

Manning Equation - Data Collection

A GENERAL INFORMATION

1. Person conducting measurement: _____
2. Purpose of measurement: BU
3. Water Right or Claim No. (if known): 69-4122/69-4103A/69-4103
4. Name of stream: CROOKED RIVER
5. Location of diversion:
 - i) Twp _____, Rng _____, Sec _____, $\frac{1}{4}$ _____ $\frac{1}{4}$ CRIMS ★
 - ii) POD name (if known): CROOKED RIVER DITCH (SOUTH CHANNEL)
 - iii) GPS file name: 177-184
 - iv) GPS site tag number: A00 16821 - TAG ON 8" ALDER 5' NORTH.

B CROSS SECTION DATA

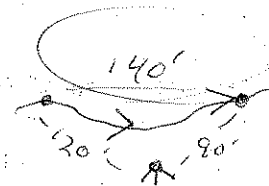
1. Basis: ☐ high water mark ☒ ditch capacity
2. Location Notes: DIVERSION ROCK, logs & TART. CROOKED RIVER TO RIGHT IN PHOTO.
VERY CONFUSING STREAM BED UPSTREAM.
X-SECTION - GPS 187-190

No.	Reading	Distance	No.	Reading	Distance	No.	Reading	Distance
1	<u>0</u>	<u>0</u>	8	<u>1.8</u>	<u>7</u>	15		
2	<u>0.5</u>	<u>1</u>	9			16		
3	<u>0.9</u>	<u>2</u>	10			17		
4	<u>1.1</u>	<u>3</u>	11			18		
5	<u>1.4</u>	<u>4</u>	12			19		
6	<u>1.4</u>	<u>5</u>	13			20		
7	<u>1.7</u>	<u>6</u>	14					

C SLOPE DATA

1. Basis: ☐ high water mark ☒ channel bottom ☐ land surface
2. Level Readings:

	<u>upstream</u>	<u>downstream</u>
Upper stadia	_____	_____
Center	<u>120 5.42</u>	<u>9.05 90</u>
Lower stadia	_____	_____
Stadia difference	(_____ + _____) x 100 = _____	



10/13/2005
Date

Signature of person conducting measurement

BASIC "n" CHANNEL MATERIAL				CHANNEL OBSTRUCTIONS			
earth	.020	/	(1)	negligible	.000		(1)
rock	.025		(2)	minor	.010		(2)
fine gravel	.024		(3)		.015		(3)
coarse gravel	.028		(4)	appreciable	.020	/	(4)
					.030		(5)
				severe	.040		(6)
					.050		(7)
					.060		(8)
SURFACE IRREGULARITY				VEGETATION			
smooth	.000		(1)	low	.005		(1)
minor	.005		(2)		.010		(2)
moderate	.010	/	(3)	medium	.015		(3)
severe	.020		(4)		.020		(4)
					.025		(5)
				.030		(6)	
				.040		(7)	
				high	.050	/	(8)
					.060		(9)
				very high	.075		(10)
					.100		(11)
VARIATIONS IN SIZE AND SHAPE OF CROSS-SECTION				DEGREE OF MEANDERING			
gradual	.000		(1)	minor	1.00		(1)
occasional	.005		(2)	appreciable	1.15	/	(2)
frequent	.010	/	(3)	severe	1.30		(3)
	.015		(4)				

CROSS SECTION NUMBER 1

For File Number CROOKED RIVER DITCH CLAIMS for the
CROOKED RIVER DITCHES; A0016821

Number	Rod Reading	Water Depth	Distance
1	0.00	0.00	0.00
2	0.50	0.50	1.00
3	0.70	0.70	2.00
4	1.10	1.10	3.00
5	1.40	1.40	4.00
6	1.40	1.40	5.00
7	1.30	1.30	6.00
8	1.30	1.30	7.00
9	0.00	0.00	8.00

The area for this cross section is 7.70 square feet
and the wetted perimeter is 8.90 feet.

MANNING EQUATION CHANNEL CAPACITY RESULTS

12-07-2005

File Number: CROOKED RIVER DITCH CLAIMS

Claimant:

Channel measured: CROOKED RIVER DITCHES; A0016821

Date of measurement: 10/13/05

Measurement location:

Calculation prepared by: MIKE CISCELL

Comments about the measurement:

The results of the calculation are:

The length of the channel measured is 140 feet.

The upstream and downstream rod readings are 5.42 and 9.05 feet.

The channel cross section is 7.70 ft-sq.

The wetted perimeter is 8.90 feet.

The hydraulic radius is 0.86 feet.

The slope is 0.0259

The roughness coefficient is 0.1265

The flow velocity is 1.722 ft/sec.

The rate of flow is 13.26 cfs.