

POTENTIOMETRIC SURFACE

The potentiometric-surface maps (figs. 4 and 5) show the altitude at which the water level would have stood in tightly cased wells screened in the "2,400-foot" sand in May-June 2002. The map is constructed from water-level data collected from 20 wells screened in the "2,400-foot" sand (table 1). Water-level data were not collected south of the Baton Rouge fault.

The potentiometric-surface maps show water levels are lowest in and near the industrial district. In the industrial district area (figs. 4 and 5), water levels are 160 ft or more below NGVD 29. Because large withdrawals have occurred in the city of Baton Rouge (fig. 1), water levels north of the fault are 140 ft or more below NGVD 29 in western parts of the city and in the Port Allen area. Distribution of pumping centers that withdrew 0.1 Mgal/d or more is shown in figure 1. In response to lower water levels, ground-water flow (2002) north of the fault is generally toward the city of Baton Rouge from surrounding areas (shown by arrows in figs. 4 and 5). A comparison of the 2002 potentiometric surface with the 1990 potentiometric surface (Tomaszewski, 1996, fig. 22) indicates 2002 water levels have declined by approximately 40 ft or more in the industrial district and surrounding areas.

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CONVERSION FACTORS, DATUMS, AND ABBREVIATED WATER-QUALITY UNIT

Multiply	By	To obtain
foot (ft)	0.3048	meter (m)
foot per year (ft/yr)	0.3048	meter per year (m/yr)
mile (mi)	1.609	kilometer (km)
million gallons per day (Mgal/d)	3,785	cubic meter per day (m <sup>3</sup> /d)

Vertical coordinate information in this report is referenced to the National Geodetic Vertical Datum of 1929 (NGVD 29)—a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada.

Horizontal coordinate information in this report is referenced to the North American Datum of 1927.

Abbreviated water-quality unit:

milligrams per liter (mg/L)

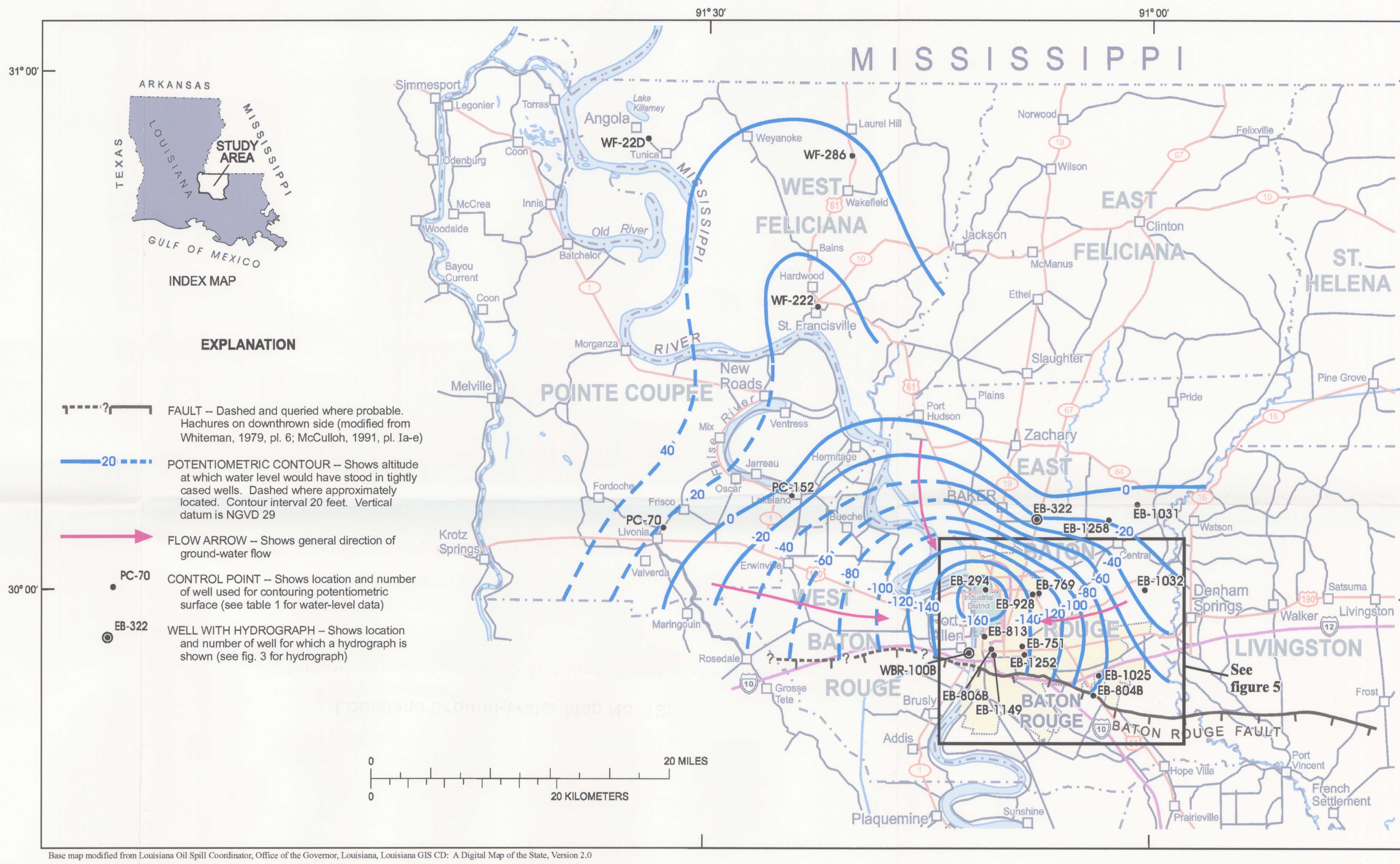


Figure 4. Potentiometric surface of the "2,400-foot" sand of the Baton Rouge area, Louisiana, May-June 2002.

Table 1. Water-level data used to construct the potentiometric-surface map of the "2,400-foot" sand in the Baton Rouge area, Louisiana, May-June 2002. [NGVD 29, National Geodetic Vertical Datum of 1929]

Well number	Well depth, in feet below land surface	Altitude of land surface, in feet above NGVD 29	Date measured	Water level, in feet below land surface	Water level, in feet above or below (-) NGVD 29
East Baton Rouge Parish					
EB-294	2278	58.00	06-03-02	236.34	-178.34
EB-322	1971	68.00	05-21-02	92.52	-24.52
EB-751	2595	48.00	05-23-02	192.82	-144.82
EB-769	2362	55.00	05-23-02	186.19	-131.19
EB-804B	2762	46.00	05-16-02	122.20	-76.20
EB-806B	2579	46.50	05-16-02	201.38	-154.88
EB-813	2536	59.00	05-23-02	205.31	-146.31
EB-928	2375	56.00	05-23-02	193.25	-137.25
EB-1025	2674	45.00	05-23-02	125.62	-80.62
EB-1031	1976	73.00	05-17-02	80.81	-7.81
EB-1032	2334	47.00	05-17-02	80.42	-33.42
EB-1149	2694	57.00	05-23-02	208.52	-151.52
EB-1252	2625	51.00	05-23-02	201.77	-150.77
EB-1258	2025	70.00	05-17-02	88.66	-18.66
Pointe Coupee Parish					
PC-70	2294	26.00	05-07-02	6.37	19.63
PC-152	1904	30.00	05-16-02	35.30	-5.30
West Baton Rouge Parish					
WBR-100B	2448	29.00	05-24-02	169.48	-140.48
West Feliciana Parish					
WF-22D	907	60.00	05-01-02	10.56	49.44
WF-222	1526	140.00	05-03-02	125.50	14.50
WF-286	982	290.00	05-01-02	254.22	35.78

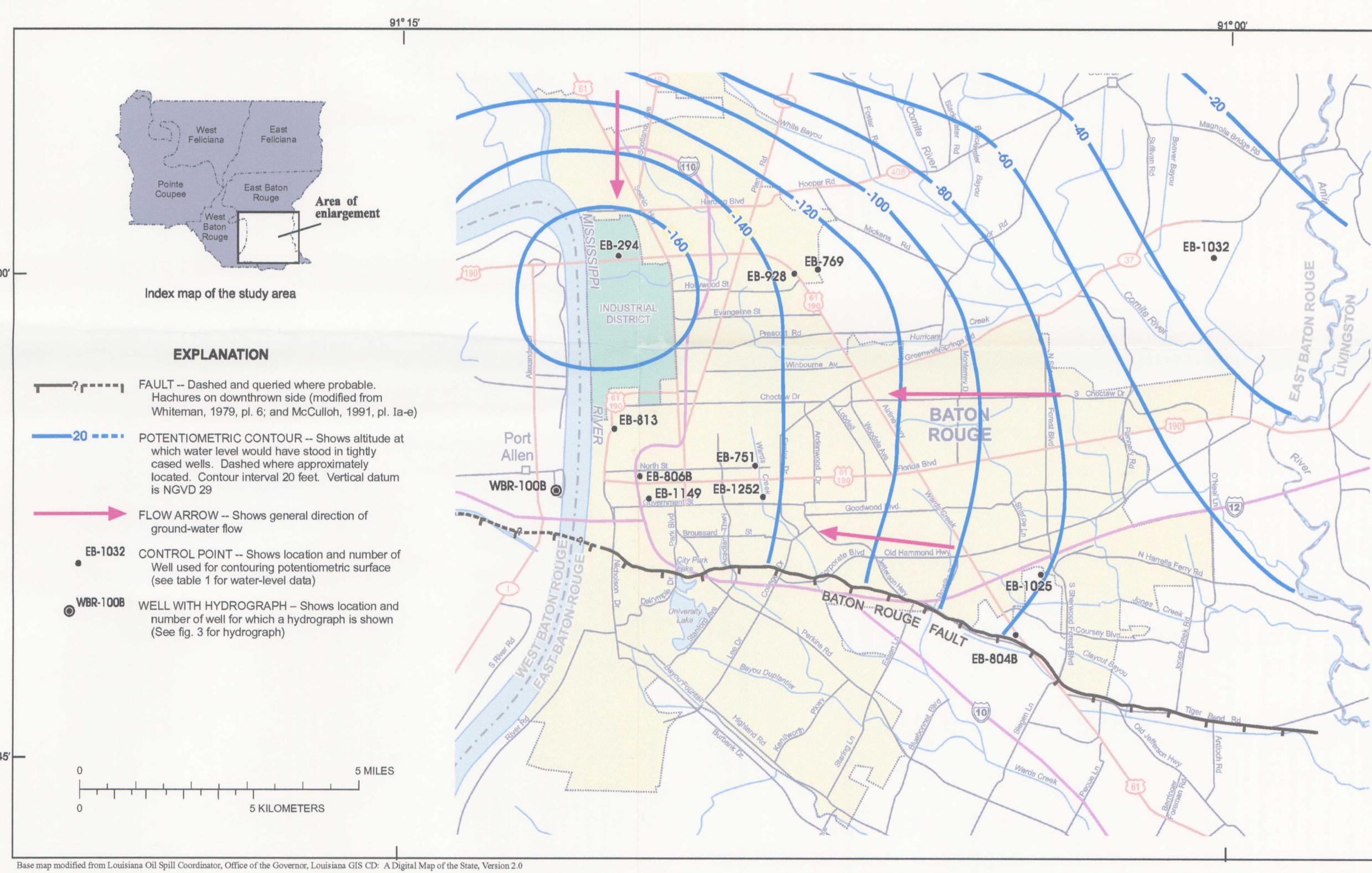


Figure 5. Potentiometric surface of the "2,400-foot" sand in parts of East and West Baton Rouge Parishes, Louisiana, May-June 2002.

Louisiana Ground-Water Map No. 19:

Potentiometric Surface of the "2,400-foot" Sand of the Baton Rouge Area, Louisiana, May-June 2002

By

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