



Water-Data Report NE-2005

4235390990852 ELKHORN RIVER AT STUART, NE

PLATTE RIVER BASIN

LOCATION.--Lat 42°35'39", long 99°08'52", in NE ¼ NE ¼ NE ¼ sec.11, T.30 N., R.16 W., Holt County, Hydrologic Unit 10220001, at U.S. Highway 20 bridge southwest of Stuart, and 3.7 mi downstream from confluence of North and South Forks (upper) of Elkhorn River.

DRAINAGE AREA.--Unknown

WATER-DISCHARGE AND HYDRAULIC HEAD DIFFERENCE RECORDS

REMARKS.--Measurements of streamflow discharge during base flow, and concurrent differences in hydraulic head between stream and alluvial aquifer as measured by potentiomanometer. Hydraulic heads are for specified locations in channel cross section and are from static water level in stream and ground-water level in temporary piezometer set at specified depth below stream bed. Differences computed as stream head minus aquifer head, with negative numbers indicating discharge from aquifer to stream and positive numbers indicating the reverse.

**DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005**

Date	Discharge, in ft ³ /s	Gage height, in ft
May 9, 2005	46.6	---
Jul 18, 2005	5.82	---
Sep 19, 2005	0.13	---

**HYDRAULIC HEAD DIFFERENCES BETWEEN STREAM AND ALLUVIAL AQUIFER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005**

[lew, left edge of water; rew, right edge of water; negative head differences indicate ground water discharging into stream]

Date	Station location		Cross-section stationing, in feet	Remarks	Piezometer depth below stream bed, in meters	Hydraulic head differences, in millimeters
	Latitude	Longitude				
May 9, 2005			1	lew	---	---
			10		0.6	-21
			19		0.6	-11
			26		0.6	-12
			32		0.6	-14
			39		---	---
Jul 18, 2005	42°35'40.0"	99°08'51.8"	15	lew	---	---
			12		0.6	-1
			9		0.6	-5
			6		0.6	1
			3		0.5	-1
			0		---	---
Sep 19, 2005			0	lew	---	---
			3		0.9	-65
			5		---	---
	42°35'34.7"	99°08'51.0"		rew	---	---