

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
WATER RESOURCES DIVISION
DISCHARGE MEASUREMENT AND
GAGE INSPECTION NOTESMeas. No. 48
Comp. by _____
Checked by _____

Sta. No. _____
Sta. Name H1- Andersen
Date Dec 27, 2002 Party JG, PS, LH, JB, FC
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 | | | | Samples collected: water quality, sediment, biological, other | |
|---------------|--------|-----------------|------------|---|--|
| Time | | Inside | Outside | | |
| | | <u>Pygmy OG</u> | | | |
| | | <u>CS</u> | | | |
| 17:07 | | 1.51 | 0.51 | | |
| | Start | | | | |
| 17:18 | | 1.53 | 0.53 | | |
| 18:20 | | 1.52 | 0.52 ± 0.1 | | |
| 18:23 | | | 5.826 | | |
| | Finish | | | | |
| 19:17 | | 1.49 | 0.49 | | |
| Weighted MGH | | | | | |
| GH correction | | | | | |
| Correct MGH | | | | | |

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 1550, Line 14; Bubble-rate 60 /min.
Extreme-GH indicators: max _____, min _____
CSG checked: _____ HWM height on stick _____ Ref. elev. _____ HWM elev. _____
HWM inside/outside: _____
Control: _____

Remarks: Tried to unfreeze orifice line by pouring boiling
hot glacial water on it

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

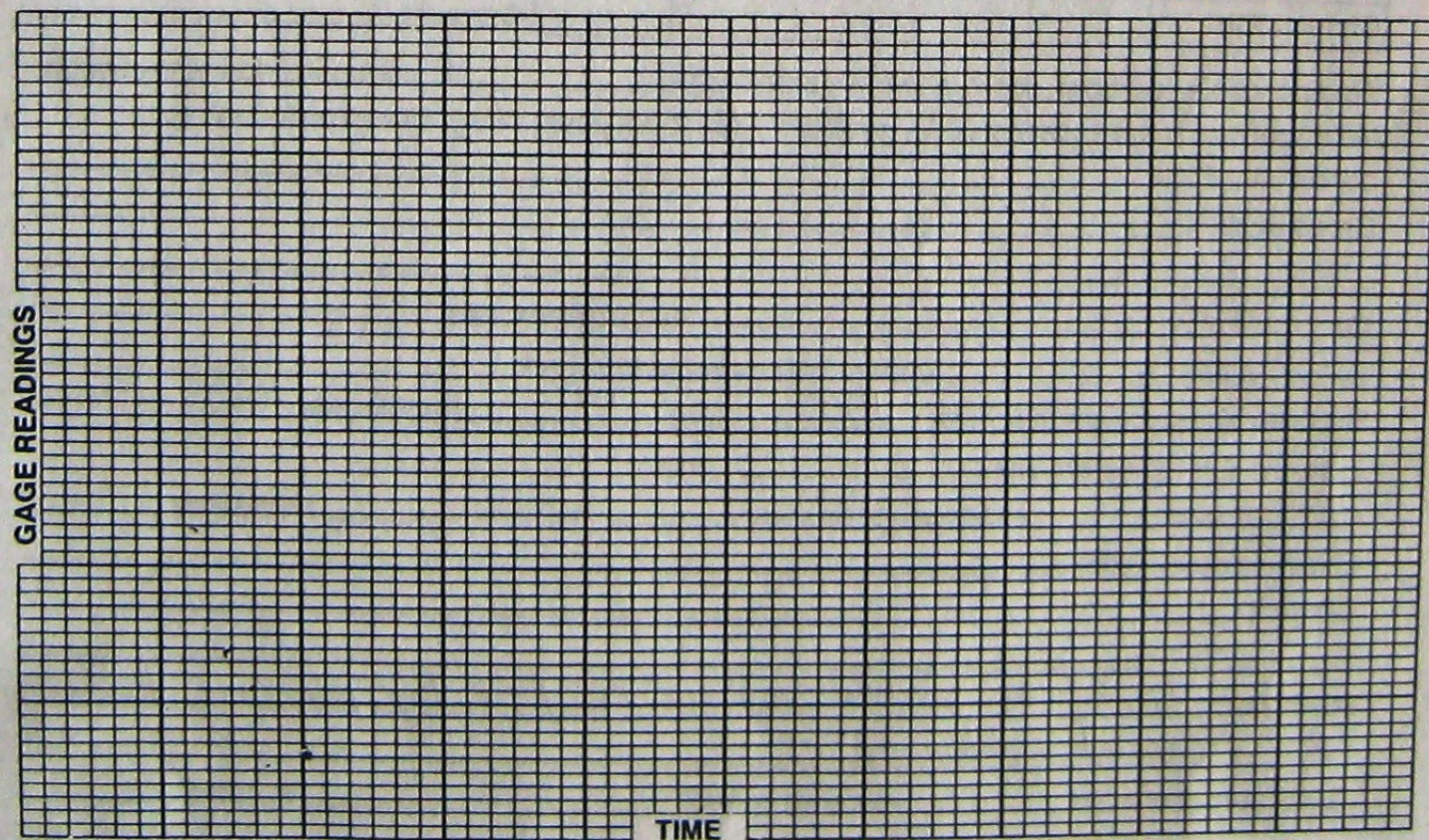
Sheet No. _____ of _____ sheets

INFLC 516
RD65

→ Orifice line frozen

| | | |
|-------|-----------|------------|
| | <u>WT</u> | |
| | <u>IG</u> | <u>OG</u> |
| 18:20 | — | 0.3/0.1 °C |
| 18:23 | 0.55 | — |
| 18:28 | — | 0.2/0.1 °C |

| ANGLE COEF. FICIENT | DIST. FROM INITIAL POINT | WIDTH | DEPTH | OBSERVA- TION DEPTH | REVO- LUTIONS | TIME IN SEC- ONDS | VELOCITY | | ADJUST- ED FOR HOR. ANGLE OR | AREA | DISCHARGE | .90 |
|------------------------|-----------------------------------|-------|-------|------------------------|------------------|----------------------------|-------------|--------------------------|--|------|-----------|------|
| | | | | | | | AT POINT | MEAN IN VER- TICAL | | | | .92 |
| | | | | | | | | | | | | .94 |
| | | | | | | | | | | | | .96 |
| | | | | | | | | | | | | .97 |
| | | | | | | | | | | | | .98 |
| | | | | | | | | | | | | .99 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| ○ | | | | | | | | | | | | 1.00 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | .99 |
| | | | | | | | | | | | | .98 |
| | | | | | | | | | | | | .97 |
| | | | | | | | | | | | | .96 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | .94 |
| | | | | | | | | | | | | .92 |
| | | | | | | | | | | | | .90 |



[III - Andersen]

12/29/02

Flow present

14 → Trying to unfreeze outside line
by pouring boiling hot glacial water
on it

29 Dec

12/29/03

Anderson Crk

JG, LH, PB, JB, KC

N₂ tank - 1550 psi

Regul 14 psi

Comoflow bubbles 60 bubbles/min

Stage
Height 0.51 @ 17:07

0.53 @ 17:18

0.52 \pm 0.01 @ 18:20

| time | pH | temp | cond | temp |
|-------|------|------|------|------|
| 18:20 | 5.88 | 0.3 | 15.4 | 0.1 |
| 18:28 | 6.23 | 0.2 | 15.5 | 0.1 |

Water samples collected

Pegging done by P.S.

19:17 - stage height = 0.49 ft

CR10 readings @ 18:23

| | | |
|-----|--------|-------|
| ch1 | 5.8260 | stage |
| ch2 | 11.010 | A1 |
| ch3 | 0.55 | WT |
| ch4 | 16.408 | SL |
| ch5 | 13.388 | volts |

Leveling notes

| BS | HT Ist | F.S | Elev. | Remarks |
|----|--------|-----|-------|---------|
|----|--------|-----|-------|---------|

| | | | | |
|-------|--|--|--|-----------------------|
| RM1 | | | | 225' US |
| RM2 | | | | Bolt 15' US center |
| RM3 | | | | DSR 50' |
| Flume | | | | A US Top left |
| " | | | | B US bottom |
| " | | | | C On free |
| " | | | | D Staff (2.50) |
| " | | | | E DS Top R |
| " | | | | F DS Bolt |
| " | | | | G PEF overflow |



| | |
|-----|-----------|
| RM2 | 246.56.05 |
|-----|-----------|

| | |
|----|------|
| 25 | 0172 |
|----|------|

| |
|--------|
| 0.2442 |
|--------|

| | |
|---|-----------------------------|
| A | 254.02.37, 17.4331, 0.2445 |
| B | 253.18.31, 17.7476, 0.2609 |
| C | 253.04.54, 17.4210, 0.4912 |
| D | 254.02.30, 17.6012, 0.2455 |
| E | 255.42.24, 16.0562, 0.2346 |
| F | 256.25.43, 16.1623, -0.5402 |
| G | 259.46.34, 17.4985, -0.2900 |

| | |
|-----|---------------------------|
| RM2 | 246.50.34, 25.0464, 02171 |
|-----|---------------------------|

| |
|-----------|
| HZ, Δ, Δ1 |
|-----------|