

Printing Input Parameters.....

parameters	unit	values
Basin Area	sq mile	5.0
Avg_GL	feet-PWD	3.5
Highest Water Level ,RS	feet-PWD	10.5
Lowest Water Level,RS	feet-PWD	-6.5
Moonsoon Lowest Water Level	feet-PWD	-5.4
Embankment Crest Level	feet-PWD	13.0
Embankment Top Width	feet-PWD	14.0
C/S Slope (1:N)	nan	2.0
R/S Slope	nan	3.0
Invert Level	feet-PWD	-5.0
Discharge/sq mile	cfs/sqmile	27.702
No Vent	nan	1.0
Vent Width	feet	5.0
Vent Height	feet	6.0
Pier_width	inch	15.0
Abutment_width	inch	18.0
flare_Angle_min	degree	12.0
flare_Angle_max	degree	13.0
glacis_drop_min	feet	1.0
glacis_drop_max	feet	2.0
Barrel Length	feet	24.0
cutoff_depth_min	min	6.0

cutoff_depth_max	max	19.68
Laycey's Silt Factor	nan	0.4
maximum head difference	feet	6.0
Allowable Exit Gradient	nan	0.143
minimum_floor_thickness	feet	1.5
Top_slab_thickness	inch	12.0
unit weight of fill soil	pcf	120.0
friction Angle of fill soil	degree	30.0
surchrge height	feet	6.0

Printing Stilling Basin Calculation in FPS unit.....

Q	FAngle	g_drop	Bc	q	dc	vc	B1	q1	d1	v1	B2	q2	d2	v2	Fr1	LJ	Eff	Del_E	Del_E(%)
369.06	12.0	1.0	5.0	73.812	5.531	13.345	6.275	58.811	2.897	20.301	19.143	19.279	7.284	2.647	2.102	30.269	89.2	1.0	10.8
369.06	12.0	2.0	5.0	73.812	5.531	13.345	7.551	48.877	2.132	22.931	22.845	16.155	7.346	2.199	2.768	35.977	78.0	2.263	22.0
369.06	13.0	1.0	5.0	73.812	5.531	13.345	6.385	57.799	2.833	20.402	20.484	18.017	7.258	2.482	2.136	30.534	88.7	1.054	11.3
369.06	13.0	2.0	5.0	73.812	5.531	13.345	7.77	47.495	2.063	23.027	24.377	15.139	7.275	2.081	2.826	35.966	77.1	2.36	22.9

Printing Stilling Basin Calcualtion in MKS unit.....

Q	FAngle	g_drop	Bc	q	dc	vc	B1	q1	d1	v1	B2	q2	d2	v2	Fr1	LJ	Eff	Del_E	Del_E(%)
10.45	12.0	0.3	1.52	6.86	1.69	4.07	1.91	5.47	0.88	6.19	5.84	1.79	2.22	0.81	2.102	10.0	89.2	0.3	10.8
10.45	12.0	0.61	1.52	6.86	1.69	4.07	2.3	4.54	0.65	6.99	6.96	1.5	2.24	0.67	2.768	11.0	78.0	0.69	22.0
10.45	13.0	0.3	1.52	6.86	1.69	4.07	1.95	5.37	0.86	6.22	6.25	1.67	2.21	0.76	2.136	10.0	88.7	0.32	11.3
10.45	13.0	0.61	1.52	6.86	1.69	4.07	2.37	4.41	0.63	7.02	7.43	1.41	2.22	0.63	2.826	11.0	77.1	0.72	22.9

Printing Basin Selection Data.....

Parmeter Name	Unit	Values
Discharge/ft	cfs/ft	73.812
Flare Angle	Degree	12.0
Glasis_Drop	Feet	1.0
Exit Velocity	Feet/sec	2.65
Fr1		2.1
Jump_Length	Feet	30.27
Energy Loss(%)	%	10.8
Floor Length	Feet	100.0
Point_1	Feet	0.0
Point_2	Feet	38.0
Point_3	Feet	62.0
Point_4	Feet	100.0

Printing Seepage Calculation Data.....

locations	uncorrected	mc_corr	t_corr	corrected
Phi_E	38.53	-2.945604366476937	0.93	40.55
Phi_C1	61.47	2.945604366476937	0.93	65.34

Printing thickness calcualtion data.....

location	p(%)	p(feet)	th_min(feet)
1.0	65.34	3.92	0.0
2.0	55.92	3.36	0.0
3.0	49.97	3.0	2.14
4.0	40.55	2.43	1.74

Printing Input Data for Load Calculations.....

Parameter Name	Unit	Parameter Value	Detail Name
VW	feet	5.0	Vent Inner Span/width
VH	feet	6.0	Vent Height
NV	nos	1.0	No of Vents
Tt	inch	12.0	Top Slab thicjness
Ts	inch	18.0	Abutmet Thicknes
Tb	inch	26.0	Bottom Slab Thicknes
Tp	inch	15.0	Pier Thicknes
gamma_s	pcf	120.0	Soil Fill Unit Wieght
phi	degree	30.0	friction angle of back fill soil
H	feet	6.0	Height of srcharge above pier
MPF	unitless	1.2	Multiple Presnce Factor
IM	unitless	1.3	Impact factor for Dynamic Loading
INVERT_LEVEL	ft-pwd	-5.0	Invert Level of Regulator
EMBANKMENT_CREST_LEVEL	ft-pwd	13.0	Emnakment Crest Level
h_prime	ft	3.0	Additional Surcharge load above Embankemt

Printing Barrel Load.....

Notations	LoadName	LoadUnits	LoadType	Load_Value_Maximum	Load_Value_Minimum
TSL	Load on Top Slab	klf	UDL	-1.529	-1.529
BSL	Load on Bottom Slab	klf	UDL	1.867	1.867
SWL+	Load on Left Side Wall	klf	Trapizoidal	0.9	1.355
SWL(-)	Load on Right Side Wall	klf	Trapizoidal	-0.9	-1.355

Wrtitng Node Info.....

JointNo	Marker	Xcoordiante	Ycoordinate	R_x	R_y	R_rotation
1	A	0.0	0.0	1	1	0
2	B	76.5	0.0	1	1	0
3	C	0.0	90.84	1	1	0
4	D	76.5	90.84	1	1	0

Writing Member Info.....

MemberNo	joint_i	joint_k	Area	I	E
1.0	1.0	2.0	144.0	1728.0	3122.0
2.0	3.0	4.0	308.15999999999997	16934.994432	3122.0
3.0	1.0	3.0	1.5	5832.0	3122.0
4.0	2.0	4.0	1.5	5832.0	3122.0

Writing Member Load Info.....

load_value	application_point	Type	memberNo	w2
-0.12741666666666665	0.0	3.0	1.0	-0.12741666666666665
0.15558333333333332	0.0	3.0	2.0	0.15558333333333332
0.075	0.0	7.0	3.0	0.11291666666666667
-0.075	0.0	7.0	4.0	-0.11291666666666667

Wrting Joint Load Info.....

JointNo	xvalue	yvalue	mvalue
0	0	0	0









