

TAT MOMOLIKOT DAM AND LAKE SAINT CLAIR

ARIZONA

PERTINENT DATA

Drainage Basin.....	Santa Rosa Wash	
Drainage area.....sq. mi.		1,780
Reservoir:		
Elevation		
Conservation pool.....ft., m.s.l.		1,509
Flood control pool (spillway crest).....ft., m.s.l.		1,539
Spillway design surcharge level.....ft., m.s.l.		1,551.2
Area *		
Top of conservation pool.....ac.		2,050
Spillway crest.....ac.		11,790
Top of saddle dikes.....ac.		17,495
Capacity (Gross) *		
Allowance of sediment.....ac.-ft.		40,000
Conservation Pool.....ac.-ft.		19,560
Spillway crest.....ac.-ft.		198,545
Spillway design surcharge level.....ac.-ft.		373,220
Top of saddle dikes.....ac.-ft.		402,420
Main Dam:		
Type.....	earthfill	
Top elevation.....ft., m.s.l.		1,557.5
Maximum height above original streambed.....ft.		75.5
Top length.....ft.		12,440
Top width.....ft.		20
Freeboard.....ft.		6.3
Saddle Dikes:		
Type.....	earthfill	
Top elevation.....ft., m.s.l.		1,552.9
Maximum height above ground		
East dike.....ft.		5.5
West dike.....ft.		4.5
Top length		
East dike.....ft.		1,440
West dike.....ft.		1,195
Top Width.....ft.		12
Freeboard.....ft.		1.7
Spillway (Ungated)		
Type.....	broadcrested	
Control section.....	trapezoid	
Crest length.....ft.		1,000
Crest elevation.....ft., m.s.l.		1,539
Design surcharge.....ft.		12.2
Discharge (Reservoir at design surcharge level).....c.f.s.		134,240
Conservation Outlet Works (gated)		
Inlet portal (invert elevation).....ft., m.s.l.		1,485
Exit portal (invert elevation).....ft., m.s.l.		1,483.85
Conduit length.....ft.		448
Conduit diameter.....ft.		5
Gate size (rectangular).....inches		60WX42H
Discharge (gate fully opened and reservoir at El. 1509).....c.f.s.		200
Flood control outlet works (ungated)		
No flashboards.....ft., m.s.l.		1,509
With all flashboards.....ft., m.s.l.		1,515
Inlet portal (invert elevation).....ft., m.s.l.		1,509
Exit portal (invert elevation).....ft., m.s.l.		1,509
Conduit length.....ft.		79.12
Conduit dimensions.....ft.		13MX12H
Discharge (reservoir at spillway crest).....c.f.s.		4,960
Reservoir design flood		
Duration (inflow).....days.		5
Total volume.....ac.-ft.		178,000
Inflow peak.....c.f.s.		77,000
Outflow peak.....c.f.s.		4,960
Reduction in peak.....c.f.s.		72,170
Spillway design flood		
Duration (inflow).....days.		5
Total volume.....ac.-ft.		455,000
Inflow peak.....c.f.s.		280,000
Outflow peak.....c.f.s.		140,600
Reduction in peak.....c.f.s.		139,400

\*Based on surveys of 1968 & 1975.