Location:	CO	Site:	JPLMST	Date:	20250120
Time:	0930	Observers:	[illegible]		

Precip Rate	None	**(circled)** Very Light (0.5 cm / hr)	Light (1 cm / hr)	Moderate (5 cm / hr)	Heavy (10 cm / hr)
Precip Type	Rain	**(circled)** Snow	Graupel	Hail	Rain/Snow
Sky	Clear	Few (< 1/4 of sky)	Scattered (1/4-1/2 of sky)	**(circled)** Broken (> 1/2 of sky)	Overcast (complete cover)
Wind	Calm (0 mph)	**(circled)** Light (1 - 16 mph)	Moderate (17 - 25mph)	Strong (26 - 38 mph)	Extereme (> 38 mph)
Tree Canopy	**(circled)** 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	4.2	4.5	107	
Sample B	4.4	4.5	102	
Sample C	4.6	4.5	98	
Ground condition	**(circled)** Frozen	Moist	Saturated	
Ground roughness	**(circled)** Smooth (< 5 cm)	Rough (5 - 20 cm)	Rugged (> 20 cm)	
Ground Vegetation	**(circled)** 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	
HS Transects	Y		Snow Scope Transects	Y	234
Pit Pictures	Y		SSA / NIR Box	Y	0101
Other					

Additional Comments	
Weather	
Pit	
Hardness	
Misc	RADIOMETER CLEARED @ 1[illegible] HS Clean @ STAKE

Location (Regional Scale)	Date (YYYYMMD)	Observers (first initial & last name):	Temperature profile times		Comments/Notes:
Co	20250120	Eric Cue	START	END	
Site (Study Plot)	Time (pit opened)		0933	0955	
JPLMET	0930				

Pit ID SITEYYYMMDD	Snow Depth (cm)	LWC Device & SN	UTME	UTMN	Zone (two digit)	GPS device & uncertainty:
JPLMET20250120	70	0101 250kg/m³ 828uv1005	0424546	4417696	13	Garmin G5S ~2m

Density: Height above ground top (cm)	-	bottom (cm)	Density profile A kg/m3	Density profile B kg/m3	Extra Density kg/m3	LWC: Permittivity profile A (unitless)	LWC: Permittivity profile B (unitless)	Temperature: Height above ground (cm)	Temperature: T oC
68.4	-	64.4	4	4	100			70	-19.5
64.4	-	53.9	10.6	15	142			66	-16
53.9	-	34.8	19	42.5	224			60	-10.5
34.8	-	16	18.8	42	223			40	-7.5
16	-	0	16	33.5	209			30	-5
	-							20	-4
	-		95.2/94.5	94.2/94.5	5	105	106	10	-2.5
70	-	60	83.6/84.4	36.4/40.0		181	188	0	-0.5
66	-	50	66.5/67.9	22.4/25.9		204	219		
50	-	40	[illegible]/69.8	21.5/22.2		216	210		
40	-	30	51.4/46.7	11.4/9.6		211	231		
30	-	20	30.4/30.9	5/5.1		228	213		
20	-	10	35.2/34.9	5.7/6		233	208		
15	-	5	32.6/37.4	5.5/6		↓	↓		

Stratigraphy: Height above ground top (cm)	-	bottom (cm)	Grain Size Max (mm)	Grain Size Min (mm)	Grain Size Avg (mm)	Grain Type	Hand Hardness	Manual Wetness	Stratigraphy Comments
70	-	68	0.5	0.1	0.5	PPir	F	D	PPsd PPnd PPgp
66	-	55	1.5	0.5	1	DFdc	F	D	FCso / old FCsf? Arms, plates
54	-	36	1	0.3	0.5	RGxf	4F	D	Some FCso
36	-	18	1.5	0.5	1	FCxr	F	D	Some DHxr, Cups striations
18	-	0	4	1	1.5	DHla	4F	D	

Ram Penetrometer Field Data Sheet

Location: CO

Site: JPLMST

Associated pit/transect/point: JPLMST 20250120

Date: 20250120 Time: 1029 / 1030

Observer: Eric Coz

UTME: UTMN: Zone:

Ram type: 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	70	0.1	0.1	2	5	47					
1	0.5	0	0	70					48					
							1	5	49					
0.1	0	0	0	7					50					
0.1	0.1	0	0	12			2	5	51					
		1	1	13					52					
				14					53					
				15			3	5	54					
				16			1	10	55					
		2	1	17					56					
				18			3	10	57					
		1	7	19					58					
		2	3	20			2	10	59					
				21			1	10	60					
				22					61					
		5	3	23					62					
		2	5	24			2	10	63					
				25					64					
		3	5	26			1	10	65					
		1	10	27					66					
				28			2	10	67					
				29			3	10	68					
		2	10	30			5	10	69					
				31										
				32										
		1	10	33										
		1	10	34										
				35										
		2	10	36										
				37										
		1	10	38										
				39										
				40										
				42										
		1	5	43										
				44										
				45										
				46										

Notes:

Location: Co	Date: 20250120										
Site: JPLMST	Time:						Force	Depth	Depth		
Pit: JPLMST20250120	Observers: EmCue						max	manual	digital	Grnd	
X-Coord	Y-Coord	Time	Data Type	SN	Profile #	Force Gage	N	cm	cm	Y/N	Comments
0	30	1029	STD Sand					70		Y	
30	↓	1030	Flow Sand					69		↓	
0	60	1041	Seeds	234	1197			68	66		TWMADS
30		1041			1198			68	62		
60		1042			1199			69	65		
90		1042			1200			66	59		
120	↓	1042	↓	↓	1201			70	67	↓	↓
0	90	1050	Force Sand			50N	15.3	66			
30		1050					10.5	66			
60		1051					22.05	59			
90		1051					15.7	61			
120	↓	1051	↓				31.2	66			
0	120	1101	Force Seeds	239	1202		5.85	67	61		TGWADDS
30		1102			1203		−1	69	65		
60		1102			1204		0	67	48		
90		1103			1205		6.2	58	56		
120	↓	1103	↓	↓	1206	↓	7.75	62	60		↓
											CTNTXR
											CTNBRT
											ECTRX

Location (regional scale)	Site (study plot)	Transects	Date	Time Start	Time End
Co	JPUMET	JPLA	20250120	1137	1158

Observer(s)	Wx Description
Eric Gie	BKN Light S-1 None

Transect A				Transect B			
Point	HS (cm)	Point	HS (cm)	Point	HS (cm)	Point	HS (cm)
0	82	31	80	0	74	31	
1	83	32	72	1	65	32	
2	82	33	60	2	79	33	
3	74	34	78	3	77	34	
4	81	35	78	4	64	35	
5	78	36	83	5	44	36	
6	74	37	86	6	55	37	
7	75	38	69	7	74	38	
8	72	39	55	8	78	39	
9	82	40	76	9	53	40	
10	79	41	77	10	80	41	
11	73	42	80	11	67	42	
12	70	43	82	12	53	43	
13	79	44	75	13	54	44	
14	73	45	78	14	60	45	
15	63	46	78	15	73	46	
16	70	47	77	16	79	47	
17	75	48	80	17	81	48	
18	80	49	81	18	61	49	
19	73	50	79	19		50	
20	62	51	74	20		51	
21	75	52	76	21		52	
22	78	53	54	22		53	
23	62	54	65	23		54	
24	82	55	80	24		55	
25	68	56	85	25		56	
26	72	57	82	26		57	
27	77	58	75	27		58	
28	77	59	71	28		59	
29	59	60	43	29		60	
30	71		70	30			

Location (regional scale)	Site (study plot)	Transects	Date	Time	
				Start	End
Co	TPLOT	RADAR 1, 2	20250420		

Observer(s)	Wx Description
Eu Cu	OVC MOD S-1 NONE

1115	Transect A 1115			1119	Transect B 1123		
Point	HS (cm)	Point	HS (cm)	Point	HS (cm)	Point	HS (cm)
0	72	31		0	66	31	
1	73	32		1	72	32	
2	69	33		2	67	33	
3	73	34		3	76	34	
4	73	35		4	71	35	
5	66	36		5	73	36	
6	69	37		6	71	37	
7	69	38		7	75	38	
8	69	39		8	75	39	
9	66	40		9	75	40	
10	68	41		10	73	41	
11	64	42		11	74	42	
12	73	43		12	73	43	
13	73	44		13	76	44	
14	70	45		14	70	45	
15	70	46		15	70	46	
16		47		16	74	47	
17		48		17	69	48	
18		49		18	69	49	
19		50		19		50	
20		51		20		51	
21		52		21		52	
22		53		22		53	
23		54		23		54	
24		55		24		55	
25		56		25		56	
26		57		26		57	
27		58		27		58	
28		59		28		59	
29		60		29		60	
30				30			

Location (regional scale)	Site (study plot)	Transects	Date	Time Start	Time End
Co	JPLMST	VRL1, Z	20250120		

Observer(s)	Wx Description
GuaCoe	OVC LIGHT S-1 NONE

Transect A (1133)		(1136)		Transect B (1125)		(1132)	
Point	HS (cm)	Point	HS (cm)	Point	HS (cm)	Point	HS (cm)
0	71	31		0	70	31 A	50
1	77	32		1	48	32 B	52
2	78	33		2	67	33 C	46
3	76	34		3	60	34 D	43
4	73	35		4	66	35 E	60
5	71	36		5	71	36 F	60
6	74	37		6	70	37 G	46
7	75	38		7	69	38 H	54
8	76	39		8	60	39 I	50
9	74	40		9		40 J	61
10	74	41		10		41	
11	66	42		11		42	
12	74	43		12		43	
13	72	44		13		44	
14	74	45		14		45	
15	77	46		15		46	
16	70	47		16		47	
17	78	48		17		48	
18	78	49		18		49	
19	74	50		19		50	
20	76	51		20		51	
21	70	52		21		52	
22		53		22		53	
23		54		23		54	
24		55		24		55	
25		56		25		56	
26		57		26		57	
27		58		27		58	
28		59		28		59	
29		60		29		60	
30				30			