APPENDIX 3

CHICOT EQUIVALENT AQUIFER SYSTEM SUMMARY

BASELINE MONITORING PROJECT, EPA FY'00

(July 1999 Through June 2000)

PART II

OF

TRIENNIAL SUMMARY REPORT

FOR THE

ENVIRONMENTAL EVALUATION DIVISION

OF

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PARTIAL FUNDING PROVIDED THROUGH CWA 106 GRANT

CHICOT EQUIVALENT AQUIFER SYSTEM SUMMARY

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BACKGROUND

To better assess the water quality of a particular aquifer at a given point in time, an attempt was made during the project year to sample all project wells producing from a common aquifer in a narrow time frame. Also, to more conveniently and economically promulgate those data collected, these aquifer summaries will make up the project Triennial Summary Report.

Figure II-1 shows the geographic locations of the Chicot Equivalent Aquifer System and the associated project wells, whereas Table II-1 lists the wells in the aquifer along with their total depths and the use made of produced waters and the date sampled.

These data show that from August through December of 1999, twenty-four project wells were sampled which produce from the Chicot Equivalent Aquifer System. Of these twenty-four wells, ten are classified as Industrial wells, six are classified as Public Supply, five are classified as a Domestic, one is classified as a Power Generation well, one is classified as a Monitoring well, and one is classified as an Irrigation well. The wells are located in thirteen parishes in southeast Louisiana.

Well data for registered project water wells were obtained from the Louisiana Department of Transportation and Development's Water Well Registration Data file.

PROJECT FIELD AND ANALYTICAL PARAMETERS

The field parameters that are checked at each sampling site and the list of water quality parameters that are analyzed in the laboratory are shown in Table II-2. Those project inorganic (total metals) parameters analyzed in the laboratory are listed in Table II-3. These tables also show the field and analytical results determined for each analyte.

In addition to the analytical parameters mentioned above, a list of project analytical parameters that include three other categories of compounds (volatiles, semi-volatiles, and pesticides/PCB's) is included. Due to the large number of analytes in these three categories, tables were not prepared for each well. However, in order for the reader to be aware of the total list of analytes, Tables II-4, II-5, and II-6 were included in this summary. These tables list the project analytes along with their Practical Quantitation Limits (PQLs) used during processing.

DISCUSSION OF WATER QUALITY DATA

FEDERAL PRIMARY DRINKING WATER STANDARDS: Under the Federal Safe Drinking Water Act, EPA has established Maximum Contaminant Levels (MCL) for pollutants that may pose a health risk in public drinking water. An MCL is the highest level of a contaminant that EPA allows in public drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. While not all wells sampled were public supply wells, this Office does use the MCLs as a benchmark for further evaluation.

Laboratory data from the sampling of the Chicot Equivalent Aquifer System show that two project water wells exceeded the Federal MCL of 6 parts per billion (ppb) for bis(2-ethylhexyl)phthalate (BEHP). Laboratory data from the sampling of EB-34 exhibited a value of 39 ppb for BEHP. EB-991B exhibited a value of 23 ppb in the initial sample and 29 ppb in the duplicate sample. However, these two wells were resampled for semi-volatile organics, and BEHP was not detected in these resamples. Therefore it is the opinion of this Office that the BEHP exceedances were due laboratory/field contamination.

Laboratory data from the sampling of project well ST-5245Z revealed a concentration of 0.43 ppb for mercury. While this concentration did not exceed the Federal Primary MCL of 2 ppb established for mercury, it is a higher than expected concentration. Therefore the well was resampled for total metals and the results of the resampling showed concentrations of 0.20 ppb in the initial resample and in the duplicate resample. It is this Office's opinion that the resampling has confirmed the existence of mercury in the well. Please see the Summary and Recommendations for further discussion of this.

Those project wells reporting turbidity levels of >1 NTU, do not exceed the MCL of 1.0, as this primary standard applies to surface

water systems only.

FEDERAL SECONDARY DRINKING WATER STANDARDS: EPA has set secondary standards which are defined as non-enforceable taste, odor or appearance guidelines. Field and laboratory data contained in Tables II-2 and II-3 show that nine of the wells sampled in the Chicot Equivalent Aquifer System exceeded the Secondary Maximum Contaminant Level (SMCL) for total dissolved solids (TDS), four of the wells exceeded the SMCL for iron, four wells exceeded the SMCL for chloride, seven of the wells exceeded the SMCL for pH, and four wells exceeded the SMCL for color.

TDS (SMCL=500 ppm):

AN-296 – 795.9 ppm

AN-316 – 583.4 ppm, 560 ppm

SJB-175 – 948 ppm

JF-28 – 880 ppm

AN-6297Z – 1,267 ppm

AN-321 – 795.9 ppm

SJ-226 – 544 ppm

SC-179 – 1,004 ppm

OR-61 – 600 ppm

Iron (SMCL=300 ppm):

AN-296 – 491 ppb

SH-77 – 600.3 ppb

AN-6297Z – 733.7 ppb

ST-5245Z – 2,049 ppb, 2,418 ppb (resample), 2,332 ppb (resample duplicate)

Chloride (SMCL=250 ppm):

AN-321 – 375 ppm

SC-179 – 304 ppm

SJB-175 – 298 ppm

AN-6297Z – 729 ppm

pH (SMCL=6.5 – 8.5 standard units (S.U.)):

AN-6297Z – 9.26 S.U.

EF-184 – 5.88 S.U.

WA-5311Z – 5.56 S.U.

ST-5245Z – 5.55 S.U., 5.49 S.U. (resample)

SH-77 – 5.87 S.U.

TA-520 – 5.36 S.U.

WA-5295Z – 5.93 S.U.

Color (SMCL=15 color units (PCU)):

SJB-175 – 25 PCU

JF-28 – 170 PCU

SC-179 – 60 PCU

OR-61 – 200 PCU

FEDERAL LEAD ACTION LEVEL: Under the Federal Safe Drinking Water Act, EPA has established an Action Level of 15 ppb

for lead to ensure that this contaminant does not pose either a short-term or long-term health risk in public drinking water. While not all wells sampled were public supply wells, this Office does use this Action Level as a benchmark for further evaluation. Laboratory data contained in Table II-3 show that one of the wells sampled exceeded the Action Level for lead. ST-5245Z exceeded the Action Level with a concentration of 32.2 ppb. Even though this well is not a public supply well, it was resampled due to this concentration. The laboratory results from the resampling revealed a concentration of 13.9 ppb (under the Action Level) for the initial resample and 15.9 ppb (over the Action Level) for the duplicate resample. It is this Office's opinion that the resampling has confirmed the existence of lead in the well. Please see the Summary and Recommendations for further discussion of this.

SEMIVOLATILE ORGANICS WHICH HAVE NO ESTABLISHED MCL: A concentration of 32 ppb of butylbenzylphthalate was exhibited in the sample results from project well SJ-226. As of the writing of this summary, no MCL has been established for butylbenzylphthalate. Since this well is an industrial well and since butylbenzylphthalate has no established primary MCL, the well was not resampled. Taking into account the EPA guidance document "Guidance For Data Usability In Risk Assessment, EPA 1992," it is this Office's opinion that the occurrence of butylbenzylphthalate is due to field/laboratory contamination. It will therefore be considered a false positive.

SELECTED WATER QUALITY MAPS: For the reader's convenience, maps showing the contoured values for pH, TDS, chloride, and iron are included in this summary report in Figures II-2 through II-5.

SUMMARY AND RECOMMENDATIONS

In summary, the analytical data show that the ground water from this aquifer is of fair quality when considering taste, odor or appearance guidelines. The data also show that this aquifer is of good quality as far as short-term or long-term health risks are concerned.

This is with the exception of the occurrence of mercury and lead in project well ST-5245Z. The well is located on a horse ranch north of Folsom, it is 90 feet deep, and the water drawn from it feeds into a pond located toward the front of the property which is mainly used for fishing. The laboratory results from the regularly scheduled sampling of this well revealed that lead was at a concentration of 32.2 ppb, which is above the Federal Action Level of 15 ppb for lead, and that mercury was at a concentration of 0.43 ppb. Consequently, the well was resampled for metals. The laboratory results from both the initial resample, and the duplicate resample taken directly after the initial resample, revealed concentrations of lead and mercury. Lead was detected at a concentration of 13.9 ppb in the initial resample and at a concentration of 15.9 ppb in the duplicate resample. Mercury was detected at a concentration of 0.20 ppb in both the initial and the duplicate resamples. It is this Office's opinion that the resampling has confirmed the existence of lead and mercury in the well. The owner of the well was made aware of this and was given information on lead and mercury contamination, and was informed of steps that can be taken to alleviate the problem. In addition to the owner, LDEQ's Mercury Contaminant Program, the Louisiana Department of Health and Hospitals, and the Louisiana Department of Agriculture and Forestry was also notified.

It is recommended that the several project wells assigned to the Chicot Equivalent Aquifer be resampled as planned, in approximately three years. In addition, several wells should be added to those currently sampled to increase the well density for this aquifer.

Table II-1 List of Project Wells Sampled

PROJECT NUMBER	PARISH	WELL NUMBER	DATE SAMPLED	OWNER	DEPTH (Feet)	WELL USE
199904	ASCENSION	AN-266	08/10/1999	CITY OF GONZALES	548	PUBLIC SUPPLY
199005	ASCENSION	AN-296	09/13/1999	UNIROYAL CHEMICAL CO.	300	INDUSTRIAL
199004	ASCENSION	AN-316	09/14/1999	BORDEN CHEMICAL AND	478	INDUSTRIAL
199008	ASCENSION	AN-321	09/13/1999	RUBICON, INC.	523	INDUSTRIAL
198403	ASCENSION	AN-333	08/10/1999	CAPITAL UTILITIES	645	PUBLIC SUPPLY
199007	ASCENSION	AN-337	09/13/1999	BASF CORP.	459	PUBLIC SUPPLY
199406	ASCENSION	AN-500	09/13/1999	UNIROYAL CHEMICAL CO.	480	INDUSTRIAL
199009	ASCENSION	AN-6297Z	11/10/1999	VULCAN CHEMICAL	294	MONITOR
199903	EAST BATON	EB-1231	08/09/1999	GEORGIA PACIFIC CORP.	280	INDUSTRIAL
199002	EAST BATON	EB-34	08/09/1999	EXXON USA	453	INDUSTRIAL
198607	EAST BATON	EB-991B	08/09/1999	BATON ROUGE WATER	565	PUBLIC SUPPLY
199201	EAST FELICIANA	EF-184	11/15/1999	PRIVATE OWNER	88	DOMESTIC
199014	JEFFERSON	JF-28	10/12/1999	ENTERGY	807	INDUSTRIAL
199317	LIVINGSTON	LI-5477Z	08/10/1999	PRIVATE OWNER	106	DOMESTIC
198504	LIVINGSTON	LI-85	08/10/1999	FRENCH SETTLEMENT WTR	405	PUBLIC SUPPLY
199328	ORLEANS	OR-61	10/12/1999	ENTERGY	653	POWER
199013	ST CHARLES	SC-179	10/11/1999	UNION CARBIDE	460	INDUSTRIAL
199624	ST HELENA	SH-77	11/15/1999	TRANSCO	170	PUBLIC SUPPLY
199905	ST JAMES	SJ-226	10/11/1999	LA ROCHE CHEMICAL	248	INDUSTRIAL
199011	ST JOHN THE	SJB-175	10/11/1999	E.I. DUPONT	422	INDUSTRIAL
199318	ST TAMMANY	ST-5245Z	11/16/1999	PRIVATE OWNER	90	DOMESTIC
198820	TANGIPAHOA	TA-520	11/15/1999	PRIVATE OWNER	135	IRRIGATION
199319	WASHINGTON	WA-5295Z	11/16/1999	PRIVATE OWNER	100	DOMESTIC
199320	WASHINGTON	WA-5311Z	11/16/1999	PRIVATE OWNER	90	DOMESTIC

Table II-2 Summary of Water Quality Data

WELL NUMBER	TEMP. °C	pH SU	COND. mmhos/ cm	SAL. ppt	TSS ppm	TDS ppm	ALK. ppm	HARD. ppm	TURB. NTU	COND. umhos/cm	COLOR PCU	Cl ppm	SO4 ppm	TOT. P ppm	TKN ppm	NH3 (as N) ppm	NITRITE-NITRATE (as N) ppm
AN-266	NO DATA				<4.0	214.0	147.0	38.5	<1.0	309.0	<5.0	12.42	3.92	0.26	0.41	0.33	<0.02
AN-296	22.01	7.70	1.235	0.62	<4.0	795.9	329.0	150.0	2.3	1258.0	10.0	214.00	<1.25	0.23	2.90	2.34	0.03
AN-316	24.18	7.97	0.975	0.48	<4.0	583.4	159.0	68.7	<1.0	990.0	5.0	218.00	<1.25	0.14	0.38	0.37	0.03
AN-316*	24.18	7.97	0.975	0.48	<4.0	560.0	159.0	68.7	<1.0	989.0	5.0	219.00	<1.25	0.12	0.37	0.37	0.03
AN-321	22.97	7.99	1.448	0.73	<4.0	795.9	166.0	67.3	<1.0	1459.0	5.0	375.00	<1.25	0.19	0.55	0.44	0.03
AN-333	NO DATA				5.0	392.0	180.0	11.8	<1.0	682.0	5.0	107.51	1.64	0.22	0.23	0.20	<0.02
AN-337	23.43	8.3	0.387	0.18	<4.0	244.0	178.0	9.3	<1.0	395.0	10.0	26.40	<1.25	0.22	0.77	0.52	0.03
AN-500	24.64	7.77	0.869	0.43	<4.0	349.9	157.0	43.4	<1.0	568.0	5.0	84.60	1.80	0.14	0.05	0.45	0.04
AN-6297Z	26.13	9.26	2.457		<4.0	1267.0	131.0	82.8	6.7	2615.0	4.0	729.00	<1.25	0.14	3.18	1.80	<0.02
EB-1231	20.63	6.84	0.229	0.11	4.5	149.0	66.8	63.1	<1.0	241.0	5.0	32.11	3.60	0.06	<0.05	<0.10	0.05
EB-34	22.71	7.23	0.259	0.12	<4.0	223.0	134.0	29.1	<1.0	270.0	<5.0	7.58	4.01	0.14	0.10	0.12	0.02
EB-991B	22.93	7.74	0.259	0.12	<4.0	196.0	133.0	10.2	<1.0	263.0	<5.0	3.63	8.45	0.12	0.18	0.12	0.02
EB-991B*	22.93	7.74	0.259	0.12	<4.0	208.0	133.0	9.9	<1.0	264.0	5.0	3.62	8.36	0.14	0.14	0.12	0.02
EF-184	19.36	5.88	0.040	0.02	<4.0	53.3	7.9	<5.0	2.6	36.3	5.0	5.00	<1.25	<0.05	<0.05	<0.10	0.92
JF-28	24.81	8.31	1.394	0.70	<4.0	880.0	358.0	26.1	<1.0	1444.0	170.0	237.00	<1.25	0.64	1.02	0.69	0.03
LI-5477Z	21.37	8.06	0.389	0.19	<4.0	266.0	210.0	53.3	<1.0	399.0	<5.0	8.51	<1.25	0.25	0.43	0.41	0.02
LI-85	23.62	8.17	0.601	0.29	<4.0	369.9	140.0	60.2	<1.0	611.0	<5.0	106.20	3.03	0.17	0.34	0.32	0.02
OR-61	24.48	8.32	0.930	0.46	<4.0	480.0	397.0	19.0	<1.0	963.0	160.0	75.80	<1.25	0.52	1.22	0.70	0.04
OR-61*	24.48	8.32	0.930	0.46	<4.0	600.0	398.0	20.2	1.2	960.0	200.0	75.90	<1.25	0.50	1.59	0.72	0.04
SC-179	22.93	8.01	1.718	0.87	<4.0	1004.0	442.0	64.9	<1.0	1779.0	60.0	304.00	<1.25	0.55	2.46	1.74	0.03
SH-77	18.16	5.87	0.028	0.01	4.0	45.3	9.3	7.8	9.6	29.7	10.0	3.30	<1.25	0.06	<0.05	<0.10	0.14
SJ-226	20.04	7.53	0.906	0.45	<4.0	544.0	209.0	183.0	2.1	955.0	12.0	144.00	27.70	0.55	1.04	0.85	0.03
SJB-175	22.31	7.55	1.605	0.81	<4.0	948.0	391.0	162.0	1.8	1673.0	25.0	298.00	<1.25	0.28	1.88	1.32	0.03
ST-5245Z	18.23	5.55	0.048	0.02	5.0	46.7	12.3	15.7	19.0	42.4	5.0	5.20	1.40	0.11	0.21	<0.10	0.28
TA-520	19.83	5.36	0.023	0.01	<4.0	40.7	5.2	<5.0	1.2	21.5	5.0	3.00	<1.25	<0.05	<0.05	<0.10	0.56
WA-5295Z	20.74	5.93	0.030	0.01	<4.0	50.7	12.4	<5.0	1.0	48.8	5.0	3.00	<1.25	<0.05	<0.05	<0.10	0.04
WA-5311Z	17.84	5.56	0.028	0.01	<4.0	39.3	3.1	5.2	1.9	26.4	5.0	3.50	<1.25	0.14	0.11	<0.10	1.29
WA-5311Z*	17.84	5.56	0.028	0.01	<4.0	38.0	3.8	5.2	1.1	25.9	5.0	3.50	<1.25	<0.05	0.13	<0.10	1.29

* Denotes duplicate sample.

Table II-3 Summary of Inorganic Data

WELL NUMBER	ARSENIC ppb	SILVER ppb	BARIUM ppb	BERYLLIUM ppb	CADMIUM ppb	CHROMIUM ppb	COPPER ppb	IRON ppb	MERCURY ppb	NICKEL ppb	ANTIMONY ppb	SELENIUM ppb	LEAD ppb	THALLIUM ppb	ZINC ppb
AN-266	<5.0	<2.0	111.0	<1.0	<1.0	<5.0	<5.0	165.0	0.06	<5.0	<5.0	<1.0	<10.0	<1.0	<10.0
AN-296	<5.0	<1.0	330.0	<1.0	<1.0	<1.0	6.0	491.0	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	46.4
AN-316	<5.0	<1.0	321.0	<1.0	<1.0	<5.0	<5.0	185.0	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	26.0
AN-316*	<5.0	<1.0	50.7	<1.0	<1.0	<5.0	<5.0	41.8	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	<10.0
AN-321	<5.0	<1.0	320.0	<1.0	<1.0	<5.0	<5.0	251.0	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	15.3
AN-333	<5.0	<2.0	83.7	<1.0	<1.0	<5.0	15.0	33.0	0.05	<5.0	<5.0	<1.0	<10.0	<1.0	10.7
AN-337	<5.0	<1.0	50.7	<1.0	<1.0	<5.0	<5.0	41.8	<0.05	<5.0	<10.0	<5.0	<10.0	<5.0	<10.0
AN-500	<5.0	<1.0	136.0	<1.0	<1.0	<5.0	<5.0	45.6	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	111.0
AN-6297Z	<5.0	<1.0	292.4	<1.0	<1.0	<5.0	<5.0	733.7	<0.05	10.2	<5.0	<5.0	<10.0	<5.0	25.0
EB-1231	<5.0	<2.0	127.0	<1.0	<1.0	<5.0	<5.0	28.7	0.13	<5.0	<5.0	<1.0	<10.0	<1.0	6.4
EB-34	<5.0	<2.0	89.9	<1.0	1.0	<5.0	<5.0	209.0	0.05	<5.0	<5.0	<1.0	<10.0	<1.0	16.4
EB-991B	<5.0	<2.0	28.1	<1.0	<1.0	<5.0	<5.0	165.0	0.07	<5.0	<5.0	<1.0	<10.0	<1.0	11.8
EB-991B*	<5.0	<2.0	29.2	<1.0	<1.0	<5.0	<5.0	165.0	0.06	<5.0	<5.0	<1.0	<10.0	<1.0	20.2
EF-184	<5.0	<1.0	7.3	<1.0	<1.0	<5.0	<5.0	<10.0	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	32.8
JF-28	<5.0	<1.0	117.5	<1.0	<1.0	<5.0	<5.0	115.0	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	<10.0
LI-5477Z	<5.0	<5.0	97.7	<1.0	3.7	<5.0	<5.0	77.0	<0.05	<5.0	<5.0	<1.0	<10.0	<1.0	<10.0
LI-85	<5.0	<2.0	201.0	<1.0	<1.0	<5.0	26.7	77.0	<0.05	<5.0	<5.0	<1.0	<10.0	<1.0	12.2
OR-61	<5.0	<1.0	71.0	<1.0	<1.0	<5.0	<5.0	97.1	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	<10.0
OR-61*	<5.0	<1.0	72.2	<1.0	<1.0	<5.0	<5.0	98.9	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	221.3
SC-179	<5.0	<1.0	78.1	<1.0	<1.0	<5.0	<5.0	234.4	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	<10.0
SH-77	<5.0	<1.0	14.6	<1.0	<1.0	<5.0	18.8	600.3	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	283.0
SJ-226	10.8	<1.0	273.1	<1.0	<1.0	<5.0	<5.0	652.8	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	<10.0
SJB-175	<5.0	<1.0	341.9	<1.0	<1.0	<5.0	<5.0	477.0	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	14.6
ST-5245Z	<5.0	<1.0	132.7	<1.0	<1.0	<5.0	18.1	2,049.0	0.43	<5.0	<5.0	<5.0	32.2	<5.0	28.0
TA-520	<5.0	<1.0	21.1	<1.0	<1.0	<5.0	13.3	10.4	<0.05	5.9	<5.0	<5.0	<10.0	<5.0	14.7
WA-5295Z	<5.0	<1.0	65.8	<1.0	<1.0	<5.0	79.6	9.5	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	31.1
WA-5311Z	<5.0	<1.0	28.5	<1.0	<1.0	<5.0	47.2	100.9	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	49.6
WA-5311Z*	<5.0	<1.0	28.4	<1.0	<1.0	<5.0	54.6	39.1	<0.05	<5.0	<5.0	<5.0	<10.0	<5.0	45.0

* Denotes duplicate sample.

Table II-4 List of VOC Analytical Parameters
BASELINE MONITORING PROJECT

VOLATILE ORGANICS BY EPA METHOD 8260

COMPOUNDS	PQL (ppb)
DICHLOROFLUOROMETHANE	5
CHLOROMETHANE	2
VINYL CHLORIDE	2
BROMOMETHANE	2
CHLOROETHANE	2
TRICHLOROFLUOROMETHANE	5
1,1-DICHLOROETHENE	2
METHYLENE CHLORIDE	2
TRANS-1,2-DICHLOROETHENE	2
METHYL-t-BUTYL ETHER	2
1,1-DICHLOROETHANE	2
2,2 DICHLOROPROPANE	2
CIS-1,2 DICHLOROETHENE	2
BROMOCHLOROMETHANE	2
CHLOROFORM	2
1,1,1-TRICHLOROETHANE	2
1,1 DICHLOROPROPENE	2
CARBON TETRACHLORIDE	2
BENZENE	2
1,2-DICHLOROETHANE	2
TRICHLOROETHENE	2
1,2-DICHLOROPROPANE	2
BROMODICHLOROMETHANE	2
DIBROMOMETHANE	2
CIS-1,3-DICHLOROPROPENE	2
TOLUENE	2
TRANS-1,3-DICHLOROPROPENE	2
1,1,2-TRICHLOROETHANE	2
1,3--DICHLOROPROPANE	2
TETRACHLOROETHENE	2
1,2-DIBROMOETHANE	2
DIBROMOCHLOROMETHANE	2
CHLOROBENZENE	2
ETHYLBENZENE	2
1,1,1,2-TETRACHLOROETHANE	2
P&M XYLENE	4
O-XYLENE	2
STYRENE	2
BROMOFORM	2

Table II-4 (Cont'd)
Volatile Organic (VOC) Parameters

COMPOUNDS	PQL (ppb)
ISOPROPYLBENZENE	2
1,1,2,2-TETRACHLOROMETHANE	2
1,2,3,-TRICHLOROPROPANE	2
BROMOBENZENE	2
n-PROPYLBENZENE	2
2-CHLOROTOLUENE	2
4-CHLOROTOLUENE	2
1,3,5-TRIMETHYLBENZENE	2
TERT-BUTYLBENZENE	2
1,2,4-TRIMETHYLBENZENE	2
SEC-BUTYLBENZENE	2
P-ISOPROPYLTOLUENE	2
1,3-DICHLOROBENZENE	2
1,4-DICHLOROBENZENE	2
n-BUTYLBENZENE	2
1,2-DIBROMO-3-CHLOROPROPANE	2
NAPHTHALENE	2
1,2,4-TRICHLOROBENZENE	2
HEXACHLOROBUTADIENE	2
1,2-DICHLOROBENZENE	2
1,2,3-TRICHLOROBENZENE	2

PQL = Practical Quantitation Limit
ppb = parts per billion

Table II-5 List of Semi-volatile Analytical Parameters
BASELINE MONITORING PROJECT

SEMIVOLATILE ORGANICS BY EPA METHOD 8270

COMPOUNDS	PQL (ppb)
N-Nitrosodimethylamine	10
2-Picoline	10
Methyl methanesulfonate	10
Ethyl methanesulfonate	20
Phenol	10
Aniline	10
Bis(2-chloroethyl)ether	10
2-Chlorophenol	10
1,3-Dichlorobenzene	10
1,4-Dichlorobenzene	10
Benzyl alcohol	10
1,2-Dichlorobenzene	10
2-Methylphenol	10
Bis(2-chloroisopropyl)ether	10
4-Methylphenol	10
N-Nitroso-di-n-propylamine	10
Hexachloroethane	20
Acetophenone	10
Nitrobenzene	10
N-Nitrosopiperidine	20
Isophorone	10
2,4-Dimethylphenol	10
2-Nitrophenol	10
Benzoic acid	50
Bis(2-chloroethoxy)methane	10
2,4-Dichlorophenol	10
a,a-Dimethylphenethylamine	10
1,2,4-trichlorobenzene	10
Benzidine	50
Pyrene	10
p-Dimethylaminoazobenzene	10
Butylbenzylphthalate	10
Bis(2-ethylhexyl)phthalate	10

Table II-5 (Cont'd)
Semivolatile Parameters

COMPOUNDS	PQL (ppb)
3,3'-Dichlorobenzidine	20
Benzo(a)anthracene	10
Chrysene	10
Di-n-octylphthalate	10
7,12-Dimetnylbenz(a)anthracine	10
Benzo(b)fluoranthene	10
Benzo(k)fluoranthene	10
Benzo(a)pyrene	10
3-Methylcholanthrene	10
Dibenz(a,j)acridine	10
Indeno(1,2,3-cd)pyrene	10
Dibenz(a,h)anthracene	10
Benzo(g,h,i)perylene	10
Napthalene	10
4-Chloroaniline	10
2,6-Dichlorophenol	10
Hexachlorobutadiene	10
N-Nitrose-di-n-butylamine	10
4-Chloro-3-methylphenol	20
2-Methylnapthalene	10
Hexachlorocyclopentadiene	10
1,2,4,5-Tetrachlorobenzene	10
2,4,6-Trichlorophenol	10
2,4,5-Trichlorophenol	10
2-Chloronapthalene	10
1-Chloronapthalene	10
2-Nitroaniline	50
Dimethylphthalate	10
2,6-Dinitrotoluene	10
Acenaphthylene	10
3-Nitroaniline	50
4-Nitrophenol	50
2,4-Dinitrophenol	50
Acenaphthene	10

Table II-5 (Cont'd)
Semivolatile Parameters

COMPOUNDS	PQL (ppb)
2,4-Dinitrotoluene	10
Pentachlorobenzene	10
Dibenzofuran	10
1-Naphthylamine	10
Diethylphthalate	10
2,3,4,6-Tetrachlorophenol	10
2-Naphthylamine	10
4-Chlorophenyl phenyl ether	10
4-Nitroaniline	50
Fluorene	10
4,6-Dinitro-2-methylphenol	50
4-Aminobiphenyl	20
1,2-Diphenylhydrazine	10
Phenacetin	20
4-Bromophenyl phenyl ether	10
Hexachlorobenzene	10
Pronamide	10
N-Nitrosodiphenylamine/Diphenylamine	10
Pentachlorophenol	50
Pentachloronitrobenzene	20
Phenathrene	10
Anthracene	10
Di-n-butylphthalate	10
Fluoranthene	10

Table II-6 List of Pesticide and PCB Analytical Parameters
BASELINE MONITORING PROJECT

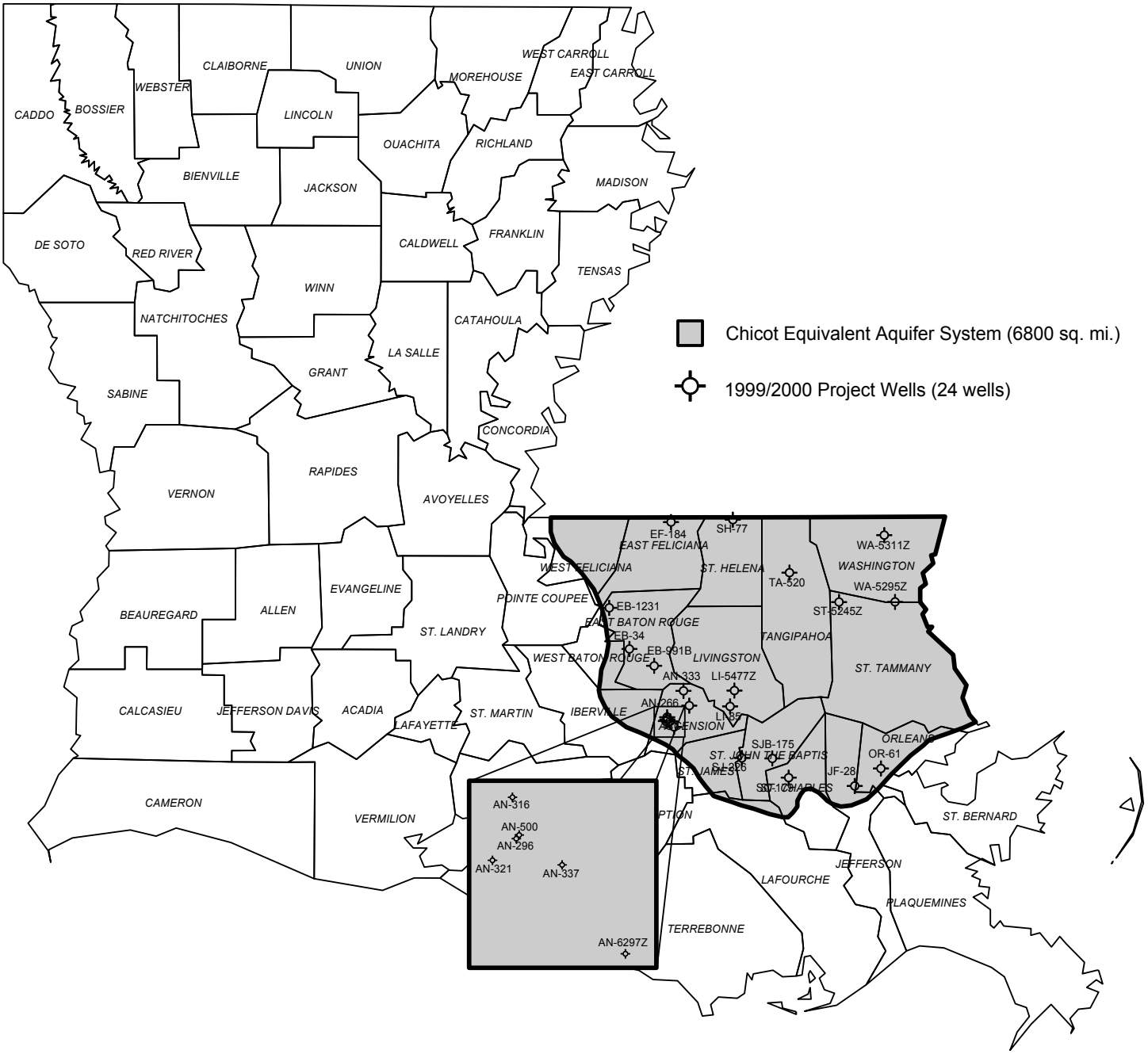
SEMIVOLATILE ORGANICS BY EPA METHOD 8270

COMPOUNDS	PQL (ppb)
Alpha BHC	2
Beta BHC	2
Gamma BHC	2
Delta BHC	2
Heptachlor	2
Aldrin	2
Heptachlor epoxide	2
Chlordane	2
Endosulfan I	2
4,4'-DDE	2
Dieldrin	2
4,4'DDD	2
Endrin	2
Toxaphene	2
Endosulfan II	2
Endrin Aldehyde	2
4,4'DDT	2
Endosulfan Sulfate	2
Methoxychlor	2
Endrin Ketone	2

SEMIVOLATILE ORGANICS BY EPA METHOD 8270

COMPOUNDS	PQL (ppb)
PCB 1221/ PCB 1232	10
PCB 1016/ PCB 12342	10
PCB 1254	10
PCB 1248	10
PCB 1260	10

BASELINE MONITORING PROJECT WELLS OF THE CHICOT EQUIVALENT AQUIFER SYSTEM



Aquifer boundary digitized from Louisiana Hydrologic Map No. 2: Areal Extent of Freshwater in Major Aquifers of Louisiana. Smoot, 1988; USGS/LDOTD Report 86-4150

Figure II-1 Location Plat, Chicot Equivalent Aquifer System

CHICOT EQUIVALENT AQUIFER SYSTEM - pH (SU)

Baseline Monitoring Project, FY1999-2000

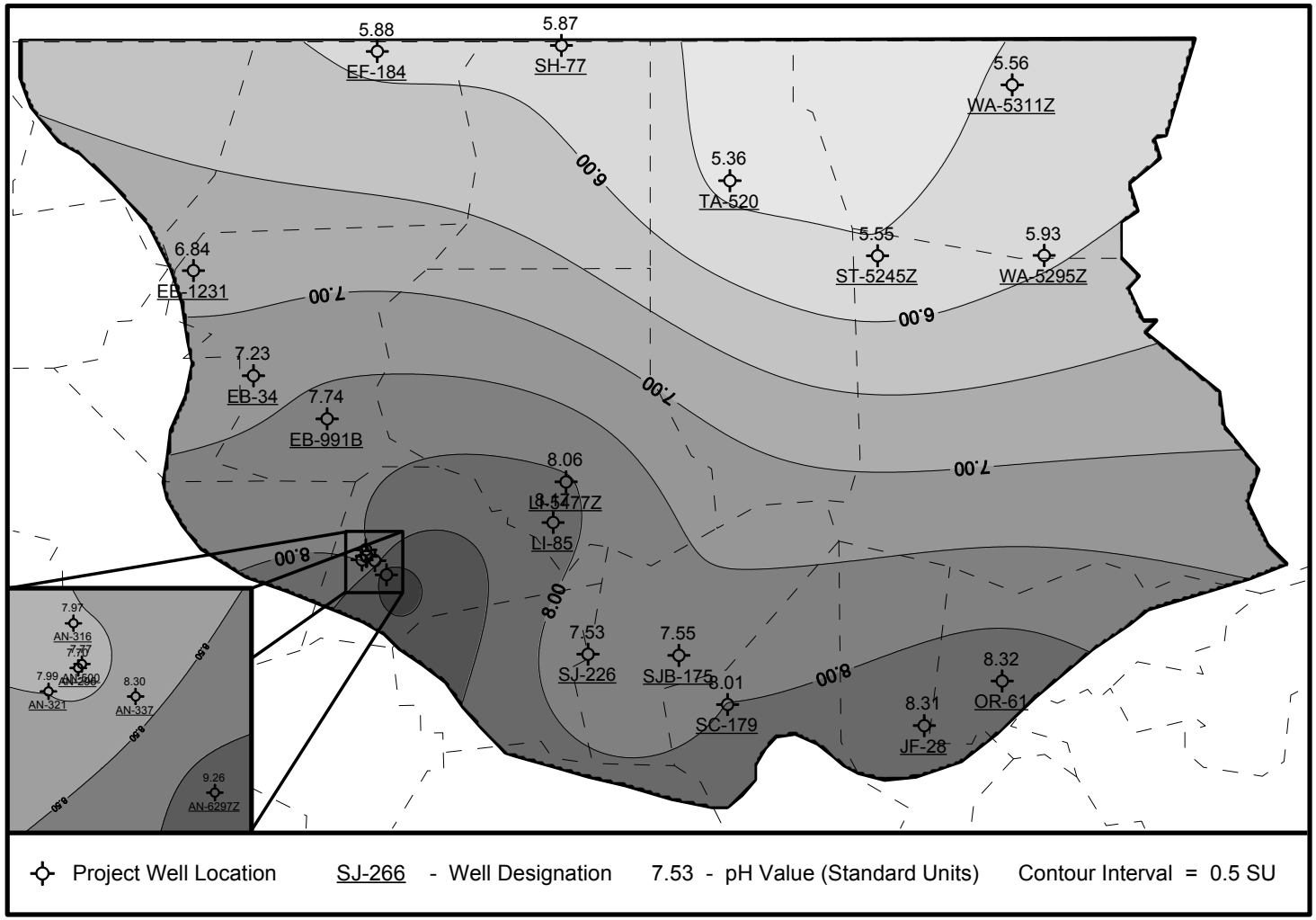


Figure II-2 Map of pH Data

CHICOT EQUIVALENT AQUIFER SYSTEM - TDS (PPM)

Baseline Monitoring Project, FY1999-2000

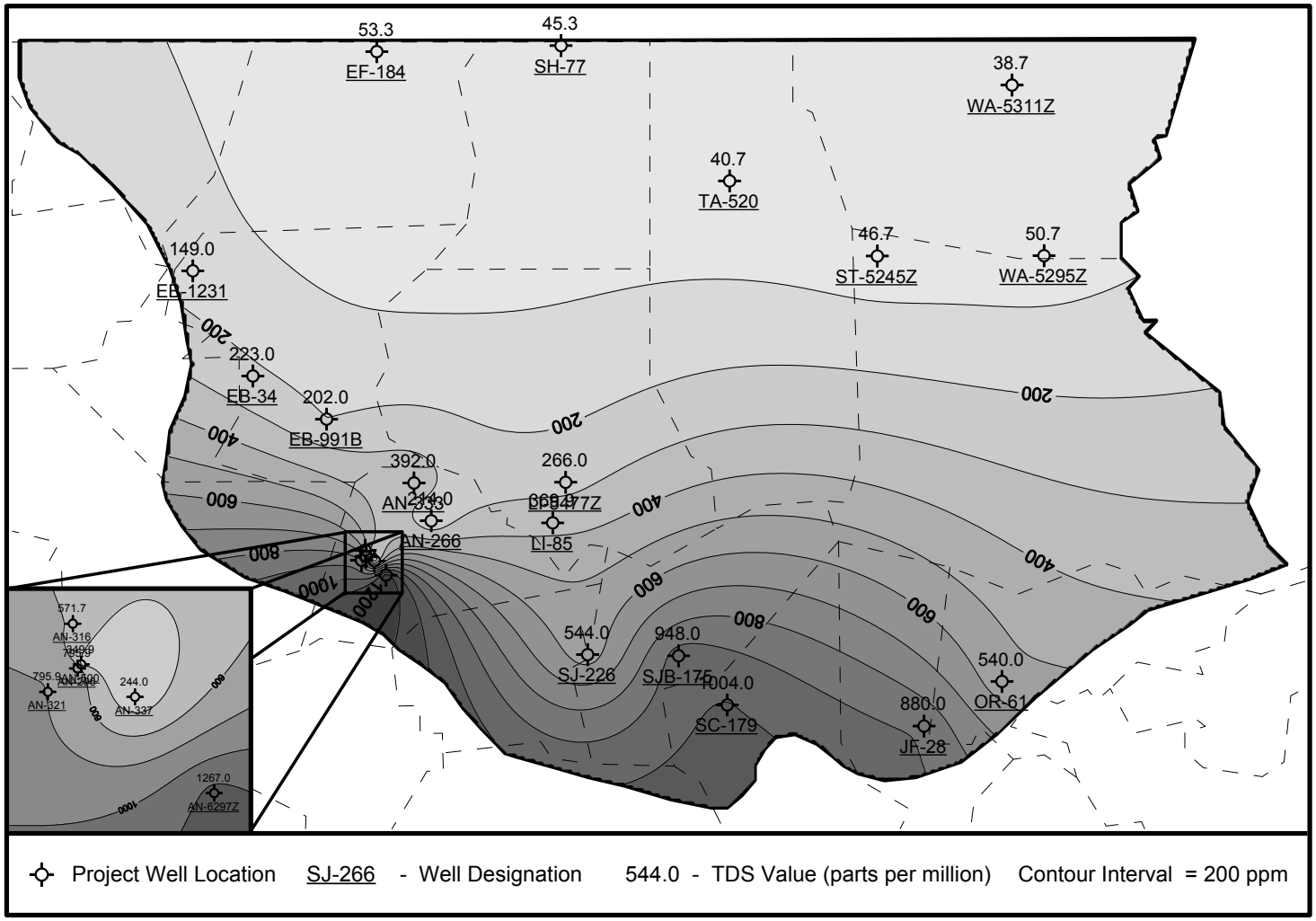


Figure II-3 Map of TDS Data

CHICOT EQUIVALENT AQUIFER SYSTEM - CHLORIDE (PPM)

Baseline Monitoring Project, FY1999-2000

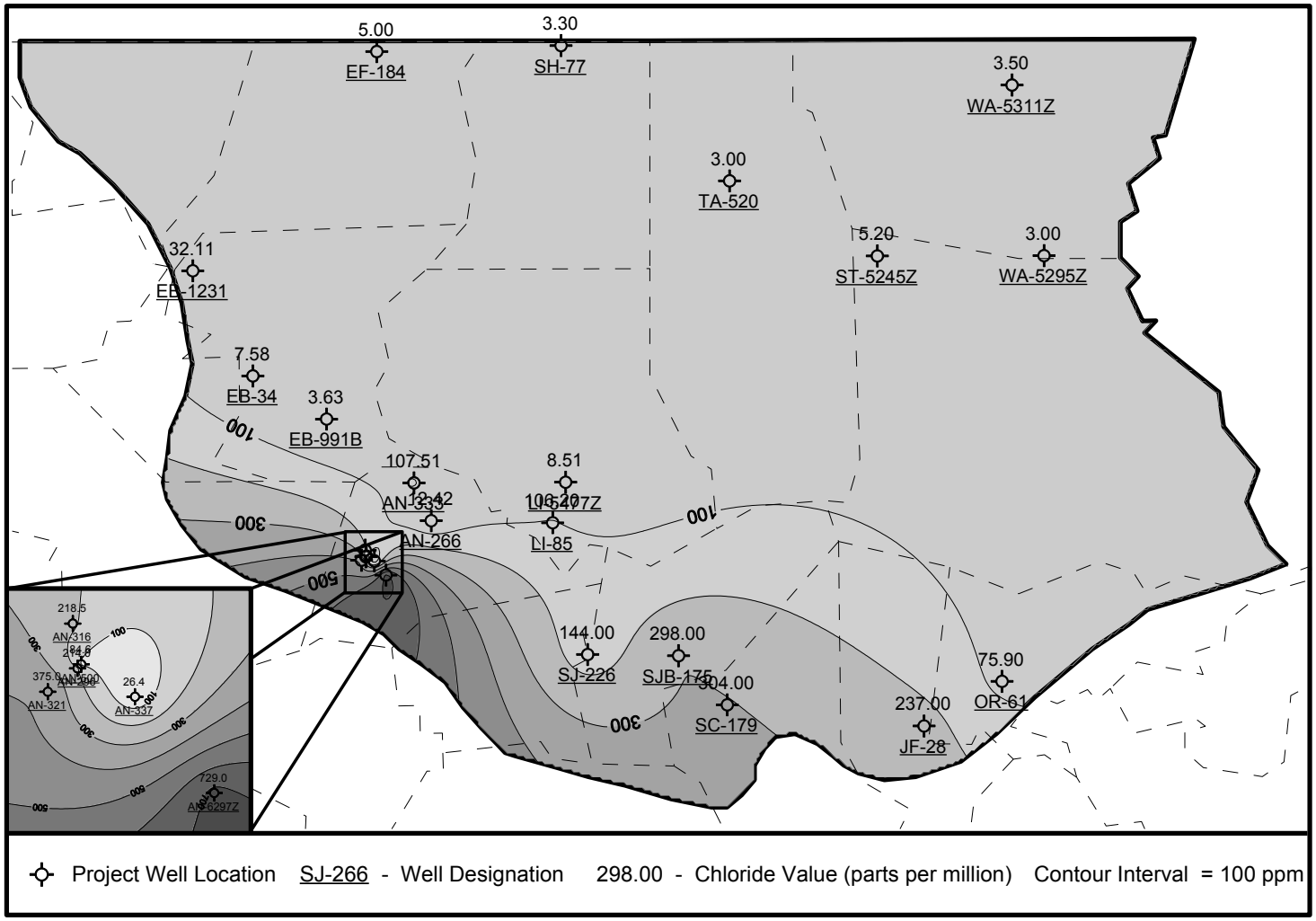


Figure II-4 Map of Chloride Data

CHICOT EQUIVALENT AQUIFER SYSTEM - IRON (PPB)

Baseline Monitoring Project, FY1999-2000

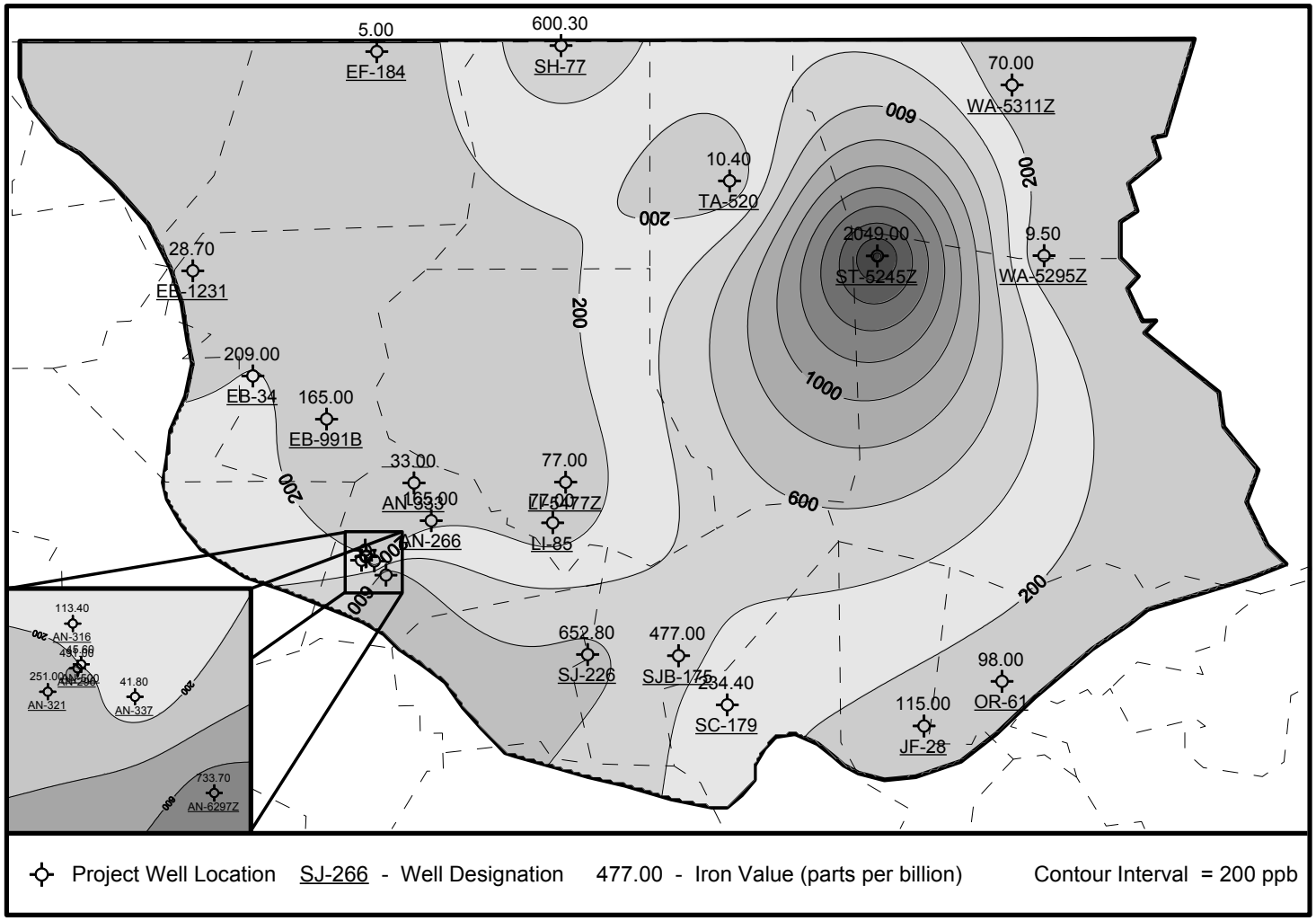


Figure II-5 Map of Iron Data