Location (Regional Scale)	Date (YYYYMMD)	Observers (first initial & last name):	Temperature profile times		Comments/Notes:
CO	20250129	Eric Cue	START	END	
Site (Study Plot)	Time (pit opened)		0947	1014	
SLMET	0945				

Pit ID SITEYYYMMDD	Snow Depth (cm)	LWC Device & SN	UTME	UTMN	Zone (two digit)	GPS device & uncertainty:
SLMET20250129	68	0101 250 Kg/m³ 528 1020	0425742	4419938	13	GARMIN GPS in 2m

Density

Height above ground top (cm)	Height above ground bottom (cm)	Density profile A kg/m3	Density profile B kg/m3	Extra Density kg/m3
67	55.8	11.2	16.5	147
55.8	36.4	19.4	40.5	209
36.4	14.4	22	50.5	230
14.4	3.4	11	24.5	223
3.4	0	3.4	10	294
68	58	152	138	196
58	48	177	182	
48	38	214	222	
38	28	217	222	
28	18	224	225	
18	8	231	224	
12	2	240	244	

LWC

Permittivity profile A (unitless)	Permittivity profile B (unitless)
81.3/78.2	36.3/34.8
77.6/73.6	30.1/29.6
52.5/53.9	11.9/12.5
47.1/46.2	9.8/9.5
39.2/43.4	7.3/8.5
35.8/37.9	6.3/6.9
44.1/46.1	8.8/9.4
40.8/46.9	7.7/9.7

Temperature

Height above ground (cm)	T oC
68	-12
60	-11.5
58	-11.5
50	-7.5
40	-6
35	-5
30	-4.5
20	-2.5
15	-2
10	-2
5	-1
0	-0.5

Stratigraphy

Height above ground top (cm)	Height above ground bottom (cm)	Grain Size (mm) Max	Grain Size (mm) Min	Grain Size (mm) Avg	Grain Type	Hand Hardness	Manual Wetness	Stratigraphy Comments
68	58	0.5	0.1	0.3	FCSF	F	D	
58	35	2	0.5	1	FCSO	4F	D	Some Cups/Striations
35	15	3	1	1.5	DHXR	F	D	
15	5	8	1	2	DHLA	F	D	DHxr?
5	0	3	1	2	MFCL	P	D	Clusters, MFPC

Location:	Co	Site:	SLMET	Date:	20250129
Time:	0928	Observers:	GmcCar		

Precip Rate	None	Very Light (0.5 cm / hr)	Light (1 cm / hr)	Moderate (5 cm / hr)	Heavy (10 cm / hr)
Precip Type	Rain	Snow	Graupel	Hail	Rain/Snow
Sky	Clear	Few (< 1/4 of sky)	Scattered (1/4-1/2 of sky)	Broken (> 1/2 of sky)	Overcast (complete cover)
Wind	Calm (0 mph)	Light (1 - 16 mph)	Moderate (17 - 25mph)	Strong (26 - 38 mph)	Extereme (> 38 mph)
Tree Canopy	No trees	Sparse (5 - 20%)	Open (20 - 70%)	Closed (> 70%)	

Interval board SWE measurement

	Depth (cm)	SWE (mm)	Density (kg/m3)	Evidence of melt resulting in SWE loss? (Y/N)
Sample A	12.8	16		N
Sample B	13	18.5		
Sample C	13.8	17.5		
Ground condition	Frozen	Moist	Saturated	
Ground roughness	Smooth (< 5 cm)	Rough (5 - 20 cm)	Rugged (> 20 cm)	
Ground Vegetation	Bare	Grass	Shrub	Deadfall
Height of Ground Vegetation (cm)				

Instrument	Y/N	SN	Instrument	Y/N	SN
Digital LWC	N		Snow Scope	Y	234
Stratigraphy pictures	Y		Lyte Probe	N	
Standard ram	Y		SMP	N	
Powder Ram	Y		Force Ram	Y	
Slush Ram	N		Force Snow Scope	Y	234
HS Transects	Y		Snow Scope Transects	N	
Pit Pictures	Y		SSA / NIR Box	Y	101
Other					

Additional Comments

Weather

Pit
CTN BRK x2
ECT X

Hardness

Misc
HS 74 @ STAKE

Location:	Co	Date:	20250129								
Site:	SLMET	Time:	1045				Force	Depth	Depth		
Pit:	SLMET 20250129	Observers:	EmcCue				max	manual	digital	Grnd	
X-Coord	Y-Coord	Time	Data Type	SN	Profile #	Force Gage	N	cm	cm	Y/N	Comments
0	30	1045	EDRAM					68.5			
30	↓	1049	POWRAM					70.5			
0	60	1107	SCOPE	234	1239			65	63		AWAY
30		1108			1240			67	68		
60		1109			1241			67	67		
90		1110			1242			68	69		
120	↓	1110	↓	↓	1243			71	70		↓
0	90	1119	FORCE RAM			50N	72.3	60			
30		1119					40.15	62			
60		1120					50.9	63			
90		1120					33.9	63			
120	↓	1120	↓				35	67			
0	120	1123	FORCE SCOPE	234	1244		3.35	57	52		TOWARDS
30		1124			1245		8.85	53	48		
60		1125			1246		1.4	61	59		
90		1125			1247		16.40	63	56		
120	↓	1126	↓	↓	1248	↓	13.90	67	64		↓

Ram Penetrometer Field Data Sheet

Location: CO

Site: SLMGT

Associated pit/transect/point: SLMGT 20250129

Date: 20250129 Time: 1045 / 1049

Observer: Gme Cue

UTME: UTMN: Zone:

Ram type: STD/Row Ram mass: kg

Tube weight	T	kg
Hammer weight	H	kg
Number of falls	n	
Fall height	f	cm
Location of point	p	cm

$RN = T + H + nfH/p$ kg

$RR = 9.81\ (T + H + nfH/p)$ N

T	H	n	f	p	T	H	n	f	p	T	H	n	f	p
1	0	0	0	64	0.1	0.1	1	10	38					
1	0.5	0	0	64					39					
		4	5	65			3	10	40					
		2	10	66			5	15	41					
		1	10	67			6	20	42					
		2	10	68			1	20	43					
		4	10	68.5			2	15	44					
									45					
0.1	0	0	0	6					46					
0.1	0.1	0	0	7			1	15	47					
		3	1	8			2	5	48					
		1	5	9.5			4	5	49					
		1	3	10.5			1	10	50					
				12.5			2	10	51					
		1	1	13			1	10	52					
		1	3	15					53					
		1	2	16.5			2	10	54					
		1	1	17			1	10	55					
		2	1	18					56					
		3	1	19			3	10	57					
		1	3	20			1	15	58					
		2	3	21			2	15	59					
				22			2	20	60					
				23			3	20	61					
				24					62					
				25			2	20	63					
				26					64					
		3	3	27			1	20	65					
		2	5	28			5	20	66					
				29			4	20	67					
				30			5	20	68					
		3	5	31			3	25	69					
		2	10	32			4	25	70					
		1	10	33					70.5					
				34										
				35										
				36										
				37										

Notes:

Location (regional scale)	Site (study plot)	Transects	Date	Time	
				Start	End
Co	SLMET	A, B	20250129		

Observer(s)	Wx Description
EmcCe	CLR CALM NO WINDS

0908 Transect A 0915

Point	HS (cm)	Point	HS (cm)
0	71	31	56
1	53	32	
2	74	33	
3	78	34	
4	76	35	
5	75	36	
6	71	37	
7	69	38	
8	67	39	
9	61	40	
10	67	41	
11	72	42	
12	69	43	
13	62	44	
14	70	45	
15	70	46	
16	66	47	
17	45	48	
18	55	49	
19	62	50	
20	71	51	
21	71	52	
22	73	53	
23	72	54	
24	70	55	
25	73	56	
26	66	57	
27	47	58	
28	44	59	
29	48	60	
30	53		

0915 Transect B 0922

Point	HS (cm)	Point	HS (cm)
0	68	31	82
1	47	32	69
2	73	33	
3	51	34	
4	78	35	
5	77	36	
6	68	37	
7	65	38	
8	87	39	
9	81	40	
10	78	41	
11	81	42	
12	81	43	
13	79	44	
14	79	45	
15	78	46	
16	75	47	
17	80	48	
18	74	49	
19	85	50	
20	81	51	
21	81	52	
22	78	53	
23	90	54	
24	83	55	
25	69	56	
26	72	57	
27	88	58	
28	86	59	
29	82	60	
30	84		