

Document Information Form

Mine Number: C/015/015

File Name: Internal

To: DOGM

From:

Person N/A

Company N/A

Date Sent: N/A

Explanation:

Inspector's Statement

cc:

File in: C/015, 015, Internal

Refer to:

- Confidential
- Shelf
- Expandable

Date _____ For additional information



INSPECTOR'S STATEMENT

(A) Event Violations (go to (B) if this is an obstruction to enforcement violation)

1. What harmful event was this regulation designed to prevent? (Insert the event listed on the Reference List and remember that the event is not the same as the violation.)

WATER POLLUTION

2. If the event has happened, describe it. If it has not happened, what would cause it to happen and how likely is that? (For example, if there is an area for which no sediment control is provided, has runoff from that area reached a stream? If it hasn't reached a stream, what would cause it to get there and how likely is that to happen?)

SEDIMENT POND #5 IS DESIGNED TO HANDLE RUNOFF FROM 115 ACRES WHEN DURING A 25 YEAR, 24 HOUR PRECIP. EVENT WOULD DISCHARGE AT 43 CFS. THE SEDIMENT POND EMERGENCY SPILLWAY IS DESIGNED TO SAFELY PASS 45 CFS. BECAUSE THE UNDISTURBED DIVERSION HAS NOT BEEN CONSTRUCTED AN ADDITIONAL 75.1 ACRES IS CONTRIBUTING TO THE SEDIMENT POND, THE DIVERSION DITCH WAS DESIGNED TO HANDLE 20 CFS.

3. How much damage has already occurred as a result of the violation? Cent. Also, is the damage on the permit area or does it extend off the permit area? Cent.

EXCESSIVE EROSION IS OCCURRING AT THE INLETS TO ~~THE~~ SEDIMENT POND. THIS EROSION IS DUE IN PART TO THE ADDITIONAL RUNOFF BEING CONTRIBUTED TO THE SEDIMENT POND. DAMAGE DOES NOT EXTEND OFF THE PERMIT AREA.

4. How much damage might have occurred if the violation had not been discovered by an OSM inspector? Describe this potential damage. Would the damage extend off the permit area?

EXCESSIVE EROSION DAMAGE COULD HAVE OCCURRED AND PERHAPS DAMAGE TO THE SEDIMENT POND EMBANKMENT ALSO. DAMAGE WOULD CONTRIBUTE ADDITIONAL SUSPENDED SOLIDS TO STREAMFLOW. A PRECIPITATION EVENT APPROXIMATING THE MAGNITUDE OF A 25 YEAR, 24 HOUR EVENT WOULD CAUSE THE DAMAGE. DAMAGE WOULD NOT EXTEND OFF THE PERMIT AREA.

(B) Obstruction to Enforcement Violations (answer for obstruction violations only, such as violations concerning recordkeeping, monitoring, plans, and certifications)

5. Describe how violation of this regulation actually obstructed enforcement by OSM and/or the public.

II. Degree of Fault (only one question applies to each violation; first decide which question to answer).

6. If you think this violation was not the result of vandalism or an act of God, for example) permittee is considered responsible for the act the minesite.

File in:

- Confidential
- Shelf
- Expandable

Refer to Record No. 0008 Date _____

In C/ 015, 015, Internal

For additional information

7. If you think this violation was the result of indifference to OSM regulations, or the result of lack of reasonable care, explain.

*TEMPORARILY
THE UTAH DEPT. OF HEALTH HAD ACCEPTED THEIR STIPULATION REQUIRING THE OPERATOR TO CONSTRUCT THE DIVERSION. HOWEVER, THE OPERATOR DID NOT RECEIVE A WAIVER FROM THE DIVISION FOR THE CONSTRUCTION OF THE DIVERSION. HEALTH'S WORKERS WERE BASED UPON THE PREPARATION PLAN NOT BEING BUILT AT THIS TIME. IT IS NOT KNOWN WHETHER THEY CONSIDERED THE SIZING OF THE EMERGENCY SPILLWAY AND THE ADDITIONAL RUNOFF CONTRIBUTED TO THE SED. POND. IN ANY CASE THE OPERATOR IS STILL RESPONSIBLE FOR FOLLOWING HIS PLAN AS APPROVED BY THE DIVISION. I CONTINUED*

INSPECTOR'S STATEMENT

(A) Event Violations (go to (B) if this is an obstruction to enforcement violation)

1. What harmful event was this regulation designed to prevent? (Insert the event listed on the Reference List and remember that the event is not the same as the violation.)

WATER POLLUTION

2. If the event has happened, describe it. If it has not happened, what would cause it to happen and how likely is that? (For example, if there is an area for which no sediment control is provided, has runoff from that area reached a stream? If it hasn't reached a stream, what would cause it to get there and how likely is that to happen?)

SEDIMENT POND #5 IS DESIGNED TO HANDLE RUNOFF FROM 115 ACRES WHICH DURING A 25 YEAR, 24 HOUR PRECIP. EVENT WOULD DISCHARGE AT 43 cfs. THE SEDIMENT POND EMERGENCY SPILLWAY IS DESIGNED TO SAFELY PASS 45 cfs. BECAUSE THE UNDISTURBED DIVERSION HAS NOT BEEN CONSTRUCTED AN ADDITIONAL 75.1 ACRES IS CONTRIBUTING TO THE SEDIMENT POND, THE DIVERSION DITCH WAS DESIGNED TO HANDLE 200 cfs.

3. How much damage has already occurred as a result of the violation? Cent. Also, is the damage on the permit area or does it extend off the permit area? Next Per.

EXCESSIVE EROSION IS OCCURRING AT THE INLETS TO ~~THE~~ SEDIMENT POND #5. THIS EROSION IS DUE IN PART TO THE ADDITIONAL RUNOFF BEING CONTRIBUTED TO THE SEDIMENT POND. DAMAGE DOES NOT EXTEND OFF THE PERMIT AREA. SEE ATTACHED LETTER

4. How much damage might have occurred if the violation had not been discovered by an OSM inspector? Describe this potential damage. Would the damage extend off the permit area?

EXCESSIVE EROSION DAMAGE COULD HAVE OCCURRED AND PERHAPS DAMAGE TO THE SEDIMENT POND EMBANKMENT ALSO. DAMAGE WOULD CONTRIBUTE ADDITIONAL SUSPENDED SOLIDS TO STREAMFLOW. A PRECIPITATION EVENT APPROXIMATING THE MAGNITUDE OF A 25 YEAR, 24 HOUR EVENT WOULD CAUSE THE DAMAGE. DAMAGE WOULD NOT EXTENDED OFF THE PERMIT AREA.

(B) Obstruction to Enforcement Violations (answer for obstruction violations only, such as violations concerning recordkeeping, monitoring, plans, and certifications)

5. Describe how violation of this regulation actually obstructed enforcement by OSM and/or the public.

II. Degree of Fault (only one question applies to each violation; first decide which question to answer).

6. If you think this violation was not the fault of the operator (perhaps due to vandalism or an act of God, for example), explain. Remember that the permittee is considered responsible for the actions of all persons working on the minesite.

7. If you think this violation was the result of not knowing about OSM regulations, indifference to OSM regulations, or the result of lack of reasonable care, explain.

*TEMPORARILY
THE UTAH DEPT. OF HEALTH ANNOUNCED THEIR STIPULATION REQUIRING THE OPERATOR TO CONSTRUCT THE DIVERSION. HOWEVER, THE OPERATOR DID NOT RECEIVE A LETTER FROM THE DIVISION FOR THE CONSTRUCTION OF THE DIVERSION. HEALTH'S CONCERN WAS BASED UPON THE PRETREATMENT PLANT NOT BEING BUILT AT THIS TIME. IT IS NOT KNOWN WHETHER THEY CONSIDERED THE SIZE OF THE EMERGENCY SPILLWAY AND THE ADDITIONAL RUNOFF CONTRIBUTED TO THE SED. POND. IN ANY CASE THE OPERATOR IS STILL RESPONSIBLE FOR FOLLOWING HIS PLAN AS APPROVED BY THE DIVISION. I CONTINUED*

8. If the actual or potential environmental harm or harm to the public should have been evident to a careful operator, describe the situation and what, if anything, the operator did to correct it prior to being cited.

9. Was the operator in violation of a specific permit condition? Did the operator receive prior warning of violation by the State or by OSM concerning this violation? If so, give the dates and the type of warning.

III. Good Faith

10. In order to receive good faith for compliance with an NOV or CO, an operator must have taken extraordinary measures to comply as rapidly as possible. The violation must have been abated before the time set for abatement. If you think this applies, describe how rapid the compliance was and what extraordinary measures the operator took.

Sept. 12 1983
Date

David [Signature]
Authorized Representative

2. CONTINUED

SINCE THE EMERGENCY SPILLWAY WAS DESIGNED FOR 45 CFS AND THE DESIGN STORM WOULD PRODUCE 43 CFS, LEAVING A SAFETY MARGIN OF ONLY 2 CFS, THE EMERGENCY SPILLWAY WOULD OBVIOUSLY NOT ACCOMMODATE AN ADDITIONAL 20 CFS. IT WOULD REQUIRE A PRECIPITATION EVENT LARGER THAN A 10 yr, 24 hr. EVENT TO CAUSE THE EVENT OF WATER POLLUTION.

7. CONTINUED

AND FOR ENSURING THAT THE EMERGENCY SPILLWAY COULD SAFELY PASS THE RUNOFF FROM A 25 YEAR, 24 HOUR PRECIP. EVENT (UMC 817.46 (i)). THE OPERATOR SHOULD HAVE REALIZED A POTENTIAL PROBLEM ALSO BECAUSE OF THE EXCESSIVE EROSION AT THE SEDIMENT POND'S INLETS DUE IN PART BY THE ADDITIONAL RUNOFF AND HIGHER RUNOFF VELOCITIES RESULTING FROM INCREASED SLOPE AND SLOPE LENGTH BECAUSE THE DIVERSION WAS NOT BEEN INSTALLED.



Consolidation Coal Company
Western Region
Emery Mine
P. O. Box 527
Emery, Utah 48522

August 16, 1983

Mr. James W. Smith, Jr.
Division of Oil, Gas, and Mining
4241 State Office Building
Salt Lake City, Utah 84114

RE: ACT/015/015
CONSOL-Emery Mine

Dear Mr. Smith:

During the past two months the Emery Mine has been completing a great deal of maintenance work on erosion control in and around our sedimentation control structures. One of the most difficult problems we have encountered is the erosion of the inlets into the #5 sedimentation pond (for the future preparation plant). We have riprapped this structure twice but high rain levels in the control area have caused run off in amounts such that the riprap was washed out. Therefore, we are in the process of designing a new solid structure utilizing culvert and a concrete head wall. When the designs are finished we will submit them for Division approval.

Note that in no case has this erosion problem contributed to the sediment load in any of our streams.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ronald O. Hughes".

Ronald O. Hughes
Mine Engineer

cc: S. Jaccaud - Consol
J. Higgins - Consol
R. Holbrook - Consol
✓ D. Lof - DOGM

INSPECTOR'S STATEMENT

(A) Event Violations (go to (B) if this is an obstruction to enforcement violation)

1. What harmful event was this regulation designed to prevent? (Insert the event listed on the Reference List and remember that the event is not the same as the violation.)

WATER POLLUTION

2. If the event has happened, describe it. If it has not happened, what would cause it to happen and how likely is that? (For example, if there is an area for which no sediment control is provided, has runoff from that area reached a stream? If it hasn't reached a stream, what would cause it to get there and how likely is that to happen?)

THE EVENT HAS OCCURRED SEVERE EROSION HAS OCCURRED ERODING THE STREAM BANKS AND CHANGING THE STREAM CHANNEL SO THAT IT CAN BYPASS THE TWO FOOT PERMANENT FLUME.

3. How much damage has already occurred as a result of the violation? Also, is the damage on the permit area or does it extend off the permit area?

SEE ATTACHED PICTURE

SEVERAL HUNDRED CUBIC YARDS OF MATERIAL HAVE BEEN ERODED AWAY CONTRIBUTING ADDITIONAL SUSPENDED SOLIDS TO QUITEQUIAN CK. DAMAGE DOES EXTEND OFF THE PERMIT AREA.

4. How much damage might have occurred if the violation had not been discovered by an OSM inspector? Describe this potential damage. Would the damage extend off the permit area?

ADDITIONAL EROSION HAS OCCURRED. DAMAGE WOULD HAVE EXTENDED OFF THE PERMIT AREA.

(B) Obstruction to Enforcement Violations (answer for obstruction violations only, such as violations concerning recordkeeping, monitoring, plans, and certifications)

5. Describe how violation of this regulation actually obstructed enforcement by OSM and/or the public.

II. Degree of Fault (only one question applies to each violation; first decide which question to answer).

6. If you think this violation was not the fault of the operator (perhaps due to vandalism or an act of God, for example), explain. Remember that the permittee is considered responsible for the actions of all persons working on the minesite.

7. If you think this violation was the result of not knowing about OSM regulations, indifference to OSM regulations, or the result of lack of reasonable care, explain.

THE FLUME WAS DESIGNED TO HANDLE FLOWS OF 0-33 CFS. SOME DATA FROM AUGUST - DECEMBER 1980 INDICATED FLOWS OVER 33 CFS ~~WERE~~ OCCURRED FIVE TIMES OVER A 5 MONTH PERIOD. THIS WOULD SEEM TO INDICATE THAT EITHER A LARGER FLUME SHOULD HAVE BEEN INSTALLED OR A MORE ADEQUATE MEANS OF SAFELY PASSING OVERFLOW EVENTS.

8. If the actual or potential environmental harm or harm to the public should have been evident to a careful operator, describe the situation and what, if anything, the operator did to correct it prior to being cited.

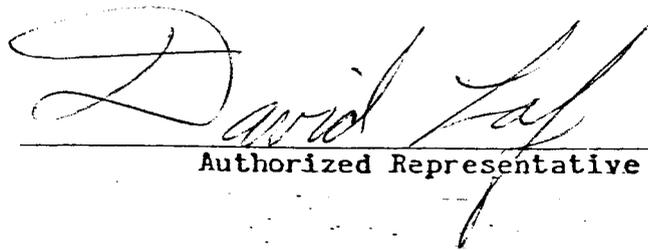
9. Was the operator in violation of a specific permit condition? Did the operator receive prior warning of violation by the State or by OSM concerning this violation? If so, give the dates and the type of warning.

III. Good Faith

10. In order to receive good faith for compliance with an NOV or CO, an operator must have taken extraordinary measures to comply as rapidly as possible. The violation must have been abated before the time set for abatement. If you think this applies, describe how rapid the compliance was and what extraordinary measures the operator took.

SEPT. 13 1993

Date



Authorized Representative

SITE 3

SURFACE WATER MONITORING STATION
 QUITCHUPAH CREEK (DOWNSTREAM)
 AVERAGE DAILY STREAMFLOW

Location: (D-22-6) 33CBA
Drainage area: 117.8 mi²
Gage: Water stage recorder and 2 foot Parshall flume.
 Altitude of gage is approximately 5900 feet
 (7 1/2' topo).

Remarks:

Discharge: Average daily flows reported in cubic feet per
 second (cfs).

<u>Day</u>	<u>Month</u> AUGUST 1980					
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11	YEAR	MONTH	DAY	MINIMUM	MAXIMUM	AVERAGE
12	1980	AUG	12	3.72	4.70	4.24
13	1980	AUG	13	4.70	6.22	5.54
14	1980	AUG	14	4.30	19.55	5.25
15	1980	AUG	15	6.68	20.07	8.46
16	1980	AUG	16	4.70	7.63	6.41
17	1980	AUG	17	4.50	5.99	5.43
18	1980	AUG	18	4.40	6.33	5.33
19	1980	AUG	19	3.44	5.77	4.59
20	1980	AUG	20	3.44	5.88	4.77
21	1980	AUG	21	3.53	5.02	4.33
22	1980	AUG	22	3.81	6.91	5.79
23	1980	AUG	23	5.34	61.06	16.56
24	1980	AUG	24	7.88	15.00	10.27
25	1980	AUG	25	5.34	8.00	6.90
26	1980	AUG	26	5.34	7.88	6.84
27	1980	AUG	27	3.72	6.11	5.62
28	1980	AUG	28	2.90	3.72	3.52
29	1980	AUG	29	2.90	4.30	3.53
30	1980	AUG	30	3.72	6.11	4.86
31	1980	AUG	31	4.10	5.55	5.12

Total
 Max.
 Min.
 Ac-Ft.

SITE 3

SURFACE WATER MONITORING STATION
 QUITCHUPAH CREEK (DOWNSTREAM)
 AVERAGE DAILY STREAMFLOW

Location: (D-22-6) 33CBA
Drainage area: 117.8 mi²
Gage: Water stage recorder and 2 foot Parshall flume.
 Altitude of gage is approximately 5900 feet
 (7 1/2' topo).

Remarks:

Discharge: Average daily flows reported in cubic feet per second (cfs).

SEPTEMBER 1980

Day				Month		
				MIN	MAX	AUG
1	1980	SEP	1	4.81	5.66	5.40
2	1980	SEP	2	4.81	8.00	6.76
3	1980	SEP	3	3.44	5.77	4.46
4	1980	SEP	4	3.44	6.69	5.37
5	1980	SEP	5	4.01	4.91	4.52
6	1980	SEP	6	4.20	6.56	5.25
7	1980	SEP	7	6.11	25.45	12.55
8	1980	SEP	8	11.45	73.16	29.64
9	1980	SEP	9	14.23	51.39	21.24
10	1980	SEP	10			
11	1980	SEP	11			
12	1980	SEP	12			
13	1980	SEP	13			
14	1980	SEP	14			
15	1980	SEP	15			
16	1980	SEP	16			
17	1980	SEP	17			
18	1980	SEP	18			
19	1980	SEP	19			
20	1980	SEP	20			
21	1980	SEP	21			
22	1980	SEP	22			
23	1980	SEP	23			
24	1980	SEP	24			
25	1980	SEP	25			
26	1980	SEP	26			
27	1980	SEP	27			
28	1980	SEP	28			
29	1980	SEP	29			
30	1980	SEP	30			
31						

FLUME DAMAGED
 BY FLOOD EVENT

SEPT 18 INSTANTANEOUS
 FLOW ~~REASON~~ ESTIMATE
 OF 12.9 cfs

Total
 Max.
 Min.
 Ac-Ft.

SITE 3

SURFACE WATER MONITORING STATION
 QUITCHUPAH CREEK (DOWNSTREAM)
 AVERAGE DAILY STREAMFLOW

Location: (D-22-6) 33CBA
Drainage area: 117.8 mi²
Gage: Water stage recorder and 2 foot Parshall flume.
 Altitude of gage is approximately 5900 feet
 (7 1/2' topo).

Remarks:

Discharge: Average daily flows reported in cubic feet per
 second (cfs).

<u>Day</u>				<u>Month</u>	OCTOBER 1980		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10					MIN	MAX	AUG
11	1980	OCT	11		6.33	6.80	6.61
12	1980	OCT	12		6.22	19.72	10.34
13	1980	OCT	13		12.16	17.55	13.76
14	1980	OCT	14		10.34	55.03	14.78
15	1980	OCT	15		10.61	17.71	12.90
16	1980	OCT	16		11.73	13.03	12.47
17	1980	OCT	17		10.07	12.59	11.88
18	1980	OCT	18		9.67	12.30	11.04
19	1980	OCT	19		10.48	13.03	11.68
20	1980	OCT	20		11.31	14.54	13.06
21	1980	OCT	21		11.45	13.63	12.95
22	1980	OCT	22		11.45	14.08	13.53
23	1980	OCT	23		10.61	14.69	13.31
24	1980	OCT	24		10.20	12.01	10.93
25	1980	OCT	25		9.14	12.59	11.34
26	1980	OCT	26		10.89	15.00	13.01
27	1980	OCT	27		11.31	13.63	12.91
28	1980	OCT	28		9.54	12.30	10.79
29	1980	OCT	29		9.01	11.03	9.69
30	1980	OCT	30		10.75	14.38	12.20
31	1980	OCT	31		12.01	14.38	12.95

FLUME DAMAGED

Total
 Max.
 Min.
 Ac-Ft.

SITE 3

SURFACE WATER MONITORING STATION
 QUITCHUPAH CREEK (DOWNSTREAM)
 AVERAGE DAILY STREAMFLOW

Location: (D-22-6) 33CBA
Drainage area: 117.8 mi²
Gage: Water stage recorder and 2 foot Parshall flume.
 Altitude of gage is approximately 5900 feet
 (7 1/2' topo).

Remarks:

Discharge: Average daily flows reported in cubic feet per
 second (cfs).

NOVEMBER 1980

Day	Month			MIN	MAX	AUG
	Year	Month	Day			
1	1980	NOV	1	13.03	14.84	14.37
2	1980	NOV	2	14.38	14.54	14.44
3	1980	NOV	3	14.08	14.38	14.27
4	1980	NOV	4	13.93	14.08	14.08
5	1980	NOV	5	13.78	13.93	13.86
6	1980	NOV	6	13.33	13.78	13.54
7	1980	NOV	7	12.88	13.33	13.09
8	1980	NOV	8	12.45	12.88	12.63
9	1980	NOV	9	11.59	12.45	12.03
10	1980	NOV	10	11.31	11.59	11.37
11	1980	NOV	11	11.03	11.31	11.13
12	1980	NOV	12	10.89	11.03	10.94
13	1980	NOV	13	10.61	10.89	10.74
14	1980	NOV	14	10.34	10.61	10.53
15	1980	NOV	15	1.57	10.34	6.28
16	1980	NOV	16	0.99	7.88	3.89
17	1980	NOV	17	2.01	15.15	7.24
18	1980	NOV	18	2.48	8.99	5.29
19	1980	NOV	19	3.81	5.99	4.43
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30						
31						

RECORDER MALFUNCTION

Total
 Max.
 Min.
 Ac-Ft.

SITE 3

SURFACE WATER MONITORING STATION
 QUITCHUPAH CREEK (DOWNSTREAM)
 AVERAGE DAILY STREAMFLOW

Location: (D-22-6) 33CBA
Drainage area: 117.8 mi²
Gage: Water stage recorder and 2 foot Parshall flume.
 Altitude of gage is approximately 5900 feet
 (7 1/2' topo).

Remarks:

Discharge: Average daily flows reported in cubic feet per second (cfs).

DECEMBER 1980

Day

Month

Day	YEAR	MONTH	DAY	MINIMUM	MAXIMUM	AVERAGE
1						
2						
3						
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9						
10	1980	DEC	11	15.62	19.21	17.10
11	1980	DEC	12	15.47	24.52	19.11
12	1980	DEC	13	22.88	22.88	22.88
13	1980	DEC	14	22.88	22.88	22.88
14	1980	DEC	15	21.64	23.24	22.99
15	1980	DEC	16	23.24	46.21	33.07
16	1980	DEC	17	39.03	39.03	39.03
17	1980	DEC	18	39.03	39.03	39.03
18	1980	DEC	19	39.03	39.03	39.03
19	1980	DEC	20	39.03	39.03	39.03
20	1980	DEC	21	39.03	39.03	39.03
21	1980	DEC	22	34.76	39.03	38.99
22	1980	DEC	23	39.03	39.03	39.03
23	1980	DEC	24	39.03	39.03	39.03
24	1980	DEC	25	39.03	39.03	39.03
25	1980	DEC	26	36.87	39.03	39.01
26	1980	DEC	27	34.76	39.03	38.99
27	1980	DEC	28	36.87	39.03	39.01
28	1980	DEC	29	39.03	39.03	39.03
29	1980	DEC	30	34.76	39.03	38.99
30	1980	DEC	31	36.87	39.03	39.01
31	1980	DEC	31	39.03	39.03	39.03

RECORDER MALFUNCTION

Total
 Max.
 Min.
 Ac-Ft.

SITE 3

SURFACE WATER MONITORING STATION
 QUITCHUPAH CREEK (DOWNSTREAM)
 AVERAGE DAILY STREAMFLOW

Location: (D-22-6) 33CBA
Drainage area: 117.8 mi²
Gage: Water stage recorder and 2 foot Parshall flume.
 Altitude of gage is approximately 5900 feet
 (7 1/2' topo).

Remarks: Frozen stilling well - entire month

Discharge: Average daily flows reported in cubic feet per second (cfs).

JANUARY 1981

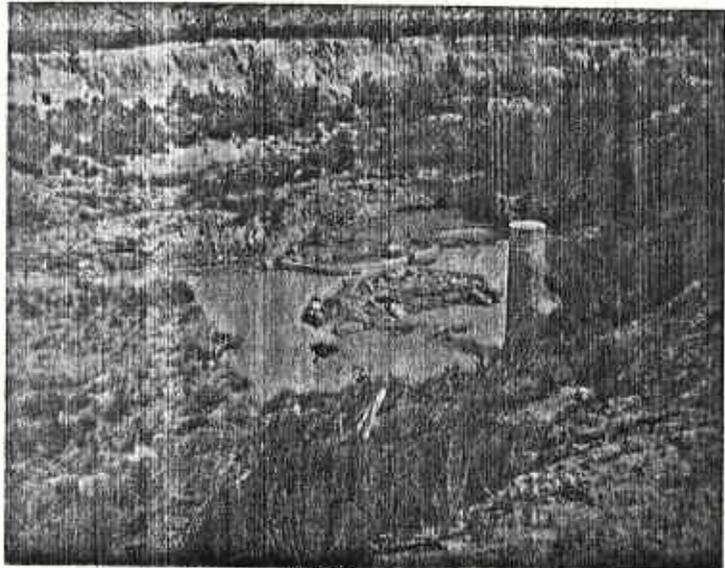
Day				MIN	MAX	AUG
1	1981	JAN	1	39.03	39.03	39.03
2	1981	JAN	2	39.03	39.03	39.03
3	1981	JAN	3	39.03	39.03	39.03
4	1981	JAN	4	39.03	39.03	39.03
5	1981	JAN	5	39.03	39.03	39.03
6	1981	JAN	6	39.03	39.03	39.03
7	1981	JAN	7	39.03	39.03	39.03
8	1981	JAN	8	39.03	39.03	39.03
9						
10						
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FROZEN

Total
 Max.
 Min.
 Ac-Ft.

EMERY DEED MINE 6/29/83 FLOWING SITE BELOW



NOV 83-4-11-2, 2062

CONFLUENCE OF CHRISTIANSEN WASH & BUTCHMAN CREEK

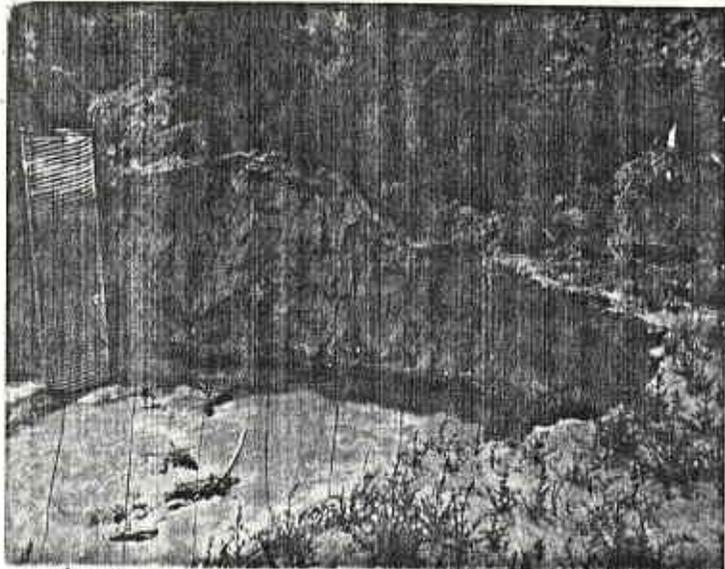
EMERY DEED MINE 6/29/83 FLOWING SITE BELOW



NOV 83-4-11-2, 2062

CHRISTIANSEN WASH - BUTCHMAN CR. CONFLUENCE. LARGE STANDING ROCK, SCULPTING BANK STATED ABOUT APPROXIMATELY 10 FEET DEEP

EMERY DEED MINE 6/29/83 FLOWING SITE BELOW CHRISTIANSEN



NOV 83-4-11-2, 2062

WASH - BUTCHMAN CR. CONFLUENCE. NOTE: THIS ENTIRE AREA HAS BEEN FLOODED SINCE FROM THE BOTTOM OF THE MINE - TOP OF BANK