0002

Document Information Form

Mine Number: C/007/004

File Name: Incoming

To: DOGM

From:

Person N/A

Company N/A

Date Sent: N/A

Explanation:

HYDROLOGY: SOLUTION OF RUNOFF EQUATION

cc:

File in:
C/ 007 , 004 , Incoming
Refer to:
- ☐ Confidential
- ☐ Shelf
- ☐ Expandable

Date _____ For additional information

HYDROLOGY: SOLUTION OF RUNOFF EQUATION $Q = \frac{(P-0.2S)^2}{P+0.8S}$

P = 0 to 12 inches
Q = 0 to 8 inches

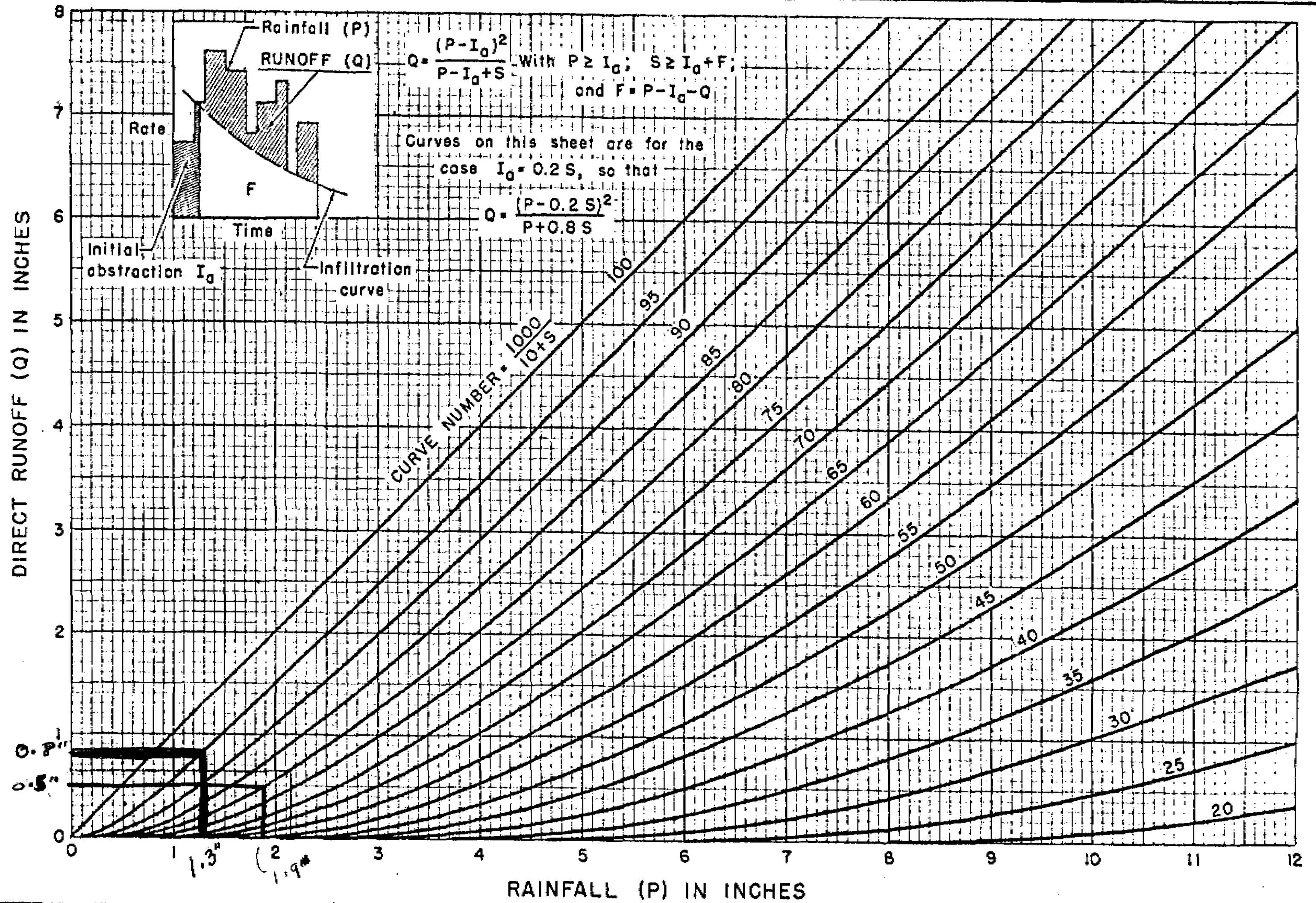

Figure – 10.1 (1 of 2)

REFERENCE

Mockus, Victor; Estimating direct runoff amounts from storm rainfall: Central Technical Unit, October 1955

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ENGINEERING DIVISION - HYDROLOGY BRANCH

STANDARD DWG. NO. ES- 1001
SHEET 1 OF 2
DATE 6-29-56
REVISED 10-1-64

Table 10.1. Curve numbers (CN) and constants for the case $I_a = 0.2\ S$

1	2	3	4	5	1	2	3	4	5
CN for condition II	CN for conditions I	CN for conditions III	S values* (inches)	Curve* starts where P = (inches)	CN for condition II	CN for conditions I	CN for conditions III	S values* (inches)	Curve* starts where P = (inches)
100	100	100	0	0	60	40	78	6.67	1.33
99	97	100	.101	.02	59	39	77	6.95	1.39
98	94	99	.204	.04	58	38	76	7.24	1.45
97	91	99	.309	.06	57	37	75	7.54	1.51
96	89	99	.417	.08	56	36	75	7.86	1.57
95	87	98	.526	.11	55	35	74	8.18	1.64
94	85	98	.638	.13	54	34	73	8.52	1.70
93	83	98	.753	.15	53	33	72	8.87	1.77
92	81	97	.870	.17	52	32	71	9.23	1.85
91	[illegible]	[illegible]	.989	.20	51	31	70	9.61	1.92
90	78	96	1.11	.22	50	31	70	10.0	2.00
89	76	96	1.24	.25	49	30	69	10.4	2.08
88	75	95	1.36	.27	48	29	68	10.8	2.16
87	73	95	1.49	.30	47	28	67	11.3	2.26
86	72	94	1.63	.33	46	27	66	11.7	2.34
85	70	94	1.76	.35	45	26	65	12.2	2.44
84	68	93	1.90	.38	44	25	64	12.7	2.54
83	67	93	2.05	.41	43	25	63	13.2	2.64
82	66	92	2.20	.44	42	24	62	13.8	2.76
81	64	92	2.34	.47	41	23	61	14.4	2.88
80	63	91	2.50	.50	40	22	60	15.0	3.00
79	62	91	2.66	.53	39	21	59	15.6	3.12
78	[illegible]	[illegible]	2.82	.56	38	21	58	16.3	3.26
77	59	89	2.99	.60	37	20	57	17.0	3.40
76	58	89	3.16	.63	36	19	56	17.8	3.56
75	57	88	3.33	.67	35	18	55	18.6	3.72
74	55	88	3.51	.70	34	18	54	19.4	3.88
73	54	87	3.70	.74	33	17	53	20.3	4.06
72	53	86	3.89	.78	32	16	52	21.2	4.24
71	52	86	4.08	.82	31	16	51	22.2	4.44
70	51	85	4.28	.86	30	15	50	23.3	4.66
69	50	84	4.49	.90					
68	48	84	4.70	.94	25	12	43	30.0	6.00
67	47	83	4.92	.98	20	9	37	40.0	8.00
66	46	82	5.15	1.03	15	6	30	56.7	11.34
65	45	82	5.38	1.08	10	4	22	90.0	18.00
64	44	81	5.62	1.12	5	2	13	190.0	38.00
63	43	80	5.87	1.17	0	0	0	infinity	infinity
62	42	79	6.13	1.23					
61	41	78	6.39	1.28					

*For CN in column 1.

Tom Davis

9-24-82	1/2
10-1-82	5
10-2-82	7 1/4
10-9-82	8
10-13-82	1 1/4
10-14-82	2 1/4
10-10-82	4
10-16-82	8

36.25

Carl Drinnon

10-1-82	5
10-2-82	7 1/4
10-9-82	8
10-13-82	3 1/2
10-14-82	5
10-16-82	8

Backhoe overtime hours expended by PRCC as a result of heavy precipitation around this time.

Castle Gate

Sept Precip

Sept	Precip
1	0
2	0
3	0
4	.05
5	.34
6	Trace
7	0
8	.04
9	0
10	.73
11	0
12	0
13	.53
14	.08
15	0
16	0
17	0
18	0
19	.08
20	.01
21	.04
22	0
23	0
24	0
25	.04
26	.28
27	.38
28	.30
29	.80
30	.43

102

102

total 4.19

NWS FORM D-9b (1-78) PRES. BY WSOM D-06 — U.S. DEPT. OF COMMERCE, NOAA, NATIONAL WEATHER SER.

10 DAY FIRE DANGER AND FIRE WEATHER RECORD

AGENCY	UNIT	STATION NAME	STATION NUMBER
USFS	Manti-LaSal NF	Price	421701

STATION ELEVATION	FUEL MODEL	ANNUAL OR PERENNIAL	SLOPE CLASS	CLIMATE CLASS	BASIC OBS TIME (LST)	PERIOD OF RECORD (MONTH, DAY, YEAR) FROM	TO
5500'	F	P	2	1	1400	9-21-82	9-30-82

DAY OF MONTH	STATE OF WEATHER	TEMPERATURE: DRY BULB	TEMPERATURE: WET BULB	TEMPERATURE: DEW POINT (DEGREES)	RELATIVE (%) HUMIDITY	OBSERVED FUEL STICKS	10-HR TL FUEL MOISTURE	1-HR TL FUEL MOISTURE	HERB. VEG. CONDITION	FINE FUEL MOISTURE	BURNING INDEX: WIND DIRECTION	BURNING INDEX: WIND SPEED	BURNING INDEX: SPREAD COMPONENT	BURNING INDEX: ENERGY RELEASE COMPONENT	BURNING INDEX	OCCURRENCE INDEXES: IGNITION COMPONENT	OCCURRENCE INDEXES: LIGHTNING RISK	OCCURRENCE INDEXES: LIGHTNING OCCURRENCE INDEX	OCCURRENCE INDEXES: MAN-CAUSED RISK	OCCURRENCE INDEXES: MAN-CAUSED OCCURRENCE INDEX	FINE LOAD INDEX	OBSERVER / CHECKED BY / REMARKS
1	2	3	4	4a	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
21	1	72	56	45	38	10	12	7			3	4	3	9	15	15	11	3	5	1	11	
22	0	76	59	49	38	10	12	7			4	3	3	9	13	15	0	1	5	1	9	
23	0	81	56	37	21	7	9	4			4	2	2	16	15	20	0	0	5	1	11	
24	1	79	54	33	19	6	8	4			4	4	4	18	21	26	0	0	5	1	15	
25	3	69	57	50	50	9	11	10			1	5	4	9	15	9	0	0	10	1	11	
26	2	67	60	56	68	31	35	16			3	5	6	0	0	0	0	0	10	0	0	
27	3	54	49	45	72	34	42	20			3	4	—	—	—	—	—	—	5	—	—	no afternoons
28	5	49	45	42	75	37	56	27			2	2	0	0	0	0	0	0	5	0	0	
29	6	43	41	39	86	50	46	19			7	3	0	0	0	0	0	0	5	0	0	
30	2	50	45	41	70	41					7	3	0	0	0	0	6	0	5	0	0	
31																						

DAY OF MONTH	DAILY (24 HOUR) DATA: TEMPERATURE MAXIMUM	TEMPERATURE MINIMUM	RELATIVE HUMIDITIES MAXIMUM	RELATIVE HUMIDITIES MINIMUM	RELATIVE HUMIDITIES AVERAGE	PRECIPITATION KIND	PRECIPITATION BEGAN	PRECIPITATION ENDED	PRECIPITATION DURATION	PRECIPITATION AMOUNT	LIGHTNING BEGAN	LIGHTNING ENDED	LIGHTNING ACTIVITY LEVEL	100-HR TL FUEL MOISTURE	1000-HR TL FUEL MOISTURE: TODAY'S 1000-HR. END RY VALUE	1000-HR TL FUEL MOISTURE: AVERAGE 7-DAY END RY VALUE	1000-HR TL FUEL MOISTURE: CHANGE 1000-HR FUEL MOISTURE	1000-HR TL FUEL MOISTURE	LIVING FUEL MOISTURES: WOODY FUEL MOISTURE	LIVING FUEL MOISTURES: X1000 MOISTURE VALUE	LIVING FUEL MOISTURES: HERB. FUEL MOISTURE	MC	FDR	C	D
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	A	B		
21	75	50	86	37	—	—	—	—	0	0	—	—	2	14	14		—	—	107	—	7	2	L		
22	78	52	100	38					2	.05			1	15	14				109		7	1	L		
23	83	50	63	21					0	0			1	13	14				108		4	2	L		
24	85	52	54	16					0	0			1	11	14				107		4	2	M		
25	81	60	75	33					1	.01			1	11	14				108		10	2	L		
26	70	56	100	57					2	.13	—		1	14	14				112		16	0	0		
27	72	47	100	42					5	.17	—		—	—	—				—		—	—	—		
28	71	39	100	36					10	.35	—		1	19	16				123		20	0	0		
29	54	34	100	55					16	.53	—		4	25	19				149		27	0	0		
30	55	34	100	64					10	.41	—		2	27	20				162		19	0	0		
31																									

NWS FORM D-9b (1-78)

"The assignment of...15 points for the probability of damage extending beyond the disturbed by the construction activity and 10 points based upon the extent of potential or actual damage caused by failing to pass the surface drainage through a sedimentation pond or series of sedimentation ponds, as well as the assignment of 8 points based upon negligence, is supported by the evidence...."

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10 ALJ

HARDLY ABLE COAL COMPANY v. OSM, No. NX9-122-R. Judge Torbett. April 24, 1981. Application for Review of Notice of Violation No. 79-II-70-8.

DEFENSES--Wrong Party--Permittee responsible for acts of subcontractor

ACCESS AND HAUL ROADS--30 CFR 715.17(l)(3)--Maintenance violation established

"The Applicant is charged with three violations in Violation No. 79-II-70-8. Only violation Number 1 is at issue...."

"Violation No. 1 reads as follows: Failure to properly drain and maintain access road."

"The number of the pertinent regulation is 30 CFR Section 715.17(1)(3)...."

"The position of...[OSM] is that there was a violation of the regulation set out above and that this violation was committed by the Applicant's subcontractor, Meadow Creek Mining Company."

"The Applicant's position is that there was no violation committed or if a violation was committed by the subcontractor the Applicant is not responsible."

Held: NOV 79-II-70-8 is affirmed.

"The evidence presented by...[OSM] clearly sustains the violations. The pictures introduced into evidence show deep ruts in the road which lead to an area off the permit. Precipitation in the form of rain would have to follow these ruts off of the permit. The pictures further demonstrate that sediment would be carried by rainfall in these ditches to an area off the permit."

"The law in this case has been clearly set out by the Board of Surface Mining and Appeals in the Wilson case...[Wilson Farms Coal Co., 2 IBSMA 118 (1980)].... The Wilson case was appealed to Federal Court and was affirmed by the Federal District in Tennessee. The purpose of the bond required of the permittee is to make sure that there is money available to pay for the reclamation of mined areas. The subcontractor of the permittee has no bond posted with the regulatory authority. The regulatory scheme contemplated by the Act and the laws of the State of Kentucky clearly sets out that the permittee is responsible for the acts of his subcontractor."

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11 ALJ

VALLEY CAMP OF UTAH, INC. v. OSM, Nos. ~~DV-0-11~~-P and DV-0-22-P. Judge Rampton. May 8, 1981. Petitions for Review of Proposed Civil Penalties for Notices of Violation Nos. 80-5-18-7 and 79-5-3-40.

ACCESS AND HAUL ROADS--30 CFR 717.17(j)(3)(ii)--No maintenance violation where drainage structure covered by natural snowfall--OSM mistaken as to location of drainage

structure--30 CFR 717.17(j)(1)--OSM failed to prove runoff outside permit area and failure to use best technology currently available

STEEP-SLOPE MINING--30 CFR 717.14(c)--No spoil on downslope violation where placement is part of regular maintenance program--No civil penalty assessed for spoil on downslope violation caused by extreme weather conditions

SEDIMENTATION PONDS--30 CFR 717.17(a)(1)--No violation of sedimentation pond requirement where pond under construction and alternative controls used

NOTICES OF VIOLATION--Incorrect regulation cited--OSM required to prove violation of regulation cited

"The condition cited...[NOV 80-5-18-7] was an alleged violation of 30 CFR 717.17(j)(3)(ii)...."

"Inspector Ronald Gregg of OSM testified that...snow had been plowed from the road, piled up and compacted in front of and on top of the culvert draining the ditch between the access road and an adjacent railroad embankment."

"He based his knowledge of the culvert's location on an examination, before going into the area, of a company map and information given him by two state inspectors who had told him precisely where the culvert was."

"In its defense, Valley Camp offered the testimony of Mr. William Haynes, its general manager, who, although he was not present at the time the notice was issued, testified that there were not two culverts running under the road as Mr. Gregg believed but only one."

"He observed the area after the notice was issued and stated that the only culvert at that location was not blocked by piled up snow and debris but was buried under about 4 to 6 feet of natural snowfall."

"The first condition cited in...[NOV 79-5-3-40] was an alleged violation of 30 CFR 717.14(c)...."

"[OSM inspector] Mr. Damrau testified that he saw a front-end loader picking up the earth material from a sloughed embankment on the left or high side of the company's access road and dumping it over the steep downslope to the right."

"In its brief, Valley Camp admits that the material was placed on the shoulder of the road and a portion of the material spilled on the downslope. It argues, however, that the reason the material was placed on the shoulder of the road was to fortify the guardrail and stabilize the shoulder."

unusual weather

"On the preceding day a storm had deposited a snowfall of 12 to 14 inches at the mine and down in the valley. On the morning of the day of the inspection, the snowfall ceased and the temperature rose....The increase in temperature resulted in a dramatic thaw causing the heavy snowfall to melt."

"Mr. Shoemaker testified that the material placed upon the right shoulder of the road was earth which, because of the increase in temperature, had sloughed into the drainage ditch along the inside of the access road and was obstructing the ditch."

"The normal maintenance procedure is to place the material with an end loader and afterwards stabilize it by working it with another piece of equipment such as a backhoe.... At the time of the inspection the process of clearing the ditch was still ongoing and stabilization work had not commenced."

"The second condition cited in...[NOV 79-5-3-40] was an alleged vilolation [sic] of 30 CFR 717.17(a)...."

"Mr. Damrau testified that drainage resulting from melting snow on the disturbed area... was coming down the access road without being directed into a sedimentation pond. There was, he stated, a sedimentation pond in existence located below the lower portal area, but the drainage from the upper portal area was not directed into that pond."

"Valley Camp's defense is based primarily on the fact that a new and larger sedimentation pond than the one constructed prior to the Act was in the process of being constructed under an approved plan....In the interim....Valley Camp had developed and used other sedimentary control measures, such as placement of straw dikes...."

"Mr. Haynes' testimony also effectively refutes the fact of violation. His statement that the drainage would have heen [sic] subject to the alternative approved sediment controls and that natural vegetation would have also eliminated sediment reaching or polluting streams in the area was undisputed."

"The third condition cited in...[NOV 79-5-3-40] was an alleged violation of 30 CFR 717.17(j)(a)(1). There is no subparagraph (a) in section 717.17(j)."

"While petitioner raised no issue with respect to impropriety in the format of the notice, I must base a determination of whether or not a violation did occur on an application of the facts to the provision of the regulation cited by the inspector in the notice."

"OSM introduced three pictures showing that at least three culverts were blocked by the maintenance crew clearing the snow from the road...."

"The procedure followed by Valley Camp to maintain the access road following the snowfall is to remove the snow from the road and, on completion of snow removal, clean the drainage ditches."

Held: NOV 80-5-18-7 and violations 2 and 3 of NOV 79-5-3-40 are vacated. Violation 1 of NOV 79-5-3-40 is upheld but no penalty is assessed, $2,700 with interest shall be returned to petitioner.

"The evidence shows, and I so find, that the culvert thought by Mr. Gregg to be blocked did not and does not exist. Further, the only culvert in existence in the area of the alleged violation [NOV 80-5-18-7] was not blocked by debris, but covered only by natural snowfall, and drainage into it was not impeded."

"Once...[a] road is approved and constructed, its structural integrity, as well as its individual drainage structures, must be maintained. If, therefore, the placement of the material on the downslope was performed as part of the regular maintenance program and was done in a proper manner, no violation has occurred. I cannot, however, find that the work being done was normal maintenance."

"In view, however, of the exigencies of the situation created by unusual circumstances, I can attribute no willful negligence on the part of the operator."

"Further, I find that the violation was not serious. Testimony is unrefuted that the vegetation and ground cover was very heavy, the material would have melted through the snow and reached the natural ground cover before any rapid runoff, and it was not likely that the sedimentation or erosion would eventually leave the permit area and none would reach the stream below."

"In sum, no points are assessed for...[Violation 1 of NOV 79-5-3-40]."

"I find that the facts do not support the issuance of...[violation 2 of NOV 79-5-3-40] and it is, therefore, vacated."

"On the basis of the evidence presented, I find no violation [violation 3 of NOV 79-5-3-40] occurred. The section of the regulation cited by the inspector [30 CFR 717.17(j)(1)] requires culverts to be maintained using the best technology available to prevent contributions of suspended solids to streamflow or to runoff outside the permit area. In this instance, there was no runoff outside the permit area and the maintenance was being done as fast as possible using the best available technology."

"Common sense interpretation of the regulations dictates an allowance of a reasonable amount of time for the operator to correct drainage problems under extraordinary weather conditions that cannot be anticipated."

Fell Energy Coal Co. v OSM 1 ALJ 186 (Surface Mining Law) - No. NX 9-99-R, ALJ Torbett 11/7/79

12 ALJ

SWISTOCK ASSOCIATES COAL CORPORATION v. OSM, No. CH1-4-P. Judge Shepherd. May 14, 1981. Petition for Review of Proposed Civil Penalty Assessment for Notice of Violation No. 80-I-50-18.

SEDIMENTATION PONDS--30 CFR 715.17(a)--Violation established where surface drainage from outfall area of sedimentation pond bypassed pond
PETITION FOR REVIEW--Where no civil penalty assessed

"The violation under review alleged that the petitioner had failed to pass all surface drainage from the disturbed area through a sedimentation pond or a series of sedimentation ponds prior to leaving the permit area contrary to the provisions of 30 CFR 715.17(a)."

"The initial proposed assessment...was in the amount of $1,200, but a subsequent assessment conference proceeding reduced the proposed assessment to zero."

"It was Mr. Heuser's [OSM inspector] testimony that the source of this water, obvious in the photographs, was from the four-acre area extending off photograph S-2 but included the road ....Mr. Heuser further testified that photograph S-5 shows water draining from the road. Mr. Heuser traced this water into the ditch which bypasses the sedimentation pond...."

"Mr. Peter Swistock, Jr., testified that all of the water in the ditch came from the barn area and that none of it came from the areas that had been disturbed by the mining operation. Mr. Swistock indeed claimed that all of the water from the road was intercepted by drainage ditches and was diverted into the sedimentation pond.

Held: NOV 80-I-50-18 is upheld.

"While the hearing evolved into a dispute between the witnesses as to the source of water which did proceed around the sedimentation pond, I do not feel that is dispositive of the issue."

"There is no doubt that the water complained of did not pass through the sedimentation pond. It is also obvious to me from the testimony of the witnesses and the photographs that the sedimentation pond is immediately adjacent to the pit and appears to have been made with spoil material. There was testimony that the outfall area from the sedimentation pond was made of sandstone that had been placed there as an erosion control measure....Some of this is in the ditch....I, therefore, conclude that the original source of the water is not material and the water is indeed surface drainage leaving an area where surface mining activities have disturbed the natural surface, that it is immediately adjacent to areas which are being mined, that the lands affected were affected for the purpose of conducting surface