Form 9-275F
(Apr. 2001)

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
WATER RESOURCES DIVISION
DISCHARGE MEASUREMENT AND GAGE INSPECTION NOTES

Meas. No. Nothing to enter
Comp. by
Checked by

Sta. No.
Sta. Name HI - Andersen
J-day 360 Date Dec 26, 2002 Party JG, KC arrive @ 11:30
Width Area Vel. G.H. Disch.
Method No. secs. G.H. change in hrs.
Method coef. Horiz. angle coef. Susp. Tags checked
Meter Type Meter No. Meter ft. above bottom of wt.
Rating used Spin test before meas. , after
Meas. plots % diff. from rating no. Indicated shift

GAGE READINGS						
Time					Inside	Outside
11:47					9.4696	
	Start					
	YES FLOW but V. low + orifice line is frozen					
	Finish					
Weighted MGH						
GH correction						
Correct MGH						

Some snow in channel

Flow too low to use pygmy, AA meter + no portable flume

Samples collected: water quality, @ 13:00
sediment, biological, other
Measurements documented on separate sheets: water quality, aux./base gage, other
Rain gage serviced/calibrated
Weather: 30% cc ; wind < 5mph
Air Temp. °C at
Water Temp. °C at
Check bar/chain found
Changed to at
Correct

Wading, cable, ice, boat, upstr., downstr., side bridge, ft., mi. upstr., downstr. of gage.
Measurement rated excellent (2%), good (5%), fair (8%), poor (> 8%); based on following conditions: Flow:
Cross section:

Gage operating: Record Removed
Battery voltage: Intake/Orifice cleaned/purged:
Bubble-gage pressure, psi: Tank 1575 , Line ~11 ; Bubble-rate OK /min.
Extreme-GH indicators: max , min .
CSG checked: HWM height on stick Ref. elev. HWM elev.
HWM inside/outside:
Control:

Remarks: Conoflow not purging → ORIFICE LINE FROZEN

GH of zero flow = GH - depth at control = ft., rated

Sheet No. of sheets

BAD SP COND RDGS — Sp cond. probe is buried

BAD WTR TEMP RDGS — Flow is so low — 1-2mm in flume — that water temp probe is exposed

BAD STG RDGS — Orifice line is frozen

.0 .10 .20 .30 .40 .50 .60 .70 .80 .85 .90

ANGLE COEFFICIENT	DIST. FROM INITIAL POINT	WIDTH	DEPTH	OBSERVATION DEPTH	REVOLUTIONS	TIME IN SECONDS	VELOCITY		ADJUSTED FOR HOR. ANGLE OR	AREA	DISCHARGE
							AT POINT	MEAN IN VERTICAL			

.90 .92 .94 .96 .97 .98 .99 1.00 .99 .98 .97 .96 .94 .92 .90

.0 .10 .20 .30 .40 .50 .60 .70 .80 .85 .90

GAGE READINGS

TIME

GPO 2003-568-560

Gauge: H1- Andersen ✓ P...bl ✓

~~Before~~ Photo

	(Thurs) 12/26/02 ←	/ /	5 Jan 03
Start ~~time~~ of visit -	11:30	✓	13:35
Weather) - bold, italics			
Air temp.		✓	11°C accd to data logger
% cloud cover	30%	✓	97%
Type of cloud		✓	Cumulus
Wind speed (mph)	< 5mph	✓	< 5mph
Flow present (yes/no)	yes - low	✓	yes
control condition Condition of control (snow, debris, ~~etc.~~)	sediment, no snow in cutt some snow by channel	✓	orifice line unfrozen some sediment built up in flume some ice on outside gauge plate SC probe buried in permafrost
Inside gauge box (Time)		✓	
N2 tank/pressure (psi)	1575	✓	1400 psi
N2 regul. press. (psi)	nil	✓	14 psi - tried to turn regul press down a bit
Conoflow bubblg rate ok ~~(Y/N)~~	OK	✓	64 bubbles/min
Storage module ~~settings~~		✓	
Chart settings ~~Fill and stop~~	✓	✓	
~~Battery level OK~~	✓	✓	
~~Old~~ year, Julian day, time	02, 360; 11:44 xx	✓	03 ✓ 5 ✓ 15:56 → 15:57
Time ~~New year, Julian day, time~~	OK OK OK	✓ 02 ✓ 366 ✓ 13:48 → 13:50	
? Ch.1 Stage	Ch.1 9.4676 11:47	✓	1.29 @ 15:52
Ch.3 Water temp	0.61950 11:48	✓	1.4°C @ 15:52
Ch.4 Sp Conductivity	16.869 11:48	✓	16.11 but probe buried @ 15:52
Ch.5 Battery voltage	13.859 11:48	✓	13.54 @ 15:52
? Ch.2 Air Temp ~~XX~~	11.010 11:47	✓	11.0°C @ 15:52
Stream chemistry (Time)			
Water temp ~~and time~~		✓	
pH ~~and time~~		✓	
Sp. Conductivity ~~and time~~	No cond meter - left @ Bonney	✓	27.4 µS, 1.0°C @ 16:30
~~Get~~ stream chem sampls (Y/N)		✓	YSI Ch.4 = 16.91 µS @ 16:30
Flow measurements (Time)		✓	Ch.3 = 1.41°C WT @ 16:30
Outside ~~Inside stage level rdg and time~~			
Inside ~~Outside stage level rdg and time~~	0.01 @ 11:54		
~~Outsd flow rdg, start/stop times~~			
Portbl flume, pygmy, or AA	Too low to pygmy, AA, no portable flume		
~~Spin test (yes/no)~~			
~~Rating of measurement~~			
~~Point of zero flow~~			
Outside stage level rdg ~~and~~ time			
Inside stage level rdg ~~and~~ time			
*0 on keypad (Y/N)	✓	✓	
Stop time of visit		✓	

general visit info

start time

Air temp →

Before visit: pH calibration / cond calibration } 3 — yes 7,4 11:15

Stream chem collected

H1-Andersen

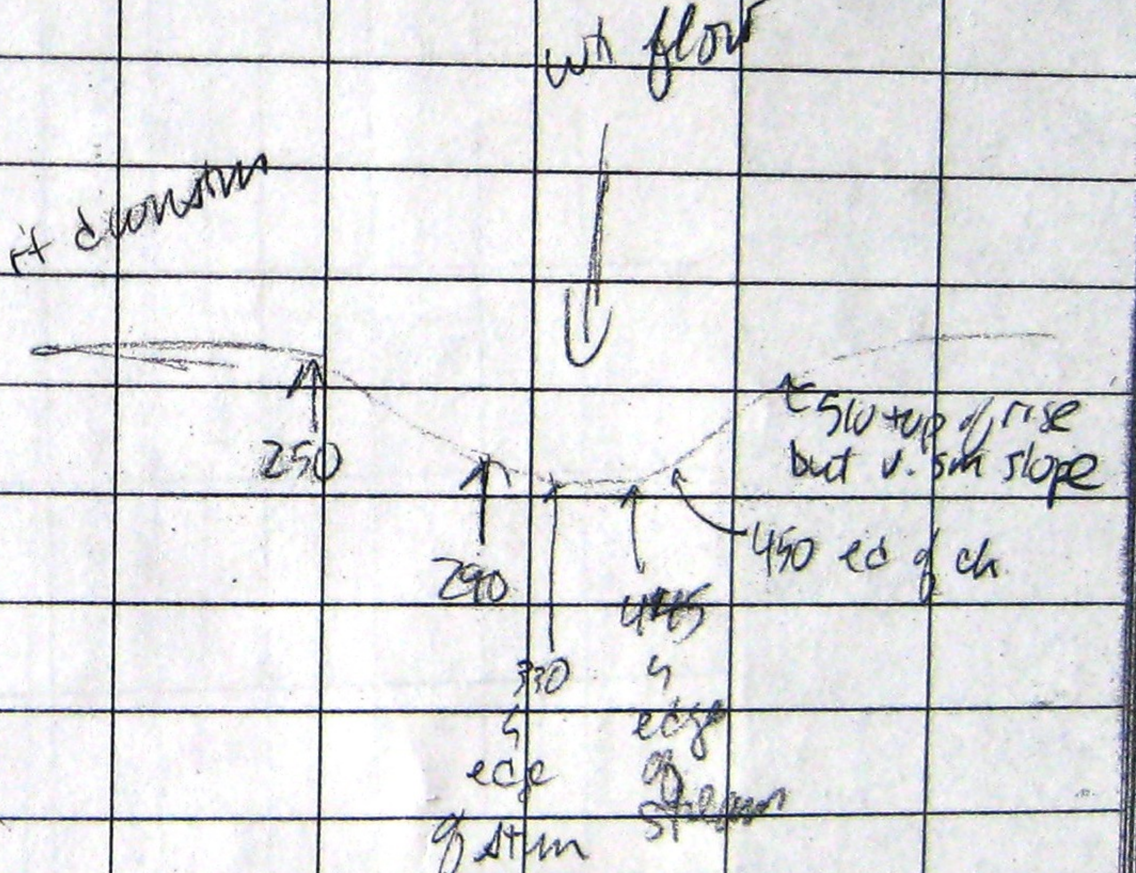
12/20/02

Air Temp:
Start Time ~ 12:00am

See data sheet
Permafrost transect:

very sandy 0	25 Rt edge DS	160	19.5	320	12.5 wtr in hole
10	25	170	21	330	14 wtr in ch
20	16/24 10 cm, tuds, hut	180	21	340	12.5 > wtr in ch
30	18/19	190	20	350	wtr in ch 13
40	20	200	17	360	wtr in ch 14
50	19.5	210	16	370	wtr in ch 16
60	20	220	21	380	wtr in ch. 13/14
70	16.5/18.5	230	19.5	390	wtr 17
80	16	240	18	400	wtr 17
90	16	250	8.5/17/16 rt edg of bank	410	wtr 16.5
100	18	260	19	420	wtr 14
110	16.5	270	17.5	430	wtr in ch 14
120	18	280	14.5/14/15	440	wtr in ch 15
130	19	290	17	450	wtr in hole 16
140	20	300	16.5	460	wtr in hole 13
150	19.5	310	15	470	17

480	17.5	540	21	600	22
490	21	550	20	610	~~20~~/20/22
500	22	560	19.5/21	620	19 } Pretty compact
510	23	570	24	630	20 }
520	21	580	24.5	640	18
530	19.5	590	26/22	650	17



280 – more cobbly
310 – starts to be very cobbly
470 – less cobbly

13:00

less than 1 ℓ - 1-2 mm in flume

Samples collected

pH = 6.6

wh temp probe is exposed

specific conductivity probe is
buried

Orifice line is still not purging