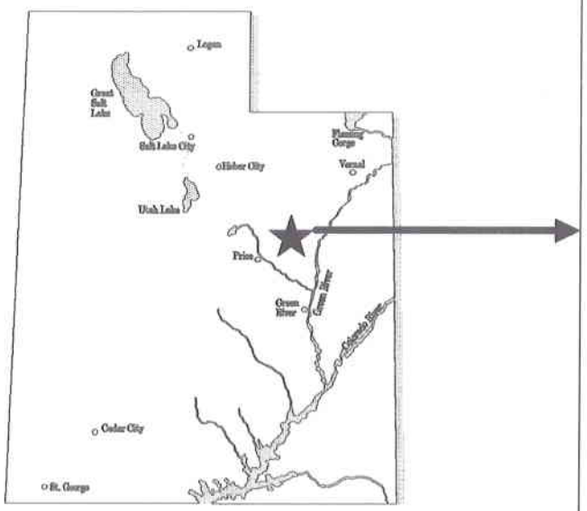
SUNNYSIDE COGENERATION ASSOCIATES

Permit Application (PRO/007/035)

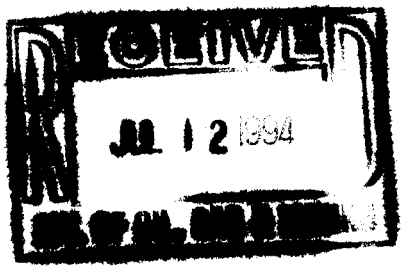


Book Five
Chapter Eight - Bonding

Eckhoff, Watson and Preator Engineering

in conjunction with Callister, Duncan & Nebeker

APPLICATION FOR PERMIT RIGHTS
(ACT/007-035)



BOOK FIVE

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Prepared by:

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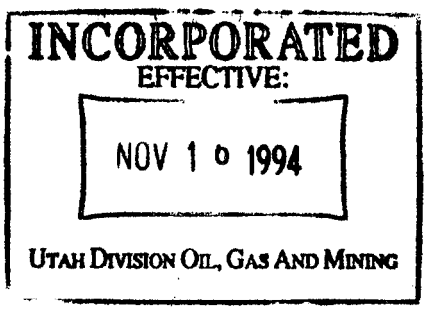

In conjunction with:

Callister Duncan & Nebeker
Suite 800 Kennecott Building
Salt Lake City, Utah 84133

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800 BONDING AND INSURANCE

820 REQUIREMENT TO FILE BOND

SCA currently has on file with the Division of Oil, Gas and Mining (DOGM), a bond or bonds for performance made payable to DOGM and conditioned upon the faithful performance of all the requirements of the State Program, the permit and the reclamation plan.

Once reclamation operations have begun, all areas will be protected from further surface disturbance prior to the acceptance by the DOGM. Chapter 9 and Chapter 10 outline full details of the reclamation activities and describe how each area within the SCA Permit Area will be reclaimed. The Contemporaneous Reclamation Plan is included in Chapter 9 and the Final Reclamation Plan is included in Chapter 10. Activities mentioned in the reclamation plans have been estimated and included in the total bond amount.

830 DETERMINATION OF BOND AMOUNT

SCA proposes that the amount of the bond be determined as set forth in Appendix 8-2, Bond Estimate Verification. The total costs shown in Table 8-1 are substantiated on Tables 8-2 through 8-11 and on Plates 8-1 through 8-5. Costs were determined using 1994 Means Site Work and Landscape Cost Data and recently received Bids for similar reclamation work on the site.

The Worst Case Scenario Reclamation Plan and supporting cost calculations are to be used by the Division to determine the required performance bond amount as outlined in R645-301-830. Determination of the bond amount has given consideration to such factors as topography, geology, hydrology and revegetation potential. Actual reclamation of the SCA permit area can be based on this reclamation plan in the event of forfeiture of the bond (R645-301-880.900).

The General Reclamation Procedures described in the text of Chapter Nine are applicable to the reclamation necessary in the worst case scenario. There are a total of 209 acres that will require reclamation. Reclamation tasks should require the approximate number of days shown on Tables 8-1 through 8-11. Distribution of borrow material and seeding are the only items on the critical path. Other tasks can be accomplished during the time that borrow material is being distributed.

Plates 8-1, 8-1A, 8-1B, 8-1C, 8-1D, and 8-1E, identify the areas to be reclaimed during Phase One or Phase Two Reclamation. The majority of the permit area will be reclaimed during Phase One. In general, Phase Two areas are composed of: areas around sediment ponds; roads needed for access until Phase Two Reclamation, but not needed for access to easements through the Permit Area; and the topsoil piles previously set aside for covering these Phase Two areas.

Plates 8-2, 8-2A, 8-2B, 8-2C, 8-2D, and 8-2E, identify roughly-graded contours which are acceptable for reaching the post-mining land use.

Appendix 8-1 provides a comprehensive hydrologic plan of the permit area requiring reclamation. Plates

8-3, 8-3A, 8-3B, 8-3C, 8-3D, and 8-3E identify the drainage areas, diversions, and sediment controls to be used in the Worst Case Scenario Reclamation.

Plate 8-4 shows the quantity of approved borrow material that is available for use and the depth of borrow material cover or other surface treatment desired for the post-law disturbed area within the permit boundaries. Areas from which coal-type or acid/toxic material will not be removed are shown to be covered with four feet of borrow material. Areas which would require four feet and have already been covered with two feet for interim reclamation purposes are shown to be covered with two feet of borrow material. Areas without significant quantities of coal material, but which, under present conditions, would require borrow material cover to achieve sufficient revegetation success, are shown to be covered with eighteen inches of borrow material. Areas which have not been significantly contaminated with coal materials will be cleaned and are shown to be scarified. If topsoil was salvaged at the time the area was first disturbed, the area is shown to be scarified and covered with topsoil.

Plate 8-5 shows the areas to be seeded with the different approved seed mixture. The seed mixtures are identified on Plate 10-1.

Approximately 75 percent of the disturbed portion of the SCA Permit Site was originally disturbed prior to the laws of 1977 (See Plate 5-7 Previously Mined Areas, and Plate 5-8 Existing Surface and Subsurface Facilities and Features). SCA intends to reclaim all of the disturbed land that has continued to be used for mining purposes since these laws took affect. However, the bond includes an amount for Monitoring and Maintenance of the new disturbed area set at two percent (25% of 8%) of the estimated total reclamation costs.

Costs may be adjusted as conditions of the SCA Permit Area are altered. The SCA Permit Area will be undergoing constant changes as contemporaneous reclamation proceeds. As a result, the permittee will request a reduction of the applicable value of the bond, in accordance with R645-301-880, as reclamation takes place over portions of the permit area. DOGM has the discretion to alter the bond amount to reflect current conditions of the SCA Permit Area.

890 TERMS AND CONDITIONS FOR LIABILITY INSURANCE

Certificate

Figure 8-1~~8-3~~ is the required proof of insurance certificate. It was issued by an insurance company, authorized to do business in Utah, certifying that Applicant has a public liability insurance policy in force for the coal mining and reclamation activities for which the permit is sought.

Rider

The policy includes a rider requiring that the insurer notify DOGM whenever substantive changes are made in the policy including any termination or failure to renew.

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800 BONDING AND INSURANCE

820 REQUIREMENT TO FILE BOND

SCA currently has on file with the Division of Oil, Gas and Mining (DOGM), a bond or bonds for performance made payable to DOGM and conditioned upon the faithful performance of all the requirements of the State Program, the permit and the reclamation plan.

Once reclamation operations have begun, all areas will be protected from further surface disturbance prior to the acceptance by the DOGM. Chapter 9 and Chapter 10 outline full details of the reclamation activities and describe how each area within the SCA Permit Area will be reclaimed. The Interim Reclamation Plan is included in Chapter 9 and the Final Reclamation Plan is included in Chapter 10. Activities mentioned in the reclamation plans have been estimated and included in the total bond amount.

830 DETERMINATION OF BOND AMOUNT

SCA proposes that the amount of the bond be determined as set forth in Appendix 8-2, Bond Estimate Verification. The total costs shown in Table 8-1 are substantiated on Tables 8-2 through 8-11 and on Plates 8-1 through 8-5. Costs were determined using the 1997 Blue Book Rental Rate Guide, the Catapillar Performance handbook, and the 1997 Means Estimating Guides.

The Permit Term Reclamation Plan and supporting cost calculations are to be used by the Division to determine the required performance bond amount as outlined in R645-301-830. Determination of the bond amount has given consideration to such factors as topography, geology, hydrology and revegetation potential. Actual reclamation of the SCA permit area can be based on this reclamation plan in the event of forfeiture of the bond (R645-301-880.900).

PROPOSED PERMIT TERM RECLAMATION SCENARIO

The Permit Term Reclamation Plan is based on a scenario during the 1998 -2003 Permit Term representing partial removal of the refuse which existed prior to the beginning of mining operations under the direction of SCA. The intended Final Reclamation Plan is reflected in Chapter Ten which is based on the scenario which would occur following removal of the combustible refuse in the pile. The estimated bond calculations do not anticipate placing four feet of cover over the entire disturbed area (see Plate 8-4 for cover depths corresponding to different portions of the permitted area). Regrading costs estimated to facilitate drainage from the refuse area (Slurry Ponds #1 &#2, and the East and West Slurry Cells) are included in Table 8-5, for pond reclamation. Additional regrading costs estimated to remove potential highwalls from the active mining area are included in Table 8-6. Evidence was not found in the program to characterize the refuse pile which indicated significant quantities of precipitate materials as previously suspected by the Division. Contaminated underlying soil materials were also not found (see Appendix 6-7).

Large quantities of material are not anticipated to require disposal at certain intermediate stages of

operation nor following extraction of combustible fuel materials. Rather, the excess spoil disposal areas are expected to be constructed by disposing of the specified materials incrementally throughout the life of mining operations.

The General Reclamation Procedures described in the text of Chapter Nine are applicable to the reclamation necessary in the worst case scenario. The total number of acres that will require reclamation is shown on Plate 8-4. Reclamation tasks should require the approximate number of days shown on Tables 8-1 through 8-11 (assuming necessary coordination and weather conditions conducive to maximum production). Distribution of borrow material and seeding are the only items on the critical path. Other tasks can be accomplished during the time that borrow material is being distributed.

RECLAMATION PHASING

Plates 8-1, 8-1A, 8-1B, 8-1C, 8-1D, and 8-1E, identify the areas to be reclaimed during Phase One or Phase Two Reclamation. The majority of the permit area will be reclaimed during Phase One. In general, Phase Two areas are composed of: areas around sediment ponds; roads needed for access until Phase Two Reclamation, but not needed for access to easements through the Permit Area; and the topsoil piles previously set aside for covering these Phase Two areas.

ROADS AND PERMANENT STRUCTURES

Some existing roads within the SCA permit area will be required to provide occasional access to other non-mining related entities in accordance with existing easements through the SCA property. The easements which require road access are those associated with maintenance of power lines which cross through the property (power lines are identified on Plates 5-1 and easements are identified on Plate 1-1). An easement or right of way also exists for the railroad towards the west and north sides of the permit area and access to these areas may also be needed at some future time. The anticipated level of activity for these roads would be minimal.

Portions of Roads B, E, J, K, Q, & R (as identified on Plates 5-2) are anticipated to be necessary for future access. The portions of these roads which will not be reclaimed are represented on Plates 8-1, 8-4, and 8-5 by leaving these roadway sections uncolored, unshaded, or unhatched. All other roadways are planned for reclamation and are shown as such on the above named plates. Roads which are not reclaimed will be maintained in accordance with the requirements for permanent transportation facilities. Chapter Five and associated drawings discuss the design, operation and maintenance for all roadways. The approved post-mining land use as described in Chapter Four should not be adversely affected by retention of the five roadway sections mentioned above.

No other structures associated with the mining operation are anticipated to remain as permanent structures. If other structures which are not currently anticipated in this plan, become necessary to meet the post-mining land use, SCA will submit a permit amendment to DOGM to request the change.

REGRADING

Plates 8-2, 8-2A, 8-2B, 8-2C, 8-2D, and 8-2E, identify roughly-graded contours which are acceptable for reaching the post-mining land use. The intent of regrading is to smooth out evidences of excavation benches and create acceptable surface drainage conditions. Modifications to the regrading plan are expected to be necessary depending on the actual conditions which exist in the event of bond forfeiture at some future time. Current impoundment's such as Slurry Ponds #1 and #2 and the East and West Slurry

Cells are shown to be filled, breached, and/or regraded to the extent that drainage off of the site would be facilitated without impounding large quantities of water. Costs estimated to breach these impoundment's for drainage purposes are included in Table 8-5. General regrading of the active mining area may be necessary to smooth out high walls, benches, or other temporary mining characteristics. General regrading costs are estimated in Table 8-6. In an effort to be conservative, the quantity of regrading used in bond calculations (see table 8-2) has been significantly inflated from the sum of calculated amounts referenced above.

HYDROLOGY

Appendix 8-1 provides a comprehensive hydrologic plan of the permit area requiring reclamation. Plates 8-3, 8-3A, 8-3B, 8-3C, 8-3D, and 8-3E identify the drainage areas, diversions, and sediment controls to be used in the Worst Case Scenario Reclamation.

RECLAMATION SOIL COVER

Plate 8-4 shows the quantity of approved borrow material that is available for use and the depth of borrow material cover or other surface treatment desired for the post-law disturbed area within the permit boundaries. Areas from which coal-type or acid/toxic material will not be removed are shown to be covered with four feet of borrow material.

The program for characterization of the refuse pile (see Appendix 6-7) found that the majority of the refuse material analyzed was not potentially acid nor toxic forming. Nonetheless, SCA has maintained the commitment to cover coal mine waste with four feet of borrow material for vegetative purposes. In the future, SCA may utilize revegetated test areas to demonstrate that less than four feet of soil cover is necessary for revegetation.

Areas which would require four feet and have already been covered with two feet for interim reclamation purposes are shown to be covered with two feet of borrow material. Documentation is included in Appendix 2-11 which demonstrates that the in-place reclamation material is adequate for use as part of the required final reclamation cover. Areas without significant quantities of coal material, but which, under present conditions, would require borrow material cover to achieve sufficient revegetation success, are shown to be covered with up to eighteen inches of borrow material. Areas which have not been significantly contaminated with coal materials will be cleaned and are shown to be scarified. If topsoil was salvaged at the time the area was first disturbed, the area is shown to be scarified and covered with topsoil.

Plate 8-5 shows the areas to be seeded with the different approved seed mixtures. The seed mixtures are identified in Figures 10-2, 10-3, and 10-4.

MAINTENANCE THROUGH BOND RELEASE

Approximately 75 percent of the disturbed portion of the SCA Permit Site was originally disturbed prior to the laws of 1977 (See Plate 5-7 Previously Mined Areas, and Plate 5-8 Existing Surface and Subsurface Facilities and Features). SCA intends to reclaim all of the disturbed land that has continued to be used for mining purposes since these laws took affect. The bond includes an amount for Monitoring and Maintenance of the reclaimed area of the estimated total reclamation costs.

POTENTIAL FOR OPERATIONAL ADJUSTMENTS TO BOND ESTIMATE

Costs may be adjusted as conditions of the SCA Permit Area are altered. The SCA Permit Area will be undergoing constant changes as contemporaneous reclamation proceeds. As a result, the permittee will request a reduction of the applicable value of the bond, in accordance with R645-301-880, as reclamation takes place over portions of the permit area. DOGM has the discretion to alter the bond amount to reflect current conditions of the SCA Permit Area.

890 TERMS AND CONDITIONS FOR LIABILITY INSURANCE

Certificate

Figure 8-1 is the required proof of insurance certificate. It was issued by an insurance company, authorized to do business in Utah, certifying that Applicant has a public liability insurance policy in force for the coal mining and reclamation activities for which the permit is sought.

Rider

The policy includes a rider requiring that the insurer notify DOGM whenever substantive changes are made in the policy including any termination or failure to renew.

DETERMINATION OF BOND AMOUNT

ITEM	QUANTITY	PRODUCTION RATE	HOURS REQUIRED	UNIT COST	COST
Construction Management					
Outside Foreman	3.5 Months	174 hr/mo	609	$ 45.45	$ 27,679
Demolition and Removal					
Demolition of crusher facilities	1 Lump sum				$ 15,000
Culvert removal	1 Lump sum				$ 5,000
Backfilling and Grading					
General site grading: High walls, Refuse Cleanup and Drainage needs					
D-10 N Dozer	200,000 Cubic Yards	1,700 cy/hr	118	$ 209.86	$ 24,689
Disturbed area covered with refuse (4' borrow)	73.2 Acres				
C-651 E Scraper	472,384 Cubic Yards	400 cy/hr	1181	$ 241.94	$ 285,721
D-10 N Dozer (one dozer to assist loading four scrapers)			295	$ 209.86	$ 61,959
Disturbed area w/ 2' existing cover over refuse (2' additional borrow)	15.7 Acres				
C-651 E Scraper	50,659 Cubic Yards	400 cy/hr	127	$ 241.94	$ 30,641
D-10 N Dozer (one dozer to assist loading four scrapers)			32	$ 209.86	$ 6,645
D-10 N Dozer (spreading on hillside)	50,659 Cubic Yards	350 cy/hr	145	$ 209.86	$ 30,375
Disturbed area contaminated by refuse (1.5 ' borrow)	48 Acres				
C-651 E Scraper	116,160 Cubic Yards	400 cy/hr	290	$ 241.94	$ 70,259
D-10 N Dozer (one dozer to assist loading four scrapers)			73	$ 209.86	$ 15,236
D-10 N Dozer (minor spreading in some hillside areas - 25%)	29,040 Cubic Yards	650 cy/hr	45	$ 209.86	$ 9,376
Old Coarse Refuse Road - Bonded Earthwork Amount (40% of 4' borrow)	5.5 Acres				
C-651 E Scraper	14,197 Cubic Yards	400 cy/hr	35	$ 241.94	$ 8,587
D-10 N Dozer (one dozer to assist loading four scrapers)			9	$ 209.86	$ 1,862
D-10 N Dozer (spreading on hillside)	14,197 Cubic Yards	350 cy/hr	41	$ 209.86	$ 8,513
Distribution of salvaged topsoil	6 Acres				
D-10 N Dozer	8,583 Cubic Yards	350 cy/hr	25	$ 209.86	$ 5,146
Scarification (average 18" depth)	206 Acres				
D-10 N Dozer with multishank ripper	498,520 Cubic Yards	3,000 cy/hr	166	$ 236.20	$ 39,250
Disturbed area without reclamation: ie. roads, railways, prelaw areas. etc.	29 Acres				$ -
TOTAL DISTURBED AREA	235 ACRES				
Revegetation					
Mulch, fertilizer, seed	206 Acres			$ 1,786	$ 367,916
Jute Mesh (stapled) (slopes steeper than 2h:1v)	5,000 square yards			$ 1.09	$ 5,450
Silt fences	300 Linear Feet			$ 0.79	$ 237
Drainage Channel Reconstruction					
Major Channels with riprap and filter bed	1,700 Linear Feet	1.76 cy/lf	2992	$ 29.50	$ 88,264
Minor Channels requiring riprap	2,500 Linear Feet	0.55 cy/lf	1375	$ 29.50	$ 40,563
Total (Direct Costs)	$ 4,890	per acre			**$ 1,148,369**
Engineering Redesign	5%				$ 57,418
Maintenance and Monitoring	10%				$ 114,837
Contingency and Other	10%				$ 114,837
Start up (including Mobilization & Demobilization)	5%				$ 57,418
Contract Management (DOGM)	5%				$ 57,418
Total (Direct and Indirect Costs - 1997 dollars)					$ 1,550,298
Escalation	1998	2.42%			$ 37,517
	1999	2.42%			$ 38,425
	2000	2.42%			$ 39,355
	2001	2.42%			$ 40,307
	2002	2.42%			$ 41,283
Total Reclamation Costs (2002 dollars)					$ 1,747,185
Bond Amount Required (Rounded to the nearest $1,000)					**$ 1,747,000**

EQUIPMENT COSTS

(1997 Blue Book Rental Rate Guide)

	Hourly Rate	Monthly Rate
CAT 651 E SCRAPER		
Equipment rental	$ 126.55	$ 21,935.00
Operation Cost	$ 75.90	
Equipment Operator	$ 39.50	
Total	$ 241.95	$ 41,937.28
CAT D 10 N DOZER		
Equipment rental	$ 113.92	$ 19,745.00
Operation Cost	$ 56.45	
Equipment Operator	$ 39.50	
Total	$ 209.87	$ 36,376.01
MULTISHANK RIPPER on D 10 DOZER		
Equipment rental	$ 20.54	$ 3,560.00
Operation Cost	$ 5.80	
Equipment Operator	$ 39.50	
Total	$ 65.84	$ 11,411.85
(costs for the ripper must be added to costs of dozer)		
Note: (52 weeks x 5 days x 8 hours / 12 months)		
= 173.33 hours per month		

EQUIPMENT PRODUCTION

(Caterpillar Performance Handbook)

CAT 651 E SCRAPER	
Slope ranges	2% - 6%
Haul Distance Ranges	1500-3000 ft (one way)
Production	400 - 600 bank cubic yards / hour
CAT D 10 N DOZER	
100 ft ave dozing distance	1700 loose cubic yards / hour
300 ft ave dozing distance	650 loose cubic yards / hour
600 ft ave dozing distance	350 loose cubic yards / hour
MULTISHANK RIPPER on D 10 DOZER	
Seismic Velocity Rate for Topsoil	3000 ft/sec
Production (ideal conditions)	3000 BCY/hr

Drainage Channel Reconstruction

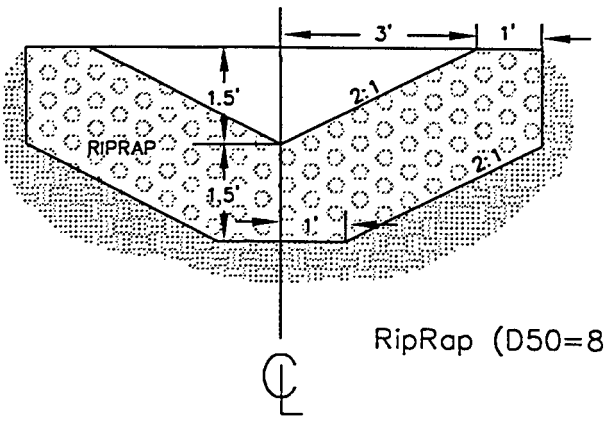
Name of lined channel	Minor Channels (riprap)		Major Channels (Riprap & Filter bed)	
	Slope > %	Length req	Slope > %	Length req
Past-RD3	3.5	600	n/a	-
Past-RD6	3.7	90	6.8	500
CRT-RD1	3.7	-	n/a	-
CRT-RD2	8	120	22	100
RC-RD1	4	90	7.5	-
RC-RD3	2.5	-	3.8	270
RC-RD4	5	60	n/a	-
RC-RD6	2	-	4.5	100
RC-RD8	2	-	4	200
RC-RD11	2.4	170	3.6	530
OCRR-RD1	5.6	370	n/a	-
OCRR-RD4	4	200	n/a	-
BOR-RD2	2.7	800	n/a	-
Total Length of lined channels		2500		1700

PSOMAS

Psomas and Associates
339 East 3900 South Suite 201A
Salt Lake City, Utah 84107
801/270-5777

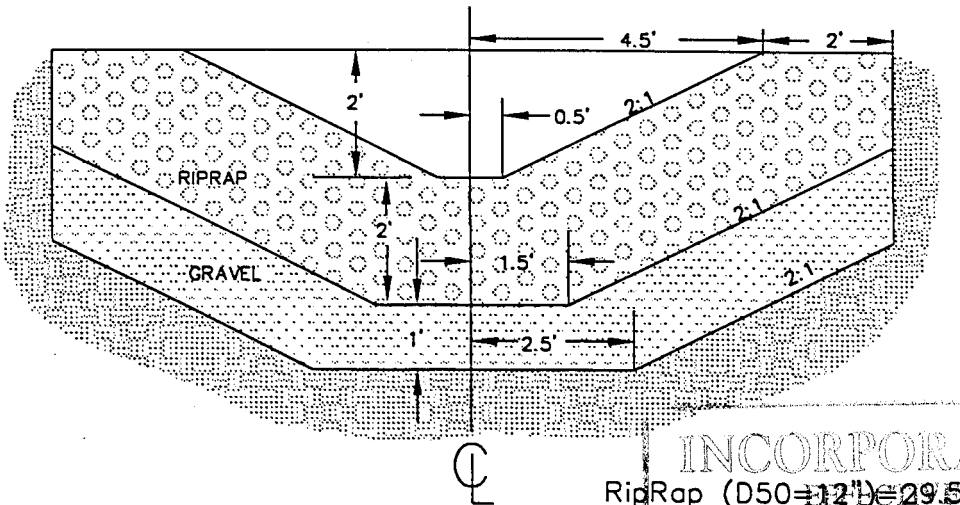
Job No. 8SUN0101 Sheet 1 of 1
Project Name Sunnyside Cogeneration Associates ACT\007\035
Exhibit Name Channel Design and Armoring Plan
Prepared By RBS Date 10/30/97
Reviewed By SSC Date 10/30/97

SCALE: 1"=3'



RipRap (D50=8")=15.0 sq.ft.
= 0.55 cu.yds/lf

TYPICAL MINOR CHANNEL

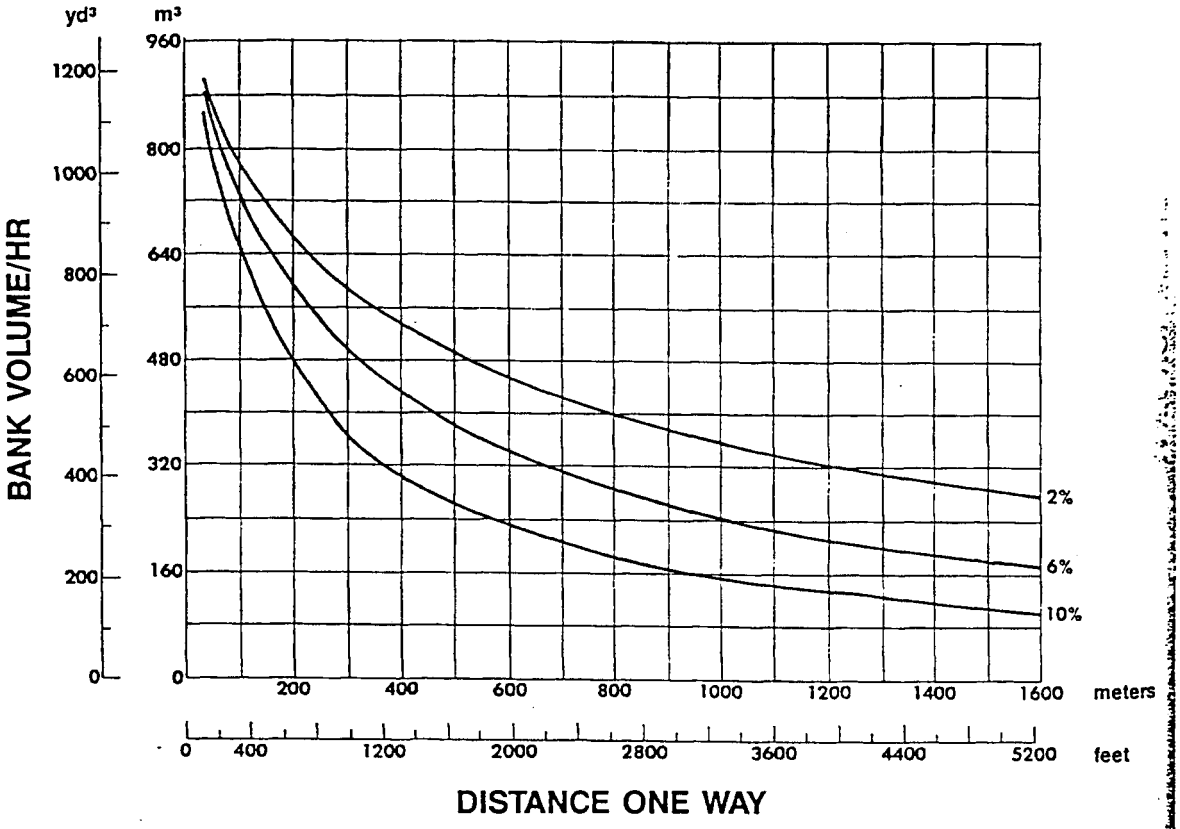


RipRap (D50=12")=29.5 sq.ft.
=1.09 cu.yds./lf
Gravel=17.5 sq.ft.
=0.65 cu.yds./lf

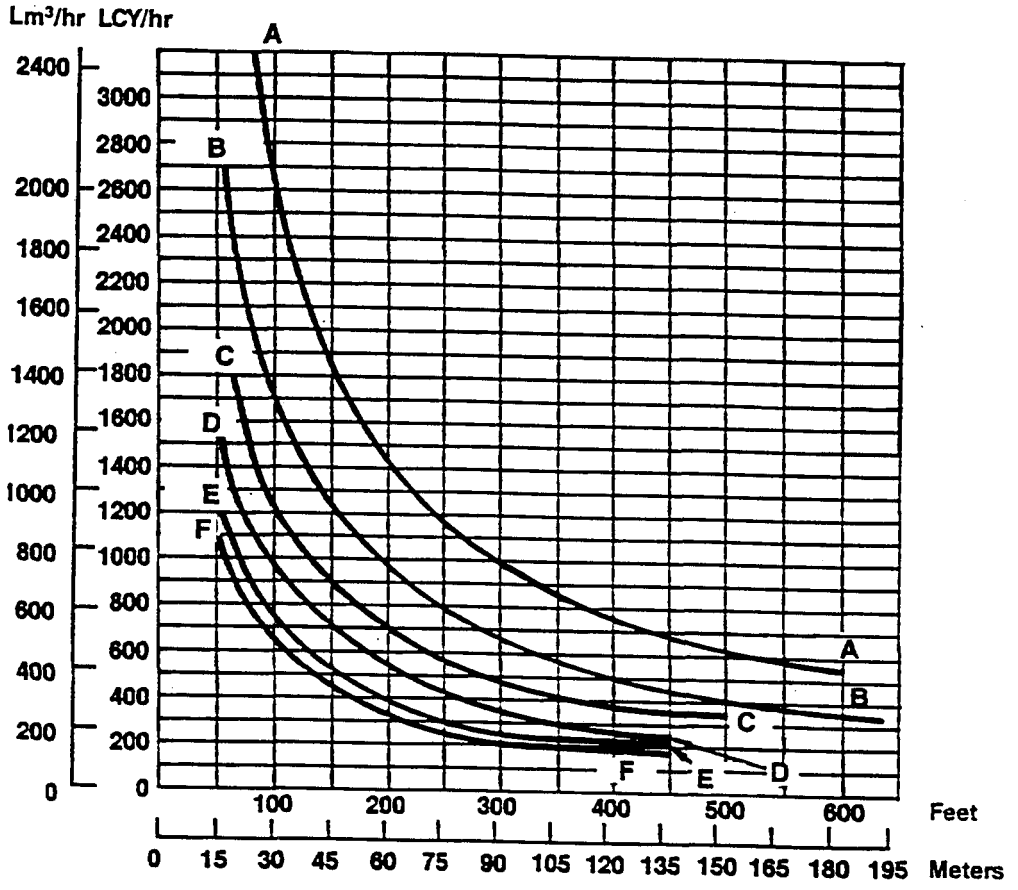
TYPICAL MAJOR CHANNEL

DISTANCE vs. PRODUCTION

CONDITIONS: Flat haul. Percentages shown are rolling resistance only.
100% efficiency (60 min hour).
- Material: 1780 kg/m³ (3,000 lb/yd³).
- Payload: 47 200 kg, 26.5 Bm³ (104,056 lb, 34.6 BCY).
- Empty weight: 60 950 kg (134,370 lb).
- Fixed time: 1.3 min.



ESTIMATED DOZING PRODUCTION • Universal Blades • D7G through D11N

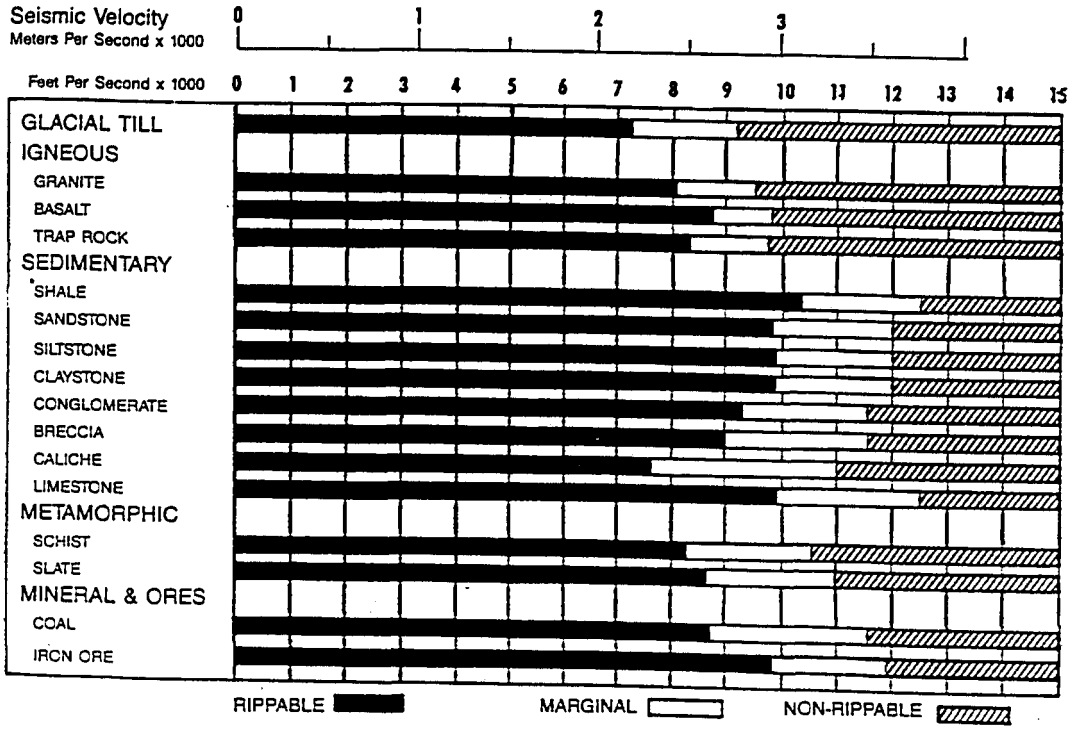


AVERAGE DOZING DISTANCE

KEY
A — D11N-11U
B — D10N-10U
C — D9N-9U
D — D8N-8U
E — D7H-7U
F — D7G-7U

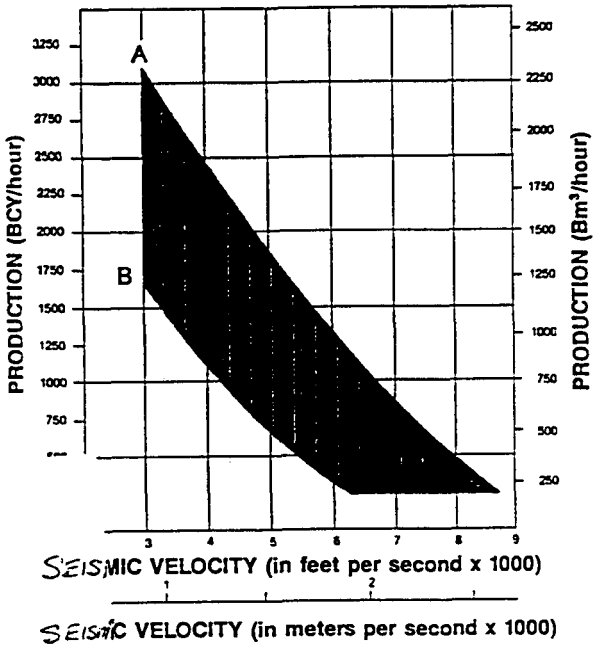
NOTE: This chart is based on numerous field studies made under varying job conditions. Refer to correction factors following these charts.

D10N
- **Single Shank Impact Ripper**
- **Estimated by Seismic Wave Velocities**

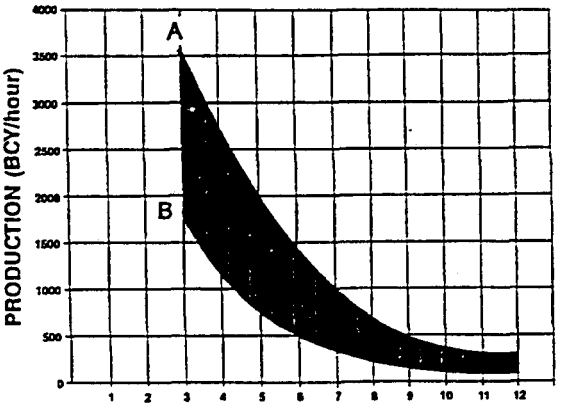


Estimated Ripper Production Graphs
• D10N • D11N

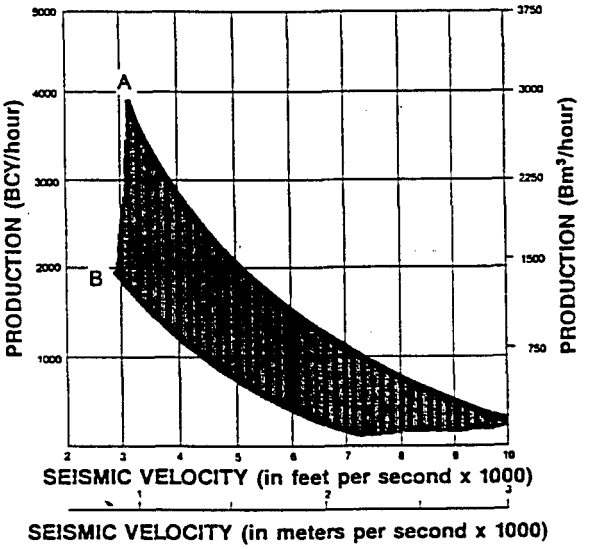
D10N WITH SINGLE SHANK



D10N WITH IMPACT RIPPER



D11N WITH SINGLE SHANK



KEY
A — IDEAL
B — ADVERSE

FIGURE 8-1
CERTIFICATE OF PUBLIC LIABILITY INSURANCE

ACORD. CERTIFICATE OF INSURANCE

FIGURE 8-3

ISSUE DATE (MM/DD/YY)
06/10/92

PRODUCER

Hobbs Group, Inc.
[illegible] Bedford Street
[illegible]gton, MA 02173

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW

CODE SUB-CODE

INSURED

Sunnyside Cogeneration Associates
109 Union Street
P.O. Box 45
Manchester, VT 05254

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A Federal Insurance Company (Chubb Group)
COMPANY LETTER B
COMPANY LETTER C
COMPANY LETTER D
COMPANY LETTER E

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	ALL LIMITS IN THOUSANDS	
A	GENERAL LIABILITY					
	X COMMERCIAL GENERAL LIABILITY				GENERAL AGGREGATE	$2,000
	CLAIMS MADE X OCCUR.	3710 13 49	04/01/91	04/01/93	PRODUCTS-COMP/OPS AGGREGATE	$1,000
	OWNER'S & CONTRACTOR'S PROT.				PERSONAL & ADVERTISING INJURY	$1,000
					EACH OCCURRENCE	$1,000
					FIRE DAMAGE (Any one fire)	$ 100
					MEDICAL EXPENSE (Any one person)	$
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT	$
	ANY AUTO					
	ALL OWNED AUTOS				BODILY INJURY (Per person)	$
	SCHEDULED AUTOS					
	HIRED AUTOS				BODILY INJURY (Per accident)	$
	NON-OWNED AUTOS					
	GARAGE LIABILITY				PROPERTY DAMAGE	$
					EACH OCCURRENCE	AGGREGATE
A	EXCESS LIABILITY				$	$
	X Umbrella Form	(93) 7967 69 48	04/01/92	04/01/93	20,000	20,000
	OTHER THAN UMBRELLA FORM				STATUTORY	
	WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY				$	(EACH ACCIDENT)
					$	(DISEASE—POLICY LIMIT)
					$	(DISEASE—EACH EMPLOYEE)
	OTHER					

Division will be notified whenever substantive changes are made in the policy including any termination or failure to renew.

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/RESTRICTIONS/SPECIAL ITEMS

a. Excess General Liability

EVIDENCE OF COVERAGE ONLY

CERTIFICATE HOLDER

Department of Natural Resources
Division of Oil, Gas and Mining
2[illegible] West North Temple
[illegible]d Center, Suite 350
Salt Lake City, UT 84180

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

APPENDIX 8-1

WORST CASE SENARIO
RECLAMATION HYDROLOGY PLAN

Clear Water Pond (UPDES # 004)
Pasture Pond (UPDES # 009)
Coal Pile Sediment Pond (UPDES # 014)
Coarse Refuse Toe Pond (UPDES # 012)
Rail Cut Pond (UPDES # 007)
Old Coarse Refuse Road Pond (UPDES # 008)
Borrow Area Pond (UPDES # 016)

REFERENCE:

Plates 8-3, 8-3A, 8-3B, 8-3C, 8-3D, and 8-3E.

Hydrologic and sediment parameters

Diversion and culvert design criteria

10 year, 6 hour Storm -- Phase 1
10 year, 24 hour Storm -- Phase 1
25 year, 6 hour Storm -- Phase 1
10 year, 6 hour Storm -- Phase 2
100 year, 6 hour Storm -- Phase 2

ECKHOFF, WATSON and PREATOR ENGINEERING

Engineering • Environmental Science • Surveying • Construction Administration

Principals

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Kenneth W. Watson, PE, LS
E. Gregory Thorpe, PE
Robert L.Siegel, PhD
James V. Olson, PE

Associates

Frederick C. Duberow, PE
Thomas W. Johnson, CPA
Douglas L. Gilmore, PE

CERTIFICATION LETTER
FOR
SUNNYSIDE COGENERATION ASSOCIATES

WORST CASE SENARIO RECLAMATION HYDROLOGY PLAN

In accordance with the requirements of R645-301-742.221, R645-301-742.223, R645-301-742.300, R645-301-743.130, and/or R645-301-760 I, Alane E. Boyd, Registered Professional Engineer, State of Utah, Number 170148, do hereby certify that the following sediment ponds:

Clear Water Pond (UPDES # 004)
Pasture Pond (UPDES # 009)
Coal Pile Sediment Pond (UPDES # 014)
Coarse Refuse Toe Pond (UPDES # 012)
Rail Cut Pond (UPDES # 007)
Old Coarse Refuse Road Pond (UPDES # 008)
Borrow Area Pond (UPDES # 016)

will safely contain and/or treat the 10 year 24 hour precipitation event until the disturbed area has been stabilized and revegetated and the ponds are removed. A combination of principal and emergency spillways will safely discharge the 25 year, 6 hour design precipitation event. The diversions and culverts which remain in operation during the reclamation process will safely carry the 10 year, 6 hour design storm under the temporary phase one runoff conditions. The combination of channel, bank and flood plain configuration of diversions crossing the refuse pile is adequate to safely pass the peak runoff of a 100 year, 6 hour precipitation event under the phase two runoff conditions.

This certification is based on the calculations and discussions pertaining to the worst case senario reclamation hydrology plan as dated July 11, 1994 for Permit Number ACT/007/035, specifically Appendix 8-2, and Plates 8-3, 8-3A, 8-3B, 8-3C, 8-3D, and 8-3E.

LICENSED PROFESSIONAL ENGINEER
No. 170148
ALANE E. BOYD
STATE OF UTAH

Alane E. Boyd, PE

July 11, 1994
Date

1121 East 3900 South, Suite C100 • Salt Lake City, Utah 84124-1214 • (801) 261-0090 • (801) 266-1671

Worst Case Senario Reclamation Hydrology

This reclamation hydrology plan is submitted in compliance with the requirements of NOV 93-13-2-1. Reclamation would occur in two phases (see Plate 8-1). Phase one would consist of regrading and reseeding the entire site with the exception of the Phase two areas shown in Plate 8-1: sediment pond areas, some diversions, and enough roads to provide maintenance access to the ponds and long term access to various easements through the permit area.

Phase two reclamation would commence after the disturbed area has been stabilized and revegetated (minimum two years after the last augmented seeding). Phase two will include regrading and revegetating areas not reclaimed in phase one: the sediment ponds, and diversions and roads that were required to provide access for maintenance to the sediment ponds but are not needed for long term access to easements through the permit area.

Phase two is designed to re-divert some runoff flows after the sediment ponds are removed to more closely approximate the pre-mining conditions. The runoff from the area of the coarse refuse pile will be returned to the base of the pile and through the 36" culvert identified as CCRR-RC1 instead of diverting the water to the Rail Cut Pond area. This will be done by diverting runoff from RC-RD8 and RC-RD9 into the existing diversion CRT-RD1, then diverting from CRT-RD2 down into the natural channel which flows into CCRR-RC1. Also, when the culvert OCRR-RC1 is reclaimed in Phase two, flows from OCRR-RD1 and OCRR-RD2 will be diverted into BOR-outlet. These re-diversions are identified on Plates 8-3, and have been incorporated into the design of the diversions and should not present any problems.

The drainage areas diverted to each pond are identified on Plates 8-3 through 8-3E. The regrading plan attempts to restore the natural drainage pattern as nearly as possible. When phase two reclamation is completed, the drainage will follow similar overall watershed conditions such as existed prior to disturbance. Regrading will be compatible with the postmining land use and complement the drainage pattern of the surrounding terrain.

Culverts and diversion ditches which remain during the reclamation process are designed to pass a 10 year, 6 hour storm under the temporary phase one peak runoff conditions as required for permanent diversions of miscellaneous flows. Diversions carrying runoff from areas above the refuse pile and from the surface of the refuse pile are designed to pass a 100 year, 6 hour storm under the phase two peak runoff conditions. Natural drainages outside of the permit area are considered adequate to meet the conditions that have occurred throughout their developmental history and will not be disturbed by SCA.

The seven sediment ponds remaining in operation until phase two reclamation commences will be: Clear Water Pond 004, Pasture Pond 009, Coal Pile Sediment Pond 014, Coarse Refuse Toe Pond 012, Rail Cut Pond 007, Old Coarse Refuse Road Pond 008, and Borrow Area Pond 016. These sediment ponds are designed to contain and/or treat the runoff from the 10 year, 24 hour storm, and the spillways are designed to safely control the peak discharge from the 25 year, 6 hour storm.

The sediment ponds can discharge through either a drop culvert or an open channel spillway. A drain line is in place at an elevation lower than the spillway. The drain line will remain closed under most conditions. The ponds are conservatively modeled as if they were full of water and / or sediment below the elevation of the drain line. For additional information on these sediment ponds, see Appendix 7-3.

WATERSHEDS

The permit site is divided into seven watersheds corresponding to the sediment ponds. Each watershed is again divided into subwatersheds for routing analysis (see Plates 8-3, 8-3A, 8-3B, 8-3C, 8-3D, and 8-3E). Watershed characteristics are listed in Table Three.

Sedimot-II was used to model the flow of precipitation runoff through the watersheds. This program requires the drainage system to be organized as follows:

- Subwatershed (SWS) = area from which water collects mainly by overland flow to the outlet.
- Structure (S) = Culverts, check dams, ponds, etc. A null structure must be placed before each junction when no physical sediment control structure exists.
- Branch (B) = Diversion or waterway.
- Junction (J) = Point where two or three branches join, or the outlet of a watershed.

SOIL TYPE

According to the SCS Soil Survey of Carbon Area, Utah, the soil type found in this area and to be used for reclamation cover is predominantly Strych. Three soil samples from the Reclamation Borrow Area were analyzed by Huntingdon/Chen-Northern. The particle size distribution is presented in Figure One. Other soil characteristics are indicated in Table One below.

Due to the nature of the reclamation process, the erosion Control Practice (CP) factor is higher when the site is first covered and reseeded in phase one. The seed mixture to be used will correspond to the seeding schedule identified on Plate 10-1 The vegetation cover will become more established before phase two begins. The CP factors were estimated following information given in Applied Hydrology and Sedimentology for Disturbed Areas pages 390-393.

TABLE ONE. SOIL CHARACTERISTICS

SCS Soil Name	Submerged Specif. Grav.	Specific Gravity	Erosion K	CP factor Phase 1	CP factor Phase 2
Strych	1.75	2.75	0.20	0.85	0.25

CURVE NUMBERS

The SCS curve numbers are based on the Soil Conservation Service graph included as Figure Two. The soil type found in this area corresponds to SCS hydrologic Class B as indicated in the SCS Soil Survey for Carbon Area, Utah. Due to the nature of the reclamation process, the percent vegetation cover will be neglegible when the site is covered and reseeded.

A curve number of 84 (corresponding to zero percent of vegetation cover density) is used for the areas covered with borrow material during phase one. A curve number of 69 (corresponding to 30 percent vegetation cover density) is used for the phase two calculations. Appropriate curve numbers are used for undisturbed or previously reclaimed areas and are identified in the Sedimot output data.

TIME OF CONCENTRATION

Each subwatershed requires a certain time for the water to reach the outlet following the longest path. The runoff from these subwatersheds is approximated by Sedimot-II unit hydrographs. The overland flow velocity was estimated using the Soil Conservation Service Upland Curves (SCS 1972) corresponding to the slope and vegetation of the drainage areas. Time of concentration was calculated by dividing the average velocity into the distance to the subwatershed outlet (See Table Three).

ROUTING COEFFICIENTS

Sedimot-II uses Muskingum routing methods. Flows must be routed between structures or from a subwatershed outlet to the corresponding structure (if the outlet is not at the structure). No routing is used through subwatersheds that do not have inflow from a previous watershed, or structure (this water flow is accounted for with the time of concentration and the unit hydrograph). Areas requiring routing coefficients are indicated in the Sedimot program output data. Muskingum coefficients K and X are used as follows:

$$K = \text{Travel time through diversion} \qquad X = \frac{0.5 * \text{Velocity}}{1.7 + \text{Velocity}}$$

DIVERSION DESIGN

Diversions are designed to safely carry the 10 year, 6 hour design storm, as required for permanent diversions of miscellaneous flows (R645-301-742.333). The temporary phase one runoff conditions are used for a conservative design. The combination of channel, bank and flood plain configuration is adequate to safely pass the peak runoff of a 100 year, 6 hour precipitation event under the permanent phase two runoff conditions for diversions designed for the Excess Spoil Pile and the Refuse Pile (R645-301-745.222 & R645-301-746.212). The diversions are designed to fit within a range of expected field values. Design summaries are given in Table Five.

The minimum design channel depth is conservatively calculated by using a minimum channel slope, and a maximum Mannings n. Additional freeboard is not required in the regulations, but the operator may construct the diversions larger than required to reduce the risk of overflow from storms greater than the required design precipitation event.

The maximum velocity expected in the channel is calculated by using minimum Mannings n values and maximum channel slopes. Mannings n for a channel bed with riprap is estimated by the equation $n=0.0395*(D_{50})^{1/6}$ with D_{50} in feet (Applied Hydrology and Sedimentology for Disturbed Areas page 188). If the normal depth of flow is less than twice D_{50}, then n is estimated by the equation $n=0.456\ (D_{50}*Slope)^{0.159}$ with D_{50} in inches and slope in feet/feet (*Development of Riprap Design Criteria by Riprap Testing in Flumes: Phase 1* May 1987, Colorado State University, prepared for Uranium Recovery Field Office and Division of Waste Management).

While the slopes and n values are expected to be near the middle of the range provided, these values provide the maximum variance accepted without additional riprap or lining through the channel. The cross sections may vary but must always be sufficient to provide the maximum required flow area.

RIPRAP SIZING

Riprap is placed along steep channel slopes to control erosion. The size of the stones is based on the expected maximum velocity. When peak velocities in the smooth channel are expected to reach 5 ft/s, riprap is required. Figure Three is used to determine the median stone diameter (D_{50}). The riprap mixture should approximate the gradation listed in Table Two.

TABLE TWO. RIPRAP GRADATION

Stone Size	$2 \bullet D_{50}$	D_{50}	$0.5 \bullet D_{50}$	$0.2 \bullet D_{50}$
% Finer	100	50	20	0

In areas where the increased roughness from riprap does not reduce the velocity below 5 ft/s, a filter blanket (or gravel bedding in a layer 3 times the D_{50}) will be used.

CULVERT DESIGN

Most culverts that are not removed during phase one reclamation, will be removed during phase two (see Plates 8-3). Culverts not owned by SCA (such as those under the railroads) and culverts which were installed under roads that will not be reclaimed in order to provide access to easements through the permit area will not be removed during reclamation. But, calculations are provided to verify that they will pass the peak flow from the design storm.

The culverts are designed to pass the same peak flow as the diversion they are placed into (see Table Five). Culvert design summaries are given in Table Six. Figure Four includes the nomagraphs used to design the culverts.

The following culverts (OCRR-RC3, OCRR-RC4, & OCRR-RC5) do not drain disturbed areas and will not receive an increase of precipitation runoff due to the reclamation activities of Phase One. They can function under the design flows as required for normal operations (see Appendix 7-3).

TABLE THREE. WATERSHED CHARACTERISTICS

Watershed	Area (acres)	Average Velocity (ft/s)	Distance to Outlet (ft)	Time of Concentration (hrs)
CLEAR WATER POND				
CW-sws1	50.3	2.5	3000	**0.34**
CW-sws2	4.2	1.2	600	**0.14**
CW-sws3	75.3	2.1	4100	**0.53**
CW-sws4	4.1	1.2	600	**0.14**
CW-sws5	2.5	1.2	500	**0.12**
CW-sws6	15.8	1.6	1300	**0.22**
CW-sws7	1.0	1.4	150	**0.03**
PASTURE POND				
PAST-sws1	6.2	1.6	750	**0.13**
PAST-sws2	14.1	1.4	1400	**0.28**
PAST-sws3	2.3	2.4	850	**0.10**
PAST-sws4	5.9	1.6	1150	**0.20**
PAST-sws5	5.2	2.0	950	**0.13**
PAST-sws6	11.0	1.4	1000	**0.20**
PAST-sws7	6.2	1.9	1100	**0.16**
PAST-sws8	1.3	1.7	300	**0.05**
PAST-sws9	0.3	2.1	15	**0.002**
COAL PILE SEDIMENT POND				
CPSP-sws1	2.0	0.9	300	**0.09**
CPSP-sws2	0.3	0.7	50	**0.02**
COARSE REFUSE TOE POND				
CRT-sws1	2.3	1.1	550	**0.14**
CRT-sws2	2.5	1.4	400	**0.08**
CRT-sws3	1.2	1.6	340	**0.06**
CRT-sws4	0.8	1.4	100	**0.02**

TABLE THREE (continued). WATERSHED CHARACTERISTICS				
Watershed	Area (acres)	Average Velocity (ft/s)	Distance to Outlet (ft)	Time of Concentration (hrs)
RAIL CUT POND				
RC-sws1	18.1	1.3	1500	**0.32**
RC-sws2	4.1	1.3	600	**0.13**
RC-sws3	5.6	1.3	1000	**0.21**
RC-sws4	1.8	1.4	250	**0.05**
RC-sws5	11.6	1.5	1150	**0.22**
RC-sws6	3.5	1.5	1100	**0.20**
RC-sws7	0.4	1.4	100	**0.02**
RC-sws8	4.3	1.5	1150	**0.22**
RC-sws9	3.7	1.6	1130	**0.20**
RC-sws10	1.6	1.7	600	**0.10**
RC-sws11	4.3	1.9	700	**0.10**
RC-sws12	12.1	1.7	900	**0.15**
RC-sws13	1.4	1.4	100	**0.02**
CARBON COUNTY RR CULVERT				
CCRR-sws1	15	3.0	1400	**0.13**
OLD COARSE REFUSE ROAD POND				
OCRR-sws1	8.6	1.5	800	**0.15**
OCRR-sws2	3.6	1.7	600	**0.10**
OCRR-sws3	6.7	1.8	1650	**0.25**
OCRR-sws4	1.6	1.9	600	**0.09**
OCRR-sws5	0.3	1.4	150	**0.03**
BORROW AREA POND				
BOR-sws1	180	2.8	6000	**0.60**
BOR-sws2	12.3	2.2	1600	**0.20**
BOR-sws3	33.1	2.1	1500	**0.20**
BOR-sws4	1.3	1.4	200	**0.04**

TABLE FOUR. STORM RUNOFF VOLUMES AND PEAK FLOWS

Diversion	10yr 6hr Storm Phase 1	10yr 24hr Storm Phase 1	25yr 6hr Storm Phase 1	10yr 6hr Storm Phase 2	100yr 6hr Storm Phase 2	Maximum Allowable Sediment Elevation	10yr 24hr Storm Peak Discharge Settleable Solids (ml/l)	Detention Time 10yr24hr (hrs)
CLEAR WATER POND						**6526.2**	**0.0**	**15.6**
Runoff (acft)	0.72	**2.39**	1.57	0.3	2.39			
Sediment (tons)	148	**623**	456	120	1066			
Water Surface	6527.05	**6529.38**	6528.29	n/a	n/a			
CW-RD1	**0.5**	2.4	2.4	0.4	6.8			
CW-RD2	**0.6**	2.4	2.4	0.4	6.8			
CW-RD3	**0.4**	1.3	1.5	0.4	4.9			
CW-RD4	**0.9**	3.8	3.8	0.8	11.9			
CW-RD5	**1.4**	4.1	4.3	0.8	12.2			
CW-RD6	**6.2**	9.0	10.0	0.3	4.1			
CW-outlet	0.0	0.0	0.0	**1.0**	14.6			
PASTURE POND						**6482.5**	**0.06**	**1.5**
Runoff (acft)	1.31	**2.8**	2.14	0.16	1.0			
Sediment (tons)	81	**162**	141	8.8	36			
Water Surface	6490.92	**6491.82**	6491.96	n/a	n/a			
PAST-RD1	**2.6**	3.8	4.4	0.1	1.8			
PAST-RD2	**4.9**	7.4	8.1	0.2	3.2			
PAST-RD3	**7.8**	11.6	13.0	n/a	n/a			
PAST-RD4	**2.3**	3.4	3.9	0.1	1.6			
PAST-RD5	**4.6**	6.3	7.5	0.6	8.4			
PAST-RD6	**7.0**	9.8	11.6	0.3	4.8			
PAST-RD7	**0.7**	0.9	1.1	0.03	0.6			
PAST-inlet	**19.5**	28.4	31.9	0.9	13.2			
PAST-outlet	3.0	8.2	**8.4**	0.9	13.3			
COAL PILE SEDIMENT POND						**6477.5**	**0.0**	**17**
Runoff (acft)	0.06	**0.13**	0.10	0.01	0.05			
Sediment (tons)	0.6	**1.1**	1.0	0.01	0.1			
Water Surface	6477.7	**6477.95**	6477.87	n/a	n/a			
CPSP-RD1	**1.1**	1.4	1.7	0.04	0.9			
CPSP-outlet	0.0	0.0	0.0	**0.04**	1.0			

TABLE FOUR (continued). STORM RUNOFF VOLUMES AND PEAK FLOWS

Diversion	10yr 6hr Storm Phase 1	10yr 24hr Storm Phase 1	25yr 6hr Storm Phase 1	10yr 6hr Storm Phase 2	100yr 6hr Storm Phase 2	Maximum Allowable Sediment Elevation	10yr 24hr Storm Peak Discharge Settleable Solids (ml/l)	Detention Time 10yr24hr (hrs)
COARSE REFUSE TOE POND						**6180.0**	**0.0**	**16.**
Runoff (acft)	0.16	**0.34**	0.26	0.03	0.12			
Sediment (tons)	116	**249**	212	4	27			
Water Surface	6181.08	**6182.05**	6181.64	n/a	n/a			
CRT-RD1	1.0	1.4	1.6	0.8	**9.0**			
CRT-RD2	**2.1**	3.0	3.4	0.05	1.1			
CRT-RD3	**2.6**	3.6	4.1	0.07	1.4			
CRT-RC2	**0.14**	0.2	0.25	0.00	0.2			
CRT-outlet	0.0	0.0	0.0	**0.4**	2.6			
RAIL CUT POND						**6209.0**	**0.0**	**3.4**
Runoff (acft)	1.58	**3.40**	2.59	0.09	0.44			
Sediment (tons)	238	**520**	427	14	92			
Water Surface	6212.01	**6212.53**	6212.57	n/a	n/a			
RC-RD1	**6.0**	9.7	10.2	0.3	3.9			
RC-RD2	**2.1**	3.1	3.4	0.1	1.4			
RC-RD3	**7.3**	12.7	13.0	0.4	4.9			
RC-RD4	**4.2**	6.3	6.9	0.2	2.8			
RC-RD5	**4.8**	6.9	8.0	0.3	3.0			
RC-RD6	**11.9**	19.6	21.1	0.7	7.8			
RC-RD7	**1.5**	2.2	2.5	0.1	0.9			
RC-RD8	**13.9**	21.9	23.3	0.7	8.6			
RC-RD9	**1.5**	2.1	2.4	0.1	1.0			
RC-RD10	**0.9**	1.1	1.3	0.03	0.7			
RC-RD11	**13.9**	22.7	24.5	0.1	2.3			
RC-RD12	**14.4**	23.6	25.5	0.3	5.3			
RC-outlet	0.0	3.3	**4.4**	0.7	6.9			
CARBON COUNTY RR CULVERT 100 year 6 hour storm Phase Two								
Runoff 1.38 acft		Sediment 300 tons			Peak flow 10.3 cfs			

TABLE FOUR (continued). STORM RUNOFF VOLUMES AND PEAK FLOWS								
Diversion	10yr 6hr Storm Phase 1	10yr 24hr Storm Phase 1	25yr 6hr Storm Phase 1	10yr 6hr Storm Phase 2	100yr 6hr Storm Phase 2	Maximum Allowable Sediment Elevation	10yr 24hr Storm Peak Discharge Settleable Solids (ml/l)	Detention Time 10yr24hr (hrs)
OLD COARSE REFUSE ROAD POND						**6396.4**	**0.0**	**3.2**
Runoff (acft)	0.51	**1.07**	0.82	0.02	0.16			
Sediment (tons)	207	**458**	380	8	42			
Water Surface	6399.14	**6399.57**	6399.61	n/a	n/a			
OCRR-RD1	**3.7**	5.3	6.0	0.2	2.5			
OCRR-RD2	**2.0**	2.5	3.0	0.1	2.9			
OCRR-RC1	**3.9**	6.4	6.7	n/a	n/a			
OCRR-RD3	**2.5**	3.7	4.1	0.1	1.6			
OCRR-RD4	**6.5**	10.3	11.2	0.1	1.8			
OCRR-outlet	0.0	1.2	**1.6**	0.2	1.8			
BORROW AREA POND						**6514.0**	**0.0**	**10.**
Runoff (acft)	1.0	**3.3**	2.18	0.3	3.35			
Sediment (tons)	431	**1170**	939	150	963			
Water Surface	6515.09	**6517.16**	6516.30	n/a	n/a			
BOR-RD1	**0.1**	0.2	0.2	0.1	0.7			
BOR-RD2	**11.8**	17.8	19.4	0.9	10.6			
BOR-outlet	0.0	1.2	0.0	**1.0**	11.6			

TABLE FIVE. DIVERSION DESIGN CRITERIA

Ditch No.	Manning N Min	Manning N Max	Side Slope minH / 1V	Min. Bottom Width (ft)	Design Flow (cfs)	Channel Slope (%) Min	Channel Slope (%) Max	Flow Depth (ft) Min	Flow Depth (ft) Max	Flow Area (ft^2) Min	Flow Area (ft^2) Max	Maximum Velocity (ft/s)	Minimum Channel depth (ft)	Comments
CLEAR WATER POND														
CW-RD1	0.025	0.05	2	0	0.5	1	10	0.24	0.48	0.12	0.46	4.17	0.6	no lining required
CW-RD2	0.025	0.05	2	0	0.6	2	10	0.26	0.45	0.14	0.41	4.29	0.6	no lining required
CW-RD3	0.025	0.05	2	0	0.4	1	10	0.22	0.44	0.10	0.39	4.00	0.6	no lining required
CW-RD4	0.025	0.05	2	0	0.9	1	10	0.30	0.60	0.18	0.72	5.00	0.7	no lining required
CW-RD5	0.025	0.05	2	0	1.4	1.5	5	0.41	0.66	0.34	0.87	4.12	0.8	no lining required
CW-RD6	0.03	0.05	2	0	6.2	1	3.7	0.80	1.24	1.28	3.08	4.84	1.4	no lining required
CW-outlet	0.03	0.05	2	0	1.0	5	12	0.32	0.46	0.20	0.42	5.00	0.6	no lining required
PASTURE POND														
PAST-RD1	0.03	0.05	2	0	2.6	1	6	0.53	0.90	0.56	1.62	4.64	1.0	no lining required
PAST-RD2	0.03	0.05	2	0	4.9	0.5	4.5	0.71	1.29	1.01	3.33	4.85	1.4	no lining required
PAST-RD3	0.04	0.05	2	0	7.8	1	6	0.89	1.35	1.58	3.65	4.94	1.5	8" riprap req'd slopes >3.5%
PAST-RD4	0.025	0.05	2	0	2.3	0.5	4	0.51	0.97	0.52	1.88	4.42	1.1	no lining required
PAST-RD5	0.03	0.05	2	0	4.6	2	5	0.68	0.97	0.92	1.88	5.00	1.1	no lining required
PAST-RD6	0.044	0.05	2	0	7.0	1.5	10	0.80	1.20	1.28	2.88	5.47	1.3	8" riprap req'd slopes >3.7% filter fabric req'd slopes >6.8%
PAST-RD7	0.03	0.05	2	0	0.7	1	10	0.29	0.55	0.17	0.61	4.12	0.7	no lining required
PAST-inlet	0.041	0.05	2	2	19.5	1.3	7	0.84	1.38	2.82	7.62	6.91	1.5	8" riprap req'd slopes >2% filter fabric req'd slopes >3%
PAST-outlet	0.037	0.05	2	0	8.4	1.5	5	0.92	1.29	1.69	3.33	4.97	1.4	8" riprap req'd slopes >3.2%
COAL PILE SEDIMENT POND														
CPSP-RD1	0.025	0.05	2	0	1.1	1	9	0.33	0.65	0.22	0.85	5.00	0.8	no lining required
CPSP-outlet	0.025	0.05	2	0	0.2	0.5	15	0.16	0.39	0.05	0.30	4.00	0.5	no lining required
COARSE REFUSE TOE POND														
CRT-RD1	0.041	0.05	3	0	9.0	1	7	0.78	1.20	1.83	4.32	4.92	1.3	8" riprap req'd slopes >3.7%
CRT-RD2	0.052	0.055	2	0	2.1	1.5	30	0.44	0.79	0.39	1.25	5.38	0.9	8" riprap req'd slopes >8% filter fabric req'd slopes >22%
CRT-RD3	0.03	0.05	2	0	2.6	1	7	0.51	0.90	0.52	1.62	5.00	1.0	no lining required
CRT-outlet	0.055	0.055	2	0	0.4	1	40	0.23	0.46	0.11	0.42	3.64	0.6	8" riprap req'd slopes >25%

TABLE FIVE (continued). DIVERSION DESIGN CRITERIA

Ditch No.	Manning N Min	Manning N Max	Side Slope minH / 1V	Min. Bottom Width (ft)	Design Flow (cfs)	Channel Slope (%) Min	Channel Slope (%) Max	Flow Depth (ft) Min	Flow Depth (ft) Max	Flow Area (ft^2) Min	Flow Area (ft^2) Max	Maximum Velocity (ft/s)	Minimum Channel depth (ft)	Comments
RAIL CUT POND														
RC-RD1	0.046	0.05	2	0	6.0	0.5	15	0.72	1.40	1.04	3.92	5.77	1.5	8" riprap req'd slopes >4 filter fabric req'd slopes >7.5%
RC-RD2	0.03	0.05	2	0	2.1	0.5	5	0.50	0.94	0.50	1.77	4.20	1.1	no lining required
RC-RD3	0.043	0.055	2	1	7.3	3	9	0.62	0.89	1.15	2.38	6.35	1.0	8" riprap req'd slopes >2.5% filter fabric req'd slopes >3.8%
RC-RD4	0.035	0.05	2	0	4.2	1	7	0.65	1.07	0.85	2.29	4.94	1.2	6" riprap req'd slopes > 5%
RC-RD5	0.03	0.05	3	0	4.8	0.5	5	0.58	1.09	1.01	3.56	4.75	1.2	no lining required
RC-RD6	0.049	0.058	2	1	11.9	8.5	15	0.73	0.90	1.60	2.43	7.44	1.0	8" riprap req'd slopes > 2% filter fabric req'd slopes >4.5%
RC-RD7	0.03	0.05	2	0	1.5	0.5	7	0.42	0.83	0.35	1.38	4.29	1.0	no lining required
RC-RD8	0.056	0.065	2	1	13.9	13	30	0.71	0.92	1.51	2.54	9.21	1.1	12" riprap req'd slopes >2% filter fabric req'd slopes >4%
RC-RD9	0.03	0.05	2	0	1.5	0.5	7	0.42	0.83	0.35	1.38	4.29	1.0	no lining required
RC-RD10	0.03	0.05	2	0	0.9	4	16	0.30	0.46	0.18	0.42	5.00	0.6	no lining required
RC-RD11	0.046	0.05	2	0	13.9	1	15	0.98	1.68	1.92	5.64	7.24	1.8	8" riprap req'd slopes > 2.4% filter fabric req'd slopes >3.6%
RC-RD12	0.03	0.05	2	0	14.4	0.5	2.3	1.20	1.94	2.88	7.53	5.00	2.1	no lining required
RC-outlet	0.03	0.05	2	0	4.4	1	4	0.69	1.09	0.95	2.38	4.63	1.2	no lining required
OLD COARSE REFUSE ROAD POND														
OCRR-RD1	0.046	0.05	2	0	3.7	0.5	13	0.61	1.16	0.74	2.69	5.00	1.3	8" riprap req'd slopes >5.6%
OCRR-RD2	0.03	0.05	2	0	2.0	1	8	0.45	0.81	0.41	1.31	4.88	0.9	no lining required
OCRR-RD3	0.03	0.05	2	0	2.5	1	7	0.51	0.88	0.52	1.55	4.81	1.0	no lining required
OCRR-RD4	0.04	0.05	2	0	6.5	1.3	6	0.83	0.99	1.38	1.96	4.71	1.1	8" riprap req'd slopes >4%
OCRR-outlet	0.03	0.05	2	0	1.6	1	10	0.40	0.75	0.32	1.13	5.00	0.9	no lining required
BORROW AREA POND														
BOR-RD1	0.03	0.05	2	0	0.4	0.5	20	0.21	0.51	0.09	0.52	4.44	0.6	no lining required
BOR-RD2	0.038	0.05	2	0	11.8	1	4	1.10	1.58	2.42	4.99	4.88	1.7	8" riprap req'd slopes >2.7%
BOR-outlet	0.03	0.05	2	0	1.0	1.5	8	0.35	0.58	0.25	0.67	4.00	0.7	no lining required

TABLE SIX. CULVERT DESIGN CRITERIA

Culvert No.	Pipe Diameter (in)	Pipe Length (ft)	Pipe Slope (%)	Controlling Head Water (ft)	**Design Flow (cfs)**	**Design Velocity (ft/s)**	Inlet / Outlet Conditions
CW-RC1	4@8"	10	6	0.7	**0.9**	**< 3**	No lining required
PAST-RC1	24	115	3	1.1	**4.6**	**< 5**	No lining required
PAST-RC2	18	110	3	0.5	**0.7**	**< 3**	No lining required
CRT-RC1	18	35	3.4	0.9	**2.6**	**< 4**	No lining required
CRT-RC2	24	60	4.1	0.2	**0.2**	**< 3**	No lining required
CCRR-RC1	36	150	4	1.5	**10.3**	**< 5**	No lining required
OCRR-RC1	24	160	50	1.0	**3.9**	**14**	24" outlet block
OCRR-RC2	18	200	5	0.9	**2.5**	**< 4**	No lining required
BOR-RC1	18	40	1	0.6	**0.4**	**< 3**	No lining required

(mm)	38	25	13	4.75	2	0.85	0.425	0.25	0.15	0.075	0.05	0.03	0.02	0.01	0.008	0.006	0.004	0.002
BOR1	100	88	85	77	70	68	65	61	54	32	18	13	10	9	8.5	8	6	5
BOR2	100	100	98	93	89	86	82	77	70	53	37	27	21	15	14	12	11	10
BOR3	100	100	100	95	92	90	87	82	75	50	47	39	30	21	19	17	16	15
AVG	**100**	**96.0**	**94.3**	**88.3**	**83.7**	**81.3**	**78.0**	**73.3**	**66.3**	**45.0**	**34.0**	**26.3**	**20.3**	**15.0**	**13.8**	**12.3**	**11.0**	**10.0**

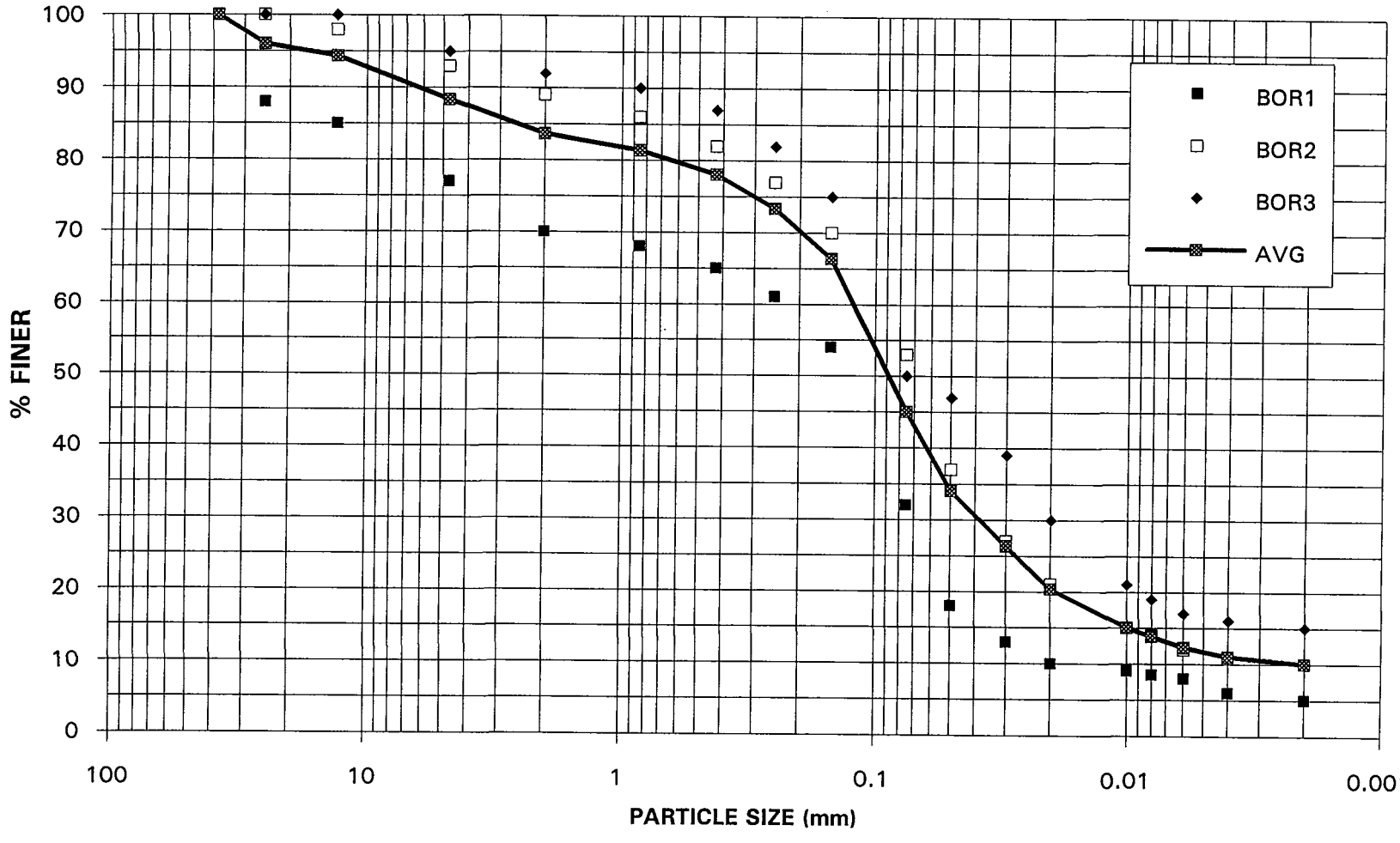


FIGURE ONE. SEDIMENT PARTICLE SIZE DISTRIBUTION

Soil Samples Analyzed at HCN

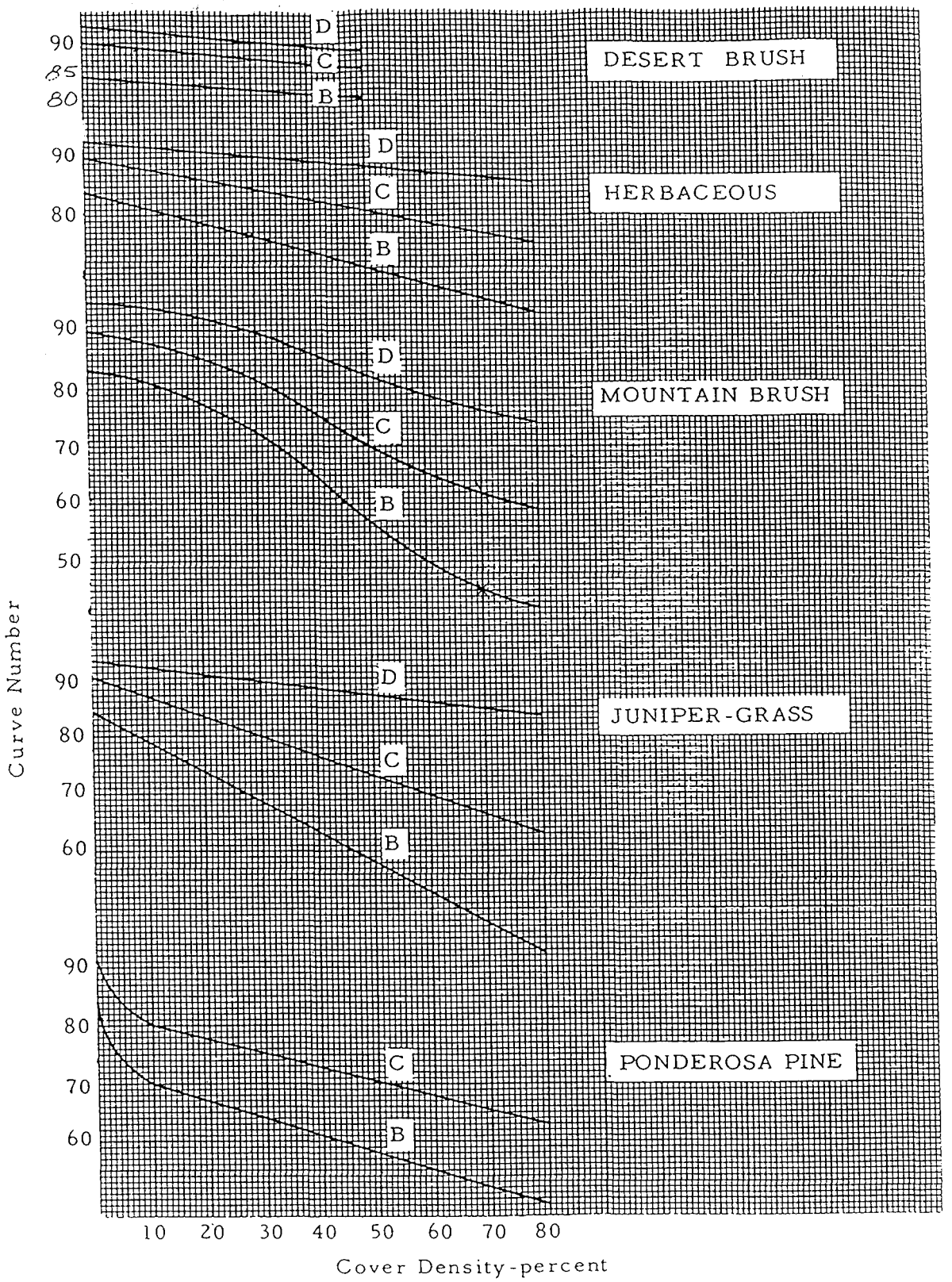
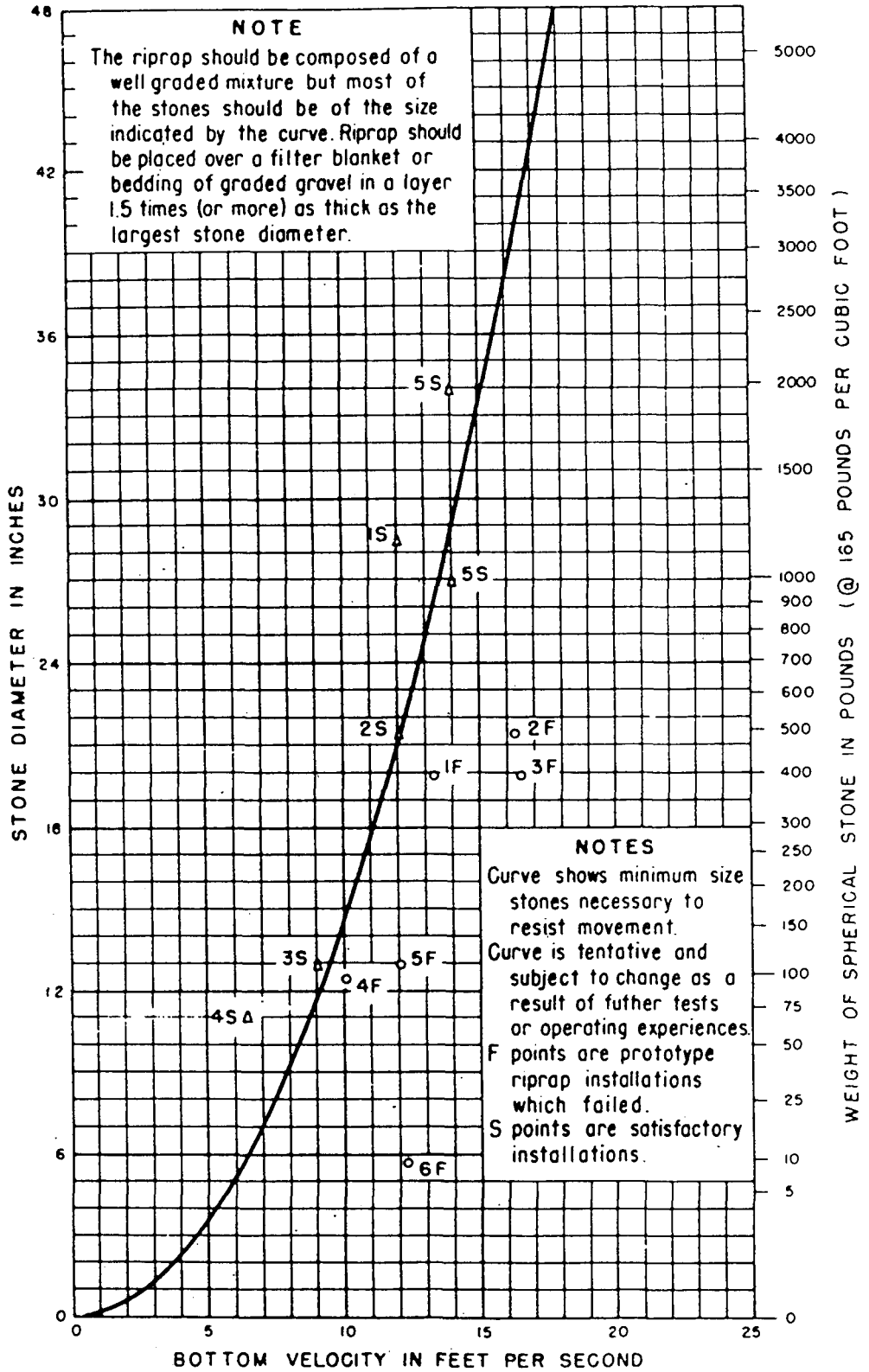


FIGURE 2

HYDROLOGIC SOIL - COVER COMPLEXES
AND ASSOCIATED CURVE NUMBERS



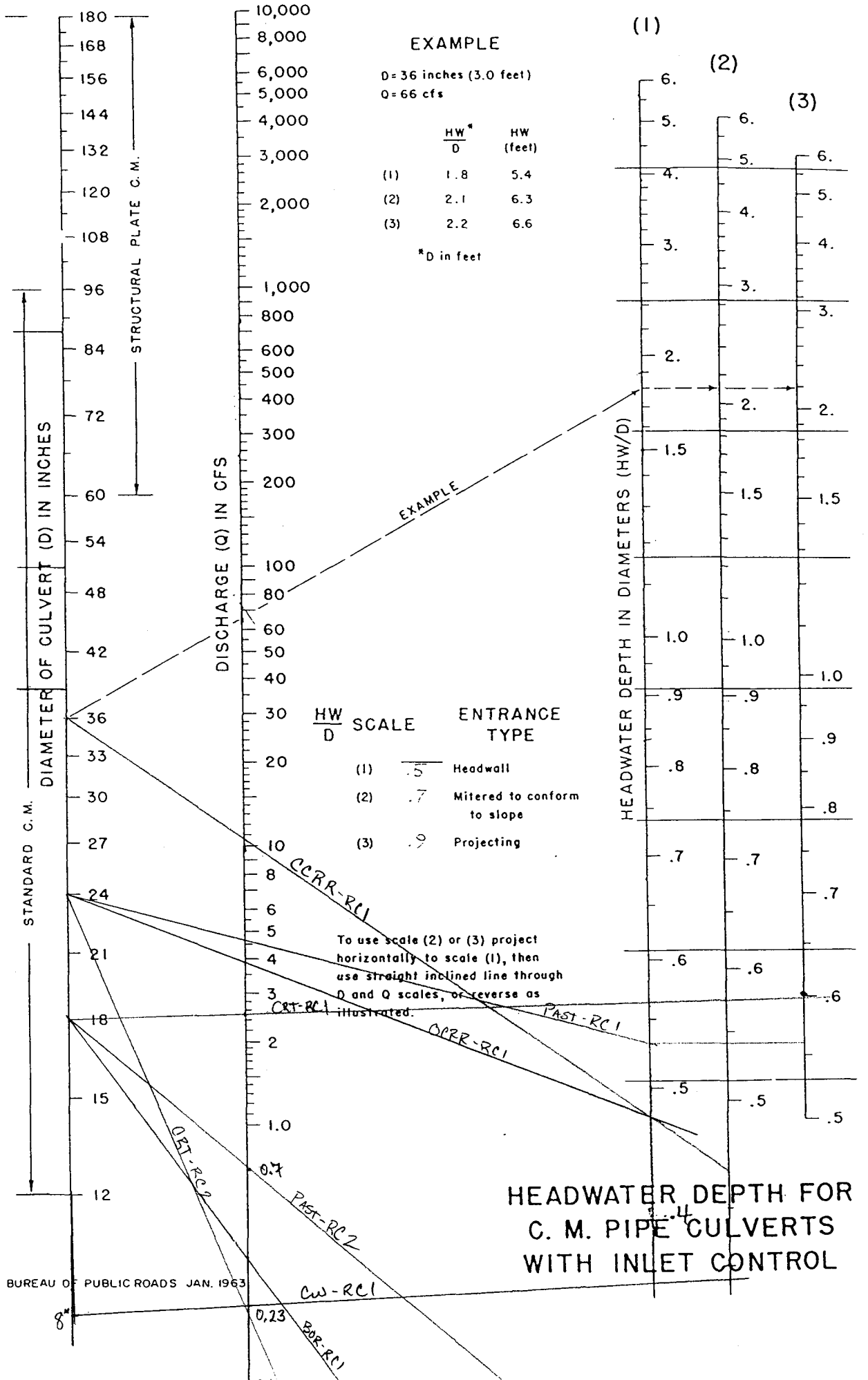
From USBR

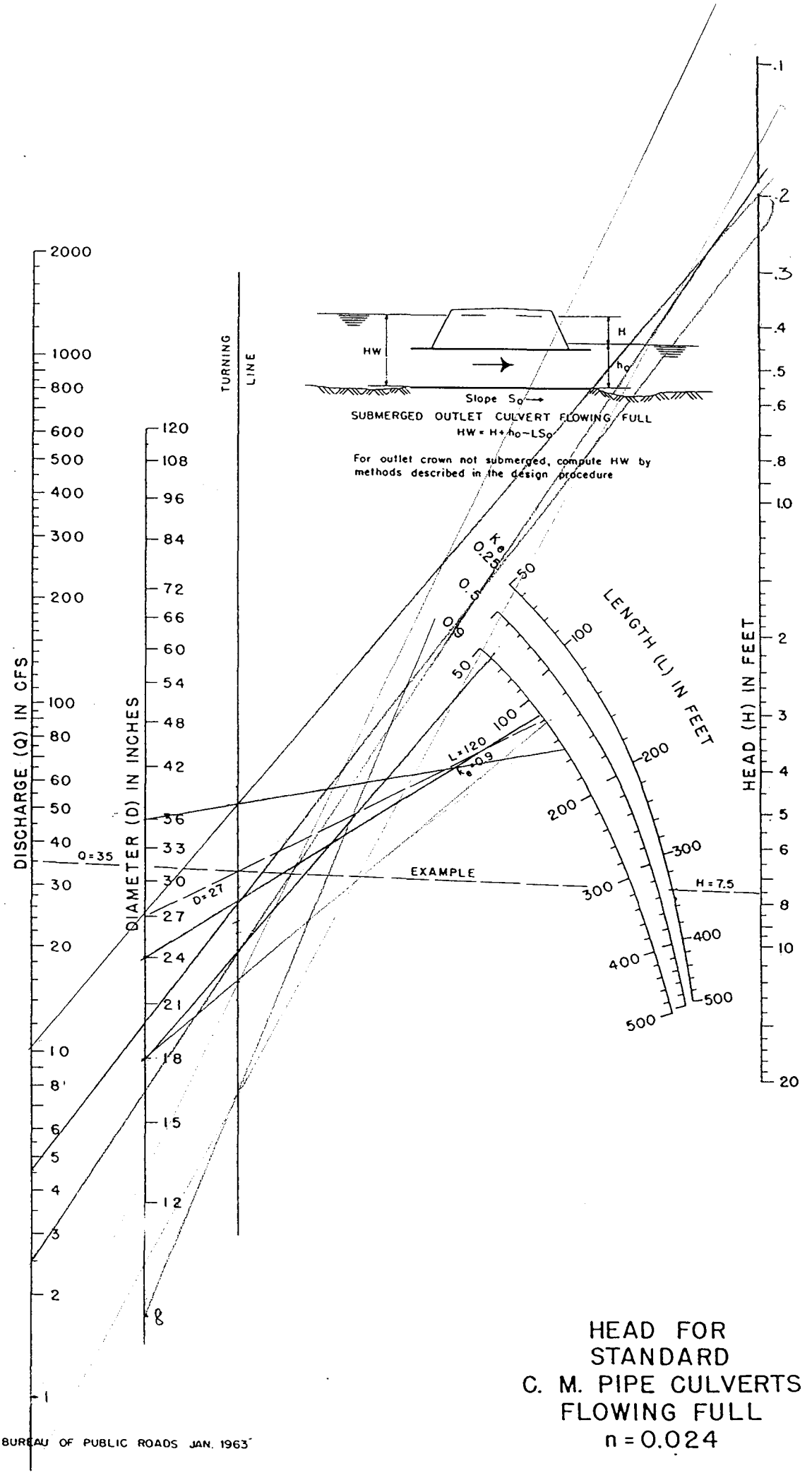
FIGURE 3 RIPRAP SIZING

FIGURE 4

CULVERT DESIGN NOMAGRAPHS

July 11, 1994


EXAMPLE
D = 36 inches (3.0 feet)
Q = 66 cfs
HW*/D
HW (feet)
(1) 1.8 5.4
(2) 2.1 6.3
(3) 2.2 6.6
*D in feet
(1)
(2)
(3)
STRUCTURAL PLATE C.M.
STANDARD C.M.
DIAMETER OF CULVERT (D) IN INCHES
DISCHARGE (Q) IN CFS
HEADWATER DEPTH IN DIAMETERS (HW/D)
EXAMPLE
HW/D SCALE
ENTRANCE TYPE
(1) .5 Headwall
(2) .7 Mitered to conform to slope
(3) .9 Projecting
To use scale (2) or (3) project horizontally to scale (1), then use straight inclined line through D and Q scales, or reverse as illustrated.
CCRR-RC1
CRT-RC1
PAST-RC1
CCRR-RC1
CRT-RC2
PAST-RC2
CW-RC1
BOR-RC1
0.7
0.23
8"
HEADWATER DEPTH FOR C. M. PIPE CULVERTS WITH INLET CONTROL
BUREAU OF PUBLIC ROADS JAN. 1963



HEAD FOR STANDARD C. M. PIPE CULVERTS FLOWING FULL n = 0.024

BUREAU OF PUBLIC ROADS JAN. 1963

CLEAR WATER POND

10 YEAR, 6 HOUR STORM

PHASE ONE

July 11, 1994

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**********************************************************************
*          (program name)                * SEDIMOT S/N  : 1353220014   *
*                                        * HMVersion    :  3.20       *
*       (program description)            * Date         :  5/05/94    *
*                                        * Time         : 15:47:30    *
*                                        * Input file   : CW106.IN    *
*                                        * Output file  : CW106.OUT   *
*                                        *                            *
*                                        *                            *
**********************************************************************
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x     x  x        x     x    x    xx   xx  x     x     x
x        x        x     x    x    x x x x  x     x     x
 xxxxx   xxxxx    x     x    x    x  x  x  x     x     x
      x  x        x     x    x    x     x  x     x     x
x     x  x        x     x    x    x     x  x     x     x
 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx      x
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:::                                       :::
:::  Full Microcomputer Implementation    :::
:::                 by                    :::
:::        Haestad Methods, Inc.          :::
:::                                       :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

****
****

****
WATERSHED IDENTIFICATION CODE

Clear Water Pond 10 year 6 hour storm Phase 1 Reclamation
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	1.31 INCHES
3.	STORM DURATION -	6.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

==========

========== WATERSHED DATA ==========

QUESTION
NO.

1. NUMBER OF JUNCTIONS - 3
2. JUNCTION NUMBER OF BRANCHES

1	2
2	2
3	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

==========

========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00
7	34.00

8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.13	.13	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #2 ==========

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.35
1	PRIOR J OR S TO STRUCTURE 2	.05	.05	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #3 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* * * * *

* * * * * * * * * * * * * * * * * * *

JUNCTION 1, BRANCH 1, STRUCTURE 1

* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	27.70	65.00	.180	.100	.100	.35	3.0
2	22.60	70.00	.210	.100	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1000.0	40.00	.350	1.0	3.0
	2	.20	500.0	25.00	.350	1.0	3.0
2	1	.20	1000.0	2.50	.450	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.12	.01	44.48	.088	1.000	.933
2	.52	.04	3.91	.088	1.000	.933

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.1038	ACRE-FT
PEAK DISCHARGE	=	.5077	CFS
AREA	=	50.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.70	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	2.3223	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	739234.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	348.5414	ML/L
PEAK SETTLEABLE CONCENTRATION	=	609947.50	MG/L
TOTAL SEDIMENT YIELD	=	45.1618	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0792	MM
TIME OF PEAK CONCENTRATION	=	6.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	5.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	129.55	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

PERIOD = 129.55 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 159.82 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 35.29 ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.20	70.00	.140	.000	.050	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	1.00	.600	1.0	1.0
	2	.20	400.0	2.00	.600	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.10	.04	.81	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 6.00 HOURS

PRECIPITATION DEPTH = 1.31 INCHES

RUNOFF VOLUME = .0151 ACRE-FT

PEAK DISCHARGE = .1010 CFS

AREA	=	4.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	48504.26	MG/L
PEAK SETTLEABLE CONCENTRATION	=	23.1841	ML/L
PEAK SETTLEABLE CONCENTRATION	=	40572.12	MG/L
TOTAL SEDIMENT YIELD	=	.8098	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	18.17	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	18.17	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	16.72	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.37	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.49	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.80	HRS
TOTAL DRAINAGE AREA	=	54.50	ACRES
TOTAL RUNOFF VOLUME	=	.1190	AC-FT
PEAK RUNOFF DISCHARGE	=	.57	CFS
TIME TO PEAK DISCHARGE	=	3.80	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1300	HRS
TOTAL SEDIMENT YIELD	=	45.9551	TONS
PEAK SEDIMENT CONCENTRATION	=	719722.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	339.3987	ML/L
PEAK SETTLEABLE CONCENTRATION	=	593947.80	MG/L
TIME TO PEAK CONCENTRATION	=	6.80	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	5.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	116.21	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	116.21	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	154.06	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

PERIOD = 34.02 ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

JUNCTION NO.
1. NUMBER OF SUBWATERSHEDS - 2
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	63.70	65.00	.280	.200	.200	.35	3.0
2	11.60	70.00	.280	.100	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1500.0	60.00	.350	1.0	3.0
	2	.20	1000.0	20.00	.350	1.0	3.0
2	1	.20	1600.0	5.00	.450	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.25	.01	121.85	.085	.976	.870
2	.26	.04	4.72	.088	1.000	.931

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0932	ACRE-FT
PEAK DISCHARGE	=	.3577	CFS
AREA	=	75.3000	ACRES
TIME OF PEAK DISCHARGE	=	6.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	2.3919	

SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	969153.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	448.1242	ML/L
PEAK SETTLEABLE CONCENTRATION	=	784217.40	MG/L
TOTAL SEDIMENT YIELD	=	110.4055	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0686	MM
TIME OF PEAK CONCENTRATION	=	6.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	289.38	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	289.38	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	253.08	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	67.49	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	70.00	.140	.000	.000	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	600.0	5.00	.450	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.10	.04	1.35	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0148	ACRE-FT
PEAK DISCHARGE	=	.0986	CFS
AREA	=	4.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	81917.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	39.1550	ML/L
PEAK SETTLEABLE CONCENTRATION	=	68521.30	MG/L
TOTAL SEDIMENT YIELD	=	1.3518	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	30.76	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	30.76	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	28.33	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.01	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.80	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.80	HRS
TOTAL DRAINAGE AREA	=	133.90	ACRES
TOTAL RUNOFF VOLUME	=	.2269	AC-FT
PEAK RUNOFF DISCHARGE	=	.88	CFS
TIME TO PEAK DISCHARGE	=	3.70	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	157.6998	TONS
PEAK SEDIMENT CONCENTRATION	=	833877.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	387.8829	ML/L
PEAK SETTLEABLE CONCENTRATION	=	678795.10	MG/L
TIME TO PEAK CONCENTRATION	=	6.80	HRS

PERIOD OF SIGNIFICANT CONCENTRATION	=	6.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	188.38	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	188.38	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	208.07	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	55.48	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 1, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.50	84.00	.120	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.35	.30	5.02	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0635	ACRE-FT
PEAK DISCHARGE	=	1.3463	CFS
AREA	=	2.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	12.3178	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	97032.77	MG/L
PEAK SETTLEABLE CONCENTRATION	=	46.3797	ML/L
PEAK SETTLEABLE CONCENTRATION	=	81164.52	MG/L
TOTAL SEDIMENT YIELD	=	5.0164	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	27.63	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	27.63	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	17.79	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.37	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.88	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.70	HRS
TOTAL DRAINAGE AREA	=	136.40	ACRES
TOTAL RUNOFF VOLUME	=	.2904	AC-FT
PEAK RUNOFF DISCHARGE	=	1.35	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.85	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	138.7444	TONS
PEAK SEDIMENT CONCENTRATION	=	833876.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	373.8176	ML/L
PEAK SETTLEABLE CONCENTRATION	=	654180.80	MG/L
TIME TO PEAK CONCENTRATION	=	6.80	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	137.85	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	137.85	ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 182.31 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 50.90 ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	15.80	84.00	.220	.000	.000	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	2.00	.850	1.0	1.0
	2	.20	800.0	1.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	6.15	.30	6.89	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00 HOURS
PRECIPITATION DEPTH	=	1.31 INCHES
RUNOFF VOLUME	=	.4010 ACRE-FT
PEAK DISCHARGE	=	6.1472 CFS
AREA	=	15.8000 ACRES
TIME OF PEAK DISCHARGE	=	3.10 HRS

LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	20219.72	MG/L
PEAK SETTLEABLE CONCENTRATION	=	9.6646	ML/L
PEAK SETTLEABLE CONCENTRATION	=	16913.09	MG/L
TOTAL SEDIMENT YIELD	=	6.8915	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.99	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.99	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.88	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.63	ML/L

========== STRUCTURE DATA FOR JUNCTION #3 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	POND

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* *
JUNCTION 3, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.00	84.00	.030	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	10.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.54	.30	2.00	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0254	ACRE-FT
PEAK DISCHARGE	=	.5385	CFS
AREA	=	1.0000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	96827.02	MG/L
PEAK SETTLEABLE CONCENTRATION	=	46.2814	ML/L
PEAK SETTLEABLE CONCENTRATION	=	80992.42	MG/L
TOTAL SEDIMENT YIELD	=	2.0021	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	27.57	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	27.57	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	17.75	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.37	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	6.56	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	153.20	ACRES
TOTAL RUNOFF VOLUME	=	.7168	AC-FT
PEAK RUNOFF DISCHARGE	=	6.91	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	147.6381	TONS
PEAK SEDIMENT CONCENTRATION	=	833876.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	375.2916	ML/L

PEAK SETTLEABLE CONCENTRATION	=	656760.30	MG/L
TIME TO PEAK CONCENTRATION	=	6.80	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	62.82	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	62.82	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	158.46	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	44.24	ML/L

========== POND INPUT ==========

QUESTION NO.		
1.	TIME INCREMENT OF THE ROUTED HYDROGRAPH -	.20 HOURS
2.	NON-IDEAL SETTLING CORRECTION FACTOR -	1.00
3.	PERCENT OF PERMANENT POOL THAT IS DEAD SPACE -	15.00
4.	OUTFLOW WITHDRAWAL OPTION -	SURFACE
5.	INFLOW VERTICAL CONCENTRATION -	COMP. MIXED
6.	NUMBER OF STAGE POINTS -	8
7.	NUMBER OF ROUTED HYDROGRAPH POINTS -	500
8.	STAGE-DISCHARGE OPTION -	INPUT
9.	OUTPUT OPTION -	GRAPHS
10.	NUMBER OF CONTINUOUS STIRRED REACTORS	2

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POND RESULTS

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***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.390	.00	.00	.00
2.00	.470	1.91	.00	.86
4.00	.640	3.62	.00	1.97
6.00	.720	5.30	.00	3.33
7.00	.760	6.15	.00	4.07
7.60	.790	6.66	.00	4.53
8.00	.810	6.99	2.00	4.86
9.00	.830	7.84	10.00	5.68

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	1.970	ACRE-FT
DEAD STORAGE	=	15.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	.717	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.002	ACRE-FT
STORM VOLUME DISCHARGED	=	.002	ACRE-FT
POND VOLUME AT PEAK STAGE	=	2.686	ACRE-FT
PEAK STAGE	=	5.053	FT
PEAK INFLOW RATE	=	6.906	CFS
PEAK DISCHARGE RATE	=	.001	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	833876.90	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	770.88	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.00	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	480.56	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	480.56	MG/L
BASIN TRAP EFFICIENCY	=	100.00	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	20.66	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	20.66	HRS
DETENTION TIME INCLUDING STORED FLOW	=	20.66	HRS
SEDIMENT LOAD DISCHARGED	=	.00	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	42.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	100.0000	100.0000	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
(TWO CONSECUTIVE VALUES PER LINE)

TIME	DISCHARGE	SED DISC	*******	TIME	DISCHARGE	SED DISC

(HR)	(CFS)	(MG/L)	*	(HR)	(CFS)	(MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	1.303	*	3.00	.000	43.521
3.20	.000	151.006	*	3.40	.000	205.583
3.60	.000	242.652	*	3.80	.000	265.325
4.00	.000	283.164	*	4.20	.000	301.671
4.40	.000	320.734	*	4.60	.000	344.922
4.80	.000	375.469	*	5.00	.000	414.581
5.20	.000	461.657	*	5.40	.000	510.756
5.60	.000	564.100	*	5.80	.000	625.806
6.00	.000	691.214	*	6.20	.000	754.018
6.40	.001	770.877	*	6.60	.001	751.552
6.80	.001	722.151	*	7.00	.001	697.464
7.20	.001	678.555	*	7.40	.001	663.249
7.60	.001	650.070	*	7.80	.001	638.330
8.00	.001	627.680	*	8.20	.001	617.931
8.40	.001	608.954	*	8.60	.001	600.693
8.80	.001	593.151	*	9.00	.001	586.197
9.20	.001	579.738	*	9.40	.001	573.702
9.60	.001	568.078	*	9.80	.001	562.959
10.00	.001	558.260	*	10.20	.001	553.925
10.40	.001	549.905	*	10.60	.001	546.159
10.80	.001	542.648	*	11.00	.001	539.343
11.20	.001	536.226	*	11.40	.001	533.285
11.60	.001	530.509	*	11.80	.001	527.880
12.00	.001	525.374	*	12.20	.001	522.974
12.40	.001	520.667	*	12.60	.001	518.444
12.80	.001	516.302	*	13.00	.001	514.237
13.20	.001	512.248	*	13.40	.001	510.330
13.60	.001	508.480	*	13.80	.001	506.697
14.00	.001	504.977	*	14.20	.001	503.320
14.40	.001	501.724	*	14.60	.001	500.191
14.80	.001	498.721	*	15.00	.001	497.311
15.20	.001	495.954	*	15.40	.001	494.644
15.60	.001	493.375	*	15.80	.001	492.145
16.00	.001	490.953	*	16.20	.001	489.799
16.40	.001	488.682	*	16.60	.001	487.599
16.80	.001	486.549	*	17.00	.001	485.530
17.20	.001	484.541	*	17.40	.001	483.583
17.60	.001	482.654	*	17.80	.001	481.754
18.00	.001	480.881	*	18.20	.001	480.034
18.40	.001	479.212	*	18.60	.001	478.413
18.80	.001	477.633	*	19.00	.001	476.869
19.20	.001	476.121	*	19.40	.001	475.387
19.60	.001	474.666	*	19.80	.001	473.958
20.00	.001	473.263	*	20.20	.001	472.582
20.40	.001	471.914	*	20.60	.001	471.259
20.80	.001	470.619	*	21.00	.001	469.991
21.20	.001	469.377	*	21.40	.001	468.775
21.60	.001	468.188	*	21.80	.001	467.614
22.00	.001	467.054	*	22.20	.001	466.506
22.40	.001	465.967	*	22.60	.001	465.437
22.80	.001	464.915	*	23.00	.001	464.401

23.20	.001	463.895	*	23.40	.001	463.397
23.60	.001	462.905	*	23.80	.001	462.420
24.00	.001	461.942	*	24.20	.001	461.472
24.40	.001	461.010	*	24.60	.001	460.556
24.80	.001	460.109	*	25.00	.001	459.670
25.20	.001	459.238	*	25.40	.001	458.811
25.60	.001	458.389	*	25.80	.001	457.970
26.00	.001	457.551	*	26.20	.001	457.134
26.40	.001	456.717	*	26.60	.001	456.301
26.80	.001	455.884	*	27.00	.001	455.467
27.20	.001	455.051	*	27.40	.001	454.638
27.60	.001	454.230	*	27.80	.001	453.826
28.00	.001	453.428	*	28.20	.001	453.035
28.40	.001	452.648	*	28.60	.001	452.267
28.80	.001	451.893	*	29.00	.001	451.525
29.20	.001	451.161	*	29.40	.001	450.802
29.60	.001	450.447	*	29.80	.001	450.096
30.00	.001	449.749	*	30.20	.001	449.406
30.40	.001	449.068	*	30.60	.001	448.734
30.80	.001	448.404	*	31.00	.001	448.079
31.20	.001	447.759	*	31.40	.001	447.443
31.60	.001	447.133	*	31.80	.001	446.827
32.00	.001	446.526	*	32.20	.001	446.230
32.40	.001	445.938	*	32.60	.001	445.650
32.80	.001	445.365	*	33.00	.001	445.083
33.20	.001	444.803	*	33.40	.001	444.526
33.60	.001	444.251	*	33.80	.001	443.979
34.00	.001	443.709	*	34.20	.001	443.442
34.40	.001	443.176	*	34.60	.001	442.912
34.80	.001	442.651	*	35.00	.001	442.391
35.20	.001	442.134	*	35.40	.001	441.879
35.60	.001	441.625	*	35.80	.001	441.373
36.00	.001	441.124	*	36.20	.001	440.876
36.40	.001	440.630	*	36.60	.001	440.385
36.80	.001	440.143	*	37.00	.001	439.902
37.20	.001	439.663	*	37.40	.001	439.425
37.60	.001	439.187	*	37.80	.001	438.951
38.00	.001	438.716	*	38.20	.001	438.482
38.40	.001	438.249	*	38.60	.001	438.017
38.80	.001	437.786	*	39.00	.001	437.555
39.20	.001	437.324	*	39.40	.001	437.093
39.60	.001	436.860	*	39.80	.001	436.627
40.00	.001	436.393	*	40.20	.001	436.158
40.40	.001	435.921	*	40.60	.001	435.683
40.80	.001	435.443	*	41.00	.001	435.203
41.20	.001	434.963	*	41.40	.001	434.724
41.60	.001	434.485	*	41.80	.001	434.248
42.00	.001	434.012	*	42.20	.001	433.777
42.40	.001	433.543	*	42.60	.001	433.310
42.80	.001	433.079	*	43.00	.001	432.849
43.20	.001	432.621	*	43.40	.001	432.394
43.60	.001	432.168	*	43.80	.001	431.943
44.00	.001	431.720	*	44.20	.001	431.499
44.40	.001	431.278	*	44.60	.001	431.059
44.80	.001	430.841	*	45.00	.001	430.625
45.20	.001	430.409	*	45.40	.001	430.195

CLEAR WATER POND

10 YEAR, 24 HOUR STORM

PHASE ONE

July 11, 1994

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**********************************************************************
*          (program name)                * SEDIMOT S/N  : 1353220014   *
*                                        * HMVersion    :  3.20       *
*       (program description)            * Date         :  5/05/94    *
*                                        * Time         : 15:47:08    *
*                                        * Input file   : CW1024.IN   *
*                                        * Output file  : CW1024.OUT  *
*                                        *                            *
*                                        *                            *
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x     x  x        x     x    x    xx   xx  x     x     x
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      x  x        x     x    x    x     x  x     x     x
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:::  Full Microcomputer Implementation   :::
:::                  by                  :::
:::        Haestad Methods, Inc.         :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

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****
WATERSHED IDENTIFICATION CODE

Clear Water Pond 10 year 24 hour storm Phase 1 Reclamation
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	1.84 INCHES
3.	STORM DURATION -	24.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

==========

========== WATERSHED DATA ==========

QUESTION
NO.
1. NUMBER OF JUNCTIONS - 3
2. JUNCTION NUMBER OF BRANCHES

8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.13	.13	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #2 ==========

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.35
1	PRIOR J OR S TO STRUCTURE 2	.05	.05	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

1	2
2	2
3	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

==========

========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00
7	34.00

========== STRUCTURE INPUT FOR JUNCTION #3 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	27.70	65.00	.180	.100	.100	.35	3.0
2	22.60	70.00	.210	.100	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1000.0	40.00	.350	1.0	3.0
	2	.20	500.0	25.00	.350	1.0	3.0
2	1	.20	1000.0	2.50	.450	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.41	.09	144.71	.088	1.000	1.000
2	2.39	.18	6.03	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.5640	ACRE-FT
PEAK DISCHARGE	=	2.4073	CFS
AREA	=	50.3000	ACRES
TIME OF PEAK DISCHARGE	=	12.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	248132.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	118.5955	ML/L
PEAK SETTLEABLE CONCENTRATION	=	207542.10	MG/L
TOTAL SEDIMENT YIELD	=	150.6879	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	13.90	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	14.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	87.13	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	87.13	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	84.51	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	51.06	ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.20	70.00	.140	.000	.050	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	1.00	.600	1.0	1.0
	2	.20	400.0	2.00	.600	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.49	.18	1.00	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0642	ACRE-FT
PEAK DISCHARGE	=	.4936	CFS
AREA	=	4.2000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.2150	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	23878.20	MG/L
PEAK SETTLEABLE CONCENTRATION	=	11.4133	ML/L
PEAK SETTLEABLE CONCENTRATION	=	19973.28	MG/L
TOTAL SEDIMENT YIELD	=	.9992	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	12.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.32	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.32	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.82	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.00	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	2.11	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.40	HRS
TOTAL DRAINAGE AREA	=	54.50	ACRES
TOTAL RUNOFF VOLUME	=	.6281	AC-FT
PEAK RUNOFF DISCHARGE	=	2.33	CFS
TIME TO PEAK DISCHARGE	=	12.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1300	HRS
TOTAL SEDIMENT YIELD	=	150.4412	TONS
PEAK SEDIMENT CONCENTRATION	=	226427.50	MG/L
PEAK SETTLEABLE CONCENTRATION	=	108.0502	ML/L
PEAK SETTLEABLE CONCENTRATION	=	189087.80	MG/L
TIME TO PEAK CONCENTRATION	=	14.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	14.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	78.33	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	78.33	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	77.77	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	46.99	ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	63.70	65.00	.280	.200	.200	.35	3.0
2	11.60	70.00	.280	.100	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1500.0	60.00	.350	1.0	3.0
	2	.20	1000.0	20.00	.350	1.0	3.0
2	1	.20	1600.0	5.00	.450	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.82	.09	516.90	.088	.995	.924
2	1.08	.18	9.74	.088	1.000	.961

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.6800	ACRE-FT
PEAK DISCHARGE	=	1.3200	CFS
AREA	=	75.3000	ACRES
TIME OF PEAK DISCHARGE	=	12.70	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.3443	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	542438.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	254.9733	ML/L
PEAK SETTLEABLE CONCENTRATION	=	446203.20	MG/L
TOTAL SEDIMENT YIELD	=	486.7353	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0774	MM
TIME OF PEAK CONCENTRATION	=	14.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	15.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	205.69	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	205.69	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	181.69	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	117.34	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION

NO.
1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* *
JUNCTION 2, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	70.00	.140	.000	.000	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	600.0	5.00	.450	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.48	.18	2.53	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0626	ACRE-FT
PEAK DISCHARGE	=	.4819	CFS
AREA	=	4.1000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	60992.67	MG/L
PEAK SETTLEABLE CONCENTRATION	=	29.1533	ML/L
PEAK SETTLEABLE CONCENTRATION	=	51018.24	MG/L
TOTAL SEDIMENT YIELD	=	2.5258	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	12.60	HRS

VOLUME WEIGHTED AVERAGE SETTLEABLE

CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	13.66	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	13.66	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.83	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.16	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.55	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.30	HRS
TOTAL DRAINAGE AREA	=	133.90	ACRES
TOTAL RUNOFF VOLUME	=	1.3708	AC-FT
PEAK RUNOFF DISCHARGE	=	3.78	CFS
TIME TO PEAK DISCHARGE	=	12.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	639.6484	TONS
PEAK SEDIMENT CONCENTRATION	=	396023.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	186.8210	ML/L
PEAK SETTLEABLE CONCENTRATION	=	326936.70	MG/L
TIME TO PEAK CONCENTRATION	=	14.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	15.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	142.24	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	142.24	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	133.90	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	86.48	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 1, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.50	84.00	.120	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.73	.63	9.72	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.1318	ACRE-FT
PEAK DISCHARGE	=	1.7346	CFS
AREA	=	2.5000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	4.7456	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	104143.20	MG/L
PEAK SETTLEABLE CONCENTRATION	=	49.7784	ML/L
PEAK SETTLEABLE CONCENTRATION	=	87112.19	MG/L
TOTAL SEDIMENT YIELD	=	9.7246	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	25.36	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	25.36	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.37	ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 6.16 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.78	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.30	HRS
TOTAL DRAINAGE AREA	=	136.40	ACRES
TOTAL RUNOFF VOLUME	=	1.5026	AC-FT
PEAK RUNOFF DISCHARGE	=	4.14	CFS
TIME TO PEAK DISCHARGE	=	12.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.94	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	607.9802	TONS
PEAK SEDIMENT CONCENTRATION	=	359515.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	167.2966	ML/L
PEAK SETTLEABLE CONCENTRATION	=	292769.00	MG/L
TIME TO PEAK CONCENTRATION	=	14.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	16.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	123.74	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	123.74	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	115.44	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	79.37	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER	AREA	CURVE	TC	TT	ROUTING COEFFICIENTS	UNIT

SHED	ACRES	NUMBER	HR	HR	K-HRS	X,	HYDRO
1	15.80	84.00	.220	.000	.000	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	2.00	.850	1.0	1.0
	2	.20	800.0	1.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	8.96	.63	11.30	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.8333	ACRE-FT
PEAK DISCHARGE	=	8.9615	CFS
AREA	=	15.8000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	19024.67	MG/L
PEAK SETTLEABLE CONCENTRATION	=	9.0934	ML/L
PEAK SETTLEABLE CONCENTRATION	=	15913.47	MG/L
TOTAL SEDIMENT YIELD	=	11.3011	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.71	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.71	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	2.21	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.26	ML/L

========== STRUCTURE DATA FOR JUNCTION #3 ==========

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - POND

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JUNCTION 3, BRANCH 1, STRUCTURE 1

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*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.00	84.00	.030	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	10.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.69	.63	3.48	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0527	ACRE-FT
PEAK DISCHARGE	=	.6938	CFS
AREA	=	1.0000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	93442.21	MG/L
PEAK SETTLEABLE CONCENTRATION	=	44.6635	ML/L
PEAK SETTLEABLE CONCENTRATION	=	78161.15	MG/L
TOTAL SEDIMENT YIELD	=	3.4752	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS

PERIOD OF SIGNIFICANT CONCENTRATION=		12.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	22.75	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	22.75	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.27	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.48	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	11.05	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.10	HRS
TOTAL DRAINAGE AREA	=	153.20	ACRES
TOTAL RUNOFF VOLUME	=	2.3886	AC-FT
PEAK RUNOFF DISCHARGE	=	11.19	CFS
TIME TO PEAK DISCHARGE	=	12.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	622.7565	TONS
PEAK SEDIMENT CONCENTRATION	=	320007.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	149.0062	ML/L
PEAK SETTLEABLE CONCENTRATION	=	260760.90	MG/L
TIME TO PEAK CONCENTRATION	=	24.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	16.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	82.05	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	82.05	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	92.16	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	63.36	ML/L

========== POND INPUT ==========

QUESTION NO.		
1.	TIME INCREMENT OF THE ROUTED HYDROGRAPH -	.20 HOURS
2.	NON-IDEAL SETTLING CORRECTION FACTOR -	1.00
3.	PERCENT OF PERMANENT POOL THAT IS DEAD SPACE -	15.00
4.	OUTFLOW WITHDRAWAL OPTION -	SURFACE
5.	INFLOW VERTICAL CONCENTRATION -	COMP. MIXED
6.	NUMBER OF STAGE POINTS -	8
7.	NUMBER OF ROUTED HYDROGRAPH POINTS -	500

8. STAGE-DISCHARGE OPTION - INPUT
9. OUTPUT OPTION - GRAPHS
10. NUMBER OF CONTINUOUS STIRRED REACTORS 2

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POND RESULTS

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***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.390	.00	.00	.00
2.00	.470	1.91	.00	.86
4.00	.640	3.62	.00	1.97
6.00	.720	5.30	.00	3.33
7.00	.760	6.15	.00	4.07
7.60	.790	6.66	.00	4.53
8.00	.810	6.99	2.00	4.86
9.00	.830	7.84	10.00	5.68

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	1.970	ACRE-FT
DEAD STORAGE	=	15.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	2.389	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.003	ACRE-FT
STORM VOLUME DISCHARGED	=	.003	ACRE-FT
POND VOLUME AT PEAK STAGE	=	4.365	ACRE-FT
PEAK STAGE	=	7.381	FT
PEAK INFLOW RATE	=	11.189	CFS
PEAK DISCHARGE RATE	=	.001	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	320007.40	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	4686.91	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.01	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	3867.49	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	3867.49	MG/L
BASIN TRAP EFFICIENCY	=	100.00	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	15.65	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	15.65	HRS
DETENTION TIME INCLUDING STORED FLOW	=	15.65	HRS

SEDIMENT LOAD DISCHARGED	=	.02	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	38.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	100.0000	100.0000	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
(TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	*	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	.000	*	3.00	.000	.000
3.20	.000	.000	*	3.40	.000	.000
3.60	.000	.000	*	3.80	.000	.000
4.00	.000	.000	*	4.20	.000	.000
4.40	.000	.000	*	4.60	.000	.000
4.80	.000	.000	*	5.00	.000	.000
5.20	.000	.000	*	5.40	.000	.000
5.60	.000	.000	*	5.80	.000	.000
6.00	.000	.000	*	6.20	.000	.000
6.40	.000	.000	*	6.60	.000	.000
6.80	.000	.000	*	7.00	.000	.000
7.20	.000	.000	*	7.40	.000	.000
7.60	.000	.000	*	7.80	.000	.000
8.00	.000	.000	*	8.20	.000	.000
8.40	.000	.000	*	8.60	.000	.000
8.80	.000	.000	*	9.00	.000	.000
9.20	.000	.000	*	9.40	.000	.000
9.60	.000	.000	*	9.80	.000	.000
10.00	.000	.000	*	10.20	.000	.000

10.40	.000	.000	*	10.60	.000	.000
10.80	.000	.000	*	11.00	.000	.000
11.20	.000	.003	*	11.40	.000	.020
11.60	.000	.703	*	11.80	.000	20.663
12.00	.000	162.311	*	12.20	.000	432.366
12.40	.000	641.080	*	12.60	.000	804.566
12.80	.001	965.639	*	13.00	.001	1119.795
13.20	.001	1273.608	*	13.40	.001	1425.601
13.60	.001	1577.166	*	13.80	.001	1727.422
14.00	.001	1870.681	*	14.20	.001	2006.577
14.40	.001	2125.363	*	14.60	.001	2228.651
14.80	.001	2329.404	*	15.00	.001	2434.089
15.20	.001	2543.256	*	15.40	.001	2655.398
15.60	.001	2769.065	*	15.80	.001	2883.581
16.00	.001	2998.865	*	16.20	.001	3105.342
16.40	.001	3183.802	*	16.60	.001	3235.734
16.80	.001	3279.362	*	17.00	.001	3324.882
17.20	.001	3374.140	*	17.40	.001	3426.038
17.60	.001	3479.430	*	17.80	.001	3533.714
18.00	.001	3588.518	*	18.20	.001	3643.597
18.40	.001	3698.824	*	18.60	.001	3754.135
18.80	.001	3809.474	*	19.00	.001	3864.752
19.20	.001	3919.896	*	19.40	.001	3974.870
19.60	.001	4029.650	*	19.80	.001	4084.202
20.00	.001	4138.455	*	20.20	.001	4187.756
20.40	.001	4222.876	*	20.60	.001	4244.547
20.80	.001	4262.281	*	21.00	.001	4281.483
21.20	.001	4303.100	*	21.40	.001	4326.471
21.60	.001	4350.943	*	21.80	.001	4376.180
22.00	.001	4401.977	*	22.20	.001	4428.210
22.40	.001	4454.805	*	22.60	.001	4481.711
22.80	.001	4508.871	*	23.00	.001	4536.211
23.20	.001	4563.659	*	23.40	.001	4591.168
23.60	.001	4618.699	*	23.80	.001	4646.208
24.00	.001	4669.441	*	24.20	.001	4686.906
24.40	.001	4678.028	*	24.60	.001	4643.717
24.80	.001	4602.235	*	25.00	.001	4564.533
25.20	.001	4531.978	*	25.40	.001	4503.189
25.60	.001	4476.958	*	25.80	.001	4452.625
26.00	.001	4429.802	*	26.20	.001	4408.245
26.40	.001	4387.792	*	26.60	.001	4368.368
26.80	.001	4349.960	*	27.00	.001	4332.440
27.20	.001	4315.734	*	27.40	.001	4299.729
27.60	.001	4284.417	*	27.80	.001	4269.891
28.00	.001	4256.043	*	28.20	.001	4242.807
28.40	.001	4230.127	*	28.60	.001	4217.958
28.80	.001	4206.261	*	29.00	.001	4195.002
29.20	.001	4184.152	*	29.40	.001	4173.677
29.60	.001	4163.550	*	29.80	.001	4153.746
30.00	.001	4144.242	*	30.20	.001	4135.021
30.40	.001	4126.068	*	30.60	.001	4117.373
30.80	.001	4108.924	*	31.00	.001	4100.708
31.20	.001	4092.712	*	31.40	.001	4084.922
31.60	.001	4077.323	*	31.80	.001	4069.904
32.00	.001	4062.657	*	32.20	.001	4055.577
32.40	.001	4048.661	*	32.60	.001	4041.902
32.80	.001	4035.296	*	33.00	.001	4028.836
33.20	.001	4022.517	*	33.40	.001	4016.334
33.60	.001	4010.283	*	33.80	.001	4004.360
34.00	.001	3998.560	*	34.20	.001	3992.881

34.40	.001	3987.318	*	34.60	.001	3981.869
34.80	.001	3976.531	*	35.00	.001	3971.301
35.20	.001	3966.173	*	35.40	.001	3961.144
35.60	.001	3956.207	*	35.80	.001	3951.360
36.00	.001	3946.599	*	36.20	.001	3941.922
36.40	.001	3937.326	*	36.60	.001	3932.812
36.80	.001	3928.378	*	37.00	.001	3924.023
37.20	.001	3919.743	*	37.40	.001	3915.534
37.60	.001	3911.396	*	37.80	.001	3907.323
38.00	.001	3903.311	*	38.20	.001	3899.359
38.40	.001	3895.463	*	38.60	.001	3891.618
38.80	.001	3887.821	*	39.00	.001	3884.066
39.20	.001	3880.354	*	39.40	.001	3876.682
39.60	.001	3873.050	*	39.80	.001	3869.455
40.00	.001	3865.896	*	40.20	.001	3862.373
40.40	.001	3858.884	*	40.60	.001	3855.428
40.80	.001	3852.008	*	41.00	.001	3848.622
41.20	.001	3845.273	*	41.40	.001	3841.958
41.60	.001	3838.677	*	41.80	.001	3835.429
42.00	.001	3832.213	*	42.20	.001	3829.030
42.40	.001	3825.879	*	42.60	.001	3822.759
42.80	.001	3819.670	*	43.00	.001	3816.613
43.20	.001	3813.587	*	43.40	.001	3810.592
43.60	.001	3807.627	*	43.80	.001	3804.691
44.00	.001	3801.786	*	44.20	.001	3798.908
44.40	.001	3796.059	*	44.60	.001	3793.236
44.80	.001	3790.440	*	45.00	.001	3787.669
45.20	.001	3784.925	*	45.40	.001	3782.207
45.60	.001	3779.515	*	45.80	.001	3776.849
46.00	.001	3774.208	*	46.20	.001	3771.591
46.40	.001	3768.999	*	46.60	.001	3766.430
46.80	.001	3763.885	*	47.00	.001	3761.363
47.20	.001	3758.865	*	47.40	.001	3756.389
47.60	.001	3753.936	*	47.80	.001	3751.504
48.00	.001	3749.095	*	48.20	.001	3746.708
48.40	.001	3744.341	*	48.60	.001	3741.994
48.80	.001	3739.665	*	49.00	.001	3737.355
49.20	.001	3735.061	*	49.40	.001	3732.784
49.60	.001	3730.522	*	49.80	.001	3728.276

*** RUN COMPLETED ****

CLEAR WATER POND

25 YEAR, 6 HOUR STORM

PHASE ONE

July 11, 1994

```
**********************************************************************************
*          (program name)                  * SEDIMOT S/N  : 1353220014            *
*                                          * HMVersion    :  3.20                 *
*      (program description)               * Date         :  5/05/94              *
*                                          * Time         : 15:47:49              *
*                                          * Input file   : CW256.IN              *
*                                          * Output file  : CW256.OUT             *
*                                          *                                      *
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      x  x        x     x    x    x     x  x     x     x
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

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WATERSHED IDENTIFICATION CODE

Clear Water Pond 25 year 6 hour storm Phase 1 Reclamation
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	1.62 INCHES
3.	STORM DURATION -	6.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

==========

========== WATERSHED DATA ==========

QUESTION NO.

1. NUMBER OF JUNCTIONS - 3
2. JUNCTION NUMBER OF BRANCHES

1	2
2	2
3	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

==========

========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00
7	34.00

8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.13	.13	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #2 ==========

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.35
1	PRIOR J OR S TO STRUCTURE 2	.05	.05	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #3 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	27.70	65.00	.180	.100	.100	.35	3.0
2	22.60	70.00	.210	.100	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1000.0	40.00	.350	1.0	3.0
	2	.20	500.0	25.00	.350	1.0	3.0
2	1	.20	1000.0	2.50	.450	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.47	.05	114.77	.088	1.000	.984
2	2.38	.12	6.84	.088	1.000	.984

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.3319	ACRE-FT
PEAK DISCHARGE	=	2.3620	CFS
AREA	=	50.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.30	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.5304	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	389043.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	185.3902	ML/L
PEAK SETTLEABLE CONCENTRATION	=	324432.80	MG/L
TOTAL SEDIMENT YIELD	=	119.7085	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0860	MM
TIME OF PEAK CONCENTRATION	=	6.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	5.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	113.46	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	113.46	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	114.21	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	25.70	ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.20	70.00	.140	.000	.050	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	1.00	.600	1.0	1.0
	2	.20	400.0	2.00	.600	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.50	.12	1.30	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0403	ACRE-FT
PEAK DISCHARGE	=	.4974	CFS
AREA	=	4.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	36653.87	MG/L
PEAK SETTLEABLE CONCENTRATION	=	17.5198	ML/L
PEAK SETTLEABLE CONCENTRATION	=	30659.68	MG/L
TOTAL SEDIMENT YIELD	=	1.2966	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.90	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	10.90	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.76	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.31	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	2.08	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	54.50	ACRES
TOTAL RUNOFF VOLUME	=	.3723	AC-FT
PEAK RUNOFF DISCHARGE	=	2.34	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1300	HRS
TOTAL SEDIMENT YIELD	=	120.9595	TONS
PEAK SEDIMENT CONCENTRATION	=	374538.20	MG/L
PEAK SETTLEABLE CONCENTRATION	=	178.4709	ML/L
PEAK SETTLEABLE CONCENTRATION	=	312324.10	MG/L
TIME TO PEAK CONCENTRATION	=	6.80	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	5.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	102.78	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	102.78	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	107.33	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	24.60	ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	63.70	65.00	.280	.200	.200	.35	3.0
2	11.60	70.00	.280	.100	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1500.0	60.00	.350	1.0	3.0
	2	.20	1000.0	20.00	.350	1.0	3.0
2	1	.20	1600.0	5.00	.450	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.96	.05	359.05	.082	.951	.944
2	1.06	.12	9.43	.088	1.000	.971

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.3755	ACRE-FT
PEAK DISCHARGE	=	1.5268	CFS
AREA	=	75.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.80	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	639829.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	299.4070	ML/L
PEAK SETTLEABLE CONCENTRATION	=	523962.20	MG/L
TOTAL SEDIMENT YIELD	=	348.2734	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0750	MM
TIME OF PEAK CONCENTRATION	=	5.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	251.46	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	251.46	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	201.28	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	54.51	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION

NO.
1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	70.00	.140	.000	.000	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	600.0	5.00	.450	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.49	.12	2.59	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0394	ACRE-FT
PEAK DISCHARGE	=	.4856	CFS
AREA	=	4.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	73875.33	MG/L
PEAK SETTLEABLE CONCENTRATION	=	35.3109	ML/L
PEAK SETTLEABLE CONCENTRATION	=	61794.13	MG/L
TOTAL SEDIMENT YIELD	=	2.5865	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.60	HRS

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	22.07	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	22.07	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	17.76	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.66	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.54	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	133.90	ACRES
TOTAL RUNOFF VOLUME	=	.7872	AC-FT
PEAK RUNOFF DISCHARGE	=	3.79	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	471.7802	TONS
PEAK SEDIMENT CONCENTRATION	=	506535.50	MG/L
PEAK SETTLEABLE CONCENTRATION	=	238.1581	ML/L
PEAK SETTLEABLE CONCENTRATION	=	416776.70	MG/L
TIME TO PEAK CONCENTRATION	=	6.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	174.59	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	174.59	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	159.66	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	43.24	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 1, STRUCTURE 2
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*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.50	84.00	.120	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.09	.49	8.89	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.1017	ACRE-FT
PEAK DISCHARGE	=	2.0881	CFS
AREA	=	2.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	6.2880	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	103226.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	49.3404	ML/L
PEAK SETTLEABLE CONCENTRATION	=	86345.70	MG/L
TOTAL SEDIMENT YIELD	=	8.8925	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	30.40	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	30.40	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF			

SIGNIFICANT CONCENTRATION	=	18.72	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.57	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.79	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	136.40	ACRES
TOTAL RUNOFF VOLUME	=	.8890	AC-FT
PEAK RUNOFF DISCHARGE	=	4.25	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.92	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	441.1175	TONS
PEAK SEDIMENT CONCENTRATION	=	506530.50	MG/L
PEAK SETTLEABLE CONCENTRATION	=	233.8655	ML/L
PEAK SETTLEABLE CONCENTRATION	=	409264.60	MG/L
TIME TO PEAK CONCENTRATION	=	6.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	147.74	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	147.74	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	144.15	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	40.84	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	15.80	84.00	.220	.000	.000	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	2.00	.850	1.0	1.0
	2	.20	800.0	1.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	10.01	.49	11.70	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.6430	ACRE-FT
PEAK DISCHARGE	=	10.0090	CFS
AREA	=	15.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	21047.19	MG/L
PEAK SETTLEABLE CONCENTRATION	=	10.0601	ML/L
PEAK SETTLEABLE CONCENTRATION	=	17605.24	MG/L
TOTAL SEDIMENT YIELD	=	11.7006	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	6.34	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.34	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.88	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.65	ML/L

========== STRUCTURE DATA FOR JUNCTION #3 ==========

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - POND

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JUNCTION 3, BRANCH 1, STRUCTURE 1

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*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.00	84.00	.030	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	10.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.84	.49	3.33	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0407	ACRE-FT
PEAK DISCHARGE	=	.8352	CFS
AREA	=	1.0000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	97000.76	MG/L
PEAK SETTLEABLE CONCENTRATION	=	46.3644	ML/L
PEAK SETTLEABLE CONCENTRATION	=	81137.75	MG/L
TOTAL SEDIMENT YIELD	=	3.3346	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS

PERIOD OF SIGNIFICANT CONCENTRATION=		3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	28.55	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	28.55	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	17.57	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.42	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	11.73	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	153.20	ACRES
TOTAL RUNOFF VOLUME	=	1.5726	AC-FT
PEAK RUNOFF DISCHARGE	=	12.25	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	456.1527	TONS
PEAK SEDIMENT CONCENTRATION	=	506530.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	234.1301	ML/L
PEAK SETTLEABLE CONCENTRATION	=	409727.70	MG/L
TIME TO PEAK CONCENTRATION	=	6.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	89.60	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	89.60	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	124.32	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	35.23	ML/L

========== POND INPUT ==========

QUESTION NO.		
1.	TIME INCREMENT OF THE ROUTED HYDROGRAPH -	.20 HOURS
2.	NON-IDEAL SETTLING CORRECTION FACTOR -	1.00
3.	PERCENT OF PERMANENT POOL THAT IS DEAD SPACE -	15.00
4.	OUTFLOW WITHDRAWAL OPTION -	SURFACE
5.	INFLOW VERTICAL CONCENTRATION -	COMP. MIXED
6.	NUMBER OF STAGE POINTS -	8

7.	NUMBER OF ROUTED HYDROGRAPH POINTS -	500
8.	STAGE-DISCHARGE OPTION -	INPUT
9.	OUTPUT OPTION -	GRAPHS
10.	NUMBER OF CONTINUOUS STIRRED REACTORS	2

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POND RESULTS

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***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.390	.00	.00	.00
2.00	.470	1.91	.00	.86
4.00	.640	3.62	.00	1.97
6.00	.720	5.30	.00	3.33
7.00	.760	6.15	.00	4.07
7.60	.790	6.66	.00	4.53
8.00	.810	6.99	2.00	4.86
9.00	.830	7.84	10.00	5.68

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	1.970	ACRE-FT
DEAD STORAGE	=	15.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	1.573	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.004	ACRE-FT
STORM VOLUME DISCHARGED	=	.004	ACRE-FT
POND VOLUME AT PEAK STAGE	=	3.544	ACRE-FT
PEAK STAGE	=	6.290	FT
PEAK INFLOW RATE	=	12.248	CFS
PEAK DISCHARGE RATE	=	.001	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	506530.40	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	3955.64	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.01	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	2621.86	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	2621.86	MG/L
BASIN TRAP EFFICIENCY	=	100.00	PERCENT

DETENTION TIME OF FLOW WITH SEDIMENT	=	22.67	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	22.67	HRS
DETENTION TIME INCLUDING STORED FLOW	=	22.67	HRS
SEDIMENT LOAD DISCHARGED	=	.01	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	47.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	100.0000	100.0000	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
(TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	*	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	7.759	*	3.00	.000	148.983
3.20	.000	441.417	*	3.40	.000	636.617
3.60	.000	851.115	*	3.80	.001	1084.911
4.00	.001	1352.190	*	4.20	.001	1626.245
4.40	.001	1900.813	*	4.60	.001	2180.958
4.80	.001	2453.388	*	5.00	.001	2721.042
5.20	.001	2971.606	*	5.40	.001	3193.499
5.60	.001	3392.622	*	5.80	.001	3584.900
6.00	.001	3763.865	*	6.20	.001	3914.521
6.40	.001	3955.638	*	6.60	.001	3896.829
6.80	.001	3796.665	*	7.00	.001	3705.120
7.20	.001	3629.862	*	7.40	.001	3565.803
7.60	.001	3509.005	*	7.80	.001	3457.408
8.00	.001	3409.802	*	8.20	.001	3365.494
8.40	.001	3324.017	*	8.60	.001	3285.211
8.80	.001	3249.265	*	9.00	.001	3215.757

9.20	.001	3184.411	*	9.40	.001	3154.949
9.60	.001	3127.344	*	9.80	.001	3101.845
10.00	.001	3078.129	*	10.20	.001	3055.994
[illegible].40	.001	3035.274	*	10.60	.001	3015.828
[illegible].80	.001	2997.535	*	11.00	.001	2980.285
11.20	.001	2963.972	*	11.40	.001	2948.497
11.60	.001	2933.773	*	11.80	.001	2919.723
12.00	.001	2906.285	*	12.20	.001	2893.407
12.40	.001	2881.046	*	12.60	.001	2869.170
12.80	.001	2857.739	*	13.00	.001	2846.708
13.20	.001	2836.036	*	13.40	.001	2825.692
13.60	.001	2815.655	*	13.80	.001	2805.907
14.00	.001	2796.444	*	14.20	.001	2787.268
14.40	.001	2778.376	*	14.60	.001	2769.759
14.80	.001	2761.406	*	15.00	.001	2753.310
15.20	.001	2745.464	*	15.40	.001	2737.859
15.60	.001	2730.487	*	15.80	.001	2723.344
16.00	.001	2716.424	*	16.20	.001	2709.720
16.40	.001	2703.224	*	16.60	.001	2696.930
16.80	.001	2690.825	*	17.00	.001	2684.896
17.20	.001	2679.122	*	17.40	.001	2673.493
17.60	.001	2668.004	*	17.80	.001	2662.656
18.00	.001	2657.446	*	18.20	.001	2652.370
18.40	.001	2647.432	*	18.60	.001	2642.628
18.80	.001	2637.954	*	19.00	.001	2633.400
19.20	.001	2628.963	*	19.40	.001	2624.637
19.60	.001	2620.417	*	19.80	.001	2616.301
20.00	.001	2612.283	*	20.20	.001	2608.361
20.40	.001	2604.528	*	20.60	.001	2600.778
[illegible].80	.001	2597.105	*	21.00	.001	2593.505
[illegible].20	.001	2589.969	*	21.40	.001	2586.492
21.60	.001	2583.067	*	21.80	.001	2579.694
22.00	.001	2576.371	*	22.20	.001	2573.096
22.40	.001	2569.870	*	22.60	.001	2566.696
22.80	.001	2563.576	*	23.00	.001	2560.509
23.20	.001	2557.495	*	23.40	.001	2554.532
23.60	.001	2551.620	*	23.80	.001	2548.757
24.00	.001	2545.942	*	24.20	.001	2543.175
24.40	.001	2540.453	*	24.60	.001	2537.774
24.80	.001	2535.138	*	25.00	.001	2532.544
25.20	.001	2529.990	*	25.40	.001	2527.472
25.60	.001	2524.986	*	25.80	.001	2522.530
26.00	.001	2520.105	*	26.20	.001	2517.709
26.40	.001	2515.344	*	26.60	.001	2513.008
26.80	.001	2510.707	*	27.00	.001	2508.441
27.20	.001	2506.210	*	27.40	.001	2504.014
27.60	.001	2501.853	*	27.80	.001	2499.725
28.00	.001	2497.627	*	28.20	.001	2495.557
28.40	.001	2493.514	*	28.60	.001	2491.494
28.80	.001	2489.492	*	29.00	.001	2487.503
29.20	.001	2485.526	*	29.40	.001	2483.558
29.60	.001	2481.597	*	29.80	.001	2479.640
30.00	.001	2477.684	*	30.20	.001	2475.732
30.40	.001	2473.782	*	30.60	.001	2471.836
[illegible].80	.001	2469.896	*	31.00	.001	2467.964
[illegible].20	.001	2466.042	*	31.40	.001	2464.129
31.60	.001	2462.230	*	31.80	.001	2460.346
32.00	.001	2458.482	*	32.20	.001	2456.637
32.40	.001	2454.814	*	32.60	.001	2453.011
32.80	.001	2451.228	*	33.00	.001	2449.465

33.20	.001	2447.723	*	33.40	.001	2446.001
33.60	.001	2444.298	*	33.80	.001	2442.612
34.00	.001	2440.941	*	34.20	.001	2439.285
34.40	.001	2437.644	*	34.60	.001	2436.018
34.80	.001	2434.406	*	35.00	.001	2432.811
35.20	.001	2431.233	*	35.40	.001	2429.675
35.60	.001	2428.133	*	35.80	.001	2426.610
36.00	.001	2425.105	*	36.20	.001	2423.617
36.40	.001	2422.147	*	36.60	.001	2420.694
36.80	.001	2419.258	*	37.00	.001	2417.837
37.20	.001	2416.432	*	37.40	.001	2415.042
37.60	.001	2413.668	*	37.80	.001	2412.308
38.00	.001	2410.960	*	38.20	.001	2409.623
38.40	.001	2408.296	*	38.60	.001	2406.978
38.80	.001	2405.670	*	39.00	.001	2404.370
39.20	.001	2403.079	*	39.40	.001	2401.796
39.60	.001	2400.522	*	39.80	.001	2399.255
40.00	.001	2397.996	*	40.20	.001	2396.745
40.40	.001	2395.501	*	40.60	.001	2394.264
40.80	.001	2393.036	*	41.00	.001	2391.814
41.20	.001	2390.600	*	41.40	.001	2389.393
41.60	.001	2388.193	*	41.80	.001	2387.000
42.00	.001	2385.814	*	42.20	.001	2384.635
42.40	.001	2383.462	*	42.60	.001	2382.296
42.80	.001	2381.137	*	43.00	.001	2379.984
43.20	.001	2378.838	*	43.40	.001	2377.698
43.60	.001	2376.565	*	43.80	.001	2375.438
44.00	.001	2374.317	*	44.20	.001	2373.202
44.40	.001	2372.093	*	44.60	.001	2370.990
44.80	.001	2369.889	*	45.00	.001	2368.791
45.20	.001	2367.696	*	45.40	.001	2366.601
45.60	.001	2365.502	*	45.80	.001	2364.399
46.00	.001	2363.292	*	46.20	.001	2362.179
46.40	.001	2361.061	*	46.60	.001	2359.939
46.80	.001	2358.811	*	47.00	.001	2357.679
47.20	.001	2356.542	*	47.40	.001	2355.401
47.60	.001	2354.257	*	47.80	.001	2353.110
48.00	.001	2351.959	*	48.20	.001	2350.807
48.40	.001	2349.654	*	48.60	.001	2348.504
48.80	.001	2347.357	*	49.00	.001	2346.215
49.20	.001	2345.076	*	49.40	.001	2343.943
49.60	.001	2342.814	*	49.80	.001	2341.690

*** RUN COMPLETED ****

CLEAR WATER POND

10 YEAR, 6 HOUR STORM

PHASE TWO

July 11, 1994

```
**********************************************************************************
*          (program name)                  * SEDIMOT S/N  :                      *
*                                          * HMVersion    :  3.20                *
*       (program description)              * Date         :  5/27/94             *
*                                          * Time         : 14:37:34             *
*                                          * Input file   : CW1062.IN            *
*                                          * Output file  : CW1062.OUT           *
*                                          *                                     *
*                                          *                                     *
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 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx   xxxxxxx
x     x  x        x     x    x    xx   xx  x     x     x
x        x        x     x    x    x x x x  x     x     x
 xxxxx   xxxxx    x     x    x    x  x  x  x     x     x
      x  x        x     x    x    x     x  x     x     x
x     x  x        x     x    x    x     x  x     x     x
 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx      x
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:::  Full Microcomputer Implementation   :::
:::                 by                   :::
:::        Haestad Methods, Inc.         :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

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****
WATERSHED IDENTIFICATION CODE

Clear Water Pond 10year 6 hour storm Phase 2 Reclamation
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	1.31 INCHES
3.	STORM DURATION -	6.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

==========

========== WATERSHED DATA ==========

QUESTION NO.

1. NUMBER OF JUNCTIONS - 3
2. JUNCTION NUMBER OF BRANCHES

1	2
2	2
3	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

==========

========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00
7	34.00

8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.13	.13	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #2 ==========

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.35
1	PRIOR J OR S TO STRUCTURE 2	.05	.05	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #3 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	27.70	65.00	.180	.100	.100	.35	3.0
2	22.60	69.00	.210	.100	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1000.0	40.00	.250	1.0	3.0
	2	.20	500.0	25.00	.250	1.0	3.0
2	1	.20	1000.0	2.50	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.12	.01	31.77	.088	1.000	.912
2	.40	.03	2.14	.088	1.000	.912

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0873	ACRE-FT
PEAK DISCHARGE	=	.3881	CFS
AREA	=	50.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.70	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	3.1161	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	561382.60	MG/L
PEAK SETTLEABLE CONCENTRATION	=	263.3964	ML/L
PEAK SETTLEABLE CONCENTRATION	=	460943.70	MG/L
TOTAL SEDIMENT YIELD	=	30.9088	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0764	MM
TIME OF PEAK CONCENTRATION	=	6.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	5.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	108.38	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	108.38	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	124.08	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	26.88	ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.20	69.00	.140	.000	.050	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	1.00	.250	1.0	1.0
	2	.20	400.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.08	.03	.34	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0121	ACRE-FT
PEAK DISCHARGE	=	.0782	CFS
AREA	=	4.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	25154.07	MG/L
PEAK SETTLEABLE CONCENTRATION	=	12.0231	ML/L
PEAK SETTLEABLE CONCENTRATION	=	21040.50	MG/L
TOTAL SEDIMENT YIELD	=	.3367	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.52	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	9.52	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.80	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.25	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.37	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.80	HRS
TOTAL DRAINAGE AREA	=	54.50	ACRES
TOTAL RUNOFF VOLUME	=	.0994	AC-FT
PEAK RUNOFF DISCHARGE	=	.43	CFS
TIME TO PEAK DISCHARGE	=	3.80	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1300	HRS
TOTAL SEDIMENT YIELD	=	31.2344	TONS
PEAK SEDIMENT CONCENTRATION	=	545128.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	255.8023	ML/L
PEAK SETTLEABLE CONCENTRATION	=	447654.10	MG/L
TIME TO PEAK CONCENTRATION	=	6.80	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	5.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	96.89	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	96.89	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	116.87	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	25.81	ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	63.70	65.00	.280	.200	.200	.35	3.0

2	11.60	69.00	.280	.100	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1500.0	60.00	.250	1.0	3.0
	2	.20	1000.0	20.00	.250	1.0	3.0
2	1	.20	1600.0	5.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.25	.01	88.66	.087	.994	.928
2	.19	.03	2.51	.088	1.000	.963

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0847	ACRE-FT
PEAK DISCHARGE	=	.3440	CFS
AREA	=	75.3000	ACRES
TIME OF PEAK DISCHARGE	=	6.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.2607	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	825081.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	388.1849	ML/L
PEAK SETTLEABLE CONCENTRATION	=	679323.60	MG/L
TOTAL SEDIMENT YIELD	=	84.7117	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0779	MM
TIME OF PEAK CONCENTRATION	=	6.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	262.52	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	262.52	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	218.81	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	57.44	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION
NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	69.00	.140	.000	.000	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	600.0	5.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.08	.03	.73	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0118	ACRE-FT
PEAK DISCHARGE	=	.0764	CFS
AREA	=	4.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	55112.81	MG/L
PEAK SETTLEABLE CONCENTRATION	=	26.3428	ML/L
PEAK SETTLEABLE CONCENTRATION	=	46099.94	MG/L
TOTAL SEDIMENT YIELD	=	.7283	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS

PERIOD OF SIGNIFICANT CONCENTRATION=	3.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION =	20.91	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD =	20.91	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION =	19.32	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD =	2.74	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X, =	.35	
PREVIOUS MUSKINGUM ROUTING K =	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE =	.72	CFS
TIME OF ROUTED PEAK DISCHARGE =	5.20	HRS
TOTAL DRAINAGE AREA =	133.90	ACRES
TOTAL RUNOFF VOLUME =	.1959	AC-FT
PEAK RUNOFF DISCHARGE =	.77	CFS
TIME TO PEAK DISCHARGE =	5.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO =	1.00	
PREVIOUS STRUCTURE TRAVEL TIME =	.0300	HRS
TOTAL SEDIMENT YIELD =	116.6647	TONS
PEAK SEDIMENT CONCENTRATION =	684137.50	MG/L
PEAK SETTLEABLE CONCENTRATION =	321.6742	ML/L
PEAK SETTLEABLE CONCENTRATION =	562929.90	MG/L
TIME TO PEAK CONCENTRATION =	6.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION =	6.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION =	169.65	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD =	169.65	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION =	175.38	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD =	46.04	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.	
1. NUMBER OF SUBWATERSHEDS -	1
2. TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

* *
JUNCTION 2, BRANCH 1, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.50	69.00	.120	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	5.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.05	.03	.48	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0072	ACRE-FT
PEAK DISCHARGE	=	.0521	CFS
AREA	=	2.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.50	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	67113.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	32.0790	ML/L
PEAK SETTLEABLE CONCENTRATION	=	56138.26	MG/L
TOTAL SEDIMENT YIELD	=	.4835	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	2.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	24.44	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	24.44	ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	23.67	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.86	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.77	CFS
TIME OF ROUTED PEAK DISCHARGE	=	5.10	HRS
TOTAL DRAINAGE AREA	=	136.40	ACRES
TOTAL RUNOFF VOLUME	=	.2031	AC-FT
PEAK RUNOFF DISCHARGE	=	.79	CFS
TIME TO PEAK DISCHARGE	=	4.80	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	117.1320	TONS
PEAK SEDIMENT CONCENTRATION	=	684132.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	321.6843	ML/L
PEAK SETTLEABLE CONCENTRATION	=	562947.60	MG/L
TIME TO PEAK CONCENTRATION	=	6.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	165.10	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	165.10	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	171.99	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	45.87	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	15.80	69.00	.220	.000	.000	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	2.00	.250	1.0	1.0
	2	.20	800.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.28	.03	1.28	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0455	ACRE-FT
PEAK DISCHARGE	=	.2779	CFS
AREA	=	15.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	25429.38	MG/L
PEAK SETTLEABLE CONCENTRATION	=	12.1547	ML/L
PEAK SETTLEABLE CONCENTRATION	=	21270.79	MG/L
TOTAL SEDIMENT YIELD	=	1.2762	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.77	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	9.77	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.88	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.30	ML/L

========== STRUCTURE DATA FOR JUNCTION #3 ==========

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

==========

* *
JUNCTION 3, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.00	84.00	.030	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	10.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.54	.30	2.00	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0254	ACRE-FT
PEAK DISCHARGE	=	.5385	CFS
AREA	=	1.0000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	96827.02	MG/L
PEAK SETTLEABLE CONCENTRATION	=	46.2814	ML/L
PEAK SETTLEABLE CONCENTRATION	=	80992.42	MG/L
TOTAL SEDIMENT YIELD	=	2.0021	TONS

REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	27.57	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	27.57	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	17.75	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.37	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.97	CFS
TIME OF ROUTED PEAK DISCHARGE	=	4.60	HRS
TOTAL DRAINAGE AREA	=	153.20	ACRES
TOTAL RUNOFF VOLUME	=	.2739	AC-FT
PEAK RUNOFF DISCHARGE	=	1.01	CFS
TIME TO PEAK DISCHARGE	=	4.60	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	120.4104	TONS
PEAK SEDIMENT CONCENTRATION	=	684128.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	321.8261	ML/L
PEAK SETTLEABLE CONCENTRATION	=	563195.70	MG/L
TIME TO PEAK CONCENTRATION	=	6.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	129.28	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	129.28	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	156.04	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	43.56	ML/L

*** RUN COMPLETED ****

CLEAR WATER POND

100 YEAR, 6 HOUR STORM

PHASE TWO

July 11, 1994

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**********************************************************************************
*          (program name)                 * SEDIMOT S/N  : 1353220014              *
*                                         * HMVersion    :  3.20                   *
*       (program description)             * Date         :  5/05/94                *
*                                         * Time         : 15:48:09                *
*                                         * Input file   : CW1006.IN               *
*                                         * Output file  : CW1006.OUT              *
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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

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****
WATERSHED IDENTIFICATION CODE

Clear Water Pond 100year 6 hour storm Phase 2 Reclamation
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	2.05 INCHES
3.	STORM DURATION -	6.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

==========

========== WATERSHED DATA ==========

QUESTION NO.

1. NUMBER OF JUNCTIONS - 3
2. JUNCTION NUMBER OF BRANCHES

1	2
2	2
3	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

==========

========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00
7	34.00

8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.13	.13	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #2 ==========

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.35
1	PRIOR J OR S TO STRUCTURE 2	.05	.05	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #3 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	27.70	65.00	.180	.100	.100	.35	3.0
2	22.60	69.00	.210	.100	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1000.0	40.00	.250	1.0	3.0
	2	.20	500.0	25.00	.250	1.0	3.0
2	1	.20	1000.0	2.50	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.77	.15	253.80	.088	1.000	1.000
2	5.93	.23	6.95	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.7862	ACRE-FT
PEAK DISCHARGE	=	6.8163	CFS
AREA	=	50.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	278090.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	132.9140	ML/L
PEAK SETTLEABLE CONCENTRATION	=	232599.40	MG/L
TOTAL SEDIMENT YIELD	=	260.6651	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	4.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	5.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	106.44	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	106.44	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	92.21	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	21.52	ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.20	69.00	.140	.000	.050	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	1.00	.250	1.0	1.0
	2	.20	400.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.22	.23	.91	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0822	ACRE-FT
PEAK DISCHARGE	=	1.2222	CFS
AREA	=	4.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.1449	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	13269.03	MG/L
PEAK SETTLEABLE CONCENTRATION	=	6.3423	ML/L
PEAK SETTLEABLE CONCENTRATION	=	11099.08	MG/L
TOTAL SEDIMENT YIELD	=	.9089	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.80	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	2.83	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.42	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	6.13	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	54.50	ACRES
TOTAL RUNOFF VOLUME	=	.8684	AC-FT
PEAK RUNOFF DISCHARGE	=	6.67	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1300	HRS
TOTAL SEDIMENT YIELD	=	260.1202	TONS
PEAK SEDIMENT CONCENTRATION	=	256796.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	122.6053	ML/L
PEAK SETTLEABLE CONCENTRATION	=	214559.20	MG/L
TIME TO PEAK CONCENTRATION	=	4.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	5.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	96.57	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	96.57	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	89.04	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	20.41	ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	63.70	65.00	.280	.200	.200	.35	3.0
2	11.60	69.00	.280	.100	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

TER HED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1500.0	60.00	.250	1.0	3.0
	2	.20	1000.0	20.00	.250	1.0	3.0
2	1	.20	1600.0	5.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.55	.15	833.22	.075	.903	.966
2	2.67	.23	10.62	.088	1.000	.981

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	1.0177	ACRE-FT
PEAK DISCHARGE	=	4.9116	CFS
AREA	=	75.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.6365	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	555160.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	258.1223	ML/L
PEAK SETTLEABLE CONCENTRATION	=	451714.00	MG/L
TOTAL SEDIMENT YIELD	=	815.0176	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0714	MM
TIME OF PEAK CONCENTRATION	=	3.80	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	223.16	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	223.16	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	166.84	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	45.88	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION

NO.
1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	69.00	.140	.000	.000	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	600.0	5.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.19	.23	2.80	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0803	ACRE-FT
PEAK DISCHARGE	=	1.1931	CFS
AREA	=	4.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	41511.29	MG/L
PEAK SETTLEABLE CONCENTRATION	=	19.8416	ML/L
PEAK SETTLEABLE CONCENTRATION	=	34722.74	MG/L
TOTAL SEDIMENT YIELD	=	2.8046	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.60	HRS

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.92	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	11.92	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.88	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.33	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	11.39	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	133.90	ACRES
TOTAL RUNOFF VOLUME	=	1.9663	AC-FT
PEAK RUNOFF DISCHARGE	=	11.92	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	1069.1450	TONS
PEAK SEDIMENT CONCENTRATION	=	406355.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	189.8262	ML/L
PEAK SETTLEABLE CONCENTRATION	=	332195.80	MG/L
TIME TO PEAK CONCENTRATION	=	4.90	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	161.34	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	161.34	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	131.76	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	36.23	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 1, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.50	69.00	.120	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	5.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW	RUNOFF	SEDIMENT	DIAM	DELIVERY	DELIVERY

(CFS)	(INCHES)	TONS	(MM)	RATIO 1	RATIO 2	
1	1.05	.23	1.90	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0489	ACRE-FT
PEAK DISCHARGE	=	1.0522	CFS
AREA	=	2.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	52693.59	MG/L
PEAK SETTLEABLE CONCENTRATION	=	25.1865	ML/L
PEAK SETTLEABLE CONCENTRATION	=	44076.34	MG/L
TOTAL SEDIMENT YIELD	=	1.8965	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	13.82	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	13.82	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.96	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.29	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	11.92	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	136.40	ACRES
TOTAL RUNOFF VOLUME	=	2.0153	AC-FT
PEAK RUNOFF DISCHARGE	=	12.20	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	1056.5960	TONS
PEAK SEDIMENT CONCENTRATION	=	395764.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	184.3483	ML/L
PEAK SETTLEABLE CONCENTRATION	=	322609.50	MG/L
TIME TO PEAK CONCENTRATION	=	4.90	HRS

PERIOD OF SIGNIFICANT CONCENTRATION	=	6.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	156.13	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	156.13	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	129.83	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	35.70	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	15.80	69.00	.220	.000	.000	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	2.00	.250	1.0	1.0
	2	.20	800.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	4.07	.23	3.79	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.3093	ACRE-FT
PEAK DISCHARGE	=	4.0721	CFS
AREA	=	15.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	14486.05	MG/L
PEAK SETTLEABLE CONCENTRATION	=	6.9240	ML/L
PEAK SETTLEABLE CONCENTRATION	=	12117.08	MG/L
TOTAL SEDIMENT YIELD	=	3.7884	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.28	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.28	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.13	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.49	ML/L

========== STRUCTURE DATA FOR JUNCTION #3 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 3, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.00	84.00	.030	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	10.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.28	.78	5.50	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0650	ACRE-FT
PEAK DISCHARGE	=	1.2808	CFS
AREA	=	1.0000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	96707.84	MG/L
PEAK SETTLEABLE CONCENTRATION	=	46.2244	ML/L
PEAK SETTLEABLE CONCENTRATION	=	80892.73	MG/L
TOTAL SEDIMENT YIELD	=	5.5049	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	29.45	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	29.45	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	17.71	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.43	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	14.30	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	153.20	ACRES

TOTAL RUNOFF VOLUME	=	2.3895	AC-FT
PEAK RUNOFF DISCHARGE	=	14.57	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	1065.8890	TONS
PEAK SEDIMENT CONCENTRATION	=	381110.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	177.5619	ML/L
PEAK SETTLEABLE CONCENTRATION	=	310733.30	MG/L
TIME TO PEAK CONCENTRATION	=	6.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	6.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	134.98	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	134.98	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	119.15	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	33.76	ML/L

*** RUN COMPLETED ****

PASTURE POND

10 YEAR, 6 HOUR STORM

PHASE ONE

July 11, 1994

```
**********************************************************************
*          (program name)                * SEDIMOT S/N  : 1353220014   *
*                                        * HMVersion    :  3.20       *
*       (program description)            * Date         :  5/05/94    *
*                                        * Time         : 15:48:36    *
*                                        * Input file   : PAST106.IN  *
*                                        * Output file  : PAST106.OUT *
*                                        *                            *
*                                        *                            *
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 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx   xxxxxxx
x     x  x        x     x    x    xx   xx  x     x     x
x        x        x     x    x    x x x x  x     x     x
 xxxxx   xxxxx    x     x    x    x  x  x  x     x     x
      x  x        x     x    x    x     x  x     x     x
x     x  x        x     x    x    x     x  x     x     x
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:::  Full Microcomputer Implementation   :::
:::                 by                   :::
:::        Haestad Methods, Inc.         :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

****
****

****
WATERSHED IDENTIFICATION CODE

Pasture Pond 10 year 6 hour storm Phase 1 Reclamation
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	1.30 INCHES
3.	STORM DURATION -	6.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

==========

========== WATERSHED DATA ==========

QUESTION NO.

1. NUMBER OF JUNCTIONS - 4
2. JUNCTION NUMBER OF BRANCHES

1	2
2	3
3	1
4	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

==========

========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00

7	34.00
8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #2 ==========

BRANCH	NUMBER OF STRUCTURES
1	1
2	2
3	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.02	.02	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 2	.02	.02	.35
3	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #3 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #4 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.40

==========

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	6.20	84.00	.130	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	250.0	2.00	.900	1.0	1.0
	2	.20	400.0	1.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.64	.30	2.42	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.30	INCHES
RUNOFF VOLUME	=	.1545	ACRE-FT
PEAK DISCHARGE	=	2.6386	CFS
AREA	=	6.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.01	EI UNIT
PEAK CONCENTRATION	=	18578.68	MG/L
PEAK SETTLEABLE CONCENTRATION	=	8.8802	ML/L
PEAK SETTLEABLE CONCENTRATION	=	15540.42	MG/L
TOTAL SEDIMENT YIELD	=	2.4229	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.37	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.37	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.46	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

PERIOD = .55 ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	14.10	84.00	.280	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	800.0	2.00	.900	1.0	1.0
	2	.20	600.0	1.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	4.87	.30	7.33	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.30	INCHES
RUNOFF VOLUME	=	.3515	ACRE-FT
PEAK DISCHARGE	=	4.8718	CFS
AREA	=	14.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.01	EI UNIT
PEAK CONCENTRATION	=	23791.03	MG/L

PEAK SETTLEABLE CONCENTRATION	=	11.3716	ML/L
PEAK SETTLEABLE CONCENTRATION	=	19900.36	MG/L
TOTAL SEDIMENT YIELD	=	7.3272	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.24	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.24	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.64	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.79	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.30	84.00	.100	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	50.0	20.00	.900	1.0	1.0
	2	.20	800.0	2.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2

1	1.22	.30	12.74	.075	.902	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.30	INCHES
RUNOFF VOLUME	=	.0573	ACRE-FT
PEAK DISCHARGE	=	1.2177	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	4.1444	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.01	EI UNIT
PEAK CONCENTRATION	=	256638.20	MG/L
PEAK SETTLEABLE CONCENTRATION	=	120.1415	ML/L
PEAK SETTLEABLE CONCENTRATION	=	210247.70	MG/L
TOTAL SEDIMENT YIELD	=	12.7362	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0752	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	72.71	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	72.71	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	47.61	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.35	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	7.51	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	22.60	ACRES
TOTAL RUNOFF VOLUME	=	.5633	AC-FT
PEAK RUNOFF DISCHARGE	=	7.77	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.98	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	22.2491	TONS
PEAK SEDIMENT CONCENTRATION	=	71451.43	MG/L
PEAK SETTLEABLE CONCENTRATION	=	33.6788	ML/L
PEAK SETTLEABLE CONCENTRATION	=	58937.95	MG/L
TIME TO PEAK CONCENTRATION	=	2.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.10	HRS

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 13.39 ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 13.39 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 8.70 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 1.49 ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.90	84.00	.200	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	10.00	.900	1.0	1.0
	2	.20	1000.0	1.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.33	.30	9.40	.029	.515	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.30	INCHES
RUNOFF VOLUME	=	.1471	ACRE-FT
PEAK DISCHARGE	=	2.3343	CFS
AREA	=	5.9000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.01	EI UNIT
PEAK CONCENTRATION	=	74354.91	MG/L
PEAK SETTLEABLE CONCENTRATION	=	29.5004	ML/L
PEAK SETTLEABLE CONCENTRATION	=	51625.75	MG/L
TOTAL SEDIMENT YIELD	=	9.3960	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0289	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	18.20	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	18.20	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.72	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.91	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.20	84.00	.130	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	2.00	.900	1.0	1.0
	2	.20	800.0	2.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.21	.30	2.20	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.30	INCHES
RUNOFF VOLUME	=	.1296	ACRE-FT
PEAK DISCHARGE	=	2.2130	CFS
AREA	=	5.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.01	EI UNIT
PEAK CONCENTRATION	=	20137.18	MG/L
PEAK SETTLEABLE CONCENTRATION	=	9.6252	ML/L
PEAK SETTLEABLE CONCENTRATION	=	16844.05	MG/L
TOTAL SEDIMENT YIELD	=	2.2039	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.82	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.82	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.75	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.59	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	2.33	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS

TOTAL DRAINAGE AREA	=	11.10	ACRES
TOTAL RUNOFF VOLUME	=	.2767	AC-FT
PEAK RUNOFF DISCHARGE	=	4.55	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	11.5996	TONS
PEAK SEDIMENT CONCENTRATION	=	48240.11	MG/L
PEAK SETTLEABLE CONCENTRATION	=	19.8572	ML/L
PEAK SETTLEABLE CONCENTRATION	=	34750.18	MG/L
TIME TO PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	12.38	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	12.38	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.97	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.30	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

STRUCTION NO.

1. NUMBER OF SUBWATERSHEDS - 2
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* *
JUNCTION 2, BRANCH 3, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	11.00	84.00	.200	.000	.000	.00	1.0
2	6.20	84.00	.160	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1000.0	1.50	.900	1.0	1.0
2	1	.20	250.0	15.00	.900	1.0	1.0

2	.20	850.0	2.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	4.35	.30	4.48	.088	1.000	1.000
2	2.64	.30	42.74	.052	.702	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.30	INCHES
RUNOFF VOLUME	=	.4287	ACRE-FT
PEAK DISCHARGE	=	6.9907	CFS
AREA	=	17.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.01	EI UNIT
PEAK CONCENTRATION	=	130211.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	57.8004	ML/L
PEAK SETTLEABLE CONCENTRATION	=	101150.70	MG/L
TOTAL SEDIMENT YIELD	=	47.2145	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0540	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	34.39	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	34.39	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	21.70	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.53	ML/L

========== STRUCTURE DATA FOR JUNCTION #3 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 3, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.30	84.00	.050	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	.50	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.69	.30	.25	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.30	INCHES
RUNOFF VOLUME	=	.0324	ACRE-FT
PEAK DISCHARGE	=	.6883	CFS
AREA	=	1.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.01	EI UNIT
PEAK CONCENTRATION	=	9745.55	MG/L
PEAK SETTLEABLE CONCENTRATION	=	4.6582	ML/L
PEAK SETTLEABLE CONCENTRATION	=	8151.81	MG/L
TOTAL SEDIMENT YIELD	=	.2487	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	2.75	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.75	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	1.76	ML/L

ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = .23 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	19.30	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	52.20	ACRES
TOTAL RUNOFF VOLUME	=	1.3012	AC-FT
PEAK RUNOFF DISCHARGE	=	19.45	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	81.3119	TONS
PEAK SEDIMENT CONCENTRATION	=	72520.26	MG/L
PEAK SETTLEABLE CONCENTRATION	=	32.3976	ML/L
PEAK SETTLEABLE CONCENTRATION	=	56695.83	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	19.97	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	19.97	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	12.47	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.13	ML/L

========== STRUCTURE DATA FOR JUNCTION #4 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	POND

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* *
JUNCTION 4, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER	AREA	CURVE	TC	TT	ROUTING COEFFICIENTS	UNIT

SHED	ACRES	NUMBER	HR	HR	K-HRS	X,	HYDRO
1	.30	90.00	.002	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	15.0	5.00	1.000	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.26	.53	.00	.000	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.30	INCHES
RUNOFF VOLUME	=	.0133	ACRE-FT
PEAK DISCHARGE	=	.2579	CFS
AREA	=	.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.01	EI UNIT
PEAK CONCENTRATION	=	.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK SETTLEABLE CONCENTRATION	=	.00	MG/L
TOTAL SEDIMENT YIELD	=	.0000	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0001	MM
TIME OF PEAK CONCENTRATION	=	.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0050	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	19.45	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	52.50	ACRES
TOTAL RUNOFF VOLUME	=	1.3144	AC-FT
PEAK RUNOFF DISCHARGE	=	19.50	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0050	HRS
TOTAL SEDIMENT YIELD	=	81.2159	TONS
PEAK SEDIMENT CONCENTRATION	=	71396.84	MG/L
PEAK SETTLEABLE CONCENTRATION	=	31.8858	ML/L
PEAK SETTLEABLE CONCENTRATION	=	55800.11	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	19.75	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	19.75	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	12.27	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.10	ML/L

========== POND INPUT ==========

QUESTION NO.		
1.	TIME INCREMENT OF THE ROUTED HYDROGRAPH -	.20 HOURS
2.	NON-IDEAL SETTLING CORRECTION FACTOR -	1.00
3.	PERCENT OF PERMANENT POOL THAT IS DEAD SPACE -	23.00
4.	OUTFLOW WITHDRAWAL OPTION -	SURFACE
5.	INFLOW VERTICAL CONCENTRATION -	COMP. MIXED
6.	NUMBER OF STAGE POINTS -	11
7.	NUMBER OF ROUTED HYDROGRAPH POINTS -	500
8.	STAGE-DISCHARGE OPTION -	INPUT
9.	OUTPUT OPTION -	GRAPHS
10.	NUMBER OF CONTINUOUS STIRRED REACTORS	2

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POND RESULTS

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***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.040	.00	.00	.00
.50	.060	.45	.00	.02
4.60	.106	3.88	.00	.37
5.00	.110	4.23	.00	.41
7.00	.140	5.82	.00	.66
8.60	.160	7.02	.00	.90
8.80	.165	7.17	1.60	.93
9.00	.170	7.31	4.00	.96
9.20	.175	7.45	6.50	1.00
9.40	.180	7.59	7.50	1.03
10.00	.195	7.99	8.50	1.15

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.025	ACRE-FT
DEAD STORAGE	=	23.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	1.314	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.451	ACRE-FT
STORM VOLUME DISCHARGED	=	.451	ACRE-FT
POND VOLUME AT PEAK STAGE	=	.950	ACRE-FT
PEAK STAGE	=	8.916	FT
PEAK INFLOW RATE	=	19.502	CFS
PEAK DISCHARGE RATE	=	2.995	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	71396.84	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	75291.28	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0001	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.11	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	11582.01	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	11582.01	MG/L
BASIN TRAP EFFICIENCY	=	91.21	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	1.57	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	1.57	HRS
DETENTION TIME INCLUDING STORED FLOW	=	1.57	HRS
SEDIMENT LOAD DISCHARGED	=	7.14	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	47.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	100.0000	100.0000	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
(TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	*	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	25213.950	*	3.00	.000	75291.280
3.20	.001	41972.600	*	3.40	.001	26715.960
3.60	.001	21455.490	*	3.80	.001	18275.390
4.00	1.019	16322.110	*	4.20	2.751	14839.770
4.40	2.985	13640.950	*	4.60	2.841	12716.630
4.80	2.662	11930.070	*	5.00	2.388	11289.070
5.20	2.230	10728.980	*	5.40	1.956	10237.160
5.60	1.731	9833.351	*	5.80	1.638	9480.285
6.00	1.588	9150.563	*	6.20	1.510	8824.115
6.40	1.074	8519.818	*	6.60	.558	8324.148
6.80	.257	8180.924	*	7.00	.113	8063.351
7.20	.050	7960.941	*	7.40	.022	7869.194
7.60	.010	7785.854	*	7.80	.004	7709.387
8.00	.002	7638.352	*	8.20	.001	7571.846
8.40	.001	7509.529	*	8.60	.001	7451.200
8.80	.001	7396.728	*	9.00	.001	7345.854
9.20	.001	7298.117	*	9.40	.001	7253.194
9.60	.001	7210.652	*	9.80	.001	7170.090
10.00	.001	7131.252	*	10.20	.001	7093.963
10.40	.001	7058.111	*	10.60	.001	7023.667
10.80	.001	6990.897	*	11.00	.001	6960.067
11.20	.001	6931.039	*	11.40	.001	6903.486
11.60	.001	6877.112	*	11.80	.001	6851.717
12.00	.001	6827.183	*	12.20	.001	6803.420
12.40	.001	6780.366	*	12.60	.001	6757.975
12.80	.001	6736.213	*	13.00	.001	6715.039
13.20	.001	6694.394	*	13.40	.001	6674.210
13.60	.001	6654.458	*	13.80	.001	6635.137
14.00	.001	6616.230	*	14.20	.001	6597.706
14.40	.001	6579.536	*	14.60	.001	6561.698
14.80	.001	6544.180	*	15.00	.001	6526.971
15.20	.001	6510.060	*	15.40	.001	6493.454
15.60	.001	6477.283	*	15.80	.001	6461.712
16.00	.001	6446.781	*	16.20	.001	6432.393
16.40	.001	6418.410	*	16.60	.001	6404.753

16.80	.001	6391.388	*	17.00	.001	6378.288
17.20	.001	6365.441	*	17.40	.001	6352.836
17.60	.001	6340.471	*	17.80	.001	6328.402
18.00	.001	6316.698	*	18.20	.001	6305.329
.40	.001	6294.224	*	18.60	.001	6283.343
18.80	.001	6272.661	*	19.00	.001	6262.159
19.20	.001	6251.821	*	19.40	.001	6241.636
19.60	.001	6231.597	*	19.80	.001	6221.702
20.00	.001	6211.975	*	20.20	.001	6202.496
20.40	.001	6193.287	*	20.60	.001	6184.280
20.80	.001	6175.452	*	21.00	.001	6166.896
21.20	.001	6158.667	*	21.40	.001	6150.678
21.60	.001	6142.865	*	21.80	.001	6135.197
22.00	.001	6127.660	*	22.20	.001	6120.243
22.40	.001	6112.939	*	22.60	.001	6105.744
22.80	.001	6098.650	*	23.00	.001	6091.657
23.20	.001	6084.759	*	23.40	.001	6077.948
23.60	.001	6071.218	*	23.80	.001	6064.567
24.00	.001	6057.993	*	24.20	.001	6051.489
24.40	.001	6045.051	*	24.60	.001	6038.674
24.80	.001	6032.357	*	25.00	.001	6026.101
25.20	.001	6019.902	*	25.40	.001	6013.761
25.60	.001	6007.675	*	25.80	.001	6001.648
26.00	.001	5995.708	*	26.20	.001	5989.911
26.40	.001	5984.262	*	26.60	.001	5978.719
26.80	.001	5973.254	*	27.00	.001	5967.858
27.20	.001	5962.523	*	27.40	.001	5957.248
27.60	.001	5952.028	*	27.80	.001	5946.863
28.00	.001	5941.750	*	28.20	.001	5936.689
.40	.001	5931.676	*	28.60	.001	5926.710
.80	.001	5921.791	*	29.00	.001	5916.916
29.20	.001	5912.084	*	29.40	.001	5907.292
29.60	.001	5902.539	*	29.80	.001	5897.822
30.00	.001	5893.141	*	30.20	.001	5888.495
30.40	.001	5883.883	*	30.60	.001	5879.306
30.80	.001	5874.763	*	31.00	.001	5870.260
31.20	.001	5865.834	*	31.40	.001	5861.518
31.60	.001	5857.292	*	31.80	.001	5853.130
32.00	.001	5849.017	*	32.20	.001	5844.947
32.40	.001	5840.917	*	32.60	.001	5836.922
32.80	.001	5832.966	*	33.00	.001	5829.044
33.20	.001	5825.156	*	33.40	.001	5821.301
33.60	.001	5817.462	*	33.80	.001	5813.544
34.00	.001	5809.489	*	34.20	.001	5805.363
34.40	.001	5801.211	*	34.60	.001	5797.052
34.80	.001	5792.895	*	35.00	.001	5788.742
35.20	.001	5784.597	*	35.40	.001	5780.460
35.60	.001	5776.334	*	35.80	.001	5772.221
36.00	.001	5768.120	*	36.20	.001	5764.047
36.40	.001	5760.042	*	36.60	.001	5756.120
36.80	.001	5752.252	*	37.00	.001	5748.422
37.20	.001	5744.627	*	37.40	.001	5740.865
37.60	.001	5737.135	*	37.80	.001	5733.435
38.00	.001	5729.762	*	38.20	.001	5726.117
38.40	.001	5722.499	*	38.60	.001	5718.906
.80	.001	5715.339	*	39.00	.001	5711.796
.20	.001	5708.278	*	39.40	.001	5704.783
39.60	.001	5701.308	*	39.80	.001	5697.853
40.00	.001	5694.417	*	40.20	.001	5691.000
40.40	.001	5687.602	*	40.60	.001	5684.222

40.80	.001	5680.860	*	41.00	.001	5677.517
41.20	.001	5674.195	*	41.40	.001	5670.915
41.60	.001	5667.706	*	41.80	.001	5664.561
42.00	.001	5661.459	*	42.20	.001	5658.390
42.40	.001	5655.346	*	42.60	.001	5652.326
42.80	.001	5649.328	*	43.00	.001	5646.353
43.20	.001	5643.397	*	43.40	.001	5640.464
43.60	.001	5637.549	*	43.80	.001	5634.653
44.00	.001	5631.775	*	44.20	.001	5628.914
44.40	.001	5626.070	*	44.60	.001	5623.243
44.80	.001	5620.431	*	45.00	.001	5617.632
45.20	.001	5614.848	*	45.40	.001	5612.077
45.60	.001	5609.319	*	45.80	.001	5606.573
46.00	.001	5603.841	*	46.20	.001	5601.122
46.40	.001	5598.415	*	46.60	.001	5595.720
46.80	.001	5593.039	*	47.00	.001	5590.369
47.20	.001	5587.713	*	47.40	.001	5585.068
47.60	.001	5582.436	*	47.80	.001	5579.814
48.00	.001	5577.205	*	48.20	.001	5574.607
48.40	.001	5572.022	*	48.60	.001	5569.448
48.80	.001	5566.885	*	49.00	.001	5564.333
49.20	.001	5561.793	*	49.40	.001	5559.263
49.60	.001	5556.744	*	49.80	.001	5554.237

*** RUN COMPLETED ****

PASTURE POND

10 YEAR, 24 HOUR STORM

PHASE ONE

July 11, 1994

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**********************************************************************
*          (program name)                * SEDIMOT S/N  : 1353220014   *
*                                        * HMVersion    :  3.20       *
*       (program description)            * Date         :  5/05/94    *
*                                        * Time         : 15:48:58    *
*                                        * Input file   : PAST1024.IN  *
*                                        * Output file  : PAST1024.OUT *
*                                        *                            *
*                                        *                            *
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 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx   xxxxxxx
x     x  x        x     x    x    xx   xx  x     x     x
x        x        x     x    x    x x x x  x     x     x
 xxxxx   xxxxx    x     x    x    x  x  x  x     x     x
      x  x        x     x    x    x     x  x     x     x
x     x  x        x     x    x    x     x  x     x     x
 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx      x
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:::  Full Microcomputer Implementation   :::
:::                  by                  :::
:::        Haestad Methods, Inc.         :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

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****

****
WATERSHED IDENTIFICATION CODE

Pasture Pond 10 year 24 hour storm Phase 1 Reclamation
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	1.84 INCHES
3.	STORM DURATION -	24.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

==========

========== WATERSHED DATA ==========

QUESTION
NO.

1. NUMBER OF JUNCTIONS - 4
2. JUNCTION NUMBER OF BRANCHES

1	2
2	3
3	1
4	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

==========

========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00

7	34.00
8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #2 ==========

BRANCH	NUMBER OF STRUCTURES
1	1
2	2
3	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.02	.02	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 2	.02	.02	.35
3	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #3 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #4 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.40

==========

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	6.20	84.00	.130	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	250.0	2.00	.900	1.0	1.0
	2	.20	400.0	1.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.79	.63	3.81	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.3270	ACRE-FT
PEAK DISCHARGE	=	3.7945	CFS
AREA	=	6.2000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	16365.75	MG/L
PEAK SETTLEABLE CONCENTRATION	=	7.8225	ML/L
PEAK SETTLEABLE CONCENTRATION	=	13689.38	MG/L
TOTAL SEDIMENT YIELD	=	3.8066	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.99	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.99	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	1.85	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

PERIOD = 1.05 ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	14.10	84.00	.280	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	800.0	2.00	.900	1.0	1.0
	2	.20	600.0	1.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	7.43	.63	12.70	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.7436	ACRE-FT
PEAK DISCHARGE	=	7.4345	CFS
AREA	=	14.1000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	23587.11	MG/L

PEAK SETTLEABLE CONCENTRATION	=	11.2742	ML/L
PEAK SETTLEABLE CONCENTRATION	=	19729.80	MG/L
TOTAL SEDIMENT YIELD	=	12.6984	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.93	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.93	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	2.81	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.63	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.30	84.00	.100	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	50.0	20.00	.900	1.0	1.0
	2	.20	800.0	2.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2

1	1.60	.63	25.05	.078	.928	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.1213	ACRE-FT
PEAK DISCHARGE	=	1.5958	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	3.4133	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	273029.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	128.5757	ML/L
PEAK SETTLEABLE CONCENTRATION	=	225007.50	MG/L
TOTAL SEDIMENT YIELD	=	25.0534	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0785	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	12.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	66.79	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	66.79	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	30.86	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	16.59	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	11.23	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.10	HRS
TOTAL DRAINAGE AREA	=	22.60	ACRES
TOTAL RUNOFF VOLUME	=	1.1919	AC-FT
PEAK RUNOFF DISCHARGE	=	11.55	CFS
TIME TO PEAK DISCHARGE	=	12.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.98	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	41.2270	TONS
PEAK SEDIMENT CONCENTRATION	=	94540.75	MG/L
PEAK SETTLEABLE CONCENTRATION	=	44.7129	ML/L
PEAK SETTLEABLE CONCENTRATION	=	78247.65	MG/L
TIME TO PEAK CONCENTRATION	=	11.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.90	HRS

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 11.74 ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 11.74 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 5.58 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 3.23 ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.90	84.00	.200	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	10.00	.900	1.0	1.0
	2	.20	1000.0	1.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.42	.63	19.13	.029	.515	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.3112	ACRE-FT
PEAK DISCHARGE	=	3.4212	CFS
AREA	=	5.9000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	84287.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	33.4326	ML/L
PEAK SETTLEABLE CONCENTRATION	=	58507.01	MG/L
TOTAL SEDIMENT YIELD	=	19.1275	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0289	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	17.38	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	17.38	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.14	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.65	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.20	84.00	.130	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	2.00	.900	1.0	1.0
	2	.20	800.0	2.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.18	.63	3.28	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.2742	ACRE-FT
PEAK DISCHARGE	=	3.1825	CFS
AREA	=	5.2000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	16828.35	MG/L
PEAK SETTLEABLE CONCENTRATION	=	8.0436	ML/L
PEAK SETTLEABLE CONCENTRATION	=	14076.33	MG/L
TOTAL SEDIMENT YIELD	=	3.2835	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.10	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.10	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	1.90	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.08	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.42	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.00	HRS

TOTAL DRAINAGE AREA	=	11.10	ACRES
TOTAL RUNOFF VOLUME	=	.5854	AC-FT
PEAK RUNOFF DISCHARGE	=	6.29	CFS
TIME TO PEAK DISCHARGE	=	12.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	22.4103	TONS
PEAK SEDIMENT CONCENTRATION	=	53548.87	MG/L
PEAK SETTLEABLE CONCENTRATION	=	21.8545	ML/L
PEAK SETTLEABLE CONCENTRATION	=	38245.33	MG/L
TIME TO PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.16	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	11.16	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.21	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.98	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 3, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	11.00	84.00	.200	.000	.000	.00	1.0
2	6.20	84.00	.160	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1000.0	1.50	.900	1.0	1.0
2	1	.20	250.0	15.00	.900	1.0	1.0

2	.20	850.0	2.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	6.38	.63	7.34	.088	1.000	1.000
2	3.79	.63	90.82	.050	.679	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.9071	ACRE-FT
PEAK DISCHARGE	=	9.8020	CFS
AREA	=	17.2000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	158020.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	69.4327	ML/L
PEAK SETTLEABLE CONCENTRATION	=	121507.20	MG/L
TOTAL SEDIMENT YIELD	=	98.1548	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0515	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	33.17	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	33.17	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	15.47	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	8.89	ML/L

========== STRUCTURE DATA FOR JUNCTION #3 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 3, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.30	84.00	.050	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	.50	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.90	.63	.32	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0686	ACRE-FT
PEAK DISCHARGE	=	.9020	CFS
AREA	=	1.3000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	6754.39	MG/L
PEAK SETTLEABLE CONCENTRATION	=	3.2285	ML/L
PEAK SETTLEABLE CONCENTRATION	=	5649.81	MG/L
TOTAL SEDIMENT YIELD	=	.3162	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	12.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	1.63	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.63	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.73	ML/L

ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = .39 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	27.50	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.00	HRS
TOTAL DRAINAGE AREA	=	52.20	ACRES
TOTAL RUNOFF VOLUME	=	2.7529	AC-FT
PEAK RUNOFF DISCHARGE	=	28.40	CFS
TIME TO PEAK DISCHARGE	=	12.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	162.1084	TONS
PEAK SEDIMENT CONCENTRATION	=	82489.09	MG/L
PEAK SETTLEABLE CONCENTRATION	=	36.5810	ML/L
PEAK SETTLEABLE CONCENTRATION	=	64016.77	MG/L
TIME TO PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	14.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	18.58	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	18.58	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.50	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.96	ML/L

========== STRUCTURE DATA FOR JUNCTION #4 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	POND

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* *
JUNCTION 4, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER	AREA	CURVE	TC	TT	ROUTING COEFFICIENTS	UNIT

SHED	ACRES	NUMBER	HR	HR	K-HRS	X,	HYDRO
1	.30	90.00	.002	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	15.0	5.00	1.000	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.30	.96	.00	.000	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0240	ACRE-FT
PEAK DISCHARGE	=	.2972	CFS
AREA	=	.30	

00 ACRES

TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK SETTLEABLE CONCENTRATION	=	.00	MG/L
TOTAL SEDIMENT YIELD	=	.0000	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0001	MM
TIME OF PEAK CONCENTRATION	=	.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0050	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	28.40	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.00	HRS
TOTAL DRAINAGE AREA	=	52.50	ACRES
TOTAL RUNOFF VOLUME	=	2.7769	AC-FT
PEAK RUNOFF DISCHARGE	=	28.70	CFS
TIME TO PEAK DISCHARGE	=	12.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0050	HRS
TOTAL SEDIMENT YIELD	=	161.9205	TONS
PEAK SEDIMENT CONCENTRATION	=	81568.52	MG/L
PEAK SETTLEABLE CONCENTRATION	=	36.1613	ML/L
PEAK SETTLEABLE CONCENTRATION	=	63282.33	MG/L
TIME TO PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	14.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	18.44	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	18.44	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.44	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

PERIOD = 4.92 ML/L

========== POND INPUT ==========

STION
NO.

1.	TIME INCREMENT OF THE ROUTED HYDROGRAPH -	.20 HOURS
2.	NON-IDEAL SETTLING CORRECTION FACTOR -	1.00
3.	PERCENT OF PERMANENT POOL THAT IS DEAD SPACE -	23.00
4.	OUTFLOW WITHDRAWAL OPTION -	SURFACE
5.	INFLOW VERTICAL CONCENTRATION -	COMP. MIXED
6.	NUMBER OF STAGE POINTS -	11
7.	NUMBER OF ROUTED HYDROGRAPH POINTS -	500
8.	STAGE-DISCHARGE OPTION -	INPUT
9.	OUTPUT OPTION -	GRAPHS
10.	NUMBER OF CONTINUOUS STIRRED REACTORS	2

* *

POND RESULTS

* *

***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.040	.00	.00	.00
.50	.060	.45	.00	.02
4.60	.106	3.88	.00	.37
5.00	.110	4.23	.00	.41
7.00	.140	5.82	.00	.66
8.60	.160	7.02	.00	.90
8.80	.165	7.17	1.60	.93
9.00	.170	7.31	4.00	.96
9.20	.175	7.45	6.50	1.00
9.40	.180	7.59	7.50	1.03
10.00	.195	7.99	8.50	1.15

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.025	ACRE-FT
DEAD STORAGE	=	23.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	2.777	ACRE-FT

OUTFLOW ROUTED VOLUME	=	1.913	ACRE-FT
STORM VOLUME DISCHARGED	=	1.913	ACRE-FT
POND VOLUME AT PEAK STAGE	=	1.114	ACRE-FT
PEAK STAGE	=	9.824	FT
PEAK INFLOW RATE	=	28.701	CFS
PEAK DISCHARGE RATE	=	8.207	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	81568.52	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	51307.41	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0628	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	109.87	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	11086.66	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	11086.66	MG/L
BASIN TRAP EFFICIENCY	=	82.07	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	1.49	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	1.49	HRS
DETENTION TIME INCLUDING STORED FLOW	=	1.49	HRS
SEDIMENT LOAD DISCHARGED	=	29.03	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	39.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.01	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.01	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.01	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.01	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	95.4581
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	85.3690	77.6082	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
(TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	******* *	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	.000	*	3.00	.000	.000
3.20	.000	.000	*	3.40	.000	.000
3.60	.000	.000	*	3.80	.000	.000

4.00	.000	.000	*	4.20	.000	.000
4.40	.000	.000	*	4.60	.000	.000
4.80	.000	.000	*	5.00	.000	.000
5.20	.000	.000	*	5.40	.000	.000
[illegible].60	.000	.000	*	5.80	.000	.000
[illegible].00	.000	.000	*	6.20	.000	.000
6.40	.000	.000	*	6.60	.000	.000
6.80	.000	.000	*	7.00	.000	.000
7.20	.000	.000	*	7.40	.000	.000
7.60	.000	.000	*	7.80	.000	.000
8.00	.000	.000	*	8.20	.000	.000
8.40	.000	.000	*	8.60	.000	.000
8.80	.000	.000	*	9.00	.000	.000
9.20	.000	.000	*	9.40	.000	.000
9.60	.000	.000	*	9.80	.000	.000
10.00	.000	.000	*	10.20	.000	.000
10.40	.000	.000	*	10.60	.000	.000
10.80	.000	.000	*	11.00	.000	17.627
11.20	.000	288.372	*	11.40	.000	1212.145
11.60	.000	8733.027	*	11.80	.000	49797.540
12.00	.001	51307.410	*	12.20	.001	35635.430
12.40	7.854	25087.540	*	12.60	8.206	20329.070
12.80	8.106	17274.350	*	13.00	7.691	15300.070
13.20	6.718	13881.720	*	13.40	4.658	12792.390
13.60	3.654	11968.730	*	13.80	3.183	11258.720
14.00	2.790	10675.270	*	14.20	2.571	10157.350
14.40	2.243	9698.515	*	14.60	1.980	9322.072
14.80	1.868	8993.074	*	15.00	1.833	8694.095
15.20	1.828	8417.390	*	15.40	1.832	8158.449
[illegible].60	1.839	7914.433	*	15.80	1.846	7683.987
[illegible].00	1.854	7466.229	*	16.20	1.828	7239.076
16.40	1.566	7023.460	*	16.60	1.357	6850.950
16.80	1.232	6701.903	*	17.00	1.172	6565.780
17.20	1.146	6438.151	*	17.40	1.137	6316.847
17.60	1.134	6200.457	*	17.80	1.134	6088.212
18.00	1.136	5979.715	*	18.20	1.138	5874.724
18.40	1.140	5773.187	*	18.60	1.143	5675.128
18.80	1.145	5580.438	*	19.00	1.148	5488.864
19.20	1.150	5400.156	*	19.40	1.153	5314.138
19.60	1.155	5230.691	*	19.80	1.158	5149.747
20.00	1.160	5071.246	*	20.20	1.151	4987.160
20.40	1.040	4904.034	*	20.60	.915	4835.135
20.80	.843	4773.797	*	21.00	.809	4716.388
21.20	.794	4661.456	*	21.40	.788	4608.327
21.60	.786	4556.608	*	21.80	.786	4506.085
22.00	.786	4456.646	*	22.20	.787	4408.221
22.40	.788	4360.799	*	22.60	.789	4314.396
22.80	.790	4269.015	*	23.00	.791	4224.588
23.20	.792	4181.027	*	23.40	.793	4138.278
23.60	.794	4096.312	*	23.80	.795	4055.108
24.00	.787	4012.055	*	24.20	.747	3961.927
24.40	.530	3907.984	*	24.60	.277	3871.860
24.80	.129	3844.102	*	25.00	.057	3820.207
25.20	.025	3798.831	*	25.40	.011	3779.304
25.60	.005	3761.212	*	25.80	.002	3744.304
[illegible].00	.001	3728.425	*	26.20	.001	3713.473
[illegible].40	.001	3699.370	*	26.60	.001	3686.020
26.80	.001	3673.337	*	27.00	.001	3661.267
27.20	.001	3649.757	*	27.40	.001	3638.734
27.60	.001	3628.148	*	27.80	.001	3617.968

28.00	.001	3608.163	*	28.20	.001	3598.708
28.40	.001	3589.581	*	28.60	.001	3580.762
28.80	.001	3572.228	*	29.00	.001	3563.956
29.20	.001	3555.926	*	29.40	.001	3548.120
29.60	.001	3540.526	*	29.80	.001	3533.134
30.00	.001	3525.937	*	30.20	.001	3518.931
30.40	.001	3512.106	*	30.60	.001	3505.455
30.80	.001	3498.961	*	31.00	.001	3492.615
31.20	.001	3486.424	*	31.40	.001	3480.388
31.60	.001	3474.496	*	31.80	.001	3468.734
32.00	.001	3463.095	*	32.20	.001	3457.574
32.40	.001	3452.167	*	32.60	.001	3446.871
32.80	.001	3441.679	*	33.00	.001	3436.590
33.20	.001	3431.602	*	33.40	.001	3426.711
33.60	.001	3421.915	*	33.80	.001	3417.211
34.00	.001	3412.598	*	34.20	.001	3408.073
34.40	.001	3403.636	*	34.60	.001	3399.281
34.80	.001	3395.005	*	35.00	.001	3390.800
35.20	.001	3386.666	*	35.40	.001	3382.607
35.60	.001	3378.633	*	35.80	.001	3374.740
36.00	.001	3370.917	*	36.20	.001	3367.159
36.40	.001	3363.461	*	36.60	.001	3359.821
36.80	.001	3356.235	*	37.00	.001	3352.702
37.20	.001	3349.219	*	37.40	.001	3345.779
37.60	.001	3342.360	*	37.80	.001	3338.948
38.00	.001	3335.554	*	38.20	.001	3332.189
38.40	.001	3328.857	*	38.60	.001	3325.559
38.80	.001	3322.294	*	39.00	.001	3319.063
39.20	.001	3315.863	*	39.40	.001	3312.694
39.60	.001	3309.561	*	39.80	.001	3306.473
40.00	.001	3303.433	*	40.20	.001	3300.431
40.40	.001	3297.464	*	40.60	.001	3294.526
40.80	.001	3291.618	*	41.00	.001	3288.738
41.20	.001	3285.885	*	41.40	.001	3283.057
41.60	.001	3280.255	*	41.80	.001	3277.479
42.00	.001	3274.728	*	42.20	.001	3272.004
42.40	.001	3269.306	*	42.60	.001	3266.633
42.80	.001	3263.986	*	43.00	.001	3261.364
43.20	.001	3258.766	*	43.40	.001	3256.193
43.60	.001	3253.642	*	43.80	.001	3251.116
44.00	.001	3248.623	*	44.20	.001	3246.167
44.40	.001	3243.742	*	44.60	.001	3241.340
44.80	.001	3238.960	*	45.00	.001	3236.601
45.20	.001	3234.262	*	45.40	.001	3231.943
45.60	.001	3229.642	*	45.80	.001	3227.360
46.00	.001	3225.098	*	46.20	.001	3222.855
46.40	.001	3220.633	*	46.60	.001	3218.428
46.80	.001	3216.243	*	47.00	.001	3214.076
47.20	.001	3211.928	*	47.40	.001	3209.798
47.60	.001	3207.686	*	47.80	.001	3205.591
48.00	.001	3203.512	*	48.20	.001	3201.448
48.40	.001	3199.398	*	48.60	.001	3197.360
48.80	.001	3195.336	*	49.00	.001	3193.324
49.20	.001	3191.325	*	49.40	.001	3189.339
49.60	.001	3187.365	*	49.80	.001	3185.405

PASTURE POND

25 YEAR, 6 HOUR STORM

PHASE ONE

July 11, 1994

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**********************************************************************
*          (program name)                * SEDIMOT S/N  : 1353220014   *
*                                        * HMVersion    :  3.20       *
*       (program description)            * Date         :  5/05/94    *
*                                        * Time         : 15:49:17    *
*                                        * Input file   : PAST256.IN  *
*                                        * Output file  : PAST256.OUT *
*                                        *                            *
*                                        *                            *
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 xxxxx   xxxxx    x     x    x    x  x  x  x     x     x
      x  x        x     x    x    x     x  x     x     x
x     x  x        x     x    x    x     x  x     x     x
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:::  Full Microcomputer Implementation   :::
:::                  by                  :::
:::        Haestad Methods, Inc.         :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

****
****

****
WATERSHED IDENTIFICATION CODE

Pasture Pond 25 year 6 hour storm Phase 1 Reclamation
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	1.62 INCHES
3.	STORM DURATION -	6.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

==========

========== WATERSHED DATA ==========

QUESTION NO.

1. NUMBER OF JUNCTIONS - 4
2. JUNCTION NUMBER OF BRANCHES

1	2
2	3
3	1
4	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

==========

========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00

7	34.00
8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #2 ==========

BRANCH	NUMBER OF STRUCTURES
1	1
2	2
3	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.02	.02	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 2	.02	.02	.35
3	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #3 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #4 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.40

==========

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	6.20	84.00	.130	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	250.0	2.00	.900	1.0	1.0
	2	.20	400.0	1.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	4.35	.49	4.13	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.2523	ACRE-FT
PEAK DISCHARGE	=	4.3509	CFS
AREA	=	6.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	19002.72	MG/L
PEAK SETTLEABLE CONCENTRATION	=	9.0829	ML/L
PEAK SETTLEABLE CONCENTRATION	=	15895.11	MG/L
TOTAL SEDIMENT YIELD	=	4.1306	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.61	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.61	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.49	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

PERIOD = .55 ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	14.10	84.00	.280	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	800.0	2.00	.900	1.0	1.0
	2	.20	600.0	1.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	8.12	.49	12.80	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.5738	ACRE-FT
PEAK DISCHARGE	=	8.1233	CFS
AREA	=	14.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	25077.07	MG/L

PEAK SETTLEABLE CONCENTRATION	=	11.9863	ML/L
PEAK SETTLEABLE CONCENTRATION	=	20976.09	MG/L
TOTAL SEDIMENT YIELD	=	12.7982	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.75	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.75	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.70	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.82	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.30	84.00	.100	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	50.0	20.00	.900	1.0	1.0
	2	.20	800.0	2.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2

1	1.92	.49	21.23	.067	.838	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0936	ACRE-FT
PEAK DISCHARGE	=	1.9211	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	252743.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	116.4529	ML/L
PEAK SETTLEABLE CONCENTRATION	=	203792.60	MG/L
TOTAL SEDIMENT YIELD	=	21.2311	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0670	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	72.81	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	72.81	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	45.54	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.26	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	12.47	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	22.60	ACRES
TOTAL RUNOFF VOLUME	=	.9197	AC-FT
PEAK RUNOFF DISCHARGE	=	13.01	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	38.0597	TONS
PEAK SEDIMENT CONCENTRATION	=	72095.97	MG/L
PEAK SETTLEABLE CONCENTRATION	=	33.7425	ML/L
PEAK SETTLEABLE CONCENTRATION	=	59049.36	MG/L
TIME TO PEAK CONCENTRATION	=	2.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.20	HRS

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 13.93 ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 13.93 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 8.71 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 1.52 ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.90	84.00	.200	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	10.00	.900	1.0	1.0
	2	.20	1000.0	1.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.87	.49	16.33	.026	.489	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.2401	ACRE-FT
PEAK DISCHARGE	=	3.8657	CFS
AREA	=	5.9000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	77601.83	MG/L
PEAK SETTLEABLE CONCENTRATION	=	30.1164	ML/L
PEAK SETTLEABLE CONCENTRATION	=	52703.68	MG/L
TOTAL SEDIMENT YIELD	=	16.3286	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0264	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	18.92	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	18.92	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.79	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.92	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.20	84.00	.130	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	2.00	.900	1.0	1.0
	2	.20	800.0	2.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.65	.49	3.71	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.2116	ACRE-FT
PEAK DISCHARGE	=	3.6491	CFS
AREA	=	5.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	20329.53	MG/L
PEAK SETTLEABLE CONCENTRATION	=	9.7171	ML/L
PEAK SETTLEABLE CONCENTRATION	=	17004.94	MG/L
TOTAL SEDIMENT YIELD	=	3.7081	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	6.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.73	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.59	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.87	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS

TOTAL DRAINAGE AREA	=	11.10	ACRES
TOTAL RUNOFF VOLUME	=	.4517	AC-FT
PEAK RUNOFF DISCHARGE	=	7.51	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	20.0361	TONS
PEAK SEDIMENT CONCENTRATION	=	50093.03	MG/L
PEAK SETTLEABLE CONCENTRATION	=	20.2439	ML/L
PEAK SETTLEABLE CONCENTRATION	=	35426.80	MG/L
TIME TO PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	12.85	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	12.85	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.30	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS -	2
2. TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 3, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	11.00	84.00	.200	.000	.000	.00	1.0
2	6.20	84.00	.160	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1000.0	1.50	.900	1.0	1.0
2	1	.20	250.0	15.00	.900	1.0	1.0

2	.20	850.0	2.00	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	7.21	.49	7.71	.088	1.000	1.000
2	4.35	.49	74.92	.046	.656	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.6999	ACRE-FT
PEAK DISCHARGE	=	11.5580	CFS
AREA	=	17.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	136168.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	59.3704	ML/L
PEAK SETTLEABLE CONCENTRATION	=	103898.30	MG/L
TOTAL SEDIMENT YIELD	=	82.6353	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0496	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	36.12	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	36.12	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	22.07	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.59	ML/L

========== STRUCTURE DATA FOR JUNCTION #3 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 3, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.30	84.00	.050	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	.50	.900	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.09	.49	.40	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0529	ACRE-FT
PEAK DISCHARGE	=	1.0858	CFS
AREA	=	1.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	9326.71	MG/L
PEAK SETTLEABLE CONCENTRATION	=	4.4580	ML/L
PEAK SETTLEABLE CONCENTRATION	=	7801.47	MG/L
TOTAL SEDIMENT YIELD	=	.4035	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	2.72	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.72	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	1.66	ML/L

ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = .23 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	31.94	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	52.20	ACRES
TOTAL RUNOFF VOLUME	=	2.1243	AC-FT
PEAK RUNOFF DISCHARGE	=	32.16	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	141.1346	TONS
PEAK SEDIMENT CONCENTRATION	=	75577.99	MG/L
PEAK SETTLEABLE CONCENTRATION	=	33.2561	ML/L
PEAK SETTLEABLE CONCENTRATION	=	58198.16	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	20.88	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	20.88	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	12.45	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.18	ML/L

========== STRUCTURE DATA FOR JUNCTION #4 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	POND

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* *
JUNCTION 4, BRANCH 1, STRUCTURE 1
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*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER	AREA	CURVE	TC	TT	ROUTING COEFFICIENTS	UNIT

SHED	ACRES	NUMBER	HR	HR	K-HRS	X,	HYDRO
1	.30	90.00	.002	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	15.0	5.00	1.000	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.36	.78	.00	.000	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0195	ACRE-FT
PEAK DISCHARGE	=	.3643	CFS
AREA	=	.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK SETTLEABLE CONCENTRATION	=	.00	MG/L
TOTAL SEDIMENT YIELD	=	.0000	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0001	MM
TIME OF PEAK CONCENTRATION	=	.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0050	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	32.16	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	52.50	ACRES
TOTAL RUNOFF VOLUME	=	2.1437	AC-FT
PEAK RUNOFF DISCHARGE	=	32.24	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0050	HRS
TOTAL SEDIMENT YIELD	=	140.9740	TONS
PEAK SEDIMENT CONCENTRATION	=	74617.27	MG/L
PEAK SETTLEABLE CONCENTRATION	=	32.8228	ML/L
PEAK SETTLEABLE CONCENTRATION	=	57439.95	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	20.67	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	20.67	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	12.20	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.13	ML/L

========== POND INPUT ==========

QUESTION NO.		
1.	TIME INCREMENT OF THE ROUTED HYDROGRAPH -	.20 HOURS
2.	NON-IDEAL SETTLING CORRECTION FACTOR -	1.00
3.	PERCENT OF PERMANENT POOL THAT IS DEAD SPACE -	23.00
4.	OUTFLOW WITHDRAWAL OPTION -	SURFACE
5.	INFLOW VERTICAL CONCENTRATION -	COMP. MIXED
6.	NUMBER OF STAGE POINTS -	11
7.	NUMBER OF ROUTED HYDROGRAPH POINTS -	500
8.	STAGE-DISCHARGE OPTION -	INPUT
9.	OUTPUT OPTION -	GRAPHS
10.	NUMBER OF CONTINUOUS STIRRED REACTORS	2

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POND RESULTS

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***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.040	.00	.00	.00
.50	.060	.45	.00	.02
4.60	.106	3.88	.00	.37
5.00	.110	4.23	.00	.41
7.00	.140	5.82	.00	.66
8.60	.160	7.02	.00	.90
8.80	.165	7.17	1.60	.93
9.00	.170	7.31	4.00	.96
9.20	.175	7.45	6.50	1.00
9.40	.180	7.59	7.50	1.03
10.00	.195	7.99	8.50	1.15

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.025	ACRE-FT
DEAD STORAGE	=	23.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	2.144	ACRE-FT
OUTFLOW ROUTED VOLUME	=	1.280	ACRE-FT
STORM VOLUME DISCHARGED	=	1.280	ACRE-FT
POND VOLUME AT PEAK STAGE	=	1.140	ACRE-FT
PEAK STAGE	=	9.961	FT
PEAK INFLOW RATE	=	32.237	CFS
PEAK DISCHARGE RATE	=	8.436	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	74617.27	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	83022.62	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.1487	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	260.23	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	15069.54	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	15069.54	MG/L
BASIN TRAP EFFICIENCY	=	81.29	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	.89	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	.89	HRS
DETENTION TIME INCLUDING STORED FLOW	=	.89	HRS
SEDIMENT LOAD DISCHARGED	=	26.38	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	47.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.03	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.03	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.01	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.01	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000

SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	94.0794

SIZE,MM	.0040	.0020	.0001
PERCENT FINER	84.1360	76.4873	.0000

*** HYDROGRAPH AND SEDIMENT GRAPH ***
(TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	*	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	70097.460	*	3.00	.001	83022.620
3.20	.001	42578.690	*	3.40	7.623	27607.620
3.60	8.303	21616.100	*	3.80	8.435	17878.030
4.00	8.142	15565.060	*	4.20	7.771	13918.580
4.40	7.032	12641.670	*	4.60	5.297	11686.960
4.80	4.234	10880.730	*	5.00	3.596	10236.010
5.20	3.290	9671.807	*	5.40	2.864	9171.141
5.60	2.524	8767.700	*	5.80	2.382	8419.099
6.00	2.300	8091.564	*	6.20	2.156	7755.269
6.40	1.422	7424.683	*	6.60	.750	7218.503
6.80	.346	7071.176	*	7.00	.153	6951.924
7.20	.067	6849.519	*	7.40	.029	6759.128
7.60	.013	6677.930	*	7.80	.006	6604.036
8.00	.002	6535.999	*	8.20	.001	6472.847
8.40	.001	6414.007	*	8.60	.001	6359.114
8.80	.001	6307.920	*	9.00	.001	6260.164
9.20	.001	6215.429	*	9.40	.001	6173.401
9.60	.001	6133.771	*	9.80	.001	6096.185
10.00	.001	6060.373	*	10.20	.001	6026.145
10.40	.001	5993.378	*	10.60	.001	5961.989
10.80	.001	5932.053	*	11.00	.001	5903.708
11.20	.001	5876.910	*	11.40	.001	5851.504
11.60	.001	5827.271	*	11.80	.001	5804.038
12.00	.001	5781.695	*	12.20	.001	5760.145
12.40	.001	5739.323	*	12.60	.001	5719.171
12.80	.001	5699.648	*	13.00	.001	5680.717
13.20	.001	5662.327	*	13.40	.001	5644.423
13.60	.001	5626.958	*	13.80	.001	5609.924
14.00	.001	5593.295	*	14.20	.001	5577.033
14.40	.001	5561.100	*	14.60	.001	5545.471
14.80	.001	5530.128	*	15.00	.001	5515.061
15.20	.001	5500.260	*	15.40	.001	5485.723
15.60	.001	5471.489	*	15.80	.001	5457.639
16.00	.001	5444.257	*	16.20	.001	5431.351
16.40	.001	5418.824	*	16.60	.001	5406.612
16.80	.001	5394.686	*	17.00	.001	5383.024

17.20	.001	5371.617	*	17.40	.001	5360.450
17.60	.001	5349.517	*	17.80	.001	5338.820
18.00	.001	5328.406	*	18.20	.001	5318.300
[illegible].40	.001	5308.453	*	18.60	.001	5298.830
[illegible].80	.001	5289.410	*	19.00	.001	5280.173
19.20	.001	5271.100	*	19.40	.001	5262.174
19.60	.001	5253.388	*	19.80	.001	5244.736
20.00	.001	5236.220	*	20.20	.001	5227.870
20.40	.001	5219.725	*	20.60	.001	5211.771
20.80	.001	5203.981	*	21.00	.001	5196.370
21.20	.001	5188.980	*	21.40	.001	5181.820
21.60	.001	5174.842	*	21.80	.001	5168.013
22.00	.001	5161.320	*	22.20	.001	5154.751
22.40	.001	5148.302	*	22.60	.001	5141.965
22.80	.001	5135.735	*	23.00	.001	5129.608
23.20	.001	5123.580	*	23.40	.001	5117.643
23.60	.001	5111.787	*	23.80	.001	5106.006
24.00	.001	5100.300	*	24.20	.001	5094.664
24.40	.001	5089.090	*	24.60	.001	5083.572
24.80	.001	5078.107	*	25.00	.001	5072.694
25.20	.001	5067.333	*	25.40	.001	5062.021
25.60	.001	5056.759	*	25.80	.001	5051.545
26.00	.001	5046.383	*	26.20	.001	5041.297
26.40	.001	5036.318	*	26.60	.001	5031.441
26.80	.001	5026.645	*	27.00	.001	5021.917
27.20	.001	5017.250	*	27.40	.001	5012.640
27.60	.001	5008.086	*	27.80	.001	5003.586
28.00	.001	4999.138	*	28.20	.001	4994.740
28.40	.001	4990.391	*	28.60	.001	4986.087
[illegible].80	.001	4981.827	*	29.00	.001	4977.609
[illegible].20	.001	4973.434	*	29.40	.001	4969.298
29.60	.001	4965.198	*	29.80	.001	4961.130
30.00	.001	4957.094	*	30.20	.001	4953.088
30.40	.001	4949.113	*	30.60	.001	4945.167
30.80	.001	4941.251	*	31.00	.001	4937.365
31.20	.001	4933.510	*	31.40	.001	4929.713
31.60	.001	4925.995	*	31.80	.001	4922.343
32.00	.001	4918.743	*	32.20	.001	4915.186
32.40	.001	4911.668	*	32.60	.001	4908.188
32.80	.001	4904.744	*	33.00	.001	4901.335
33.20	.001	4897.961	*	33.40	.001	4894.619
33.60	.001	4891.309	*	33.80	.001	4888.018
34.00	.001	4884.691	*	34.20	.001	4881.287
34.40	.001	4877.836	*	34.60	.001	4874.368
34.80	.001	4870.888	*	35.00	.001	4867.403
35.20	.001	4863.914	*	35.40	.001	4860.424
35.60	.001	4856.933	*	35.80	.001	4853.443
36.00	.001	4849.957	*	36.20	.001	4846.474
36.40	.001	4843.004	*	36.60	.001	4839.573
36.80	.001	4836.194	*	37.00	.001	4832.852
37.20	.001	4829.541	*	37.40	.001	4826.262
37.60	.001	4823.014	*	37.80	.001	4819.796
38.00	.001	4816.606	*	38.20	.001	4813.445
38.40	.001	4810.311	*	38.60	.001	4807.203
38.80	.001	4804.120	*	39.00	.001	4801.061
[illegible].20	.001	4798.025	*	39.40	.001	4795.012
39.60	.001	4792.021	*	39.80	.001	4789.048
40.00	.001	4786.094	*	40.20	.001	4783.156
40.40	.001	4780.235	*	40.60	.001	4777.330
40.80	.001	4774.439	*	41.00	.001	4771.564

41.20	.001	4768.705	*	41.40	.001	4765.862
41.60	.001	4763.045	*	41.80	.001	4760.272
42.00	.001	4757.549	*	42.20	.001	4754.864
42.40	.001	4752.207	*	42.60	.001	4749.575
42.80	.001	4746.967	*	43.00	.001	4744.380
43.20	.001	4741.816	*	43.40	.001	4739.273
43.60	.001	4736.750	*	43.80	.001	4734.247
44.00	.001	4731.762	*	44.20	.001	4729.294
44.40	.001	4726.844	*	44.60	.001	4724.410
44.80	.001	4721.991	*	45.00	.001	4719.586
45.20	.001	4717.194	*	45.40	.001	4714.814
45.60	.001	4712.445	*	45.80	.001	4710.087
46.00	.001	4707.740	*	46.20	.001	4705.405
46.40	.001	4703.081	*	46.60	.001	4700.768
46.80	.001	4698.466	*	47.00	.001	4696.174
47.20	.001	4693.893	*	47.40	.001	4691.623
47.60	.001	4689.362	*	47.80	.001	4687.112
48.00	.001	4684.872	*	48.20	.001	4682.642
48.40	.001	4680.422	*	48.60	.001	4678.212
48.80	.001	4676.013	*	49.00	.001	4673.823
49.20	.001	4671.643	*	49.40	.001	4669.472
49.60	.001	4667.311	*	49.80	.001	4665.159

*** RUN COMPLETED ****

```
**********************************************************************
*          (program name)                * SEDIMOT S/N  :              *
*                                        * HMVersion    :  3.20        *
*       (program description)            * Date         :  5/27/94     *
*                                        * Time         : 14:37:16     *
*                                        * Input file   : PAST1062.IN  *
*                                        * Output file  : PAST1062.OUT *
*                                        *                            *
*                                        *                            *
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 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx   xxxxxxx
x     x  x        x     x    x    xx   xx  x     x     x
x        x        x     x    x    x x x x  x     x     x
 xxxxx   xxxxx    x     x    x    x  x  x  x     x     x
      x  x        x     x    x    x     x  x     x     x
x     x  x        x     x    x    x     x  x     x     x
 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx      x
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:::                                     :::
:::  Full Microcomputer Implementation  :::
:::                  by                 :::
:::        Haestad Methods, Inc.        :::
:::                                     :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

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****
WATERSHED IDENTIFICATION CODE

Pasture Pond 10 year 6 hour storm Phase 2 Reclamation
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	1.31 INCHES
3.	STORM DURATION -	6.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

==========

========== WATERSHED DATA ==========

QUESTION NO.

1. NUMBER OF JUNCTIONS - 4
2. JUNCTION NUMBER OF BRANCHES

1	2
2	3
3	1
4	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

==========

========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00

7	34.00
8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #2 ==========

BRANCH	NUMBER OF STRUCTURES
1	1
2	2
3	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.02	.02	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 2	.02	.02	.35
3	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #3 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #4 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.40

==========

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	6.20	69.00	.130	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	250.0	2.00	.250	1.0	1.0
	2	.20	400.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.12	.03	.48	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0178	ACRE-FT
PEAK DISCHARGE	=	.1155	CFS
AREA	=	6.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	24433.67	MG/L
PEAK SETTLEABLE CONCENTRATION	=	11.6788	ML/L
PEAK SETTLEABLE CONCENTRATION	=	20437.91	MG/L
TOTAL SEDIMENT YIELD	=	.4827	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.25	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	9.25	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.55	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

PERIOD = 1.21 ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

==========

* *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	14.10	69.00	.280	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	800.0	2.00	.250	1.0	1.0
	2	.20	600.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.23	.03	1.22	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0406	ACRE-FT
PEAK DISCHARGE	=	.2346	CFS
AREA	=	14.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	26673.67	MG/L

PEAK SETTLEABLE CONCENTRATION	=	12.7495	ML/L
PEAK SETTLEABLE CONCENTRATION	=	22311.59	MG/L
TOTAL SEDIMENT YIELD	=	1.2223	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.45	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	10.45	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.43	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.30	69.00	.100	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	50.0	20.00	.250	1.0	1.0
	2	.20	800.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2

1	.05	.03	1.55	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0066	ACRE-FT
PEAK DISCHARGE	=	.0479	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.50	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	220803.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	105.5396	ML/L
PEAK SETTLEABLE CONCENTRATION	=	184694.30	MG/L
TOTAL SEDIMENT YIELD	=	1.5526	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	2.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	81.46	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	81.46	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	79.02	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	9.55	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.35	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.60	HRS
TOTAL DRAINAGE AREA	=	22.60	ACRES
TOTAL RUNOFF VOLUME	=	.0650	AC-FT
PEAK RUNOFF DISCHARGE	=	.38	CFS
TIME TO PEAK DISCHARGE	=	3.60	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	3.2575	TONS
PEAK SEDIMENT CONCENTRATION	=	100030.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	47.8124	ML/L
PEAK SETTLEABLE CONCENTRATION	=	83671.73	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 17.30 ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 17.30 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 15.62 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 2.47 ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.90	69.00	.200	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	10.00	.250	1.0	1.0
	2	.20	1000.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.11	.03	1.07	.041	.620	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0170	ACRE-FT
PEAK DISCHARGE	=	.1054	CFS
AREA	=	5.9000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	56623.52	MG/L
PEAK SETTLEABLE CONCENTRATION	=	24.0242	ML/L
PEAK SETTLEABLE CONCENTRATION	=	42042.41	MG/L
TOTAL SEDIMENT YIELD	=	1.0697	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0410	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	19.24	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	19.24	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	17.46	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.55	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 2, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.20	69.00	.130	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	2.00	.250	1.0	1.0
	2	.20	800.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.10	.03	.48	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0150	ACRE-FT
PEAK DISCHARGE	=	.0969	CFS
AREA	=	5.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	28935.18	MG/L
PEAK SETTLEABLE CONCENTRATION	=	13.8304	ML/L
PEAK SETTLEABLE CONCENTRATION	=	24203.27	MG/L
TOTAL SEDIMENT YIELD	=	.4803	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.96	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	10.96	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.12	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.43	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.11	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.60	HRS
TOTAL DRAINAGE AREA	=	11.10	ACRES

TOTAL RUNOFF VOLUME	=	.0319	AC-FT
PEAK RUNOFF DISCHARGE	=	.20	CFS
TIME TO PEAK DISCHARGE	=	3.60	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	1.5499	TONS
PEAK SEDIMENT CONCENTRATION	=	43435.29	MG/L
PEAK SETTLEABLE CONCENTRATION	=	19.1363	ML/L
PEAK SETTLEABLE CONCENTRATION	=	33488.51	MG/L
TIME TO PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	15.33	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	15.33	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	13.92	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.03	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1. NUMBER OF SUBWATERSHEDS -		2
2. TYPE OF SEDIMENT CONTROL STRUCTURE -		NULL STRUC.

==========

* *
JUNCTION 2, BRANCH 3, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	11.00	69.00	.200	.000	.000	.00	1.0
2	6.20	69.00	.160	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1000.0	1.50	.250	1.0	1.0
2	1	.20	250.0	15.00	.250	1.0	1.0
	2	.20	850.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.20	.03	.83	.088	1.000	1.000
2	.12	.03	3.40	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0495	ACRE-FT
PEAK DISCHARGE	=	.3121	CFS
AREA	=	17.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	77060.66	MG/L
PEAK SETTLEABLE CONCENTRATION	=	36.8335	ML/L
PEAK SETTLEABLE CONCENTRATION	=	64458.55	MG/L
TOTAL SEDIMENT YIELD	=	4.2228	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	29.01	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	29.01	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	26.10	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.81	ML/L

================== STRUCTURE DATA FOR JUNCTION #3 ==================

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *

JUNCTION 3, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.30	69.00	.050	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	.50	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.03	.03	.04	.041	.618	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0037	ACRE-FT
PEAK DISCHARGE	=	.0271	CFS
AREA	=	1.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.50	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	11184.35	MG/L
PEAK SETTLEABLE CONCENTRATION	=	4.7398	ML/L
PEAK SETTLEABLE CONCENTRATION	=	8294.58	MG/L
TOTAL SEDIMENT YIELD	=	.0410	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0407	MM
TIME OF PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	2.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.59	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.59	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.48	ML/L
ARITHMETIC AVERAGE SETTLEABLE			

CONCENTRATION DURING PEAK 24 HOUR
PERIOD = .42 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.89	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.60	HRS
TOTAL DRAINAGE AREA	=	52.20	ACRES
TOTAL RUNOFF VOLUME	=	.1502	AC-FT
PEAK RUNOFF DISCHARGE	=	.91	CFS
TIME TO PEAK DISCHARGE	=	3.60	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	9.0713	TONS
PEAK SEDIMENT CONCENTRATION	=	75640.47	MG/L
PEAK SETTLEABLE CONCENTRATION	=	35.6386	ML/L
PEAK SETTLEABLE CONCENTRATION	=	62367.47	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	20.46	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	20.46	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	18.01	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.85	ML/L

========== STRUCTURE DATA FOR JUNCTION #4 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

==========

* *
JUNCTION 4, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO

1	.30	84.00	.002	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	15.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.16	.30	.00	.000	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0076	ACRE-FT
PEAK DISCHARGE	=	.1616	CFS
AREA	=	.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	22.1476	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK SETTLEABLE CONCENTRATION	=	.00	MG/L
TOTAL SEDIMENT YIELD	=	.0000	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0001	MM
TIME OF PEAK CONCENTRATION	=	.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0050	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.91	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.60	HRS
TOTAL DRAINAGE AREA	=	52.50	ACRES
TOTAL RUNOFF VOLUME	=	.1578	AC-FT
PEAK RUNOFF DISCHARGE	=	.93	CFS
TIME TO PEAK DISCHARGE	=	3.60	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.97	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0050	HRS
TOTAL SEDIMENT YIELD	=	8.7935	TONS
PEAK SEDIMENT CONCENTRATION	=	51282.50	MG/L
PEAK SETTLEABLE CONCENTRATION	=	24.0059	ML/L
PEAK SETTLEABLE CONCENTRATION	=	42010.32	MG/L
TIME TO PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	19.15	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	19.15	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	16.33	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.59	ML/L

*** RUN COMPLETED ****

PASTURE POND

100 YEAR, 6 HOUR STORM

PHASE TWO

July 11, 1994

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**********************************************************************
*          (program name)                * SEDIMOT S/N  : 1353220014   *
*                                        * HMVersion    :  3.20       *
*       (program description)            * Date         :  5/05/94    *
*                                        * Time         : 15:49:36    *
*                                        * Input file   : PAST1006.IN *
*                                        * Output file  : PAST1006.OUT*
*                                        *                            *
*                                        *                            *
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 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx   xxxxxxx
x     x  x        x     x    x    xx   xx  x     x     x
x        x        x     x    x    x x x x  x     x     x
 xxxxx   xxxxx    x     x    x    x  x  x  x     x     x
      x  x        x     x    x    x     x  x     x     x
x     x  x        x     x    x    x     x  x     x     x
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:::  Full Microcomputer Implementation   :::
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:::        Haestad Methods, Inc.         :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

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****

****
WATERSHED IDENTIFICATION CODE

Pasture Pond 100 year 6 hour storm Phase 2 Reclamation
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	2.05 INCHES
3.	STORM DURATION -	6.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

==========

========== WATERSHED DATA ==========

QUESTION NO.

1. NUMBER OF JUNCTIONS - 4
2. JUNCTION NUMBER OF BRANCHES

1	2
2	3
3	1
4	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

==========

========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00

7	34.00
8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #2 ==========

BRANCH	NUMBER OF STRUCTURES
1	1
2	2
3	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.02	.02	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 2	.02	.02	.35
3	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #3 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

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========== STRUCTURE INPUT FOR JUNCTION #4 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

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========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.40

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========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 1, BRANCH 1, STRUCTURE 1
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*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	6.20	69.00	.130	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	250.0	2.00	.250	1.0	1.0
	2	.20	400.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.80	.23	1.39	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.1214	ACRE-FT
PEAK DISCHARGE	=	1.8043	CFS
AREA	=	6.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	13707.42	MG/L
PEAK SETTLEABLE CONCENTRATION	=	6.5519	ML/L
PEAK SETTLEABLE CONCENTRATION	=	11465.78	MG/L
TOTAL SEDIMENT YIELD	=	1.3862	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.92	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.92	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	2.92	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

PERIOD = .44 ML/L

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	14.10	69.00	.280	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	800.0	2.00	.250	1.0	1.0
	2	.20	600.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.24	.23	3.70	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.2760	ACRE-FT
PEAK DISCHARGE	=	3.2424	CFS
AREA	=	14.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	15238.06	MG/L

PEAK SETTLEABLE CONCENTRATION	=	7.2835	ML/L
PEAK SETTLEABLE CONCENTRATION	=	12746.10	MG/L
TOTAL SEDIMENT YIELD	=	3.7041	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.67	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.67	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.36	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.56	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.30	69.00	.100	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	50.0	20.00	.250	1.0	1.0
	2	.20	800.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2

1	.97	.23	5.63	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0450	ACRE-FT
PEAK DISCHARGE	=	.9680	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	4.9136	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	162956.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	77.8900	ML/L
PEAK SETTLEABLE CONCENTRATION	=	136307.60	MG/L
TOTAL SEDIMENT YIELD	=	5.6261	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	43.34	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	43.34	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	31.50	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.07	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	5.05	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	22.60	ACRES
TOTAL RUNOFF VOLUME	=	.4424	AC-FT
PEAK RUNOFF DISCHARGE	=	5.27	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.97	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	10.5699	TONS
PEAK SEDIMENT CONCENTRATION	=	54380.84	MG/L
PEAK SETTLEABLE CONCENTRATION	=	25.9241	ML/L
PEAK SETTLEABLE CONCENTRATION	=	45367.15	MG/L
TIME TO PEAK CONCENTRATION	=	2.90	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.00	HRS

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 8.25 ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 8.25 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 6.10 ML/L

ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 1.02 ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.90	69.00	.200	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	10.00	.250	1.0	1.0
	2	.20	1000.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.58	.23	4.79	.055	.730	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.1155	ACRE-FT
PEAK DISCHARGE	=	1.5848	CFS
AREA	=	5.9000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	49047.24	MG/L
PEAK SETTLEABLE CONCENTRATION	=	21.8330	ML/L
PEAK SETTLEABLE CONCENTRATION	=	38207.67	MG/L
TOTAL SEDIMENT YIELD	=	4.7932	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0548	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	13.37	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	13.37	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.91	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.53	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 2, STRUCTURE 2
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.20	69.00	.130	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	2.00	.250	1.0	1.0
	2	.20	800.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.51	.23	1.34	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.1018	ACRE-FT
PEAK DISCHARGE	=	1.5133	CFS
AREA	=	5.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	15834.74	MG/L
PEAK SETTLEABLE CONCENTRATION	=	7.5687	ML/L
PEAK SETTLEABLE CONCENTRATION	=	13245.21	MG/L
TOTAL SEDIMENT YIELD	=	1.3441	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.53	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.53	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.37	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.51	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	1.58	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	11.10	ACRES

TOTAL RUNOFF VOLUME	=	.2173	AC-FT
PEAK RUNOFF DISCHARGE	=	3.10	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	6.1371	TONS
PEAK SEDIMENT CONCENTRATION	=	32924.54	MG/L
PEAK SETTLEABLE CONCENTRATION	=	14.8901	ML/L
PEAK SETTLEABLE CONCENTRATION	=	26057.72	MG/L
TIME TO PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.21	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	9.21	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	6.82	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.05	ML/L

========== STRUCTURE DATA FOR JUNCTION #2 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 2, BRANCH 3, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	11.00	69.00	.200	.000	.000	.00	1.0
2	6.20	69.00	.160	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1000.0	1.50	.250	1.0	1.0
2	1	.20	250.0	15.00	.250	1.0	1.0
	2	.20	850.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.95	.23	2.43	.088	1.000	1.000
2	1.80	.23	17.18	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.3367	ACRE-FT
PEAK DISCHARGE	=	4.7589	CFS
AREA	=	17.2000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	71260.38	MG/L
PEAK SETTLEABLE CONCENTRATION	=	34.0610	ML/L
PEAK SETTLEABLE CONCENTRATION	=	59606.81	MG/L
TOTAL SEDIMENT YIELD	=	19.6086	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	19.92	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	19.92	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	14.10	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.23	ML/L

========== STRUCTURE DATA FOR JUNCTION #3 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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JUNCTION 3, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.30	69.00	.050	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	.50	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.55	.23	.18	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0254	ACRE-FT
PEAK DISCHARGE	=	.5471	CFS
AREA	=	1.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	9587.04	MG/L
PEAK SETTLEABLE CONCENTRATION	=	4.5824	ML/L
PEAK SETTLEABLE CONCENTRATION	=	8019.23	MG/L
TOTAL SEDIMENT YIELD	=	.1766	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	2.50	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.50	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	1.80	ML/L
ARITHMETIC AVERAGE SETTLEABLE			

CONCENTRATION DURING PEAK 24 HOUR
PERIOD = .23 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	13.13	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	52.20	ACRES
TOTAL RUNOFF VOLUME	=	1.0218	AC-FT
PEAK RUNOFF DISCHARGE	=	13.25	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	36.4922	TONS
PEAK SEDIMENT CONCENTRATION	=	42776.60	MG/L
PEAK SETTLEABLE CONCENTRATION	=	20.2411	ML/L
PEAK SETTLEABLE CONCENTRATION	=	35421.94	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	12.20	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	12.20	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.70	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.45	ML/L

================== STRUCTURE DATA FOR JUNCTION #4 ==================

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

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* *
JUNCTION 4, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO

1	.30	84.00	.002	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	15.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.38	.78	.00	.000	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0195	ACRE-FT
PEAK DISCHARGE	=	.3842	CFS
AREA	=	.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK SETTLEABLE CONCENTRATION	=	.00	MG/L
TOTAL SEDIMENT YIELD	=	.0000	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0001	MM
TIME OF PEAK CONCENTRATION	=	.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0050	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	13.25	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	52.50	ACRES
TOTAL RUNOFF VOLUME	=	1.0413	AC-FT
PEAK RUNOFF DISCHARGE	=	13.33	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0050	HRS
TOTAL SEDIMENT YIELD	=	36.4402	TONS
PEAK SEDIMENT CONCENTRATION	=	41007.98	MG/L
PEAK SETTLEABLE CONCENTRATION	=	19.3987	ML/L
PEAK SETTLEABLE CONCENTRATION	=	33947.65	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.99	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	11.99	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	8.38	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.40	ML/L

*** RUN COMPLETED ****

COAL PILE SEDIMENT POND

10 YEAR, 6 HOUR STORM

PHASE ONE

July 11, 1994

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**********************************************************************************
*          (program name)                 * SEDIMOT S/N  : 1353220014              *
*                                         * HMVersion    :  3.20                   *
*       (program description)             * Date         :  5/25/94                *
*                                         * Time         :  9:56:05                *
*                                         * Input file   : cpsp106.in              *
*                                         * Output file  : cpsp106.out             *
*                                         *                                        *
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 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx   xxxxxxx
x     x  x        x     x    x    xx   xx  x     x     x
x        x        x     x    x    x x x x  x     x     x
 xxxxx   xxxxx    x     x    x    x  x  x  x     x     x
      x  x        x     x    x    x     x  x     x     x
x     x  x        x     x    x    x     x  x     x     x
 xxxxx   xxxxxxx  xxxxxx   xxxxx  x     x   xxxxx      x
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:::  Full Microcomputer Implementation   :::
:::                 by                   :::
:::       Haestad Methods, Inc.          :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

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****
WATERSHED IDENTIFICATION CODE

COAL PILE SEDIMENT POND 10 YEAR 6 HOUR STORM Phase 1 Reclama
****

========== STORM INPUT ==========

QUESTION NO.		
1.	STORM TYPE -	SCS'S TYPE 2
2.	RAINFALL DEPTH -	1.31 INCHES
3.	STORM DURATION -	6.00 HOURS
4.	TIME INCREMENT -	.10 HOURS

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========== WATERSHED DATA ==========

QUESTION NO.
1. NUMBER OF JUNCTIONS - 1
2. JUNCTION NUMBER OF BRANCHES

1 1
3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

==========

========== SEDIMENTOLOGY INPUTS ==========

QUESTION NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

==========

========== INPUT PARTICLE SIZE DISTRIBUTIONS ==========

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

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========== PERCENT FINER DISTRIBUTIONS ==========

VALUE NO.	PARTICLE SIZE # 1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00
7	34.00
8	26.30
9	20.30

10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

==========

========== STRUCTURE INPUT FOR JUNCTION #1 ==========

BRANCH	NUMBER OF STRUCTURES
1	1

==========

========== BETWEEN STRUCTURE ROUTING PARAMETERS ==========

BRANCH NO.	BETWEEN	PARAMETERS 1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

==========

========== STRUCTURE DATA FOR JUNCTION #1 ==========

QUESTION NO.		
1.	NUMBER OF SUBWATERSHEDS -	2
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	POND

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* *
JUNCTION 1, BRANCH 1, STRUCTURE 1
* *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.00	84.00	.090	.000	.000	.00	.0
2	.30	90.00	.020	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	1.00	.850	1.0	.0
2	1	.20	50.0	1.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.08	.30	.57	.088	1.000	1.000
2	.26	.54	.07	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0642	ACRE-FT
PEAK DISCHARGE	=	1.3382	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	12597.48	MG/L
PEAK SETTLEABLE CONCENTRATION	=	6.0213	ML/L
PEAK SETTLEABLE CONCENTRATION	=	10537.35	MG/L
TOTAL SEDIMENT YIELD	=	.6388	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.55	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.55	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	2.25	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.31	ML/L

========== POND INPUT ==========

QUESTION NO.		
1.	TIME INCREMENT OF THE ROUTED HYDROGRAPH -	.10 HOURS
2.	NON-IDEAL SETTLING CORRECTION FACTOR -	1.00
3.	PERCENT OF PERMANENT POOL THAT IS DEAD SPACE -	10.00
4.	OUTFLOW WITHDRAWAL OPTION -	SURFACE
5.	INFLOW VERTICAL CONCENTRATION -	COMP. MIXED

6.	NUMBER OF STAGE POINTS -	7
7.	NUMBER OF ROUTED HYDROGRAPH POINTS -	500
8.	STAGE-DISCHARGE OPTION -	INPUT
9.	OUTPUT OPTION -	SUM. TABLES
10.	NUMBER OF CONTINUOUS STIRRED REACTORS	3

==========

* *

POND RESULTS

* *

***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.200	.00	.00	.00
1.00	.230	.97	.00	.22
1.50	.250	1.44	.00	.34
2.50	.280	2.35	.01	.60
3.00	.300	2.79	1.50	.75
3.50	.310	3.23	3.00	.90
4.00	.330	3.67	5.00	1.06

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.335	ACRE-FT
DEAD STORAGE	=	10.00	PERCENT
TIME INCREMENT OUTFLOW	=	.10	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	.064	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.009	ACRE-FT
STORM VOLUME DISCHARGED	=	.009	ACRE-FT
POND VOLUME AT PEAK STAGE	=	.397	ACRE-FT
PEAK STAGE	=	1.736	FT
PEAK INFLOW RATE	=	1.338	CFS
PEAK DISCHARGE RATE	=	.002	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	12597.48	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	5.08	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.00	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	4.53	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	4.53	MG/L
BASIN TRAP EFFICIENCY	=	99.99	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	22.63	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	22.63	HRS

DETENTION TIME INCLUDING STORED FLOW	=	22.63	HRS
SEDIMENT LOAD DISCHARGED	=	.00	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	47.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

*** RUN COMPLETED ****