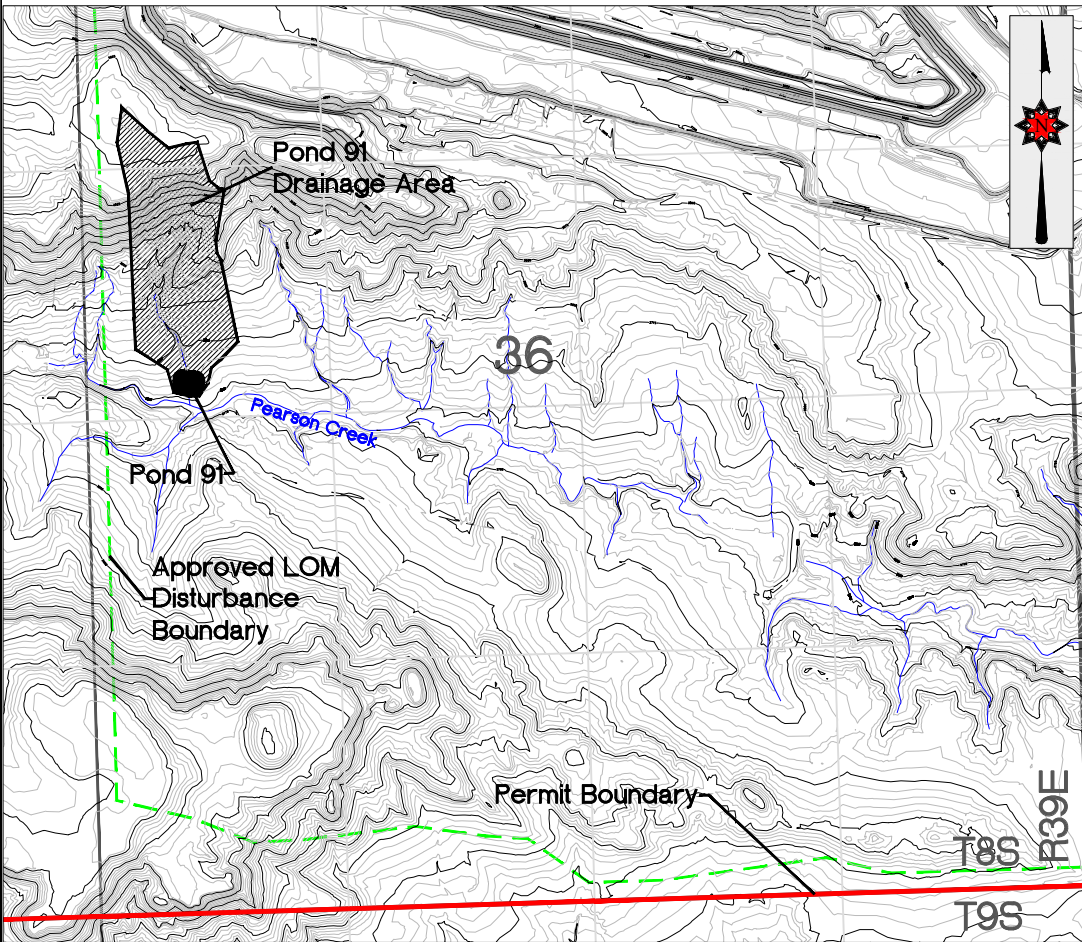
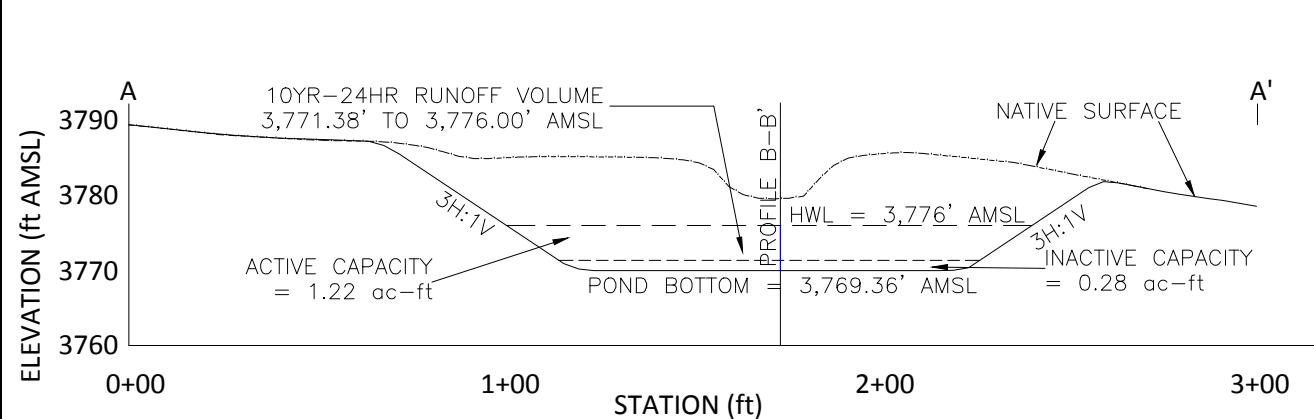




LOCATION MAP

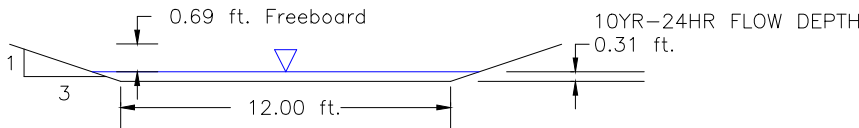
SCALE: 1" = 1,000', C.I. = 5'

POND IS LOCATED PRIMARILY IN SWNW OF SECTION 36, T8S, R39E.



POND PROFILE A-A'

SCALE: H: 1" = 50', V: 1" = 25'

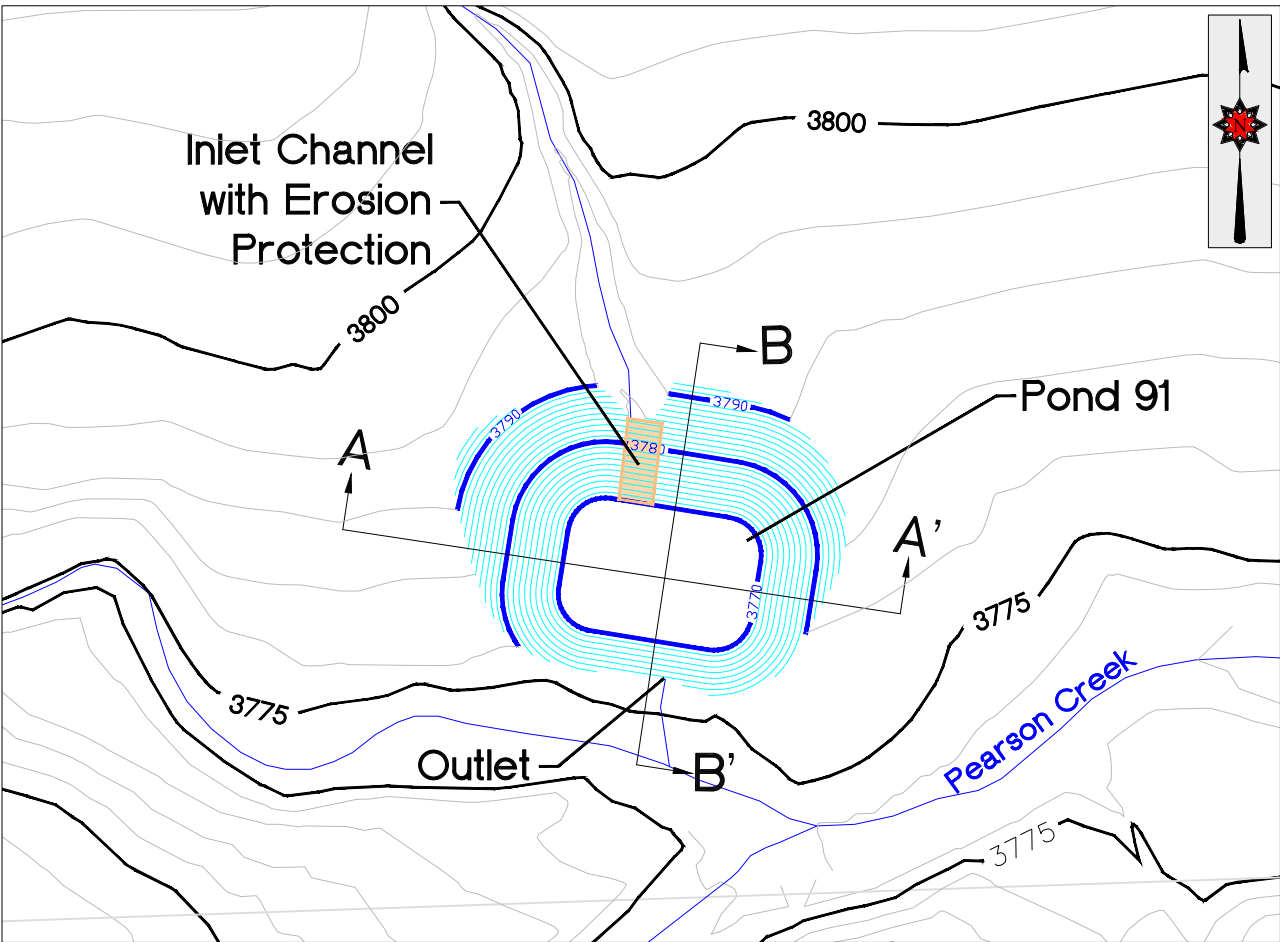


Trapezoidal Channel
Equal Side Slopes

Channel Lining: NAG Erosion Control Blanket P300 or Equivalent

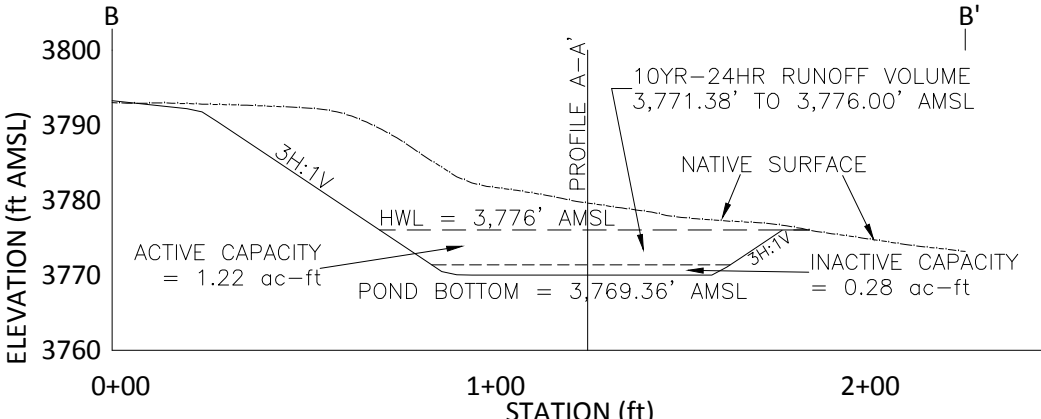
INLET CHANNEL AND EROSION PROTECTION

SCALE: AS SHOWN



PLAN MAP

SCALE: 1" = 100', POND C.I. = 1', OUTER C.I. = 5'



POND PROFILE B-B'

SCALE: H: 1" = 50', V: 1" = 25'

INLET CHANNEL HYDRAULICS

CHANNEL TYPE	=	TRAPEZOIDAL, EQUAL SIDE SLOPES	RETARDANCE CLASS	=	C
BOTTOM WIDTH	=	12 ft	VEGETATION TYPE	=	BUNCH TYPE
SIDE SLOPES	=	3H:1V	VEGETATION DENSITY	=	FAIR (50-75%)
MAXIMUM SLOPE	=	33% (POND FACE SLOPE)	SOIL TYPE	=	SILT LOAM
10YR-24HR PEAK FLOW	=	22.08 cfs	VELOCITY	=	5.5 ft/s
CHANNEL LINING	=	N.A.G. P300 EROSION CONTROL BLANKET (PERMANENT) WITH VEGETATION	NORMAL DEPTH	=	0.31 ft
			MANNING'S N	=	0.068
			PERMISSIBLE SHEAR STRESS	=	8 lbs/ft ²
			CALCULATED SHEAR STRESS	=	6.4 lbs/ft ²

AREA-ELEVATION-CAPACITY TABLE				
ELEVATION (FT AMSL)	AREA (ACRES)	INCREMENTAL CAPACITY (ACRE-FEET)	CUMULATIVE CAPACITY (ACRE-FEET)	USE
3,769.36	0.0		0.0	INACTIVE CAPACITY VOLUME = 0.28 AC-FT.
3,770.36	0.2	0.1	0.1	
3,771.36	0.2	0.2	0.3	
3,771.38	0.2	0.0	0.3	ACTIVE CAPACITY VOLUME = 1.22 AC-FT.
3,772.36	0.2	0.2	0.5	
3,773.36	0.2	0.2	0.7	
3,774.36	0.3	0.3	1.0	
3,775.36	0.3	0.3	1.3	
3,776.00	0.3	0.2	1.5	10-YEAR / 24-HOUR RUNOFF VOLUME = 1.22 AC-FT.
HIGH WATER LINE = 3,776.00 FT. AMSL. TOTAL CAPACITY = 1.5 AC-FT.				

POND 91 DRAINAGE AREA DATA

TOTAL DRAINAGE AREA	=	13.9 acres
LONGEST WATERCOURSE	=	1,575 ft
AVERAGE LAND SLOPE	=	28.59%
CURVE NUMBER	=	87 (Disturbed Mine Land)
SOILS	=	Hydrologic Soils Group C
TIME OF CONCENTRATION	=	0.112 Hours

RUNOFF ESTIMATE TO POND 91

RAINFALL DISTRIBUTION	=	SCS TYPE II
PRECIPITATION (10YR-24HR)	=	2.19 in
PEAK Q (10YR-24HR)	=	22.08 cfs
VOLUME (10YR-24HR)	=	1.22 ac-ft
DESIGN METHOD	=	SCS RUNOFF CURVE NUMBER METHOD AND SCS GRAPHICAL PEAK DISCHARGE METHOD (NRCS TR-55 METHOD)

POND 91 DESIGN CAPACITY

SEDIMENT CAPACITY (0.02 ac-ft per acre)	=	0.28 ac-ft
10YR-24HR RUNOFF VOLUME	=	1.22 ac-ft
TOTAL DESIGN CAPACITY	=	1.5 ac-ft

CERTIFICATE OF ENGINEER

I, Eric M. Detmer, hereby certify that this map and drawings were prepared by myself or under my direct supervision and that they correctly represent the facilities and conditions described in the accompanying application.



ERIC M. DETMER, P.E. No. 11396

		SPRING CREEK MINE P.O. BOX 67, DECKER, MT 59025 PHONE: (406) 757-2581	
DATE	REVISION	Sediment Control Pond 91 Design	
BY			
DESIGN	EMD	DRAWN	EMD
SCALE	As Shown	CONTOUR INTERVAL	As Shown
DATE	11/17	SHEET	1 OF 1
FILE NUMBER	MR236\Pond 91.dwg		