0	403.0	403.0	403.0	403.0	403.0	403.0
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OPENING FILE ON UNIT 99:
IBMPL1.DAT

IBOUND FOR LAYER 1

READING ON UNIT 99 WITH FORMAT: (8219)

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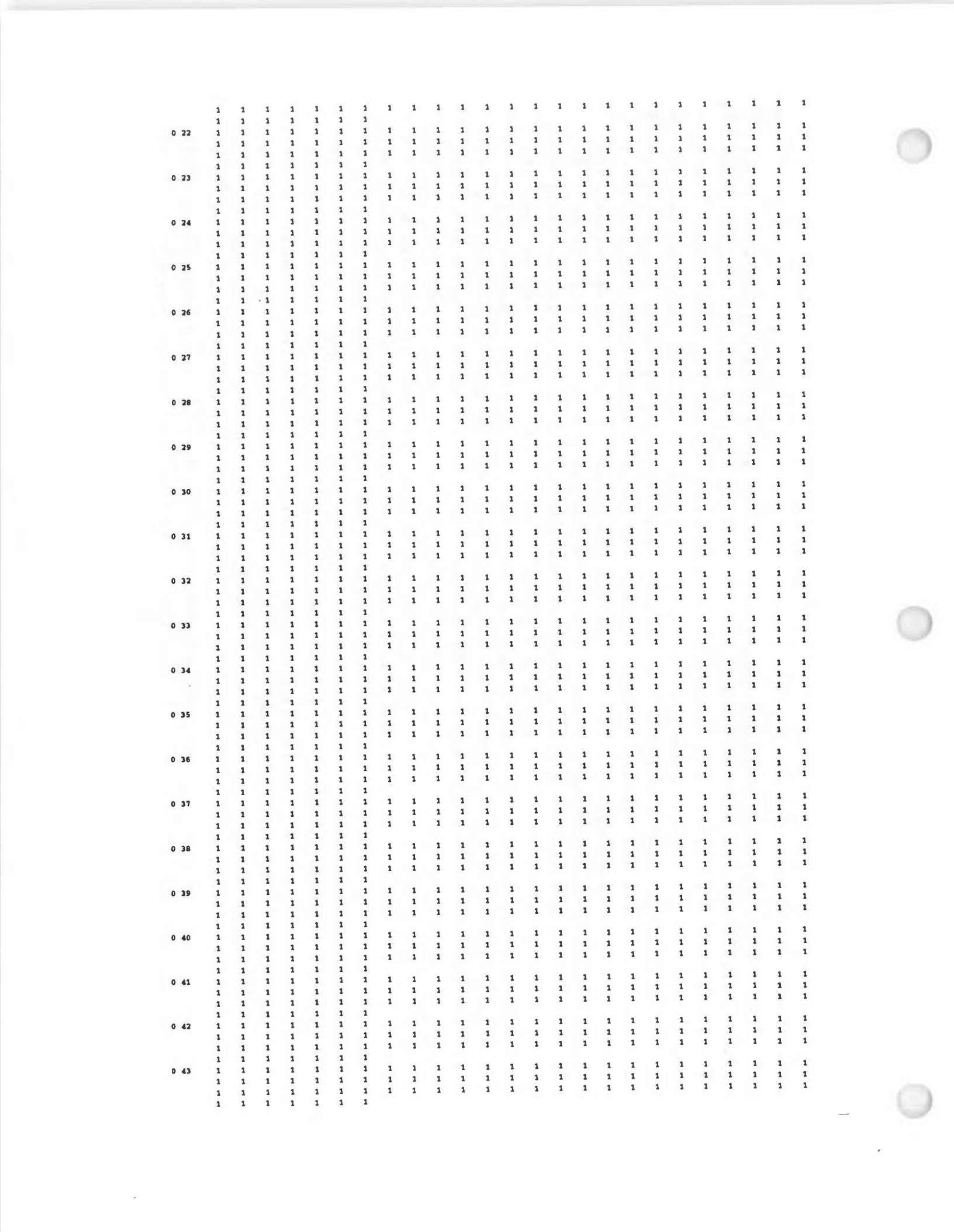

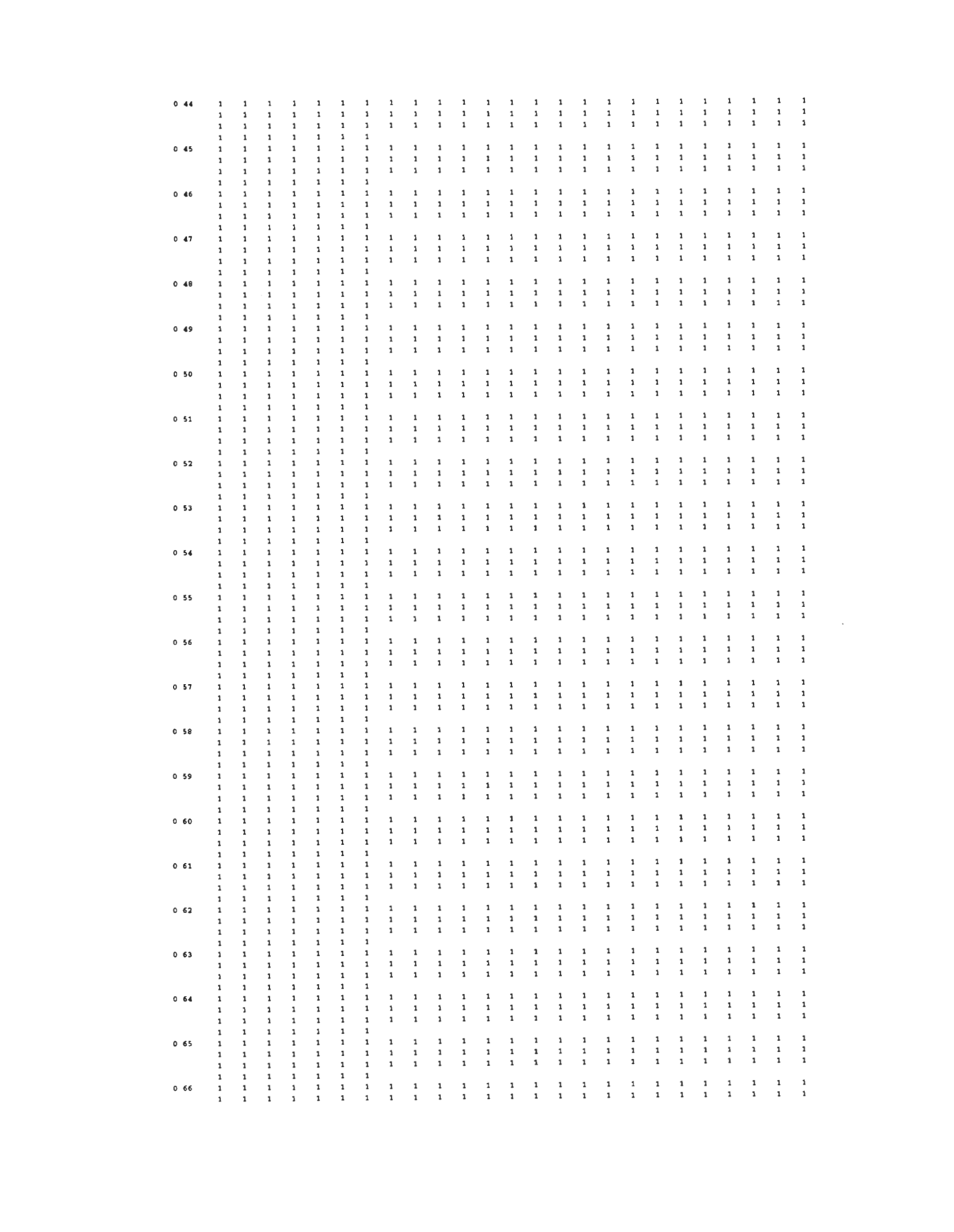

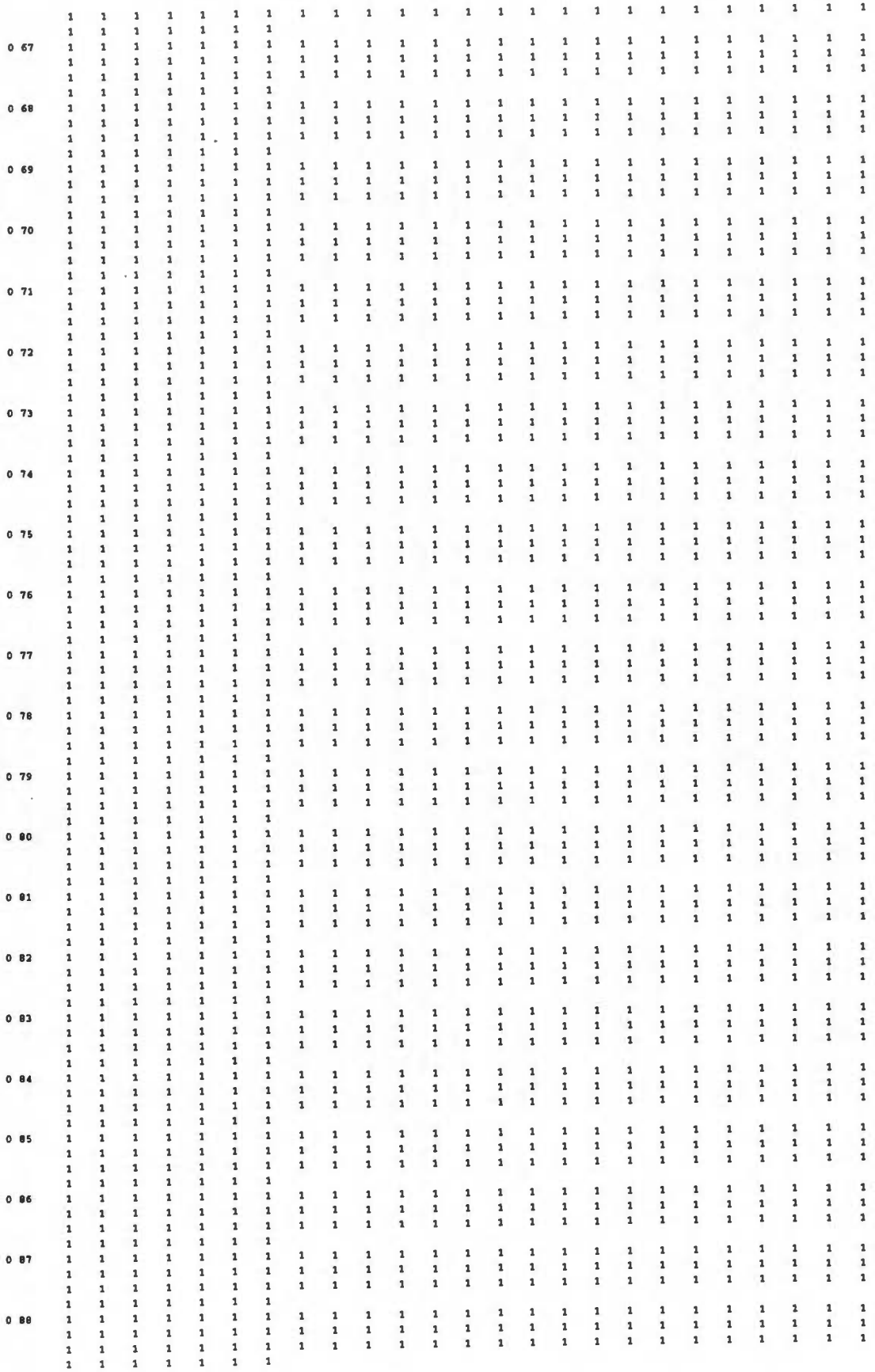

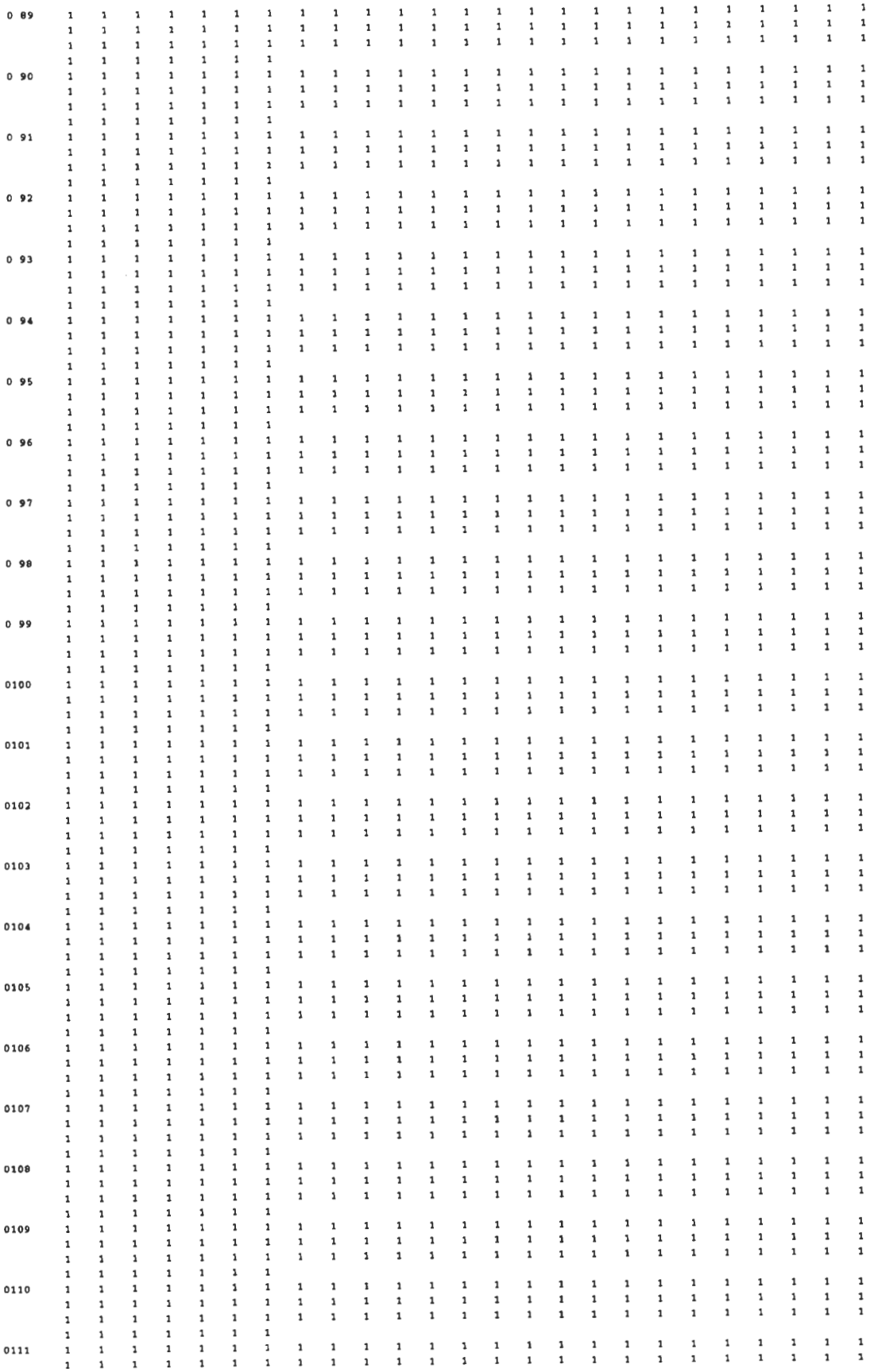

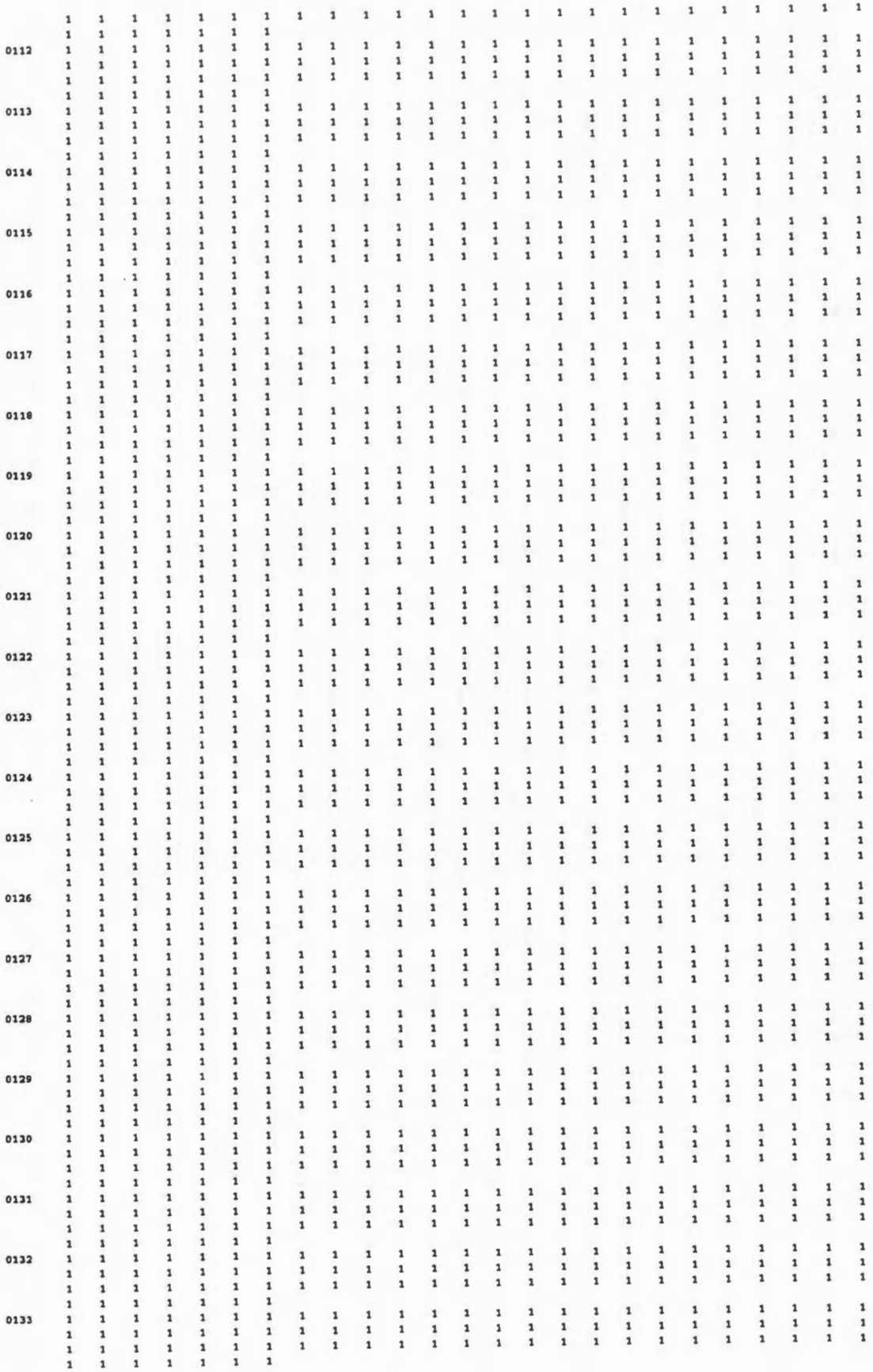
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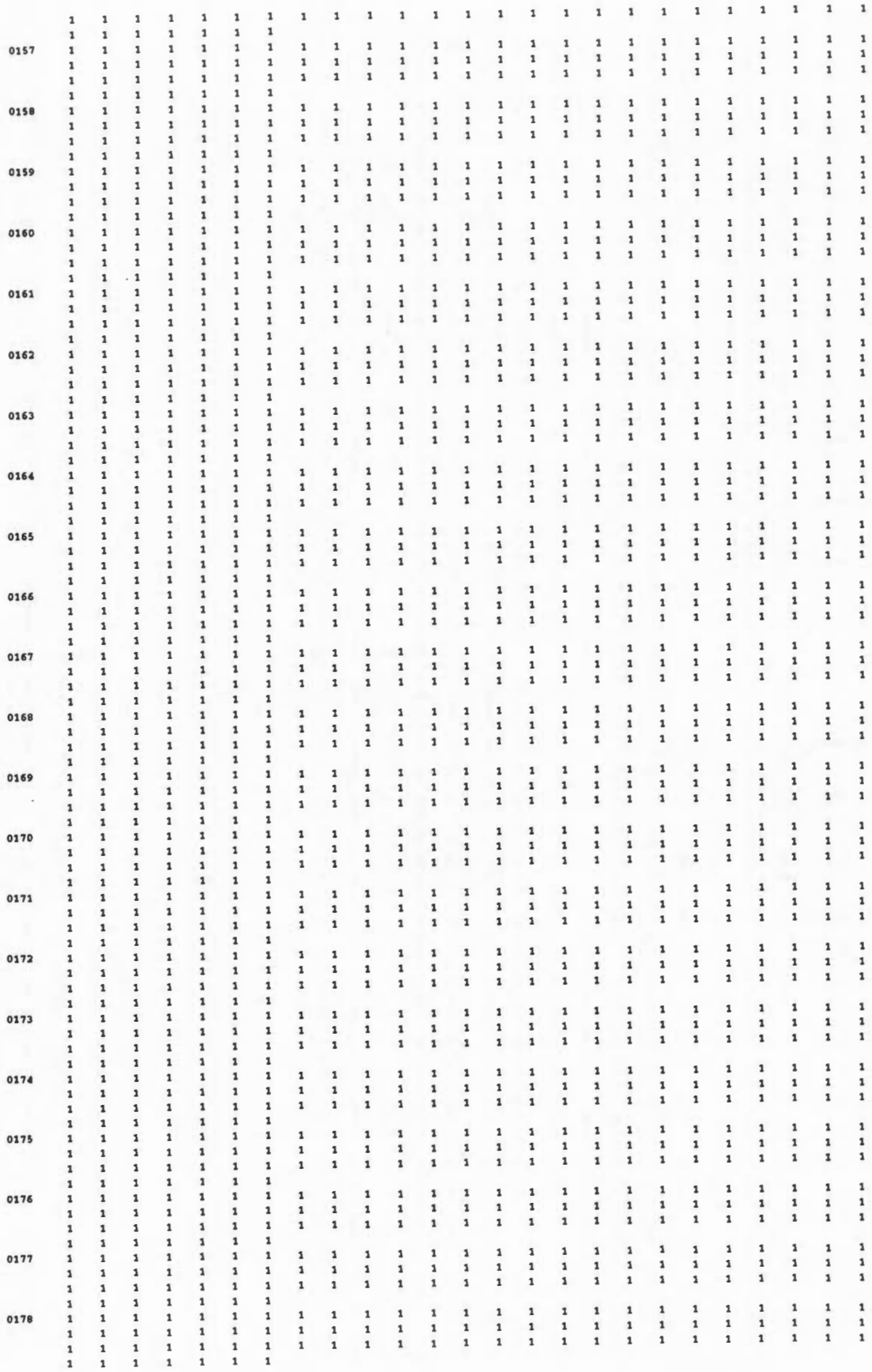
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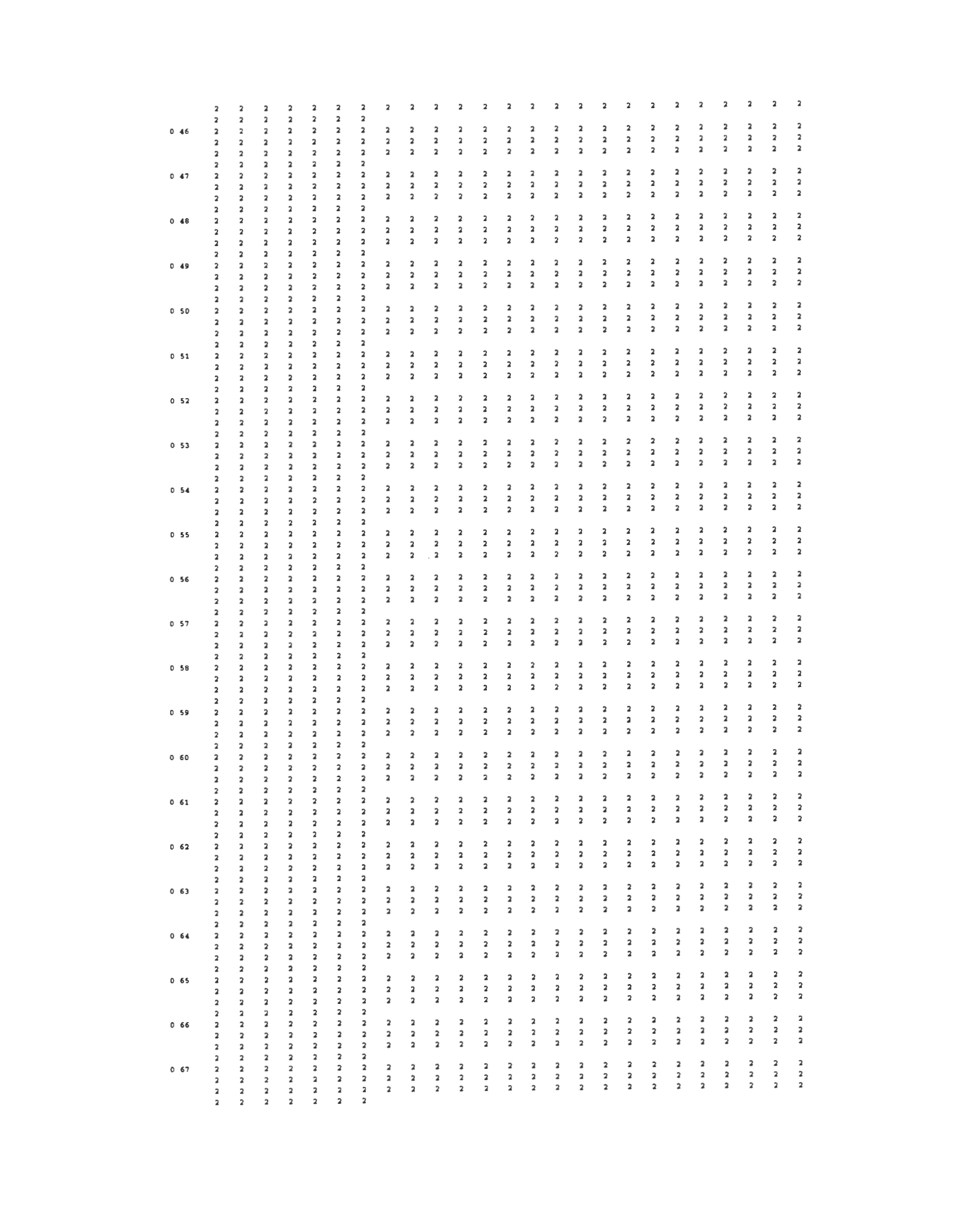

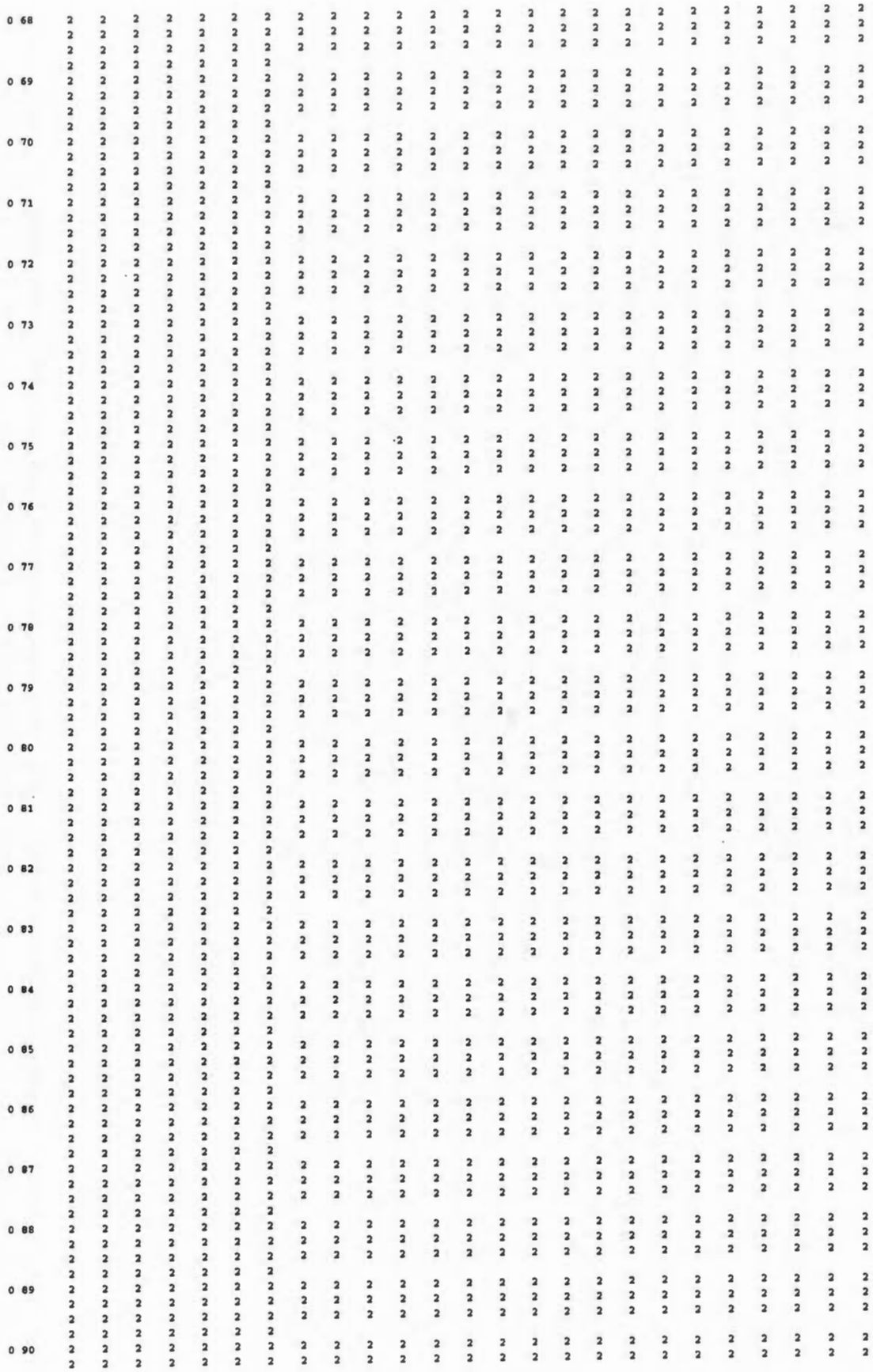

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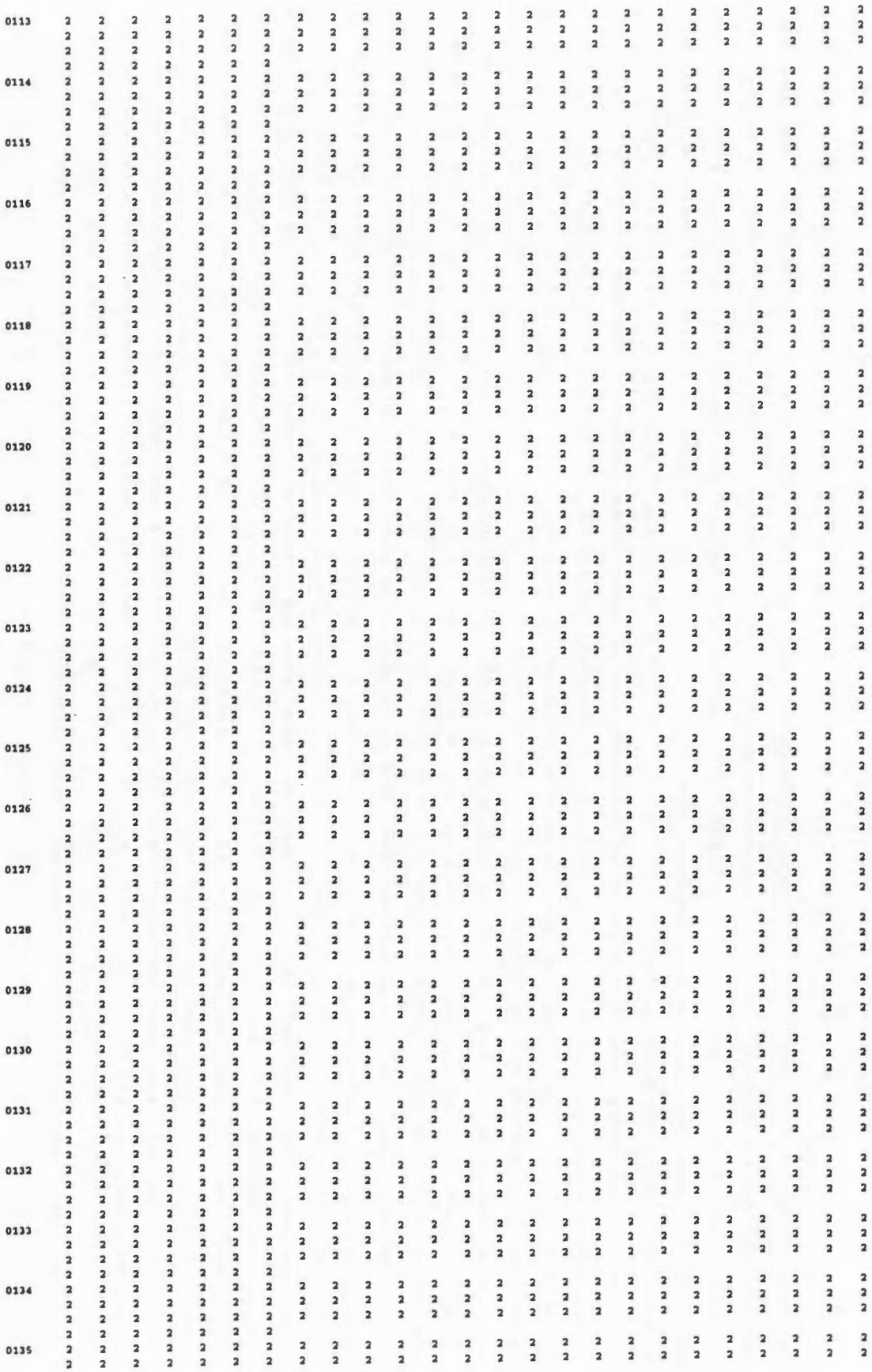

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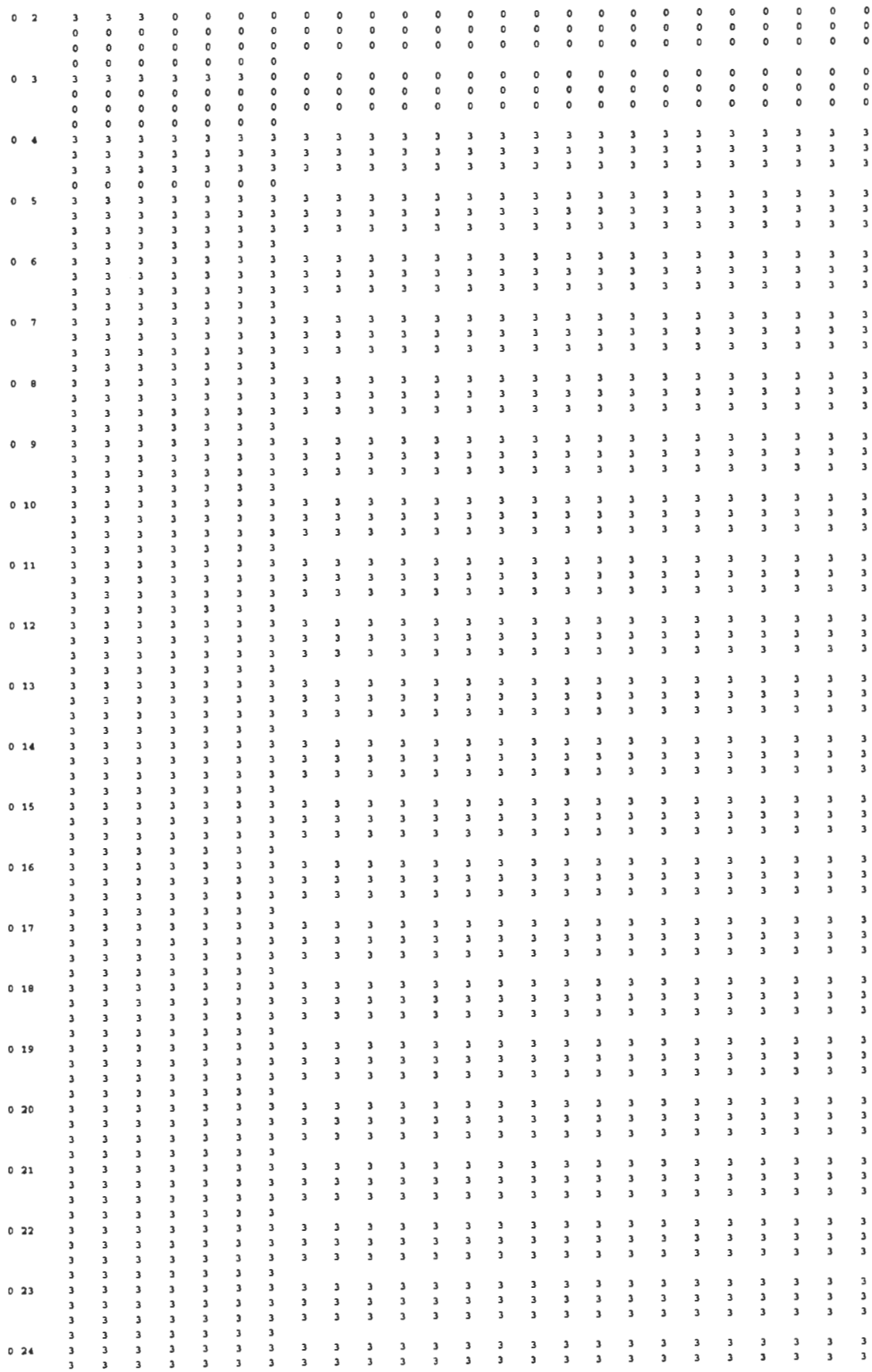

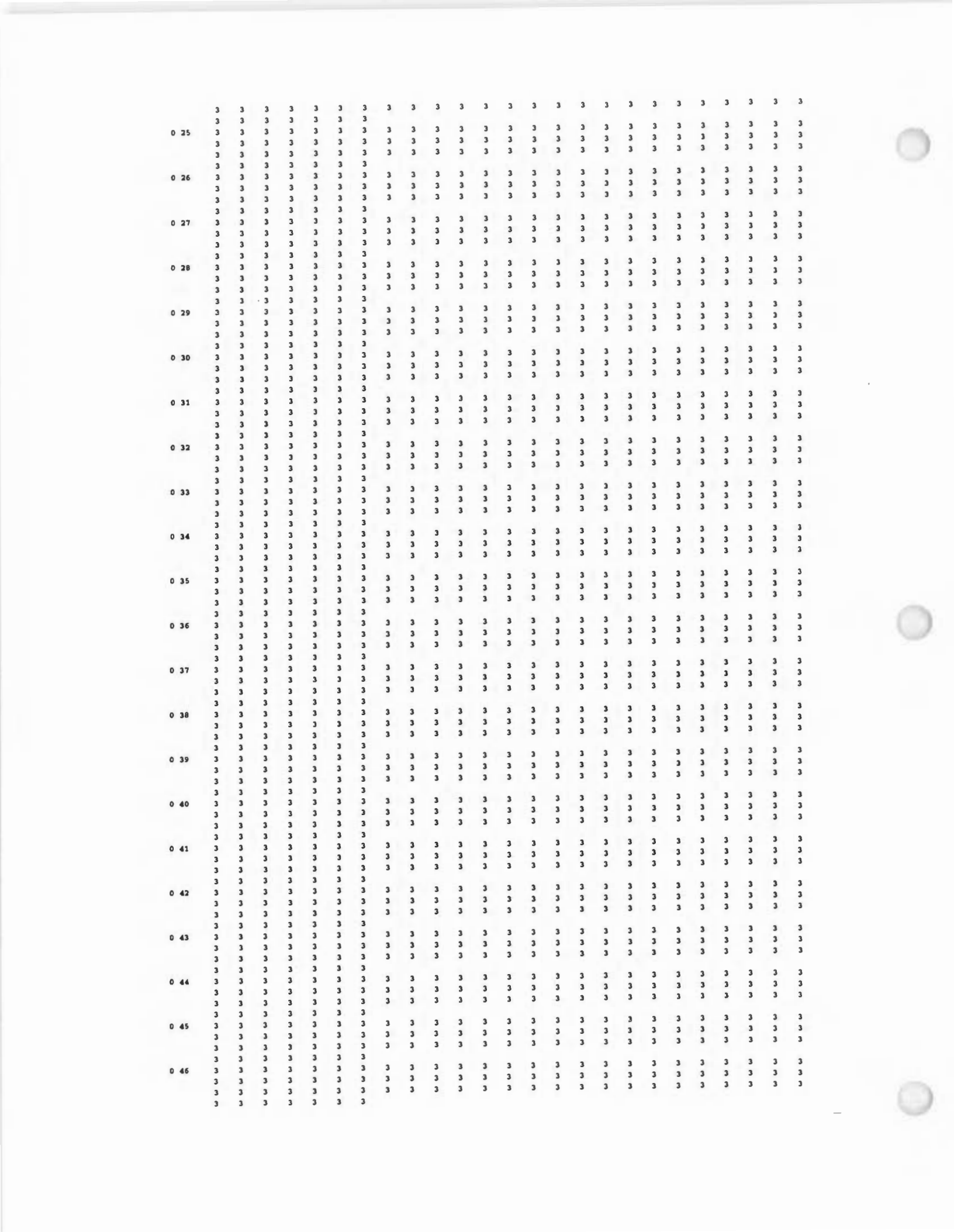

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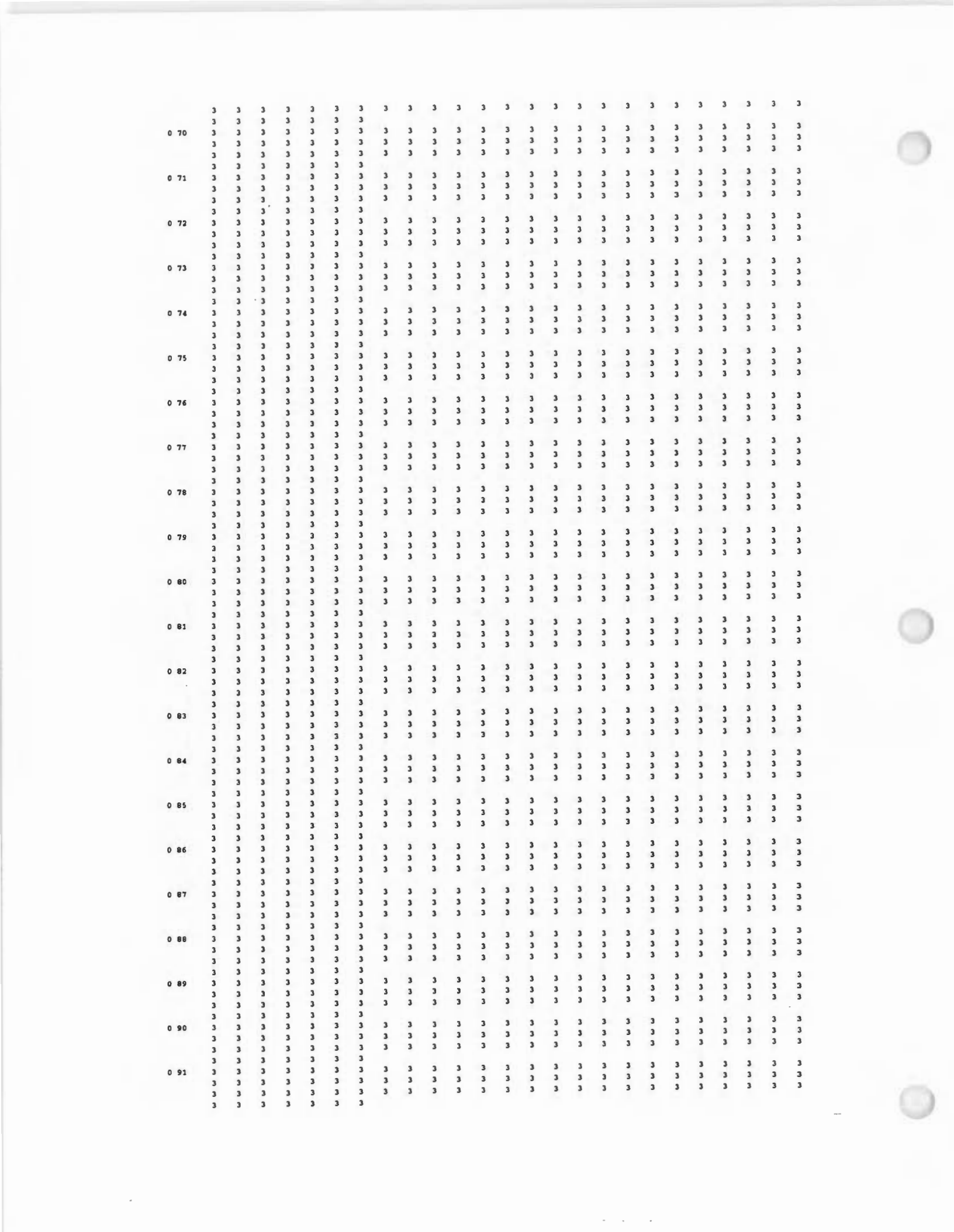

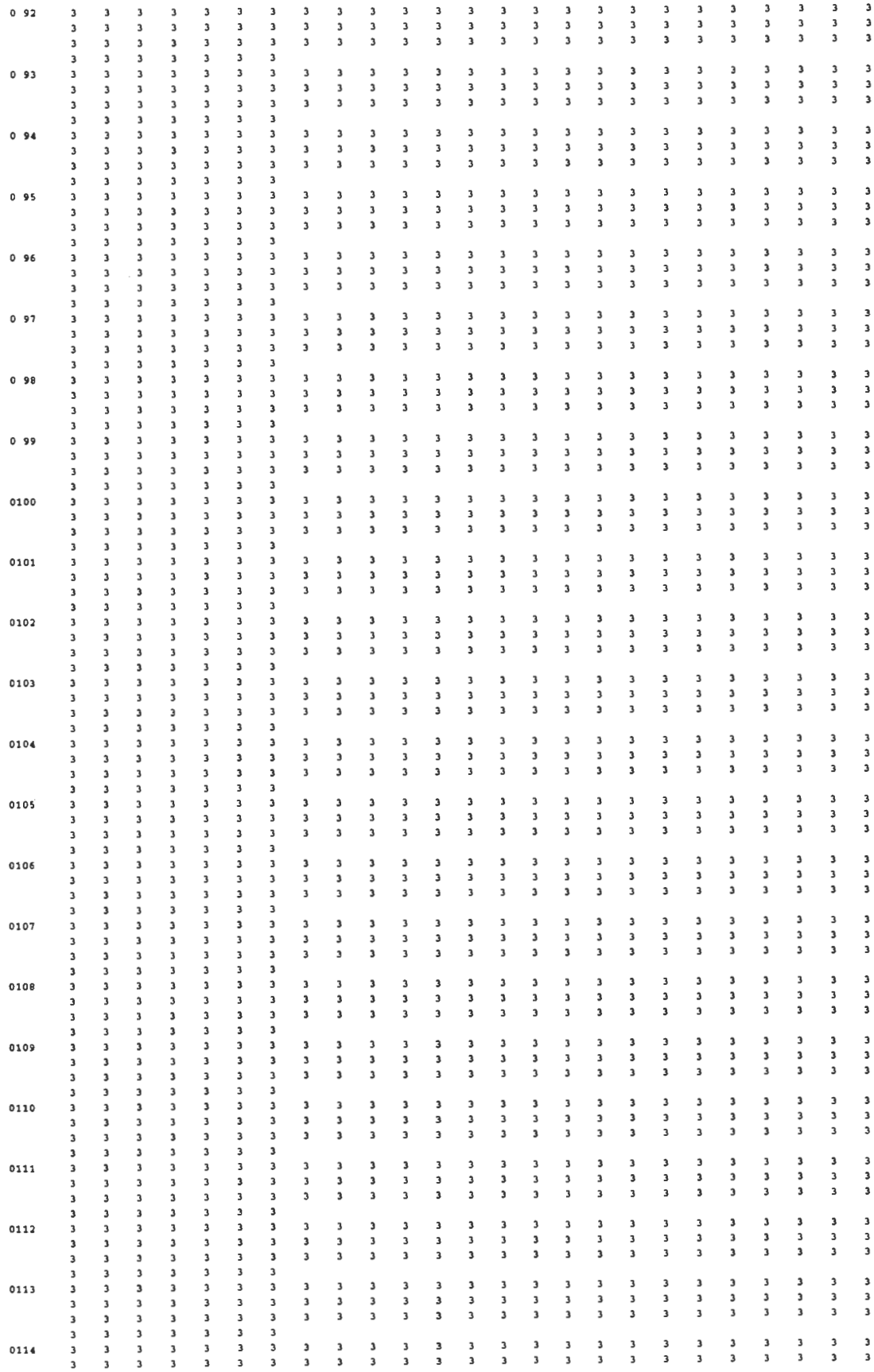

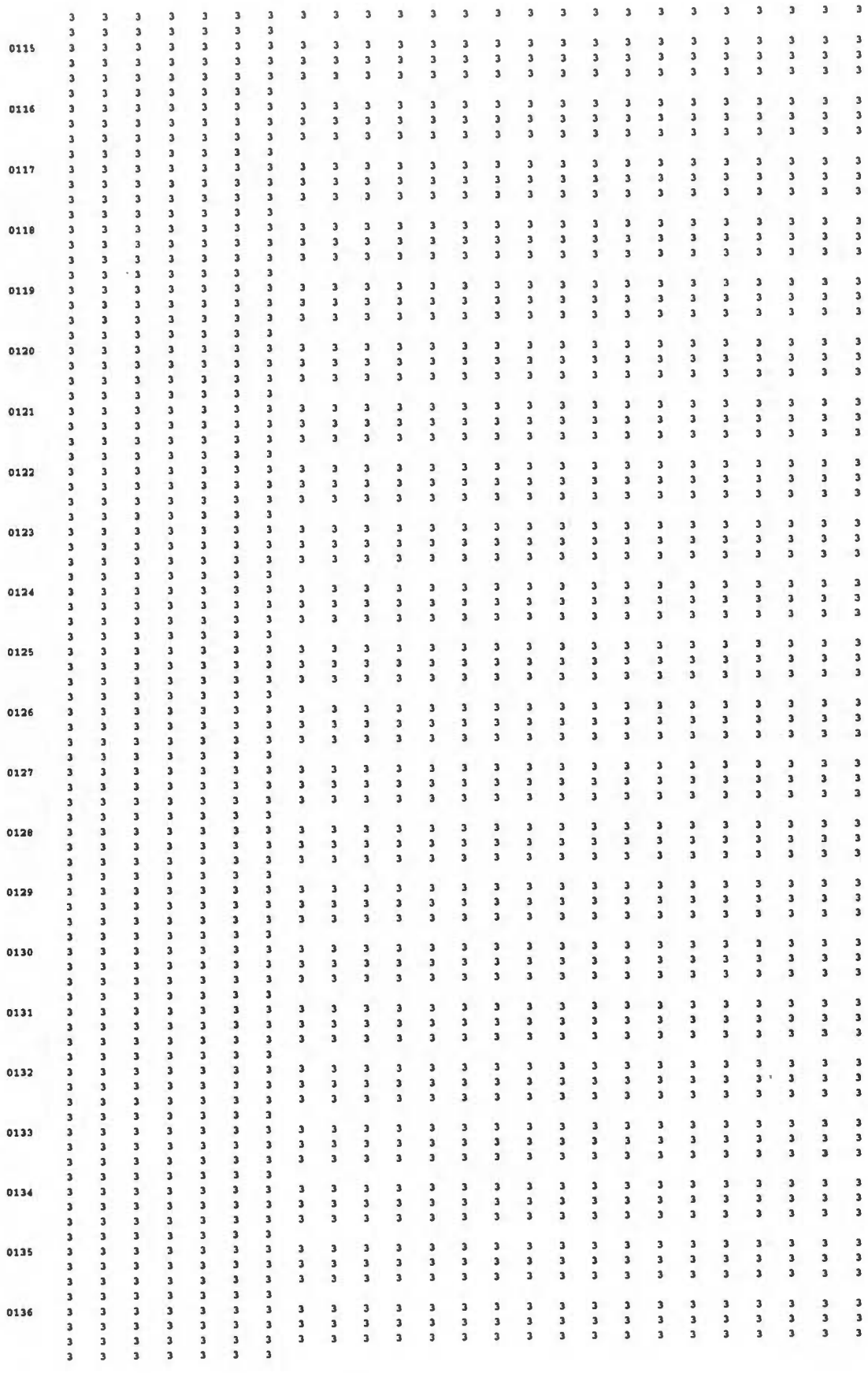

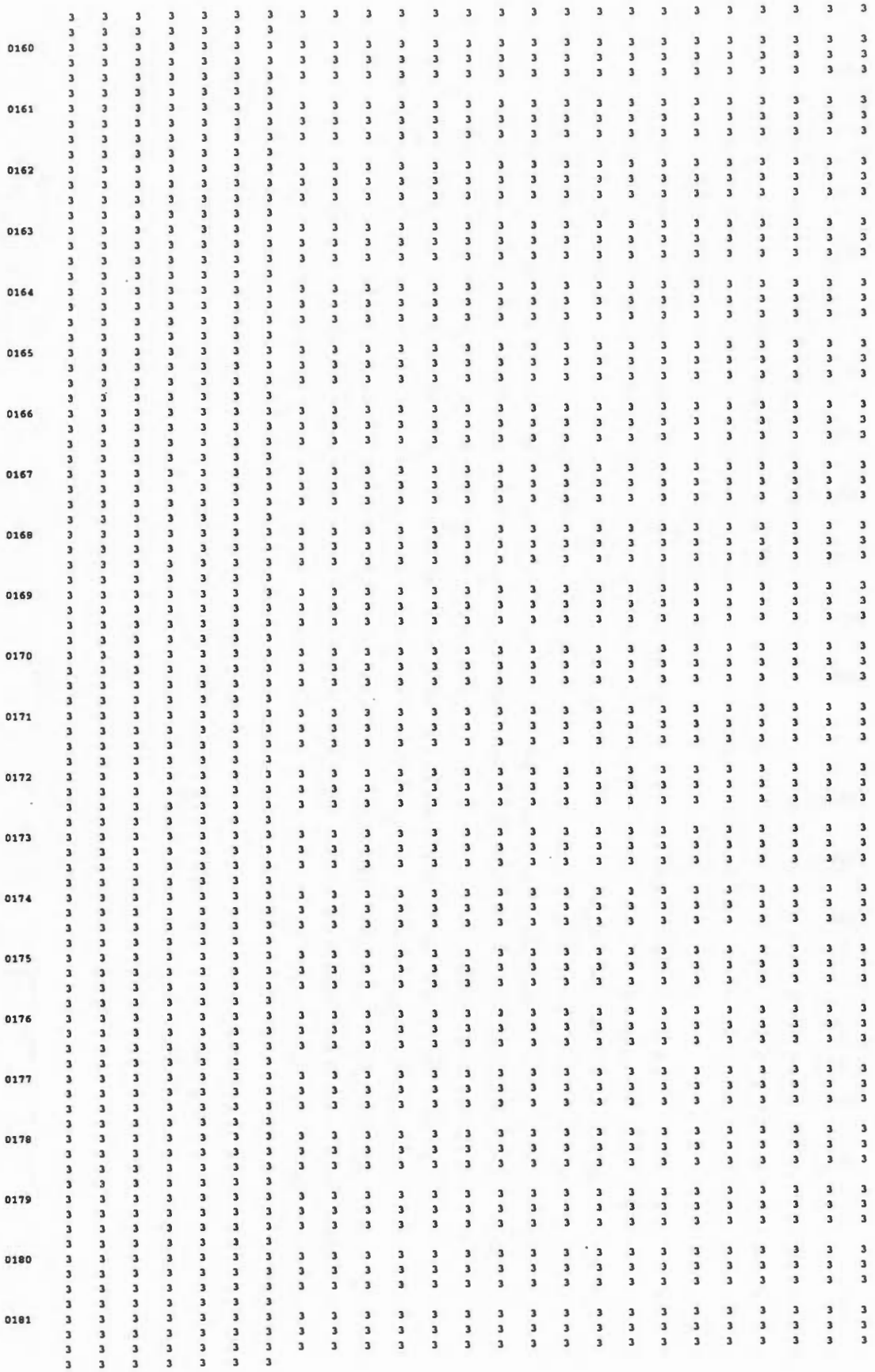

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 POROSITY                =  0.1500000     FOR LAYER   1

 POROSITY                =  0.9000000E-01 FOR LAYER   2

 POROSITY                =  0.6000000E-01 FOR LAYER   3

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 HEADS WERE READ FOR LAYER    1, STRESS PERIOD    1 TIME STEP    1
 HEADS WERE READ FOR LAYER    2, STRESS PERIOD    1 TIME STEP    1
 HEADS WERE READ FOR LAYER    3, STRESS PERIOD    1 TIME STEP    1
HEADS HAVE BEEN READ
 READING BCF BUDGET DATA FOR STRESS PERIOD    1 , TIME STEP    1 ...
  BCF FLOW RATES HAVE BEEN READ
 RECHARGE DATA BEING READ FOR STRESS PERIOD    1 , TIME STEP    1

 RECHARGE RATE           =  0.1332000E-04

    243 CELLS HAD ERRORS >   1.0000
   MAXIMUM ERROR =    6.8706% IN ROW    1 COL    2 LAYER    3
CELL-BY-CELL ERROR SUMMARY:  ROW  COLUMN  LAYER  ERROR(%)  ERROR(ABSOLUTE)
    1    2    1  -2.6473   -0.28977E-01
    2    1    1  -2.9195   -0.33533E-01
    2    2    1  -1.8689   -0.31848E-01
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2	3	1	-1.8678	-0.26445E-01
3	1	1	-1.6787	-0.29498E-01
3	2	1	-1.3247	-0.27356E-01
3	3	1	-1.1328	-0.27546E-01
3	4	1	-1.4237	-0.27483E-01
3	5	1	-1.6417	-0.28150E-01
3	6	1	-1.7526	-0.26775E-01
4	1	1	-1.3420	-0.30015E-01
4	2	1	-1.0962	-0.26502E-01
4	3	1	-1.0337	-0.26399E-01
4	4	1	-1.0932	-0.26979E-01
4	5	1	-1.0675	-0.26466E-01
4	7	1	-1.3663	-0.29847E-01
4	8	1	-1.6325	-0.31139E-01
4	9	1	-1.5569	-0.21768E-01
4	10	1	-1.3729	-0.14998E-01
4	11	1	-1.0695	-0.96084E-02
4	74	1	-1.0723	-0.11826E-01
4	75	1	-1.5892	-0.22201E-01
5	1	1	-1.0157	-0.27313E-01
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6	80	1	-1.2101	-0.24231E-01
6	81	1	-1.3141	-0.25222E-01
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11	18	1	1.3408	0.10299E-01
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12	67	1	1.0683	0.81515E-02
13	15	1	1.0870	0.87765E-02
13	20	1	1.0169	0.82086E-02
13	56	1	1.0459	0.83513E-02
14	14	1	1.0922	0.91148E-02
14	19	1	1.0285	0.85899E-02
14	53	1	1.0704	0.88887E-02
16	58	1	1.0489	0.93681E-02
17	16	1	-1.7424	-0.16293E-01
17	17	1	-1.1590	-0.10978E-01
17	18	1	1.4442	0.13620E-01
17	60	1	-1.4800	-0.13769E-01
18	16	1	-2.2075	-0.21716E-01
18	17	1	1.4083	0.13867E-01
18	60	1	-2.6237	-0.25525E-01
18	62	1	1.3667	0.13271E-01
19	18	1	1.0218	0.10358E-01
19	60	1	-1.9720	-0.20122E-01
19	61	1	1.4955	0.15254E-01
20	16	1	-1.0309	-0.10944E-01
20	17	1	1.1967	0.12671E-01
27	68	1	-1.1816	-0.16366E-01
28	68	1	-1.5395	-0.22246E-01
1	2	2	4.5729	0.22399E-01
2	1	2	4.4312	0.23274E-01
2	2	2	2.8309	0.25168E-01
2	3	2	3.3515	0.23449E-01
3	1	2	2.6113	0.24127E-01
3	2	2	2.1864	0.24604E-01
3	3	2	1.5155	0.20687E-01
3	4	2	2.1267	0.22051E-01
3	5	2	2.4330	0.21788E-01
3	6	2	2.9381	0.22715E-01
4	1	2	1.8119	0.22422E-01
4	2	2	1.7139	0.23242E-01
4	3	2	1.5224	0.22003E-01
4	4	2	1.6002	0.22227E-01
4	5	2	1.5644	0.21847E-01
4	6	2	1.3638	0.22059E-01
4	7	2	1.9086	0.22981E-01
4	8	2	2.2551	0.23059E-01
4	9	2	2.0304	0.15526E-01
4	10	2	1.6580	0.10191E-01

4	11	2	1.2881	0.67070E-02
4	74	2	1.7084	0.97200E-02
4	75	2	2.9083	0.19939E-01
5	1	2	1.4723	0.22586E-01
5	2	2	1.3266	0.21438E-01
5	3	2	1.3424	0.22437E-01
5	4	2	1.3026	0.21845E-01
5	5	2	1.2912	0.21752E-01
5	6	2	1.3379	0.22751E-01
5	7	2	1.4940	0.23193E-01
5	8	2	1.6785	0.23981E-01
5	9	2	1.5191	0.15671E-01
5	10	2	1.3272	0.10449E-01
5	11	2	1.0000	0.63097E-02
5	12	2	1.2291	0.64940E-02
5	74	2	1.1093	0.10472E-01
5	75	2	1.1572	0.16643E-01
5	76	2	1.6063	0.17088E-01
5	77	2	2.3283	0.20624E-01
5	78	2	2.4718	0.19224E-01
5	79	2	2.8883	0.20252E-01
5	80	2	3.2213	0.20598E-01
5	81	2	3.5537	0.20818E-01
5	82	2	4.1691	0.22371E-01
6	1	2	1.1336	0.20858E-01
6	2	2	1.1394	0.21694E-01
6	3	2	1.1722	0.22820E-01
6	4	2	1.1496	0.22572E-01
6	5	2	1.1649	0.22893E-01
6	6	2	1.1601	0.22590E-01
6	7	2	1.2626	0.23684E-01
6	8	2	1.2816	0.23031E-01
6	9	2	1.2181	0.15534E-01
6	75	2	1.0004	0.15888E-01
6	76	2	1.3218	0.19117E-01
6	77	2	1.4161	0.18687E-01
6	78	2	1.6774	0.20509E-01
6	79	2	1.8176	0.20835E-01
6	80	2	1.9723	0.21369E-01
6	81	2	2.0044	0.20627E-01
6	82	2	2.3355	0.22900E-01
7	2	2	1.0517	0.23271E-01
7	7	2	1.0469	0.23090E-01
7	8	2	1.0771	0.23204E-01
7	76	2	1.0771	0.19521E-01
7	77	2	1.0853	0.18715E-01
7	78	2	1.2089	0.19892E-01
7	79	2	1.2847	0.20261E-01
7	80	2	1.3051	0.19815E-01
7	81	2	1.4622	0.21455E-01
7	82	2	1.6425	0.23340E-01
8	80	2	1.0618	0.20669E-01
8	81	2	1.0899	0.20701E-01
8	82	2	1.2054	0.22380E-01
10	16	2	-1.8659	-0.87105E-02
10	18	2	2.0817	0.98221E-02
11	17	2	1.1508	0.55648E-02
11	18	2	1.7154	0.81966E-02
17	15	2	-1.1477	-0.67852E-02
17	17	2	1.4871	0.89126E-02
18	17	2	1.8912	0.11697E-01
18	59	2	-1.5450	-0.95068E-02
18	61	2	1.9457	0.12038E-01
19	17	2	1.1983	0.77314E-02
19	61	2	1.7157	0.11011E-01
21	16	2	1.1090	0.77702E-02
1	2	3	6.8706	0.53189E-02
2	1	3	5.3275	0.44583E-02
2	2	3	2.7465	0.41676E-02
2	3	3	3.9682	0.46244E-02
3	1	3	3.1029	0.49215E-02
3	2	3	2.4659	0.48423E-02
3	3	3	1.6036	0.38705E-02
3	4	3	2.4849	0.44697E-02
3	5	3	2.8445	0.43614E-02
3	6	3	3.6245	0.47269E-02
4	1	3	1.8051	0.39224E-02
4	2	3	1.9494	0.46739E-02
4	3	3	1.6654	0.42715E-02
4	4	3	1.7862	0.43927E-02
4	5	3	1.8407	0.45542E-02
4	6	3	1.5855	0.45801E-02
4	7	3	2.3609	0.49889E-02
4	8	3	2.7871	0.49388E-02
4	9	3	2.4257	0.32415E-02
4	10	3	1.7317	0.18808E-02
4	74	3	1.5545	0.15077E-02
4	75	3	2.3750	0.26986E-02
5	1	3	1.6859	0.46056E-02
5	2	3	1.5101	0.43575E-02

```
    5     3     3   1.5574     0.46565E-02
    5     4     3   1.4751     0.44253E-02
    5     5     3   1.4168     0.42703E-02
    5     6     3   1.6689     0.50828E-02
    5     7     3   1.7841     0.49356E-02
    5     8     3   1.9720     0.49967E-02
    5     9     3   1.7262     0.31711E-02
    5    10     3   1.3245     0.18679E-02
    5    11     3   1.0060     0.11440E-02
    5    74     3   1.0625     0.17790E-02
    5    75     3   1.1369     0.29017E-02
    5    76     3   1.1341     0.20943E-02
    5    77     3   2.5744     0.39002E-02
    5    78     3   2.6162     0.34316E-02
    5    79     3   3.1952     0.37322E-02
    5    80     3   3.6081     0.37965E-02
    5    81     3   4.2724     0.40680E-02
    5    82     3   5.0924     0.43767E-02
    6     1     3   1.3743     0.45443E-02
    6     2     3   1.2074     0.41353E-02
    6     3     3   1.2993     0.45553E-02
    6     4     3   1.2605     0.44586E-02
    6     5     3   1.2794     0.45298E-02
    6     6     3   1.3413     0.47043E-02
    6     7     3   1.4627     0.49339E-02
    6     8     3   1.4347     0.46263E-02
    6     9     3   1.1794     0.27044E-02
    6    10     3   1.0508     0.17898E-02
    6    76     3   1.3155     0.33770E-02
    6    77     3   1.3808     0.32148E-02
    6    78     3   1.6408     0.35209E-02
    6    79     3   1.7019     0.34072E-02
    6    80     3   2.1982     0.41461E-02
    6    81     3   2.2711     0.40521E-02
    6    82     3   2.6050     0.44086E-02
    7     2     3   1.1402     0.45662E-02
    7     3     3   1.0402     0.42331E-02
    7     4     3   1.0005     0.41035E-02
    7     5     3   1.1528     0.47316E-02
    7     6     3   1.1050     0.44974E-02
    7     7     3   1.1481     0.45823E-02
    7     8     3   1.2116     0.47193E-02
    7    76     3   1.1387     0.37051E-02
    7    78     3   1.0818     0.31793E-02
    7    79     3   1.3782     0.38761E-02
    7    80     3   1.3012     0.35149E-02
    7    81     3   1.5274     0.39798E-02
    7    82     3   1.7047     0.42928E-02
    8    80     3   1.0456     0.36647E-02
    8    81     3   1.1213     0.38308E-02
    8    82     3   1.1662     0.38895E-02
   10    15     3  -1.5818    -0.13634E-02
   10    18     3   2.2029     0.19048E-02
   11    19     3  -1.3141    -0.11525E-02
   17    17     3   1.3329     0.14723E-02
   18    17     3   1.2581     0.14336E-02
   18    18     3  -1.1949    -0.13582E-02
   18    58     3  -1.2475    -0.14215E-02
   18    61     3   1.3610     0.15519E-02
   19    62     3  -1.4187    -0.16739E-02

******** PARTICLE TERMINATION INFORMATION
PARTICLE      1  WAS STOPPED IN ROW 210, COL  62, LAY   2  TIME=  1.1876E+05

TRAVEL TIME SUMMARY FOR ALL PARTICLES:
MINIMUM TRAVEL TIME =    1.18759E+05
MAXIMUM TRAVEL TIME =    1.18759E+05
AVERAGE TRAVEL TIME =    1.18759E+05
 100.0% OF THE PARTICLES HAD TRAVEL TIMES LESS THAN THE AVERAGE TRAVEL TIME

      0 PARTICLES REMAIN ACTIVE
      0 PARTICLES STOPPED AT INTERNAL SINKS/SOURCES OR BOUNDARIES
      1 PARTICLES STOPPED IN AN AUTOMATIC TERMINATION ZONE
      0 PARTICLES WERE STRANDED IN INACTIVE CELLS
      0 PARTICLES WERE NOT RELEASED
-----
      1 PARTICLES ACCOUNTED FOR OUT OF A TOTAL OF       1
```

APPENDIX F

MT3D Output File

Scenario 3

Scenario 3

APPENDIX G

Response to Comments

Response to Comments
by
USEPA
for Draft Final Feasibility Study at the Ash Landfill
Seneca Army Depot Activity
Romulus, New York
Comment Date: April 8, 1997

General Comment

Comment 1. EPA comments have been adequately addressed.

Response 1. Acknowledged.

Response to Comments
by
USEPA
for Draft Final Feasibility Study Report at the Ash Landfill
Seneca Army Depot Activity
Romulus, New York
Comment Date: January 1997

Comment #2 Based on a review of the text it appears that the alternative selected will discharge to the drainage ditches near the site. However, it is still stated that the 4,000 feet of piping required is a drawback. This contradiction should be corrected.

Response #2 Agreed. The description of the alternative has been modified so that it no longer states that 4,000 feet of piping is a drawback for the alternative because discharge will be to the drainage ditches near the site. The text in Section 3.4.6 was modified.

Comment #6 In the response to comment Parsons ES states that the contingency plan will include deed restriction on off-site properties. The Army may be able to place a deed restriction on its property by may not place a deed restriction on properties it does not own. This statement should be removed from the document and should not be included in the contingency plan.

Response #6 Agreed. Currently, Section 5.4.4.1 states that "The contingency plan would consists of applying a deed restriction to the parcel of land to indicate that no groundwater wells may be used for drinking water, and supplying an alternative water supply to off-site residences." Although the response to the comment indicates, in error, that the contingency plan will include deed restrictions of the off-site property, the Ash Landfill FS does not state this. However, the Ash Landfill FS was clarified so that it is clear that the deed restriction would apply to property that is owned by the Army. The text changes were made in Section 5.4.4.1 of the Ash landfill FS.

Response to Comments
by
NYSDEC
for Draft Final Feasibility Study Report at the Ash Landfill
Seneca Army Depot Activity
Romulus, New York
Comment Date: January 1997

Comment #1

5.4.1.1 Definition of Alternative MC-2: This alternative states that a groundwater monitoring plan will be implemented and if the monitoring data indicates an upward trend in concentration of the constituents of concern, then a contingency plan will be implemented. The contingency plan would consist of applying deed restrictions to the parcel of land to indicate that no groundwater wells may be used for drinking water. Please explain how the Army would be able to place a deed restriction on off-site land which is owned by parties other than the U.S. Government.

In addition, the contingency plan also includes supplying an alternative water supply to the off-site residences and any future residences. The details of an alternative water supply should be provided in this section.

Response #1

Agreed. Currently, Section 5.4.4.1 states that "The contingency plan would consists of applying a deed restriction to the parcel of land to indicate that no groundwater wells may be used for drinking water, and supplying an alternative water supply to off-site residences." Although the response to the comment indicates, in error, that the contingency plan will include deed restrictions of the off-site property, the Ash Landfill FS does not state this. However, the Ash Landfill FS was clarified so that it is clear that the deed restriction would apply to property that is owned by the Army. The text changes were made in Section 5.4.4.1 of the Ash landfill FS. Also, additional details regarding the type of alternative water supply that would be used (extension of the SEDA water main) was added to paragraph three in Section 5.4.4.1.

RESPONSE TO COMMENTS
BY
U.S. ARMY FOR
DRAFT FINAL FEASIBILITY STUDY
AT THE ASH LANDFILL SITE
SENECA ARMY DEPOT ACTIVITY
ROMULUS, NY
JANUARY 1996

Comments by K. Healy

Comment #1 Section 1.5.1, Page 1-16.

a. Paragraph 1. In the first full paragraph of this page, it is stated that the excess cancer risks and the excessive hazard index is due to the potential exposure of receptors to groundwater as their sole drinking water source. However, the only groundwater used for consumption in this immediate area is taken from an aquifer that is significantly deeper than, and hydraulically disconnected from, the contaminated layer of groundwater. We should definitely differentiate between the shallow use (assumption) and the deep aquifer use (reality). Toward that aim, I would recommend presenting an additional scenario. The first scenario presented is that of "Current Off-Site Residents". This scenario is based on the extremely conservative assumption that residents are drinking from the contaminated aquifer. This should be considered Scenario 1a. The new scenario should be Scenario 1b, and should be based on reality, i.e., that no contaminated groundwater is consumed. This scenario would no longer have an excess cancer risk, nor would it have an excessive Hazard Index. Such a comparison would lend tremendous perspective to our efforts to demonstrate that, without the ridiculously conservative assumptions, this site is no longer a risk to anyone.

b. Paragraph 2. In the second full paragraph of this page, the same discussion is continued (i.e., residential consumption of contaminated groundwater). Here, the argument is dismissed for a good reason. However, I believe the best reason has been omitted. Along the lines of a), above, I would recommend rewriting this entire section, qualifying the discussion to demonstrate the worthlessness of the exceptionally conservative assumptions that are being forced upon us.

Response #1 The baseline risk assessment must consider all potential pathways of exposure including the use of the shallow aquifer for drinking water purposes. This aquifer is currently being used by the nearest off-site receptor (Farmhouse wells) and therefore should be considered in the analysis. The scenario you are suggesting is not considered to be a valid exposure pathway because no hydraulic link has been established between the VOCs in the shallow aquifer and the deeper aquifer.

Comment #2 Section 2.2.2, Page 2-10.

In the third paragraph on this page, a discussion similar to the above is presented ("Carcinogenic and non-carcinogenic risks...below EPA risk criteria."). This too

should be qualified. Whether or not wells are planned is immaterial if drinking water wells all draw from a discrete and much deeper aquifer.

Response #2

This paragraph has been revised to state that: "... the total Hazard index and the total carcinogenic risks for the current and future land use scenarios; with the exception of the future on-site residential scenario." The total non-carcinogenic (HI) and carcinogenic risks must be considered for each receptor separately and therefore the former statement was inaccurate.

Comment #3

Section 2.2.4.1, Page 2-20.

The discussion contained in the third bullet on this page is apparently generic. Would question whether we should still be referring to VOC's as chemicals of concern since the removal action is now complete. Recommend creating a section (or repositioning Section 2.2.5) to fully discuss the removal action and what it accomplished and put the entire issue of VOC contamination of soils at this site to bed. In such a case, Table 2.3 would be changed to reflect the treated soil values (column 5).

Response #3

Agreed. The purpose of this section is to list all ARARs and TBCs for the site, and the NYSDEC TAGM HWR-94-4046, which is discussed in the third bulleted item, is a chemical-specific TBC for soil at the site. The subsequent discussion in Section 2.2.5, Removal Action Remedial Objectives, fully discusses the Removal Action and states that the cleanup objectives and volume of soil for that removal action were derived from the referenced NYSDEC TAGM for soil listed in Section 2.2.4.1.

Section 2.3 has been expanded to more fully describe the General Response Actions and the Remedial Action Objectives (RAOs) for the site. The discussion states that the implementation of the Removal Action, i.e., the removal of the source of VOCs in groundwater, resulted in a reduction of the EPA carcinogenic risk value, compliance with the NYSDEC TAGM for soil, and elimination of leaching of VOCs to groundwater. As a results, the RAO for groundwater involves only management of the VOC plume and the RAO for soil addresses only metals and PAHs. This section completes the discussion of VOC contamination in soil at the site. Table 2.3 has not been changed.

Comment #4

Section 2.2.6.1, Page 2-32.

In the first paragraph, we say that the goal is to reduce the site risks to within the acceptable EPA range. In the second paragraph we say that, currently, both risks are within the accepted ranges. We should rearrange these two thoughts and restate the goal as being to further reduce the risks (if we decide to do anything at all).

Response #4

Agreed. The two statements are contradictory. The sentence in the first paragraph has been revised to state that the clean-up goal will be to further reduce the risks.

Comment #5 Section 2.2.6.2, Page 2-32.

In the second paragraph of this section , we say that the calculated risks are both currently within the accepted ranges. Then we say that the most significant risk comes from certain pathways and that these risks have been reduced by virtue of the removal action. If we have reduced the components of a risk that was acceptable in the first place, shouldn't we conclude that there is nothing more to worry about here? At the very least, this section needs to be rewritten somewhat for clarity.

Response #5 Agreed. Section 2.3, General Response Actions, has been expanded to provide a more complete discussion of the soil clean-up goals. This section states that while the risk analysis indicates that soil remediation is not a requirement, there is a need to consider the NYSDEC TAGM values for clean-up of soils. The Remedial Action Alternatives for soils were developed (1) to mitigate exposure pathways for dermal contact with and ingestion of metals and PAHs and (2) to comply with NYSDEC soil clean-up TAGM values for metals and PAHs.

Comment #6 Section 2.4.2, Page 2-38.

Case 1 should be discussed as part of the background and, already having been put to bed previously (See comment 3, above), left out of all calculations of what is to be remediated. The same would hold true for Table 2-7. I don't see a purpose to adding 23,126 yards to the soil to be treated under cases 2-4.

Response #6 These scenarios were presented to show the cumulative effort on the mean soil concentrations and the effect on the non-carcinogenic (HI) and carcinogenic risks. The volumes are added in this table since the effects are cumulative. However, the table also shows the volumes for each area separately should only one or more be selected for removal as in the alternative SC-5, where only the debris piles are considered for removal and disposal. The driving force for soil remedial actions is not the human health risks (which are all within the EPA target ranges) but rather the high lead levels present i.e., concentrations above 500 ppm, which the EPA considers to be the TAGM for lead in soil.

Comment #7 Section 2.4.2, Page 2-38.

In the final lines of this page and the first portion of the next, we discuss the skewed mean values created by a reduced number of data points. Is there any way to correct for this or to dismiss it through the explanation provided? The rationale for doing anything on this site is currently non-existent (oops, I mean tenuous). This mathematical aberration should not be allowed to push us into having to remediate if we can avoid it.

Response #7 Acknowledged. This section merely provides an explanation of the statistical results of the calculation of the 95th UCL of the mean and the risk values. Table 2-8 indicates that removal of all four operable units will result in a reduction of the 95th UCL of the mean and overall reduction in the risk values.

Comment #8 Figure 2-1.

This figure should be moved to the generic discussion of the removal action. It is out of place here.

Response #8 Disagree. The details of the Removal Action are discussed only in this section. Subsequent sections of the report discuss the actions which will be performed.

Comment #9 Section 2.4.2, Page 2-44.

In paragraph 1, the statement "Again, the cancer risk...rather than the prevalence of these compounds." is made. This has always intrigued me since it would appear that most of the driving force behind any future remediation is a fluke rather than a justifiable rationale. Would question whether this should be expanded upon and used to drive home the point that nothing is required in the way of remediation for this site.

Response #9 Agreed. Section 2.3, General Response Actions, has been expanded to provide a more detailed explanation of the development of the general response actions. The text reiterates the fact that the risk to human health are acceptable, however, there is a need to consider the NYSDEC TAGM values for the clean-up of soils.

Comment #10 Section 2.4.2, Page 2-44.

Despite all of the soil removal, the PAH values remaining do not fall below the NYSDEC TAGM values. No amount of remediation will get us there due to the ridiculously low TAGM values and, to start with, the PAH contamination is based on a mathematical fluke. This is what is driving the remediation at this???

Response #10 Agreed. Section 2.3 states that the remedial action alternatives were derived to mitigate exposure pathways to metals as well as PAHs, and to comply with NYSDEC TAGM criteria for both metals and PAHs. Remediation of the areas proposed for soil remedial action will reduce the concentration of metals to below the respective NYSDEC TAGM values, although the PAH concentrations will remain above the NYSDEC TAGM values.

Comment #11 Section 3.2, Page 3-7.

In the second-to-the-last paragraph on this page, MC-6 needs to be better identified as was done with the other alternatives. In the first line, briefly define MC-6 and, in the 5th line, define "this technology". Confusion is likely due to the fact that MC-6, MC-4 and MC-5 are all being discussed to some degree in this paragraph.

Response #11 Agreed. The text has been revised and Alternative MC-6 has been described as utilizing ultraviolet oxidation as a treatment system for groundwater.

Comment #12 Section 3.3.2, Page 3-9.

In the last paragraph of this section we discuss the current site risk values. To avoid confusion, recommend changing "Under these exposure..." to "Under the current exposure..." in line four. Since we make such a good case for no action, shouldn't we begin the discussion of the next section by saying something along the lines of "In case some soil remediation is undertaken, the following alternatives are presented."?

Response #12 Agreed. The phrase has been changed.

As discussed in Section 2.3, the Remedial Action Alternatives for soil were developed to mitigate exposure to metals and PAHs, and to comply with NYSDEC TAGM values for metals and PAHs. Therefore, the proposed sentence was not added to the text at the beginning of Section 3.3.3.

Comment #13 Section 3.4.2, Page 3-17.

The statement "If the intended future land use...risks would be unacceptable." is made in Line 4 of the second paragraph on this page. This would only be true if shallow groundwater were used. Recommend qualifying this statement as in comment 1a, above.

Response #13 This statement has been revised to indicate the use of the shallow aquifer for drinking water purposes.

Comment #14 Section 3.4.3, Page 3-17.

The last sentence on this page mentions that the existing farmhouse makes use of the overburden well. Recommend defining that usage. Engineering controls on the future use of that well (if the usage is or is to be substantial) is more amenable than spending millions to remediate groundwater.

Response #14 Agreed. The text has been revised to state that water from the overburden well is used for farming purposes including irrigation, and not for drinking water.

Comment #15 Section 3.4.6, Page 3-21.

The reference is made to substantial piping requirements in the last sentence of this section. Would question why discharge has to be directly into the creek. The IRM simply discharged to nearby drainage ditches and let it flow the remainder of the way.

Response #15 Agreed. It would be more cost effective to discharge the treated water into the existing drainage ditches located along the roadways, and if necessary, upgrade the ditches to accommodate the potential volume of flow from the treatment process.

This option will be investigated if this alternative is selected as the remedial alternative for migration control.

Comment #16 Section 3.4.7, Page 3-22.

In the last sentence of this section, please correct the two occurrences of "Kenadia".

Response #16 Agreed. The text has been revised.

Comment #17 Table 3-4.

I anticipate a lot of trouble in justifying why the Army plans on pursuing the fifth rated alternative. Is there anyway, based on all the evidence presented to date in favor of the natural attenuation alternative, to refigure this ranking?

Response #17 The alternatives are compared in more detail in Section 5 of the FS report. The results of the groundwater modeling study are presented in the detailed description of Alternative MC-2 5 to provide historical data and modeling results which substantiate the use of natural attenuation. The effectiveness of this alternative, which is supported by the groundwater modeling study, as well as the low cost of this alternative are reasons for selecting this remedial alternative.

Comment #18 Section 3.6.2.2, Page 3-29.

I don't believe that plume migration and groundwater use should be discussed in a section dealing with source control. These discussions should be separate and distinct.

Response #18 Agreed. The reference to plume migration and groundwater has been changed to potential exposure to metals and PAHs in soil.

Comment #19 Section 3.6.2.2, Page 3-29.

In line three of the first paragraph of the discussion of Migration Control, I believe we should qualify the statement "Since there is no treatment...use of shallow groundwater."

Response #19 This statement simply reflects that the potential for off-site exposure of groundwater contaminant does exist as shown by the risk assessment which must consider this as an exposure pathway. The next sentence attempts to qualify this assumption by citing the groundwater modeling study which indicated that the potential for exposure via this pathway is low.

Comment #20 Section 3.6.2.2, Page 3-30.

In the first line on this page, suggesting that natural attenuation does not remove pollutants is not exactly accurate. Removal is accomplished in a passive sense and over a longer period.

Response #20 Agreed. This discussion, which is now in Section 3.7.2.2, has been revised to state that Alternative MC-2 ranks lower because this alternative does not utilize a treatment technology, although pollutants are reduced in a passive system.

Comment #21 Section 3.6.2.6, Page 3-33.

In line 5 of the paragraph on Migration Control, recommend rephrasing "...combined with the No Action...if mobility is increased" to "...combined with the natural attenuation alternative to monitor mobility, not overtly control it."

Response #21 Agreed. The text, which is now in Section 3.7.2.6, has been changed.

Comment #22 Section 3.6.2.7, Page 3-34.

In line two of the discussion on Migration Control, recommend changing "which rely on natural degradation" to "which relies on natural attenuation". Attenuation, I believe, involves a few more factors, which is point in our favor.

Response #22 Agreed. The phrase, which is now in Section 3.7.2.7, has been changed.

Comment #23 Section 3.6.3.3, Page 3-38.

Please change "and there would be continued leaching of pollutants to the groundwater." in line two of the paragraph on Source Control and replace that thought with a".". To my knowledge, there has been non concern over metals and PAH's in the groundwater at this site, so continued leaching is inflammatory. Also, for consistency, we should maintain the same language throughout this document. Please change "attenuation/biodegradation" to "attenuation" in line four of the discussion on Migration Control.

Response #23 Agreed. The phrase referencing potential leaching has been removed. In addition, the wording in the discussion on Migration Control, which is now in Section 3.7.3.3, has been changed.

Comment #24 Section 5.2.1.1, Page 5-1.

In line four of the first paragraph, the statement "Groundwater monitoring activities have previously included quarterly monitoring...but will not continue under this alternative." is made. First, I would question why this is being discussed as part of Source Control, secondly, the current groundwater monitoring is done as a distinct program. I believe it is incorrect to say that monitoring will stop, even if the No

Action alternative is chosen. Also, in the last sentence of this paragraph, please change "but is part" to "because this is part".

Response #24

The sentence "Groundwater monitoring..." has been deleted. The last sentence has been changed to "because this is part".

The referenced phrase in the past sentence of this paragraph has been changed.

Comment #25

Section 5.2.1.3, Page 5-2.

This discussion refers to VOC's and leaves one with the impression that such contamination still remains. This section should be rewritten to reflect the remediation that has been completed. Additionally, both this section and the one following need to be rewritten to make it absolutely plain that heavy metals and PAH's are the only contaminants that remain to be concerned with. A few qualifications, as discussed in earlier comments, would be appropriate, as well.

Response #25

Agreed. The sentence referencing chlorinated organic solvents is misleading and has been removed from Section 5.2.1.3. Section 2.2.5 and the revised Section 2.3 both provide a detailed discussion the remediation of the source soils and the results of the removal action. The discussion also states that as a result of the removal action, the contaminants of concern for soil are now only metals and PAHs. Section 5.2.1.3 and the following section have not been rewritten because the two sections in Section 2 have been revised.

Comment #26

Section 5.2.2.1, Page 5-3.

Recommend changing the first sentence in paragraph 1, "area, the soils at the ...has been completed), the debris piles" to "area and the debris piles". The fact that the removal was completed has been documented enough in the prior pages. Also, reference is made to the residual materials. Are we proposing to re-excavate these or is this an extraneous reference that can be deleted? Additionally, in paragraph 2, line 6, please define "all the soils" (e.g., debris piles, etc.).

Response #26

Acknowledged. This discussion refers to Alternative SC-3, which is now presented in Section 5.2.3.1. Both paragraphs have been revised to describe exactly which areas of the site will be excavated. The first sentence in paragraph 1 has been revised to the following: "This option consists of excavation of the soils in the Ash Landfill area, the soils at the "Bend-in-the-Road" area, and the debris piles, and consolidation in the NCFL." There is still a potential exposure to metals and PAHs from dermal contact with or ingestion of the "Bend-in-the-Road" soils. Therefore, these soils will be excavated and consolidated in the NCFL for Alternative SC-3. Table 2-7 lists the four cases, Ash Landfill, debris piles, NCFL, and "Bend-in-the-Road" soils. "All the soils" refers to the cases listed in Table 2-7. The referenced sentence has been revised to the following: "all the soils listed in Table 2-7".

Comment #27 Section 5.2.3.2, Page 5-5.

In the final paragraph on this page, we discuss risk reductions due to Case 3. I would recommend qualifying the final sentence by saying"...removal action, which, in and of itself, created a condition which is protective of human health."

Response #27 Agreed. The phrase has been added to the text.

Comment #28 Section 5.2.4.1, Page 5-9.

In the last full paragraph on this page (line 4), the statement "There are organics in the soil..." is made. Please clarify what organics are being referred to here. Following the removal action, I would say that nothing remains.

Response #28 Agreed. The sentence has been revised to state that PAHs are present in the soil.

Comment #29 Section 5.2.4.1, Page 5-13.

I would question why munitions are mentioned at all here. There has never been any evidence of such.

Response #29 Agreed. The reference to munitions has been removed.

Comment #30 Section 5.2.4.2, Page 5-15.

In the second paragraph in this section, the statement "Following implementation of this alternative...to reduce the risk further." The "No Action" alternative would leave us with risks that meet the accepted range, also, thereby obviating the need to do anything. Therefore, this sentence is misleading as written and should be qualified.

Response #30 Acknowledged. The No Action alternative results in risks that meet the EPA target risk ranges. However, the No Action alternative does not protect against ingestion of and direct contact with metals and PAHs in the soil, which is one rationale for developing soil remedial action alternatives. The sentence has not been changed.

Comment #31 Section 5.3.1.1, Page 5-18.

In the third line of this section, correct "As described above..." I didn't see any such discussion.

Response #31 Agreed. The sentence, which is now in Section 5.4.1.1, has been removed.

Comment #32 Section 5.3.1.2, Page 5-19.

In line three, please change "the no action alternative" to "the natural attenuation alternative".

Response #32 Agreed. The referenced phrase, which is now in Section 5.4.1.2, has been revised.

Comment #33 Section 5.3.1.3, Page 5-20.

In the first line, we blithely suggest that "there would be a reduction in the VOC concentrations" over time. Recommend making this a more forceful statement by quoting the modeling study as necessary. Also, please change, "the volume of impacted groundwater (i.e., size of the plume)...by the groundwater model (Appendix F). to "the driving force behind the groundwater contamination has been removed." I did not see the report enclosed in Appendix F.

Response #33 Acknowledged. Section 5.4.1.1, Definition of Alternative MC-2, has been expanded with a discussion of the natural attenuation process based on historical data from the site and the results of the groundwater modeling study. The groundwater modeling study is included in Appendix F of this final report. The text has not been changed.

Comment #34 Section 5.3.2.2, Page 5-22.

In the fourth paragraph, reference is made to direct contact with affected soil and inhalation of vapors as being exposure routes. Please be more specific. What soil will anyone come into contact with? There are no longer any soils contaminated with VOC's either in the old location of the source or downgradient where the trenches will be installed.

Response #34 Agreed. The revised Section 2.3 discusses the rationale for developing soil remedial action alternatives, which were to mitigate exposure pathways for dermal contact with and ingestion of metals and PAHs. This discussion should clarify the text in Section 5.3.2.2.

Comment #35 Section 5.3.3.2, Page 5-31.

Recommend rewriting the first two paragraphs as follows for clarity and succinctness. "The first issue in short-term effectiveness is protection of the community during the remedial action. All remedial activities associated with this alternative will be conducted on-site. Additionally, all air emissions from the air stripper will meet all NYSDEC and EPA air standards. Therefore, this alternative will be protective of the community."

"The short term protectiveness to site workers has also been considered. The major routes of exposure during excavation are direct contact with the affected soil and inhalation of vapors or particulates. Because the non-time critical removal action has been completed, the concentrations of potentially hazardous constituents in the area of the excavations will be minimal to non-existent leading to a minimal potential for worker exposure. However, it is likely that some level of personal protective equipment will be necessary as a precaution."

Also recommend changing "years considering the fact...has been completed" to "years" in the last paragraph on this page.

Response #35 Agreed. The section which now discusses alternative MC-5 is Section 5.4.3.2. This section has been revised accordingly.

Comment #36 Section 5.3.3.3, Page 5-32.

Recommend changing "no offsite" to "no additional offsite" in line 3 and "removed" to "attenuated" in line four.

Response #36 Agreed. The phrase in the referenced section, which is now Section 5.4.3.3, has been changed.

Comment #37 Section 5.3.3.6, Page 5-33.

Recommend deleting the second paragraph in the discussion on Technical Feasibility. This would be appropriate if the removal was still ongoing which we know is not the case.

Response #37 Disagree. The second paragraph of Technical Feasibility, which is now in Section 5.4.3.6, has not been deleted. Source control alternatives include the excavation of areas at the Ash Landfill site. Therefore, other remedial activities may be performed.

Comment #38 Section 5.3.4.2, Page 5-37/5-38.

In the final line of this page (and the first line of the next), recommend changing "4 to 8 years if the...30 to 40 years otherwise" to "4-8 years since the source of groundwater contamination has been eliminated." Also, in the second paragraph of the discussion on Long-Term Protectiveness, please change "OV oxidation" to "UV oxidation".

Response #38 Acknowledged. This section, which is now Section 5.4.4.2, has been revised. Based on the results of the groundwater modeling study, the time until treatment is accomplished is approximately 12 to 15 years.

The text in the second paragraph has been revised to UV oxidation.

Comment #39 Section 5.3.4.4, Page 5-38

Delete the third sentence "If the source of...goals will be decreased."

Response #39 Agreed. This sentence, which is now in Section 5.4.4.4, has been deleted.

Comment #40 Section 5.3.4.6, Page 5-39.

In the discussion of Technical Feasibility, delete the second paragraph.

Response #40 Disagree. The second paragraph, which is now in Section 5.4.4.6, has not been deleted because there may be potential source control remedial activities at the site.

Comment #41 Section 5.4.3.1, Page 5-41.

In the last sentence on this page, the "No Action" alternative is stated as providing the little long-term protection because leaching of VOC's will continue. How?? Since the removal action was completed, there are none remaining. Metals may leach; however, this has never been a problem at this site and I wouldn't expect it to start now.

Response #41 Agreed. The referenced sentence, which is now in Section 5.3.3.1, has been changed to state that the "No Action" alternative provides little long-term protection because dermal contact with and ingestion of metals and PAHs will continue.

Comment #42 Section 5.4.3.1, Page 5-42.

In line three, correct "permanent until" to "permanent once". In the last sentence of the first paragraph, regardless of whether no treatment is taking place, permanence is irrelevant. As we stated earlier, there is no risk at this site.

Response #42 Agreed. The referenced phrase, which is now in Section 5.3.3.1, has been changed.

Comment #43 Section 5.4.3.1, Page 5-42.

In the second paragraph in the discussion on Migration Control, we speculate that treatment will require 25 to 30 years to complete. In and of itself, I would suggest that it would take a lot less, especially since it appears that the 25-30 years was based on the assumption that the source is still in place. We should give more of a realistic estimate of time based on site conditions as they are.

Response #43 Agreed. The referenced paragraph, which is now in Section 5.5.3.1, has been revised. The time required for treatment is approximately 15 years which was determined in the groundwater modeling study. This time frame is based on the time for the concentration of VOCs to degrade to below 5 mg/L.

Comment #44 Section 5.4.3.2, Page 5-43.

In paragraph 2 of this section, the comment "For this site...to be responsible for the majority of the risk." Since the removal action is complete, these should be the only contaminants which are contributing to the risk. If that risk is minimal, then this fact needs to be better qualified.

Response #44 Agreed. The referenced sentence in paragraph 2, which is now in Section 5.3.3.2, has been removed.

Comment #45 Section 5.4.3.2, Page 5-44.

In paragraph 3 of this page, would it not be better to say that MC-2 relies on "natural attenuation", which involves additional factors besides biodegradation?

Response #45 Agreed. The referenced phrase in paragraph 3, which is now in Section 5.5.3.2, has been changed.

Comment #46 Section 5.4.3.3, Page 5-44.

Recommend deleting "however, it involves handling of...which must also be treated." since this is irrelevant within a discussion on short-term effectiveness.

Response #46 Agreed. The paragraph containing the referenced sentence has been rewritten and the sentence has been deleted. This paragraph is now in Section 5.3.3.3.

Comment #47 Section 5.4.3.4, Page 5-45.

Would question the appropriateness of discussing long-term monitoring with respect to a source control alternative as is done in the second paragraph of this section. Also, in the third paragraph, would question why concerns of impacts to groundwater would be used as a rationale for judging a source control measure.

Response #47 Acknowledged. The referenced section is now Section 5.3.3.4. Long-term monitoring is discussed with respect to the source control alternatives because monitoring will be required depending on the remedial action selected. Groundwater monitoring will be required at the off-site landfill, and as part of the capping system.

Comment #48 Section 5.4.3.4, Page 5-46.

In the discussion of Migration Control, recommend changing "best technical implementability" to "best with regard to technical implementability" in the first sentence. In the second, recommend changing "administrative implementability" to "administrative feasibility due to probable regulatory disagreement." In line three recommend changing "standard however, they are expected to meet these standards overtime." to "standard". However, standards will be met in time."

Response #48 Agreed. The phases in this discussion of Migration Control, which is now in Section 5.5.3.4, have been added or changed accordingly.

Comment #49 Section 5.4.4, Page 5-46.

In the final line on this page, recommend changing "natural degradation" to "natural attenuation".

Response #49 Agreed. The referenced phrase, which is now in Section 5.5.4, has been changed.

Comment #50 Section 5.4.4., Page 5-47.

In line two, we state that MC-3 can be ruled out as an option. Is it appropriate to do that here or do we simply wish to present the facts?

Response #50 Agreed. The referenced sentence has been removed.

Comments by Tate

Comment #1 Page 1-4 , List

The bulleted list of 9 designated units includes cooking grease pit/disposal area and underground diesel fuel tank, neither of which is normally designated for CERCLA remediation.

Response #1 The bulleted list is from the original Army list prior to the Remedial Investigations conducted under the Ash Landfill operable unit.

The cooking grease pit/disposal area and the underground diesel fuel tank were eliminated from further consideration based upon the results of the Remedial Investigation.

Comment #2 Page 3-7, Paragraphs 4 and 5

The meaning of ".. was combined.." with reference to MC-5 and MC-6 is not clear in the context of the paragraphs.

Response #2 Agreed. The text has been revised. For MC-5, the wording has been changed to "was considered". For MC-6, the wording was removed and a phrase inserted which describes the alternative as utilizing ultraviolet oxidation.

Comment #3 Page 3-41, Table 3-5

The O&M cost of bioremediation does not usually exceed the O&M cost of air stripping or the O&M cost of UV Ox. For the same flow, particularly when kitchen grease and diesel fuel are in the water to be treated.

Response #3 These costs are based on vendor quotes. Please see MC-7 backing costs, in Appendix D.

Comment #4 Page 4-3, List

1110-1-154 Standard Outlines for Scope-of-Work for Investigations and Studies at Hazardous, Toxic, and Radioactive Waste (HTRW) Sites Under CERCLA (SARA), RCCA, and NEPA dated 28 Feb 94 in Enclosure 12 gives the required outline for a treatability study report which places considerably more emphasis on the utility of the treatability study data. Material balances and identification of the limits of the process as indicated by the results are of particular significance.

Response #4 Acknowledged. Parsons ES will refer to the cited reference when developing the treatability study workplans.

Comment #5 Page 4-4, Paragraphs 2 and 3

The method described, vendor selection prior to development of the specification requirements does not comply with the ARs and ERs for procurement.

Response #5 Acknowledged. Parsons ES will comply with all ARs and ERs for vendor procurement.

Comment #6 Page 4-4, Section 4.3.1

ETL 1110-1-158 Treatability Studies for Solidification/Stabilization of Contaminated Material 28 Feb 95 describes the study and CEGS 02445 Solidification/Stabilization of Contaminated Material Mar 94 T1 (Dec 94) S (Aug 95) covers the contractual requirements.

Response #6 See Response #4.

Comment #7 Page 4-5, Section 4.3.2

CeGS 02281 Soil Washing Through Separation/Solubilization Apr 95 covers the contractual requirements for this process.

Response #7 See Response #4.

Comments by Peterson

Comment #1 General

It is difficult to find a final recommended plan in this document. Section 5 discusses the various advantages/disadvantages of each alternative selected for analysis, but there is no concluding overall recommendation. Should there be one in this report, or are treatability studies necessary first?

Response #1

Acknowledged. The draft version of the Ash FS did include a "Conclusion and Recommendation" section that included a recommended remedial alternative for the site, however, we were asked by the NYSDEC in the last round of comments to remove this section, and we did so. NYSDEC felt that it was premature to recommend an alternative in the FS. NYSDEC recommended that upon finalization of the FS report, the Army should propose their recommended alternative through a draft proposed remedial action plan (see Section of the EPA Guidance for Conducting RI/FS under CERCLA, EPA/540/G-89-004, OSWER Directive 9355.3-0.1, October 1988 and IAG Section 12 and Attachment 2.

Comment #2

General

The use of vendor quotes for alternative analysis is good as was done for this report. The other cost backup used for preliminary alternative analysis may be adequate; however, we are not sure how accurate the costs are that CORA produces. We had previously heard from HQEPA sources that EPA funding for CORA had been discontinued. Currently the HTRW-CX recommends using the Air Force's Remedial Action Cost Engineering and Requirements cost estimating system, RACER, to develop early-stage cost estimates. The Air Force's POC for RACER is Mr. Tom Ove, (904) 283-6186.

Response #2

Agreed. Parsons ES does not currently have the cost estimating system, RACER. However, we will investigate the use of RACER for the cost estimate of the final recommended plan.

Comment #3

General

The cost estimate for the final recommended plan must be structured by using the HTRW Remedial Action Work Breakdown Structure, and prepared using the Corp's MCACES Gold Cost estimating software as required by ER 1110-3-1301. HND's Cost Engineering Branch must be involved in the review of all cost estimates.

Response #3

Agreed. The cost estimate for the final recommended remedial action alternative will be developed using ER1100-1-1300, Cost Engineering Policy and General Requirements - 26 Mar 93, ER 1100-3-1301, Cost Engineering Policy and General Requirements for HTRW Remedial Action Cost Estimates - 15 Apr 94. MCASES Gold software will be used to estimate the cost for the selected plan.

RESPONSE TO COMMENTS
BY
U.S. ARMY FOR
EPA GENERAL COMMENTS AND SPECIFIC COMMENTS ON
DRAFT FINAL FEASIBILITY STUDY
AT THE ASH LANDFILL SITE
SENECA ARMY DEPOT ACTIVITY
ROMULUS, NY
JUNE 1996

Comments by Bradley/EPA FS General Comments & Specific Comments

Comment #1 EPA FS General Comments: Responses 1 and 2

General support for acceptance of natural attenuation may be achievable by more clearly listing site specific elements which make this scenario more applicable:

- First, source removal to eliminate risks from contaminated soils.
- Second, rational for high metals content in groundwater samples not being reflective of site contamination.
- Third, evaluation of historical plots of contaminant decrease.
- Fourth, inclusion of long term monitoring and a contingency plan to assure protection of the public.

Response #1 Agreed. The description of Alternative MC-2, Natural Attenuation, has been rewritten in Section 5.4.1.1. The description now includes a discussion of the results of the groundwater modeling study indicating the time frame for natural attenuation to occur; an evaluation of the historical data and plots of trends in the concentration of VOCs in the groundwater; and a description of the contingency plan and groundwater monitoring program for the site. Section 2 of the report now includes more discussion of the results of the Removal Action for the source of the VOC plume and a discussion of the metals in groundwater.

Comment #2 EPA FS General Comments: Response 2

Consideration should be given to designing plume edge monitoring wells as potential extraction or injection wells to speed implementation of contingency actions.

Response #2 Disagree. The groundwater monitoring program, which is part of MC-2, involves monitoring wells located along the boundary of the Ash Landfill and the offsite farm. The purpose of this groundwater monitoring program is to ensure that the natural attenuation process is occurring at the site. According to the results of the groundwater modeling study, the maximum concentration of VOCs at a point approximately 200 feet west of the SEDA boundary will be 3.3 ug/L after approximately 10 years. Based on these results, the addition of extraction or injection wells does not seem to be necessary.

Comment #3 EPA FS General Comments: Response 3

Additional rational should be provided to alleviate concerns over saturation of new soil with contaminants in the groundwater.

Response #3 Agreed. Section 2.2.5 presents a discussion of the Removal Action for the soils at the "Bend-in-the-Road". One objective of the removal action was to treat the groundwater which was collected from the excavation using an air stripping system and discharge the treated groundwater to the ground surface after confirmatory sampling. Therefore, any new water allowed to infiltrate into the treated soil would have been treated.

Comment #4 EPA FS Specific Comments: Response 1

In the case of pentachlorophenol, it is difficult to conclude that exceeding the standard by 54 times is "small". Additionally, the statement that the groundwater chemistry is drastically different must be supported by analytical data (possibly a declining concentration in disposal analyses can be presented to achieve this).

Response #4 Agreed. Of the three SVOCs detected above the respective standards at MW-44, pentachlorophenol was detected at a concentration which was far above the standard.

There is currently no analytical data to support the statement that the groundwater chemistry is different because the post remedial action groundwater sampling did not include SVOCs.

Comment #5 EPA FS Specific Comments: Response 7

Indicate if text revisions were made relative to this response.

Response #5 No text changes were made in response to the comment.

Comment #6 Support Branch FS General Comments: Response 1

More justification for taking exception to Kerr's conclusions about natural attenuation at this site must be provided.

Response #6 Agreed. The detailed description of the natural attenuation alternative, MC-2, in Section 5.4.1.1 of the FS report provides justification for taking exception to Kerr's conclusions about natural attenuation at the site. The results of the groundwater modeling study, which simulated the migration of the VOC plume under three different scenarios, are presented in detail. Historical data including the plots of historical trends in the concentration of VOCs in selected wells at the

Ash Landfill are also included in the detailed description of MC-2. An extensive groundwater monitoring program is part of Alternative MC-2 in order to ensure that the natural attenuation process is occurring at the site. In the case that the groundwater monitoring program shows any statistically significant upward trends in the groundwater data, a contingency plan will be initiated as part of the natural attenuation alternative.

Comment #7 EPA GWM Report General Comments: Response 3

A summary of this comment response should be included in this GW Modeling Report.

Response #7 Agreed. There is no General Comment No. 3, however there is a Specific Comment No. 3. The information in the response to that comment is contained in the Groundwater Modeling Report.

Comments by Healy/EPA comments on Ash Landfill Feasibility Study

Comment #1 Response to General Comment No. 1, pages 1,2, and 3

In the EPA's comment, the reviewer seems to suggest that if we were to use low flow sampling methods we should not have the high turbidity values that are evident. I was under the impression that we instituted low flow sampling methods in the phase II field work at this site. In our response, metals sampling results and low sampling methods are discussed, but they are discussed separately. We need to make the point that the exceedances discussed were found in samples taken using low flow methods.

Response #1 Disagree. The low-flow sampling method as described in the Response to Comment #1 was not initiated in the phase II field work at the Ash Landfill. The low-flow method, which involves the use of a submersible pump, is being used for the RI/FS investigations that are currently being conducted at other sites at SEDA. The low-flow method has been recently used at the Ash Landfill, but only for the quarterly sampling program, which does not include metals as part of the sampling suite.

Comment #2 Response to General Comment No. 1, page 12

I am unaware that the Army makes any habit of purchasing or leasing land as a remedial action. Any such references should be removed. The same would be true of the reference made on page 13 as part of the response to Specific Comment No. 1.

Response #2 Agreed. The reference to purchasing or leasing land as part of the contingency plan has been removed. Response to EPA comments dated September , 1996 addresses this change to the contingency plan, which had been proposed. Therefore, the response to Specific Comment No. 1 has not been changed.

Comments for
Revised Groundwater Modeling Report at the Ash Landfill Site and
Revised Draft Feasibility Study (FS) Report at the Ash Landfill Site
by The United States Environmental Protection Agency (USEPA)
September 1996

General Comments

Comment #1

The response makes the reasonable conclusion that a decrease in turbidity in groundwater samples is associated with a decrease in the concentration of inorganic constituents. However, the conclusion that if turbidities were further reduced that concentrations of inorganic constituents would all be below ARARs is conjecture. The available information indicates that some groundwater samples the certain ARARs for inorganic constituents are exceeded. For example, the turbidity in MW-53 was 40 NTUs, which is below the New York State Department of Environmental Conservation guidance of 50 NTUs for groundwater samples, and ARARs for chromium, lead, and nickel were still exceeded.

The contention that the lead concentration in groundwater samples from MW-44 would be lower due to the dewatering of soils during excavation for the thermal treatment seems to be inconsistent with the argument that turbidity causes elevated lead values. If the groundwater itself did not contain the lead then how did removing groundwater help to reduce future lead concentrations? Is the text implying that dewatering removed a sufficient amount of fine-grained sediment from the soil? In two places in the response to comment, it appears that the identification of the referenced tables is incorrect. In the second paragraph, the reference to Table A should to be Table B. In the third paragraph, the second reference to Table B should be to Table A.

The text states that manganese is a commonly occurring element that is considerably less toxic than other metals. Manganese, while an essential nutrient, can cause a Parkinson's-like syndrome in doses not far removed from the Recommended Daily Allowance (RDA), and should therefore not be dismissed as relatively non-toxic.

Treatment of groundwater for dissolved metals will be coincident with its treatment for VOCs. The collection of groundwater which contains VOCs will also collect groundwater which contains dissolved metals. Due to the concentrations of dissolved metals in the groundwater, pretreatment by precipitation/flocculation will likely be necessary to minimize maintenance requirements of VOC removal equipment. Treatment of groundwater containing dissolved metals will need to meet applicable requirements prior to discharge.

Response #1

SEDA maintains its position that turbidity levels in groundwater are responsible for the exceedances of metals in groundwater at the Ash Landfill. In order to justify this position, SEDA conducted an analysis of

all metals data collected to determine if a correlation between turbidity values and metals concentration exists. Appendix H of the Final FS Report contains summary tables highlighting a comparison of filtered and non-filtered samples and turbidity values to metals concentrations. These tables show that in the vast majority of cases, higher levels of turbidity result in elevated concentration of metals in the groundwater samples. In addition, even in the cases where metals concentrations exceeded either the federal MCLs of the NYS GA groundwater standards, those exceedances generally were small. Reductions of 90% or greater for metals concentrations were observed for filtered vs. non-filtered groundwater samples that showed metal exceedances. SEDA concurs that it is conjecture at this time that all wells would not exceed the MCL or GA groundwater standards if the turbidity values were lowered to below the NYSDEC guidance value of 50 NTUs. However, based on the available data SEDA believes that there is not sufficient justification to identify groundwater cleanup for metals as a remedial action alternative for the Ash Landfill. SEDA agrees that subsequent monitoring of these wells using current EPA low-flow monitoring procedures may be warranted to confirm that ARARs for metals in groundwater are not being exceeded.

Comment #2

The response to comment indicates that a contingency plan will be initiated if groundwater monitoring indicates a statistically upward trend in the constituents of concern. The text indicates that the contingency plan includes the purchase or leasing of off-site land which has been affected. Other elements of the contingency plan are not specified in this response so that it is not possible to fully evaluate its effectiveness. It should be noted that in discussing the Natural Attenuation alternative, the Draft Ash Landfill Feasibility Study (Section 5.3.1.2, pages 5-42) states that "there is some uncertainty associated with long term protectiveness since off-site land use cannot be controlled." If this statement is accurate then it is unclear how the contingency plan can rely on the ability to purchase or lease off-site property in the future. As SEDA is a base closure site, the objective of which should be to transfer property <u>from</u> government ownership, a contingency which requires the purchase of more property is inappropriate.

Response #2

Agreed. The purchase or lease of off-site property is not consistent with the above statement. The FS has been revised to state that a contingency plan would include institutional controls such as a deed restriction for the Ash Landfill and/or providing an alternative water supply to off-site residents.

<u>Specific Comments</u>

Comment #6

The response indicates that the dewatering during the excavation of soils for thermal treatment is believed to have reduced contaminant concentrations in the vicinity of MW-44. If there are recent analytical results which support this belief they should be cited.

Response #6 MW-44 was resampled in February 1996 for VOCs. The total VOCs concentration detected was 1, 132 ug/l consisting of vinyl chloride (360 ug/l) and 1,2-dichloroethene (730 ug/l) and trichloroethene (42 ug/l). Compared to the concentrations of total VOCs concentration (204,000) measured in 10/93 in this well, this shows a 99% reduction in concentrations of VOCs since the source removal action was implemented in this area of the Ash Landfill.

Comment #12 In its response, Parsons ES indicated that they could not find specific comment #10 which was cross-referenced in specific comment #12. However, comment #12 which cross-referenced comment #10 was included in the March 22, 1996 letter.

Response #12 This comment needs clarification in order to respond.

Program Support Branch/Specific Comments

Comment #4 It appears that in calculating summary risk statistics the total receptor risk from current on site hunters and future on site construction workers was added together. It is inappropriate to sum the risk from current and future exposure scenarios. Additionally, the risk summaries for both the current on site hunter and the future on site construction worker do not agree between the RI report (Table 6-48) and the FS report (Table 1-1).

Response #4 Agreed. Table 1-1 has been revised so that the total receptor risk from current and future on-site hunters and the total receptor risk from future on-site construction workers is no longer added together. The risk summaries shown in Table 1-1 are in agreement with the most recent RI report table summaries.

Comment #5 The text includes the following incorrect statements:

"The second factor (determining the lead clean-up level of 500 mg/kg) was the result of an EPA transport model study, which determined that a lead soil level in the range of 16 mg/kg, 88 mg/kg and 483 mg/kg would be protective of groundwater."

and

"Therefore, the range of concentrations between 88 mg/kg and 483 mg/kg is the allowable concentration of lead in soil that will not produce a concentration of lead in groundwater above the Federal action level of 15 µg/L."

The clean-up goal of 500 mg/kg for lead in soil was not based on the results of EPA's modeling study. The clean-up goal was based on the results of conference calls between the Army, EPA and NYSDEC,

summarized in Steve Absolom's June 30, 1995 letter to Kamal Gupta and Carla Struble, regarding the May 31, 1995 conference call.

Since September 1994, EPA has been requesting that the Army perform extensive fate and transport modeling of lead in soils to determine what specific concentration of residual lead remaining in soil would still be protective of groundwater and ensure ARARs would not be exceeded in the future as a result of lead leaching from soil to groundwater. The Army has not performed this modeling. EPA utilized the VLEACH model along with broad assumptions concerning existing site information in order to develop a screening level. In order to protect groundwater, the simulated soil cleanup level range was 16 mg/kg to 483 mg/kg for lead in soil. The reason EPA is requiring the Army to perform appropriate post-remediation groundwater monitoring at the OB Grounds is because there is currently no guarantee that 500 mg/kg of lead remaining in soil will be protective of groundwater.

Response #5

The FS has been revised to include this information. (see page 2-10).

As required by the Federal Facilities Agreement between our agencies, EPA anticipates that the Army will response to and revise the Draft FS for the Ash Landfill to address the concerns expressed in this comment letter. In an effort to save time, the revised pages to the Ash Landfill FS and the Draft Proposed Plan for the Ash Landfill can be submitted simultaneously. If you have any questions, please call me at (212) 637-4322.

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ATTACHMENT

The following comments on the Groundwater Modeling Report are provided for information and discussion only. Further revisions to the document are not necessary. The approporiateness or inappropriateness of natural attenuation as a remedy for the Ash Landfill has been judged from the report in its present form.

GENERAL COMMENTS

- The justification of why the groundwater flow model is calibrated to a recharge value of 0.07 in/yr (p. 4-17) is still very dubious. The water balance analysis presented estimated a recharge value of 7.1 in/yr (p. 4-13). This analysis incorporated the evapotranspiration calculated by the Thornthwaite and Mather (T&M) method of 20.40 in/yr (p. 4-11). This value of recharge corresponds, in general to the seasonal water level fluctuations measured at the site. The report explains that the discrepancy between the water balance recharge value and the model calibrated value (i.e., 7 in/yr - 0.07 in/yr = 6.93 in/yr) is due to ET from the water table surface since the T&M method does not take this phenomenon into account. After extensive research into the T&M method, it appears that the assumption that excess water evapotranspirated beyond what is already calculated by the T&M method is unreasonable. This is because the T&M method assumes that all of the water needs of the plant are satisfied and does not delineate where the source of water is derived (i.e., groundwater or percolating rainfall). Perhaps, an alternative explanation is that the excess is removed from the subsurface directly by evaporation from the soil. However, the report states that this mechanism is relatively unimportant (p. 3-26). Therefore, it is still uncertain what is a reasonable explanation for why the model needs to be calibrated with such a low value for recharge. It is our position that adequate explanation of the extremely reduced recharge estimates has not been provide.

- This final report included three new modeling scenarios (i.e., 3A, 3B, 3C) which were not included in the draft report. The methodology and usefulness of these scenarios are not clear. For example, why were these scenarios conducted using initial concentrations from the February 1996 sampling event while the model was "calibrated" to the July 1995 sampling event? Our recommendation would have been to use the July 1995 calibrated model to reproduce the February 1996 concentrations in an attempt to verify the adequacy of the calibration and evaluate how well the model predicts contaminant migration. Once this had been accomplished then the model could have been used for future predictive scenarios with greater confidence.

- The Army provided a table of biodegradation indicators which was incomplete and in some cases did not support that biodegradation was occurring. For example, ethane and ethene were generally not detected, and there was no trend of increasing chloride concentration with distance from the source, which would be expected if complete dehalogenation was occurring. Also, oxygen levels provided in a previous submittal indicate that conditions may not be sufficiently anoxic to support complete reductive

dehalogenation. Again, The Army does not seem to be following their own guidance in terms of documenting natural attenuation.

SPECIFIC COMMENTS

Section 6.3.1 Basic Transport Package Parameters (p. 6-5): The report states that for Scenario 3, July 1995 water quality data was supplemented with February 1996 data. However, in the Summary and Conclusions (Section 7) the report states that this new data was not included in the scenario. Actually, it appears that the data were not combined, but rather different scenarios were conducted using each independent data set as initial conditions (e.g., Scenario 3 with July 1995 data and Scenario's 3A, 3B, & 3C with February 1996 data).

Section 6.4.1 Simulation of Plume from Origin with VOC Source - Scenario 1 (p. 6-18): This scenario was used for calibration purposes by varying the degradation rate constant (k) between 0.0005/day and 0.00005/day. The results of these two simulations were compared using two different sets of wells. For example, the simulation where k = 0.0005/day was compared with wells PT-12, PT-23, and MW-45 and the simulation where k = 0.00005/day was compared with wells PT-12, PT-29 and PT-24. Both of these degradation rates provided simulation results that are "within the range of measured values regardless of the source term used." It is unclear which of the degradation rates, if either, are representative of site conditions and why two different sets of wells were used to evaluate the simulation.

Section 6.5.2 Future Plume Migration without VOC Source - Scenario 3 (p. 6-32)
The value of the degradation rate for the fourth simulation under Scenario 3C should have been changed from 0.000009/day to 0.00009/day.

The second paragraph states that the maximum concentration measured in July 1995 in PT-18 was 23,000μg/L and that no data was available from MW-44 because this well was destroyed during the source area removal. However, on page 6-36 (Scenario 3-A) the report states that February 1996 data indicate the maximum concentration at the source area wells PT-18 and MW-44 was 1,132μg/L. Some explanation should have been included regarding whether the well MW-44 was reconstructed prior to the February 1996 sampling event and, if so, whether it has similar construction characteristics (e.g., screened interval).

Section 6.5.2 Future Plume Migration without VOC Source - Scenario 3-C (p. 6-41)
The sentence in the fourth paragraph "Analysis of Scenario 3-C results (a moderately conservative run compared to Scenarios 3-A and 3B)..." is not valid. This simulation is conservative only with respect to Scenario 3-B.

Section 6.6 Sensitivity Analysis (p. 6-44)
It is unclear why the sensitivity analysis was conducted on the model simulations using the February 1996 data as initial conditions while the model calibration was conducted using the July 1995 data. Also, a sensitivity analysis is typically conducted on the calibrated model prior to conducting future predictive scenarios.

Response to Comments by
the New York State Department of Environmental Conservation (NYSDEC)
and the New York State Department of Health (NYSDOH)
Draft Final Feasibility Study Report
at the Ash Landfill Site
Seneca Army Depot Activity
Romulus, NY
March 14, 1996

Draft Groundwater Modeling Report

Comment #1

Section 4.5 - Contaminant Fate and Transport:

Analysis of the field data does not indicate that anaerobic dechlorination is occurring at the Ash Landfill site. It is generally believed that degradation of chlorinated organics is a cometabolic mechanism, which depends on the availability of a primary sub-strate, such as the BTEX compounds, for satisfying the energy requirements of the microorganisms (microorganisms do not obtain free energy from the transformation of chlorinated solvents). The data collected at the Ash Landfill site does not indicate the availability of a primary sub-strate such as BTEX compounds. In addition, the concentration of chlorinated compounds at the source area and downgradient locations does not indicate that degradation products have been formed over time. Further, no analysis of chemical parameters which are related to biotic degradation (Table 4-5) from upgradient locations, from within the groundwater plume or from downgradient locations has been performed to confirm that biodegradation is indeed occurring.

Response #1

Disagree. We acknowledge that only low concentrations of BTEX compounds were found in the source area at the Ash Landfill, and that they are not widespread across the site. However, Parsons ES collected field data from wells located throughout the site that was used to evaluate whether or not conditions at the site are acceptable to support biotic reductive dechlorination, which is suspected to be the main mechanism of the degradation process. This data detected the presence of dissolved organic carbon in the aquifer that can serve as a source of electrons, i.e., electron donors. The redox potentials measured in several monitoring wells were in the range considered to be anaerobic, although not strongly anaerobic. The pH of the groundwater system was determined to be within the range that would support biological activity. The information suggests that site conditions were within the range that would allow degradation to occur. Also, we believe that the concentrations and distributions of chlorinated compounds in the aquifer does indicate that degradation products (i.e., vinyl chloride, cis-1,2-DCE) have been formed at the site.

Comment #2 7.0 - Summary and Conclusions:

It appears that the most significant component in the reduction of contaminant concentration in groundwater is the volatilization of contaminants to atmosphere. The modeling report concludes that near the Ash Landfill, much of the water that enters the groundwater system via precipitation is returned to the atmosphere through a combination of evapotranspiration and capillary rise in the fine-grained till. It seems obvious that with the evaporation of groundwater to the atmosphere, volatile organic compounds should also be volatizing and migrating to the atmosphere, which may constitute a major component of the fate and transport of contaminants.

Response #2 Acknowledged. While the modeling did not quantify the loss of VOCs due to ET, we believe that this is not a significant process for several reasons. First, our conceptual model does indicate that much of the water that percolates into the aquifer is subsequently lost to ET. However, as one possible explanation, we believe that much of the water that is responsible for the seasonal rise in the water table consists of "clean" water that percolates to the groundwater table, resulting in a rise in the water table. And, the low permeability of the aquifer materials, relatively low groundwater velocity, and the lack of any significant vertical gradients would tend to support a no-mixing environment in the till/weathered shale aquifer; thus forming a quasi-stratified aquifer. Generally, during the summer and fall seasons (when recharge is low and ET is high) water is lost from the aquifer due to capillary rise and ET), but it is the "clean" water on top which has not mixed significantly within the aquifer that is lost from the aquifer. Second, the historical concentrations of TCE measured in the wells indicates that the concentrations remain relatively constant. The small seasons fluctuations in the VOC concentrations may be due to mixing that occurs in the area around the monitoring wells during sampling.

Draft Final Feasibility Study Report

Comment #1 Section 1.5.1 - Baseline Human Health Risk Assessment.

This section states that the "future intended use of the site has yet to be definitively determined by the BRAC process". Perhaps this would be an appropriate place to include a description of the process by which the Army and the Local Redevelopment Authority will evaluate and select suitable uses for the Depot after its closure.

Response #1 Agreed. A discussion has been added to Section 1.5.1 about the future land use proposal developed by the Local Redevelopment Authority. As of July 1996, the Local Redevelopment Authority has recommended to the Army the following reuse alternatives for areas of SEDA:

North Administration Area	Institutional uses such as a prison facility, retirement area, or educational institution
Elliot Acres Housing	Residential use
Storage Buildings in the Administration in the eastern portion of SEDA	Industrial use
Loran Station	Transfer to the Coast Guard
Lake Front Housing	Residential use
Airfield	Special events such as flea markets and drag racing
All remaining areas of SEDA, including the Ash Landfill site	Wildlife management use

Comment #2

Section 3.4.6 - MC-5 Interceptor Trenches/Tank Storage/Filtration/Air Stripping/Discharge to Surface Water:

It is stated that the nearest point to the Kendaia Creek is over 4,000 feet from the site and a substantial piping system may be required for discharge of treated water. Parsons Engineering Science (PES) should also explore the possibility of either discharging the treated water into a tributary of the Kendaia Creek or to groundwater. These alternatives may prove to be more cost effective than the piping system.

Response #2

Agreed. It would be more cost effective to discharge the treated water into a tributary of Kendaia Creek that is nearer to the treatment area. If this is not possible, an alternative solution would be to discharge into the existing drainage ditches located along the roadways, and if necessary, upgrade the ditches to accomodate the potential volume of flow from the treatment process. These options will be investigated if this alternative is selected as the remedial alternative for migration control.

Comment #3

Section 5.2.1.3 - Reductions:

Please correct the typographical errors in this paragraph.

Response #3

Agreed. The typographical errors have been corrected.

Comment #4

Section 5.2 - Source Control:

In the discussions of short-term protectiveness for each of the source and migration control alternatives, the phrase "*...protection from exposure*

can be minimized" is used. This statement is akin to a double negative. I'm sure the consultant actually intends to maximize protection from exposure. Please correct this grammatical error.

Response #4 Agreed. The text has been revised to state that "protection from exposure will be maximized".

Comment #5 Section 5.2.1.1:

In the analysis of the no-action remedial alternative, the consultants state that security activities will continue while the parcel is under Army control. Furthermore, the costs of this security are not associated with the remedial alternative but are part of normal base activities. How will security measures be paid for after the base has closed? If a 30 year operation and maintenance period is projected, should not the cost of security after base closure be included in the cost of the remedy? This comment is relevant to all of the remedial alternatives under analysis.

Response #5 Agreed. For Alternative SC-1, the no-action source control alternative discussed in Section 5.2.1.1, security measures will not continue after SEDA becomes inactive. By definition of the no-action alternative, no remedial activities will be conducted. This alternative is retained only as a baseline for comparison with the other alternatives.

For the remaining three source control alternatives, the remedial activities will be completed within months of initiation and no security measures are required in subsequent years. Only the costs for long-term maintenance activities (for 30 years) are included in the O & M portions of the total costs.

For MC-2, the natural attenuation migration control alternative, institutional controls have been added to prevent exposure to the groundwater. These controls include deed restrictions to indicate that no drinking water wells should be constructed on-site. No security activities will be required for this alternative. The discussion of security activities has been removed from the cost analysis section for this alternative.

Comment #6 Section 5.3.1 - Alternative MC-2: Natural Attenuation of Plume/ Institutional Controls:

This alternative states that the public health and the environment will be protected by a groundwater monitoring program and institutional controls, if necessary. We believe that institutional controls can be imposed on the land owned by the Army but may not be able to impose on land owned by others, i.e., off-site farm houses. This alternative therefore should include a contingency plan, which would address any off-site well contamination in the future. The contingency plan may

include provisions for public water, treatment system at the well head or bottled water to the affected community.

Response #6 Agreed. Additional remedial actions have been added to alternative MC-2 in order to control exposure to the VOC plume by off-site receptors. An extensive groundwater monitoring program and a contingency plan, which will be initiated if the groundwater monitoring data indicates a statistically significant upward trend in the constituents of concern have been added to this alternative. The contingency plan will include deed restrictions of the off-site property and/or providing an alternative water supply.

Appendix C: ARAR Compliance

Comment #7 Table C-1:

It appears that alternative SC-5 and SC-6 mentioned in this table refer to alternatives SC-3 and SC-4 of Section 5. Please correct the discrepancy.

Response #7 Agreed. The headings of Table C-1 have been corrected.

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APPENDIX H

Supplemental Data

Tables A and B

Analysis of Metals Concentrations and Turbidity Relationship in Groundwater at the Ash Landfill

Table A

Metals Concentrations Exceeding MCL or Class GA Standards (ug/L)

	Well	Metals								Turbidity (NTUs)
		Cr	Pb	Ni	Zn	Sb	Ba	Be	Cu	
1	PT-21				733					NA
2	PT-26	69.7	17.3	106		56.9				1,700
3	MW-29	83.8	28.8	122	300					176
4	MW-43	86.2	21.9	107						1,500
5	MW-44		147							100
6	MW-46	88.4	23	101						1,031
7	MW-48		22							63
8	MW-53	76.2	25.8	107						40
9	MW-56	351	44.3	533	1100	191	1460	11.7	272	18,800
10	MW-58D	59								103
Standards:										
	Fed. MCL	100	15	100	NA	6	2000	4	1300	
	NYS GA	50	25	NA	300	NA	1000	NA	200	

Table B
Metals in Groundwater

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE I MW-35D 01/14/92 MW-35D >200 ▼	PHASE I MW-35D 01/14/92 MW-35D (Filtered) Filtered	PHASE II MW-35D 07/03/93 MW-35D 11.1 ▼	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	23200	24.5 U	72.2 U	99.7
Antimony	6	-	53.2 U	53.1 U	49.7 UJ	
Arsenic	50	25	8.6 J	4.3 J	1.4 UJ	84
Barium	2000	1000	318	104 J	106 J	67
Beryllium	4	-			0.89 U	
Cadmium	5	10	5.4	3 U	2.8 U	48
Calcium	-	-	41100	14600	28900	30
Chromium	100	50	34.9	6.2 U	2.7 UJ	92
Cobalt	-	-	20.4 U	20.4 U	5.5 U	
Copper	1300*	200	22.5 J	10.1 U	4.7 U	79
Iron	-	300	33800	7 U	40.9 J	99.9
Lead	15*	25	5	1.2 U	0.8 U	84
Magnesium	-	-	13300	4590 J	9220	31
Manganese	-	300	662	110	61.8	91
Mercury	2	2			0.14 J	
Nickel	100	-	49.7	14.7 U	7.5 UJ	85
Potassium	-	-	6230	2760 J	2590 J	58
Selenium	50	10	1.3 U	1 U	1.5 UJ	
Silver	-	50	3.4 U	3.4 U	5.5 U	
Sodium	-	20000	130000	110000	81500	37
Vanadium	-	-	32.7 J	9.4 U	6.8 UJ	79
Zinc	-	300		8.5 U	3.1 J	
Cyanide	200	100	10 U		10 UJ	

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE I MW-36 01/14/92 MW-36 >200 ↓	PHASE I MW-36 01/14/92 MW-36 (Filtered) Filtered	PHASE II MW-36 07/03/93 MW-36 42 ↓	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	15900	24.4 U	1090	93
Antimony	6	-	53.1 U	52.9 U	49.7 UJ	
Arsenic	50	25	3.5 U	3.5 U	1.4 UJ	
Barium	2000	1000	167 J		78.6 J	53
Beryllium	4	-			0.9 U	
Cadmium	5	10	3.6 J	3 U	2.8 U	22
Calcium	-	-	182000	117000	135000	26
Chromium	100	50	27.1	6.1 U	2.7 UJ	90
Cobalt	-	-	20.4 U	20.3 U	5.5 U	
Copper	1300*	200	19.8 J	10.1 U	4.7 U	76
Iron	-	300	29000	6.9 U	1260	96
Lead	15*	25	5	1.2 U	0.8 U	84
Magnesium	-	-	31000	17400	19300	38
Manganese	-	300	658	44.9	139	79
Mercury	2	2			0.09 UJ	
Nickel	100	-	39.1 J	14.7 U	7.5 UJ	81
Potassium	-	-	3310 J	1620 J	2110 J	36
Selenium	50	10	1.3 U	1 U	1.8 J	
Silver	-	50	3.4 U	3.4 U	5.5 U	
Sodium	-	20000	21300	19600	21300	0
Vanadium	-	-	23.2 J	9.4 U	6.8 UJ	71
Zinc	-	300	120	8.4 U	9.3 J	92
Cyanide	200	100	10 U		10 UJ	

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE I MW-37 01/10/92 MW-37 >200 ▼	PHASE I MW-37 01/10/92 MW-37 (Filtered) Filtered	PHASE II MW-37 06/24/93 MW-37 93 ▼	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	19100	24.5 U	637	97
Antimony	6	-	55.9 U J	53.2 U	49.7 UJ	11
Arsenic	50	25	3.5 U	3.5 U	1.4 UJ	
Barium	2000	1000	329		79.6 J	76
Beryllium	4	-			0.89 U	
Cadmium	5	10	2.9 U	3 U	2.8 U	
Calcium	-	-	279000 J	109000	115000	59
Chromium	100	50	29.8	6.2 U	2.7 UJ	91
Cobalt	-	-	28 J	20.4 U	5.5 U	80
Copper	1300*	200	25.3	10.2 U	5.4 J	79
Iron	-	300	27800	7 U	1080	96
Lead	15*	25	8	1.2 U	0.8 U	90
Magnesium	-	-	28600	17900	16100	44
Manganese	-	300	2190	84.9	129	94
Mercury	2	2			0.09 UJ	
Nickel	100	-	36.9 J	14.8 U	7.4 UJ	80
Potassium	-	-	4470 J	1330 J	1160 J	74
Selenium	50	10	1 U	1 U	1 UJ	
Silver	-	50	9.1 U	3.4 U	5.5 U	
Sodium	-	20000	11900 J	11200	15000	-26
Vanadium	-	-	30.6 U	9.5 U	6.8 UJ	
Zinc	-	300	58.8	8.5 U		
Cyanide	200	100	10 U J		10 UJ	

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE I MW-38D 01/08/92 MW-38D >200 ▼	PHASE I MW-38D 01/08/92 MW-38D (Filtered) Filtered	PHASE II MW-38D 07/03/93 MW-38D 13.2 ▼	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	2110	24.4 U	72.5 U	97
Antimony	6	-	55.6 U J	52.9 U	49.9 UJ	
Arsenic	50	25	3.5 U	3.5 U	1.4 UJ	
Barium	2000	1000	187 J	105 J	115 J	39
Beryllium	4	-			0.9 U	
Cadmium	5	10	2.9 U	3 U	2.8 U	
Calcium	-	-	123000 J	93500	93500	24
Chromium	100	50	6.6 J	6.1 U	2.7 UJ	59
Cobalt	-	-	19.9 U	20.3 U	5.5 U	
Copper	1300*	200	14.4 U	10.1 U	4.7 U	
Iron	-	300	3630	6.9 U	214	94
Lead	15*	25	4.1	1.2 U	0.79 U	81
Magnesium	-	-	16700 J	18400	16800	-1
Manganese	-	300	508	130	174	66
Mercury	2	2			0.09 UJ	
Nickel	100	-	15.9 U	14.7 U	7.5 UJ	
Potassium	-	-	4960 J	4830 J	3220 J	35
Selenium	50	10	1 U	1 J	1.5 UJ	
Silver	-	50	9 U	3.4 U	5.5 U	
Sodium	-	20000	5480 J	5540	3750 J	32
Vanadium	-	-	30.4 U	9.4 U	6.8 UJ	
Zinc	-	300		8.4 U	3.4 J	
Cyanide	200	100	10 U J		10 UJ	

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE I MW-39 01/14/92 MW-39 >200 ↓	PHASE I MW-39 01/14/92 MW-39 (Filtered) Filtered	PHASE II MW-39 06/23/93 MW-39 2 ↓	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	7930	24.5 U	72.6 U	99
Antimony	6	-	53.3 U	53.1 U	49.9 UJ	
Arsenic	50	25	3.5 U	3.5 U	1.4 UJ	
Barium	2000	1000	80.9 J		40 J	51
Beryllium	4	-			0.9 U	
Cadmium	5	10	3.1 J	3 U	2.8 U	10
Calcium	-	-	97900	83500	102000	-4
Chromium	100	50	12.5	6.2 U	2.7 UJ	78
Cobalt	-	-	20.4 U	20.4 U	5.5 U	
Copper	1300*	200	33.3	10.2 U	4.7 U	86
Iron	-	300	11400	7 U	28.2 U	100
Lead	15*	25	2.3 J	1.2 U	0.8 U	65
Magnesium	-	-	15800	12400	14100	11
Manganese	-	300	229	21	29.6	87
Mercury	2	2			0.09 UJ	
Nickel	100	-	21.1 J	14.7 U	7.5 UJ	64
Potassium	-	-	3720 J	1770 J	2420 J	35
Selenium	50	10	1.3 U	1 U	1 UJ	
Silver	-	50	3.4 U		5.5 U	
Sodium	-	20000	15100	14000	10600	30
Vanadium	-	-	13.3 J	9.5 U	6.8 UJ	
Zinc	-	300		8.5 U	7 J	
Cyanide	200	100	10 U		10 UJ	

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE I MW-40 01/09/92 MW-40 >200 ↓	PHASE I MW-40 01/09/92 MW-40 (Filtered) Filtered	PHASE II MW-40 07/01/93 MW-40 41 ↓	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	2730	24.6 U	972	64
Antimony	6	-	56 U J	53.4 U	49.9 UJ	
Arsenic	50	25	3.5 U	3.5 U	1.4 UJ	
Barium	2000	1000	77.8 J		68 J	13
Beryllium	4	-			0.9 U	
Cadmium	5	10	2.9 U	3 U	3.3 J	
Calcium	-	-	154000 J	101000	115000	25
Chromium	100	50	19.7	6.2 U	4.2 J	79
Cobalt	-	-	20 U	20.5 U	5.5 U	
Copper	1300*	200	14.5 U	10.2 U	4.7 U	
Iron	-	300	6040	7 U	1390	77
Lead	15*	25	2.1 J	1.2 U	0.8 U	62
Magnesium	-	-	14300	13800	13000	9
Manganese	-	300	931	454	77.9	92
Mercury	2	2			0.09 UJ	
Nickel	100	-	16 U	14.8 U	7.5 UJ	
Potassium	-	-	2810 J	2610 J	2250 J	20
Selenium	50	10	1 U	1 U	1.6 J	
Silver	-	50	9.1 U	3.4 U	5.5 U	
Sodium	-	20000	7540 J	7270	16600	-120
Vanadium	-	-	30.6 U	9.5 U	6.8 UJ	
Zinc	-	300		8.5 U	15.7 J	
Cyanide	200	100	10 U J		10 UJ	

Turbidity:	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-43 06/30/93 MW-43 1500 ▼	PHASE IIA MW-43 11/06/93 MW-43 125	% Reduction in Concentration High Turbidity to Low Turbidity
Metals (µg/l)					
Aluminum	-	-	52700	N	NA
Antimony	6	-	49.8 UJ	N	NA
Arsenic	50	25	1.4 UJ	N	NA
Barium	2000	1000	358	N	NA
Beryllium	4	-	2.5 J	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	403000	N	NA
Chromium	100	50	86.2 J	N	NA
Cobalt	-	-	36.1 J	N	NA
Copper	1300*	200	61.4	N	NA
Iron	-	300	86500	N	NA
Lead	15*	25	21.9	N	NA
Magnesium	-	-	36100	N	NA
Manganese	-	300	2260	N	NA
Mercury	2	2	0.35 J	N	NA
Nickel	100	-	107 J	N	NA
Potassium	-	-	10300	N	NA
Selenium	50	10	5 UJ	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	11900	N	NA
Vanadium	-	-	73.4 J	N	NA
Zinc	-	300	223	N	NA
Cyanide	200	100	10 UJ	N	NA

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-44 07/15/93 MW-44 100 ↓	PHASE IIA MW-44 11/06/93 MW-44	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	12300 J	N	NA
Antimony	6	-	49.7 U	N	NA
Arsenic	50	25	7.8 J	N	NA
Barium	2000	1000	317	N	NA
Beryllium	4	-	1.5 J	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	370000	N	NA
Chromium	100	50	18.2 J	N	NA
Cobalt	-	-	22.5 J	N	NA
Copper	1300*	200	12.9 J	N	NA
Iron	-	300	18500 J	N	NA
Lead	15*	25	147	N	NA
Magnesium	-	-	41100	N	NA
Manganese	-	300	7120	N	NA
Mercury	2	2	0.38	N	NA
Nickel	100	-	30.5 J	N	NA
Potassium	-	-	6680	N	NA
Selenium	50	10	10 UJ	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	37600	N	NA
Vanadium	-	-	13.3 J	N	NA
Zinc	-	300	117 J	N	NA
Cyanide	200	100	4.3 J	N	NA

Turbidity:	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-45 07/15/93 MW-45 54 ▼	PHASE IIA MW-45 11/06/93 MW-45 31.4	% Reduction in Concentration High Turbidity to Low Turbidity
Metals (µg/l)					
Aluminum	-	-	21300 J	N	NA
Antimony	6	-	49.6 U	N	NA
Arsenic	50	25	2.7 J	N	NA
Barium	2000	1000	243	N	NA
Beryllium	4	-	1.6 J	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	181000	N	NA
Chromium	100	50	29.1 J	N	NA
Cobalt	-	-	28.3 J	N	NA
Copper	1300*	200	8.7 J	N	NA
Iron	-	300	30100 J	N	NA
Lead	15*	25	5.8	N	NA
Magnesium	-	-	22100	N	NA
Manganese	-	300	1010	N	NA
Mercury	2	2	0.18 J	N	NA
Nickel	100	-	45.3 J	N	NA
Potassium	-	-	6220	N	NA
Selenium	50	10	0.99 UJ	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	8420	N	NA
Vanadium	-	-	26.2 J	N	NA
Zinc	-	300	116 J	N	NA
Cyanide	200	100	1.3 J	N	NA

Turbidity: Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-46 07/14/93 MW-46 1031 ↓	PHASE IIA MW-46 11/06/93 MW-46	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	55300	N	NA
Antimony	6	-	49.7 U	N	NA
Arsenic	50	25	3.1 J	N	NA
Barium	2000	1000	813	N	NA
Beryllium	4	-	2.5 J	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	459000	N	NA
Chromium	100	50	88.4	N	NA
Cobalt	-	-	36.7 J	N	NA
Copper	1300*	200	49.6	N	NA
Iron	-	300	85600 J	N	NA
Lead	15*	25	23	N	NA
Magnesium	-	-	43600	N	NA
Manganese	-	300	2770	N	NA
Mercury	2	2	0.41 J	N	NA
Nickel	100	-	101	N	NA
Potassium	-	-	11600	N	NA
Selenium	50	10	2.9 J	N	NA
Silver	-	50	7.2 J	N	NA
Sodium	-	20000	11700	N	NA
Vanadium	-	-	81.9	N	NA
Zinc	-	300	240	N	NA
Cyanide	200	100	1.2 U	N	NA

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-47 07/10/93 MW-47 192 ▼	PHASE IIA MW-47 11/07/93 MW-47 51.8	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	17900	N	NA
Antimony	6	-	49.6 UJ	N	NA
Arsenic	50	25	1.7 J	N	NA
Barium	2000	1000	214	N	NA
Beryllium	4	-	0.89 U	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	153000	N	NA
Chromium	100	50	27.5 J	N	NA
Cobalt	-	-	11.2 J	N	NA
Copper	1300*	200	18 J	N	NA
Iron	-	300	23400	N	NA
Lead	15*	25	8.3	N	NA
Magnesium	-	-	18700	N	NA
Manganese	-	300	614	N	NA
Mercury	2	2	0.09 UJ	N	NA
Nickel	100	-	30 J	N	NA
Potassium	-	-	4730 J	N	NA
Selenium	50	10	1.5 UJ	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	11000	N	NA
Vanadium	-	-	27.3 J	N	NA
Zinc	-	300		N	NA
Cyanide	200	100	4.4 UJ	N	NA

Turbidity:	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-48 07/15/93 MW-48 63 ▼	PHASE IIA MW-48 11/05/93 MW-48 753	% Reduction in Concentration High Turbidity to Low Turbidity
Metals (µg/l)					
Aluminum	-	-	22700 J	N	NA
Antimony	6	-	49.5 U	N	NA
Arsenic	50	25	3.9 J	N	NA
Barium	2000	1000	259	N	NA
Beryllium	4	-	1.8 J	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	202000	N	NA
Chromium	100	50	36.2 J	N	NA
Cobalt	-	-	27.8 J	N	NA
Copper	1300*	200	14.4 J	N	NA
Iron	-	300	34700 J	N	NA
Lead	15*	25	22	N	NA
Magnesium	-	-	25800	N	NA
Manganese	-	300	1230	N	NA
Mercury	2	2	2.3	N	NA
Nickel	100	-	50 J	N	NA
Potassium	-	-	5520	N	NA
Selenium	50	10	10 UJ	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	10400	N	NA
Vanadium	-	-	29.4 J	N	NA
Zinc	-	300	149 J	N	NA
Cyanide	200	100	1.2 U	N	NA

Turbidity:	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-49D 07/14/93 MW-49D 11 ▼	PHASE IIA MW-49D 11/06/93 MW-49D 21.7	% Reduction in Concentration High Turbidity to Low Turbidity
Metals (µg/l)					
Aluminum	-	-	82.9 J	N	NA
Antimony	6	-		N	NA
Arsenic	50	25	1.4 U	N	NA
Barium	2000	1000	95 J	N	NA
Beryllium	4	-	0.9 U	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	86600	N	NA
Chromium	100	50	2.7 U	N	NA
Cobalt	-	-	5.5 U	N	NA
Copper	1300*	200	5 J	N	NA
Iron	-	300	719 J	N	NA
Lead	15*	25	0.59 U	N	NA
Magnesium	-	-	20500	N	NA
Manganese	-	300	98.9	N	NA
Mercury	2	2	0.09 UJ	N	NA
Nickel	100	-	7.5 U	N	NA
Potassium	-	-	2520 J	N	NA
Selenium	50	10	1.5 U	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	12200	N	NA
Vanadium	-	-	6.8 U	N	NA
Zinc	-	300	22.3	N	NA
Cyanide	200	100	1.7 J	N	NA

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-50D 07/14/93 MW-50D 16.8 ↓	PHASE IIA MW-50D 11/06/93 MW-50D 11	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	81.6 J	N	NA
Antimony	6	-		N	NA
Arsenic	50	25	1.4 U	N	NA
Barium	2000	1000	65.9 J	N	NA
Beryllium	4	-	0.89 U	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	45900	N	NA
Chromium	100	50	2.7 U	N	NA
Cobalt	-	-	5.5 U	N	NA
Copper	1300*	200	7 J	N	NA
Iron	-	300	112 J	N	NA
Lead	15*	25	0.6 U	N	NA
Magnesium	-	-	20800	N	NA
Manganese	-	300	72.2	N	NA
Mercury	2	2	0.09 UJ	N	NA
Nickel	100	-	7.4 U	N	NA
Potassium	-	-	2800 J	N	NA
Selenium	50	10	1.5 U	N	NA
Silver	-	50	5.6 J	N	NA
Sodium	-	20000	21100	N	NA
Vanadium	-	-	6.7 U	N	NA
Zinc	-	300	23.4	N	NA
Cyanide	200	100	1.4 J	N	NA

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-51D 07/10/93 MW-51D 5.7 ↓	PHASE IIA MW-51D 11/07/93 MW-51D 10.5	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	113 J	N	NA
Antimony	6	-	49.8 UJ	N	NA
Arsenic	50	25	1.4 UJ	N	NA
Barium	2000	1000	81.2 J	N	NA
Beryllium	4	-	0.9 U	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	103000	N	NA
Chromium	100	50	2.7 UJ	N	NA
Cobalt	-	-	5.5 U	N	NA
Copper	1300*	200	4.7 U	N	NA
Iron	-	300	121	N	NA
Lead	15*	25	0.59 U	N	NA
Magnesium	-	-	15400	N	NA
Manganese	-	300	81.7	N	NA
Mercury	2	2	0.09 UJ	N	NA
Nickel	100	-	7.5 UJ	N	NA
Potassium	-	-	774 J	N	NA
Selenium	50	10	1.5 UJ	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	12100	N	NA
Vanadium	-	-	6.8 UJ	N	NA
Zinc	-	300		N	NA
Cyanide	200	100	5.3 UJ	N	NA

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-52D 07/02/93 MW-52D 700 ▼	PHASE IIA MW-52D 11/07/93 MW-52D 410	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	31200	N	NA
Antimony	6	-	49.7 UJ	N	NA
Arsenic	50	25	2.8 J	N	NA
Barium	2000	1000	271	N	NA
Beryllium	4	-	2.2 J	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-		N	NA
Chromium	100	50	23.8 J	N	NA
Cobalt	-	-	8.3 J	N	NA
Copper	1300*	200	13.9 J	N	NA
Iron	-	300	24800	N	NA
Lead	15*	25	14	N	NA
Magnesium	-	-	11700	N	NA
Manganese	-	300	340	N	NA
Mercury	2	2	0.09 UJ	N	NA
Nickel	100	-	33.4 J	N	NA
Potassium	-	-	5020	N	NA
Selenium	50	10	1.5 UJ	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	126000	N	NA
Vanadium	-	-	28.1 J	N	NA
Zinc	-	300	111	N	NA
Cyanide	200	100	10 UJ	N	NA

Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-53 07/13/93 MW-53	PHASE IIA MW-53 11/05/93 MW-53	% Reduction in Concentration High Turbidity to Low Turbidity
Turbidity:			40 ↓	78.8	
Aluminum	-	-	47700	N	NA
Antimony	6	-		N	NA
Arsenic	50	25	5.3 J	N	NA
Barium	2000	1000	325	N	NA
Beryllium	4	-	2.5 J	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	166000	N	NA
Chromium	100	50	76.2	N	NA
Cobalt	-	-	54.5	N	NA
Copper	1300*	200	70.5	N	NA
Iron	-	300	80900 J	N	NA
Lead	15*	25	25.8	N	NA
Magnesium	-	-	34400	N	NA
Manganese	-	300	2930	N	NA
Mercury	2	2	0.09 UJ	N	NA
Nickel	100	-	107	N	NA
Potassium	-	-	9280	N	NA
Selenium	50	10	1.5 U	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	33000	N	NA
Vanadium	-	-	71.2	N	NA
Zinc	-	300	284	N	NA
Cyanide	200	100	1.8 J	N	NA

Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-54D 07/13/93 MW-54D	PHASE IIA MW-54D 11/05/93 MW-54D	% Reduction in Concentration
Turbidity:			17.6 ▼	7.6	**High Turbidity to Low Turbidity**
Aluminum	-	-	246	N	NA
Antimony	6	-		N	NA
Arsenic	50	25	1.4 U	N	NA
Barium	2000	1000	151 J	N	NA
Beryllium	4	-	0.9 U	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	64600	N	NA
Chromium	100	50	2.7 U	N	NA
Cobalt	-	-	5.5 U	N	NA
Copper	1300*	200	5.5 J	N	NA
Iron	-	300	507 J	N	NA
Lead	15*	25	0.59 U	N	NA
Magnesium	-	-	20700	N	NA
Manganese	-	300	145	N	NA
Mercury	2	2	0.09 UJ	N	NA
Nickel	100	-	7.5 U	N	NA
Potassium	-	-	2910 J	N	NA
Selenium	50	10	1.5 U	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	29500	N	NA
Vanadium	-	-	6.8 U	N	NA
Zinc	-	300	8 J	N	NA
Cyanide	200	100	2.1 J	N	NA

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-55D 07/15/93 MW-55D 23.1 ▼	PHASE IIA MW-55D 11/05/93 MW-55D 200	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	4140 J	N	NA
Antimony	6	-	49.5 U	N	NA
Arsenic	50	25	1.9 U	N	NA
Barium	2000	1000	117 J	N	NA
Beryllium	4	-	0.89 U	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	8580	N	NA
Chromium	100	50	7.1 J	N	NA
Cobalt	-	-	5.4 U	N	NA
Copper	1300*	200	4.7 UJ	N	NA
Iron	-	300	5310 J	N	NA
Lead	15*	25	1.3 J	N	NA
Magnesium	-	-	2950 J	N	NA
Manganese	-	300	86.2	N	NA
Mercury	2	2	0.09 U	N	NA
Nickel	100	-	7.4 UJ	N	NA
Potassium	-	-	2670 J	N	NA
Selenium	50	10	1 UJ	N	NA
Silver	-	50	5.4 U	N	NA
Sodium	-	20000	114000	N	NA
Vanadium	-	-	6.7 UJ	N	NA
Zinc	-	300		N	NA
Cyanide	200	100	1.2 U	N	NA

Turbidity: / Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-56 07/02/93 MW-56 18800 ▼	PHASE IIA MW-56 11/07/93 MW-56 44.8	PHASE IIA MW-56RE 11/07/93 MW-56RE	% Reduction in Concentration High Turbidity to Low Turbidity
Aluminum	-	-	228000	N	N	NA
Antimony	6	-	191 J	N	N	NA
Arsenic	50	25	1.4 UJ	N	N	NA
Barium	2000	1000	1460	N	N	NA
Beryllium	4	-	11.7	N	N	NA
Cadmium	5	10	2.8 U	N	N	NA
Calcium	-	-	287000	N	N	NA
Chromium	100	50	351 J	N	N	NA
Cobalt	-	-	201	N	N	NA
Copper	1300*	200	272	N	N	NA
Iron	-	300	379000	N	N	NA
Lead	15*	25	44.3	N	N	NA
Magnesium	-	-	100000	N	N	NA
Manganese	-	300	10600	N	N	NA
Mercury	2	2	0.13 J	N	N	NA
Nickel	100	-	533 J	N	N	NA
Potassium	-	-	24800	N	N	NA
Selenium	50	10	1.5 UJ	N	N	NA
Silver	-	50	5.4 U	N	N	NA
Sodium	-	20000	19500	N	N	NA
Vanadium	-	-	317 J	N	N	NA
Zinc	-	300	1100	N	N	NA
Cyanide	200	100	10 UJ	N	N	NA

Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-57D 07/02/93 MW-57D	PHASE IIA MW-57D 11/07/93 MW-57D	% Reduction in Concentration High Turbidity to Low Turbidity
Turbidity:			790 ▼	359	
Aluminum	-	-	18500	N	NA
Antimony	6	-	49.6 UJ	N	NA
Arsenic	50	25	2.8 J	N	NA
Barium	2000	1000	617	N	NA
Beryllium	4	-	1.2 J	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	61800	N	NA
Chromium	100	50	32.2 J	N	NA
Cobalt	-	-	11.3 J	N	NA
Copper	1300*	200	18.1 J	N	NA
Iron	-	300	31000	N	NA
Lead	15*	25	6.7	N	NA
Magnesium	-	-	12300	N	NA
Manganese	-	300	791	N	NA
Mercury	2	2	0.09 UJ	N	NA
Nickel	100	-	37.3 J	N	NA
Potassium	-	-	4830 J	N	NA
Selenium	50	10	1.5 UJ	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	148000	N	NA
Vanadium	-	-	28.8 J	N	NA
Zinc	-	300	67.2	N	NA
Cyanide	200	100	10 UJ	N	NA

Turbidity:	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-58D 07/10/93 MW-58D 103 ▼	PHASE IIA MW-58D 11/07/93 MW-58D >1000	% Reduction in Concentration High Turbidity to Low Turbidity
Metals (µg/l)					
Aluminum	-	-	40100	N	NA
Antimony	6	-	49.6 UJ	N	NA
Arsenic	50	25	3.3 J	N	NA
Barium	2000	1000	705	N	NA
Beryllium	4	-	3.5 J	N	NA
Cadmium	5	10	2.8 U	N	NA
Calcium	-	-	71400	N	NA
Chromium	100	50	59.2 J	N	NA
Cobalt	-	-	19.8 J	N	NA
Copper	1300*	200	32.3	N	NA
Iron	-	300	50200	N	NA
Lead	15*	25	13.5	N	NA
Magnesium	-	-	19100	N	NA
Manganese	-	300	1100	N	NA
Mercury	2	2	0.09 UJ	N	NA
Nickel	100	-	65.8 J	N	NA
Potassium	-	-	11200	N	NA
Selenium	50	10	1.5 UJ	N	NA
Silver	-	50	5.5 U	N	NA
Sodium	-	20000	147000	N	NA
Vanadium	-	-	67.1 J	N	NA
Zinc	-	300	122	N	NA
Cyanide	200	100	3.8 UJ	N	NA

Turbidity:	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE IIB MW-59 04/11/94 MW-59 8.4 ↓	% Reduction in Concentration High Turbidity to Low Turbidity	PHASE IIB MW-60 04/11/94 MW-60 2.2 ↓	% Reduction in Concentration High Turbidity to Low Turbidity
Metals (µg/l)						
Aluminum	-	-	247	NA	75.4 J	NA
Antimony	6	-	1 U	NA	0.99 U	NA
Arsenic	50	25	1.5 U	NA	1.5 U	NA
Barium	2000	1000	101 J	NA	30.6 J	NA
Beryllium	4	-	0.06 U	NA	0.06 U	NA
Cadmium	5	10	0.1 U	NA	0.12 J	NA
Calcium	-	-	208000	NA	97400	NA
Chromium	100	50	0.5 J	NA	0.4 U	NA
Cobalt	-	-	0.87 J	NA	0.6 J	NA
Copper	1300*	200	1.5 J	NA	1.2 J	NA
Iron	-	300	505	NA	120	NA
Lead	15*	25	0.8 U	NA	0.8 U	NA
Magnesium	-	-	43300	NA	13400	NA
Manganese	-	300	79.1	NA	17.7	NA
Mercury	2	2	0.03 U	NA	0.03 U	NA
Nickel	100	-	2.1 J	NA	1.1 J	NA
Potassium	-	-	1570 J	NA	490 J	NA
Selenium	50	10	1.7 U	NA	1.7 U	NA
Silver	-	50	0.7 U	NA	0.7 U	NA
Sodium	-	20000	38300	NA	8180	NA
Vanadium	-	-	0.86 J	NA	0.81 J	NA
Zinc	-	300	2.8 J	NA	1.8 J	NA
Cyanide	200	100	5 U	NA	5 U	NA

Turbidity: Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-80 07/13/93 Dup of PT-17	PHASE II MW-82 07/10/93 Dup of PT-24
Aluminum	-	-	84.7 J	142 J
Antimony	6	-		50 UJ
Arsenic	50	25	1.4 U	1.4 UJ
Barium	2000	1000	54.2 J	46.8 J
Beryllium	4	-	0.89 U	0.9 U
Cadmium	5	10	2.8 U	2.8 U
Calcium	-	-	116000	113000
Chromium	100	50	2.7 U	2.7 UJ
Cobalt	-	-	5.5 U	5.5 U
Copper	1300*	200	5.8 J	4.7 U
Iron	-	300	93.8 J	162
Lead	15*	25	0.6 U	0.6 U
Magnesium	-	-	11400	12700
Manganese	-	300	6.4 J	32.3
Mercury	2	2	0.09 UJ	0.09 UJ
Nickel	100	-	7.4 U	7.5 UJ
Potassium	-	-	1560 J	1260 J
Selenium	50	10	1.5 U	1.5 UJ
Silver	-	50	5.5 U	5.5 U
Sodium	-	20000	28600	14800
Vanadium	-	-	6.8 U	6.8 UJ
Zinc	-	300	3.1 J	
Cyanide	200	100	4 J	1.2 UJ

Turbidity: Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-84 07/15/93 Dup of MW-44	PHASE II MW-86 07/14/93 Dup of MW-46
Aluminum	-	-	45600 J	91200
Antimony	6	-	77.7	
Arsenic	50	25	6.3 J	2.3 J
Barium	2000	1000	408	1190
Beryllium	4	-	2.4 J	4 J
Cadmium.	5	10	2.8 U	2.8 U
Calcium	-	-	385000	481000
Chromium	100	50	77.8 J	143
Cobalt	-	-	40.3 J	57.4
Copper	1300*	200	49.2 J	75.4
Iron	-	300	75700 J	141000 J
Lead	15*	25	132	20.1
Magnesium	-	-	54700	57800
Manganese	-	300	7560	3290
Mercury	2	2	0.18 J	0.25 J
Nickel	100	-	99 J	169
Potassium	-	-	11600	16400
Selenium	50	10	9.9 UJ	1.5 U
Silver	-	50	5.5 U	5.5 U
Sodium	-	20000	38400	11900
Vanadium	-	-	64.6 J	128
Zinc	-	300	257 J	383
Cyanide	200	100	3.4 J	1.2 U

Turbidity: Metals (µg/l)	EPA MCL (µg/l)	NYSDEC CLASS GA (µg/l)	PHASE II MW-88 07/10/93 Dup of MW-58D	PHASE II MW-88RE 07/10/93 Dup of MW-58D
Aluminum	-	-	76500	N
Antimony	6	-	50 UJ	N
Arsenic	50	25	4.3 J	N
Barium	2000	1000	1060	N
Beryllium	4	-	5.4	N
Cadmium	5	10	2.8 U	N
Calcium	-	-	75100	N
Chromium	100	50	111 J	N
Cobalt	-	-	36.7 J	N
Copper	1300*	200	53.2	N
Iron	-	300	91100	N
Lead	15*	25	16.3	N
Magnesium	-	-	31300	N
Manganese	-	300	1410	N
Mercury	2	2	0.09 UJ	N
Nickel	100	-	118 J	N
Potassium	-	-	21700	N
Selenium	50	10	1.5 UJ	N
Silver	-	50	5.5 U	N
Sodium	-	20000	149000	N
Vanadium	-	-	123 J	N
Zinc	-	300	186	N
Cyanide	200	100	3.5 UJ	N

Groundwater Sampling Results
Post Non-time Critical Removal Action

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-44

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 93206

Lab Code: INCHVT Case No.: OBASH SAS No.: SDG No.: 56643

Matrix: (soil/water) WATER Lab Sample ID: 289680

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: S289680DV

Level: (low/med) LOW Date Received: 02/03/96

% Moisture: not dec. _____ Date Analyzed: 02/08/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 5.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	50	U
74-83-9	Bromomethane	50	U
75-01-4	Vinyl Chloride	360	
75-00-3	Chloroethane	50	U
75-09-2	Methylene Chloride	50	U
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	50	U
75-35-4	1,1-Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	50	U
540-59-0	1,2-Dichloroethene (total)	730	
67-66-3	Chloroform	50	U
107-06-2	1,2-Dichloroethane	50	U
78-93-3	2-Butanone	50	U
71-55-6	1,1,1-Trichloroethane	50	U
56-23-5	Carbon Tetrachloride	50	U
75-27-4	Bromodichloromethane	50	U
78-87-5	1,2-Dichloropropane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
79-01-6	Trichloroethene	42	J
124-48-1	Dibromochloromethane	50	U
79-00-5	1,1,2-Trichloroethane	50	U
71-43-2	Benzene	50	U
10061-02-6	trans-1,3-Dichloropropene	50	U
75-25-2	Bromoform	50	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-88-3	Toluene	50	U
108-90-7	Chlorobenzene	50	U
100-41-4	Ethylbenzene	50	U
100-42-5	Styrene	50	U
1330-20-7	Xylene (total)	50	U