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. 46
Comp. by _____
Checked by _____

Sta. No. _____
Sta. Name C1 - Commonwealth
Date Jan 11 , 20 03 Party BAS, JDG, EDC
Width 9.00 Area 5.88 Vel. 0.63 G.H. _____ Disch. 3.72 @ 9:30
Method 0.6 No. secs. _____ G.H. change _____ in _____ hrs.
Method coef. 1.0 Horiz. angle coef. 1.0 Susp. Rod Tags checked OK
Meter Type Pygmy Meter No. 90265 Meter _____ ft. above bottom of wt.
Rating used 6-99 Spin test before meas. 1:54 ; after OK
Meas. plots _____ % diff. from rating no. _____ Indicated shift _____

GAGE READINGS						
Time	Tdown ft		Q		Inside ft	Outside ft
9:25	2.32 Start		3.72		8.94	8.71
10:30	2.14 Finish					8.89
Weighted MGH						
GH correction						
Correct MGH						

Samples collected: water quality, @ 10:10
sediment, biological, other _____

Measurements documented on separate sheets: water quality, aux./base gage, other _____

Rain gage serviced/calibrated _____

Weather: 0% cc, wind < 1 mph
Air Temp. _____ °C at _____
Water Temp. 4.3 °C at 10:10
Check bar/chain found _____
Changed to _____ at _____
Correct _____

Wading, cable, ice, boat, upstr., downstr., side bridge, 20 ft., mi. upstr., downstr. of gage
Measurement rated excellent (2%), good (5%), fair (8%), poor (> 8%); based on following conditions: Flow: even, steady flow lines
Cross section: sand, gravel, cobble

Gage operating: _____ Record Removed _____
Battery voltage: 13.32 Intake/Orifice cleaned/purged: _____
Bubble-gage pressure, psi: Tank 500 , Line 11 ; Bubble-rate 40 /min.
Extreme-GH indicators: max _____ , min _____ .
CSG checked: _____ HWM height on stick _____ Ref. elev. _____ HWM elev. _____
HWM inside/outside: _____
Control: _____

Remarks: _____

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

Sheet No. _____ of _____ sheets

	Time	IG	OG
wtr temp	10:10	N/A	4.3°C
Sp. Cond	10:10	N/A	41.4 µS

Top of rebar elevation = $\frac{11.024 - 11.030\ ft}{(1/23/03\ \text{levels}) \quad (12/28/02\ \text{levels})} + 11.030 = 11.030$
(+23 days)

① Tapedown @ 9:25 = 2.32 ft → ~~11.030 - 2.32 = 8.71 ft~~ 11.027 - 2.32 = 8.707
② Tapedown @ 10:30 = 2.14 ft → ~~11.030 - 2.14 = 8.89 ft~~ 11.027 - 2.14 = 8.887

Form 9-275-G
(July 1994)

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
WATER RESOURCES DIVISION

DISCHARGE MEASUREMENT NOTES

Meas. No. _____

Sta. No. _____ Comp. by AGC Trans #7

Commonwealth Checked by _____

Date Jan 11, ~~19~~ 2003 Party PAS, KAC, JDG

Width 9.0 Area 5.88 Vel. 0.63 G. H. _____ Disch 3.72

Method .6 No. secs. _____ G. H. change _____ in _____ hrs. Susp. Rod

Method coef. 1.0 Hor. angle coef. 1.0 Susp. coef. _____ Meter No. 90265

Type of meter pygmy Date rated 6-99 Tag checked OK

Meter _____ ft. above bottom of wt. Spin before meas. 1:54 after OK

Meas. plots _____ % diff. from _____ rating. Levels obtained no

GAGE READINGS

Time	Inside			Outside
0925	8.94			8.71
1030				8.89
Weighted M.G.H.				
G.H. correction				
Correct M.G.H.				

WATER QUALITY MEASUREMENTS

No ____ Yes ✓ Time ____ @ 10:10

Samples Collected

No ____ Yes ✓ Time ____

Method Used

EDI ____ EWI ____ Other ____

SEDIMENT SAMPLES

No ____ Yes ____ Time ____

Method Used

EDI ____ EWI ____ Other ____

BIOLOGICAL SAMPLES

Yes ____ Time ____

No ____ Type ____

Check bar. chain found _____ changed to _____ at _____

Wading, cable, ice, boat, upstr., downstr., side bridge 20 feet mile, above, below gage.

Measurement rated excellent (2%), good (5%), fair (8%), poor (over8%); based on the following cond:

Flow Even, steady flow lines

Cross section sand, gravel, cobble

Control looks good, clear

Gage operating yes Weather Sunny, slight breeze

Intake/Orifice cleaned _____ Air 5 °C@ 0925 Water _____ °C@ _____

Record removed _____ Extreme Indicator: Max. _____ Min. _____

Nitrogen Pressure Tank _____ Feed _____ Bbl rate _____ per min.

CSG checked _____ Stick reading _____

Observer _____

HWM _____ outside, in well

Remarks TPD = 2.32' From top of rebar to Water Surface
Elevation of rebar = 11.03 (leveled 12/28/03) - 2.32 = 8.71

G.H. of zero flow _____ ft. Sheet No. _____ of _____ sheets

@ 1030 TPD = 2.14' from rebar

11.03 (rebar elevation)
− 2.14
8.89

aCalc 5000 (tm) by JBS Instruments
irmware Version AQCUSH8c (c)1995-2000

GAGE ID#	0000013
DATE	01/10/2003
TRANSECT	07
USER ID#	4907
SH BEGIN	0.00
SH END	0.00
GH BEGIN	7.71
GH END	0.00
EST. DISCHARGE	0.00
EST. Q (ADJ)	3.72
METER ID#	90256
AQUACALC ID#	671
SOUNDING WT.	0
START MEAS. AT	LEW
METER TYPE	Pygmy ST2
METER CONST. C1	0.9604
METER CONST. C2	0.0312
METER CONST. C3	0.9604
METER CONST. C4	0.0312
METER CONST. C5	0.0
MEASUREMENT TIME	40
MEAS. SYSTEM	SAE
PERCENT SLOPE	0.00
TOTAL VERTICALS	21
TOTAL STATIONS	21
TOTAL WIDTH	9.00
TOTAL AREA	5.88
TOTAL DISCHARGE	3.720
PCT DIFFERENCE	0.0
MEAN VELOCITY	0.63
WETTED PERIMETER	9.45
HYDRAULIC RADIUS	0.62
MANNING FACTOR	0.00

OB	DIST	DEPTH	ICE	REVS	TIME	COS:VF	LOC	COEF	CLOCK	VEL	AREA	FLOW(Q)	I
1	0.00	0.00	0.00	0	0.0	1.00	6	1.00	10:03	0.000	0.000	0.000	
2	1.00	0.30	0.00	21	40.6	1.00	6	1.00	10:03	0.528	0.225	0.119	
3	1.50	0.30	0.00	9	42.8	1.00	6	1.00	10:06	0.233	0.150	0.035	
4	2.00	0.48	0.00	8	44.2	1.00	6	1.00	10:07	0.205	0.240	0.049	
5	2.50	0.50	0.00	18	40.6	1.00	6	1.00	10:08	0.457	0.250	0.114	
6	3.00	0.70	0.00	12	19.2	1.00	6	1.00	10:10	0.631	0.350	0.221	
7	3.50	0.80	0.00	36	40.3	1.00	6	1.00	10:11	0.889	0.320	0.284	
8	3.80	0.90	0.00	27	41.1	1.00	6	1.00	10:12	0.662	0.270	0.179	
9	4.10	0.80	0.00	50	40.2	1.00	6	1.00	10:13	1.226	0.240	0.294	
10	4.40	0.92	0.00	46	40.4	1.00	6	1.00	10:14	1.125	0.276	0.311	
11	4.70	0.98	0.00	44	40.1	1.00	6	1.00	10:15	1.085	0.294	0.319	
12	5.00	0.98	0.00	22	40.4	1.00	6	1.00	10:16	0.554	0.294	0.163	
13	5.30	0.98	0.00	19	40.7	1.00	6	1.00	10:17	0.480	0.294	0.141	
14	5.60	0.95	0.00	13	41.9	1.00	6	1.00	10:18	0.329	0.333	0.110	
15	6.00	0.82	0.00	26	20.4	1.00	6	1.00	10:19	1.255	0.369	0.463	
16	6.50	0.98	0.00	14	21.6	1.00	6	1.00	10:21	0.654	0.490	0.320	
17	7.00	0.89	0.00	5	33.1	1.00	6	1.00	10:22	0.176	0.445	0.078	
18	7.50	0.82	0.00	21	41.7	1.00	6	1.00	10:23	0.515	0.410	0.211	
19	8.00	0.70	0.00	23	40.5	1.00	6	1.00	10:24	0.577	0.350	0.202	
20	8.50	0.55	0.00	16	43.7	1.00	6	1.00	10:25	0.383	0.275	0.105	
21	9.00	0.00	0.00	0	0.0	1.00	6	1.00	10:25	0.000	0.000	0.000	

Elevation of rebar = 11.03 (leveled 12/28/02)

G.H. of zero flow _____ ft. Sheet No. _____ of _____ sheets

Gauge: C1 Commonwealth

Date	11 - Jan - 2003	23 - Jan - 2003	
time of visit (start & finish)	9:20	9:45 / 10:45	
party	JG, PS, KC	JB, JG, FC	
cloud cover (%, type)	0%	100% sharp	
wind (spd, dir)	< 1 mpH	5-10 mph	
air temp	~	7.8°C	
surveying?	No	Yes	
photo? (#, which camera)		Louise Canon	
to do items? (y/n)		N	
which field notebook?		Karen	
Flow measurements (times)	9:30	YES FLOW	
condition of control, probes		good, entire slightly above PLF	
method (meter, flume, visual)		visual	
discharge (units)		< 0.25 L/sec	
outside stage (staff or top down)	2.3		
CR10 stage reading			
Inside Box			
CR10 Channels (times)	9:30	9:53	10:35
ch1 stage	8.94	8.338	8.328
water temp		—	
conductivity		—	
Ch.5 battery voltage	13.32	13.315	13.369
ch2 air temp	9.3	3.416	4.6047
Year, Day, Time	ok	03✓, 23✓, 10:23 → 10:25✓	
settings o.k?	✓	✓	
*0?	✓	✓	
N2 tank pressure (psi)	500	~500 // 2000	
N2 feed pressure (psi)	11	13 // 10	
purge?	—	—	
conoflow bubble rate (per min)	40	28 bubbles/min	
Stream Chemistry (times)	10:10 AM	yes from pooled water	
water temp. (units)	4.3°C		
sp. cond. (units)	~ 41.4 µS conductc 25.1 µS	65.7 @ 4.4°C (flank), 79.9 @ 4.4°C mp	
pH and temp of probe			
instrument notes (i.e. cal. time)			
water samples collected?		Yes	

[C1- Commonwealth] [1/11/03]

To Do

Get new N_2?

[1/10/03] F2-Harnish

Powered CR10 down but did not reset time

JG, PS, EVM

→ see Pete's NB

Stage on CR10 was reading -9999, so switched power off and on, didn't fix it. Press. transducer was not getting power b/c red wire was to SW12V. Moved to 12V and everything worked fine!

Forgot to change time!!!! so time was 00:00:00 after turning power back on.

[Wright Valley - by Brownsworth] [1/11/03]

To Do

- Figure out whether channel stg rdg from data logger is metric or std

Outside gauge is in meters

Powered CR10X down around ~~11:30~~ AM 11:32