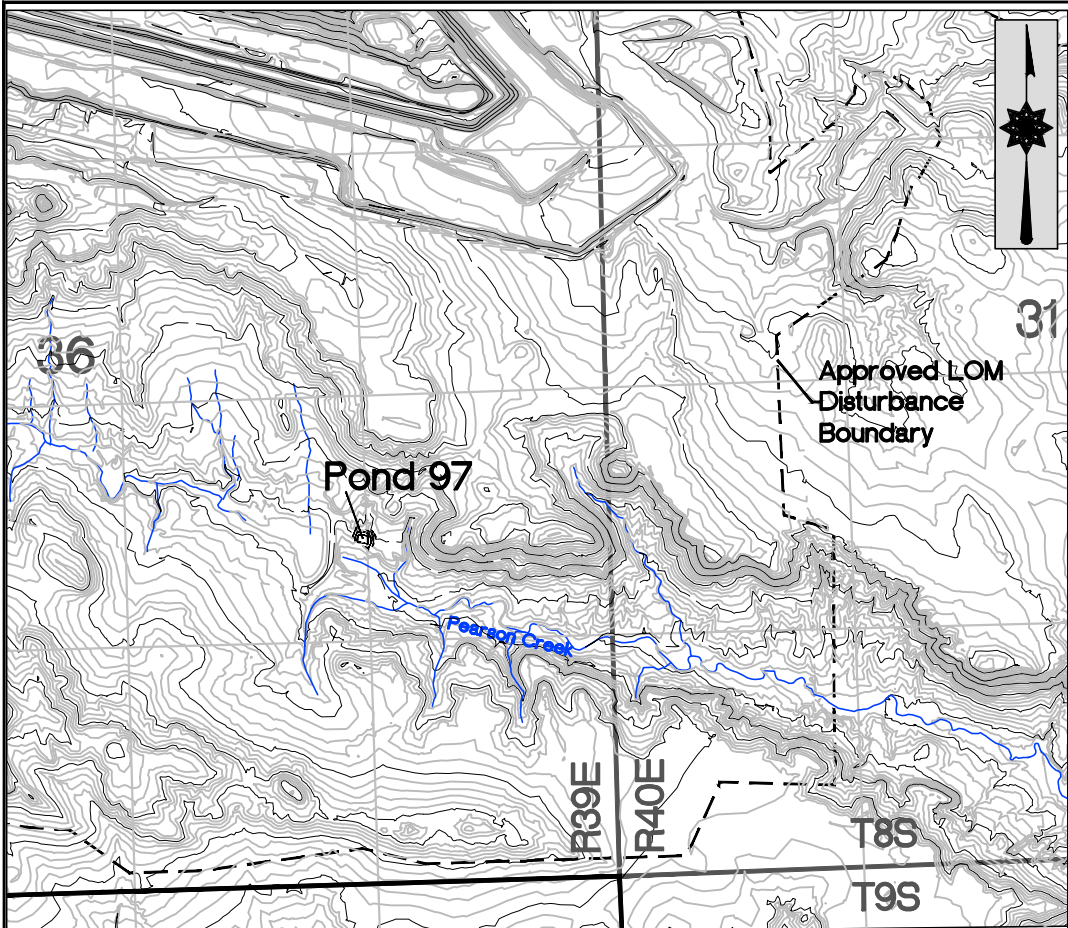
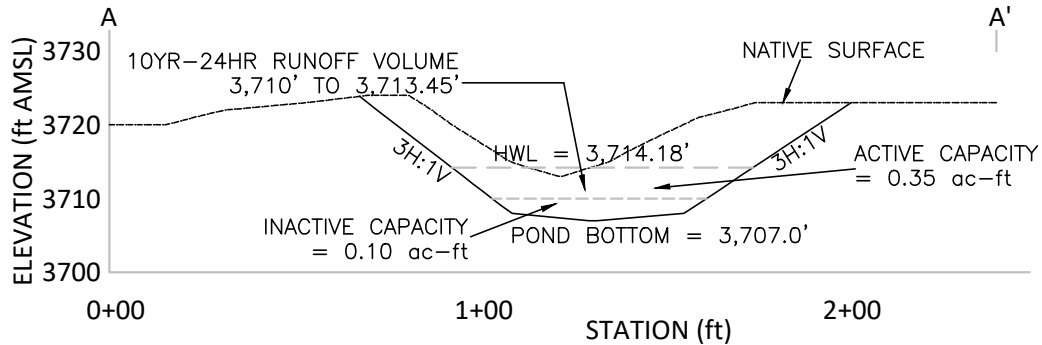




LOCATION MAP

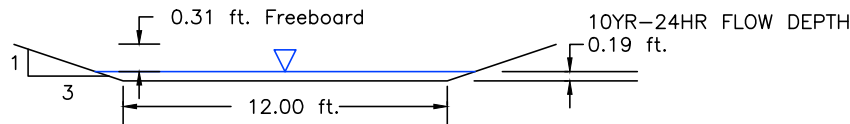
SCALE: 1" = 1,000', C.I. = 5'

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



POND PROFILE A-A'

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

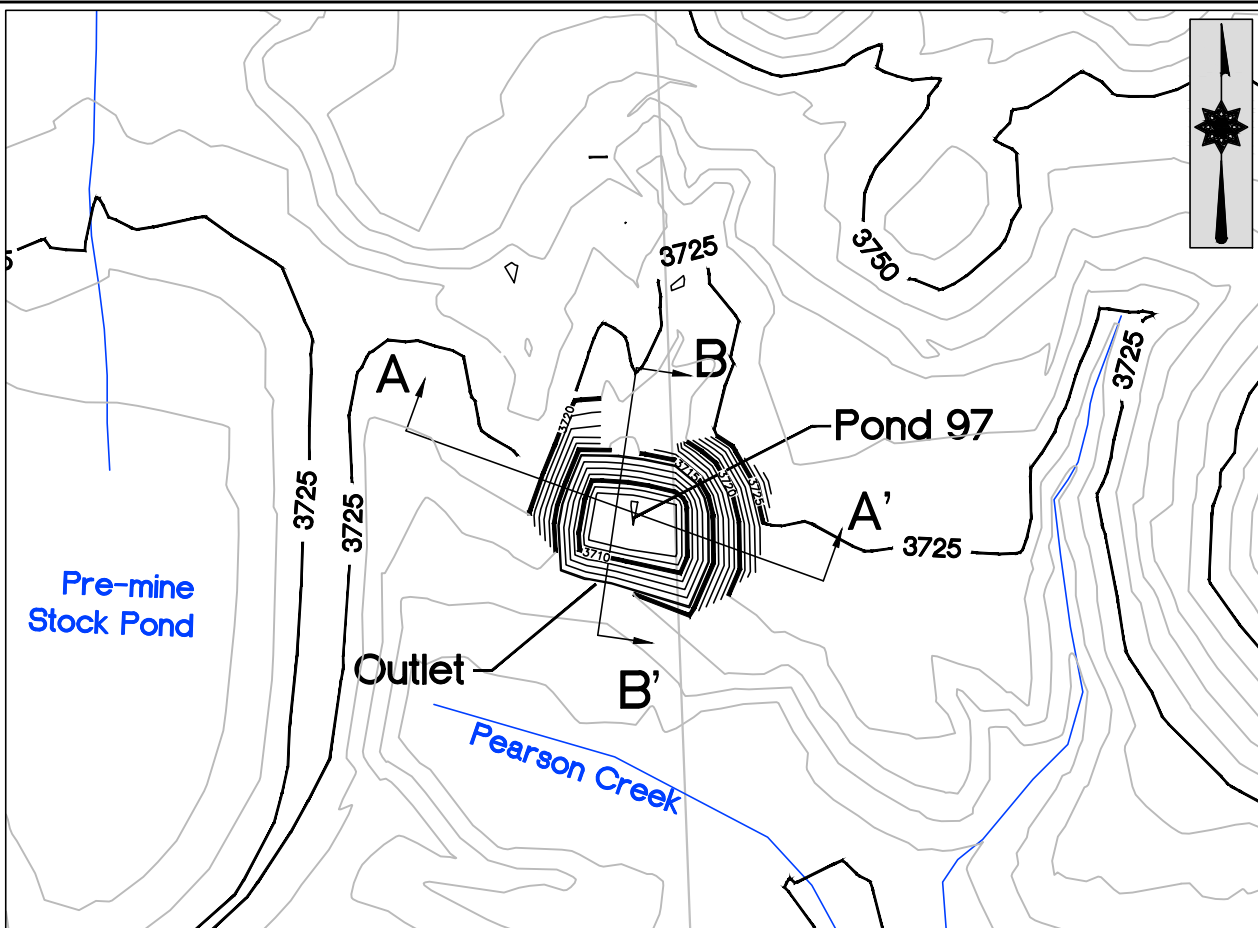


Trapezoidal Channel
Equal Side Slopes

Channel Lining: NAG Erosion Control Blanket P300 or Equivalent

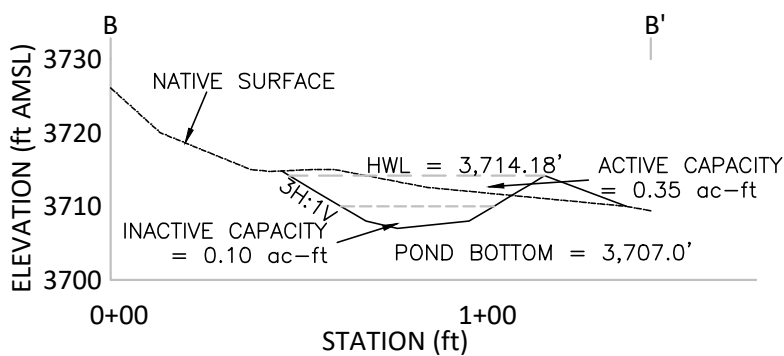
INLET CHANNEL AND EROSION PROTECTION

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
BOTTOM WIDTH = 12 ft
SIDE SLOPES = 3H:1V
MAXIMUM SLOPE = 33% (POND FACE SLOPE)
10YR-24HR PEAK FLOW = 5.07 cfs
CHANNEL LINING = N.A.G. P300 EROSION CONTROL BLANKET (PERMANENT) WITH VEGETATION

RETARDANCE CLASS = C
VEGETATION TYPE = BUNCH TYPE
VEGETATION DENSITY = FAIR (50-75%)
SOIL TYPE = SILT LOAM
VELOCITY = 2.1 ft/s
NORMAL DEPTH = 0.19 ft
MANNING'S N = 0.131
PERMISSIBLE SHEAR STRESS = 8 lbs/ft²
CALCULATED SHEAR STRESS = 3.96 lbs/ft²

AREA-ELEVATION-CAPACITY TABLE				
ELEVATION (FT AMSL)	AREA (ACRES)	INCREMENTAL CAPACITY (ACRE-FEET)	CUMULATIVE CAPACITY (ACRE-FEET)	USE
3,707.00	0.00		0.00	INACTIVE CAPACITY VOLUME = 0.10 AC-FT.
3,708.00	0.03	0.01	0.01	
		0.04		
3,709.00	0.04		0.05	sediment storage
		0.05		
3,710.00	0.05		0.10	
		0.06		
3,711.00	0.07		0.16	ACTIVE CAPACITY VOLUME = 0.35 AC-FT.
		0.07		
3,712.00	0.08		0.23	
		0.09		
3,713.00	0.10		0.32	
		0.11		10-YEAR / 24-HOUR RUNOFF VOLUME = 0.27 AC-FT.
3,714.00	0.12		0.43	
		0.02		
3,714.18	0.12		0.45	
HIGH WATER LINE = 3,714.18 FT. AMSL, TOTAL CAPACITY = 0.45 AC-FT.				

POND 97 DRAINAGE AREA DATA

TOTAL DRAINAGE AREA = 3.1 acres
LONGEST WATERCOURSE = 715 ft
AVERAGE LAND SLOPE = 24.34%
CURVE NUMBER = 87 (Disturbed Mine Land)
SOILS = Hydrologic Soils Group C
TIME OF CONCENTRATION = 0.065 Hours

RUNOFF ESTIMATE TO POND 97

RAINFALL DISTRIBUTION = SCS TYPE II
PRECIPITATION (10YR-24HR) = 2.19 in
PEAK Q (10YR-24HR) = 5.07 cfs
VOLUME (10YR-24HR) = 0.27 ac-ft
DESIGN METHOD = SCS RUNOFF CURVE NUMBER METHOD AND SCS GRAPHICAL PEAK DISCHARGE METHOD (NRCS TR-55 METHOD)

POND 97 DESIGN CAPACITY

SEDIMENT CAPACITY (0.02 ac-ft per acre) = 0.06 ac-ft
10YR-24HR RUNOFF VOLUME = 0.27 ac-ft
TOTAL DESIGN CAPACITY (MINIMUM) = 0.33 ac-ft

CERTIFICATE OF ENGINEER

I, Owen Lindblom, hereby certify that this map and drawing was prepared by myself or under my direct supervision and that they correctly represent the facilities and conditions described in the accompanying application.



OWEN D. LINDBLOM, P.E. No. 36748PE



DATE		REVISION	
4/30/20	BY	As-Built Conditions	
ODL			
DESIGN		EMD	DRAWN
SCALE		As Shown	CONTOUR INTERVAL
As Shown		As Shown	FILE NUMBER
AppKb_Pond_97_MR255_20200430.dwg		SHEET 1 OF 1	



SPRING CREEK MINE
P.O. BOX 67, DECKER, MT 59025
PHONE: (406) 757-2581

**Sediment Control
Pond 97 Design**

As-Built