

Location:	Lo	Site:	FST	Date:	20250227				
Time:	0930	Observers:	Gage, C., S. Skinner	Interval board SWE measurement					
Precip Rate	None	Very Light (0.5 cm/hr)	Light (1 cm/hr)	Moderate (5 cm/hr)	Heavy (10 cm/hr)	Depth (cm)	SWE (mm)	Density (kg/m3)	Evidence of melt loss? (Y/N)
Precip Type	Rain	Snow	Graupel	Hail	Rain/Snow	Sample A	63.6	109.5	172
Sky	Clear	Few <td>Scattered (1/4-1/2 of sky)</td> <td>Broken<br (>="" 1="" 2="" of="" sky)<="" td=""/><td>Overscast (complete cover)</td><th>Sample B</th><td>65</td><td>111</td><td>171</td></td>	Scattered (1/4-1/2 of sky)	Broken <td>Overscast (complete cover)</td> <th>Sample B</th> <td>65</td> <td>111</td> <td>171</td>	Overscast (complete cover)	Sample B	65	111	171
Wind	Calm (0 mph)	Light (1-16 mph)	Moderate (17-25 mph)	Strong (26-38 mph)	Extreme <th>Sample C</th> <td>66.6</td> <td>117.5</td> <td>176</td>	Sample C	66.6	117.5	176
Tree Canopy	No trees	Sparse (5-20%)	Open (20-70%)	Closed <th>Ground condition</th> <td>Frozen</td> <td>Moist</td> <td>Saturated</td>	Ground condition	Frozen	Moist	Saturated	
Instrument	Y/N	SN	Instrument	Y/N	SN	Additional Comments		Height of Ground Vegetation (cm)	
Digital LWC	Y		Snow Scope	Y	208/151	Weather			
Stratigraphy pictures	Y		Lyte Probe	N					
Standard ram	Y		SMP	N					
Powder Ram	Y		Force Ram	Y					
Slush Ram	Y		Force Snow Scope	Y					
HS Transects	Y		Snow Scope Transects	N					
Pit Pictures	Y		SSA / NIR Box	Y					
Other			Misc						

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 Time: 0930
 Observers: Gage, C., S. Skinner
 Interval board SWE measurement
 Precip Rate: None

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 Observers: Gage, C., S. Skinner
 Interval board SWE measurement
 Precip Rate: None
 Depth (cm): 63.6, 109.5, 111, 117.5, 172, 171
 SWE (mm): 172
 Density (kg/m3): 172
 Evidence of melt loss? (Y/N): N
 Precip Type: Rain
 Rain/Snow
 Sample A: 63.6
 Sample B: 65
 Sample C: 66.6
 Sky: Clear
 Few (< 1/4 of sky)
 Scattered (1/4-1/2 of sky)
 Broken (> 1/2 of sky)
 Overscast (complete cover)
 Ground condition: Frozen
 Ground roughness: Smooth (< 5 cm)
 Rough (5-20 cm)
 Rugged (> 20 cm)
 Wind: Calm (0 mph)
 Light (1-16 mph)
 Moderate (17-25 mph)
 Strong (26-38 mph)
 Extreme (> 38 mph)
 Tree Canopy: No trees
 Sparse (5-20%)
 Open (20-70%)
 Closed (> 70%)
 Height of Ground Vegetation (cm): 208/151
 Instrument: Digital LWC
 SN: 208/151
 Instrument: Snow Scope
 SN: 208/151
 Additional Comments: Weather
 Instrument: Stratigraphy pictures
 SN: N
 Instrument: Standard ram
 SN: N
 Instrument: Powder Ram
 SN: Y
 Instrument: Slush Ram
 SN: Y
 Instrument: HS Transects
 SN: N
 Instrument: Pit Pictures
 SN: Y
 Other: Misc

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 Time: 0930
 Observers: Gage, C., S. Skinner
 Interval board SWE measurement
 Precip Rate: None
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 SWE (mm): 172
 Density (kg/m3): 172
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 Precip Type: Rain
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 SN: 208/151
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 SN: 208/151
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 SN: N
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 SN: N
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 SN: Y
 Instrument: Slush Ram
 SN: Y
 Instrument: HS Transects
 SN: N
 Instrument: Pit Pictures
 SN: Y
 Other: Misc

Location (Regional Scale)	Date (MMMMDD)	Observers (first initial & last name):		Temperature profile times						Comments/Notes:			
Site (Study Plot)	Time (pil opened)	Eric Cline		START	END								
Pit ID STYYMMDD	Snow Depth (cm)	LWC Device & SN	UTME	UTMN	Zone (two digit)	GPS device & uncertainty:	Stratigraphy						
Height above ground	Density profile A	Density profile B	Extra Density	Permittivity profile A	Permittivity profile B	Height above ground	T	Height above ground	Grain Size (mm)	Grain Type	Hand Hardness	Manual Wetness	Stratigraphy Comments
top - bottom (cm)	kg/m3	kg/m3	kg/m3	(unitless)	(unitless)	(cm)	°C	top - bottom (cm)	Max	Min	Avg		
163.8 - 161.6	2	3.5	4.5			168	-13	168	0.8	0.1	0.3	F _{LSF}	F
161.6 - 159.6	4	4	150			166	-15.5	166	-166	0.8	0.1	F _{LSF}	D
159.6 - 147.9	12.9	12.1	15.1			160	-15.5	166	-160	0.8	0.1	F _{LSF}	D
143.9 - 129	14.8	12.9	19.6			150	-12.5	166	-160	0.8	0.1	F _{LSF}	D
129 - 119.6	19.4	40.5	21.0			145	-10.5	160	-145	0.8	0.1	F _{LSF}	D
119.6 - 28.2	23.4	61	1.2			140	-9.5	145	-140	0.8	0.1	F _{LSF}	D
28.2 - 63.2	1.5	24.5	31.0			130	-7.5	145	-129	0.8	0.1	F _{LSF}	D
63.2 - 46.2	17	55.3	32.6			120	-6.5	145	-120	0.8	0.1	F _{LSF}	D
46.2 - 25	20.2	56.5	31.4			110	-5.5	129	-110	0.8	0.1	F _{LSF}	D
25 - 0	25	60.5	27.8			100	-5.5	129	-100	0.8	0.1	F _{LSF}	D
169 - 159	10!	101	62.5	62.4	10	-5	110	-87	1	0.3	0.5	F _{LSF}	P
159 - 149	14.9	45	67.9	72.3	87	-4.5	110	-87	1	0.3	0.5	F _{LSF}	D
149 - 139	17.2	18.4	71.6	71.5	80	-4.5	129	-110	0.8	0.1	F _{LSF}	D	
139 - 129	19.9	21.0	72.3	73.4	70	-4	129	-129	1.5	0.5	1	F _{LSF}	D
129 - 119	21.9	21.7	70.2	70.0	62	-3.5	129	-129	2	0.5	1	F _{LSF}	D
119 - 109	25.9	24.5	70.2	72.3	60	-3.5	129	-129	62	-43	2	F _{LSF}	D
109 - 99	26.5	24.4	67.8	67.8	50	-3	129	-129	62	-43	2	F _{LSF}	D
99 - 89	30.3	29.9	64.6	64.6	43	-3	129	-129	143	-72	1.5	0.5	F _{LSF}
89 - 79	27.9	27.9	50.1	50.1	40	-2.5	129	-129	129	-72	1.5	0.5	F _{LSF}
79 - 69	30.3	30.8	53.2	54.3	30	-2.5	129	-129	22	-0	4	1	F _{LSF}
69 - 59	31.0	31.3	59.0	58.8	22	-2.5	129	-129	22	-0	4	1	F _{LSF}
59 - 49	30.3	31.8	46.4	46.9	20	-1.5	129	-129	22	-0	4	1	F _{LSF}
49 - 39	28.2	27.7	42.9	38.9	18	-1.5	129	-129	22	-0	4	1	F _{LSF}
39 - 29	27.9	27.4	41.9	41.9	18	-1	129	-129	22	-0	4	1	F _{LSF}

Ram Penetrometer Field Data Sheet

Location:	Co					Tube weight	T	kg						
Site:	FST					Hammer weight	H	kg						
Associated pit/transect/point:	FST 20250205					Number of falls	n							
Date:	202502					Fall height	f	cm						
Observer:	Sue Lee					Location of point	p	cm						
UTME:	UTMN:	Zone:	$RN = T + H + nfH/p$					kg						
Ram type:	STD / Pow	Ram mass:	$RR = 9.81 (T + H + nfH/p)$					N						
T	H	n	f	p	T	H	n	f	p	T	H	n	f	p
2	0	0	0	37			1	30	75			2	50	116
2	0.5	0	0	37			1	15	76			3	50	117
	1	3	38							77		4	60	118
	2	3	39							78		3	65	119
	3	5	40				2	15	79			2	65	120
	1	10	41				3	15	80					121
			42				1	70	81			4	65	122
			43							82		1	65	123
	2	10	44							83		2	65	124
	3	10	45							84				125
	1	15	46							86				126
			47				1	10	87					127
			49							89		1	65	128
	1	10	50				2	5	91			2	65	129
			51							92				130
	2	10	52							93		1	65	131
			53				2	5	94					132
	1	10	54				2	10	95					133
	2	10	55							96				134
	1	10	56				1	70	97					135
			57							98				136
			58				2	70	99					137
			59				1	70	100			2	65	138
			60				2	70	101			1	65	139
	2	10	61				1	70	102					140
	2	15	62							103				141
			63				2	70	104					142
	3	15	64							105				143
	2	25	65				1	70	106			2	65	144
	1	25	66							107		1	65	145
			67				3	70	108					146
	2	25	68				2	70	109					147
	1	20	69				4	25	110			2	65	148
			70				3	40	111					149
			71				3	60	112			1	65	150
			72				1	65	113					151
			73				4	70	114			2	65	152
			74				2	50	115					153

Notes:

Ram Penetrometer Field Data Sheet

Location:						Tube weight		T	kg				
Site:						Hammer weight		H	kg				
Associated pit/transect/point:						Number of falls		n					
Date:			Time: 1112			Fall height		f	cm				
Observer:						Location of point		p	cm				
UTME:			UTMN:			Zone:			$RN = T + H + nfH/p$ kg				
Ram type: <i>Bcw</i>						$RR = 9.81(T + H + nfH/p)$ N							
T	H	n	f	p	T	H	n	f	p				
6.1	0	0	0	8		5	25	45	2	0.5	7	65	154
0.1	0.1	0	0	9		2	25	46					155
	1	1	9					47		1	65	156	
		10			3	25	48						157
	2	1	11		4	25	49						158
	2	3	12					50		2	65	159	
	3	3	13					51					160
	2	5	14					52					161
		15						53					162
		16			2	25	54			1	65	163	
	3	5	17					55					164
	3	10	18		3	25	56						165
	2	10	19					57		2	65	166	
		20			4	25	58						167
		21						59		1	65	168	
		22						60					169
		23					6	25	61				170
	3	10	24				9	25	62				171
	2	15	25	6.1 0.2	15	5	63						172
	3	15	26		3	20	64						173
	2	25	27					65					174
		28						66					175
		29						67		2	65	176	
		30						68					177
		31						69					
	3	25	32		2	20	70						
		33			3	20	71						
	2	25	34					72					
		35			2	20	73						
	3	25	36					74					
		37						75					
	4	25	38										
		39											
	3	25	40										
		41											
		42											
	5	25	43										
		44											

Notes:

Location:	6	Date:	20250227
Site:	#4	Time:	1108
Pit:	4-250217	Observers:	Uncle

X-Coord	Y-Coord	Time	Data Type	SN	Profile #	Force Gage	Force max	Depth manual	Depth digital	Grnd
0	30	1122	STP Plan				177		Y	
30	1	1101	New Plan				75		N	
0	60	108	Scope	308	129		170	182	Y	Towers
30		1109					167	183		
60		1104					127	185		
90		1106					125	184		
120	4	1105					125			
0	75	1101	Stress Plan				1000	83	100	
30		1101					96	100		
60		1102					80	100		
90		1102					88	100		
120	4	1101					87	100		
0	120	1105	Face Scope	151	1013	50	26.15	93	96	Towers
30		1105					27.93	93	101	
60		1106					29.3	93	99	
90		1106					42.05	93	98	
120	4	1106					24.1	93	97	

Location (regional scale)		Site (study plot)		Transects		Date	Time			
				A,B		20250227	Start	End		
Observer(s)		Wx Description								
Gardus Skinny		clear calm No None								
8112 Transect A 854			855 Transect B 854							
Point	HS (cm)	Point	HS (cm)	Point	HS (cm)	Point	HS (cm)			
0	179	31		0	129	31	176			
1	172	32		1	144	32	139			
2	172	33		2	145	33	137			
3	175	34		3	146	34	140			
4	169	35		4	141	35	138			
5	173	36		5	128	36	134			
6	172	37		6	115	37	116			
7	169	38		7	111	38	139			
8	158	39		8	98	39				
9	165	40		9	117	40				
10	167	41		10	131	41				
11	163	42		11	128	42				
12	165	43		12	130	43				
13	159	44		13	116	44				
14	158	45		14	130	45				
15	144	46		15	128	46				
16	149	47		16	135	47				
17	138	48		17	133	48				
18	127	49		18	139	49				
19	130	50		19	136	50				
20	122	51		20	143	51				
21	130	52		21	140	52				
22	135	53		22	134	53				
23	127	54		23	122	54				
24	127	55		24	124	55				
25	137	56		25	120	56				
26	132	57		26	111	57				
27	132	58		27	105	58				
28		59		28	91	59				
29		60		29	91	60				
30				30	117					