

EXHIBIT F

THERMAL PLUME SURVEYS ON THE LOWER DES PLAINES RIVER NEAR JOLIET STATIONS JUNE-SEPTEMBER 2002

Part 2 of 2

Figure B-4a
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 9 August 2002

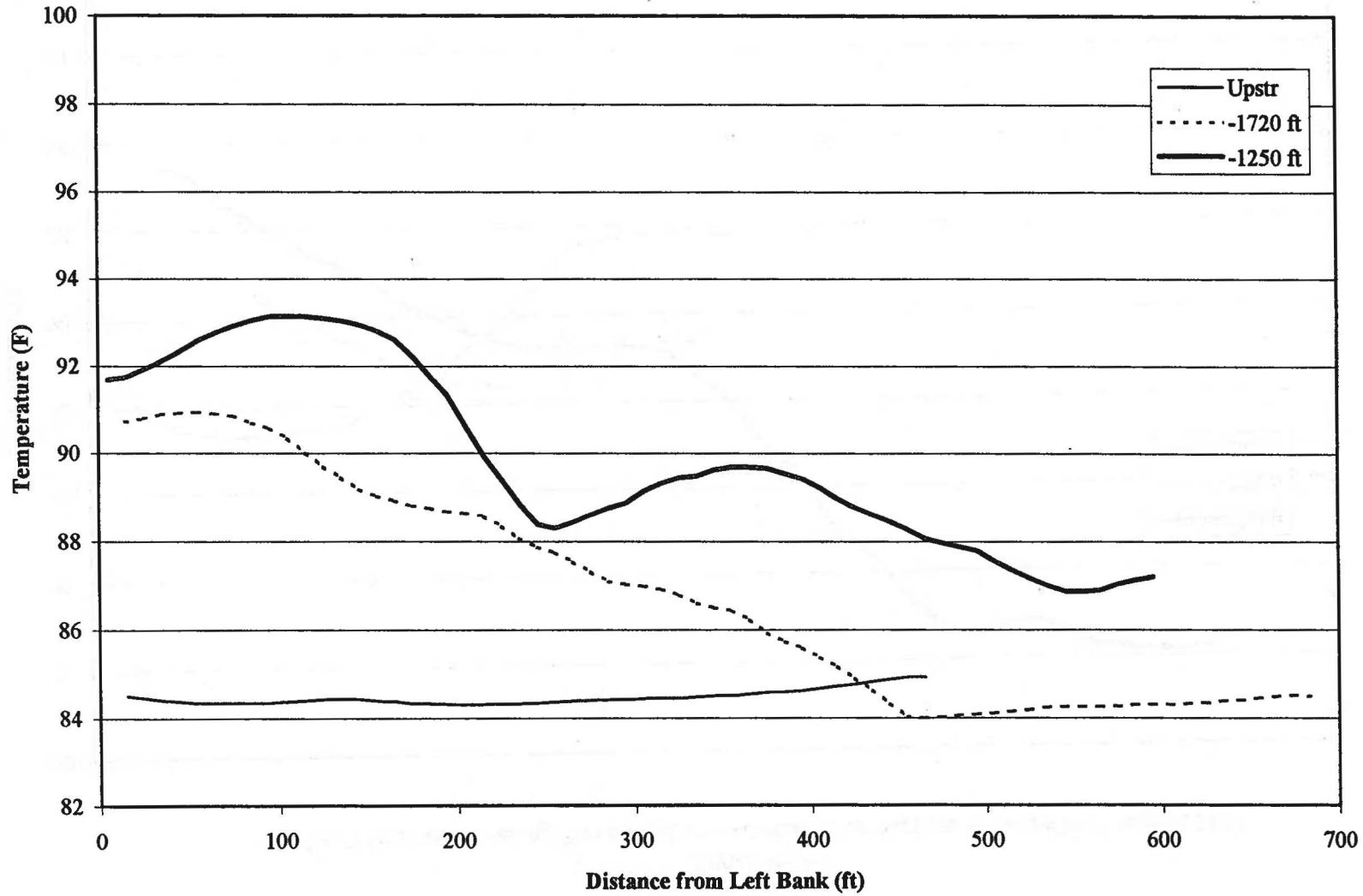


Figure B-4b
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 9 August 2002

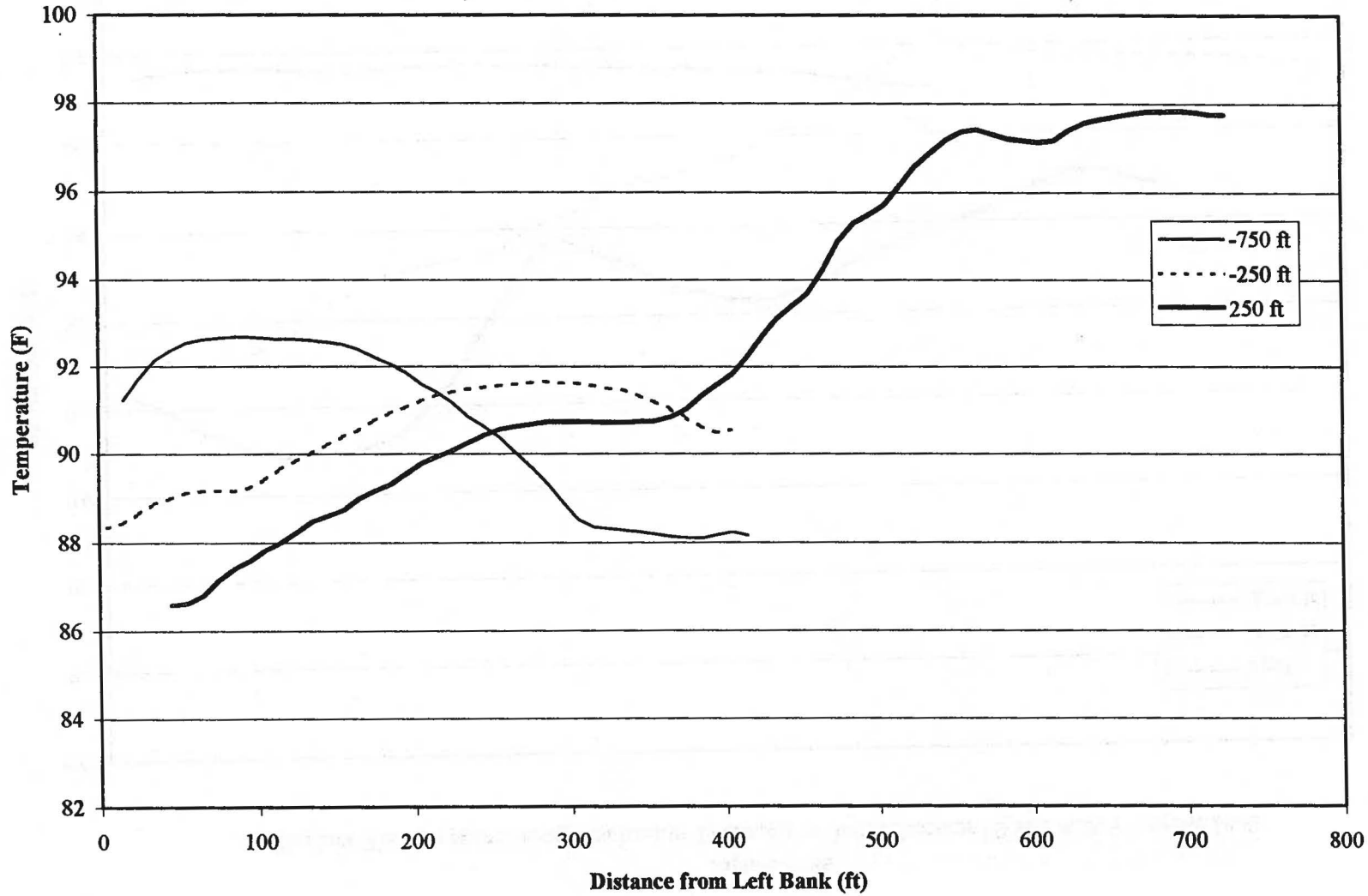


Figure B-4c
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 9 August 2002

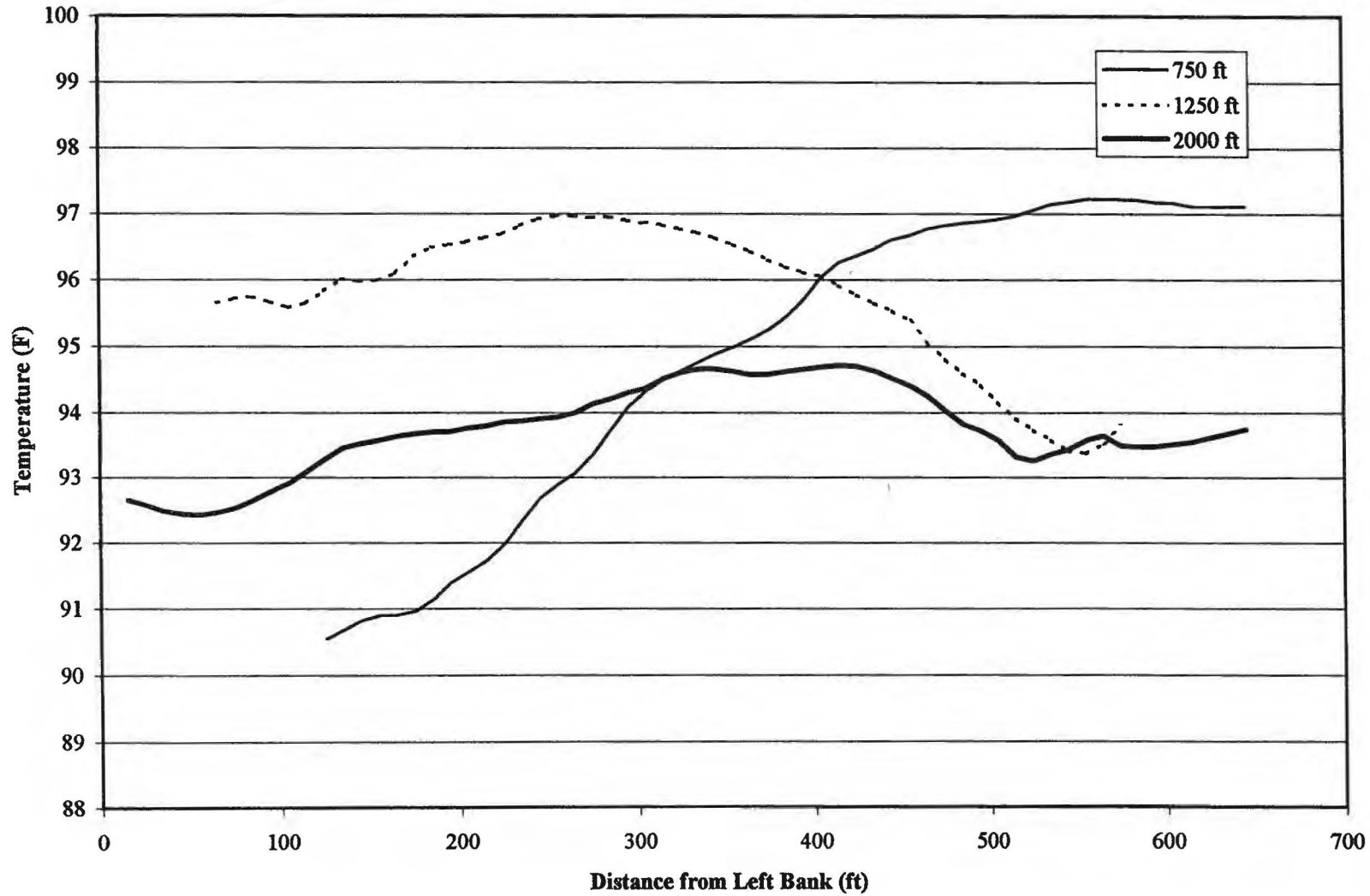


Figure B-4d
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 9 August 2002

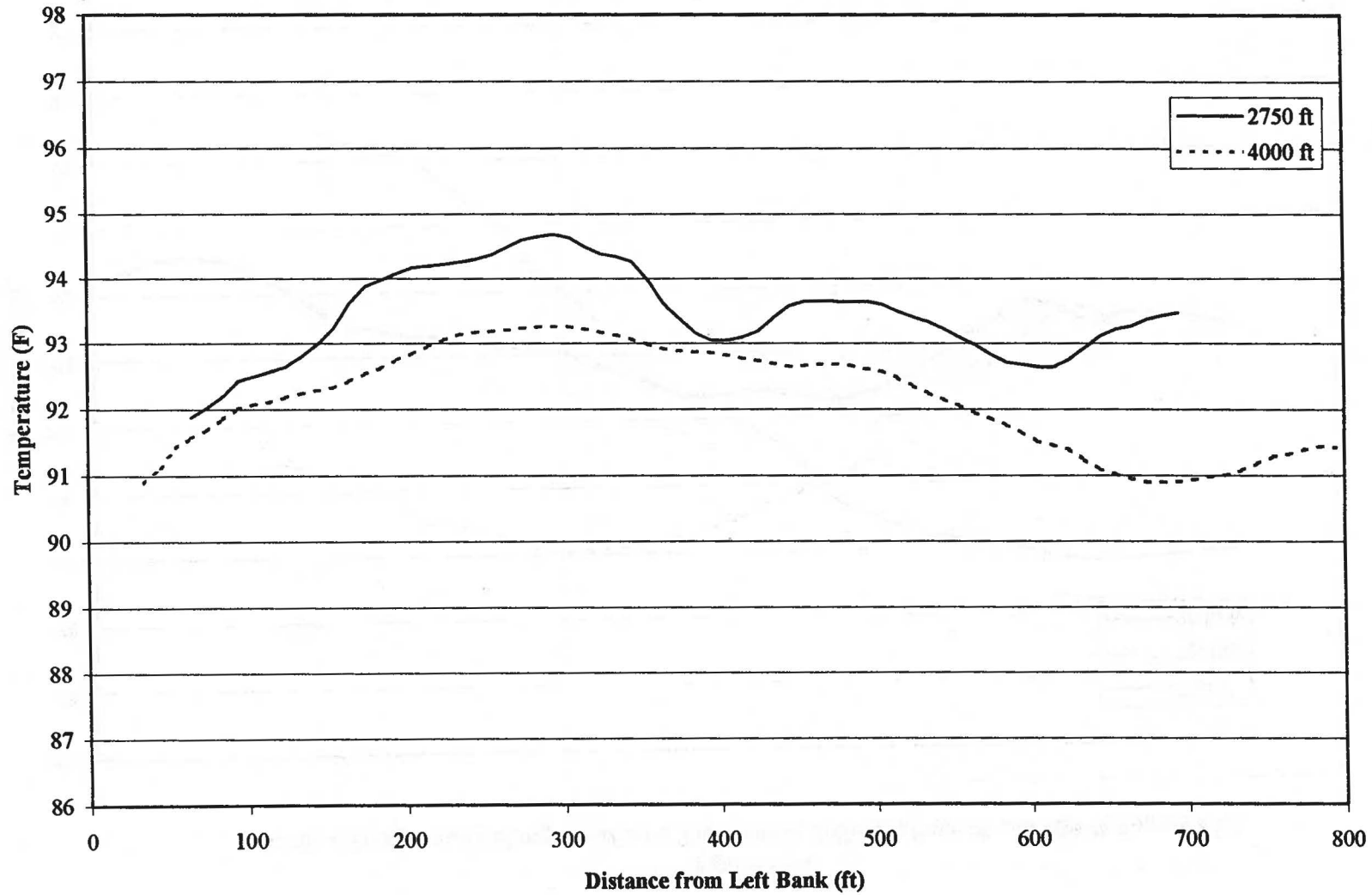


Figure B-4e
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 9 August 2002

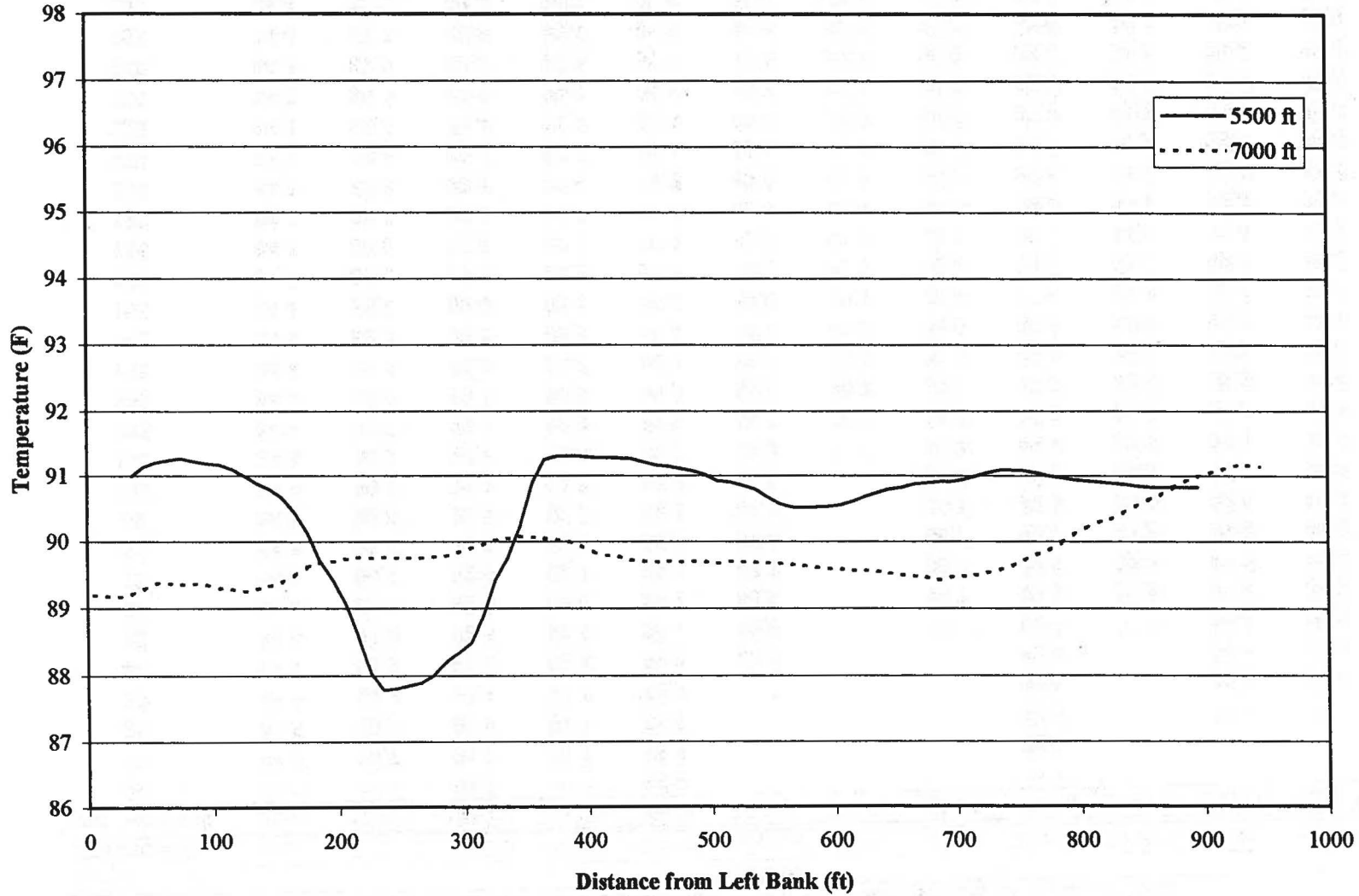


Table B-4 Surface Temperature Data near Joilet Stations 9 and 29, 9 August 2002

Distance (ft) from Left Bank	Transect												
	Upstr	-1720 ft	-1250 ft	-750 ft	-250 ft	250 ft	750 ft	1250 ft	2000 ft	2750 ft	4000 ft	5500 ft	7000 ft
5			91.7		88.4								89.2
15	84.5	90.7	91.7	91.2	88.5				92.7				89.2
25	84.5	90.8	91.9	91.7	88.7				92.6				89.2
35	84.4	90.9	92.1	92.1	88.9				92.5		90.9	91.0	89.2
45	84.4	90.9	92.3	92.4	89.0	86.6			92.4		91.1	91.1	89.3
55	84.4	91.0	92.6	92.5	89.1	86.6			92.4		91.4	91.2	89.4
65	84.4	90.9	92.8	92.6	89.2	86.8		95.7	92.5	91.9	91.6	91.2	89.4
75	84.4	90.9	92.9	92.7	89.2	87.2		95.7	92.5	92.0	91.7	91.3	89.4
85	84.4	90.7	93.0	92.7	89.2	87.4		95.7	92.7	92.2	91.9	91.2	89.4
95	84.4	90.6	93.1	92.7	89.3	87.6		95.7	92.8	92.4	92.0	91.2	89.4
105	84.4	90.4	93.1	92.7	89.4	87.8		95.6	92.9	92.5	92.1	91.2	89.3
115	84.4	90.0	93.1	92.6	89.7	88.0		95.7	93.1	92.6	92.1	91.1	89.3
125	84.4	89.7	93.1	92.6	89.9	88.2	90.6	95.8	93.3	92.6	92.2	91.0	89.3
135	84.4	89.5	93.1	92.6	90.0	88.5	90.7	96.0	93.5	92.8	92.2	90.9	89.3
145	84.4	89.2	93.0	92.6	90.2	88.6	90.8	96.0	93.5	93.0	92.3	90.8	89.3
155	84.4	89.0	92.8	92.5	90.4	88.7	90.9	96.0	93.6	93.2	92.3	90.7	89.4
165	84.4	88.9	92.6	92.4	90.5	89.0	90.9	96.1	93.6	93.6	92.4	90.4	89.5
175	84.3	88.8	92.2	92.2	90.8	89.2	91.0	96.4	93.7	93.9	92.5	90.1	89.6
185	84.3	88.8	91.8	92.1	90.9	89.3	91.2	96.5	93.7	94.0	92.6	89.7	89.7
195	84.3	88.7	91.3	91.9	91.1	89.6	91.4	96.5	93.7	94.1	92.8	89.4	89.7
205	84.3	88.7	90.6	91.6	91.2	89.8	91.6	96.6	93.8	94.2	92.8	89.1	89.7
215	84.3	88.6	89.9	91.4	91.4	89.9	91.7	96.6	93.8	94.2	93.0	88.6	89.8
225	84.3	88.4	89.4	91.2	91.4	90.1	92.0	96.7	93.9	94.2	93.1	88.0	89.7
235	84.3	88.1	88.9	90.9	91.5	90.3	92.3	96.8	93.9	94.3	93.1	87.8	89.8
245	84.4	87.9	88.4	90.6	91.5	90.4	92.7	96.9	93.9	94.3	93.2	87.8	89.7
255	84.4	87.7	88.3	90.4	91.6	90.6	92.9	97.0	93.9	94.4	93.2	87.9	89.7
265	84.4	87.6	88.4	90.0	91.6	90.6	93.1	97.0	94.0	94.5	93.2	87.9	89.7
275	84.4	87.3	88.6	89.7	91.6	90.7	93.4	96.9	94.1	94.6	93.2	88.0	89.8
285	84.4	87.1	88.8	89.4	91.7	90.7	93.7	97.0	94.2	94.7	93.3	88.2	89.8
295	84.4	87.0	88.9	88.9	91.6	90.7	94.1	96.9	94.3	94.7	93.3	88.3	89.8
305	84.4	87.0	89.2	88.5	91.6	90.7	94.3	96.9	94.4	94.6	93.3	88.5	89.9
315	84.4	86.9	89.3	88.4	91.6	90.7	94.5	96.8	94.5	94.5	93.2	88.9	90.0
325	84.5	86.8	89.5	88.3	91.5	90.7	94.6	96.8	94.6	94.4	93.2	89.4	90.0

Table B-4 Surface Temperature Data near Joilet Stations 9 and 29, 9 August 2002

Distance (ft) from Left Bank	Transect												
	Upstr	-1720 ft	-1250 ft	-750 ft	-250 ft	250 ft	750 ft	1250 ft	2000 ft	2750 ft	4000 ft	5500 ft	7000 ft
335	84.5	86.6	89.5	88.3	91.5	90.7	94.8	96.7	94.7	94.3	93.1	89.7	90.0
345	84.5	86.5	89.6	88.2	91.3	90.7	94.9	96.6	94.7	94.3	93.1	90.2	90.1
355	84.5	86.4	89.7	88.2	91.2	90.8	95.0	96.5	94.6	94.0	93.0	90.9	90.1
365	84.6	86.2	89.7	88.2	91.0	90.8	95.1	96.4	94.6	93.6	92.9	91.2	90.1
375	84.6	85.9	89.7	88.1	90.8	91.0	95.3	96.3	94.6	93.4	92.9	91.3	90.0
385	84.6	85.7	89.6	88.1	90.6	91.3	95.5	96.2	94.6	93.2	92.9	91.3	90.0
395	84.6	85.6	89.4	88.2	90.5	91.6	95.7	96.1	94.7	93.0	92.9	91.3	89.9
405	84.7	85.4	89.2	88.2	90.6	91.8	96.0	96.1	94.7	93.0	92.8	91.3	89.8
415	84.7	85.2	89.0	88.2		92.2	96.3	95.9	94.7	93.1	92.8	91.3	89.8
425	84.8	84.9	88.8			92.7	96.4	95.8	94.7	93.2	92.7	91.3	89.8
435	84.8	84.6	88.6			93.1	96.5	95.7	94.6	93.4	92.7	91.3	89.7
445	84.9	84.3	88.5			93.4	96.6	95.5	94.5	93.6	92.6	91.2	89.7
455	84.9	84.0	88.3			93.7	96.7	95.4	94.4	93.6	92.7	91.2	89.7
465	84.9	84.0	88.1			94.2	96.8	95.1	94.2	93.7	92.7	91.1	89.7
475		84.0	88.0			94.9	96.8	94.8	94.0	93.6	92.7	91.1	89.7
485		84.1	87.9			95.3	96.9	94.6	93.8	93.6	92.7	91.1	89.7
495		84.1	87.8			95.5	96.9	94.4	93.7	93.6	92.6	91.0	89.7
505		84.1	87.6			95.7	96.9	94.2	93.6	93.6	92.6	90.9	89.7
515		84.2	87.4			96.2	97.0	93.9	93.3	93.5	92.5	90.9	89.7
525		84.2	87.2			96.6	97.1	93.7	93.3	93.4	92.3	90.9	89.7
535		84.2	87.0			96.9	97.1	93.6	93.4	93.3	92.2	90.8	89.7
545		84.3	86.9			97.2	97.2	93.4	93.4	93.2	92.1	90.7	89.7
555		84.3	86.9			97.4	97.2	93.4	93.6	93.1	92.1	90.6	89.7
565		84.3	86.9			97.4	97.2	93.5	93.6	93.0	91.9	90.5	89.7
575		84.3	87.0			97.3	97.2	93.8	93.5	92.8	91.9	90.5	89.6
585		84.3	87.1			97.2	97.2		93.5	92.7	91.8	90.5	89.6
595		84.3	87.2			97.2	97.2		93.5	92.7	91.6	90.5	89.6
605		84.3				97.1	97.2		93.5	92.6	91.5	90.6	89.6
615		84.3				97.2	97.1		93.6	92.6	91.5	90.6	89.6
625		84.4				97.4	97.1		93.6	92.8	91.4	90.7	89.6
635		84.4				97.6	97.1		93.7	92.9	91.2	90.7	89.6
645		84.4				97.7	97.1		93.7	93.1	91.1	90.8	89.5
655		84.5				97.7				93.2	91.0	90.8	89.5

Figure B-5a
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 15 August 2002

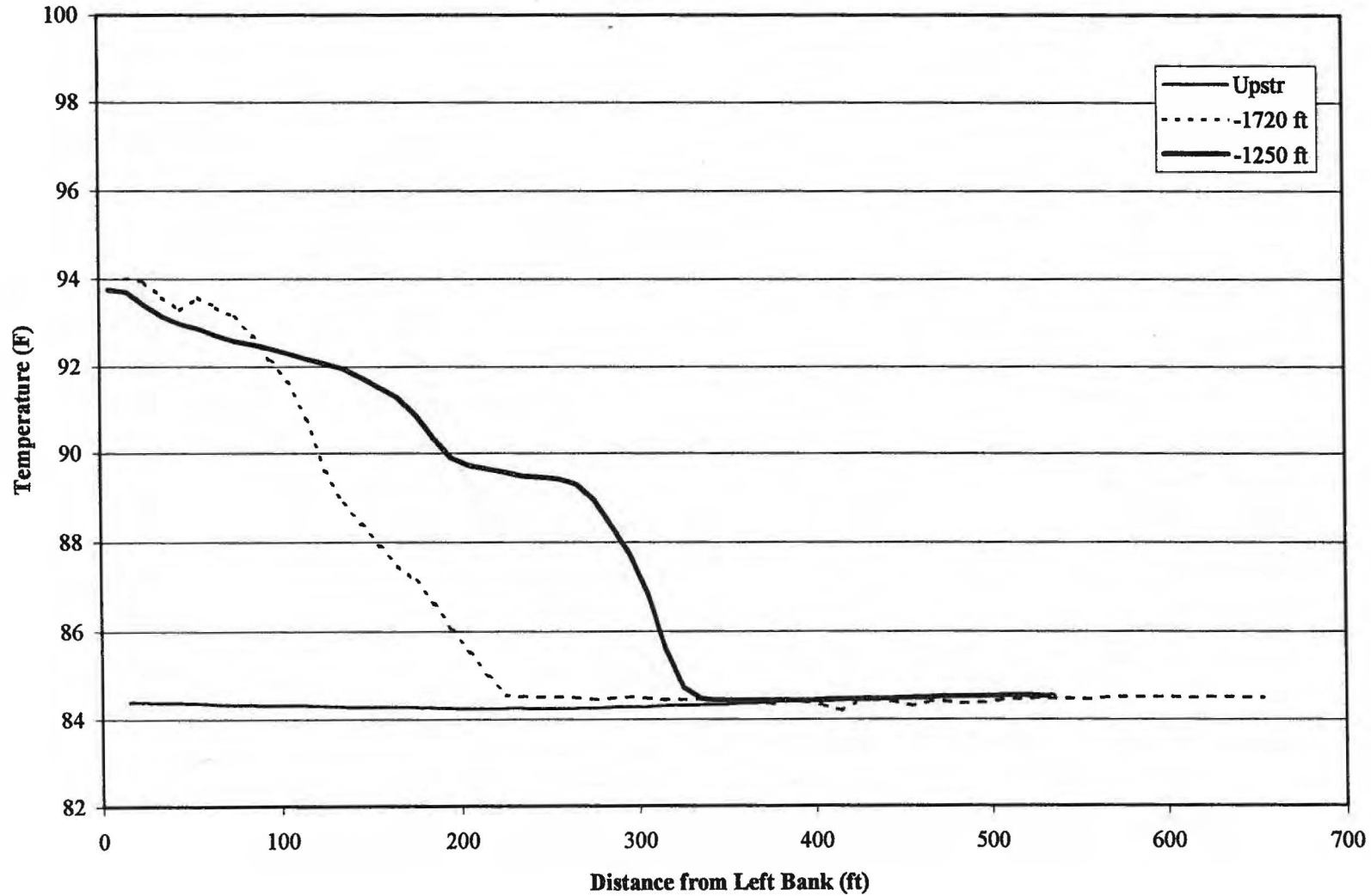


Figure B-5b
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 15 August 2002

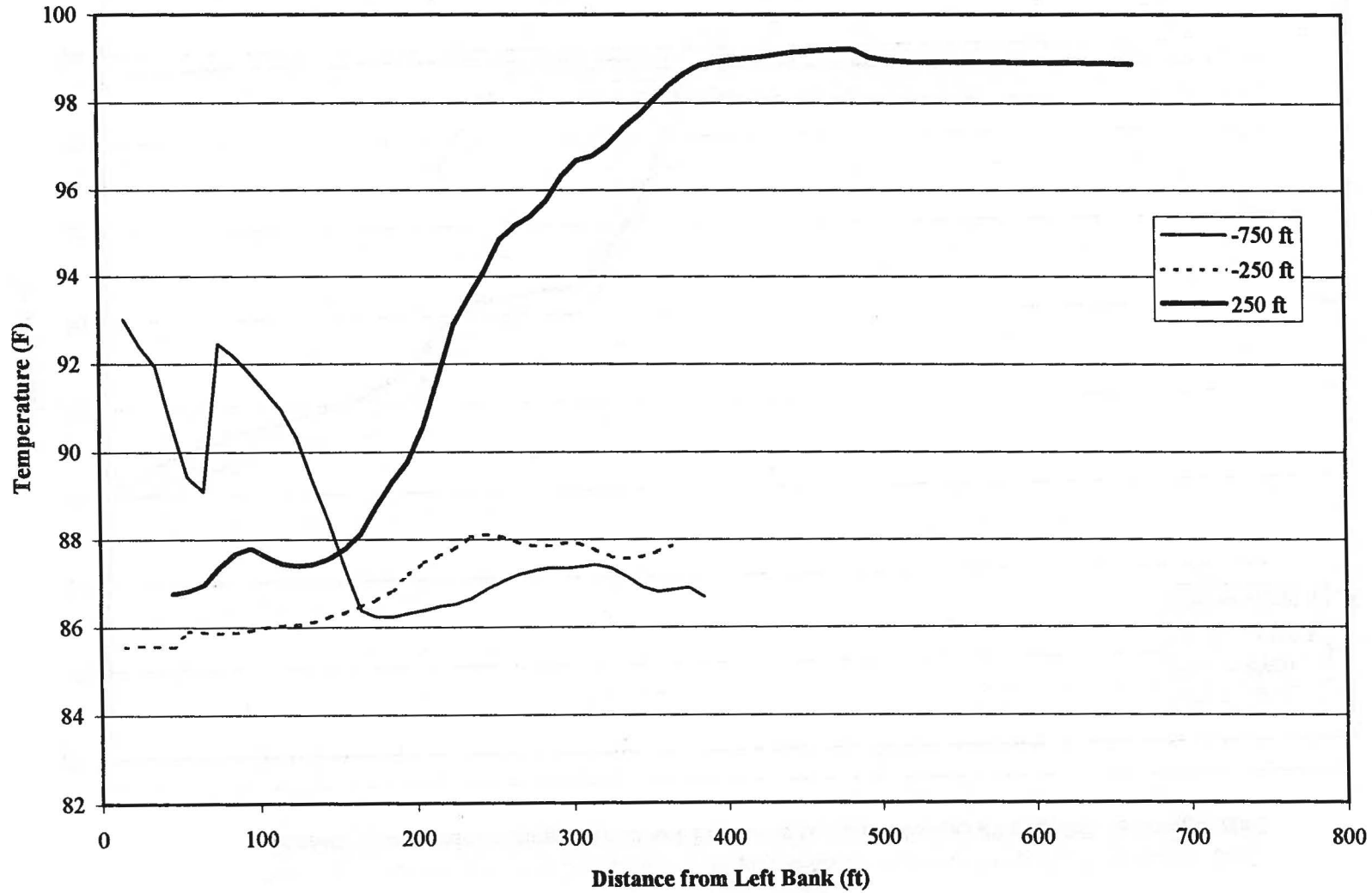


Figure B-5c
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 15 August 2002

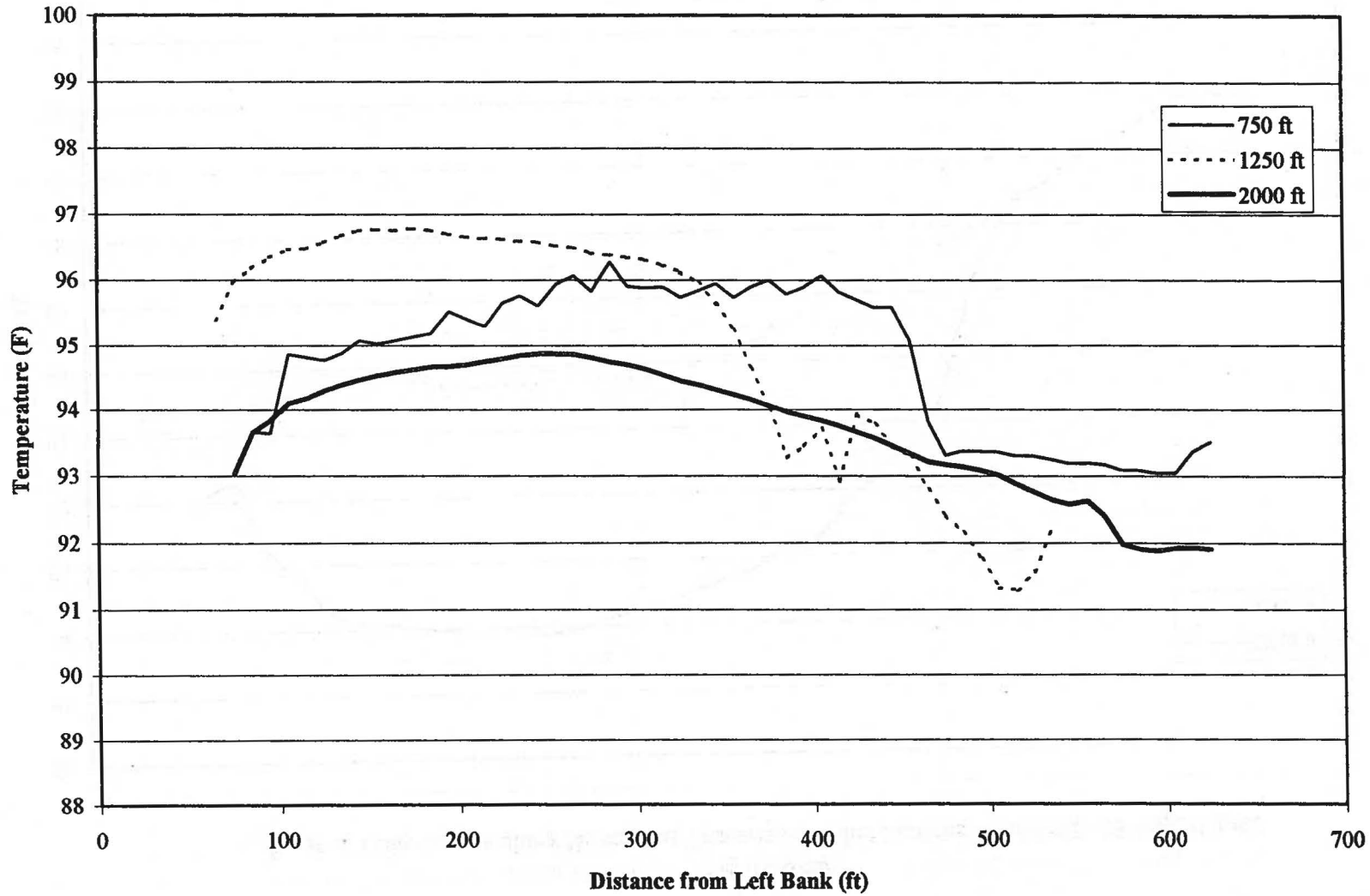


Figure B-5d
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 15 August 2002

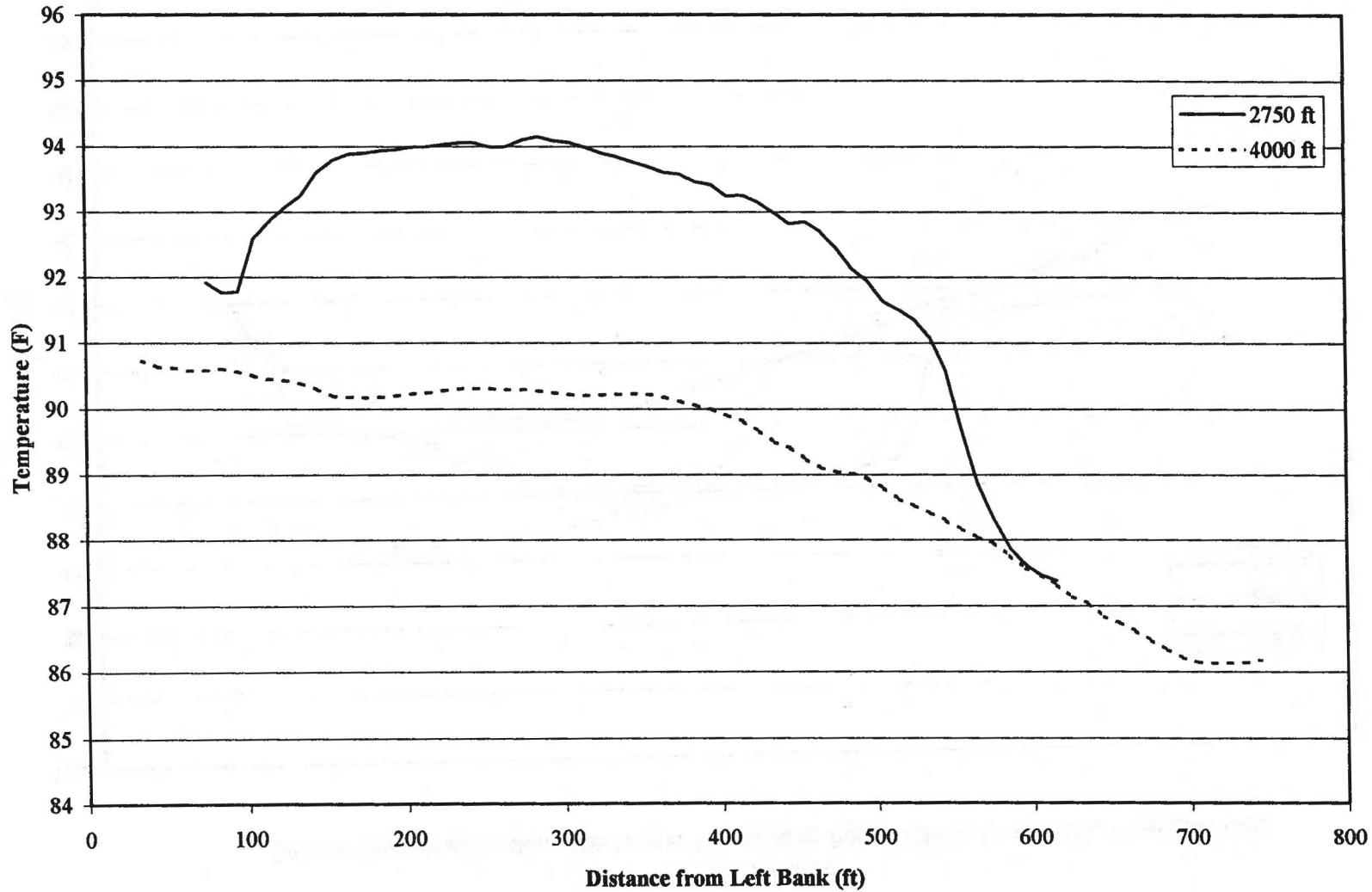


Figure B-5e
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 15 August 2002

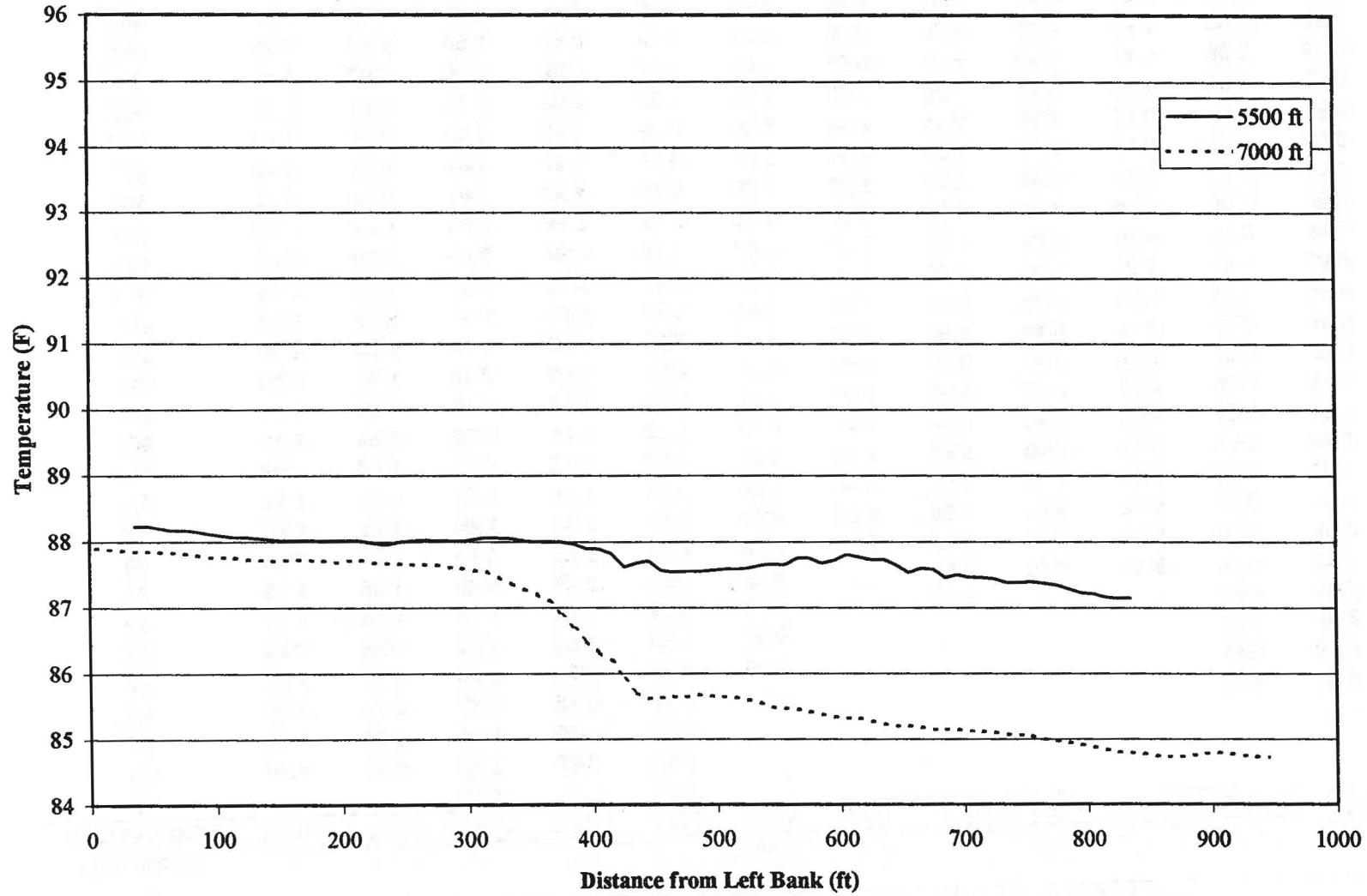


Table B-5 Surface Temperature Data near Joilet Stations 9 and 29, 15 August 2002

Distance (ft) from Left Bank	Transect												
	Upstr	-1720 ft	-1250 ft	-750 ft	-250 ft	250 ft	750 ft	1250 ft	2000 ft	2750 ft	4000 ft	5500 ft	7000 ft
5			93.8										87.9
15	84.4	94.0	93.7	93.0	85.5								87.9
25	84.4	93.9	93.4	92.4	85.6								87.9
35	84.4	93.6	93.2	91.9	85.6						90.7	88.2	87.9
45	84.4	93.3	93.0	90.6	85.5	86.8					90.6	88.2	87.9
55	84.4	93.6	92.9	89.4	85.9	86.8					90.6	88.2	87.9
65	84.3	93.4	92.7	89.1	85.9	87.0		95.4			90.6	88.2	87.8
75	84.3	93.1	92.6	92.5	85.9	87.4		96.0	93.0	91.9	90.6	88.2	87.8
85	84.3	92.7	92.5	92.2	85.9	87.7	93.7	96.2	93.6	91.8	90.6	88.2	87.8
95	84.3	92.1	92.4	91.8	85.9	87.8	93.6	96.3	93.8	91.8	90.6	88.1	87.8
105	84.3	91.7	92.3	91.4	86.0	87.6	94.9	96.5	94.1	92.6	90.5	88.1	87.8
115	84.3	90.8	92.2	91.0	86.0	87.5	94.8	96.5	94.2	92.8	90.5	88.1	87.8
125	84.3	89.6	92.1	90.3	86.1	87.4	94.8	96.6	94.3	93.1	90.4	88.1	87.7
135	84.3	88.9	92.0	89.3	86.1	87.4	94.9	96.7	94.4	93.2	90.4	88.1	87.7
145	84.3	88.4	91.8	88.4	86.2	87.6	95.1	96.8	94.5	93.6	90.3	88.0	87.7
155	84.3	87.9	91.5	87.3	86.3	87.8	95.0	96.8	94.5	93.8	90.2	88.0	87.7
165	84.3	87.5	91.3	86.4	86.5	88.1	95.1	96.8	94.6	93.9	90.2	88.0	87.7
175	84.3	87.1	90.9	86.2	86.6	88.8	95.1	96.8	94.6	93.9	90.2	88.0	87.7
185	84.3	86.6	90.4	86.2	86.8	89.3	95.2	96.8	94.7	93.9	90.2	88.0	87.7
195	84.3	86.0	89.9	86.3	87.2	89.8	95.5	96.7	94.7	94.0	90.2	88.0	87.7
205	84.2	85.5	89.7	86.4	87.5	90.6	95.4	96.7	94.7	94.0	90.2	88.0	87.7
215	84.2	85.0	89.7	86.5	87.6	91.7	95.3	96.6	94.8	94.0	90.3	88.0	87.7
225	84.3	84.6	89.6	86.5	87.8	92.9	95.7	96.6	94.8	94.0	90.3	88.0	87.7
235	84.3	84.5	89.5	86.7	88.1	93.5	95.8	96.6	94.8	94.1	90.3	88.0	87.7
245	84.2	84.5	89.5	86.9	88.1	94.1	95.6	96.6	94.9	94.1	90.3	88.0	87.7
255	84.2	84.5	89.4	87.0	88.1	94.9	95.9	96.5	94.9	94.0	90.3	88.0	87.7
265	84.3	84.5	89.3	87.2	87.9	95.2	96.1	96.5	94.9	94.0	90.3	88.0	87.7
275	84.3	84.4	89.0	87.3	87.9	95.4	95.8	96.4	94.8	94.1	90.3	88.0	87.7
285	84.3	84.5	88.4	87.4	87.9	95.8	96.3	96.4	94.7	94.2	90.3	88.0	87.6
295	84.3	84.5	87.7	87.3	87.9	96.3	95.9	96.3	94.7	94.1	90.3	88.0	87.6
305	84.3	84.5	86.8	87.4	87.9	96.7	95.9	96.3	94.6	94.1	90.2	88.0	87.6
315	84.3	84.4	85.6	87.4	87.8	96.8	95.9	96.2	94.5	94.0	90.2	88.1	87.6
325	84.3	84.4	84.7	87.3	87.6	97.1	95.7	96.1	94.4	93.9	90.2	88.1	87.5

Table B-5 Surface Temperature Data near Joilet Stations 9 and 29, 15 August 2002

Distance (ft) from Left Bank	Transect												
	Upstr	-1720 ft	-1250 ft	-750 ft	-250 ft	250 ft	750 ft	1250 ft	2000 ft	2750 ft	4000 ft	5500 ft	7000 ft
335	84.3	84.4	84.5	87.1	87.6	97.4	95.8	96.0	94.4	93.9	90.2	88.1	87.4
345	84.3	84.4	84.4	86.9	87.6	97.7	96.0	95.6	94.3	93.8	90.2	88.0	87.3
355	84.4	84.4	84.4	86.8	87.7	98.1	95.7	95.3	94.2	93.7	90.2	88.0	87.2
365	84.4	84.4	84.4	86.9	87.9	98.4	95.9	94.7	94.2	93.6	90.2	88.0	87.1
375	84.4	84.3	84.4	86.9		98.7	96.0	94.0	94.1	93.6	90.1	88.0	86.9
385	84.4	84.4	84.4	86.7		98.9	95.8	93.3	94.0	93.5	90.1	88.0	86.7
395	84.5	84.4	84.4			98.9	95.9	93.5	93.9	93.4	90.0	87.9	86.5
405	84.5	84.3	84.4			99.0	96.1	93.7	93.8	93.2	89.9	87.9	86.3
415	84.5	84.2	84.5			99.0	95.8	92.9	93.8	93.3	89.8	87.8	86.2
425	84.5	84.4	84.5			99.0	95.7	93.9	93.7	93.2	89.7	87.6	85.9
435	84.5	84.4	84.5			99.1	95.6	93.8	93.6	93.0	89.5	87.7	85.7
445		84.4	84.5			99.1	95.6	93.4	93.5	92.8	89.4	87.7	85.6
455		84.3	84.5			99.2	95.1	93.3	93.3	92.9	89.2	87.6	85.6
465		84.4	84.5			99.2	93.8	92.8	93.2	92.7	89.1	87.5	85.6
475		84.4	84.5			99.2	93.3	92.4	93.2	92.4	89.0	87.6	85.6
485		84.4	84.5			99.2	93.4	92.2	93.1	92.1	89.0	87.6	85.7
495		84.4	84.5			99.0	93.4	91.8	93.1	92.0	88.9	87.6	85.7
505		84.4	84.5			99.0	93.4	91.3	93.0	91.6	88.8	87.6	85.6
515		84.5	84.6			98.9	93.3	91.3	92.9	91.5	88.6	87.6	85.6
525		84.5	84.6			98.9	93.3	91.6	92.8	91.4	88.5	87.6	85.6
535		84.5	84.5			98.9	93.2	92.2	92.7	91.1	88.4	87.6	85.6
545		84.5				98.9	93.2		92.6	90.6	88.3	87.7	85.5
555		84.5				98.9	93.2		92.6	89.7	88.2	87.7	85.5
565		84.5				98.9	93.2		92.4	88.9	88.0	87.8	85.5
575		84.5				98.9	93.1		92.0	88.3	88.0	87.8	85.4
585		84.5				98.9	93.1		91.9	87.9	87.8	87.7	85.4
595		84.5				98.9	93.0		91.9	87.6	87.6	87.7	85.3
605		84.5				98.9	93.0		91.9	87.5	87.5	87.8	85.3
615		84.5				98.9	93.4		91.9	87.4	87.3	87.8	85.3
625		84.5				98.9	93.5		91.9		87.1	87.7	85.3
635		84.5				98.9					87.0	87.7	85.2
645		84.5				98.9					86.8	87.7	85.2
655		84.5				98.9					86.7	87.5	85.2

Figure B-6a
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 20 August 2002

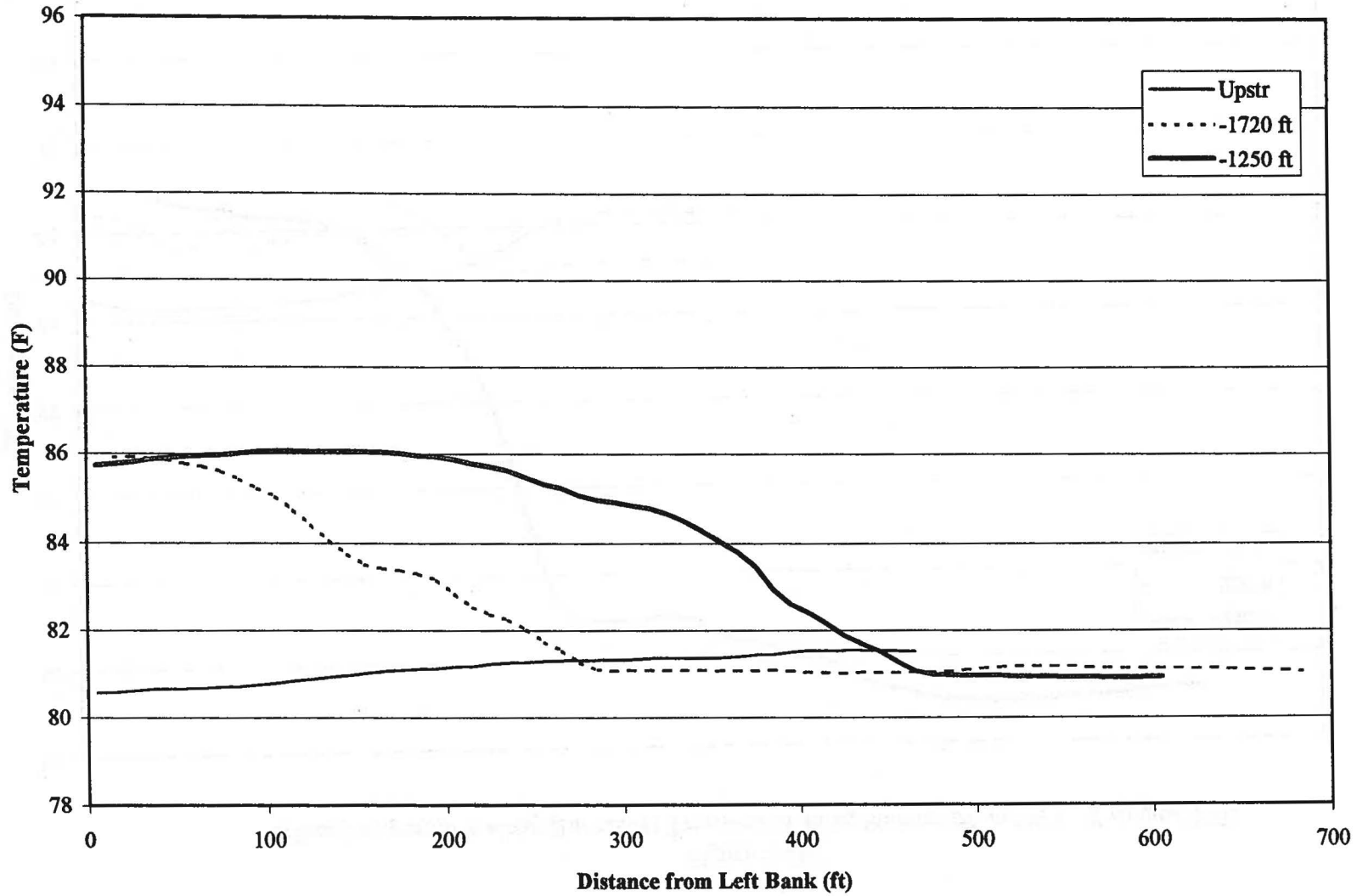


Figure B-6b
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 20 August 2002

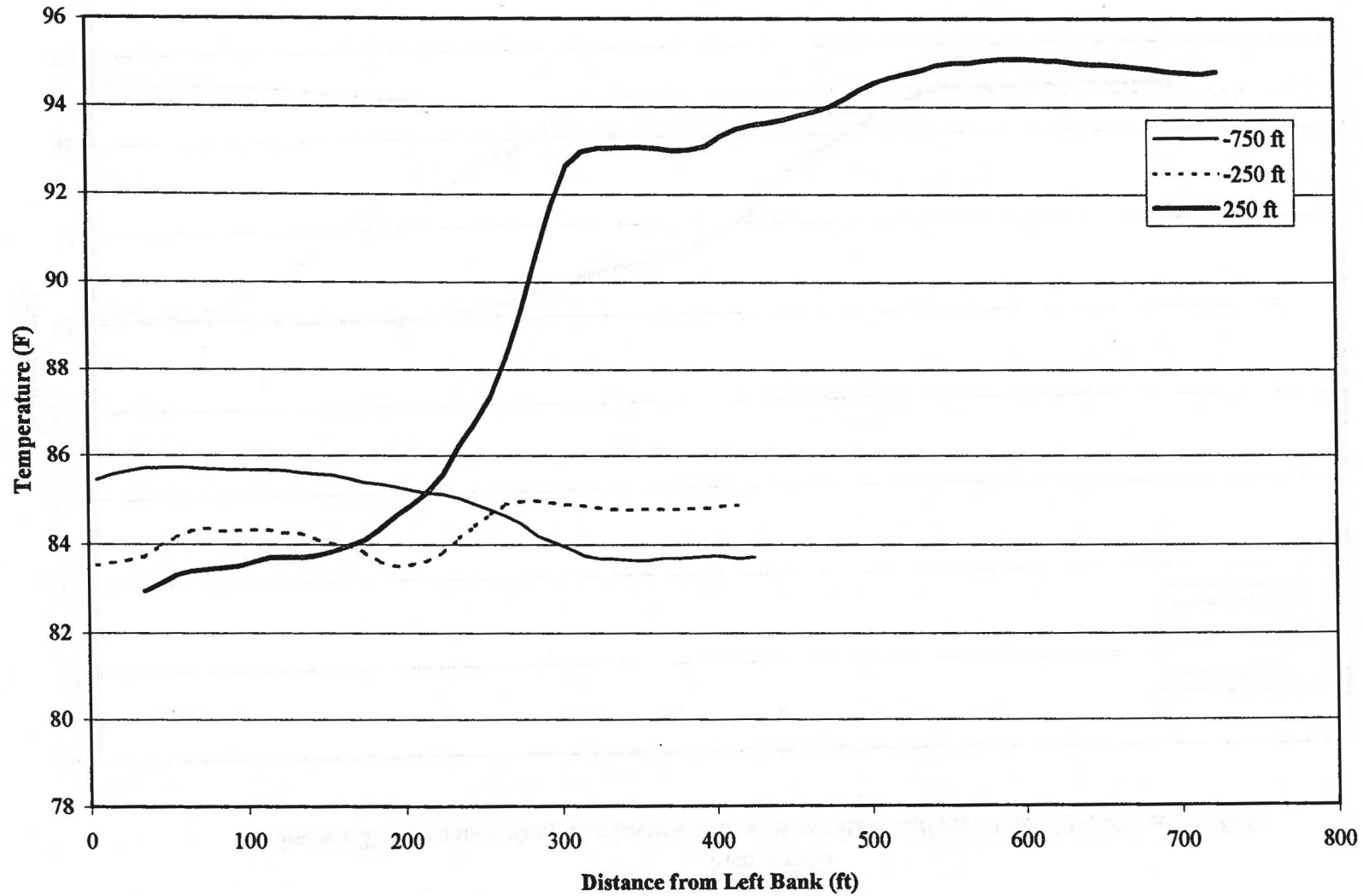


Figure B-6c
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 20 August 2002

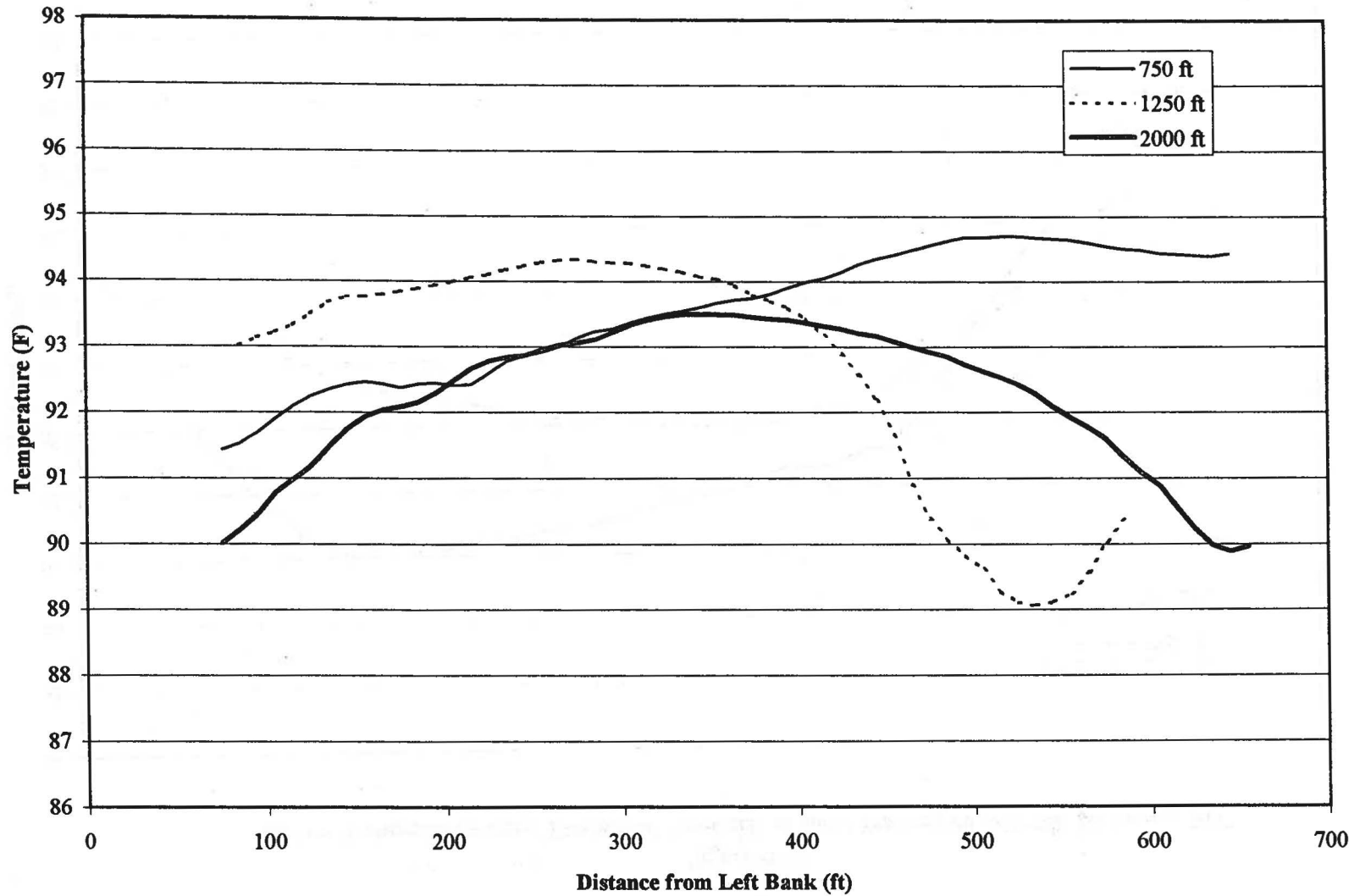


Figure B-6d
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 20 August 2002

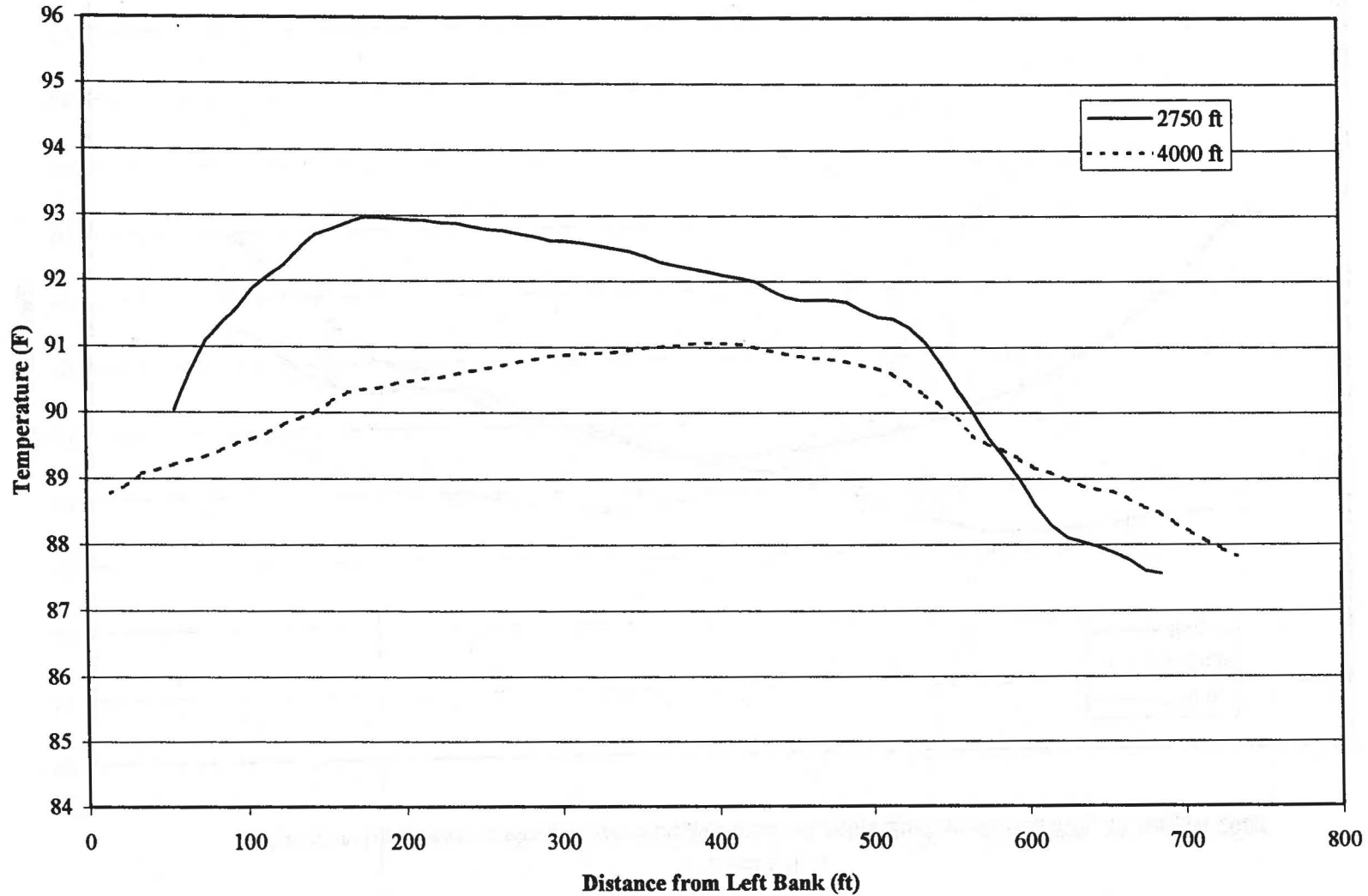


Figure B-6e
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 20 August 2002

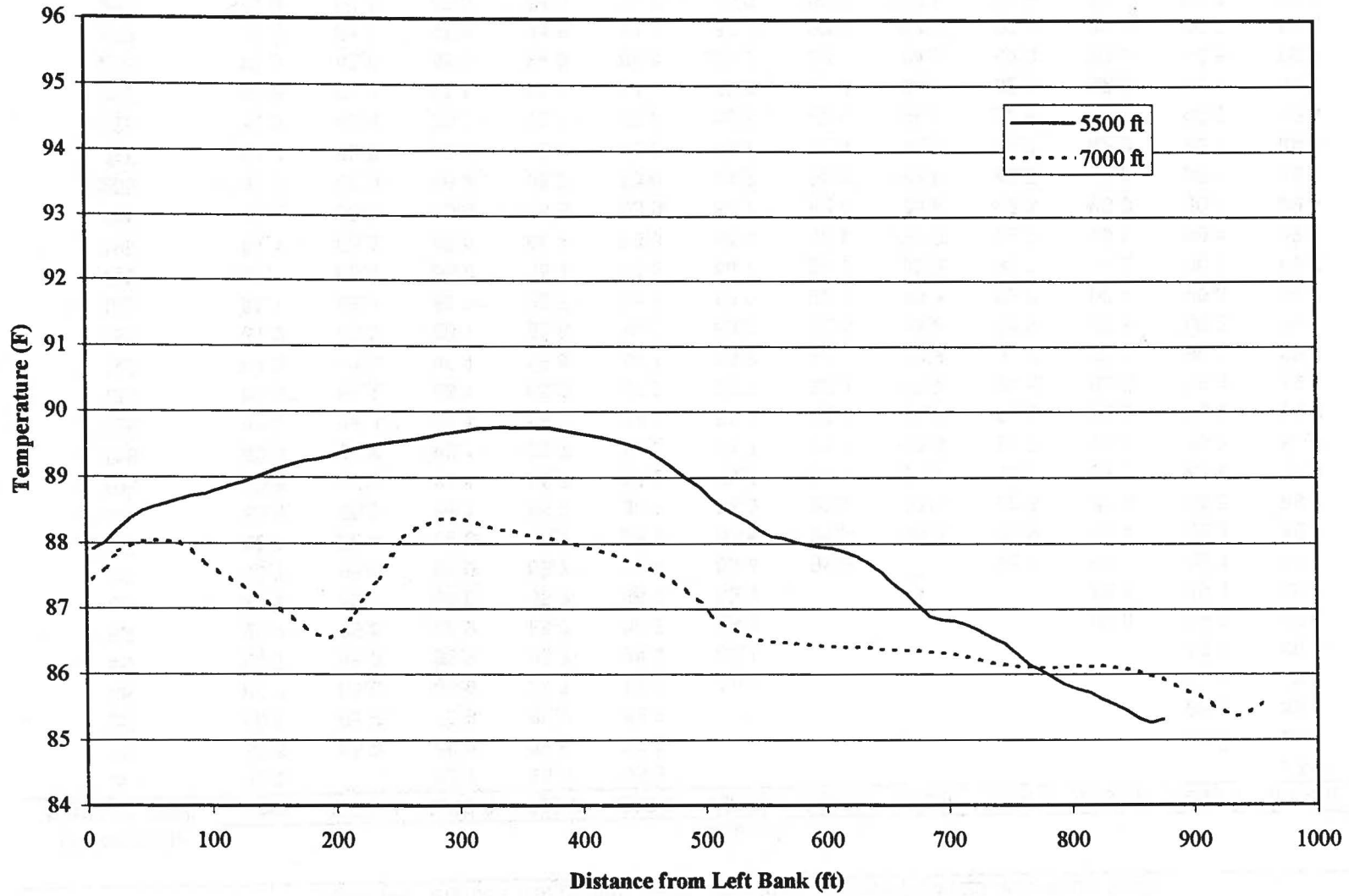


Table B-6 Surface Temperature Data near Joilet Stations 9 and 29, 20 August 2002

Distance (ft) from Left Bank	Transect												
	Upstr	-1720 ft	-1250 ft	-750 ft	-250 ft	250 ft	750 ft	1250 ft	2000 ft	2750 ft	4000 ft	5500 ft	7000 ft
5	80.6		85.7	85.5	83.5							87.9	87.4
15	80.6	85.9	85.8	85.6	83.6						88.8	88.0	87.6
25	80.6	85.9	85.8	85.7	83.6						88.9	88.2	87.9
35	80.7	85.9	85.9	85.7	83.7	83.0					89.1	88.4	88.0
45	80.7	85.9	85.9	85.7	84.0	83.1					89.1	88.5	88.0
55	80.7	85.8	85.9	85.7	84.2	83.3				90.0	89.2	88.6	88.1
65	80.7	85.7	86.0	85.7	84.3	83.4				90.6	89.3	88.6	88.0
75	80.7	85.6	86.0	85.7	84.4	83.4	91.4		90.0	91.1	89.3	88.7	88.0
85	80.7	85.4	86.0	85.7	84.3	83.5	91.5	93.0	90.2	91.4	89.4	88.7	87.9
95	80.8	85.2	86.1	85.7	84.3	83.5	91.7	93.1	90.5	91.6	89.5	88.7	87.7
105	80.8	85.1	86.1	85.7	84.3	83.6	91.9	93.2	90.8	91.9	89.6	88.8	87.6
115	80.9	84.8	86.1	85.7	84.3	83.7	92.1	93.3	91.0	92.1	89.7	88.9	87.5
125	80.9	84.4	86.1	85.7	84.3	83.7	92.2	93.5	91.2	92.2	89.8	88.9	87.4
135	80.9	84.1	86.1	85.6	84.2	83.7	92.3	93.7	91.5	92.5	89.9	89.0	87.2
145	81.0	83.8	86.1	85.6	84.1	83.8	92.4	93.8	91.7	92.7	90.0	89.1	87.1
155	81.0	83.5	86.1	85.6	84.0	83.9	92.5	93.8	91.9	92.8	90.2	89.1	87.0
165	81.1	83.4	86.0	85.5	84.0	84.0	92.4	93.8	92.0	92.9	90.3	89.2	86.9
175	81.1	83.4	86.0	85.4	83.8	84.1	92.4	93.9	92.1	93.0	90.3	89.2	86.7
185	81.1	83.3	86.0	85.4	83.6	84.4	92.4	93.9	92.2	93.0	90.4	89.3	86.6
195	81.1	83.2	85.9	85.3	83.5	84.7	92.4	93.9	92.3	93.0	90.4	89.3	86.6
205	81.2	82.9	85.9	85.2	83.6	84.9	92.4	94.0	92.5	92.9	90.5	89.4	86.7
215	81.2	82.5	85.8	85.2	83.7	85.2	92.4	94.1	92.7	92.9	90.5	89.4	86.9
225	81.2	82.4	85.7	85.1	83.8	85.6	92.6	94.1	92.8	92.9	90.5	89.5	87.2
235	81.3	82.2	85.6	85.0	84.2	86.2	92.8	94.2	92.8	92.9	90.6	89.5	87.5
245	81.3	82.0	85.5	84.9	84.4	86.7	92.9	94.2	92.9	92.8	90.6	89.5	87.8
255	81.3	81.7	85.3	84.8	84.7	87.4	92.9	94.3	93.0	92.8	90.7	89.6	88.1
265	81.3	81.5	85.2	84.6	84.9	88.2	93.0	94.3	93.0	92.8	90.7	89.6	88.2
275	81.3	81.3	85.1	84.5	85.0	89.3	93.1	94.3	93.1	92.7	90.8	89.6	88.3
285	81.3	81.1	85.0	84.2	85.0	90.6	93.2	94.3	93.1	92.7	90.8	89.7	88.4
295	81.3	81.1	84.9	84.1	84.9	91.8	93.3	94.3	93.2	92.6	90.9	89.7	88.4
305	81.3	81.1	84.9	83.9	84.9	92.7	93.4	94.3	93.3	92.6	90.9	89.7	88.4
315	81.4	81.1	84.8	83.8	84.9	93.0	93.5	94.2	93.4	92.6	90.9	89.7	88.3
325	81.4	81.1	84.7	83.7	84.8	93.1	93.5	94.2	93.5	92.5	90.9	89.7	88.3

Table B-6 Surface Temperature Data near Joliet Stations 9 and 29, 20 August 2002

Distance (ft) from Left Bank	Transect												
	Upstr	-1720 ft	-1250 ft	-750 ft	-250 ft	250 ft	750 ft	1250 ft	2000 ft	2750 ft	4000 ft	5500 ft	7000 ft
335	81.4	81.1	84.5	83.7	84.8	93.1	93.6	94.1	93.5	92.5	90.9	89.8	88.2
345	81.4	81.1	84.3	83.7	84.8	93.1	93.6	94.1	93.5	92.5	91.0	89.7	88.2
355	81.4	81.1	84.0	83.7	84.8	93.1	93.7	94.0	93.5	92.4	91.0	89.7	88.1
365	81.4	81.1	83.8	83.7	84.8	93.0	93.7	94.0	93.5	92.3	91.0	89.7	88.1
375	81.4	81.1	83.5	83.7	84.8	93.0	93.8	93.8	93.5	92.2	91.0	89.7	88.1
385	81.5	81.1	82.9	83.7	84.8	93.0	93.8	93.7	93.4	92.2	91.1	89.7	88.0
395	81.5	81.1	82.6	83.8	84.8	93.1	93.9	93.6	93.4	92.1	91.1	89.7	88.0
405	81.5	81.0	82.4	83.7	84.9	93.3	94.0	93.4	93.4	92.1	91.1	89.6	87.9
415	81.5	81.0	82.2	83.7	84.9	93.5	94.1	93.2	93.3	92.1	91.1	89.6	87.9
425	81.5	81.0	81.9	83.7		93.6	94.1	92.9	93.3	92.0	91.0	89.6	87.8
435	81.5	81.0	81.7			93.6	94.3	92.6	93.2	91.9	91.0	89.5	87.8
445	81.5	81.0	81.5			93.7	94.4	92.2	93.2	91.8	90.9	89.5	87.7
455	81.5	81.0	81.3			93.8	94.4	91.7	93.1	91.7	90.9	89.4	87.6
465	81.5	81.0	81.1			93.9	94.5	90.9	93.0	91.7	90.8	89.3	87.5
475		81.0	81.0			94.0	94.6	90.4	92.9	91.7	90.8	89.1	87.4
485		81.1	81.0			94.2	94.6	90.1	92.9	91.7	90.8	89.0	87.3
495		81.1	81.0			94.4	94.7	89.8	92.7	91.6	90.7	88.9	87.1
505		81.1	81.0			94.5	94.7	89.6	92.6	91.5	90.7	88.7	86.9
515		81.2	81.0			94.7	94.7	89.3	92.5	91.4	90.6	88.5	86.8
525		81.2	80.9			94.8	94.7	89.1	92.4	91.3	90.4	88.4	86.7
535		81.2	80.9			94.8	94.7	89.1	92.3	91.1	90.3	88.3	86.6
545		81.2	80.9			94.9	94.7	89.1	92.1	90.8	90.1	88.2	86.5
555		81.2	80.9			95.0	94.6	89.3	91.9	90.4	89.9	88.1	86.5
565		81.2	80.9			95.0	94.6	89.6	91.8	90.0	89.7	88.1	86.5
575		81.1	80.9			95.0	94.6	90.0	91.6	89.6	89.5	88.0	86.5
585		81.1	80.9			95.1	94.5	90.4	91.3	89.3	89.4	88.0	86.5
595		81.1	80.9			95.1	94.5		91.1	89.0	89.3	88.0	86.4
605		81.1	80.9			95.1	94.4		90.9	88.6	89.2	87.9	86.4
615		81.1				95.1	94.4		90.6	88.3	89.1	87.9	86.4
625		81.1				95.0	94.4		90.2	88.1	89.0	87.8	86.4
635		81.1				95.0	94.4		90.0	88.0	88.9	87.7	86.4
645		81.1				95.0	94.4		89.9	88.0	88.8	87.6	86.4
655		81.1				95.0			90.0	87.9	88.8	87.4	86.4

Figure B-7a
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 28 August 2002

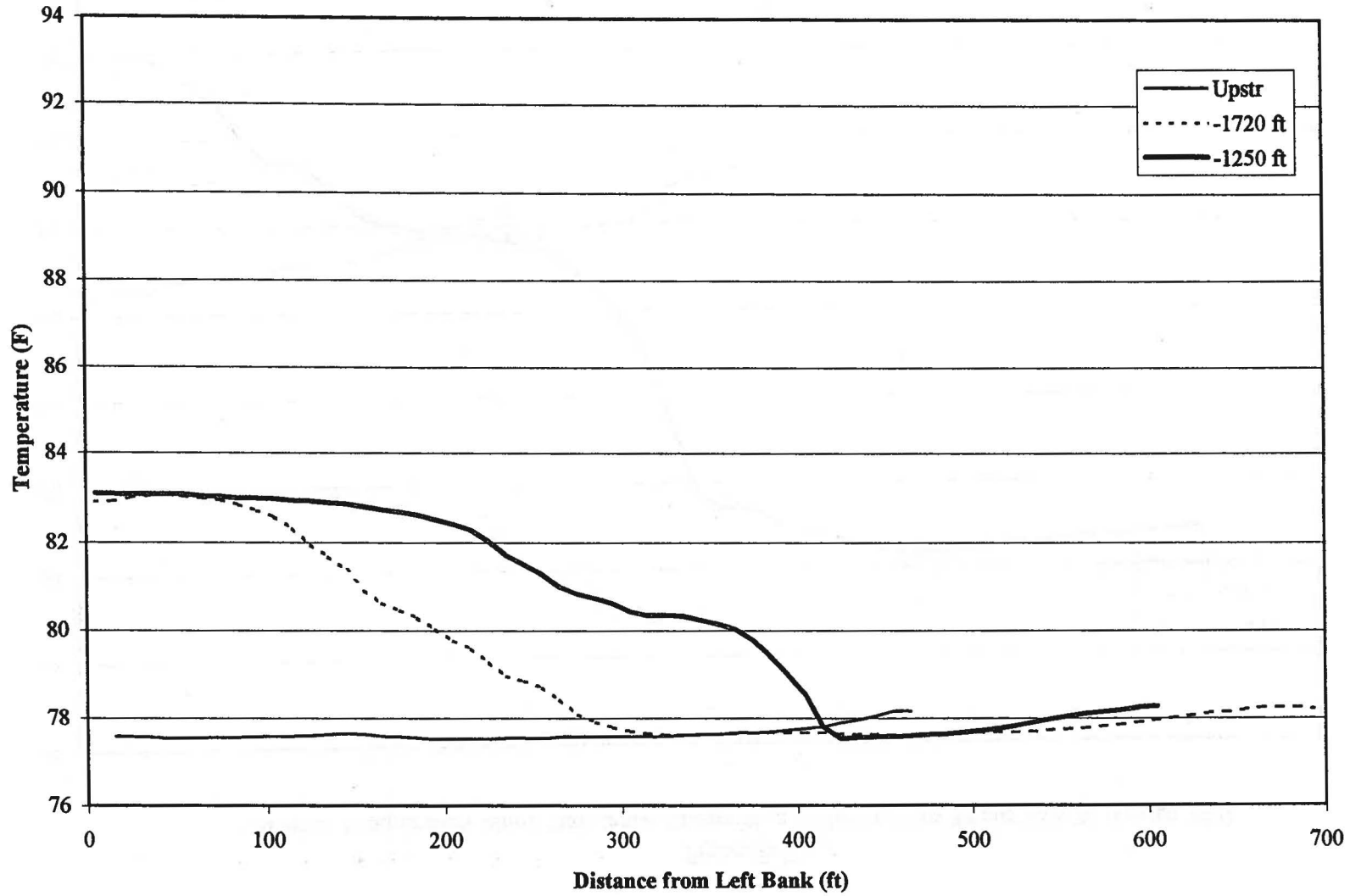


Figure B-7b
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 28 August 2002

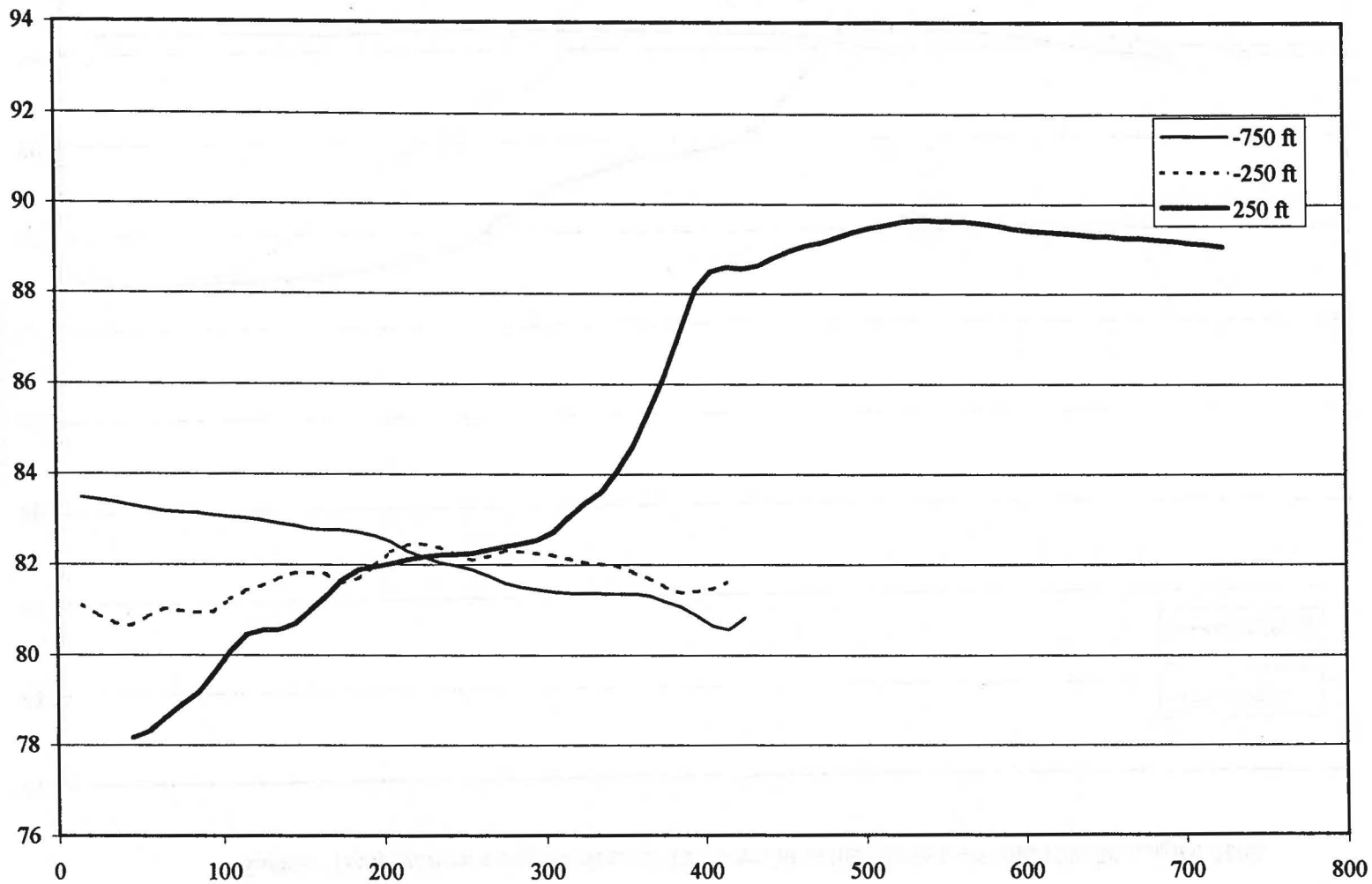


Figure B-7c
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 28 August 2002

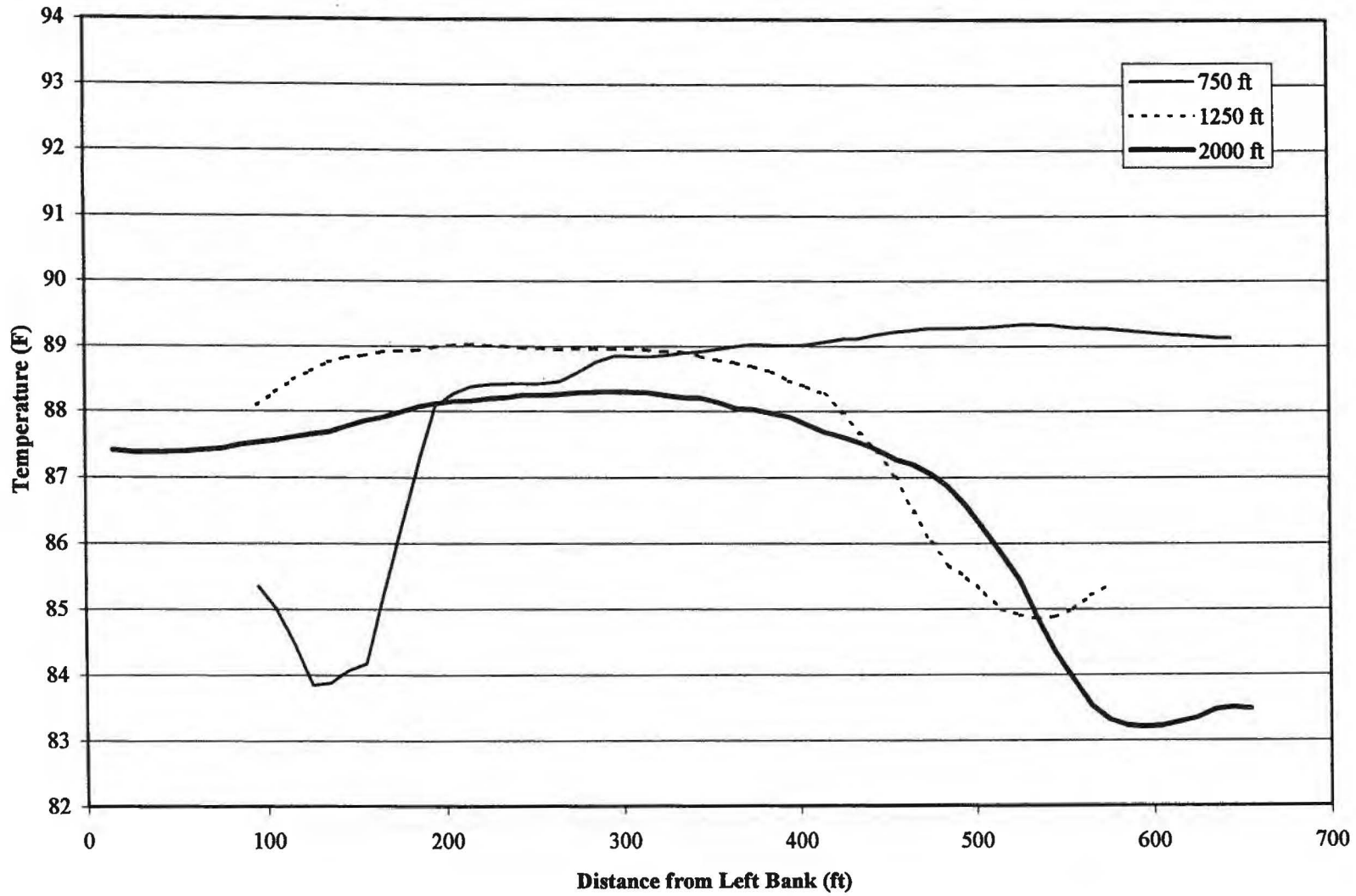


Figure B-7d
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 28 August 2002

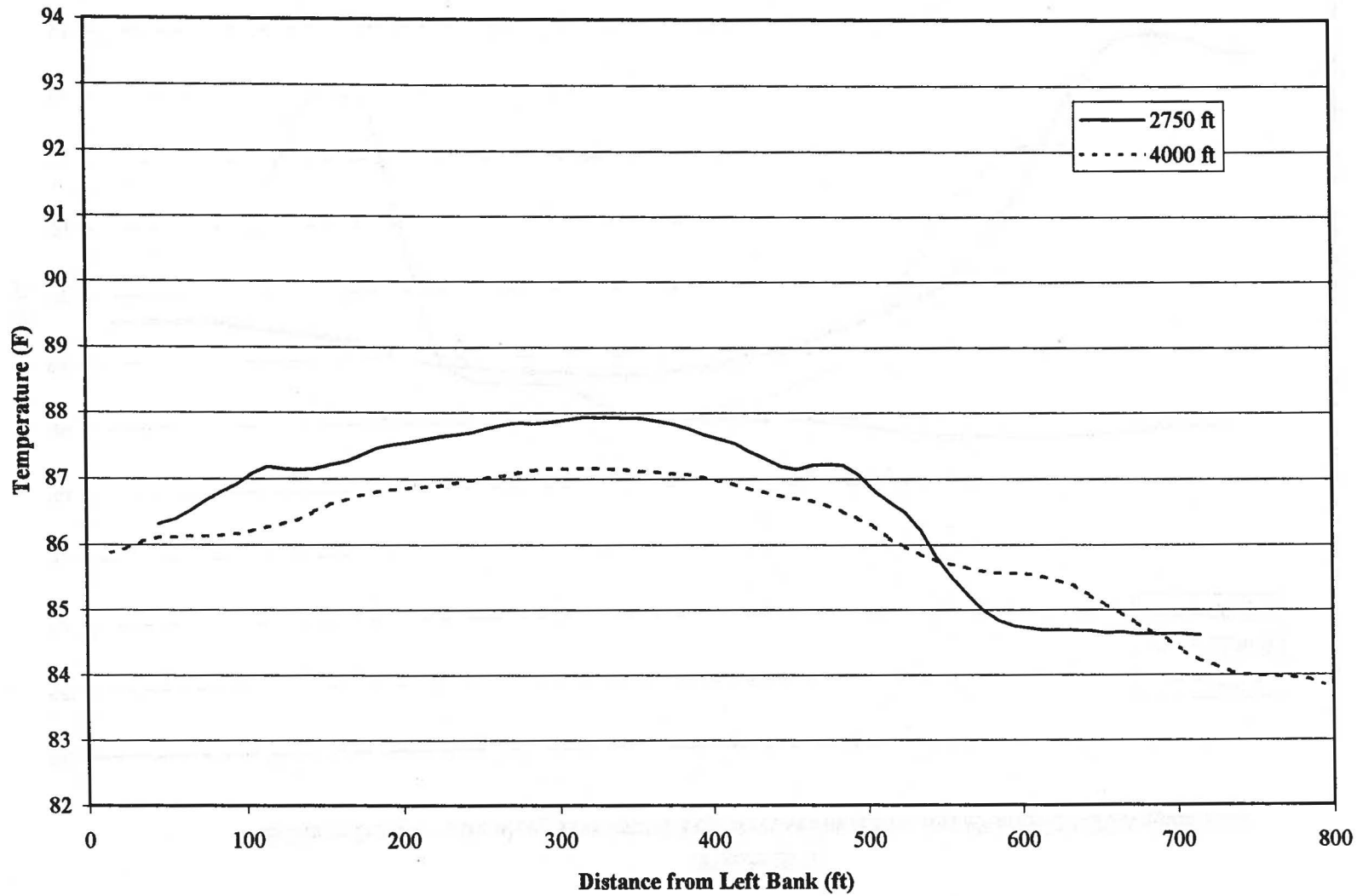


Figure B-7e
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 28 August 2002

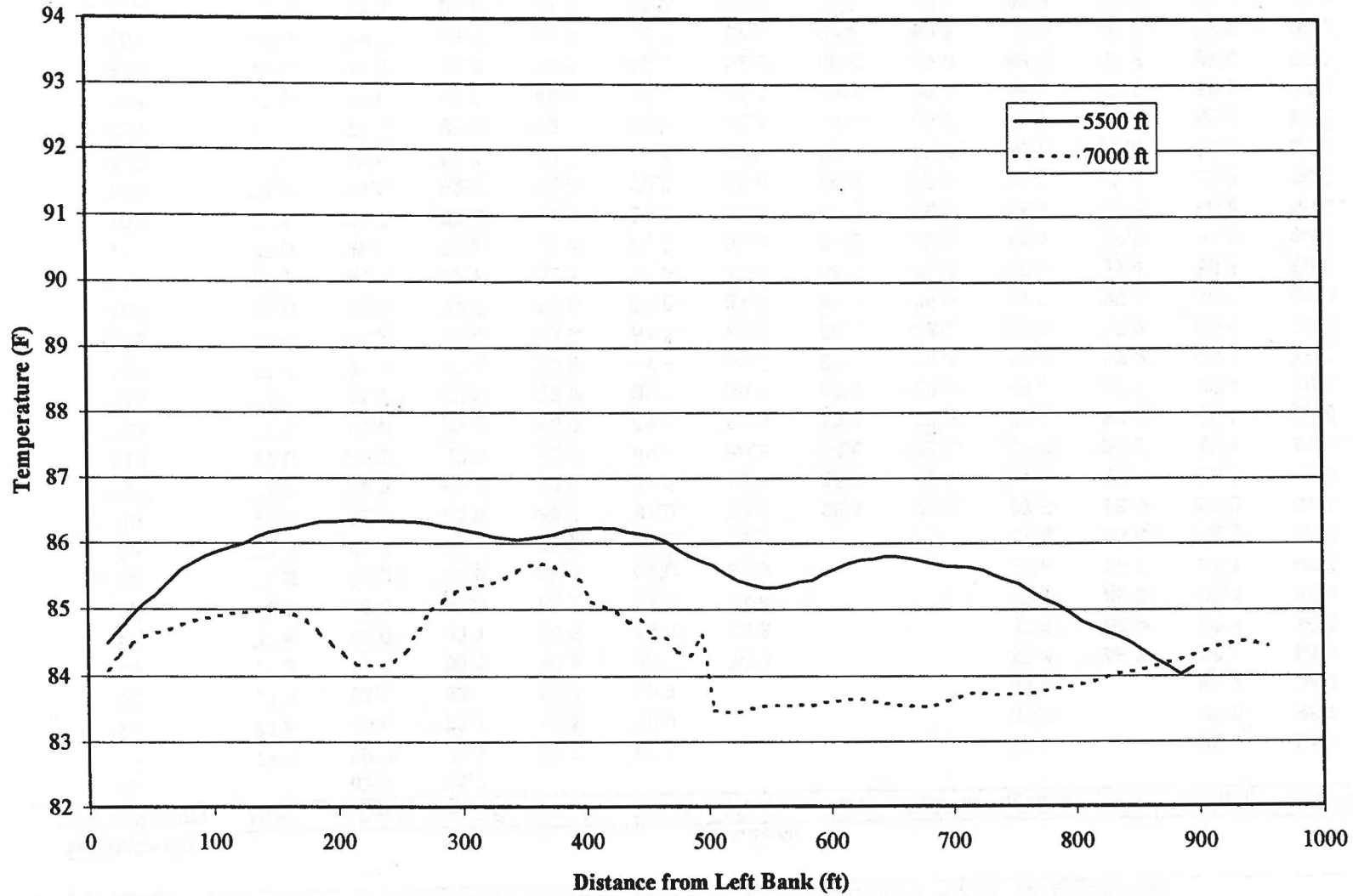


Table B-7 Surface Temperature Data near Joilet Stations 9 and 29, 28 August 2002

Distance (ft) from Left Bank	Transect												
	Upstr	-1720 ft	-1250 ft	-750 ft	-250 ft	250 ft	750 ft	1250 ft	2000 ft	2750 ft	4000 ft	5500 ft	7000 ft
5		82.9	83.1										
15	77.6	82.9	83.1	83.5	81.1				87.4		85.9	84.5	84.1
25	77.6	83.0	83.1	83.5	80.9				87.4		86.0	84.7	84.3
35	77.6	83.0	83.1	83.4	80.7				87.4		86.1	84.9	84.5
45	77.5	83.1	83.1	83.3	80.7	78.2			87.4	86.3	86.1	85.1	84.6
55	77.5	83.0	83.1	83.3	80.9	78.3			87.4	86.4	86.1	85.2	84.7
65	77.6	83.0	83.0	83.2	81.0	78.6			87.4	86.5	86.1	85.4	84.7
75	77.6	82.9	83.0	83.2	81.0	78.9			87.4	86.7	86.1	85.6	84.8
85	77.6	82.8	83.0	83.2	81.0	79.2			87.5	86.8	86.1	85.7	84.8
95	77.6	82.7	83.0	83.1	81.0	79.6	85.4	88.1	87.5	86.9	86.2	85.8	84.9
105	77.6	82.6	83.0	83.1	81.2	80.1	85.0	88.3	87.6	87.1	86.2	85.9	84.9
115	77.6	82.3	82.9	83.0	81.4	80.5	84.5	88.5	87.6	87.2	86.3	85.9	84.9
125	77.6	81.9	82.9	83.0	81.5	80.6	83.8	88.6	87.7	87.2	86.3	86.0	85.0
135	77.6	81.7	82.9	82.9	81.7	80.6	83.9	88.8	87.7	87.1	86.4	86.1	85.0
145	77.7	81.4	82.9	82.9	81.8	80.7	84.1	88.8	87.8	87.2	86.5	86.2	85.0
155	77.6	80.9	82.8	82.8	81.8	81.0	84.2	88.9	87.9	87.2	86.6	86.2	85.0
165	77.6	80.6	82.7	82.8	81.8	81.3	85.2	88.9	87.9	87.3	86.7	86.2	84.9
175	77.6	80.5	82.7	82.8	81.6	81.7	86.2	88.9	88.0	87.4	86.8	86.3	84.8
185	77.6	80.3	82.6	82.7	81.7	81.9	87.2	88.9	88.1	87.5	86.8	86.3	84.7
195	77.5	80.0	82.5	82.7	82.0	82.0	88.1	89.0	88.1	87.5	86.8	86.3	84.5
205	77.5	79.8	82.4	82.5	82.3	82.0	88.3	89.0	88.2	87.6	86.9	86.3	84.3
215	77.5	79.6	82.3	82.3	82.5	82.1	88.4	89.0	88.2	87.6	86.9	86.4	84.2
225	77.5	79.3	82.0	82.2	82.5	82.2	88.4	89.0	88.2	87.6	86.9	86.3	84.2
235	77.6	79.0	81.7	82.1	82.4	82.2	88.4	89.0	88.2	87.7	86.9	86.3	84.2
245	77.6	78.9	81.5	82.0	82.2	82.2	88.4	89.0	88.3	87.7	87.0	86.3	84.2
255	77.5	78.7	81.3	81.9	82.1	82.3	88.4	89.0	88.2	87.8	87.0	86.3	84.4
265	77.6	78.4	81.0	81.8	82.2	82.3	88.5	89.0	88.3	87.8	87.1	86.3	84.7
275	77.6	78.1	80.8	81.6	82.3	82.4	88.6	89.0	88.3	87.8	87.1	86.3	85.0
285	77.6	77.9	80.7	81.5	82.3	82.5	88.8	89.0	88.3	87.8	87.1	86.3	85.1
295	77.6	77.8	80.6	81.5	82.3	82.5	88.9	89.0	88.3	87.9	87.2	86.2	85.3
305	77.6	77.7	80.4	81.4	82.2	82.7	88.9	89.0	88.3	87.9	87.2	86.2	85.3
315	77.6	77.6	80.4	81.4	82.1	83.1	88.8	89.0	88.3	87.9	87.2	86.2	85.4
325	77.6	77.6	80.4	81.4	82.1	83.4	88.9	88.9	88.2	87.9	87.2	86.1	85.4

Table B-7 Surface Temperature Data near Joilet Stations 9 and 29, 28 August 2002

Distance (ft) from Left Bank	Transect												
	Upstr	-1720 ft	-1250 ft	-750 ft	-250 ft	250 ft	750 ft	1250 ft	2000 ft	2750 ft	4000 ft	5500 ft	7000 ft
335	77.6	77.6	80.3	81.4	82.0	83.6	88.9	88.9	88.2	87.9	87.2	86.1	85.5
345	77.6	77.6	80.2	81.4	82.0	84.1	88.9	88.9	88.2	87.9	87.1	86.1	85.6
355	77.6	77.6	80.2	81.4	81.8	84.6	89.0	88.8	88.1	87.9	87.1	86.1	85.7
365	77.7	77.7	80.0	81.3	81.7	85.4	89.0	88.8	88.0	87.9	87.1	86.1	85.7
375	77.7	77.7	79.8	81.2	81.5	86.1	89.0	88.7	88.0	87.8	87.1	86.1	85.6
385	77.7	77.7	79.4	81.1	81.4	87.1	89.0	88.6	88.0	87.8	87.1	86.2	85.6
395	77.7	77.7	79.0	80.9	81.4	88.1	89.0	88.5	87.9	87.7	87.0	86.2	85.4
405	77.8	77.7	78.5	80.7	81.5	88.5	89.0	88.4	87.8	87.6	87.0	86.2	85.1
415	77.8	77.7	77.8	80.6	81.6	88.6	89.1	88.3	87.7	87.5	86.9	86.2	85.0
425	77.9	77.6	77.5	80.8		88.6	89.1	88.0	87.6	87.4	86.9	86.2	85.0
435	78.0	77.6	77.6			88.6	89.1	87.7	87.5	87.3	86.8	86.2	84.8
445	78.0	77.6	77.6			88.8	89.2	87.4	87.4	87.2	86.7	86.1	84.8
455	78.2	77.6	77.6			89.0	89.2	87.0	87.3	87.2	86.7	86.1	84.6
465	78.2	77.6	77.6			89.1	89.3	86.5	87.2	87.2	86.7	86.0	84.6
475		77.6	77.6			89.2	89.3	86.0	87.1	87.2	86.6	85.9	84.4
485		77.6	77.6			89.3	89.3	85.7	86.9	87.2	86.5	85.8	84.3
495		77.7	77.7			89.4	89.3	85.5	86.6	87.1	86.4	85.7	84.6
505		77.7	77.7			89.5	89.3	85.3	86.2	86.8	86.3	85.7	83.5
515		77.7	77.8			89.6	89.3	85.0	85.8	86.7	86.1	85.5	83.5
525		77.7	77.8			89.6	89.3	84.9	85.4	86.5	86.0	85.4	83.5
535		77.7	77.9			89.7	89.3	84.9	84.9	86.2	85.9	85.4	83.5
545		77.7	78.0			89.7	89.3	84.9	84.3	85.8	85.8	85.3	83.5
555		77.8	78.0			89.6	89.3	85.0	83.9	85.5	85.7	85.3	83.6
565		77.8	78.1			89.6	89.3	85.2	83.5	85.2	85.7	85.4	83.6
575		77.8	78.2			89.6	89.3	85.4	83.3	85.0	85.6	85.4	83.6
585		77.9	78.2			89.5	89.3		83.2	84.8	85.6	85.4	83.6
595		77.9	78.3			89.5	89.2		83.2	84.8	85.6	85.5	83.6
605		78.0	78.3			89.4	89.2		83.2	84.7	85.6	85.6	83.6
615		78.0				89.4	89.2		83.3	84.7	85.5	85.7	83.6
625		78.1				89.4	89.2		83.3	84.7	85.4	85.7	83.7
635		78.1				89.3	89.1		83.5	84.7	85.4	85.8	83.6
645		78.1				89.3	89.1		83.5	84.7	85.2	85.8	83.6
655		78.2				89.3			83.5	84.7	85.1	85.8	83.6

Figure B-8a
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 4 September 2002

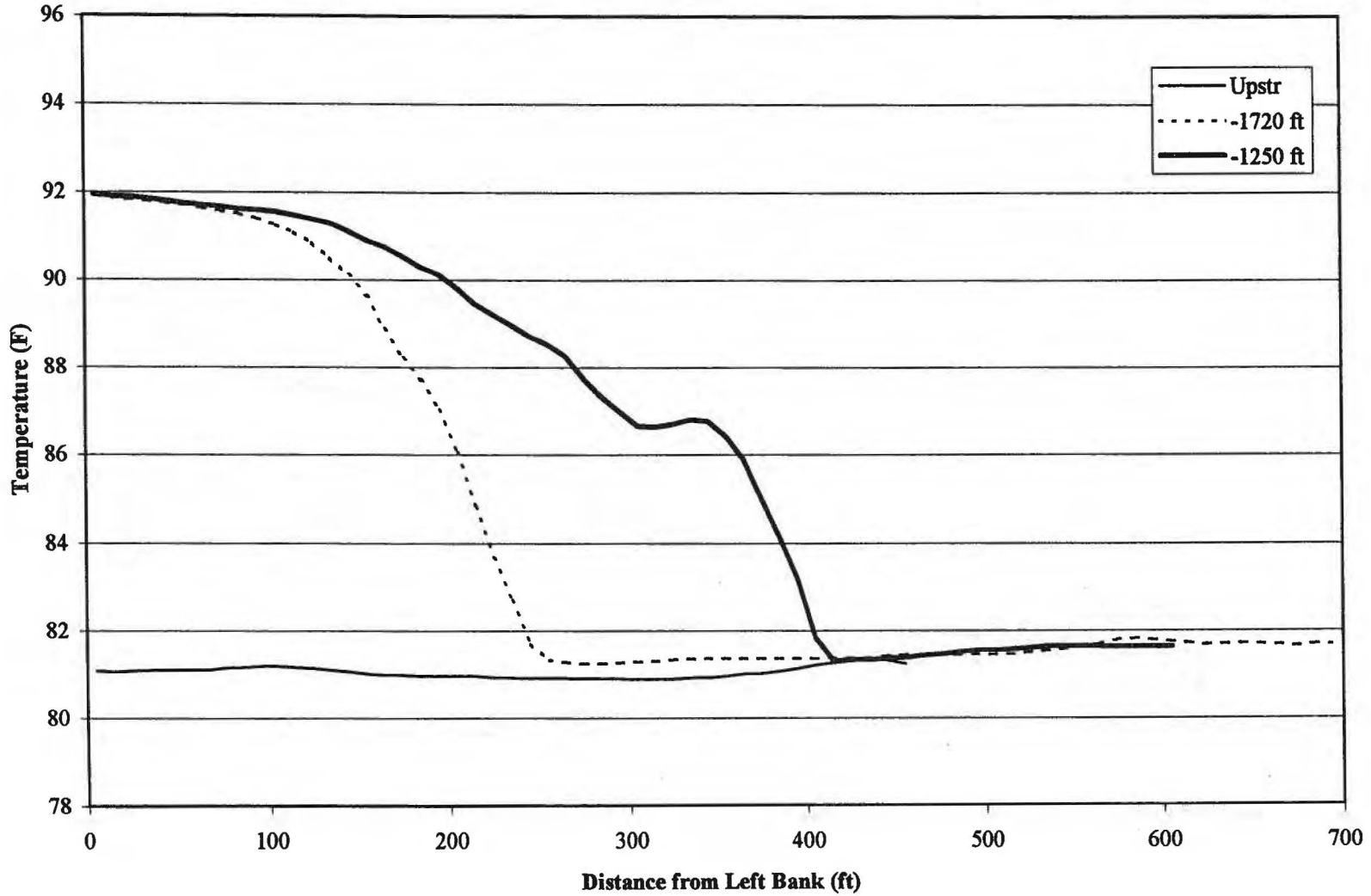


Figure B-8b
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 4 September 2002

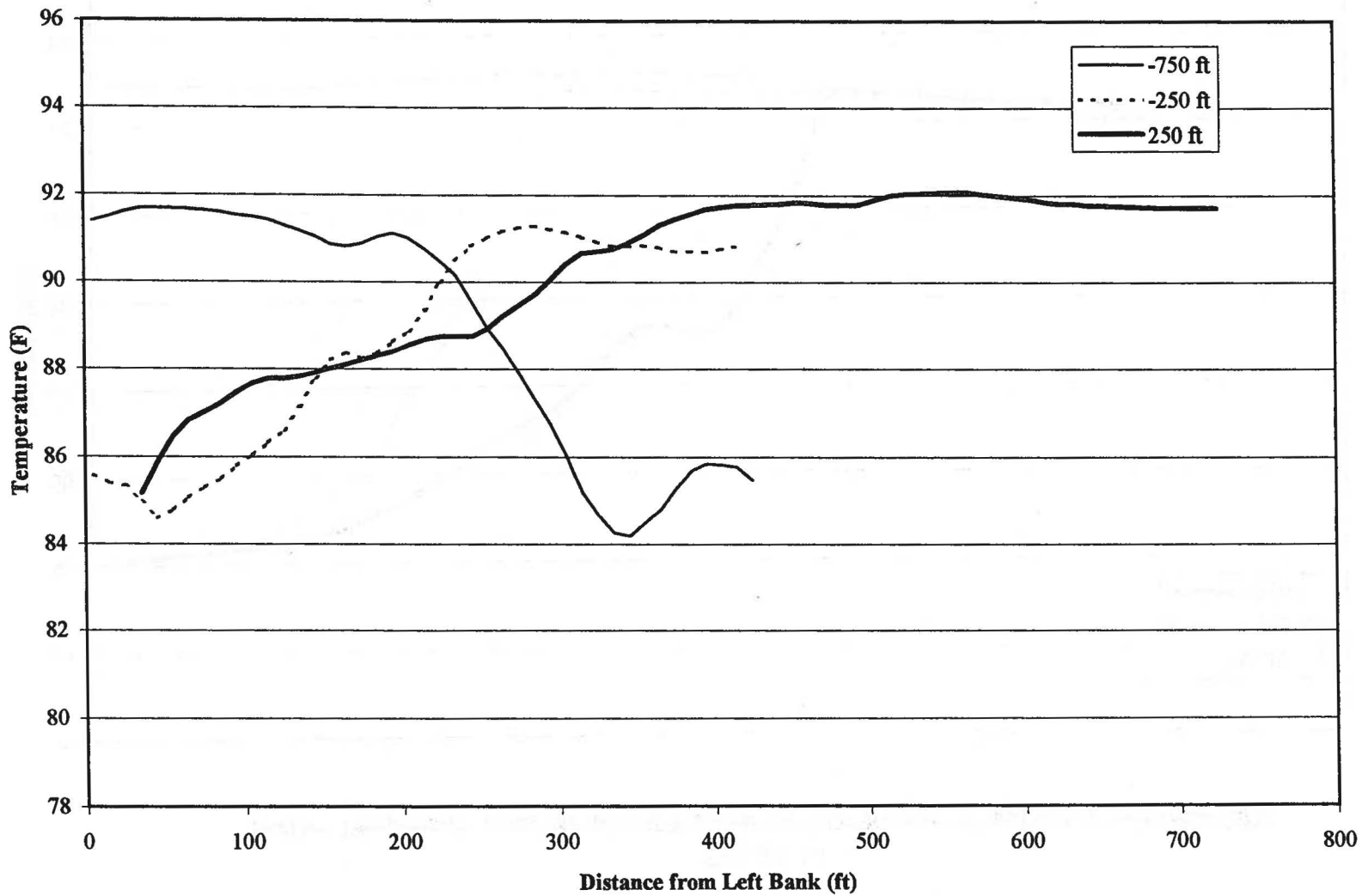


Figure B-8c
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 4 September 2002

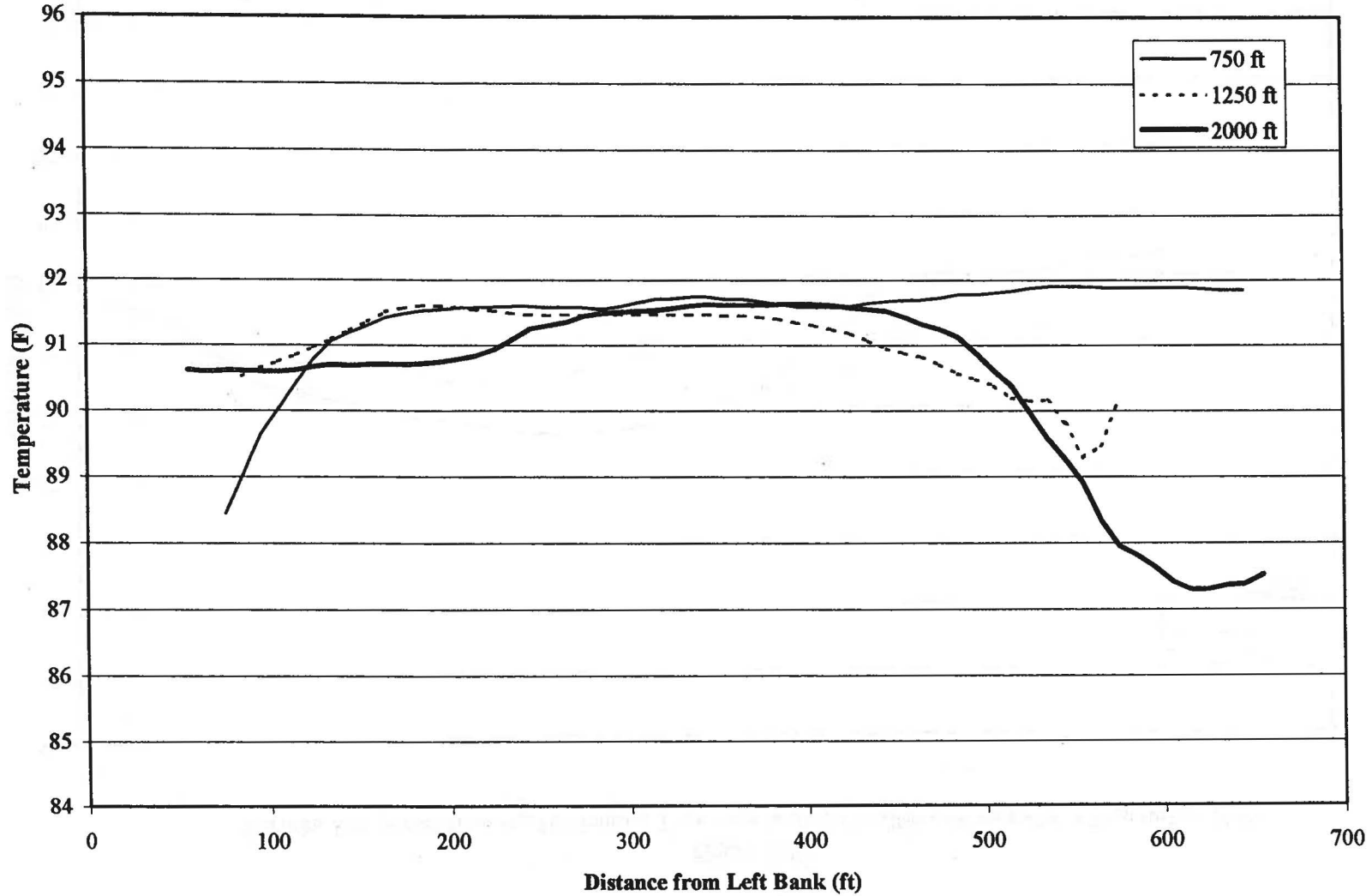


Figure B-8d
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 4 September 2002

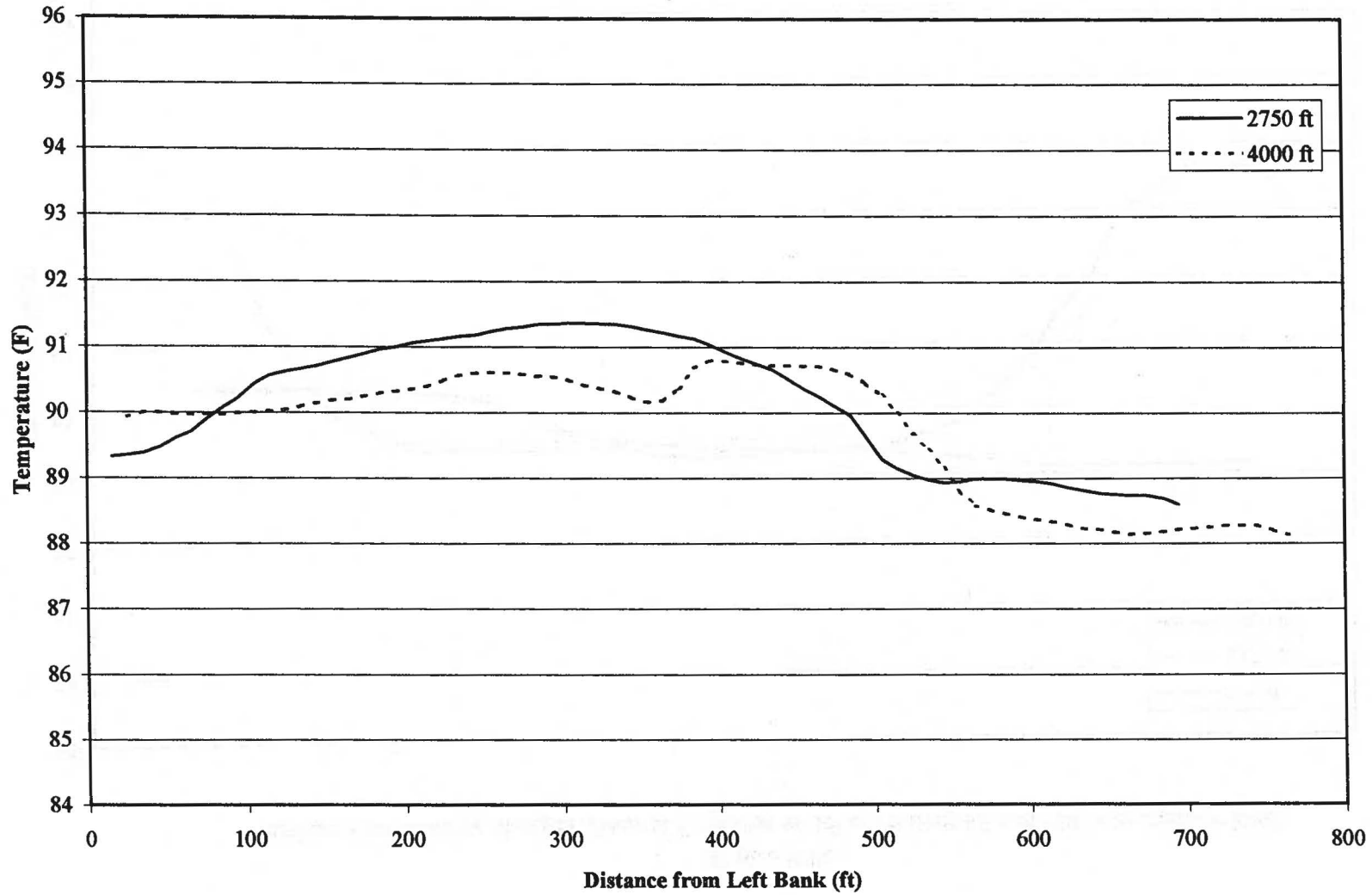


Figure B-8e
Surface Temperature along Horizontal Transects at Joliet Stations #9 and #29, 4 September 2002

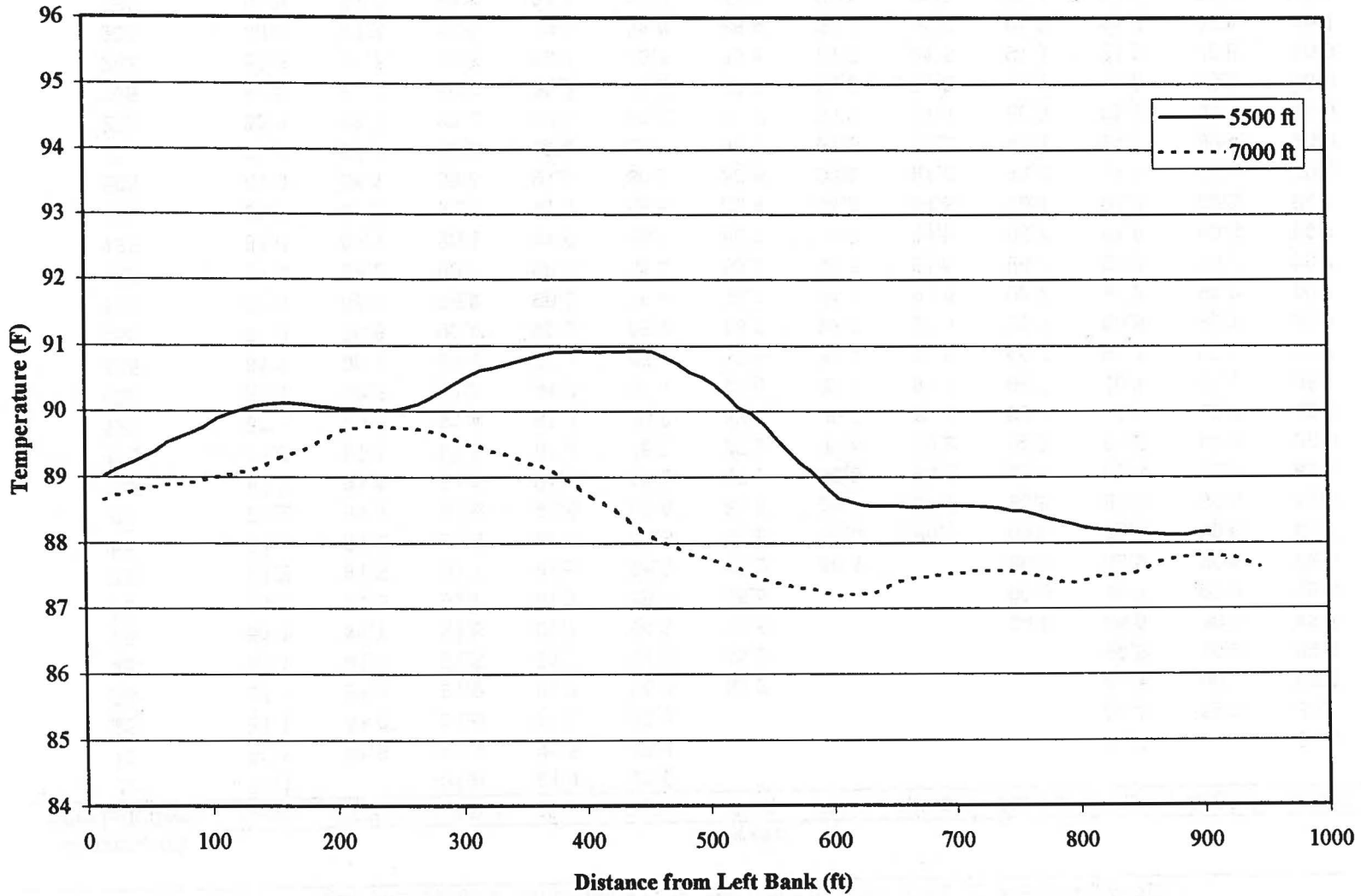


Table B-8 Surface Temperature Data near Joilet Stations 9 and 29, 4 September 2002

Distance (ft) from Left Bank	Transect												
	Upstr	-1720 ft	-1250 ft	-750 ft	-250 ft	250 ft	750 ft	1250 ft	2000 ft	2750 ft	4000 ft	5500 ft	7000 ft
5	81.1		91.9	91.4	85.6								
15	81.1	91.9	91.9	91.5	85.4					89.3		89.0	88.7
25	81.1	91.8	91.9	91.6	85.3					89.4	89.9	89.1	88.7
35	81.1	91.8	91.9	91.7	85.0	85.2				89.4	90.0	89.2	88.8
45	81.1	91.8	91.8	91.7	84.6	85.9				89.5	90.0	89.3	88.8
55	81.1	91.7	91.8	91.7	84.8	86.5			90.6	89.6	90.0	89.4	88.9
65	81.1	91.6	91.7	91.7	85.1	86.8			90.6	89.7	90.0	89.5	88.9
75	81.2	91.6	91.7	91.6	85.3	87.0	88.4		90.6	89.9	90.0	89.6	88.9
85	81.2	91.5	91.6	91.6	85.5	87.2	89.0	90.5	90.6	90.1	90.0	89.7	88.9
95	81.2	91.4	91.6	91.5	85.8	87.5	89.7	90.7	90.6	90.2	90.0	89.8	89.0
105	81.2	91.3	91.6	91.5	86.0	87.7	90.0	90.8	90.6	90.4	90.0	89.9	89.0
115	81.2	91.1	91.5	91.4	86.3	87.8	90.4	90.9	90.6	90.6	90.0	90.0	89.0
125	81.1	90.9	91.4	91.3	86.6	87.8	90.8	91.0	90.7	90.6	90.0	90.0	89.1
135	81.1	90.5	91.3	91.2	87.1	87.8	91.1	91.1	90.7	90.7	90.1	90.1	89.1
145	81.1	90.1	91.1	91.1	87.8	87.9	91.2	91.2	90.7	90.7	90.1	90.1	89.2
155	81.0	89.6	90.9	90.9	88.2	88.0	91.3	91.4	90.7	90.8	90.2	90.1	89.3
165	81.0	88.9	90.8	90.8	88.4	88.1	91.4	91.5	90.7	90.8	90.2	90.1	89.4
175	81.0	88.2	90.5	90.9	88.3	88.2	91.5	91.6	90.7	90.9	90.2	90.1	89.4
185	81.0	87.7	90.3	91.0	88.4	88.3	91.5	91.6	90.7	91.0	90.3	90.1	89.5
195	81.0	87.0	90.1	91.1	88.6	88.4	91.6	91.6	90.8	91.0	90.3	90.1	89.6
205	81.0	86.1	89.8	91.0	88.9	88.6	91.6	91.6	90.8	91.1	90.4	90.0	89.7
215	81.0	84.9	89.5	90.8	89.4	88.7	91.6	91.5	90.8	91.1	90.4	90.0	89.7
225	80.9	83.7	89.2	90.5	90.0	88.7	91.6	91.5	90.9	91.1	90.5	90.0	89.8
235	80.9	82.7	89.0	90.2	90.5	88.7	91.6	91.5	91.1	91.2	90.6	90.0	89.8
245	80.9	81.7	88.7	89.6	90.8	88.8	91.6	91.5	91.3	91.2	90.6	90.0	89.8
255	80.9	81.3	88.5	88.9	91.0	88.9	91.6	91.5	91.3	91.2	90.6	90.1	89.7
265	80.9	81.3	88.3	88.5	91.2	89.2	91.6	91.5	91.4	91.3	90.6	90.1	89.7
275	80.9	81.2	87.7	87.9	91.3	89.5	91.6	91.5	91.5	91.3	90.6	90.2	89.7
285	80.9	81.2	87.3	87.3	91.3	89.7	91.6	91.5	91.5	91.4	90.6	90.3	89.7
295	80.9	81.3	87.0	86.7	91.2	90.1	91.6	91.5	91.5	91.4	90.5	90.4	89.6
305	80.9	81.3	86.7	86.0	91.2	90.4	91.7	91.5	91.5	91.4	90.5	90.5	89.5
315	80.9	81.3	86.6	85.2	91.0	90.7	91.7	91.5	91.5	91.4	90.4	90.6	89.5
325	80.9	81.3	86.7	84.7	90.9	90.7	91.7	91.5	91.6	91.4	90.4	90.7	89.4

Table B-8 Surface Temperature Data near Joilet Stations 9 and 29, 4 September 2002

Distance (ft) from Left Bank	Transect												
	Upstr	-1720 ft	-1250 ft	-750 ft	-250 ft	250 ft	750 ft	1250 ft	2000 ft	2750 ft	4000 ft	5500 ft	7000 ft
335	80.9	81.4	86.8	84.3	90.8	90.8	91.7	91.5	91.6	91.4	90.3	90.7	89.4
345	80.9	81.4	86.8	84.2	90.8	90.9	91.7	91.5	91.6	91.3	90.2	90.8	89.3
355	81.0	81.4	86.4	84.5	90.9	91.1	91.7	91.5	91.6	91.3	90.2	90.8	89.2
365	81.0	81.4	85.9	84.8	90.8	91.3	91.7	91.5	91.6	91.2	90.2	90.9	89.2
375	81.0	81.4	85.0	85.3	90.7	91.5	91.7	91.4	91.6	91.2	90.4	90.9	89.1
385	81.1	81.4	84.1	85.7	90.7	91.6	91.6	91.4	91.6	91.1	90.7	90.9	89.0
395	81.1	81.4	83.2	85.9	90.7	91.7	91.6	91.4	91.6	91.0	90.8	90.9	88.9
405	81.2	81.4	81.8	85.8	90.8	91.7	91.6	91.3	91.6	90.9	90.8	90.9	88.7
415	81.3	81.4	81.3	85.8	90.8	91.8	91.6	91.3	91.6	90.8	90.8	90.9	88.6
425	81.3	81.4	81.3	85.5		91.8	91.6	91.2	91.6	90.8	90.7	90.9	88.5
435	81.3	81.4	81.3			91.8	91.7	91.1	91.6	90.7	90.7	90.9	88.4
445	81.3	81.4	81.4			91.8	91.7	91.0	91.5	90.5	90.7	90.9	88.2
455	81.3	81.5	81.4			91.8	91.7	90.9	91.4	90.4	90.7	90.9	88.1
465		81.5	81.4			91.8	91.7	90.8	91.3	90.2	90.7	90.8	88.0
475		81.5	81.5			91.8	91.7	90.7	91.3	90.1	90.7	90.7	87.9
485		81.4	81.5			91.8	91.8	90.6	91.1	90.0	90.6	90.6	87.8
495		81.5	81.6			91.8	91.8	90.5	90.9	89.6	90.5	90.5	87.8
505		81.5	81.6			91.9	91.8	90.4	90.6	89.3	90.3	90.4	87.7
515		81.5	81.6			92.0	91.8	90.2	90.4	89.2	90.0	90.2	87.7
525		81.5	81.6			92.0	91.9	90.1	90.0	89.1	89.7	90.1	87.6
535		81.5	81.6			92.1	91.9	90.2	89.6	89.0	89.4	90.0	87.5
545		81.6	81.6			92.1	91.9	89.8	89.3	88.9	89.2	89.8	87.4
555		81.6	81.6			92.1	91.9	89.3	88.9	89.0	88.8	89.6	87.4
565		81.7	81.7			92.1	91.9	89.5	88.3	89.0	88.6	89.4	87.4
575		81.8	81.6			92.0	91.9	90.2	88.0	89.0	88.5	89.2	87.3
585		81.8	81.6			92.0	91.9		87.8	89.0	88.5	89.1	87.3
595		81.8	81.6			91.9	91.9		87.6	89.0	88.4	88.9	87.2
605		81.8	81.7			91.9	91.9		87.4	89.0	88.4	88.7	87.2
615		81.7				91.8	91.9		87.3	88.9	88.3	88.6	87.2
625		81.7				91.8	91.9		87.3	88.9	88.3	88.6	87.2
635		81.7				91.8	91.9		87.4	88.8	88.2	88.6	87.2
645		81.7				91.8	91.9		87.4	88.8	88.2	88.6	87.3
655		81.7				91.8			87.5	88.8	88.2	88.6	87.4

APPENDIX C

**VERTICAL PROFILE TEMPERATURE DATA FOR EACH TRANSECT
AND SAMPLING DATE**

Table C-1a
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 27 June 2002

Depth (ft)	UPSTR-1/2 1609	J#9-1/2 1604	J-1720-1/5 1602	J-1720-3/5 1558	J-1250-2/5 1557	J-750-2/5 1554
0.25				84.8	92.2	91.1
1	84.4	93.4	93.3	84.7	93.2	91.6
2	84.5		93.7	84.6	93.6	91.7
3	84.5		93.0	84.5	93.5	91.7
4	84.5			84.5	93.4	91.4
5	84.5			84.5	93.1	90.4
6	84.4			84.5	90.5	89.0
7	84.4			84.5		87.5
8	84.4			84.5		86.7
9	84.4			84.5		86.1
10	84.4			84.5		85.6
11	84.4					85.3
12	84.4					85.7
13						
14						
15						

Depth (ft)	J-250-2/5 1552	J29-US-1/2 1545	J29-DS-2/3 1548	J250-3/6 1550	J750-3/6 1540	J1250-3/6 1536
0.25	86.3		95.9	90.0	90.2	92.8
1	86.6	98.9	96.8	89.9	90.3	92.7
2	86.7	99.7	97.1	89.7	90.3	92.5
3	86.7	99.9	95.6	89.6	90.2	91.9
4	86.6	99.3	95.8	89.6	90.1	91.3
5	86.6	98.4	94.1	89.4	89.8	89.9
6	86.1	99.1	91.8	87.9	89.5	89.0
7	85.7	99.7	90.9	86.4	89.3	88.6
8	85.5	99.9	90.7	85.6	88.7	88.4
9	85.2	99.7		85.1	88.3	88.2
10	85.0			84.9	88.1	87.8
11	84.8			84.7	87.9	87.4
12	84.8			84.6		87.0
13						
14						
15						

Table C-1b
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 27 June 2002

Depth (ft)	J2000-3/5 1534	J2750-3/5 1531	J4000-1/2 1529	J5500-1/2 1525	J7000-1/2 1522
0.25	91.2	92.0	91.3	90.1	89.6
1	91.9	91.8	91.3	90.3	89.7
2	91.4	91.6	91.3	90.3	89.8
3	90.6	91.3	91.1	90.0	89.7
4	90.1	91.1	91.1	90.0	89.7
5	89.8	91.1	90.8	89.8	89.7
6	89.7	90.9	90.5	89.4	89.4
7	89.4	90.0	90.4	88.6	
8	88.9	89.3	90.1	87.8	
9	88.5	88.8	89.7		
10	88.1	88.0	87.9		
11	87.8	86.9			
12	87.5	86.4			
13	86.9	86.0			
14	86.4	85.9			
15	86.4				

Table C-2a
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 11 July 2002

Depth (ft)	UPSTR-1/2 1556	J#9-1/2 1548	J-1720-1/5 1544	J-1720-3/5 1551	J-1250-2/5 1541	J-750-2/5 1537
0.25						
1	82.8	89.7	89.0	82.7	88.0	87.3
2	82.8	89.7	89.0	82.7	87.7	87.5
3	82.7		89.0	82.7	87.2	87.1
4	82.7			82.8	86.2	87.1
5	82.7			82.8	85.0	84.5
6	82.7			82.8	83.9	82.8
7	82.7			82.8	83.5	82.7
8	82.8			82.8	83.9	82.6
9	82.8			82.8		82.5
10	82.8			82.8		82.5
11	82.8			82.8		82.6
12	82.8					
13	82.8					
14						
15						
16						

Depth (ft)	J-250-2/5 1534	J29-US-1/2 1522	J29-DS-2/3 1526	J250-3/6 1530	J750-3/6 1515	J1250-3/6 1512
0.25		94.9				
1	85.4	94.8	95.0	85.6	92.0	92.9
2	84.8	94.8	95.0	85.5	91.8	92.9
3	84.7	94.8	95.1	85.7	91.5	92.8
4	84.4	94.7	95.1	85.6	91.0	91.5
5	84.2	94.5	95.2	85.6	90.1	88.4
6	83.8	94.7	95.2	85.7	88.9	86.7
7	83.3	94.8	95.3	85.5	88.1	86.6
8	83.0	94.8	95.2	85.5	86.6	86.4
9	82.8	95.0		84.9	86.3	86.3
10	82.6	95.2		84.8	86.4	86.1
11	82.6	95.2		84.3	85.8	86.2
12	82.7			84.9	85.5	
13						
14						
15						
16						

Table C-2b
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 11 July 2002

Depth (ft)	J2000-3/5 1507	J2750-3/5 1502	J4000-1/2 1458	J5500-1/2 1453	J7000-1/2 1446
0.25					
1	91.6		91.1		89.4
2	92.0	91.1	91.1	89.2	89.4
3	92.0	90.9	91.1	89.1	89.4
4	91.1	90.6	91.1	88.7	89.4
5	90.5	90.5	91.0	88.5	89.4
6	89.4	90.4	90.6	88.4	
7	88.2	89.1	90.3	88.9	
8	86.2	88.0	90.2	87.2	
9	84.5	86.0	89.8		
10	84.4	84.3	89.5		
11	84.6	83.9	89.6		
12	84.5	83.8			
13	87.4	83.4			
14	89.3	83.6			
15	90.1				
16	89.7				

Table C-3a
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 1 August 2002

Depth (ft)	UPSTR-1/4 1652	UPSTR-1/2 1650	UPSTR-3/4 1647
0.25			
1	89.4	89.2	89.3
2	89.4	89.2	89.3
3	89.4	89.2	89.4
4	89.4	89.2	89.4
5	89.4	89.2	89.4
6	89.4	89.2	89.4
7	89.4	89.2	89.4
8	89.3	89.2	89.4
9	89.3	89.2	89.4
10	89.3	89.2	89.4
11	89.3	89.2	89.4
12		89.2	89.4

Depth (ft)	J#9-1/2 1630	J-1720-1/5 1634	J-1720-2/5 1636	J-1720-3/5 1638	J-1720-4/5 1641
0.25	95.4				
1	95.2	95.3	89.8	89.4	89.2
2		95.3	89.9	89.4	89.2
3		95.2	89.6	89.4	89.2
4				89.3	89.2
5				89.3	89.2
6				89.3	89.2
7				89.3	89.2
8				89.2	89.2
9				89.2	89.2
10				89.2	89.2
11				89.2	89.2
12					89.2

Table C-3b
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 1 August 2002

Depth (ft)	J-1250-1/5 1623	J-1250-2/5 1620	J-1250-3/5 1617	J-1250-4/5 1612
0.25				
1	95.3	95.1	93.1	93.0
2		95.0	92.9	93.0
3		93.5	92.4	92.8
4		91.7	91.9	92.6
5		90.1	91.4	92.5
6		89.6	91.3	92.5
7		89.4	91.1	92.5
8		89.3	90.4	92.7
9		89.4	89.5	92.8
10			89.2	92.8
11			89.1	
12				

Depth (ft)	J-750-1/5 1557	J-750-2/5 1600	J-750-3/5 1605	J-750-4/5 1608
0.25				
1	95.1	94.9	94.3	93.6
2	95.1	95.0	94.1	93.6
3	95.1	94.9	94.1	93.6
4	94.7	94.6	94.1	93.6
5	92.9	94.0	94.1	93.6
6	90.4	92.3	94.0	93.6
7	89.6	90.4	94.0	93.4
8	89.2	90.1	93.7	92.7
9	89.1	90.3	92.7	92.3
10	89.0	89.6	92.6	92.1
11	89.0	89.3		
12	89.0			

Table C-3c
Vertical Temperature Profiles at Joliet Stations #9 and #29, 1 August 2002

Depth (ft)	J-250-1/5 1554	J-250-2/5 1551	J-250-3/5 1549	J-250-4/5 1546
0.25				
1	93.1	93.1	93.8	93.9
2	93.1	93.3	93.7	93.9
3	93.1	93.3	93.7	93.9
4	93.1	93.3	93.6	93.9
5	93.1	93.3	93.5	93.9
6	93.1	93.2	93.0	93.6
7	93.1	93.0	91.9	93.0
8	93.0	92.4	89.9	92.8
9	93.0	92.5	89.2	92.5
10	92.5	92.4	89.0	92.4
11	90.9	92.3	88.9	92.3
12			88.9	91.8

Depth (ft)	J29-US-1/2 1539	J29-DS-1/3 1532	J29-DS-2/3 1535
0.25			
1	103.4	96.4	94.7
2	103.6	96.4	94.7
3	103.3	96.4	94.8
4	102.9	96.4	94.8
5	102.7	96.4	94.8
6	102.6	96.4	94.7
7	102.4	96.4	94.8
8	102.2	96.4	94.8
9	101.9		
10	101.6		
11	101.4		
12			

Table C-3d
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 1 August 2002

Depth (ft)	J250-1/6 1516	J250-2/6 1519	J250-3/6 1522	J250-4/6 1525	J250-5/6 1527
0.25			93.6		94.9
1	93.0	92.5	93.4	94.7	94.8
2	92.9	92.5	93.4	94.5	94.8
3	93.0	92.5	93.4	94.1	94.8
4	92.9	92.5	93.4	93.7	94.8
5	92.7	92.5	93.4	93.5	94.8
6	92.3	92.5	93.3	93.0	94.8
7	92.2	92.5	93.3	93.2	94.8
8	92.7	92.5	93.2		
9	92.9	92.5	93.0		
10		92.5	92.5		
11		92.1	91.7		
12		92.1	91.0		

Depth (ft)	J750-1/6 1513	J750-2/6 1509	J750-3/6 1506	J750-4/6 1504	J750-5/6 1501
0.25					
1	94.7	94.6	94.5	94.2	94.4
2		94.5	94.3	94.2	94.4
3		94.5	94.2	94.2	94.3
4		94.5	94.1	94.1	94.3
5		94.5	94.0	94.1	94.3
6		94.4	93.9	93.8	94.1
7		94.3	93.7	93.9	94.2
8		93.8	93.6	93.9	94.1
9		91.2	93.0	93.7	93.6
10			92.6	93.2	91.5
11			91.8	91.7	
12			90.0		

Table C-3e
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 1 August 2002

Depth (ft)	J1250-1/6 1447	J1250-2/6 1449	J1250-3/6 1451	J1250-4/6 1454	J1250-5/6 1457
0.25		94.4	94.5		
1	93.8	94.4	94.6	95.0	95.0
2	93.6	94.4	94.6	95.0	94.7
3		94.4	94.6	95.0	94.6
4		94.4	94.6	95.0	94.3
5		94.4	94.5	95.0	94.3
6		94.4	94.2	94.7	94.0
7		94.4	94.0	94.4	93.5
8		94.3	93.7	94.3	93.2
9		94.2	93.7	94.0	92.8
10			93.6	93.8	92.8
11			93.8	93.6	92.7
12			93.8	93.5	
13				93.0	
14					
15					
16					

Depth (ft)	J2000-1/5 1431	J2000-2/5 1433	J2000-3/5 1438	J2000-4/5 1441
0.25				93.6
1	94.3	94.3	94.1	93.5
2	94.2	94.2	94.1	93.5
3	94.2	93.9	94.1	93.5
4	94.2	93.6	93.9	93.5
5		93.2	93.8	93.5
6		93.0	93.8	93.5
7		93.1	93.7	93.5
8		93.2	93.7	93.4
9		93.3	93.8	93.3
10		93.5	93.9	93.2
11		93.5	94.0	93.3
12		93.7	93.9	93.2
13		93.8	93.9	92.9
14			94.0	92.6
15			94.0	92.6
16			94.0	

Table C-3f
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 1 August 2002

Depth (ft)	J2750-1/5 1410	J2750-2/5 1417	J2750-3/5 1422	J2750-4/5 1427
0.25				
1	94.7	94.7	94.6	94.4
2	94.7	94.7	94.6	94.4
3	94.7	94.7	94.5	94.4
4	94.6	94.7	94.3	
5	94.5	94.7	94.2	
6	94.4	94.7	94.0	
7	94.4	94.6	93.7	
8	94.4	94.6	93.6	
9	94.4	94.4	93.3	
10	94.3	94.2	93.4	
11	94.3	93.9	93.1	
12		93.8	92.9	
13		93.7	93.0	
14		93.3	93.0	
15		93.1		
16		93.4		
17				

Depth (ft)	J4000-1/4 1358	J4000-1/2 1404	J4000-3/4 1406	J5500-1/4 1348	J5500-1/2 1351	J5500-3/4 1354
0.25						
1	93.9	94.1	93.9	93.3	93.4	93.4
2	93.9	94.1	93.9	93.2	93.4	93.4
3	94.0	94.1		93.2	93.4	
4	94.0	94.1		93.3	93.5	
5	94.0	94.1		93.3	93.5	
6	94.0	94.1		93.2	93.5	
7	93.9	94.0		93.0		
8	93.8	94.0		92.9		
9	93.5	94.0		92.8		
10	93.2			92.7		
11	93.1			92.7		
12	93.0			92.5		
13	92.9			92.5		
14	92.8			92.5		
15	92.6			92.5		
16	92.3			92.4		
17	92.5					

Table C-3g
Vertical Temperature Profiles at Joliet Stations #9 and #29, 1 August 2002

Depth (ft)	J7000-1/4 1337	J7000-1/2 1342	J7000-3/4 1344
0.25			
1	92.8	92.6	91.7
2	92.8	92.7	91.7
3	92.8	92.6	
4	92.8	92.6	
5	92.7	92.6	
6	92.7		
7	92.7		
8	92.7		
9	92.6		
10	92.5		
11	92.4		
12	92.4		
13	92.3		
14	92.3		
15	92.3		
16	92.2		
17	92.1		

Table C-4a
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 9 August 2002

Depth (ft)	UPSTR-1/2 1725	UPSTR-3/4 1723
0.25	86.0	86.1
1	86.0	86.1
2	86.1	86.0
3	86.1	85.9
4	86.0	85.9
5	86.0	85.9
6	86.0	85.9
7	86.0	86.0
8	85.9	86.0
9	85.9	86.0
10	85.9	86.0
11	85.9	86.0
12	85.9	86.0
13	85.8	

Depth (ft)	J#9-1/2 1714	J-1720-1/5 1711	J-1720-2/5 1717	J-1720-3/5 1718	J-1720-4/5 1719
0.25	95.9	96.3	92.7	91.1	91.6
1	95.9	96.4	91.8	91.2	91.9
2		96.4	89.8	91.3	92.0
3		96.4	86.7	91.3	90.4
4		96.4		90.6	88.7
5				88.8	87.2
6				87.6	86.8
7				87.0	86.5
8				86.5	86.5
9				86.3	87.0
10				86.3	87.3
11					87.3
12					87.5
13					

Table C-4a
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 9 August 2002

Depth (ft)	UPSTR-1/2 1725	UPSTR-3/4 1723
0.25	86.0	86.1
1	86.0	86.1
2	86.1	86.0
3	86.1	85.9
4	86.0	85.9
5	86.0	85.9
6	86.0	85.9
7	86.0	86.0
8	85.9	86.0
9	85.9	86.0
10	85.9	86.0
11	85.9	86.0
12	85.9	86.0
13	85.8	

Depth (ft)	J#9-1/2 1714	J-1720-1/5 1711	J-1720-2/5 1717	J-1720-3/5 1718	J-1720-4/5 1719
0.25	95.9	96.3	92.7	91.1	91.6
1	95.9	96.4	91.8	91.2	91.9
2		96.4	89.8	91.3	92.0
3		96.4	86.7	91.3	90.4
4		96.4		90.6	88.7
5				88.8	87.2
6				87.6	86.8
7				87.0	86.5
8				86.5	86.5
9				86.3	87.0
10				86.3	87.3
11					87.3
12					87.5
13					

Table C-4b
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 9 August 2002

Depth (ft)	J-1250-1/5 1703	J-1250-2/5 1704	J-1250-3/5 1706	J-1250-4/5 1707
0.25	93.8	95.6	92.6	91.5
1	95.3	96.1	92.4	91.6
2	96.0	96.1	91.1	91.8
3		95.8	90.1	91.8
4		95.2	89.3	91.7
5		94.7	88.8	91.8
6		92.1	88.8	91.8
7		89.6	88.8	91.8
8		88.2	88.9	91.6
9		87.6	89.0	91.4
10			89.0	90.5
11			89.4	89.4
12			89.2	
13			89.5	

Depth (ft)	J-750-1/5 1656	J-750-2/5 1657	J-750-3/5 1659	J-750-4/5 1701
0.25	91.8	91.1	91.3	93.6
1	92.7	91.6	93.3	93.5
2	92.7	90.5	93.1	93.2
3	90.9	88.2	89.9	92.8
4	89.6	86.8	87.2	92.5
5	87.9	86.4	86.5	91.2
6	86.9	86.3	86.3	89.4
7	86.5	86.2	86.1	87.9
8	86.4	86.2	86.1	87.1
9	86.4	86.3	86.1	86.9
10	86.2	86.4	86.1	
11	86.0	86.9	86.3	
12	85.9			
13	85.9			

Table C-4c

Vertical Temperature Profiles at Joliet Stations #9 and #29, 9 August 2002

Depth (ft)	J-250-1/5 1648	J-250-2/5 1650	J-250-3/5 1652	J-250-4/5 1654
0.25	94.5	93.2	94.0	93.1
1	95.0	93.1	94.0	93.5
2	94.8	92.6	93.1	93.5
3	92.8	92.1	92.6	93.1
4	89.7	91.7	92.1	91.8
5	87.7	90.9	90.4	88.2
6	87.1	89.4	88.3	87.2
7	87.0	88.5	87.2	86.7
8	86.8	87.7	86.8	86.5
9	86.5	87.7	86.6	86.4
10	86.3	87.7	86.4	86.3
11	86.3	88.1	86.4	86.3
12		88.4	86.6	86.5
13				

Depth (ft)	J29-US-1/2 1629	J29-DS-1/3 1632	J29-DS-2/3 1634
0.25	98.6	91.9	92.4
1	98.7	90.7	95.0
2	99.9	90.7	97.1
3	99.8	90.6	98.2
4	99.7	90.5	97.9
5	99.8	90.4	95.5
6	99.9	90.5	94.3
7	99.8	90.5	94.3
8	99.6	90.6	94.8
9	99.6		
10	99.6		
11			
12			
13			

Table C-4d
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 9 August 2002

Depth (ft)	J250-1/6 1637	J250-2/6 1639	J250-3/6 1641	J250-4/6 1643	J250-5/6 1645
0.25	91.4	92.3	93.9	94.4	95.7
1	91.9	92.7	93.9	94.5	97.4
2	91.8	92.7	93.8	94.1	98.4
3	91.4	92.2	93.3	93.9	97.7
4	90.5	92.0	92.6	93.8	97.1
5	90.0	91.5	90.5	93.6	96.9
6	89.3	90.3	88.6	93.5	96.0
7	88.5	89.4	87.4	93.2	95.5
8	87.9	88.3	86.9	92.6	95.2
9	87.5	87.4	86.6		
10	86.8	86.8	86.3		
11		86.6	86.2		
12		86.5	86.5		
13					

Depth (ft)	J750-1/6 1616	J750-2/6 1617	J750-3/6 1619	J750-4/6 1621	J750-5/6 1623
0.25	92.5	91.6	93.1	95.7	96.6
1	92.7	91.9	93.9	96.2	98.2
2	92.4	92.1	93.6	96.4	98.4
3		92.1	92.7	96.0	97.8
4		92.0	91.6	95.1	97.3
5		91.8	91.2	94.1	96.6
6		91.6	90.7	92.3	94.7
7		91.5	90.4	90.0	92.4
8		91.1	90.2	88.2	89.9
9		90.4	90.0	87.3	88.0
10			89.7	86.9	
11			89.4	87.1	
12			89.4		
13					

Table C-4e
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 9 August 2002

Depth (ft)	J1250-1/6 1606	J1250-2/6 1607	J1250-3/6 1610	J1250-4/6 1611	J1250-5/6 1614
0.25	96.8	97.2	98.1	96.8	95.8
1	97.3	97.6	98.2	97.2	95.8
2	97.1	96.6	98.1	96.3	94.7
3	96.9	95.6	97.8	94.8	92.8
4		95.1	97.2	93.8	92.1
5		94.5	96.1	93.0	91.4
6		93.5	95.8	92.6	90.7
7		92.8	95.4	92.0	90.4
8		92.3	95.4	91.1	90.2
9		91.2	94.3	89.9	90.1
10			93.0	89.0	89.6
11			92.1	88.4	89.0
12			92.5	88.1	
13				88.0	
14					
15					
16					

Depth (ft)	J2000-1/5 1556	J2000-2/5 1557	J2000-3/5 1600	J2000-4/5 1601
0.25	91.1	91.7	94.2	95.0
1	91.2	92.8	94.1	95.8
2	91.3	93.1	94.1	95.9
3	91.3	92.7	94.1	95.7
4	90.6	92.5	94.1	95.5
5		92.1	94.1	95.5
6		91.1	93.5	94.7
7		90.2	93.0	94.1
8		89.7	92.4	93.3
9		89.5	91.4	92.2
10		89.4	91.1	91.5
11		89.3	90.6	91.2
12		89.3	90.7	91.1
13			90.3	91.0
14			90.3	91.1
15			90.5	
16			90.5	

Table C-4f
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 9 August 2002

Depth (ft)	J2750-1/5 1546	J2750-2/5 1548	J2750-3/5 1550	J2750-4/5 1552
0.25	92.6	93.6	94.1	93.7
1	93.6	93.6	94.9	93.6
2	93.9	93.8	95.1	
3	93.8	93.8	94.6	
4	93.2	93.7	93.8	
5	92.7	93.1	93.1	
6	92.2	92.1	92.8	
7	91.7	91.7	92.6	
8	91.2	91.4	92.4	
9	90.8	91.1	92.3	
10	90.4	90.9	92.3	
11	90.1	90.7	92.3	
12		90.6	92.3	
13		90.5		
14		90.6		
15		90.6		
16		90.0		
17				

Depth (ft)	J4000-1/4 1538	J4000-1/2 1540	J4000-3/4 1542	J5500-1/4 1529	J5500-1/2 1531	J5500-3/4 1533
0.25	92.1	92.7	92.3	90.1	91.8	93.1
1	92.3	92.9	92.5	91.4	92.8	92.8
2	92.5	92.7	92.7	91.9	93.8	92.4
3	92.4	92.1		92.0	93.8	
4	92.2	91.5		91.9	93.4	
5	92.2	91.0		91.7	93.1	
6	92.1	90.7		91.1	92.9	
7	91.6	90.5		90.7	92.6	
8	91.4	90.4		90.2		
9	91.5	90.1		90.2		
10	90.9			89.9		
11	90.6			89.4		
12	90.1			89.5		
13	89.4			89.0		
14	89.8			89.0		
15	89.7			89.0		
16	89.1			88.5		
17	89.1			88.9		

Table C-4g
Vertical Temperature Profiles at Joliet Stations #9 and #29, 9 August 2002

Depth (ft)	J7000-1/4 1520	J7000-1/2 1522	J7000-3/4 1525
0.25	91.4	91.0	90.6
1	91.5	91.0	90.6
2	91.5	90.9	90.5
3	91.2	90.9	90.5
4	90.4	90.8	
5	89.8	90.4	
6	89.1		
7	88.6		
8	88.4		
9	88.3		
10	88.2		
11	88.2		
12	88.1		
13	88.1		
14	88.0		
15	87.8		
16	87.7		
17	87.8		

Table C-5a
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 15 August 2002

Depth (ft)	UPSTR-1/2 1806	J#9-1/2 1759	J-1720-1/5 1752	J-1720-3/5 1754	J-1250-2/5 1749	J-750-2/5 1745
0.25	84.3	93.9	94.2	84.7	91.9	92.0
1	84.4	93.6	93.8	84.6	91.8	91.6
2	84.4		94.1	84.6	91.0	91.3
3	84.3		94.3	84.6	88.4	90.4
4	84.3			84.6	86.5	87.4
5	84.3			84.6	85.8	86.2
6	84.3			84.6	85.5	85.6
7	84.3			84.6	86.1	85.1
8	84.3			84.6	85.3	84.9
9	84.3			84.6	85.2	85.1
10	84.3			84.6		85.0
11	84.3			84.7		85.3
12	84.3					85.2
13	84.4					
14						
15						

Depth (ft)	J-250-2/5 1743	J29-US-1/2 1734	J29-DS-2/3 1737	J250-3/6 1740	J750-3/6 1728	J1250-3/6 1725
0.25	90.1		97.9		96.7	96.2
1	90.2	99.4	97.6	93.7	96.5	95.7
2	90.2	100.0	98.6	91.8	96.5	96.6
3	90.2	99.9	98.7	91.0	96.3	96.9
4	89.9	99.7	98.9	89.8	94.7	96.8
5	89.2	99.4	99.0	89.7	92.7	96.4
6	88.8	99.2	99.0	89.8	90.5	95.7
7	87.3	99.2	99.0	89.4	88.9	95.1
8	87.3	99.1	99.1	87.9	88.9	94.8
9	85.9	98.9		87.7	90.0	93.2
10	85.5	98.7		86.9	87.7	89.4
11	85.6			86.3	86.4	88.2
12	85.7			86.1	87.2	88.2
13						
14						
15						

Table C-5b
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 15 August 2002

Depth (ft)	J2000-3/5 1719	J2750-3/5 1715	J4000-1/2 1712	J5500-1/2 1707	J7000-1/2 1700
0.25		93.3	91.1	92.3	89.0
1	94.8	92.4	91.3	92.5	89.0
2	95.1	93.2	91.3	92.7	89.0
3	94.9	93.8	91.6	92.5	89.0
4	94.6	94.0	91.7	92.6	88.2
5	93.8	94.0	91.6	92.6	86.9
6	93.1	93.7	91.5	92.4	
7	92.5	92.6	91.3	92.0	
8	91.1	91.2	90.9	91.8	
9	88.8	89.0	90.6	91.6	
10	87.8	89.4	90.6		
11	88.8	88.2			
12	87.8	87.5			
13	86.9	88.2			
14	87.1				
15	87.6				

Table C-6a
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 20 August 2002

Depth (ft)	UPSTR-1/4 1622	UPSTR-1/2 1624	UPSTR-3/4 1625
0.25	82.9	82.5	82.2
1	82.9	82.5	82.2
2	82.9	82.5	82.2
3	82.9	82.5	82.2
4	82.9	82.5	82.2
5	82.9	82.5	82.2
6	82.9	82.5	82.2
7	82.9	82.5	82.2
8	82.9	82.5	82.2
9	82.9	82.5	82.2
10	82.9	82.4	82.2
11	82.9	82.4	82.2
12	82.9	82.4	82.2
13	82.8	82.4	

Depth (ft)	J#9-1/2 1615	J-1720-1/5 1604	J-1720-2/5 1606	J-1720-3/5 1608	J-1720-4/5 1609
0.25	82.9	84.0	85.3	84.0	
1	82.9	84.1	85.3	84.0	83.3
2	82.9	84.1	85.3	84.0	83.3
3		84.1	85.2	84.0	83.3
4		84.2	85.2	84.0	83.2
5			85.2	84.0	83.2
6				84.0	83.2
7				84.0	83.2
8				84.0	83.2
9				84.0	83.2
10				83.9	83.2
11				83.9	83.1
12					83.1
13					

Table C-6b
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 20 August 2002

Depth (ft)	J-1250-1/5 1551	J-1250-2/5 1554	J-1250-3/5 1559	J-1250-4/5 1600
0.25	85.2	88.6	85.6	84.5
1	85.3	88.7	85.6	84.5
2	85.4	88.7	85.6	84.5
3		88.7	85.6	84.5
4		88.7	85.6	84.5
5		88.7	85.6	84.5
6		88.7	85.5	84.5
7		88.7	85.5	84.5
8		88.7	85.5	84.5
9		88.8	85.5	84.5
10			85.5	84.5
11			85.5	
12				
13				

Depth (ft)	J-750-1/5 1543	J-750-2/5 1545	J-750-3/5 1546	J-750-4/5 1547
0.25	84.2	84.1	84.3	84.6
1	84.2	84.1	84.3	84.6
2	84.2	84.2	84.3	84.7
3	84.2	84.2	84.3	84.7
4	84.2	84.2	84.3	84.7
5	84.2	84.2	84.3	84.7
6	84.1	84.2	84.3	84.7
7	84.1	84.2	84.3	84.8
8	84.1	84.2	84.3	84.8
9	84.1	84.2	84.3	84.8
10	84.1	84.2	84.3	84.8
11	84.1	84.2	84.3	
12	84.1	84.2		
13	84.1			

Table C-6c
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 20 August 2002

Depth (ft)	J-250-1/5 1534	J-250-2/5 1536	J-250-3/5 1537	J-250-4/5 1539
0.25	86.4	84.7	84.4	84.4
1	86.4	84.7	84.4	84.4
2	86.4	84.7	84.4	84.4
3	86.3	84.7	84.5	84.4
4	86.3	84.7	84.5	84.4
5	86.3	84.7	84.5	84.4
6	86.3	84.7	84.5	84.4
7	86.2	84.7	84.5	84.4
8	86.2	84.7	84.5	84.4
9	86.2	84.7	84.5	84.4
10	86.1	84.7	84.5	84.4
11	86.1	84.7	84.5	84.4
12	86.1	84.7	84.5	84.4
13		84.7		

Depth (ft)	J29-US-1/2 1514	J29-DS-1/3 1518	J29-DS-2/3 1517
0.25	88.7	90.0	88.5
1	88.8	90.0	88.5
2	88.9	90.0	88.5
3	89.0	90.0	88.6
4	89.1	90.1	88.6
5	89.2	90.1	88.6
6	89.3	90.1	88.6
7	89.4	90.1	88.7
8	89.4	90.2	88.7
9	89.5		
10	89.6		
11			
12			
13			

Table C-6d
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 20 August 2002

Depth (ft)	J250-1/6 1522	J250-2/6 1524	J250-3/6 1526	J250-4/6 1528	J250-5/6 1529
0.25	88.0	85.5	85.9	89.1	91.7
1	88.0	85.6	86.0	89.2	91.8
2	87.9	85.7	86.0	89.2	91.8
3	87.9	85.7	86.1	89.3	91.8
4	87.9	85.7	86.2	89.4	91.9
5	87.9	85.8	86.2	89.4	91.9
6	87.9	85.8	86.2	89.5	91.9
7	87.8	85.9	86.3	89.6	92.0
8	87.8	85.9	86.3		92.0
9	87.8	85.9	86.3		
10	87.8	85.9	86.3		
11	87.8	86.0	86.4		
12		86.0	86.4		
13		86.0			

Depth (ft)	J750-1/6 1502	J750-2/6 1504	J750-3/6 1506	J750-4/6 1507	J750-5/6 1508
0.25	86.6	86.9	89.2	90.7	91.2
1	86.7	86.9	89.2	90.8	91.2
2		86.9	89.2	90.8	91.2
3		86.9	89.3	90.8	91.2
4		86.9	89.3	90.9	91.3
5		86.9	89.4	91.0	91.3
6		87.0	89.4	91.0	91.4
7		87.0	89.4	91.0	
8		87.1	89.5	91.1	
9			89.5	91.1	
10			89.5	91.1	
11			89.6	91.2	
12			89.6	91.2	
13					

Table C-6e
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 20 August 2002

Depth (ft)	J1250-1/6 1452	J1250-2/6 1454	J1250-3/6 1456	J1250-4/6 1457	J1250-5/6 1458
0.25	86.7	87.1	88.5	88.1	87.9
1	86.7	87.1	88.3	88.0	87.9
2	86.7	87.1	88.4	87.9	87.9
3		87.2	88.4	87.9	87.9
4		87.2	88.4	87.9	87.9
5		87.2	88.4	87.9	87.9
6		87.3	88.4	87.9	87.9
7		87.3	88.3	87.9	87.9
8		87.4	88.3	88.0	87.9
9		87.5	88.3	88.0	87.9
10			88.3	88.0	87.8
11			88.3	88.0	
12			88.3	88.0	
13				88.0	
14				88.1	
15					
16					

Depth (ft)	J2000-1/5 1443	J2000-2/5 1445	J2000-3/5 1446	J2000-4/5 1448
0.25	87.8	87.5	88.8	88.7
1	87.8	87.6	88.9	88.6
2	87.8	87.6	89.0	88.6
3	87.8	87.6	89.0	88.6
4		87.7	89.1	88.6
5		87.7	89.1	88.6
6		87.8	89.2	88.6
7		87.8	89.2	88.6
8		87.8	89.3	88.6
9		87.9	89.3	88.6
10		87.9	89.3	88.6
11		87.9	89.4	88.7
12		88.0	89.4	88.7
13		88.0	89.4	
14			89.5	
15			89.5	
16			89.5	

Table C-6f
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 20 August 2002

Depth	J2750-1/5 1434	J2750-2/5 1436	J2750-3/5 1438	J2750-4/5 1440
0.25	87.3	87.7	89.2	90.0
1	87.4	87.8	89.2	90.1
2	87.4	87.8	89.3	
3	87.4	87.8	89.3	
4	87.4	87.9	89.3	
5	87.4	87.9	89.4	
6	87.4	88.0	89.5	
7	87.4	88.0	89.5	
8	87.4	88.1	89.5	
9	87.4	88.1	89.5	
10	87.4	88.1	89.5	
11	87.3	88.2	89.6	
12		88.2		
13		88.3		
14		88.3		
15		88.3		
16		88.2		
17				

Depth	J4000-1/4 1426	J4000-1/2 1429	J4000-3/4 1431	J5500-1/4 1418	J5500-1/2 1421	J5500-3/4 1422
0.25	87.8	88.5	90.0	86.9		
1	87.8	88.3	90.0	86.6	87.1	88.5
2	87.8	88.2	90.0	86.8	86.4	88.5
3	87.9	88.4		86.8	86.4	
4	88.0	88.5		86.9	86.4	
5	88.0	88.6		87.0	86.5	
6	88.0	88.7		87.1	86.6	
7	88.1	88.8		87.1		
8	88.1	88.8		87.2		
9	88.2	88.8		87.3		
10	88.2			87.4		
11	88.2			87.4		
12	88.1			87.4		
13	88.1			87.3		
14	88.0			87.3		
15	87.8			87.1		
16	87.5			86.9		
17				86.7		

Table C-6g
Vertical Temperature Profiles at Joliet Stations #9 and #29, 20 August 2002

Depth (ft)	J7000-1/4 1409	J7000-1/2 1412	J7000-3/4 1414
0.25			87.9
1	87.5	87.7	88.0
2	87.5	87.7	88.0
3	87.5	87.7	88.0
4	87.4	87.8	
5	87.4	87.9	
6	87.4		
7	87.4		
8	87.4		
9	87.4		
10	87.5		
11	87.5		
12	87.5		
13	87.5		
14	87.5		
15	87.5		
16	87.4		
17	87.4		

Table C-7a
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 28 August 2002

Depth (ft)	UPSTR-1/4 159	UPSTR-1/2 1511	UPSTR-3/4 1513
0.25	80.4	80.1	79.8
1	80.3	80.0	79.8
2	80.3	80.0	79.8
3	80.2	80.0	79.8
4	80.1	80.0	79.8
5	80.0	80.0	79.8
6	80.0	80.0	79.8
7	80.0	80.0	79.8
8	80.0	79.9	79.8
9	80.0	79.9	79.8
10	80.0	79.9	79.8
11	80.0	79.9	79.8
12	80.0	79.9	79.8

Depth (ft)	J#9-1/2 1458	J-1720-1/5 1500	J-1720-2/5 1503	J-1720-3/5 1504	J-1720-4/5 1506
0.25	87.3	87.3	80.1	80.1	79.9
1	87.6	87.7	80.0	80.1	79.9
2	87.5	87.5	80.0	80.1	79.9
3		87.7	79.9	80.0	79.9
4			79.8	79.9	79.9
5				79.9	79.9
6				79.9	79.9
7				79.8	79.9
8				79.8	79.9
9				79.8	79.9
10				79.8	79.8
11				79.8	79.9
12				79.8	79.9

Table C-7b
Vertical Temperature Profiles at Joliet Stations #9 and #29, 28 August 2002

Depth (ft)	J-1250-1/5 1446	J-1250-2/5 1448	J-1250-3/5 1450	J-1250-4/5 1451
0.25	87.4	85.3	84.2	80.1
1	87.6	83.8	83.7	79.9
2	87.5	83.1	82.7	79.9
3		81.8	82.0	79.9
4		80.8	80.7	79.9
5		80.2	80.3	79.8
6		80.0	80.1	79.8
7		80.0	80.0	79.8
8		80.0	79.9	79.7
9		80.5	79.9	79.7
10			80.1	79.7
11			80.3	79.7
12			80.5	

Depth (ft)	J-750-1/5 1438	J-750-2/5 1441	J-750-3/5 1442	J-750-4/5 1444
0.25	85.0	86.1	85.5	82.9
1	85.4	85.9	85.3	83.1
2	85.3	85.4	85.2	82.9
3	84.1	84.1	83.5	82.5
4	83.1	83.0	81.9	82.3
5	81.7	81.2	81.0	82.2
6	80.8	80.5	80.5	81.9
7	80.3	80.2	80.2	81.5
8	80.2	80.1	80.1	81.2
9	80.2	80.0	80.1	81.1
10	80.1	79.9	80.0	81.0
11	80.1	79.9	80.0	
12	80.2	80.0		

Table C-7c
Vertical Temperature Profiles at Joliet Stations #9 and #29, 28 August 2002

Depth (ft)	J-250-1/5 1430	J-250-2/5 1432	J-250-3/5 1434	J-250-4/5 1435
0.25	82.0	82.6	82.6	81.8
1	82.0	82.5	81.2	82.4
2	81.4	82.1	81.0	81.9
3	80.4	81.2	81.0	81.3
4	80.1	80.5	81.1	81.1
5	80.1	80.1	81.1	80.8
6	80.0	80.0	80.9	80.6
7	80.0	79.9	80.5	80.4
8	79.9	79.8	80.4	80.1
9	79.9	79.8	80.3	80.0
10	79.9	79.8	80.2	79.9
11	80.0	79.8	80.1	80.0
12	80.1	79.8	80.2	80.1
13			80.0	

Depth (ft)	J29-US-1/2 1412	J29-DS-1/3 1415	J29-DS-2/3 1416
0.25	91.4	92.3	92.1
1	91.8	92.4	92.2
2	92.0	92.4	92.2
3	92.1	92.4	92.2
4	92.1	92.4	92.2
5	92.1	92.4	92.2
6	92.1	92.4	92.2
7	92.1	92.4	92.2
8	92.1	92.4	92.2
9	92.1		
10	92.0		
11			
12			
13			

Table C-7d
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 28 August 2002

Depth (ft)	J250-1/6 1428	J250-2/6 1427	J250-3/6 1425	J250-4/6 1420	J250-5/6 1418
0.25	81.2	82.7	81.2	89.1	92.0
1	81.2	82.9	81.2	87.5	92.1
2	81.1	82.4	81.2	86.9	92.0
3	80.9	82.0	81.2	86.5	91.7
4	80.5	81.4	81.2	84.9	91.4
5	80.4	80.9	81.2	83.9	91.4
6	80.2	80.4	81.1	83.6	91.3
7	80.1	80.2	81.1	83.1	90.9
8	80.0	80.1	81.0	83.0	90.0
9	79.9	80.1	81.1	83.1	
10	79.9	80.0	81.1		
11		80.0	81.0		
12		80.1			
13					

Depth (ft)	J750-1/6 1359	J750-2/6 1400	J750-3/6 1401	J750-4/6 1405	J750-5/6 1407
0.25	80.9	87.6	91.1	91.0	91.8
1	80.8	89.5	91.0	90.9	91.9
2	80.8	89.7	90.9	90.9	91.8
3		88.6	89.5	90.5	91.7
4		86.2	86.5	89.1	91.2
5		85.1	84.9	87.1	89.9
6		84.7	83.3	84.1	86.5
7		84.0	82.1	82.5	83.3
8		81.3	81.3	81.7	82.3
9		80.5	80.8	81.1	81.7
10			80.8	80.8	81.5
11			80.9	80.9	
12			80.7		
13			80.9		

Table C-7e
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 28 August 2002

Depth (ft)	J1250-1/6 1347	J1250-2/6 1349	J1250-3/6 1351	J1250-4/6 1353	J1250-5/6 1356
0.25	88.9	90.7	90.8	90.9	89.5
1	89.1	90.7	90.8	90.8	88.8
2	88.9	90.7	90.8	90.1	87.5
3		90.0	89.9	86.8	84.2
4		88.7	86.9	84.5	82.6
5		87.9	84.2	83.0	81.9
6		87.8	82.7	81.8	81.6
7		87.7	82.1	81.5	81.5
8		87.6	81.8	81.2	81.3
9		87.5	82.0	81.3	81.1
10			82.5	81.3	81.1
11			82.2	81.4	81.3
12			82.5	81.4	
13				81.7	
14				82.4	
15					
16					
17					

Depth (ft)	J2000-1/5 1337	J2000-2/5 1338	J2000-3/5 1341	J2000-4/5 1343
0.25	88.8	88.9	89.1	86.8
1	88.9	89.0	89.1	86.3
2	88.7	88.9	89.0	85.3
3	88.6	88.8	88.1	84.3
4		88.1	87.0	81.9
5		87.1	86.4	81.2
6		86.3	85.3	81.0
7		84.9	84.1	80.9
8		83.2	83.2	80.7
9		82.2	82.4	80.7
10		81.7	82.3	80.7
11		81.5	82.3	80.6
12		81.9	82.7	80.7
13			82.7	80.7
14			82.5	80.8
15			82.9	80.9
16			83.6	
17				

Table C-7f
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 28 August 2002

Depth (ft)	J2750-1/5 1328	J2750-2/5 1329	J2750-3/5 1332	J2750-4/5 1334
0.25	87.7	88.4	88.2	85.3
1	88.1	88.5	88.2	85.1
2	88.3	88.3	88.1	
3	88.0	87.3	86.7	
4	87.6	84.9	84.9	
5	87.1	83.1	84.2	
6	85.7	82.4	83.6	
7	84.3	82.0	83.2	
8	83.3	81.7	83.0	
9	82.7	81.4	82.8	
10	82.2	81.3	82.7	
11	82.0	81.3	82.8	
12		81.3	82.9	
13		81.6	83.3	
14		81.8		
15		82.0		
16		82.1		
17				

Depth (ft)	J4000-1/4 1319	J4000-1/2 1322	J4000-3/4 1324	J5500-1/4 1312	J5500-1/2 1315	J5500-3/4 1317
0.25	86.5	84.9	84.8	86.3	85.9	87.0
1	86.5	84.9	84.5	86.5	86.1	87.0
2	86.4	84.9	84.4	86.4	86.0	87.0
3	85.8	84.4	83.7	86.4	85.6	
4	84.9	84.1		86.3	85.1	
5	83.6	83.8		85.7	84.5	
6	83.0	83.3		84.7	84.2	
7	82.0	82.3		83.8	83.7	
8	81.4	81.7		83.0	83.3	
9	81.3	81.9		82.3		
10	81.3	83.4		82.0		
11	81.2	82.4		82.1		
12	81.5			82.1		
13	81.6			82.2		
14	81.6			82.4		
15	81.8			82.5		
16	81.9			82.6		
17	81.9			82.7		

Table C-7g
Vertical Temperature Profiles at Joliet Stations #9 and #29, 28 August 2002

Depth (ft)	J7000-1/4 1305	J7000-1/2 1307	J7000-3/4 1309
0.25	85.8	86.0	85.7
1	85.8	85.9	85.7
2	85.8	85.9	85.7
3	85.8	85.9	
4	85.4	85.8	
5	85.1	85.4	
6	85.0		
7	84.6		
8	83.9		
9	83.3		
10	82.5		
11	81.6		
12	81.4		
13	81.5		
14	81.8		
15	82.0		
16	82.2		
17	82.2		

Table C-8a
 Vertical Temperature Profiles at Joliet Stations #9 and #29, 4 September 2002

Depth (ft)	UPSTR-1/2 1646	J#9-1/2 1653	J-1720-1/5 1641	J-1720-3/5 1642	J-1250-2/5 1638	J-750-2/5 1636
0.25	82.8	93.2	93.1	83.3	86.9	91.4
1	82.8	93.4	93.3	82.9	86.9	90.2
2	82.9	93.4	93.4	82.9	86.5	86.9
3	82.9	93.4	93.4	82.9	85.4	85.5
4	82.9		93.3	82.9	84.1	83.8
5	82.9			82.8	83.5	83.4
6	82.9			82.9	83.2	83.4
7	82.9			82.8	83.1	83.2
8	82.9			82.8	83.0	83.2
9	82.9			82.8		83.2
10	82.9			82.8		83.1
11	82.9			82.8		83.1
12	82.9			82.9		83.2
13	82.9					83.1
14						
15						
16						

Depth (ft)	J-250-2/5 1633	J29-US-1/2 1625	J29-DS-2/3 1628	J250-3/6 1631	J750-3/6 1620	J1250-3/6 1617
0.25	87.6	94.2	93.4	91.5	92.9	93.1
1	87.4	94.3	93.5	90.6	92.8	93.1
2	84.2	94.3	93.5	89.9	92.9	93.3
3	83.6	94.3	93.5	89.0	92.6	93.2
4	83.4	94.3	93.6	86.4	91.5	92.9
5	83.4	94.1	93.7	84.7	89.2	91.6
6	83.3	93.6	93.7	84.2	86.8	89.7
7	83.2	93.4	93.7	84.1	85.2	88.4
8	83.2	93.4	93.6	83.7	84.2	87.9
9	83.1	93.3		83.4	83.9	87.3
10	83.1			83.4	83.7	86.9
11	83.1			83.4	83.7	86.4
12	83.1			83.4	83.9	86.2
13	83.2					
14						
15						
16						

Table C-8b
Vertical Temperature Profiles at Joliet Stations #9 and #29, 4 September 2002

Depth (ft)	J2000-3/5 1615	J2750-3/5 1612	J4000-1/2 1608	J5500-1/2 1604	J7000-1/2 1557
0.25	92.8	92.0	91.8	90.3	90.1
1	93.0	92.0	91.7	90.3	90.2
2	92.8	91.8	91.2	90.4	90.2
3	92.0	91.3	89.9	90.2	90.1
4	91.2	90.8	89.5	89.8	90.0
5	90.4	89.9	89.0	89.5	89.9
6	89.3	89.0	88.0	89.3	89.6
7	87.7	88.4	86.9	88.4	
8	86.3	88.1	86.2	87.6	
9	85.4	87.8	86.2		
10	85.2	86.7	86.1		
11	84.7	86.5	86.1		
12	84.9	86.7			
13	85.3	86.5			
14	85.9	86.5			
15	86.1				
16	86.1				

APPENDIX D

**HOURLY OPERATIONAL DATA FOR THE JOLIET STATIONS
AND RIVER FLOW DATA**

Table D-1a Hourly Joliet Station 9 Operational Data and River Flow Data, 27 June 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	River Flow (cfs)
			Intake	Discharge	Delta		
27-Jun-02	1	131	82.4	88.1	5.7	582	
27-Jun-02	2	120	82.2	87.5	5.3	582	3188
27-Jun-02	3	120	82.2	87.2	5.0	582	
27-Jun-02	4	121	81.6	87.0	5.4	582	2456
27-Jun-02	5	120	80.9	86.6	5.6	582	
27-Jun-02	6	120	80.9	86.3	5.4	582	2820
27-Jun-02	7	134	80.7	86.9	6.2	582	
27-Jun-02	8	140	80.8	86.8	6.1	582	2456
27-Jun-02	9	140	81.8	87.0	5.2	582	
27-Jun-02	10	140	82.1	87.7	5.6	582	2368
27-Jun-02	11	141	83.0	88.0	5.0	582	
27-Jun-02	12	133	83.8	88.5	4.7	582	2680
27-Jun-02	13	140	84.5	89.3	4.8	582	
27-Jun-02	14	169	84.7	90.2	5.5	582	2549
27-Jun-02	15	287	84.8	93.5	8.7	582	
27-Jun-02	16	300	84.6	94.0	9.4	582	3005
27-Jun-02	17	300	84.5	94.1	9.6	582	
27-Jun-02	18	284	84.4	93.8	9.4	582	2784
27-Jun-02	19	278	84.0	93.3	9.2	582	
27-Jun-02	20	292	83.6	93.8	10.2	582	2967
27-Jun-02	21	283	83.0	93.0	10.0	582	
27-Jun-02	22	274	83.0	92.6	9.5	582	2680
27-Jun-02	23	274	83.1	92.5	9.4	582	
27-Jun-02	24	231	83.0	91.5	8.5	582	
Average		195	82.9	90.0	7.1	582	2723

Note: Rectangle encloses data that were concurrent with the plume survey.

Table D-1b Hourly Joliet Station 29 Operational Data and River Flow Data, 27 June 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	Cooling Towers		Dis Canal(a)		River Flow (cfs)	
			Intake	Discharge	Delta		Number	Discharge (F)	Discharge (F)	Delta (F)		
27-Jun-02	1	903	83.4	98.2	14.8	1537	24	80.1	88.7	5.4	3188	
27-Jun-02	2	828	83.2	97.1	13.9	1537	24	79.8	88.1	4.9		
27-Jun-02	3	796	82.7	95.7	13.0	1537	24	79.4	87.2	4.5		
27-Jun-02	4	705	82.2	94.6	12.3	1537	24	79.0	86.4	4.2		2456
27-Jun-02	5	716	82.0	93.4	11.3	1537	24	78.5	85.6	3.6		2820
27-Jun-02	6	727	82.2	93.2	11.1	1537	24	78.9	85.8	3.6		
27-Jun-02	7	831	82.1	93.8	11.7	1537	24	79.6	86.4	4.3		2456
27-Jun-02	8	999	82.1	96.8	14.6	1537	24	80.3	88.2	6.0		
27-Jun-02	9	1009	82.6	98.0	15.4	1537	24	80.7	89.0	6.4		
27-Jun-02	10	1033	83.1	98.5	15.4	1537	24	80.7	89.2	6.1		2368
27-Jun-02	11	1030	83.6	99.1	15.5	1537	24	80.4	89.4	5.8		2680
27-Jun-02	12	1020	84.2	99.5	15.3	1537	24	80.5	89.6	5.3		
27-Jun-02	13	1031	84.6	100.2	15.6	1537	24	81.0	90.2	5.6	2549	
27-Jun-02	14	1029	84.5	100.6	16.1	1537	24	81.6	90.7	6.2		
27-Jun-02	15	1013	84.5	100.5	16.0	1537	24	81.4	90.6	6.1		
27-Jun-02	16	1026	84.6	100.1	15.5	1537	24	81.2	90.2	5.6		3005
27-Jun-02	17	1028	84.7	100.5	15.8	1537	24	80.9	90.3	5.6	2784	
27-Jun-02	18	988	84.5	100.2	15.7	1537	24	81.2	90.3	5.8		
27-Jun-02	19	983	84.3	98.9	14.6	1537	24	80.9	89.5	5.2	2967	
27-Jun-02	20	1013	84.3	99.8	15.5	1537	24	80.7	89.8	5.6		
27-Jun-02	21	995	84.2	99.1	15.0	1537	24	80.2	89.3	5.1		
27-Jun-02	22	961	84.3	98.8	14.5	1537	24	79.8	88.9	4.6	2680	
27-Jun-02	23	958	84.3	98.5	14.2	1537	24	79.3	88.5	4.2	2680	
27-Jun-02	24	913	84.3	98.4	14.0	1537	24	78.9	88.2	3.9		
Average		939	83.6	98.1	14.5	1537	24	80.2	88.8	5.2	2723	

Note: Rectangle encloses data that were concurrent with the plume survey.

a) Flow weighted discharge canal temperature calculated from station and cooling tower outflow.

Table D-2a Hourly Joliet Station 9 Operational Data and River Flow Data, 11 July 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	River Flow (cfs)
			Intake	Discharge	Delta		
11-Jul-02	1	121	81.5	86.7	5.2	582	
11-Jul-02	2	120	80.9	86.5	5.7	582	4008
11-Jul-02	3	121	80.6	86.1	5.5	582	
11-Jul-02	4	121	80.1	85.8	5.7	582	4945
11-Jul-02	5	124	80.0	85.4	5.4	582	
11-Jul-02	6	131	80.2	85.4	5.2	582	4568
11-Jul-02	7	128	80.1	85.3	5.2	582	
11-Jul-02	8	130	80.3	85.3	5.0	582	4945
11-Jul-02	9	122	80.6	85.6	5.0	582	
11-Jul-02	10	131	80.9	85.9	4.9	582	3504
11-Jul-02	11	149	81.1	86.6	5.5	582	
11-Jul-02	12	172	81.6	87.5	5.9	582	3994
11-Jul-02	13	166	82.2	87.8	5.5	582	
11-Jul-02	14	174	82.7	88.3	5.5	582	3523
11-Jul-02	15	166	83.3	88.4	5.1	582	
11-Jul-02	16	206	83.3	89.7	6.3	582	3223
11-Jul-02	17	211	82.8	89.8	7.0	582	
11-Jul-02	18	206	82.4	89.6	7.2	582	2691
11-Jul-02	19	181	82.0	88.8	6.8	582	
11-Jul-02	20	180	81.7	88.4	6.8	582	2624
11-Jul-02	21	195	81.2	88.3	7.0	582	
11-Jul-02	22	209	81.1	88.5	7.4	582	2425
11-Jul-02	23	255	80.8	90.1	9.3	582	
11-Jul-02	24	121	80.8	86.2	5.4	582	
Average		160	81.3	87.3	6.0	582	3677

Note: Rectangle encloses data that were concurrent with the plume survey.

Table D-2b Hourly Joliet Station 29 Operational Data and River Flow Data, 11 July 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	Cooling Towers		Dis Canal(a)		River Flow (cfs)
			Intake	Discharge	Delta		Number	Discharge (F)	Discharge (F)	Delta (F)	
11-Jul-02	1	539	82.4	91.4	9.1	1537	23	74.2	84.3	2.0	4008
11-Jul-02	2	516	82.1	90.6	8.6	1537	17	72.2	82.1	0.0	
11-Jul-02	3	513	81.4	90.4	8.9	1537	11	71.5	85.9	4.5	
11-Jul-02	4	516	81.1	89.9	8.9	1537	11	71.2	85.4	4.4	
11-Jul-02	5	547	81.3	89.7	8.4	1537	11	70.8	85.2	3.9	
11-Jul-02	6	548	81.4	90.0	8.6	1537	7	69.6	85.5	4.2	
11-Jul-02	7	402	81.3	89.3	8.1	1537	1	69.4	88.9	7.7	
11-Jul-02	8	446	81.2	88.4	7.2	1537	1	70.7	88.0	6.8	
11-Jul-02	9	553	81.4	89.6	8.2	1537	1	72.5	89.2	7.9	
11-Jul-02	10	608	81.4	90.2	8.7	1537	1	72.8	89.8	8.3	
11-Jul-02	11	758	81.6	91.8	10.2	1537	2	74.3	91.1	9.5	
11-Jul-02	12	861	81.9	93.5	11.6	1537	1	73.4	92.9	11.0	3994
11-Jul-02	13	855	82.0	93.9	11.9	1537	0		93.8	11.8	
11-Jul-02	14	868	82.3	94.6	12.3	1537	0		94.6	12.3	
11-Jul-02	15	836	82.6	94.2	11.6	1537	0		94.2	11.6	
11-Jul-02	16	916	82.6	95.3	12.8	1537	0		95.3	12.8	
11-Jul-02	17	910	82.5	95.2	12.7	1537	0		95.2	12.7	2691
11-Jul-02	18	877	82.4	94.9	12.5	1537	0		94.9	12.5	
11-Jul-02	19	686	82.2	92.9	10.7	1537	0		92.9	10.7	
11-Jul-02	20	550	82.0	90.8	8.8	1537	0		90.8	8.8	
11-Jul-02	21	569	81.8	90.3	8.5	1537	0		90.3	8.5	
11-Jul-02	22	691	81.6	91.6	9.9	1537	0		91.6	9.9	
11-Jul-02	23	813	81.4	92.7	11.3	1537	0		92.7	11.3	
11-Jul-02	24	655	81.6	90.2	8.6	1537	0		90.2	8.6	
Average		668	81.8	91.7	9.9	1537	4		90.2	8.4	3677

Note: Rectangle encloses data that were concurrent with the plume survey.

a) Flow weighted discharge canal temperature calculated from station and cooling tower outflow.

Table D-3a Hourly Joliet Station 9 Operational Data and River Flow Data, 1 August 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	River Flow (cfs)
			Intake	Discharge	Delta		
01-Aug-02	1	283	86.9	97.1	10.1	582	
01-Aug-02	2	154	87.0	94.2	7.2	582	3710
01-Aug-02	3	120	86.7	92.4	5.7	582	
01-Aug-02	4	124	86.7	92.2	5.5	582	3985
01-Aug-02	5	139	86.5	92.5	6.0	582	
01-Aug-02	6	155	86.5	92.6	6.1	582	5354
01-Aug-02	7	181	86.7	93.2	6.5	582	
01-Aug-02	8	239	86.6	94.6	8.1	582	1857
01-Aug-02	9	270	86.7	95.7	9.0	582	
01-Aug-02	10	265	85.7	96.2	10.5	582	2592
01-Aug-02	11	257	87.3	96.0	8.8	582	
01-Aug-02	12	172	88.1	94.1	6.0	582	2404
01-Aug-02	13	167	88.6	94.3	5.7	582	
01-Aug-02	14	180	89.2	95.0	5.8	582	2434
01-Aug-02	15	172	89.4	95.2	5.8	582	
01-Aug-02	16	174	89.8	95.5	5.7	582	3604
01-Aug-02	17	175	89.4	95.5	6.1	582	
01-Aug-02	18	166	88.9	95.1	6.1	582	2756
01-Aug-02	19	163	88.4	94.4	6.1	582	
01-Aug-02	20	164	87.7	94.1	6.4	582	2693
01-Aug-02	21	175	87.4	94.2	6.7	582	
01-Aug-02	22	165	87.2	93.7	6.5	582	1807
01-Aug-02	23	164	86.8	93.6	6.8	582	
01-Aug-02	24	170	86.6	93.7	7.1	582	
Average		183	87.5	94.4	6.9	582	3018

Note: Rectangle encloses data that were concurrent with the plume survey.

Table D-3b Hourly Joliet Station 29 Operational Data and River Flow Data, 1 August 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	Cooling Towers		Dis Canal(a)		River Flow (cfs)
			Intake	Discharge	Delta		Number	Discharge (F)	Discharge (F)	Delta (F)	
1-Aug-02	1	804	87.2	101.2	14.0	1537	24	82.5	91.7	4.5	3710
1-Aug-02	2	713	87.2	99.5	12.3	1537	22	82.2	90.6	3.5	
1-Aug-02	3	680	87.1	98.0	10.9	1537	24	81.8	89.9	2.8	
1-Aug-02	4	694	87.0	97.7	10.8	1537	24	81.6	89.3	2.3	3985
1-Aug-02	5	735	86.9	98.0	11.1	1537	24	81.4	89.3	2.4	
1-Aug-02	6	747	86.8	98.4	11.6	1537	24	81.1	89.4	2.6	5354
1-Aug-02	7	709	86.8	97.6	10.8	1537	24	81.0	88.9	2.2	
1-Aug-02	8	753	86.7	98.0	11.3	1537	24	82.0	89.7	3.0	1857
1-Aug-02	9	878	86.7	99.4	12.7	1537	24	83.4	91.1	4.4	
1-Aug-02	10	942	86.7	102.1	15.5	1537	24	84.6	93.0	6.3	2592
1-Aug-02	11	959	87.0	103.0	16.1	1537	23	85.1	93.7	6.8	
1-Aug-02	12	932	87.3	103.3	16.0	1537	24	85.1	93.9	6.6	2404
1-Aug-02	13	876	87.6	103.2	15.5	1537	24	85.3	93.8	6.2	
1-Aug-02	14	796	88.0	102.3	14.3	1537	24	85.3	93.4	5.4	2434
1-Aug-02	15	798	88.2	102.0	13.8	1537	24	85.3	93.3	5.1	
1-Aug-02	16	796	88.3	102.3	14.0	1537	24	85.6	93.6	5.2	3604
1-Aug-02	17	796	88.3	102.3	13.9	1537	24	86.2	93.9	5.6	
1-Aug-02	18	767	88.1	101.8	13.6	1537	24	86.2	93.6	5.5	2756
1-Aug-02	19	732	87.9	101.0	13.1	1537	23	85.4	93.0	5.1	
1-Aug-02	20	731	87.7	100.3	12.6	1537	24	85.3	92.6	5.0	2693
1-Aug-02	21	772	87.4	100.7	13.3	1537	24	85.4	92.8	5.3	
1-Aug-02	22	739	87.2	100.4	13.1	1537	24	85.4	92.5	5.3	1807
1-Aug-02	23	728	87.1	100.4	13.3	1537	24	85.3	92.5	5.4	
1-Aug-02	24	694	87.1	99.8	12.7	1537	24	85.3	92.2	5.1	
Average		782	87.3	100.5	13.2	1537	24	84.1	92.0	4.7	3018

Note: Rectangle encloses data that were concurrent with the plume survey.

a) Flow weighted discharge canal temperature calculated from station and cooling tower outflow.

Table D-4a Hourly Joliet Station 9 Operational Data and River Flow Data, 9 August 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	River Flow (cfs)
			Intake	Discharge	Delta		
09-Aug-02	1	122	82.8	88.4	5.7	582	
09-Aug-02	2	121	82.5	88.0	5.4	582	2493
09-Aug-02	3	121	82.3	87.8	5.5	582	
09-Aug-02	4	121	82.1	87.7	5.6	582	2477
09-Aug-02	5	121	82.0	87.5	5.5	582	
09-Aug-02	6	125	81.8	87.4	5.7	582	2876
09-Aug-02	7	120	81.9	87.2	5.2	582	
09-Aug-02	8	119	82.3	87.2	5.0	582	2589
09-Aug-02	9	120	82.3	87.3	5.1	582	
09-Aug-02	10	126	82.8	87.9	5.1	582	2735
09-Aug-02	11	123	83.6	88.5	4.9	582	
09-Aug-02	12	185	84.7	90.1	5.4	582	2493
09-Aug-02	13	258	85.4	92.9	7.5	582	
09-Aug-02	14	316	85.9	95.4	9.5	582	2589
09-Aug-02	15	313	86.5	95.8	9.3	582	
09-Aug-02	16	321	86.6	96.4	9.8	582	2415
09-Aug-02	17	315	86.5	96.3	9.8	582	
09-Aug-02	18	296	86.3	95.8	9.5	582	3000
09-Aug-02	19	265	85.9	94.9	9.0	582	
09-Aug-02	20	161	85.3	92.0	6.7	582	2614
09-Aug-02	21	121	84.9	90.2	5.3	582	
09-Aug-02	22	129	84.7	89.9	5.3	582	2709
09-Aug-02	23	134	84.5	90.1	5.6	582	
09-Aug-02	24	121	84.1	89.9	5.8	582	
Average		178	84.1	90.6	6.5	582	2635

Note: Rectangle encloses data that were concurrent with the plume survey.

Table D-4b Hourly Joliet Station 29 Operational Data and River Flow Data, 9 August 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	Cooling Towers		Dis Canal(a)		River Flow (cfs)
			Intake	Discharge	Delta		Number	Discharge (F)	Discharge (F)	Delta (F)	
09-Aug-02	1	576	83.3	91.9	8.6	1537	6	73.7	89.6	6.3	2493
09-Aug-02	2	488	83.1	90.3	7.2	1537	6	73.6	88.1	5.0	
09-Aug-02	3	415	82.9	88.9	6.0	1537	6	72.8	86.8	3.9	
09-Aug-02	4	417	82.8	88.3	5.5	1537	6	72.1	86.1	3.4	2477
09-Aug-02	5	447	82.6	88.3	5.7	1537	6	71.4	86.1	3.5	2876
09-Aug-02	6	450	82.5	88.6	6.1	1537	6	70.9	86.3	3.8	
09-Aug-02	7	392	82.5	87.8	5.3	1537	6	70.7	85.5	3.0	
09-Aug-02	8	505	82.5	89.3	6.7	1537	6	72.1	87.0	4.5	2589
09-Aug-02	9	616	82.8	91.4	8.7	1537	6	73.3	89.1	6.3	2735
09-Aug-02	10	711	83.1	91.9	8.8	1537	5	73.9	89.8	6.7	
09-Aug-02	11	805	83.5	93.5	10.0	1537	6	74.6	91.1	7.7	
09-Aug-02	12	850	83.9	94.8	10.9	1537	6	75.3	92.3	8.4	2493
09-Aug-02	13	856	84.3	96.8	12.5	1537	12	76.7	91.5	7.2	2589
09-Aug-02	14	885	84.8	99.1	14.3	1537	12	77.5	93.4	8.7	
09-Aug-02	15	872	85.1	99.4	14.3	1537	12	77.9	93.8	8.6	
09-Aug-02	16	908	85.3	100.4	15.1	1537	12	77.9	94.5	9.2	2415
09-Aug-02	17	904	85.3	100.4	15.1	1537	12	78.2	94.6	9.3	3000
09-Aug-02	18	879	85.3	99.2	13.9	1537	12	78.4	93.8	8.5	
09-Aug-02	19	753	85.2	98.1	13.0	1537	12	78.5	93.0	7.9	
09-Aug-02	20	747	84.9	94.9	9.9	1537	18	78.3	90.0	5.1	2614
09-Aug-02	21	772	84.8	93.9	9.1	1537	23	78.0	85.7	0.9	2709
09-Aug-02	22	788	84.7	93.7	9.0	1537	23	77.8	85.7	1.1	
09-Aug-02	23	784	84.4	93.9	9.4	1537	24	77.1	85.3	0.8	
09-Aug-02	24	556	84.3	93.2	8.9	1537	24	76.4	84.5	0.2	2635
Average		682	83.9	93.6	9.7	1537	11	75.3	89.3	5.4	

Note: Rectangle encloses data that were concurrent with the plume survey.

a) Flow weighted discharge canal temperature calculated from station and cooling tower outflow.

Table D-5a Hourly Joliet Station 9 Operational Data and River Flow Data, 15 August 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	River Flow (cfs)
			Intake	Discharge	Delta		
15-Aug-02	1	132	83.4	88.6	5.2	582	
15-Aug-02	2	193	83.1	90.4	7.3	582	6253
15-Aug-02	3	126	82.9	88.3	5.3	582	
15-Aug-02	4	128	82.7	88.1	5.3	582	5313
15-Aug-02	5	125	82.3	87.6	5.3	582	
15-Aug-02	6	125	82.0	87.3	5.3	582	3904
15-Aug-02	7	121	82.0	87.1	5.2	582	
15-Aug-02	8	125	82.0	87.2	5.2	582	4321
15-Aug-02	9	135	82.2	87.6	5.4	582	
15-Aug-02	10	131	82.6	87.9	5.3	582	6277
15-Aug-02	11	128	83.8	88.4	4.5	582	
15-Aug-02	12	123	83.9	89.0	5.1	582	5049
15-Aug-02	13	150	84.3	89.7	5.4	582	
15-Aug-02	14	251	84.7	92.4	7.8	582	5515
15-Aug-02	15	316	84.9	94.9	10.0	582	
15-Aug-02	16	316	84.9	94.9	10.0	582	4563
15-Aug-02	17	312	84.7	94.8	10.1	582	
15-Aug-02	18	309	84.5	94.6	10.1	582	4140
15-Aug-02	19	307	83.9	94.2	10.3	582	
15-Aug-02	20	314	83.3	93.7	10.5	582	4442
15-Aug-02	21	316	82.8	93.3	10.6	582	
15-Aug-02	22	307	82.5	92.8	10.2	582	4563
15-Aug-02	23	314	82.6	92.8	10.3	582	
15-Aug-02	24	170	82.3	91.8	9.5	582	
Average		207	83.3	90.7	7.4	582	4940

Note: Rectangle encloses data that were concurrent with the plume survey.

Table D-5b Hourly Joliet Station 29 Operational Data and River Flow Data, 15 August 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	Cooling Towers		Dis Canal(a)		River Flow (cfs)
			Intake	Discharge	Delta		Number	Discharge (F)	Discharge (F)	Delta (F)	
15-Aug-02	1	346	83.3	91.2	7.9	1537	13	75.1	86.6	3.3	6253
15-Aug-02	2	538	83.4	92.3	9.0	1537	14	75.1	87.4	4.0	
15-Aug-02	3	364	83.3	92.5	9.2	1537	12	75.0	87.9	4.6	
15-Aug-02	4	356	83.0	91.1	8.0	1537	12	74.7	86.8	3.8	5313
15-Aug-02	5	350	82.7	90.6	7.9	1537	12	74.5	86.4	3.7	
15-Aug-02	6	325	82.5	89.8	7.3	1537	12	74.4	85.8	3.3	3904
15-Aug-02	7	341	82.3	89.6	7.3	1537	12	74.5	85.7	3.3	
15-Aug-02	8	491	82.3	90.8	8.4	1537	11	75.0	86.9	4.5	4321
15-Aug-02	9	627	82.6	92.8	10.2	1537	1	75.6	91.5	8.9	
15-Aug-02	10	633	82.8	93.4	10.6	1537	1	76.2	93.1	10.2	6277
15-Aug-02	11	704	83.2	94.1	10.9	1537	0		93.8	10.6	
15-Aug-02	12	695	83.6	94.1	10.6	1537	0		94.1	10.6	5049
15-Aug-02	13	780	83.9	94.8	10.9	1537	0		94.8	10.9	
15-Aug-02	14	923	84.1	97.6	13.6	1537	0		97.6	13.6	5515
15-Aug-02	15	1025	84.1	100.3	16.2	1537	0		100.3	16.2	
15-Aug-02	16	1027	84.1	100.5	16.4	1537	0		100.5	16.4	4563
15-Aug-02	17	1008	84.1	100.3	16.3	1537	0		100.3	16.3	
15-Aug-02	18	983	83.9	99.8	15.9	1537	3	87.0	99.5	15.6	4140
15-Aug-02	19	974	83.7	99.3	15.7	1537	7	81.8	96.9	13.2	4442
15-Aug-02	20	1013	83.3	99.4	16.1	1537	7	81.8	96.8	13.4	
15-Aug-02	21	1028	83.0	99.2	16.2	1537	7	81.7	96.5	13.6	4563
15-Aug-02	22	983	82.7	98.3	15.6	1537	7	81.2	95.7	13.0	
15-Aug-02	23	1009	82.4	98.3	15.8	1537	7	81.6	95.7	13.3	4563
15-Aug-02	24	943	82.3	96.7	14.4	1537	7	81.8	94.4	12.2	
Average		728	83.2	95.2	12.0	1537	6	78.1	93.1	9.9	4940

Note: Rectangle encloses data that were concurrent with the plume survey.

a) Flow weighted discharge canal temperature calculated from station and cooling tower outflow.

Table D-6a Hourly Joliet Station 9 Operational Data and River Flow Data, 20 August 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	River Flow (cfs)
			Intake	Discharge	Delta		
20-Aug-02	1	121	80.9	86.0	5.0	582	
20-Aug-02	2	121	80.8	85.9	5.2	582	2500
20-Aug-02	3	120	80.4	85.7	5.3	582	
20-Aug-02	4	121	80.0	85.7	5.7	582	2910
20-Aug-02	5	129	79.7	85.5	5.8	582	
20-Aug-02	6	126	79.6	85.2	5.6	582	3420
20-Aug-02	7	120	79.3	84.8	5.4	582	
20-Aug-02	8	123	79.4	84.6	5.2	582	3188
20-Aug-02	9	121	79.7	84.8	5.1	582	
20-Aug-02	10	125	80.0	85.3	5.2	582	3329
20-Aug-02	11	145	80.8	86.2	5.5	582	
20-Aug-02	12	185	81.5	87.4	5.9	582	3654
20-Aug-02	13	262	81.8	90.4	8.7	582	
20-Aug-02	14	251	81.9	90.2	8.3	582	3161
20-Aug-02	15	305	81.9	91.9	9.9	582	
20-Aug-02	16	294	81.9	91.6	9.7	582	3420
20-Aug-02	17	272	81.8	90.8	9.1	582	
20-Aug-02	18	270	81.9	90.8	8.9	582	3140
20-Aug-02	19	204	81.7	89.3	7.5	582	
20-Aug-02	20	161	81.8	87.8	6.0	582	3650
20-Aug-02	21	163	81.4	87.8	6.3	582	
20-Aug-02	22	166	81.0	87.6	6.5	582	2230
20-Aug-02	23	143	81.0	87.0	6.0	582	
20-Aug-02	24	129	80.7	86.4	5.7	582	
Average		174	80.9	87.4	6.5	582	3146

Note: Rectangle encloses data that were concurrent with the plume survey.

Table D-6b Hourly Joliet Station 29 Operational Data and River Flow Data, 20 August 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	Cooling Towers		Dis Canal(a)		River Flow (cfs)
			Intake	Discharge	Delta		Number	Discharge (F)	Discharge (F)	Delta (F)	
20-Aug-02	1	550	80.8	90.0	9.2	1537	0		90.0	9.2	
20-Aug-02	2	536	80.7	90.0	9.3	1537	0		90.0	9.3	2500
20-Aug-02	3	397	80.6	88.3	7.7	1537	0		88.3	7.7	
20-Aug-02	4	394	80.4	88.0	7.6	1537	0		88.0	7.6	2910
20-Aug-02	5	424	80.3	88.1	7.8	1537	0		88.1	7.8	
20-Aug-02	6	485	80.2	88.3	8.1	1537	0		88.3	8.1	3420
20-Aug-02	7	441	80.0	89.0	9.0	1537	0		89.0	9.0	
20-Aug-02	8	508	80.0	88.6	8.6	1537	0		88.6	8.6	3188
20-Aug-02	9	595	80.1	89.5	9.4	1537	0		89.5	9.4	
20-Aug-02	10	634	80.5	90.1	9.6	1537	0		90.1	9.6	3329
20-Aug-02	11	743	80.8	90.8	10.0	1537	0		90.8	10.0	
20-Aug-02	12	839	81.1	92.1	11.0	1537	0		92.1	11.0	3654
20-Aug-02	13	977	81.4	95.6	14.2	1537	0		95.6	14.2	
20-Aug-02	14	980	81.5	96.8	15.2	1537	0		96.8	15.2	3161
20-Aug-02	15	994	81.5	97.4	15.9	1537	0		97.4	15.9	
20-Aug-02	16	935	81.4	96.4	15.0	1537	0		96.4	15.0	3420
20-Aug-02	17	867	81.5	95.1	13.6	1537	0		95.1	13.6	
20-Aug-02	18	868	81.4	94.9	13.4	1537	0		94.9	13.4	3140
20-Aug-02	19	776	81.5	93.8	12.3	1537	0		93.8	12.3	
20-Aug-02	20	731	81.4	91.7	10.3	1537	0		91.7	10.3	3650
20-Aug-02	21	770	81.3	91.6	10.3	1537	0		91.6	10.3	
20-Aug-02	22	677	81.2	91.1	9.9	1537	0		91.1	9.9	2230
20-Aug-02	23	641	81.0	90.9	9.9	1537	0		90.9	9.9	
20-Aug-02	24	546	80.8	90.4	9.6	1537	0		90.4	9.6	
Average		680	80.9	91.6	10.7	1537	0		91.6	10.7	3146

Note: Rectangle encloses data that were concurrent with the plume survey.

a) Flow weighted discharge canal temperature calculated from station and cooling tower outflow.

Table D-7a Hourly Joliet Station 9 Operational Data and River Flow Data, 28 August 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	River Flow (cfs)
			Intake	Discharge	Delta		
28-Aug-02	1	236	78.6	86.8	8.2	582	
28-Aug-02	2	186	78.7	85.4	6.8	582	3721
28-Aug-02	3	151	78.6	84.4	5.8	582	
28-Aug-02	4	141	78.7	84.0	5.3	582	2597
28-Aug-02	5	146	78.4	84.1	5.7	582	
28-Aug-02	6	148	78.6	84.1	5.5	582	4407
28-Aug-02	7	145	78.4	83.9	5.5	582	
28-Aug-02	8	155	78.4	84.1	5.7	582	3305
28-Aug-02	9	167	78.4	84.5	6.1	582	
28-Aug-02	10	161	78.7	84.5	5.8	582	3727
28-Aug-02	11	158	79.3	84.7	5.4	582	
28-Aug-02	12	169	80.1	85.3	5.3	582	4442
28-Aug-02	13	187	80.1	85.9	5.8	582	
28-Aug-02	14	235	80.4	87.4	7.0	582	4140
28-Aug-02	15	240	80.6	87.8	7.2	582	
28-Aug-02	16	240	80.8	87.9	7.1	582	3690
28-Aug-02	17	237	80.7	87.8	7.2	582	
28-Aug-02	18	215	80.5	87.1	6.6	582	3913
28-Aug-02	19	210	80.0	86.8	6.8	582	
28-Aug-02	20	218	79.3	86.8	7.5	582	3762
28-Aug-02	21	233	79.1	87.1	8.0	582	
28-Aug-02	22	232	79.2	87.1	7.9	582	3226
28-Aug-02	23	274	79.1	88.1	9.0	582	
28-Aug-02	24	247	79.2	87.6	8.5	582	3710
Average		197	79.3	86.0	6.7	582	3720

Note: Rectangle encloses data that were concurrent with the plume survey.

Table D-7b Hourly Joliet Station 29 Operational Data and River Flow Data, 28 August 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	Cooling Towers		Dis Canal(a)		River Flow (cfs)
			Intake	Discharge	Delta		Number	Discharge (F)	Discharge (F)	Delta (F)	
28-Aug-02	1	955	78.5	93.7	15.2	1537	0		93.7	15.2	3721
28-Aug-02	2	919	78.5	93.8	15.3	1537	0		93.8	15.3	
28-Aug-02	3	843	78.4	92.9	14.5	1537	0		92.9	14.5	
28-Aug-02	4	801	78.4	91.9	13.5	1537	0		91.9	13.5	2597
28-Aug-02	5	707	78.3	91.2	12.9	1537	0		91.2	12.9	
28-Aug-02	6	691	78.2	90.1	11.9	1537	0		90.1	11.9	4407
28-Aug-02	7	691	78.2	89.7	11.5	1537	0		89.7	11.5	
28-Aug-02	8	779	78.2	90.1	11.9	1537	0		90.1	11.9	3305
28-Aug-02	9	842	78.3	91.3	13.0	1537	0		91.3	13.0	
28-Aug-02	10	829	78.4	90.3	11.8	1537	0		90.3	11.8	3727
28-Aug-02	11	831	78.6	90.0	11.4	1537	0		90.0	11.4	
28-Aug-02	12	822	78.8	90.3	11.5	1537	0		90.3	11.5	4442
28-Aug-02	13	801	78.9	89.9	11.0	1537	0		89.9	11.0	
28-Aug-02	14	885	79.0	91.0	12.0	1537	0		91.0	12.0	4140
28-Aug-02	15	915	79.1	92.0	12.9	1537	0		92.0	12.9	
28-Aug-02	16	956	79.1	93.0	13.9	1537	0		93.0	13.9	3690
28-Aug-02	17	945	79.1	93.3	14.2	1537	0		93.3	14.2	
28-Aug-02	18	896	79.1	92.4	13.3	1537	0		92.4	13.3	3913
28-Aug-02	19	858	78.9	91.8	12.8	1537	0		91.8	12.8	
28-Aug-02	20	880	78.9	91.6	12.7	1537	0		91.6	12.7	3762
28-Aug-02	21	924	78.8	92.3	13.5	1537	0		92.3	13.5	
28-Aug-02	22	936	78.8	92.4	13.6	1537	0		92.4	13.6	3226
28-Aug-02	23	964	78.8	93.1	14.3	1537	0		93.1	14.3	
28-Aug-02	24	948	78.8	92.9	14.1	1537	0		92.9	14.1	3710
Average		859	78.7	91.7	13.0	1537	0		91.7	13.0	

Note: Rectangle encloses data that were concurrent with the plume survey.

a) Flow weighted discharge canal temperature calculated from station and cooling tower outflow.

Table D-8a Hourly Joliet Station 9 Operational Data and River Flow Data, 4 September 20

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	River Flow (cfs)
			Intake	Discharge	Delta		
04-Sep-02	1	174	80.5	87.7	7.2	582	
04-Sep-02	2	121	80.7	85.9	5.3	582	2072
04-Sep-02	3	120	80.8	86.1	5.3	582	
04-Sep-02	4	121	80.6	85.8	5.2	582	1890
04-Sep-02	5	124	80.5	85.8	5.3	582	
04-Sep-02	6	132	80.4	85.9	5.5	582	1753
04-Sep-02	7	132	80.1	85.9	5.9	582	
04-Sep-02	8	139	80.2	86.0	5.8	582	3307
04-Sep-02	9	141	81.0	86.1	5.1	582	
04-Sep-02	10	206	81.3	88.3	7.0	582	3693
04-Sep-02	11	285	81.9	91.2	9.3	582	
04-Sep-02	12	310	82.7	93.1	10.3	582	4182
04-Sep-02	13	311	83.0	93.3	10.2	582	
04-Sep-02	14	312	83.1	93.3	10.3	582	3974
04-Sep-02	15	313	83.3	93.4	10.1	582	
04-Sep-02	16	315	83.5	93.5	10.0	582	3846
04-Sep-02	17	317	83.1	93.6	10.4	582	
04-Sep-02	18	318	82.9	93.3	10.4	582	3351
04-Sep-02	19	311	82.6	93.0	10.4	582	
04-Sep-02	20	308	82.4	93.3	10.9	582	2392
04-Sep-02	21	311	82.4	92.9	10.5	582	
04-Sep-02	22	305	82.7	92.5	9.8	582	2493
04-Sep-02	23	301	82.3	92.6	10.3	582	
04-Sep-02	24	221	82.2	90.7	8.5	582	
Average		235	81.8	90.1	8.3	582	2996

Note: Rectangle encloses data that were concurrent with the plume survey.

Table D-8b Hourly Joliet Station 29 Operational Data and River Flow Data, 4 September 2002

Day	Hour	Power Production (MWe)	Temperature (F)			Plant Flow (cfs)	Cooling Towers		Dis Canal(a)		River Flow (cfs)
			Intake	Discharge	Delta		Number	Discharge (F)	Discharge (F)	Delta (F)	
04-Sep-02	1	511	81.2	91.8	10.6	1537	0		91.8	10.6	2072
04-Sep-02	2	438	81.1	89.9	8.8	1537	0		89.9	8.8	
04-Sep-02	3	452	81.0	89.8	8.8	1537	0		89.8	8.8	
04-Sep-02	4	446	80.9	89.6	8.7	1537	0		89.6	8.7	
04-Sep-02	5	456	80.9	89.5	8.6	1537	0		89.5	8.6	
04-Sep-02	6	482	80.8	89.8	9.0	1537	0		89.8	9.0	
04-Sep-02	7	497	80.8	90.1	9.3	1537	0		90.1	9.3	
04-Sep-02	8	526	80.8	90.2	9.4	1537	0		90.2	9.4	
04-Sep-02	9	523	81.0	90.4	9.4	1537	0		90.4	9.4	
04-Sep-02	10	525	81.3	90.8	9.5	1537	0		90.8	9.5	
04-Sep-02	11	594	81.6	91.7	10.2	1537	0		91.7	10.2	
04-Sep-02	12	726	81.8	93.4	11.6	1537	0		93.4	11.6	
04-Sep-02	13	744	82.1	94.1	12.0	1537	0		94.1	12.0	
04-Sep-02	14	736	82.1	94.2	12.1	1537	0		94.2	12.1	3974
04-Sep-02	15	742	82.1	94.2	12.1	1537	0		94.2	12.1	
04-Sep-02	16	744	82.1	94.2	12.1	1537	0		94.2	12.1	
04-Sep-02	17	745	82.1	94.1	12.0	1537	0		94.1	12.0	
04-Sep-02	18	742	82.1	94.2	12.1	1537	0		94.2	12.1	3351
04-Sep-02	19	715	82.1	94.0	11.9	1537	0		94.0	11.9	
04-Sep-02	20	742	82.2	94.1	11.9	1537	0		94.1	11.9	2392
04-Sep-02	21	719	82.2	94.3	12.1	1537	0		94.3	12.1	
04-Sep-02	22	673	82.3	93.8	11.6	1537	0		93.8	11.6	2493
04-Sep-02	23	669	82.3	93.9	11.6	1537	0		93.9	11.6	
04-Sep-02	24	609	82.5	93.8	11.2	1537	0		93.8	11.2	
Average		615	81.6	92.3	10.7	1537	0		92.3	10.7	2996

Note: Rectangle encloses data that were concurrent with the plume survey.

a) Flow weighted discharge canal temperature calculated from station and cooling tower outflow.

APPENDIX E

**GPS COORDINATES OF SURFACE TRANSECTS AND VERTICAL PROFILE
SAMPLING POINTS**

Waypoints for the Joliet Stations
Coordinates in UTM Zone 16, NAD 83, Meters

<u>Easting</u>	<u>Northing</u>	<u>Transect</u>	<u>Surface Transect Waypoints</u>	<u>Vertical Profile Sampling Points</u>	<u>Waypoint Label</u>
406855.4	4594373.3	Upstream		1/4	JUS1/4
406827.3	4594397.8	Upstream		1/2	JUS1/2
406809.6	4594430.8	Upstream		3/4	JUS3/4
406882.9	4594349.8	Upstream	Left Bank		JUSLB
406797.6	4594464.1	Upstream	Right Bank		JUSRB
406669.2	4594137.3	Joliet #9 Discharge Canal		1/2	J91/2
406694.0	4594131.6	Joliet #9 Discharge Canal	Left Bank		J9LB
406659.6	4594158.2	Joliet #9 Discharge Canal	Right Bank		J9RB
406524.2	4594025.4	-1720		1/5	J-17201/5
406480.0	4594066.8	-1720		2/5	J-17202/5
406442.9	4594089.1	-1720		3/5	J-17203/5
406412.5	4594119.5	-1720		4/5	J-17204/5
406544.2	4594011.2	-1720	Left Bank		J-1720LB
406383.1	4594150.1	-1720	Right Bank		J-1720RB
406411.7	4593944.2	-1250		1/5	J-12501/5
406385.1	4593969.6	-1250		2/5	J-12502/5
406349.6	4593985.9	-1250		3/5	J-12503/5
406321.7	4594010.1	-1250		4/5	J-12504/5
406442.0	4593922.4	-1250	Left Bank		J-1250LB
406295.2	4594036.8	-1250	Right Bank		J-1250RB
406268.6	4593854.2	-750		1/5	J-7501/5
406243.8	4593868.3	-750		2/5	J-7502/5
406227.5	4593888.5	-750		3/5	J-7503/5
406209.4	4593906.8	-750		4/5	J-7504/5
406289.7	4593840.9	-750	Left Bank		J-750LB
406191.1	4593925.6	-750	Right Bank		J-750RB
406163.6	4593738.6	-250		1/5	J-2501/5
406142.0	4593753.2	-250		2/5	J-2502/5
406123.2	4593771.5	-250		3/5	J-2503/5
406106.3	4593791.2	-250		4/5	J-2504/5
406186.2	4593726.2	-250	Left Bank		J-250LB
406086.7	4593808.6	-250	Right Bank		J-250RB
406195.1	4594018.2	Joliet #29 Discharge Canal Upstream of Cooling Tower Outfall		1/2	J29COOLUS1/2
406206.3	4594008.2	Joliet #29 Discharge Canal Upstream of Cooling Tower Outfall	Left Bank		J29COOLUSLB
406183.9	4594028.4	Joliet #29 Discharge Canal Upstream of Cooling Tower Outfall	Right Bank		J29COOLUSRB
406029.3	4593811.2	Joliet #29 Discharge Canal Downstream of Cooling Tower Outfall		1/3	J29COOLDS1/3
406015.3	4593824.2	Joliet #29 Discharge Canal Downstream of Cooling Tower Outfall		2/3	J29COOLDS2/3
406046.6	4593800.8	Joliet #29 Discharge Canal Downstream of Cooling Tower Outfall	Left Bank		J29COOLDSLB
406005.5	4593841.5	Joliet #29 Discharge Canal Downstream of Cooling Tower Outfall	Right Bank		J29COOLDSRB
406027.1	4593760.6		(Location of Joliet #29 Discharge)		J29DIS
406073.5	4593613.5	250		1/6	J2501/6
406045.7	4593637.6	250		2/6	J2502/6
406021.3	4593665.7	250		3/6	J2503/6
405993.5	4593690.3	250		4/6	J2504/6
405960.9	4593709.8	250		5/6	J2505/6
406102.9	4593590.7	250	Left Bank		J250LB
405934.5	4593734.4	250	Right Bank		J250RB

Waypoints for the Joliet Stations
Coordinates in UTM Zone 16, NAD 83, Meters

<u>Easting</u>	<u>Northing</u>	<u>Transect</u>	<u>Surface Transect Waypoints</u>	<u>Vertical Profile Sampling Points</u>	<u>Waypoint Label</u>
405987.5	4593490.0	750		1/6	J7501/6
405957.7	4593506.8	750		2/6	J7502/6
405933.5	4593528.7	750		3/6	J7503/6
405910.0	4593553.5	750		4/6	J7504/6
405888.2	4593578.2	750		5/6	J7505/6
406012.4	4593468.1	750	Left Bank		J750LB
405862.5	4593601.3	750	Right Bank		J750RB
405882.9	4593378.0	1250		1/6	J12501/6
405850.8	4593380.2	1250		2/6	J12502/6
405829.8	4593404.3	1250		3/6	J12503/6
405814.1	4593435.9	1250		4/6	J12504/6
405791.5	4593454.2	1250		5/6	J12505/6
405906.4	4593358.6	1250	Left Bank		J1250LB
405770.6	4593475.7	1250	Right Bank		J1250RB
405724.5	4593204.7	2000		1/5	J20001/5
405689.6	4593225.5	2000		2/5	J20002/5
405661.5	4593254.3	2000		3/5	J20003/5
405638.4	4593285.2	2000		4/5	J20004/5
405757.6	4593181.6	2000	Left Bank		J2000LB
405610.9	4593315.3	2000	Right Bank		J2000RB
405542.5	4593065.7	2750		1/5	J27501/5
405505.1	4593097.9	2750		2/5	J27502/5
405480.0	4593137.0	2750		3/5	J27503/5
405450.6	4593175.1	2750		4/5	J27504/5
405576.1	4593039.4	2750	Left Bank		J2750LB
405412.0	4593199.8	2750	Right Bank		J2750RB
405231.7	4592848.3	4000		1/4	J40001/4
405182.6	4592893.7	4000		1/2	J40001/2
405141.4	4592942.9	4000		3/4	J40003/4
405275.6	4592800.6	4000	Left Bank		J4000LB
405094.4	4592989.5	4000	Right Bank		J4000RB
404864.5	4592562.7	5500		1/4	J55001/4
404816.1	4592613.9	5500		1/2	J55001/2
404764.9	4592661.5	5500		3/4	J55003/4
404916.5	4592518.0	5500	Left Bank		J5500LB
404725.5	4592719.2	5500	Right Bank		J5500RB
404502.3	4592288.1	7000		1/4	J70001/4
404449.0	4592341.4	7000		1/2	J70001/2
404403.6	4592402.5	7000		3/4	J70003/4
404556.6	4592234.8	7000	Left Bank		J7000LB
404352.7	4592457.6	7000	Right Bank		J7000RB

