

DAVIS CO MUDFLOWS

Stream	Location	Slope	Depth	Width	Area	R	Size	Notes	
<u>Steed</u> section	Above Fan 750' from canyon	10-12%	8'*	+		$5\frac{1}{2}$ $R\frac{2}{3}$	3.16-3.46 $\times 4.0 = \frac{12.6}{13.8}$	61-67 tons settled	U.S.F.S.
	1250' " "	10	"				3.16 4.0 = 12.6	50 " settled	
	1800' " "	7-9	6'*				2.65-3.0 3.30 = $\frac{10.0}{8.8}$	7 " "	
	2800' " "	5	4'*				2.24 2.5 = 5.5	5-6 " "	Highway (road)
<u>Davis</u>	Above Fan 1150' " "	8-12	8'*	67			2.83-3.46 $\times 4.0 = \frac{11.3}{13.8}$	106 tons settled	
	1600' " "	5	"				2.23 " = 8.9	52 " "	
	2000' " "	5	"				" " = 8.9	6 " " school	
	3200' " "	3	4'*	400			1.73 2.52 = 4.4	2 rocks*	Highway
	4000' " "	1	4'*	1000			1.0 1.0 = 1.0	sand*	Railroad
<u>Kay</u>	Above Fan 350' " "	10	5' x	50'	250		3.16 4.2 $\frac{2.61}{4.2}$	35 tons settled	
	1550' " "	8	3' x	"	150		2.83 2.7 $\frac{1.44}{2.7}$	4-7 " "	
Sample									
<u>Parrish</u>	Above Fan 1000' " "	$9\frac{1}{2}\%$	8'*	300'			3.06 4.0 = 12.3	85 tons settled	(wooley)
	3400' " "	$5\frac{1}{2}$ - $7\frac{1}{2}$ $3\frac{1}{2}$	6'*				2.23 3.30 = 7.4	40 tons	locate more box fans
<u>Farmington</u>	Highway Railroad		4'*				1.87 2.5 = 4.7	$3\frac{1}{4}$ "	
	Melley Cr.	$38\frac{1}{2}\%$	12	20			6.2 5.25 = 3.2	6 tons	(Craft) R top map.
	1923 Main Cr.	$4\frac{1}{2}$ - 12	1-4				2 2.5 = 5.0	$\frac{1}{2}$ ton in horses	(Pack)
	check gradient 1923	7-12	5*				2.65 3.97 2.6 = $\frac{6.9}{9.0}$	5' boulders 400' abndam	(Winsor)
	1923	$5\frac{1}{2}$	10'	100-			2.24 4.0 = 9.0	5'*	at Cottonwood Camp (Baker)
	Above Dobie's dam Highway Railroad								check size
<u>Snowslide</u>	Above Fan apex 3 rd Fan below fan	19%	13 $\frac{1}{2}$	450 $\frac{1}{2}$	5850		4.36 12.3 $\frac{5.0}{12.3}$ = 23.2	40 tons settled	R at highway (wooley) locate more boulders
<u>Willard</u>	Above Fan	4-10	6	800			3.30	2'+	(Winsor)
	1 mi. upstream	$10\frac{1}{2}$ - 14	"				3.25-3.75 3.30 = $\frac{10.7}{12.4}$	95 tons carried	(Pack) locate more boulders
<u>Lost Canyon</u>	1938	19-32%							
<u>Provo Canyon</u>	1856							4-10' deep on 2-300 sq. ft.	
<u>nephi</u>	1923							crest 6-8' high	
									(over)
									* estimated

DAVIS CO MUDFLOWS

Sheppard 1930
(N. Farmington)

Ford 1930
(Davis Co)

5' boulders to 10 tons

Becks Hot Spgs 1930
(S.L. City)

gravel 2' deep on highway

Tudd 1923
(Farmington to St. Albans)

sand & gravel - few inches on 1-2 acres

Shumway 1937
(Menden, Wellsville, etc.) 1939

mud-rock on 100 acres

Jump-off 1945
(N. Ogden)

Perry Hal, etc 1945 10%
(Salt Lake City Cemetery)

1 ton (tombstones) covered 506 acres

Slate & Rock Canyon 1930
(Springville) 1934

Box-Elder
(Alpine)

mudflow

Val-Venda 1930
(Bountiful)

3-6' deep in main street

Cutler Canyon 1923
(N. Fork Ogden R.)

mudflow stopped in timber

City Creek 1930
(S.L. City)

Small mudflows on road below high line 6-7 miles upstream

Perry Cr. 1923
(N. Willard)

Big Canyon 1937
(N. Wellsville)
(Honeyville)

RIFC-INT
Wasatch.

MUDFLOW OBSERVATIONS

* = estimated

Flood Date	Stream	Location	Slope (%)	Depth (ft)	Width (ft)	X-Sect Area (sq. ft)	Hydraulic Radius $R = A/P$ (ft)	$R^{2/3} \times S^{1/2} =$ Velocity Factor	Max. Size Particles	Notes
8/10/47	Bairs (South Fk)	0.2 mi. from crest	42			10				8' boulders, cut 2' to b. rock
	(Trib. C.)	0.5 " " "	29	10*		140	4.1	$2.56 \times 5.4 = 13.8$	Large "	battered tree trunk
	(Trib. E)	0.9 " " "	21	"		180	4.7	$2.81 \times 4.6 = 12.9$	9' "	= 30 tons
	(Det. N. Fork)	1.1 " " "	31	"		150				Boulder train 6' high x 10' wide
	(Trib. F)	1.2 " " "	21	"		190	4.9	$2.89 \times 4.6 = 13.3$	17' boulder =	75 tons
	(Trib. G)	1.4 " " "	19	"		180	4.7	$2.81 \times 4.4 = 12.4$	} Narrows 10' high x 25' wide mud	} subsequent scour 50 sq ft
	(Trib. I)	1.5 " " "	19	"		240	5.5	$3.1 \times 4.4 = 13.6$		
	(Trail crosses)	1.7 " " "	18	"		200	5.0	$2.9 \times 4.2 = 12.2$	"	" 10' "
	(5000')	2.9 " " "	14	"		200	5.0	$2.9 \times 3.7 = 10.7$	"	" 25' "
	(4800')	3.2 " " "								Bonneville Level
	(4600')	3.5 " " "								Hwy # 89
		above Fan thru Fan below Fan								check depth
8/10/47	Halfway (Farmington)	at bridge	18	12-20	27	325	6.4	$3.45 \times 4.2 = 14.5$		flow 12' above terrace
		200' above "	42							subsequent scour = 100 sq ft
		mouth of Halfway Main Cr. above fan " " thru " " " below "								
8/10/47	Condoroy (Farmington)									
		mouth of Condoroy Main Cr. thru fan " " below fan								
8/10/47	Line Cr. (trib to W. side)	Francis Pt.								
8/23/46	Pelican Point, Utah Lake	1/2 mi. up south fork	8	4	18-25	86	3.3	$2.22 \times 2.83 = 6.3$	Cobbles	30' swath } 40' high
			7 3/4	3	8-17	28	1.3	$1.19 \times 2.78 = 3.3$	"	75' " x 2' deep
		above fan thru fan below fan								check size of rocks