

VIRGIN RIVER BASIN

09408000 LEEDS CREEK NEAR LEEDS, UT

LOCATION.--Lat 37°16'03", long 113°22'12", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec. 36, T. 40 S., R. 14 W., Washington County, Hydrologic Unit 15010008, on left bank 1,150 ft upstream from Leeds Ditch diversion, 2.1 mi north of Leeds, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--15.5 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1915 to June 1920 (fragmentary) in reports of Geological Survey; October 1964 to current year.

GAGE.--Water-stage recorder. Crest-stage gage since May 30, 1989. Elevation of gage is 4,000 ft above NGVD of 1929, from topographic map. Prior to June 1920, at various sites and datums about 600 ft downstream; October 28, 1964, to August 20, 1967, water-stage recorder at site 1,000 ft downstream at different datum.

REMARKS.--Records good except estimated daily discharges, which are poor. Diversion of spring area for domestic use about 4 mi upstream of gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,420 ft<sup>3</sup>/s, Aug 3, 1988, gage height, 9.41 ft, from rating curve extended above 33 ft<sup>3</sup>/s on basis of slope-area measurement; minimum daily discharge, 0.79 ft<sup>3</sup>/s, Aug 22, 23, 25, and 26, 2002.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug 12, 1964 reached a stage of 6.00 ft, former site and datum, discharge 2,980 ft<sup>3</sup>/s from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar 16	2145	*20	*2.15				

Minimum daily discharge, 1.1 ft<sup>3</sup>/s, Oct 1 and 6-21.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.3	1.7	1.5	1.6	2.7	3.7	3.7	2.5	e2.3	3.1	e2.7
2	1.2	1.3	1.7	1.5	1.6	2.7	3.7	3.6	2.4	e2.3	3.2	e2.7
3	1.3	1.3	1.6	1.5	1.6	2.6	3.7	3.6	2.4	e2.3	3.1	e2.7
4	1.2	1.3	1.6	1.5	1.6	2.6	3.7	3.7	2.4	e2.3	3.0	e2.7
5	1.2	1.3	1.6	1.6	1.6	2.6	3.8	3.6	2.3	e2.3	2.9	2.8
6	1.1	1.3	1.6	1.6	e1.6	2.6	3.7	3.5	2.3	e2.3	2.9	3.2
7	1.1	1.3	1.6	1.6	e1.6	2.8	3.7	3.6	2.3	e2.3	2.8	2.8
8	1.1	1.7	1.6	1.6	e1.7	3.4	3.6	3.7	2.3	2.3	2.8	2.6
9	1.1	2.1	1.6	1.6	e1.7	3.6	3.5	3.6	2.3	2.2	2.8	2.6
10	1.1	1.9	1.6	1.6	e1.7	3.6	3.4	3.5	2.3	2.3	2.8	2.5
11	1.1	1.8	1.6	1.7	1.7	3.5	3.4	3.5	2.3	2.3	2.7	2.5
12	1.1	1.7	1.6	1.7	1.8	3.4	3.4	3.4	2.3	2.3	2.7	2.5
13	1.1	1.7	1.6	1.7	3.4	3.4	3.4	3.3	2.3	2.3	2.6	2.4
14	1.1	1.7	1.6	1.7	2.4	3.4	3.3	3.3	2.2	2.3	2.6	2.4
15	1.1	1.7	1.6	1.7	2.2	3.5	4.3	3.3	2.2	2.4	3.1	2.3
16	1.1	1.7	e1.6	1.7	2.1	7.6	3.9	3.2	2.2	2.4	3.6	2.3
17	1.1	1.6	e1.6	1.7	2.1	8.2	3.9	3.2	2.2	2.5	3.2	2.2
18	1.1	1.6	e1.6	1.6	e2.1	5.1	3.9	3.2	2.2	2.5	2.9	2.2
19	1.1	1.6	1.6	1.7	e2.0	4.3	3.8	3.1	2.2	2.6	2.8	2.2
20	1.1	1.6	1.6	1.6	e1.9	4.1	3.7	3.1	2.2	2.5	2.8	2.2
21	1.1	1.6	1.6	1.6	e1.9	4.0	3.7	3.0	2.2	2.5	2.8	2.2
22	1.2	1.6	1.6	1.6	e1.9	4.0	3.7	2.9	2.2	2.7	3.0	2.1
23	1.2	1.6	1.6	1.6	e1.9	3.9	4.0	2.8	2.3	2.6	3.0	2.1
24	1.2	1.6	1.6	1.6	e1.9	3.9	3.8	2.8	2.4	2.8	2.8	2.0
25	1.2	1.6	e1.6	1.6	e2.3	3.9	3.7	2.7	2.4	2.9	2.7	2.0
26	1.2	1.6	e1.6	1.6	2.7	3.9	3.7	2.7	2.3	2.9	2.7	2.0
27	1.6	1.6	e1.6	1.6	2.7	3.9	3.6	2.7	2.3	2.9	2.8	1.9
28	1.3	1.6	1.6	1.6	2.6	3.9	3.6	2.6	2.3	2.9	2.8	1.9
29	1.3	1.6	1.6	1.6	---	3.9	3.6	2.5	2.2	3.3	2.9	1.9
30	1.3	1.6	1.5	1.6	---	3.9	3.6	2.5	2.2	3.4	2.7	1.9
31	1.3	---	1.5	1.6	---	3.8	---	2.5	---	3.2	2.7	---
TOTAL	36.4	47.5	49.6	50.0	55.9	118.7	110.5	98.4	68.6	79.1	89.3	70.5
MEAN	1.17	1.58	1.60	1.61	2.00	3.83	3.68	3.17	2.29	2.55	2.88	2.35
MAX	1.6	2.1	1.7	1.7	3.4	8.2	4.3	3.7	2.5	3.4	3.6	3.2
MIN	1.1	1.3	1.5	1.5	1.6	2.6	3.3	2.5	2.2	2.2	2.6	1.9
AC-FT	72	94	98	99	111	235	219	195	136	157	177	140

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2003, BY WATER YEAR (WY)

MEAN	3.93	4.05	4.51	4.49	6.32	9.02	9.43	10.4	12.7	10.4	6.85	4.55
MAX	9.16	10.8	26.6	12.2	52.0	36.3	33.1	28.7	38.1	34.3	21.6	12.5
(WY)	(1984)	(1988)	(1967)	(1993)	(1980)	(1983)	(1969)	(1969)	(1973)	(1983)	(1988)	(1983)
MIN	1.17	1.58	1.60	1.61	2.00	2.37	2.00	1.95	1.37	0.98	0.84	0.99
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(1977)	(2002)	(2002)	(2002)	(2002)	(2002)

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1965 - 2003	
ANNUAL TOTAL	621.29		874.5			
ANNUAL MEAN	1.70		2.40		7.23	
HIGHEST ANNUAL MEAN					18.1	1980
LOWEST ANNUAL MEAN					2.07	2002
HIGHEST DAILY MEAN	2.9	Jan 1	8.2	Mar 17	412	Dec 6, 1966
LOWEST DAILY MEAN	0.79	Aug 22	1.1	Oct 1	0.79	Aug 22, 2002
ANNUAL SEVEN-DAY MINIMUM	0.79	Aug 22	1.1	Oct 6	0.79	Aug 22, 2002
ANNUAL RUNOFF (AC-FT)	1,230		1,730		5,240	
10 PERCENT EXCEEDS	2.6		3.7		16	
50 PERCENT EXCEEDS	1.6		2.3		4.5	
90 PERCENT EXCEEDS	0.89		1.3		2.3	

e Estimated

