FIG. A-1. PRESSURE AND TEMPERATURE OF ROD NO. 1

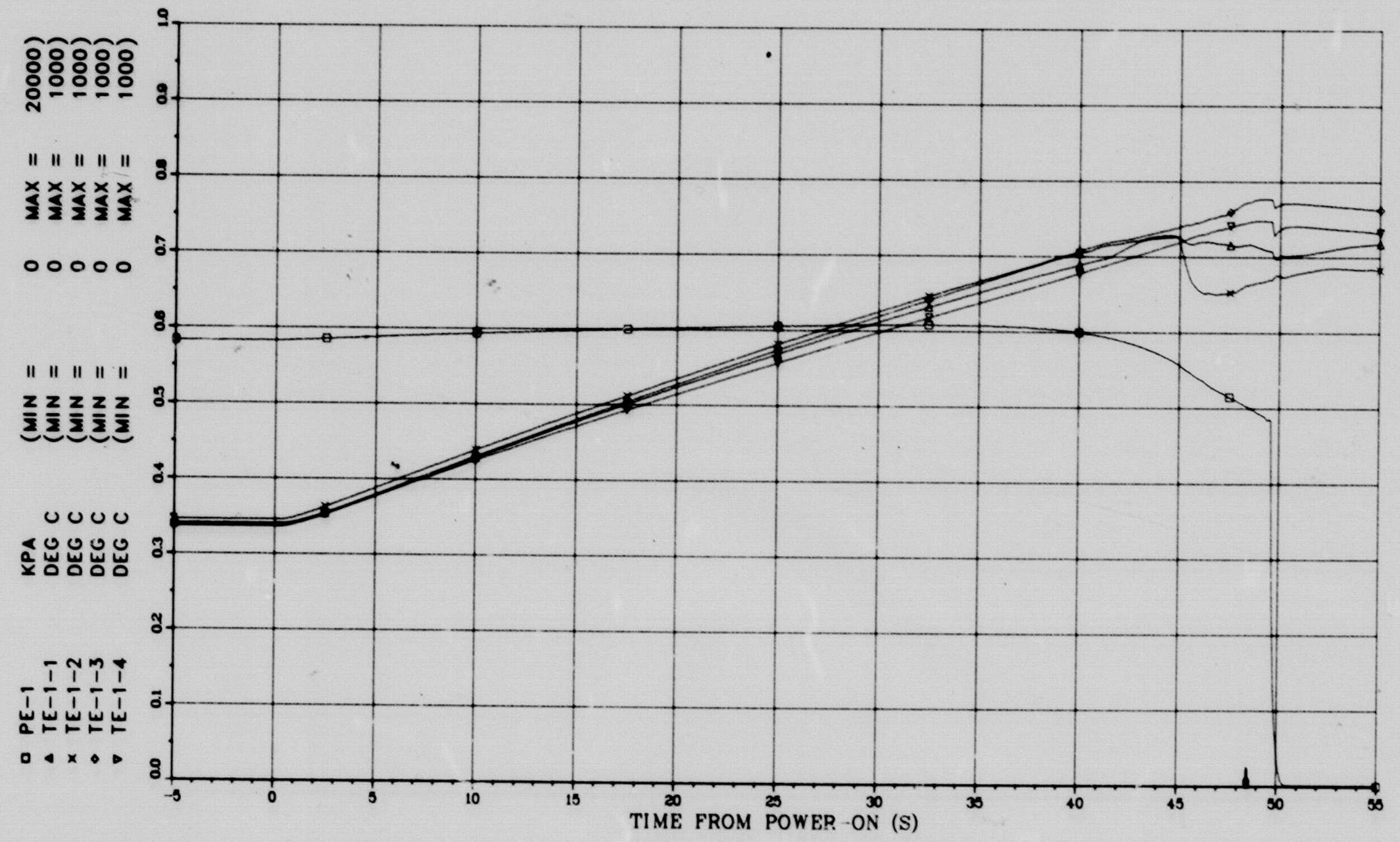


FIG. A-2. PRESSURE AND TEMPERATURE OF ROD NO. 2

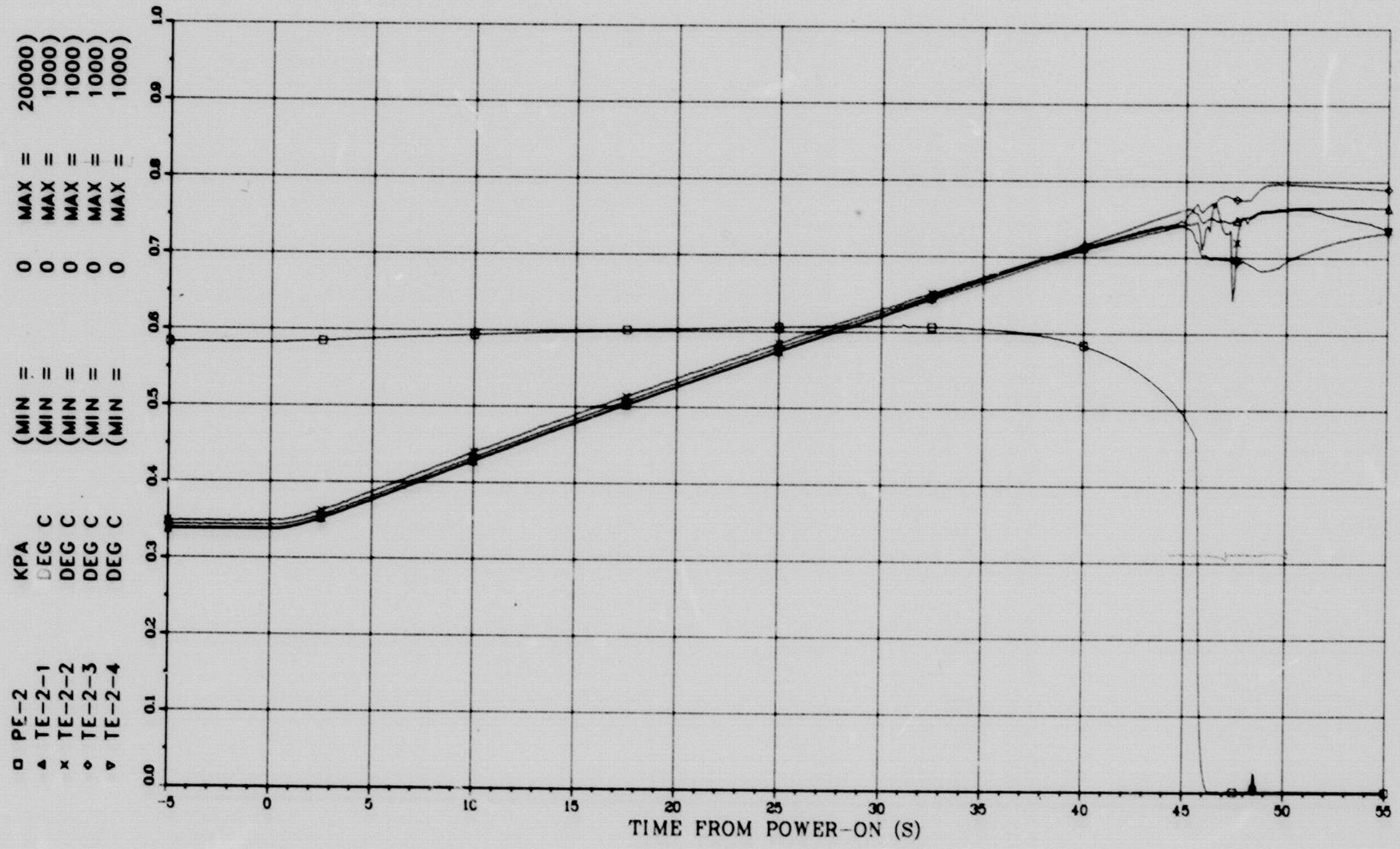


FIG. A-3. PRESSURE AND TEMPERATURE OF ROD NO. 3

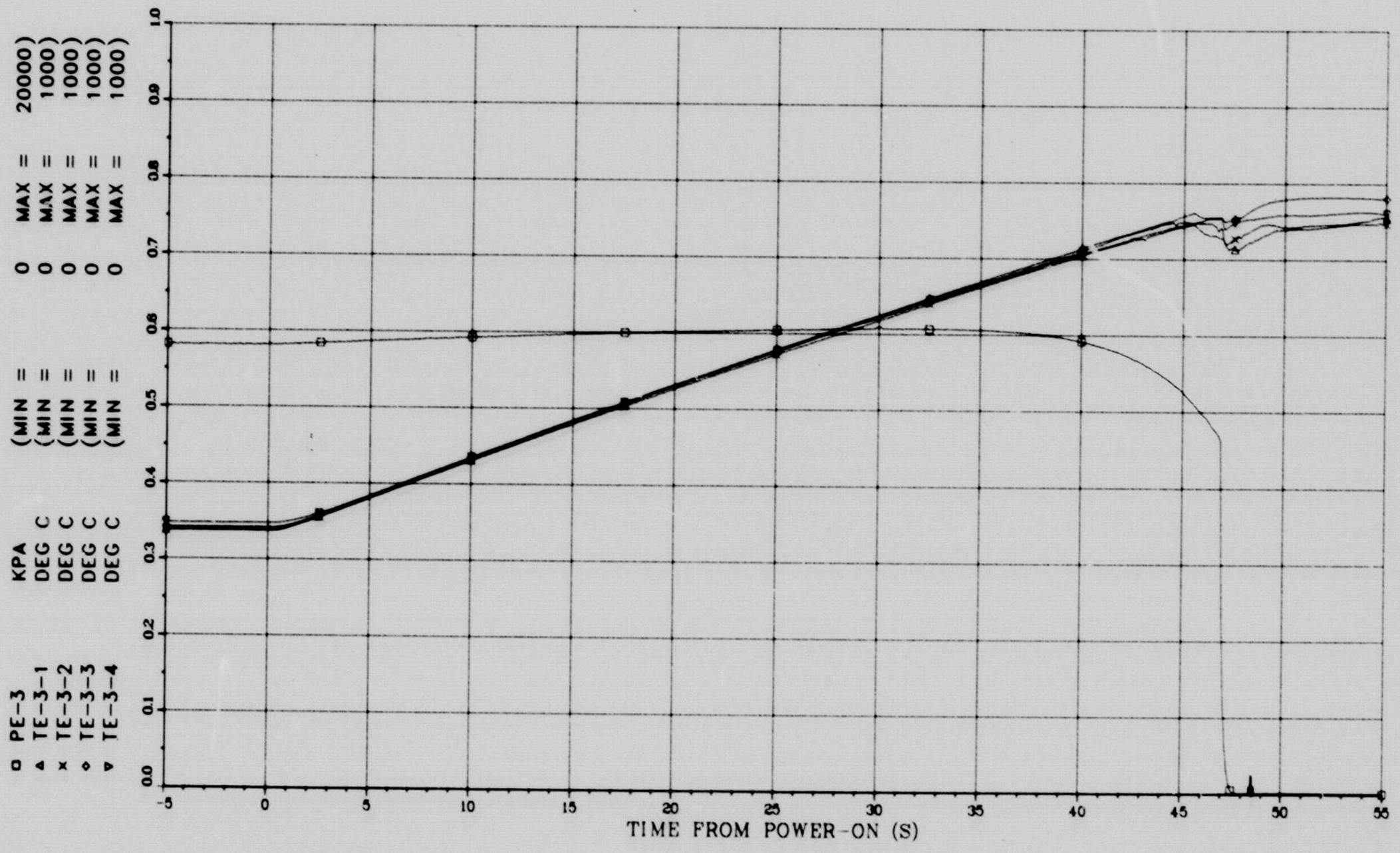


FIG. A-4. PRESSURE AND TEMPERATURE OF ROD NO. 4

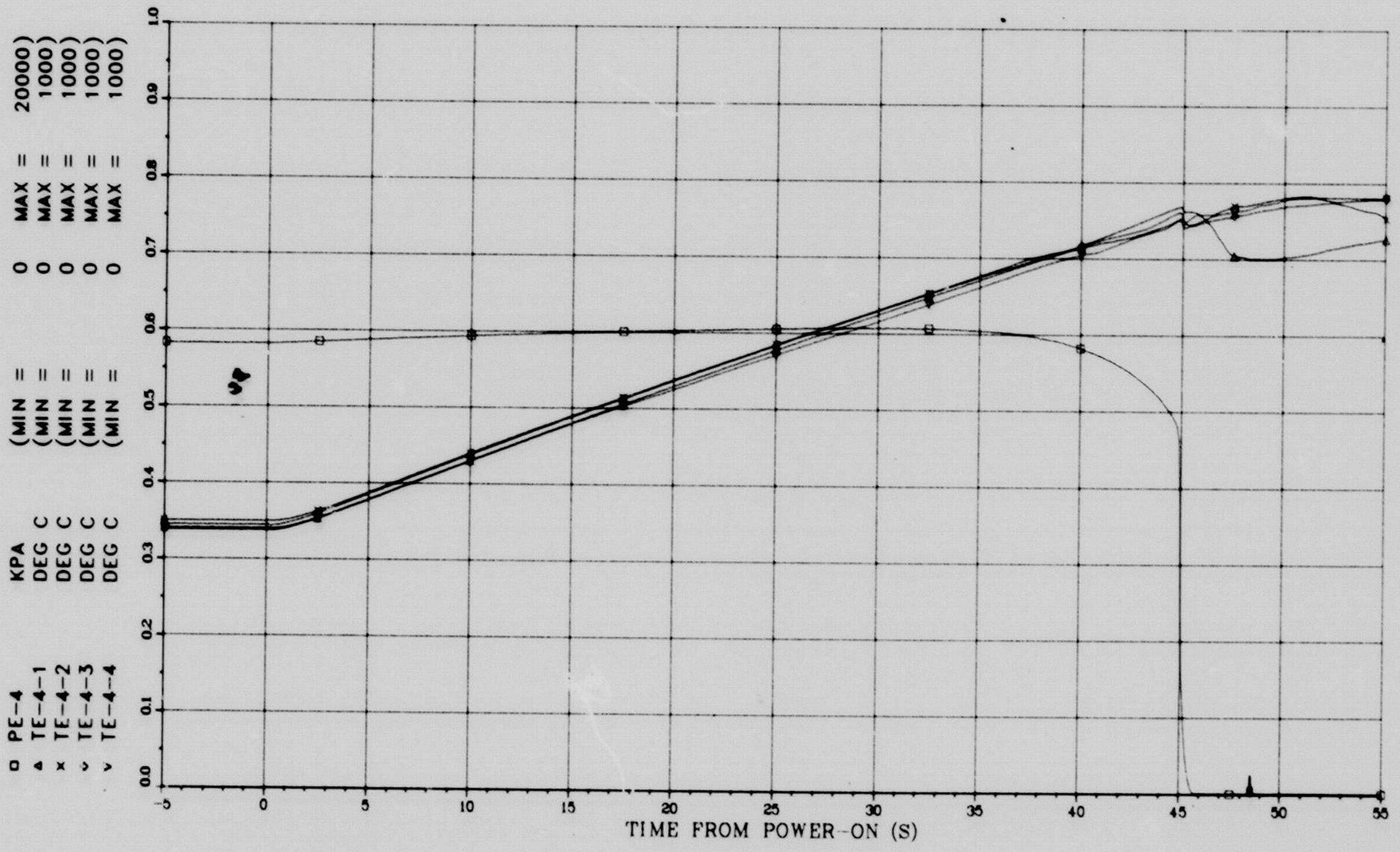


FIG. A-5. PRESSURE AND TEMPERATURE OF ROD NO. 5

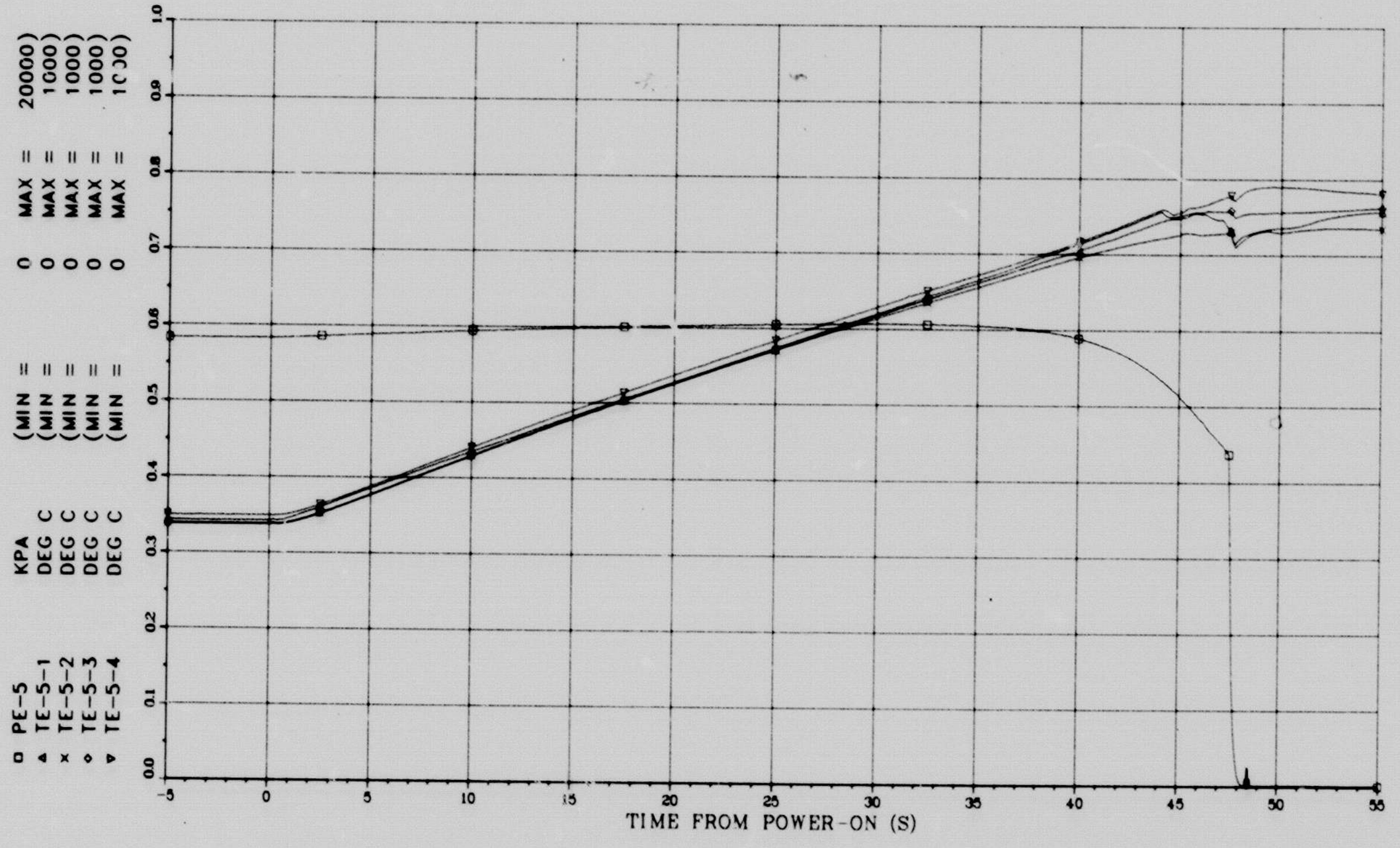


FIG. A-6. PRESSURE AND TEMPERATURE OF ROD NO. 6

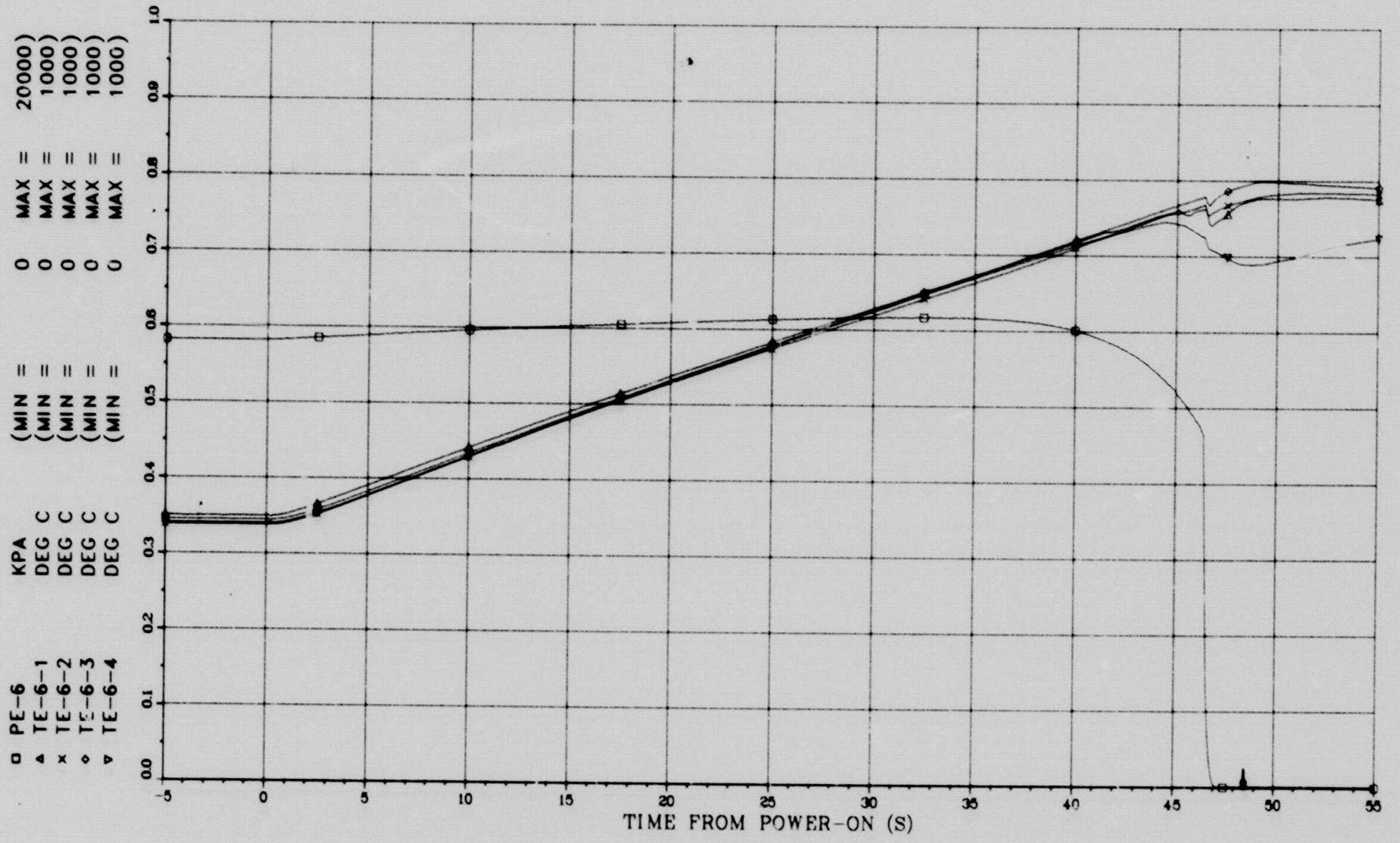


FIG. A-7. PRESSURE AND TEMPERATURE OF ROD NO. 7

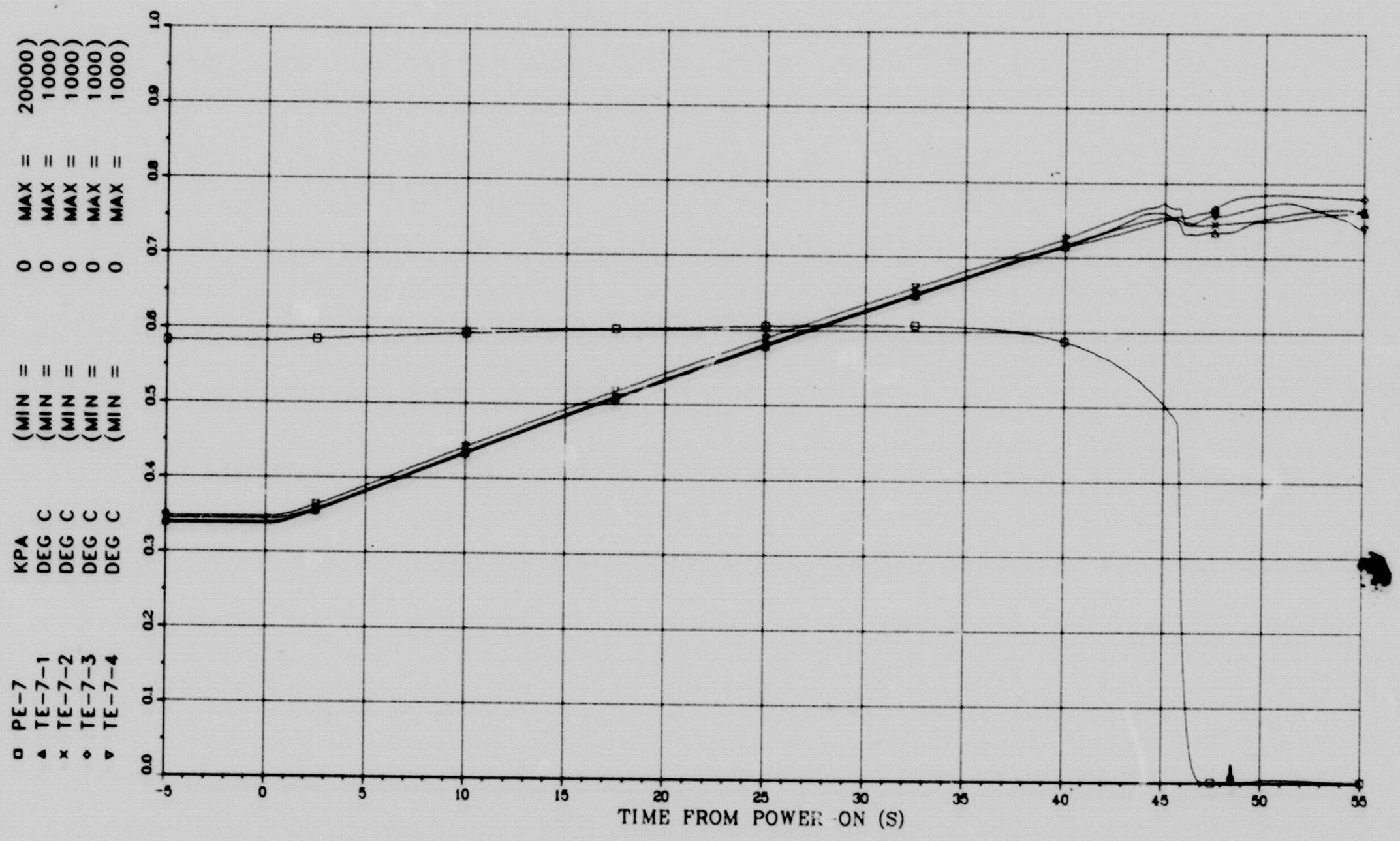


FIG. A-8. PRESSURE AND TEMPERATURE OF ROD NO. 8

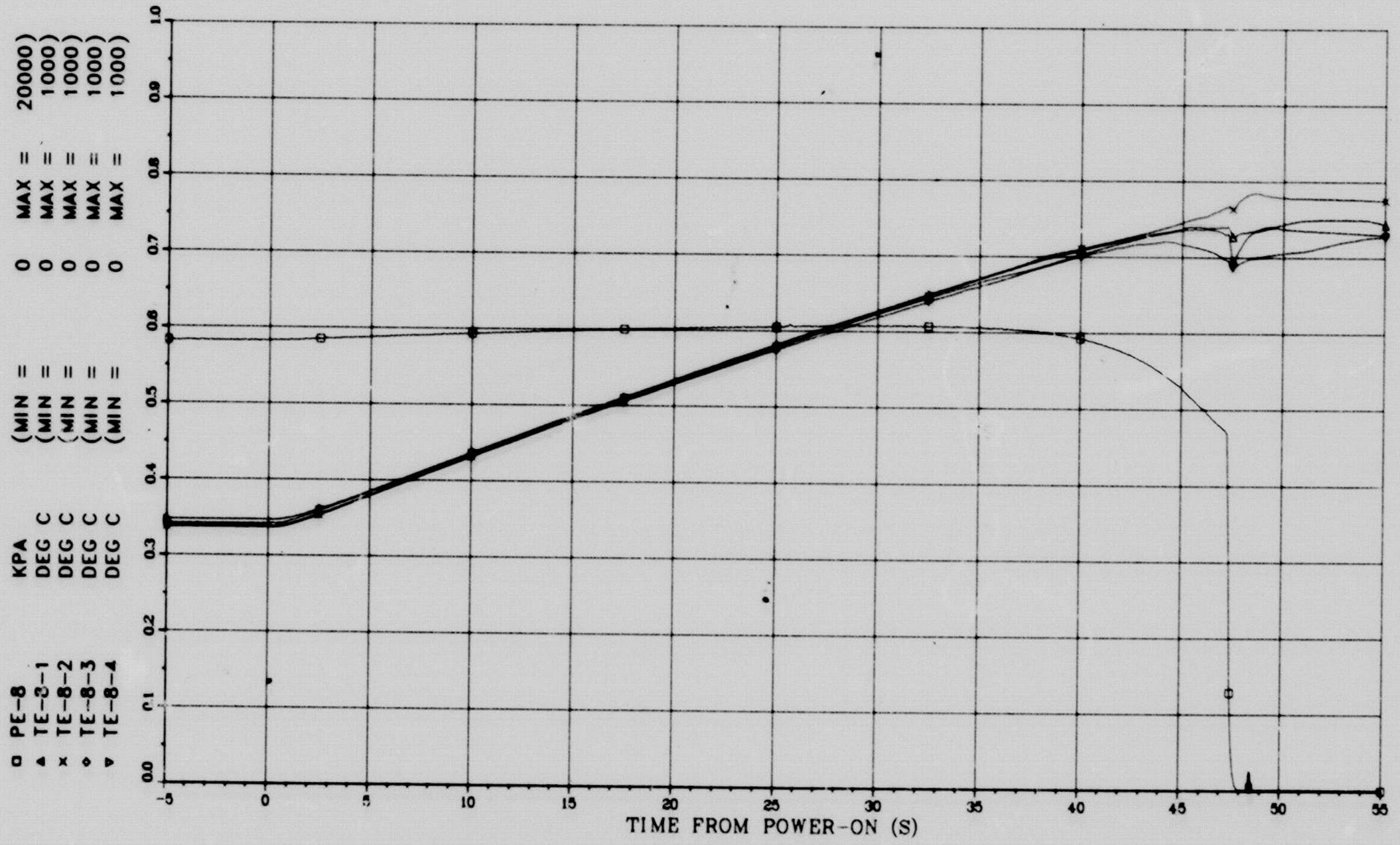


FIG. A-9. PRESSURE AND TEMPERATURE OF ROD NO. 9

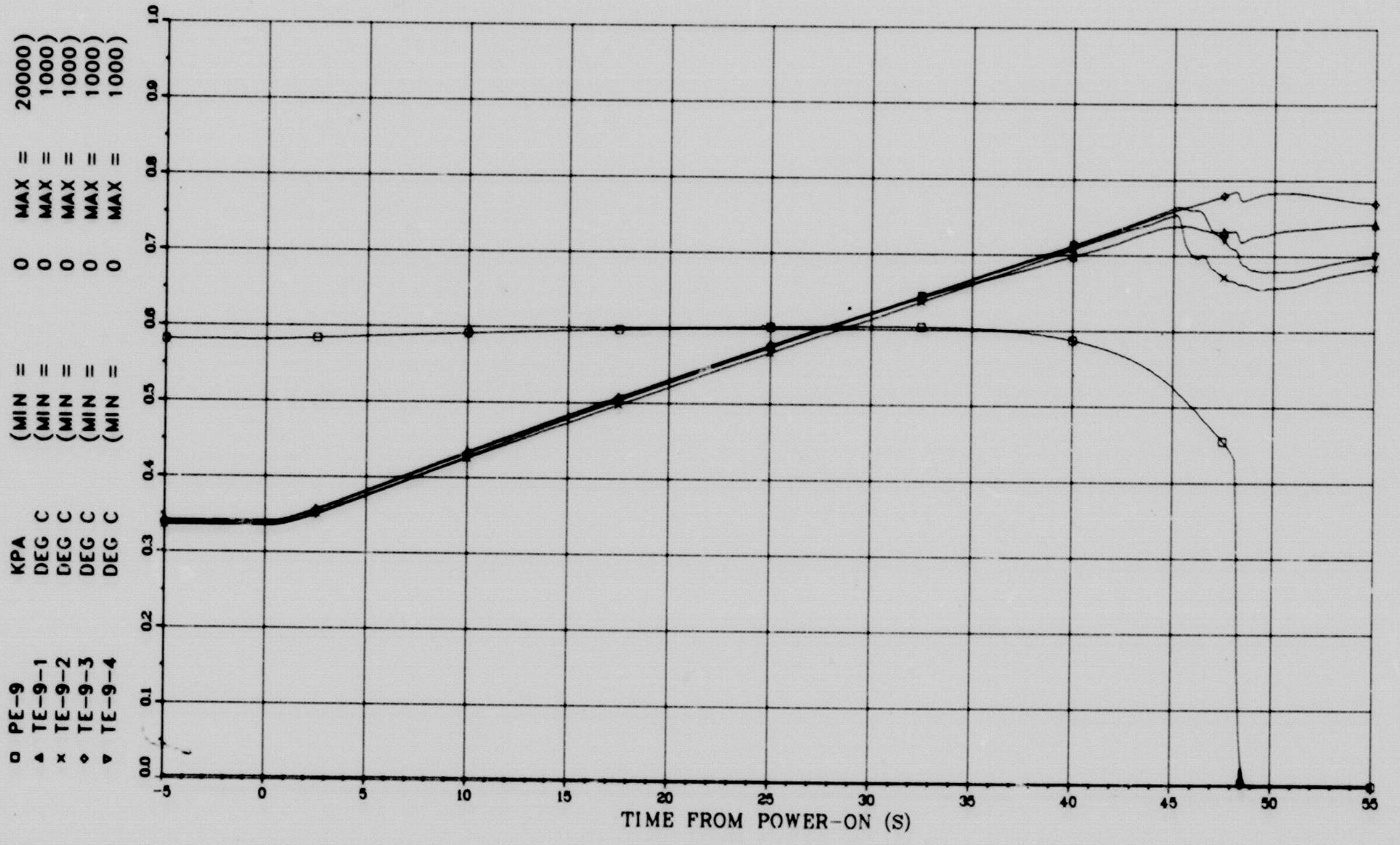


FIG. A-10. PRESSURE AND TEMPERATURE OF ROD NO. 10

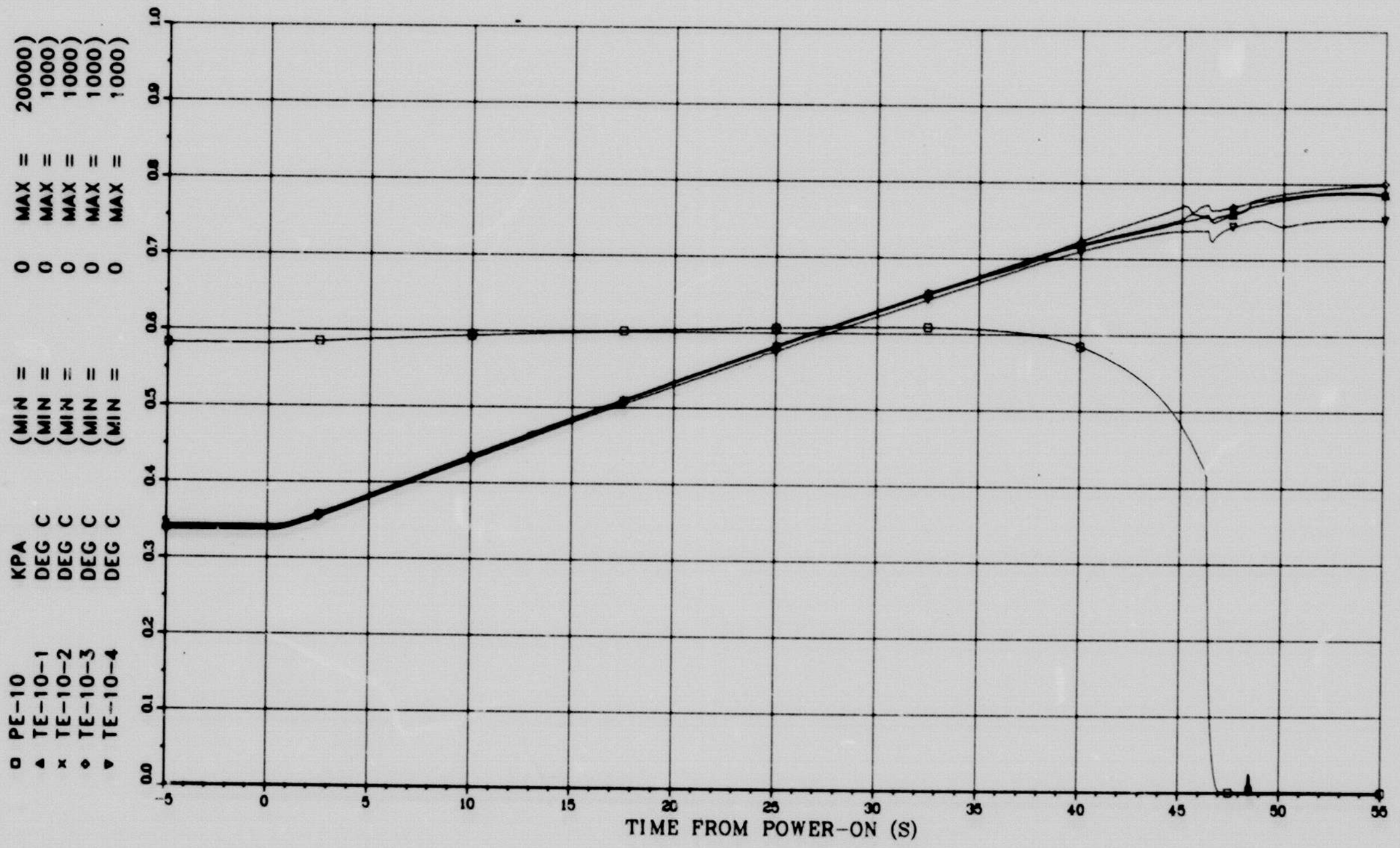


FIG. A-11. PRESSURE AND TEMPERATURE OF ROD NO. 11

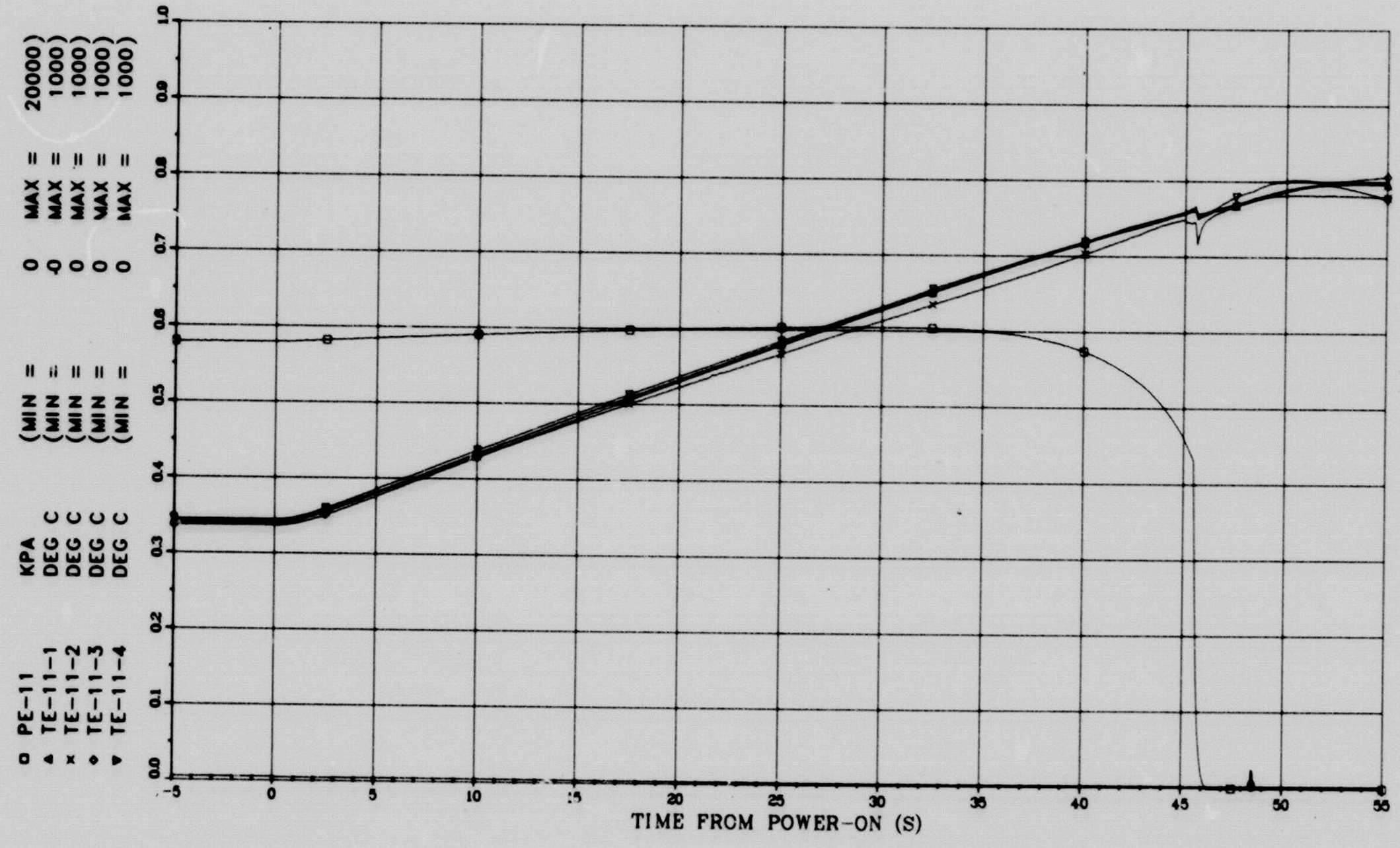


FIG. A-12. PRESSURE AND TEMPERATURE OF ROD NO. 12

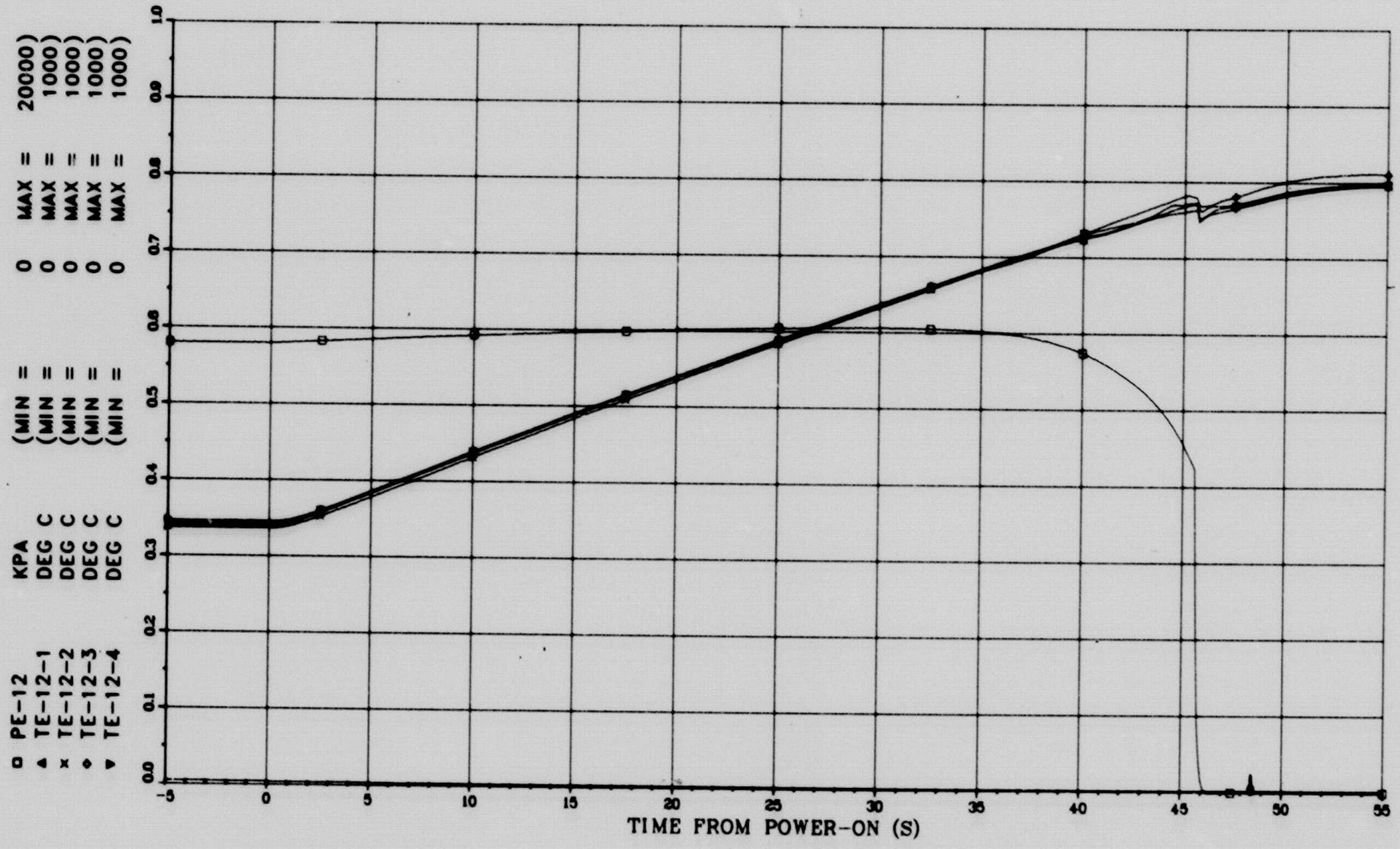


FIG. A-13. PRESSURE AND TEMPERATURE OF ROD NO. 13

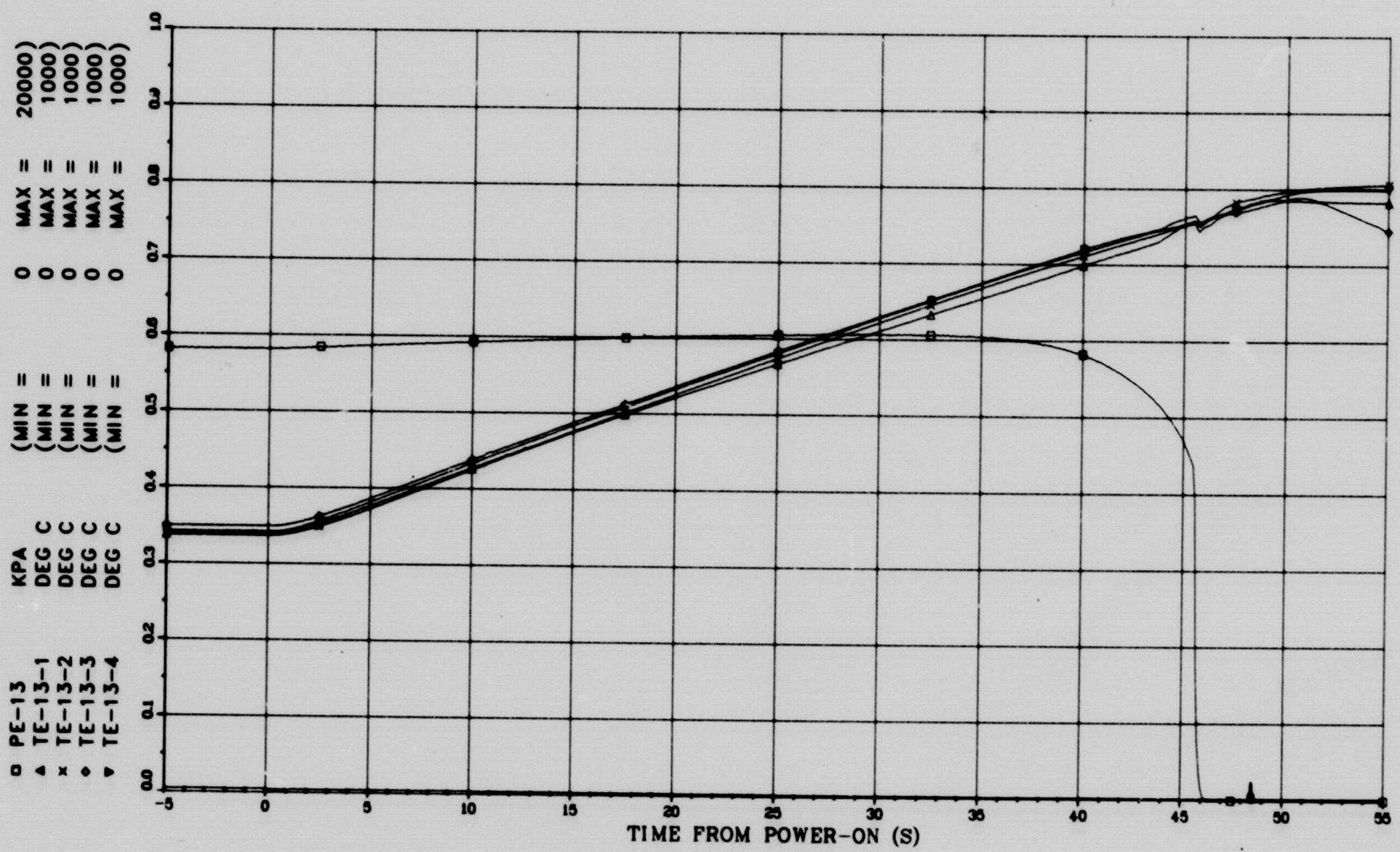


FIG. A-14. PRESSURE AND TEMPERATURE OF ROD NO. 14

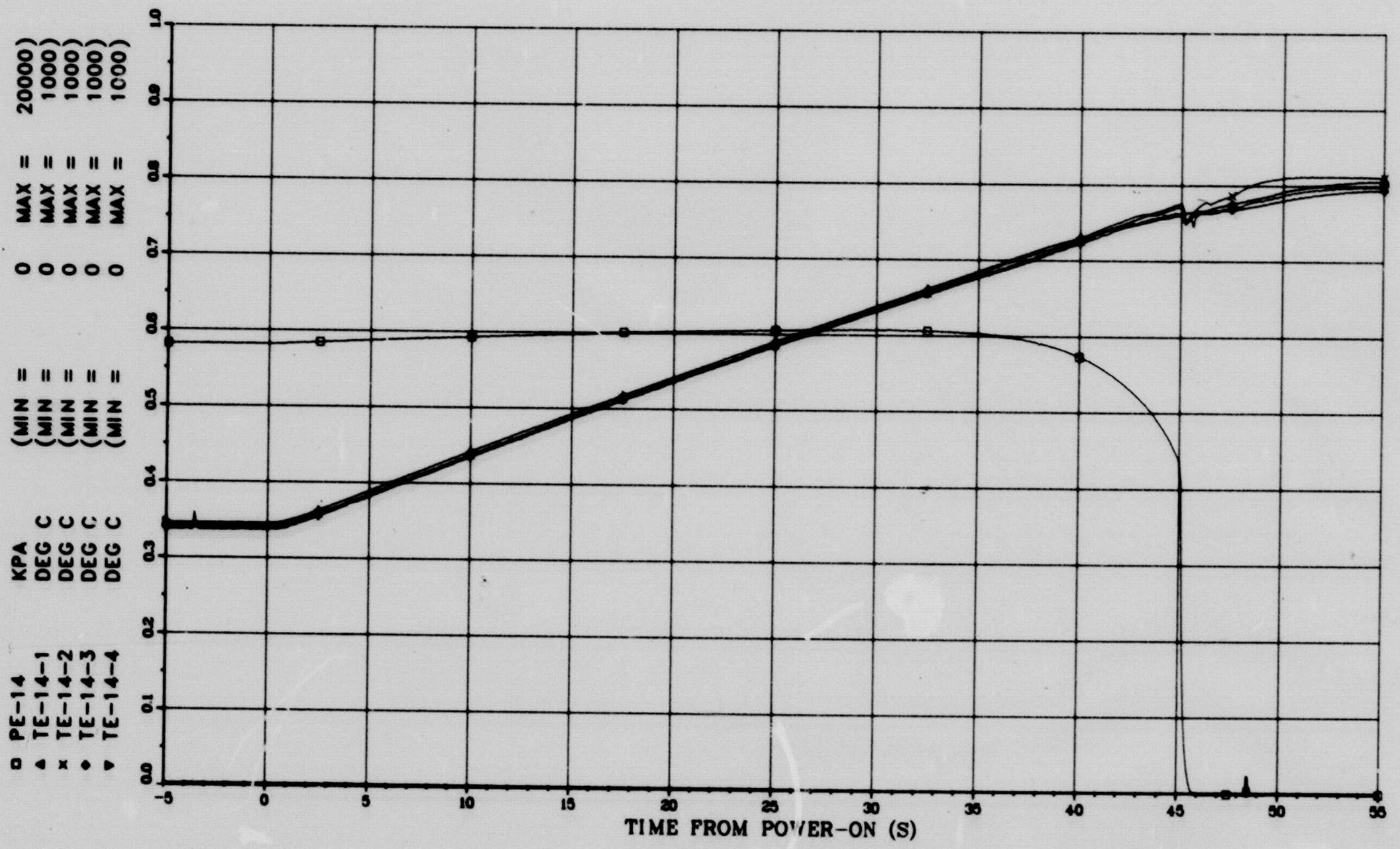


FIG. A-15. PRESSURE AND TEMPERATURE OF ROD NO. 15

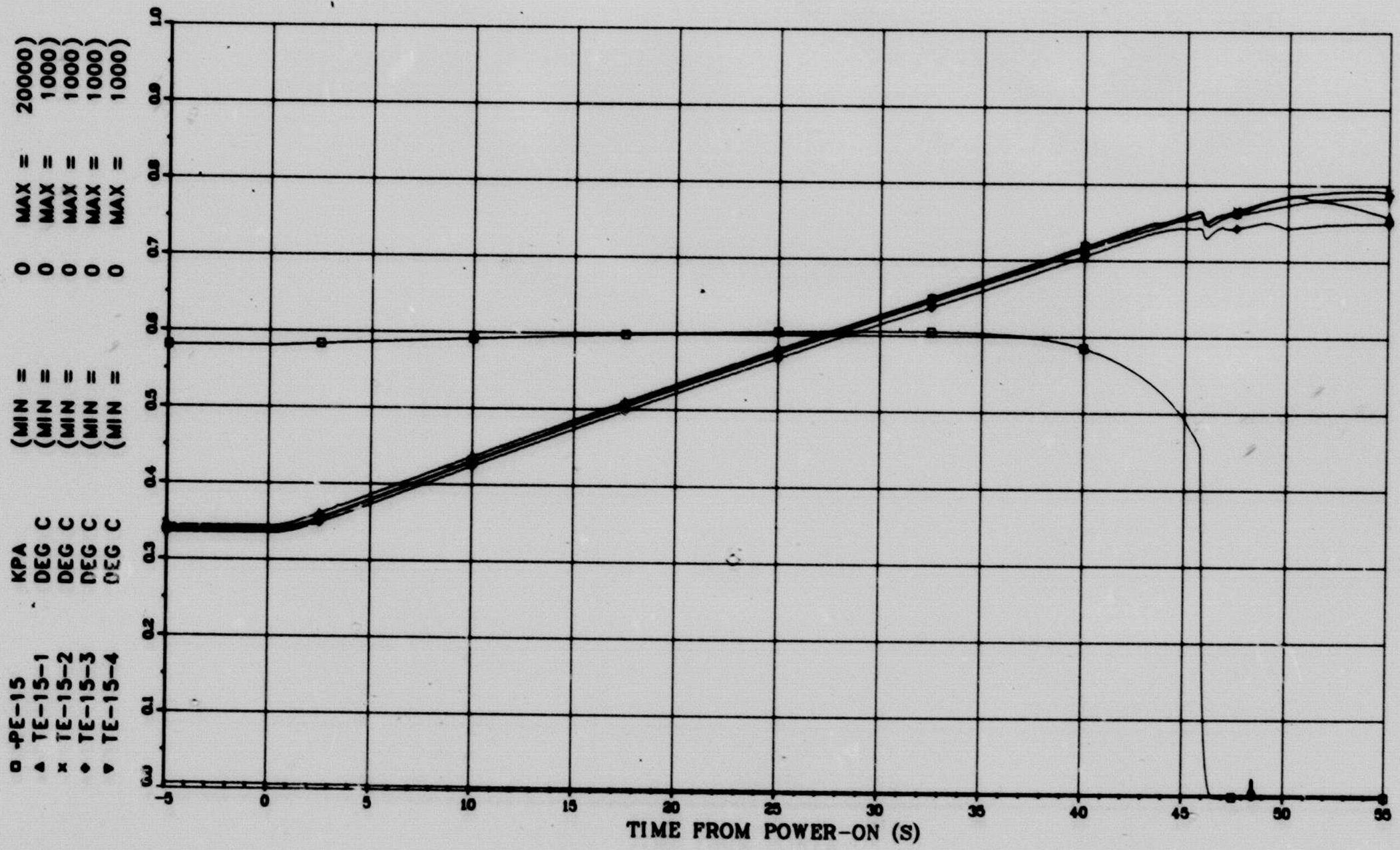


FIG. A-16. PRESSURE AND TEMPERATURE OF ROD NO. 16

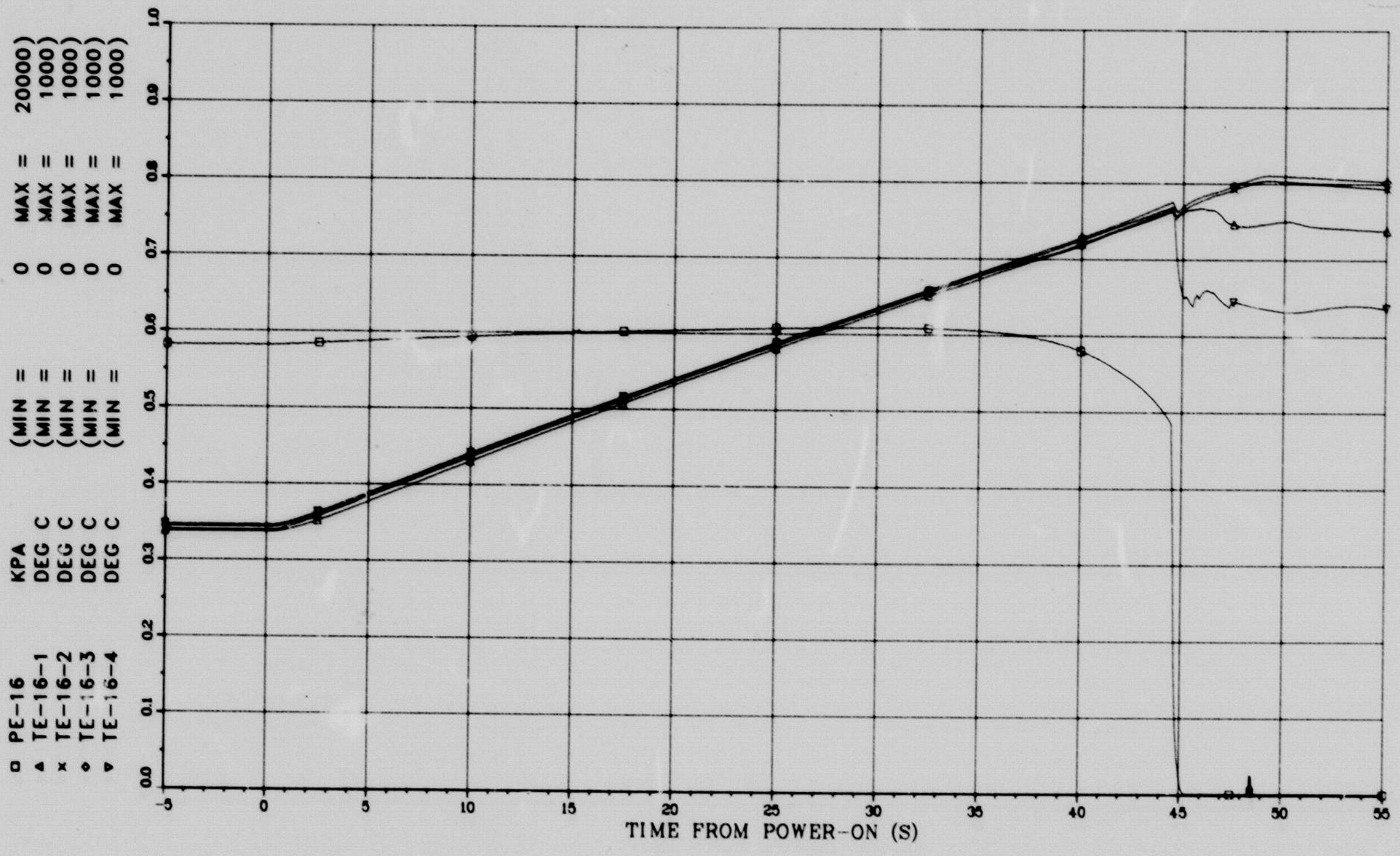


FIG. A-17. PRESSURE AND TEMPERATURE OF ROD NO. 17

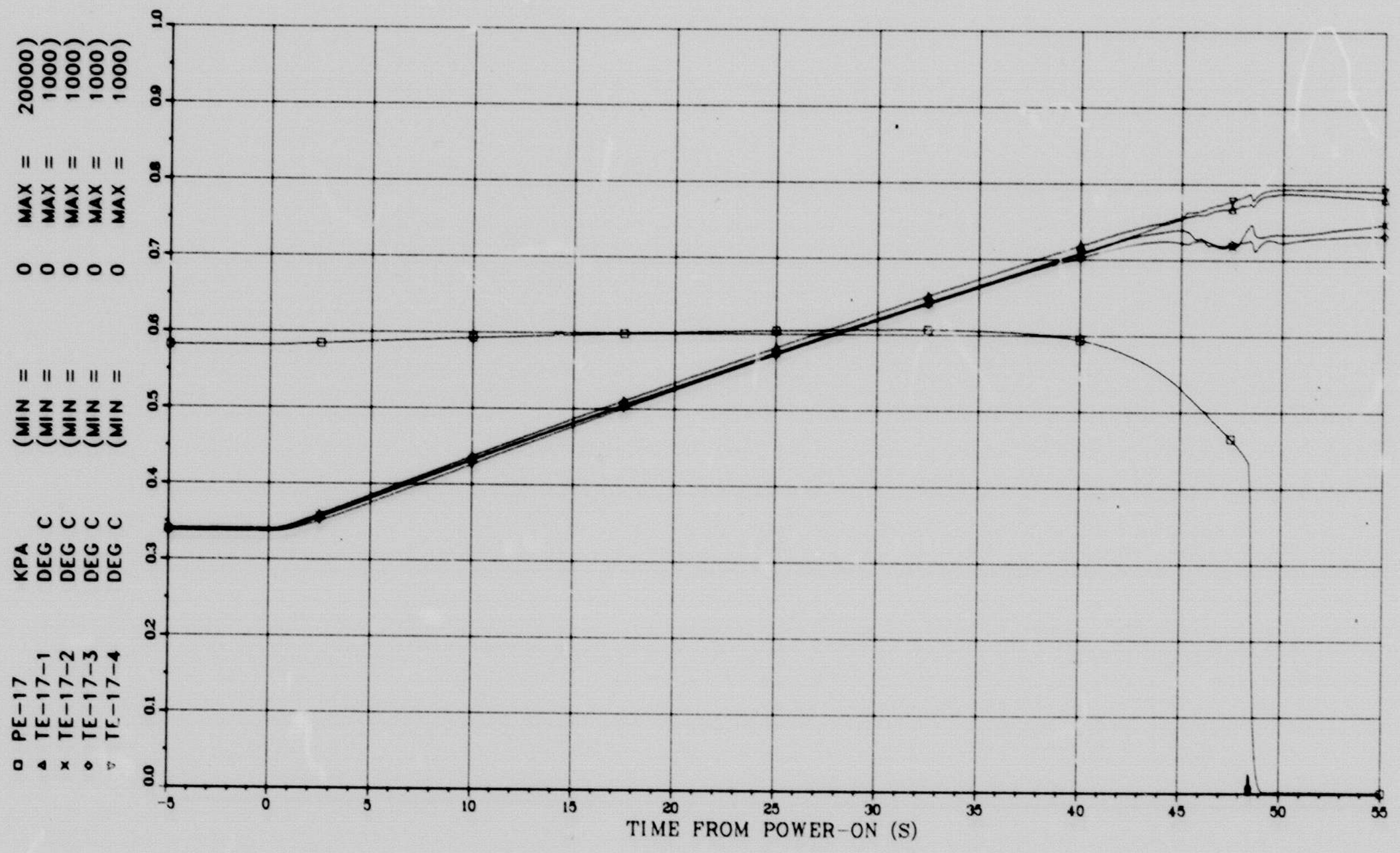


FIG. A-18. PRESSURE AND TEMPERATURE OF ROD NO. 18

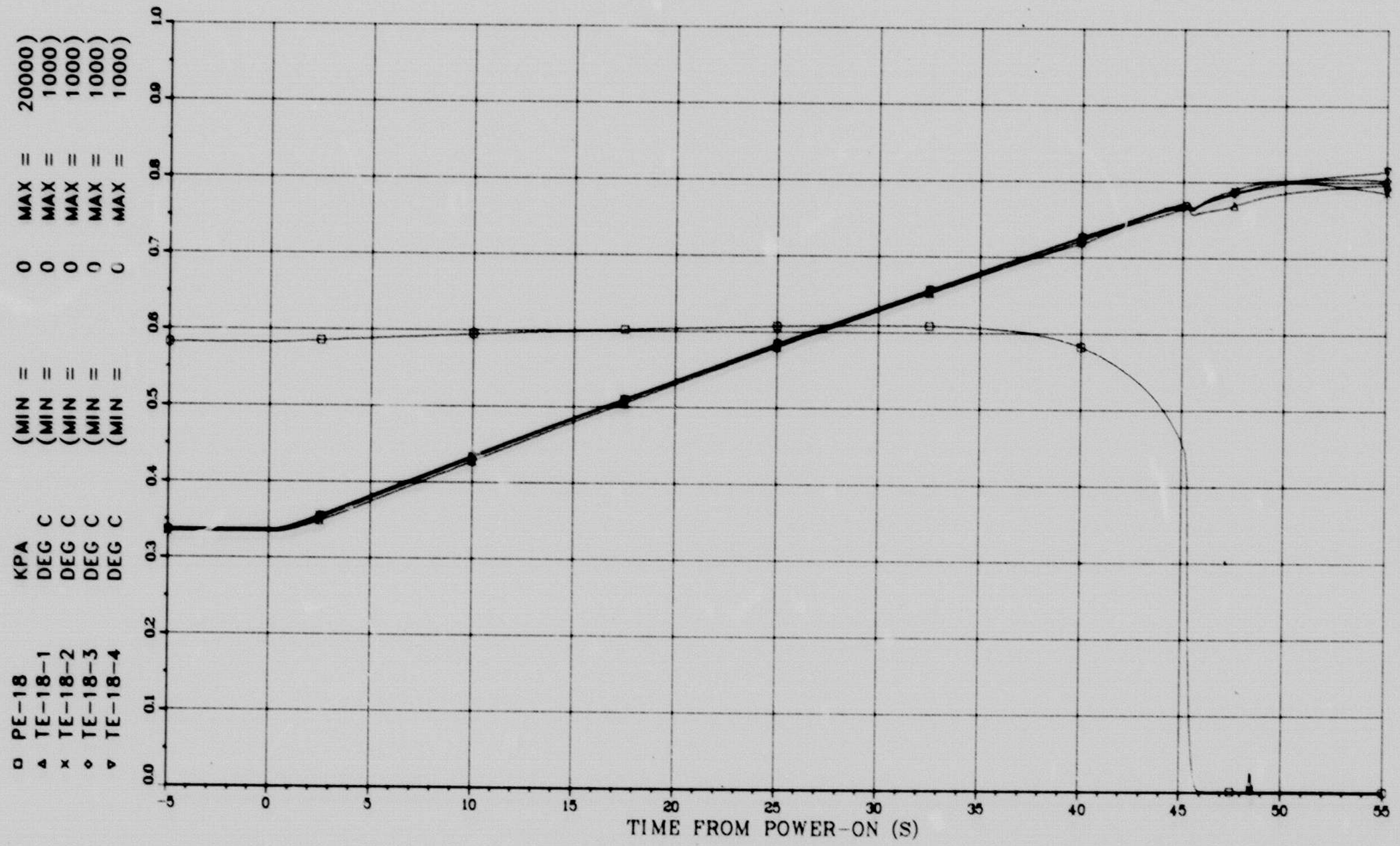


FIG. A-19. PRESSURE AND TEMPERATURE OF ROD NO. 19

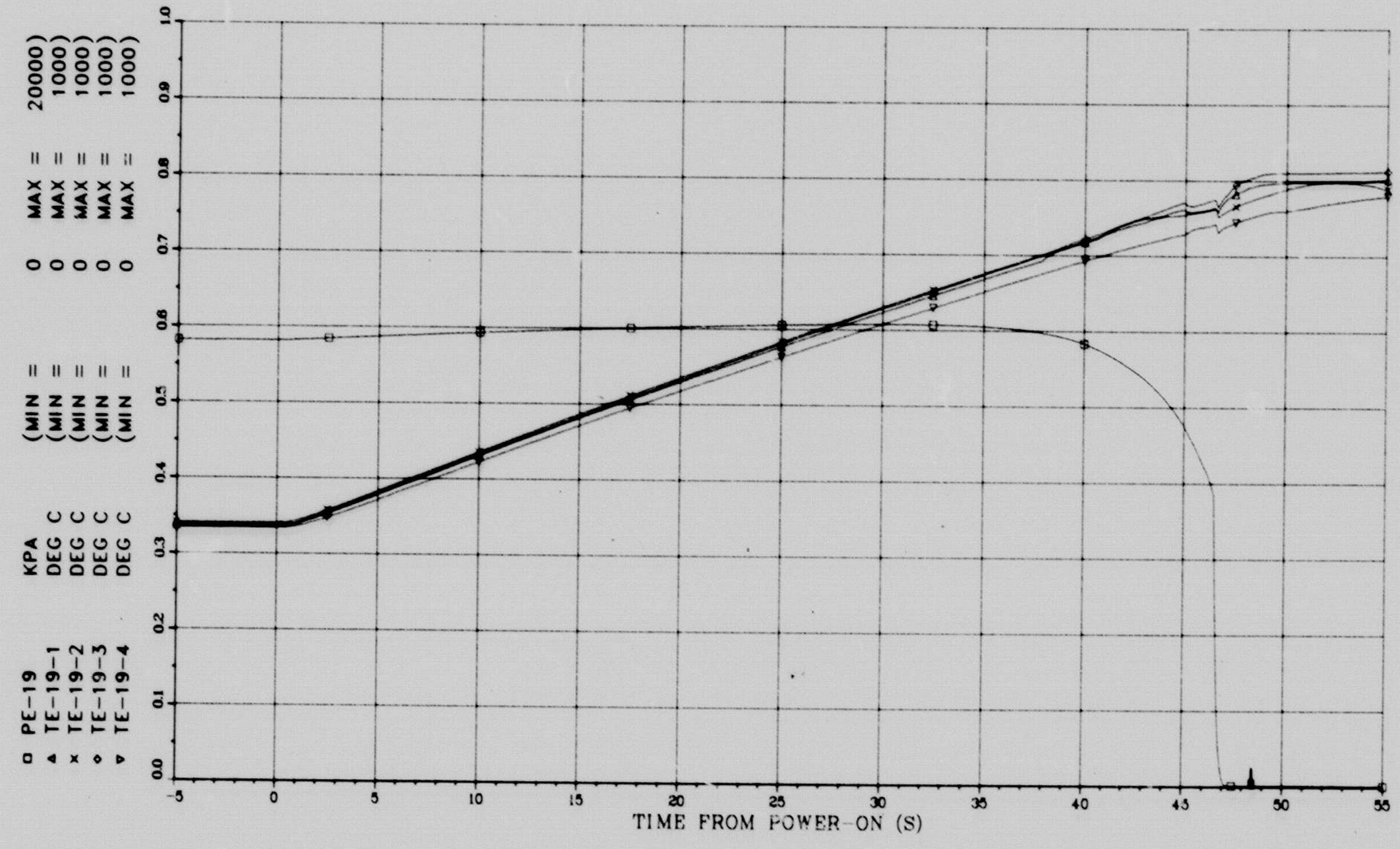


FIG. A-20. PRESSURE AND TEMPERATURE OF ROD NO. 20

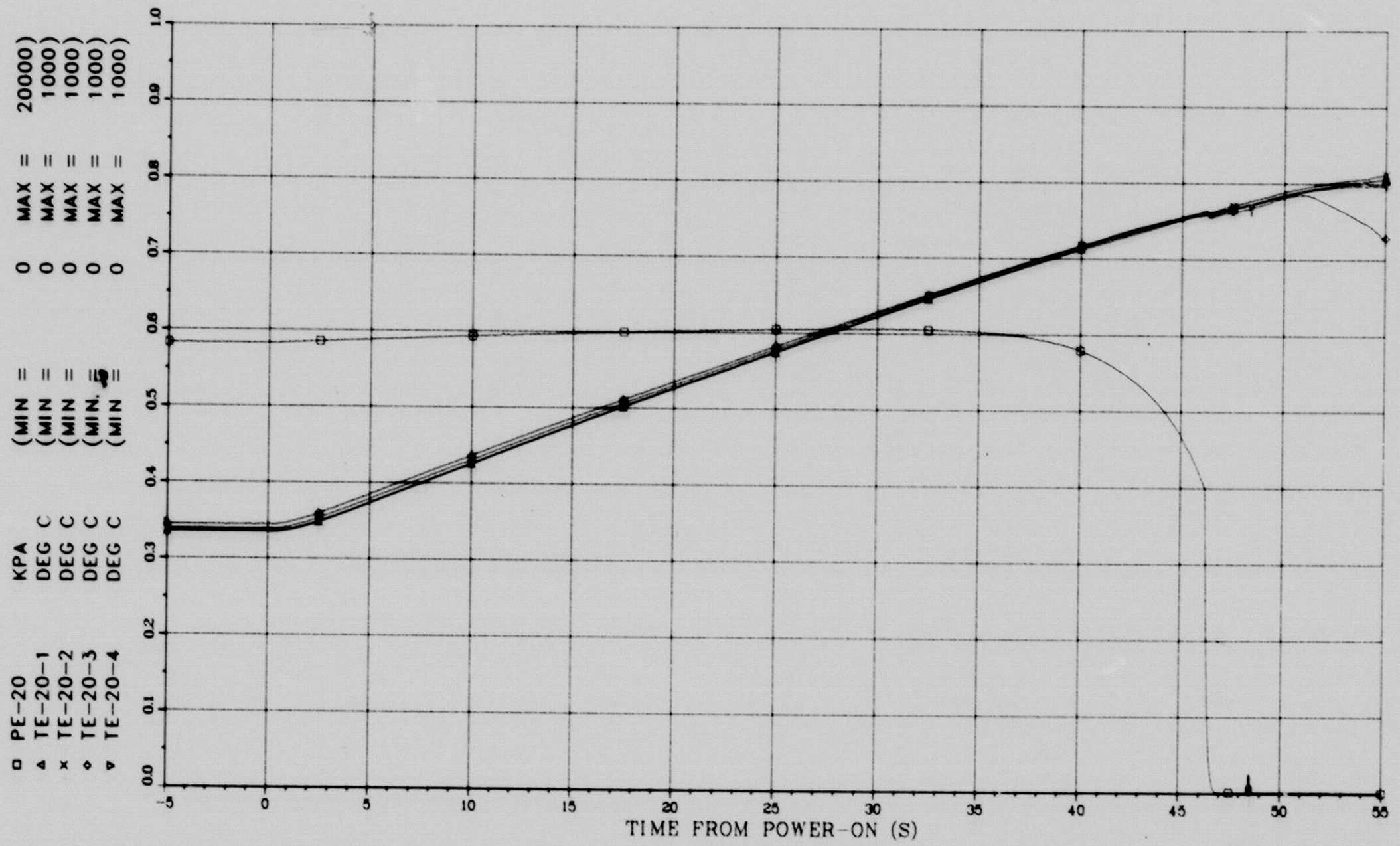


FIG. A-21. PRESSURE AND TEMPERATURE OF ROD NO. 21

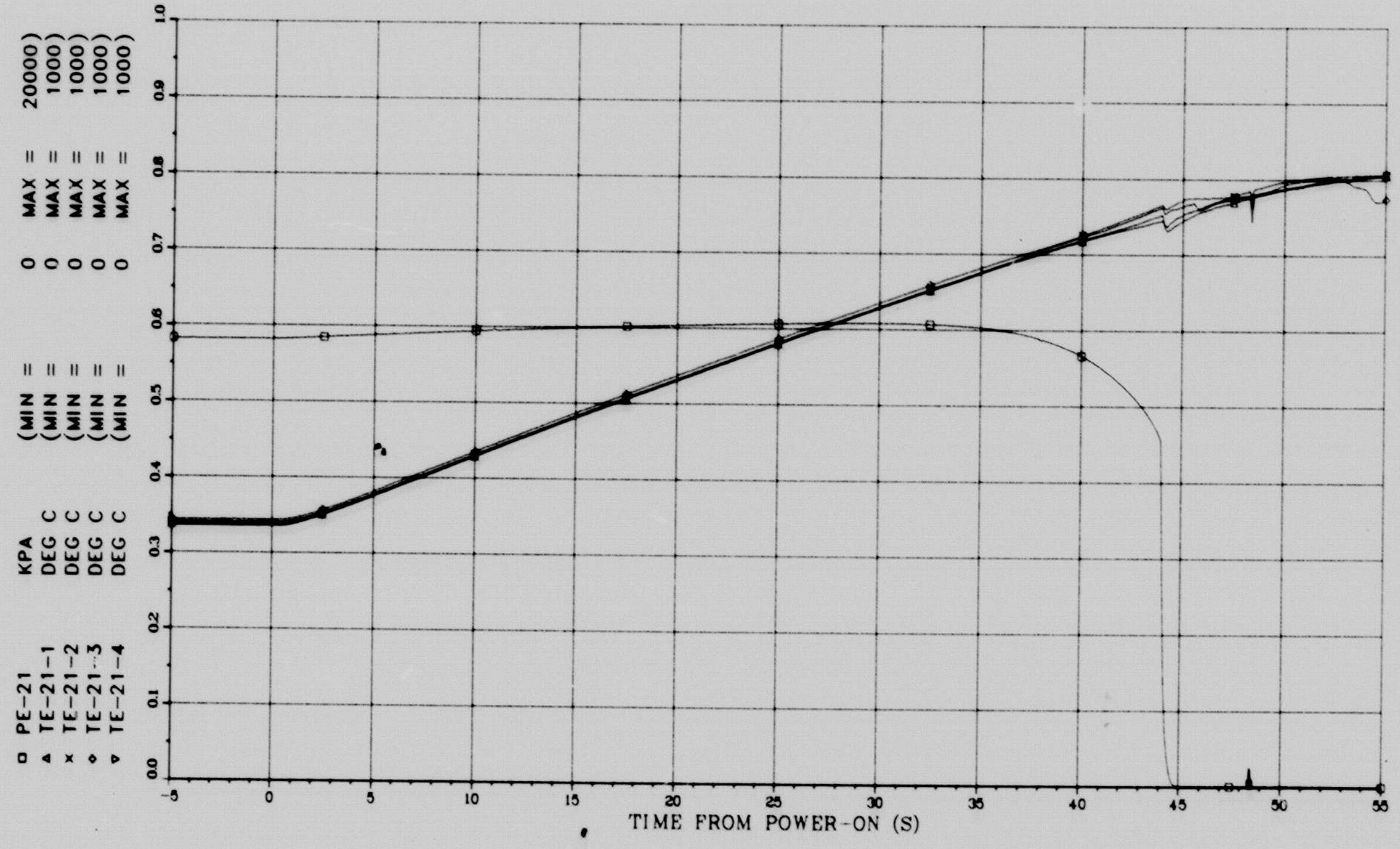


FIG. A-22. PRESSURE AND TEMPERATURE OF ROD NO. 22

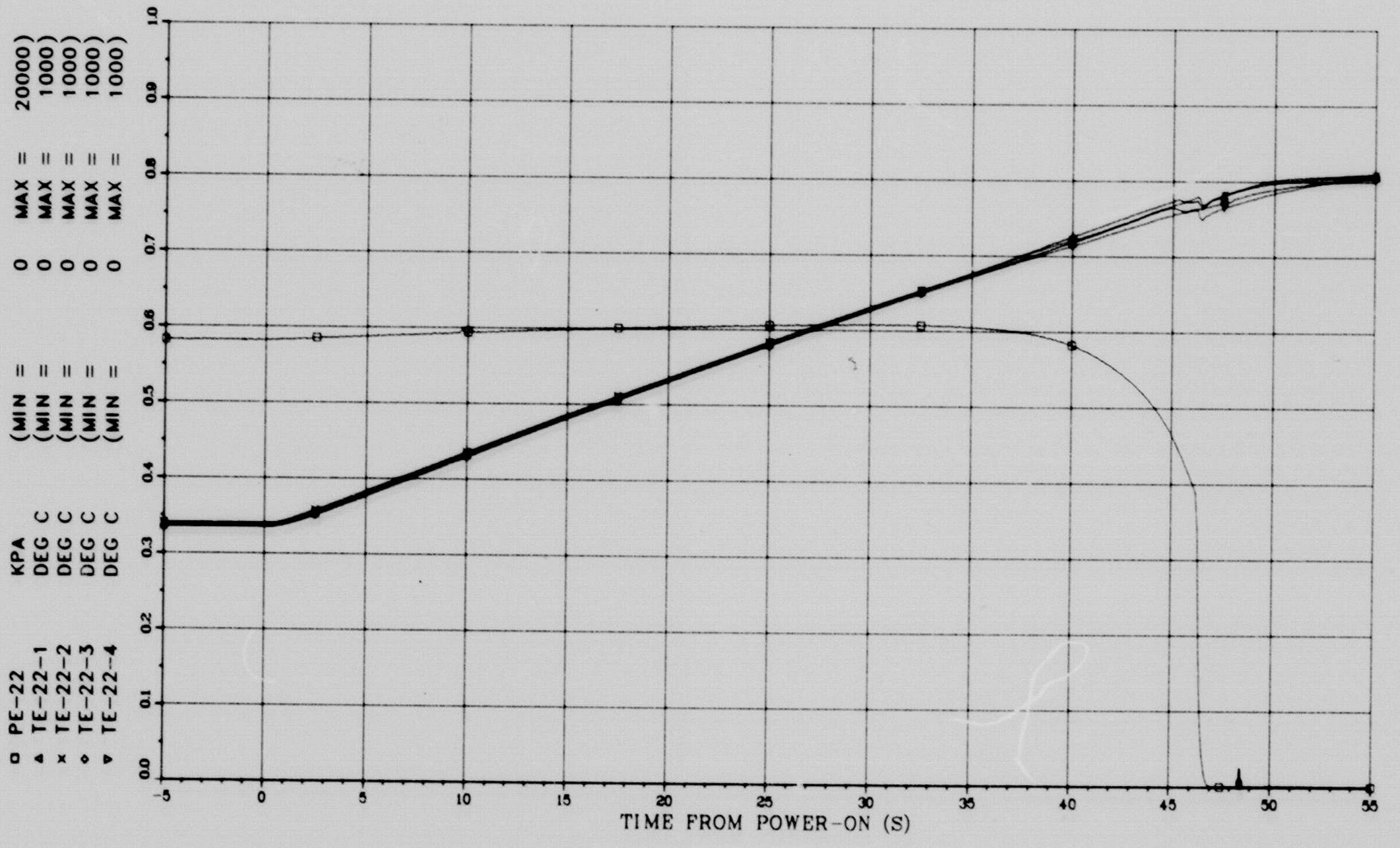


FIG. A-23. PRESSURE AND TEMPERATURE OF ROD NO. 23

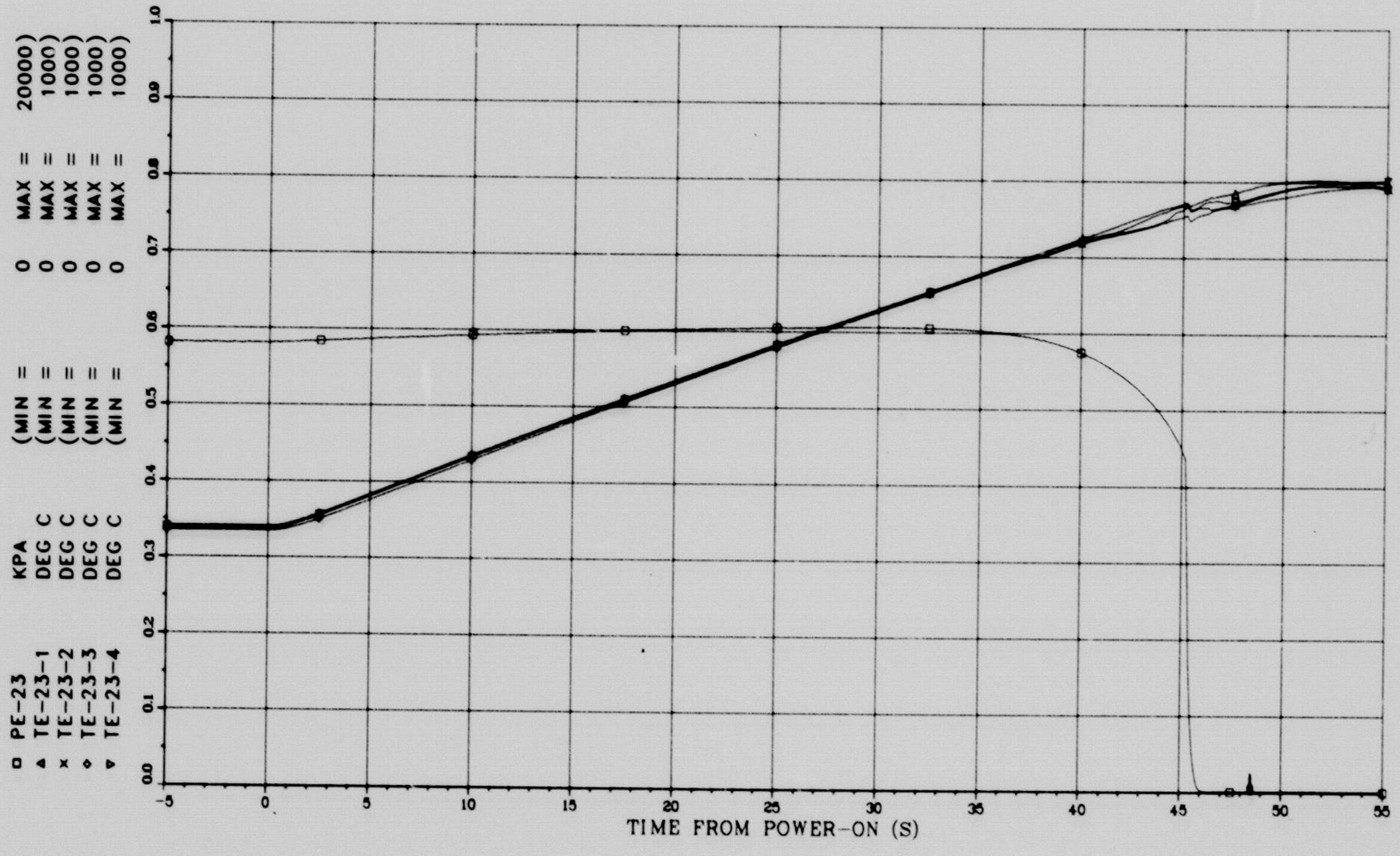


FIG. A-24. PRESSURE AND TEMPERATURE OF ROD NO. 24

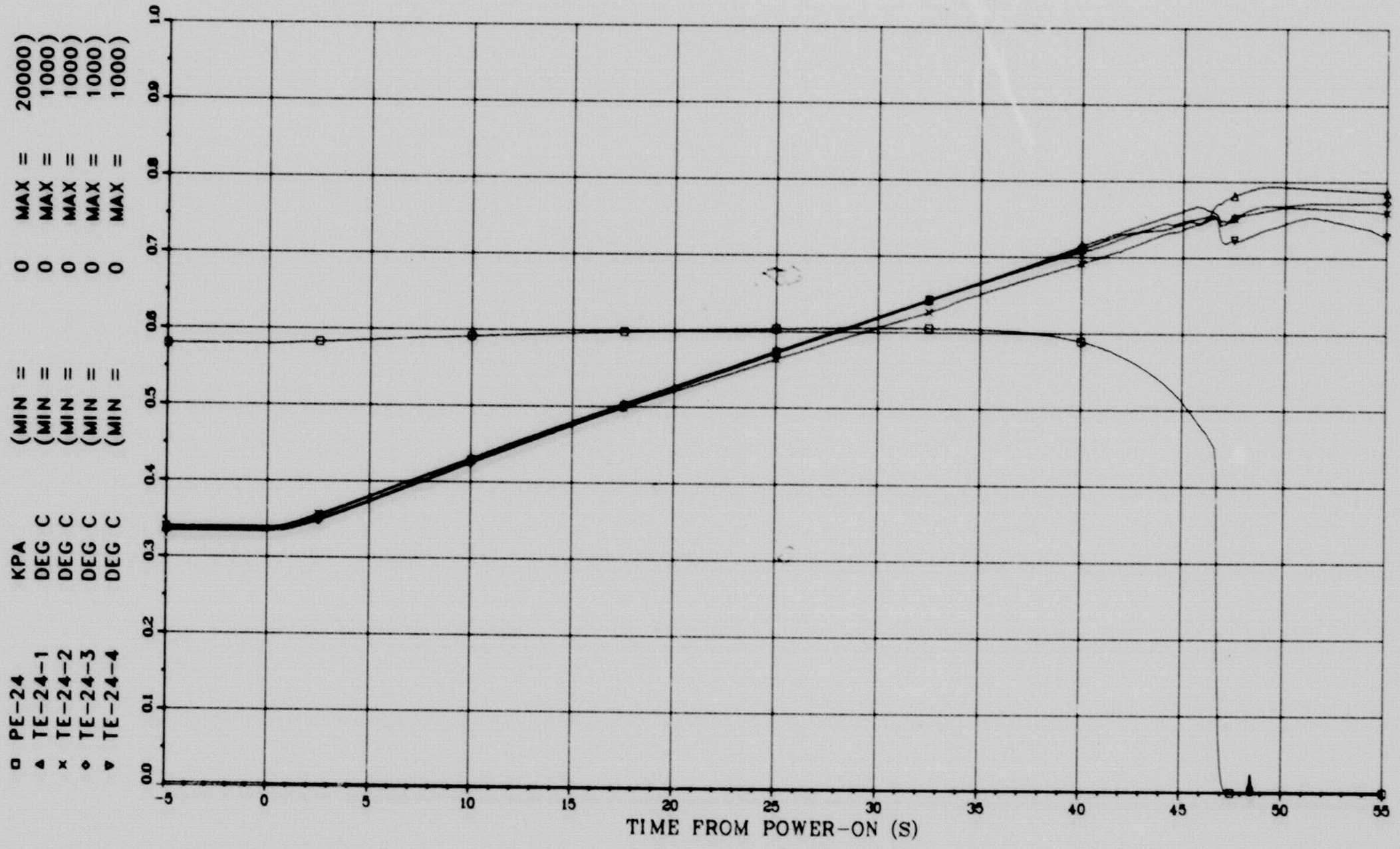


FIG. A-25. PRESSURE AND TEMPERATURE OF ROD NO. 25

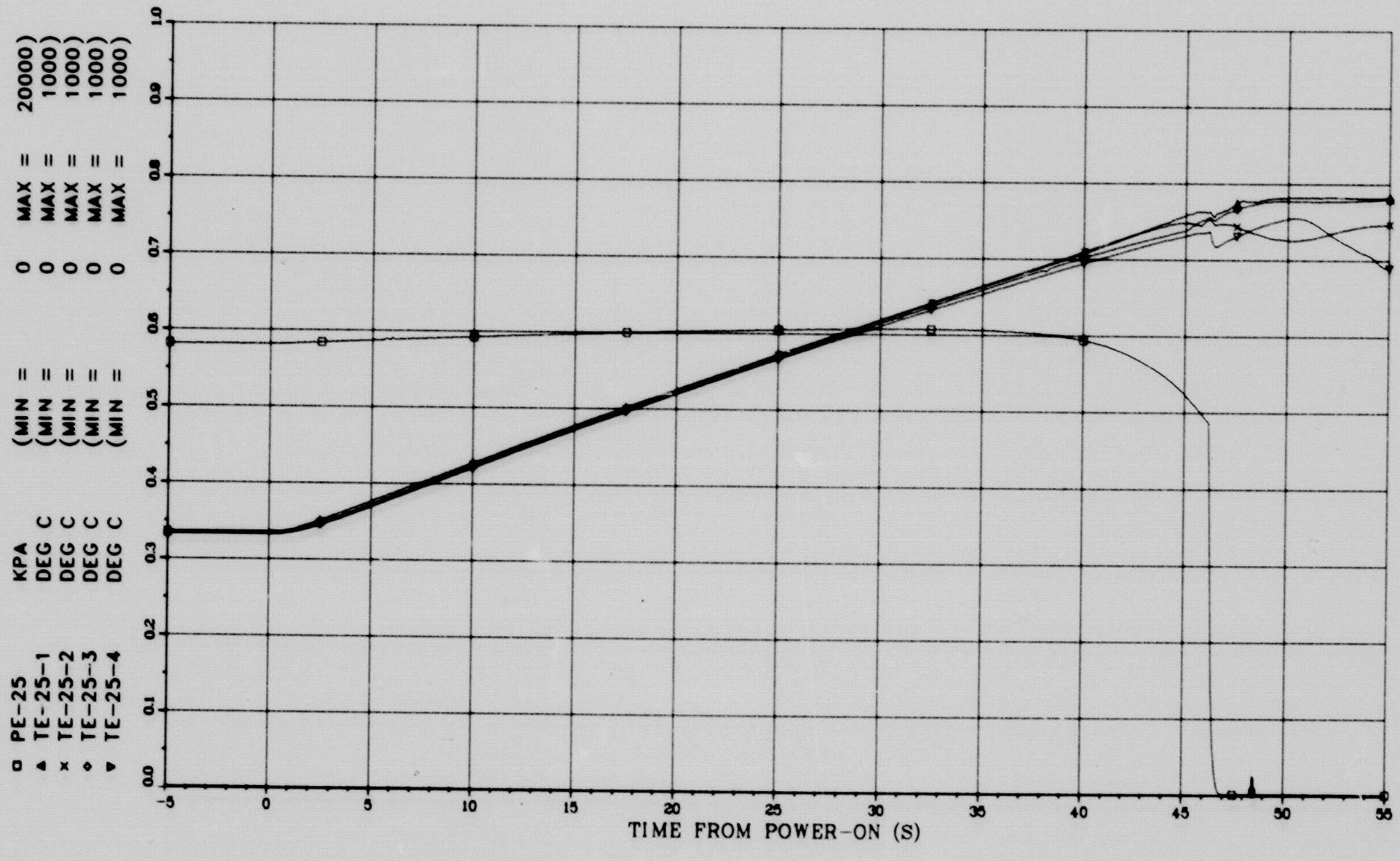


FIG. A-26. PRESSURE AND TEMPERATURE OF ROD NO. 26

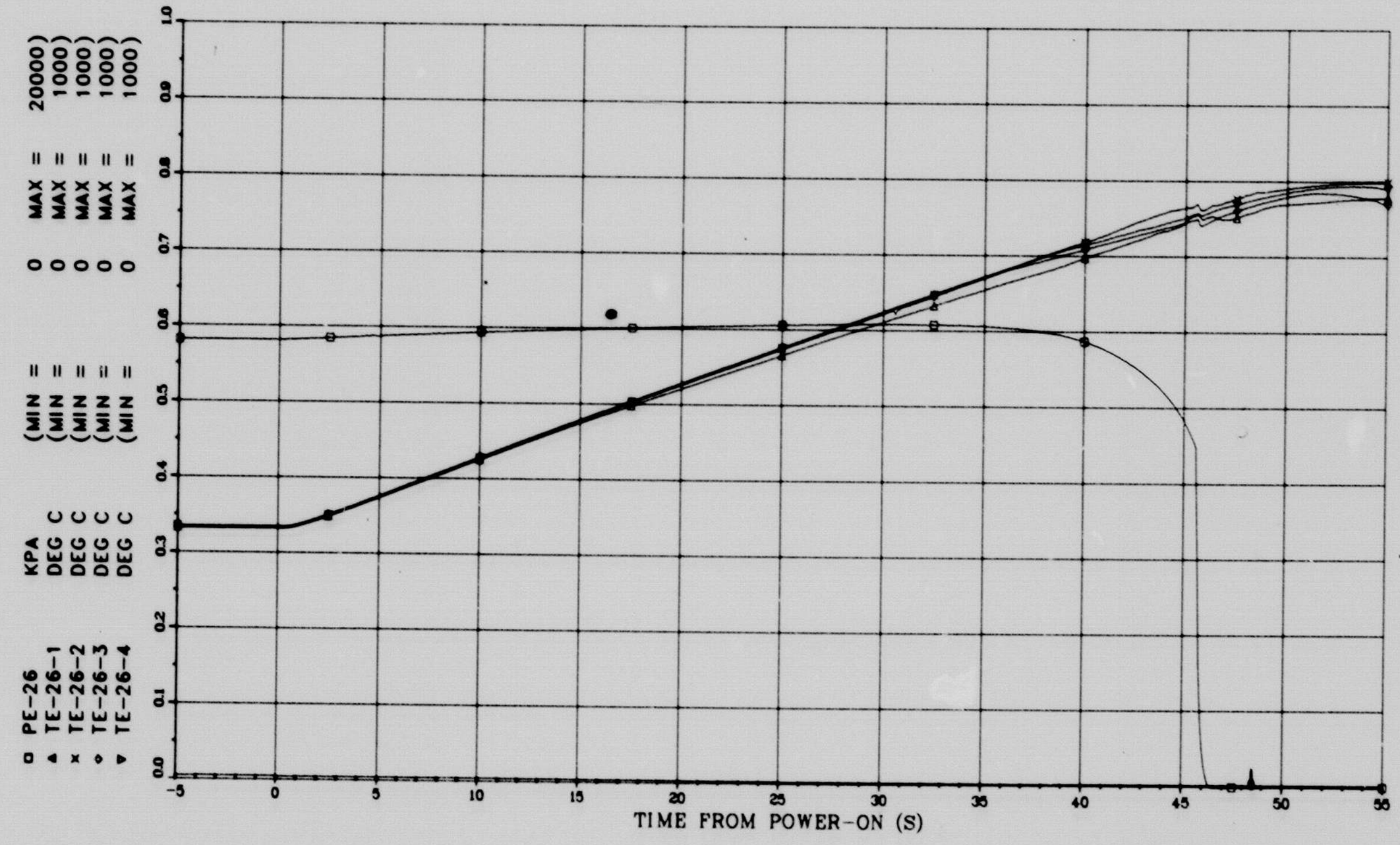


FIG. A-27. PRESSURE AND TEMPERATURE OF ROD NO. 27

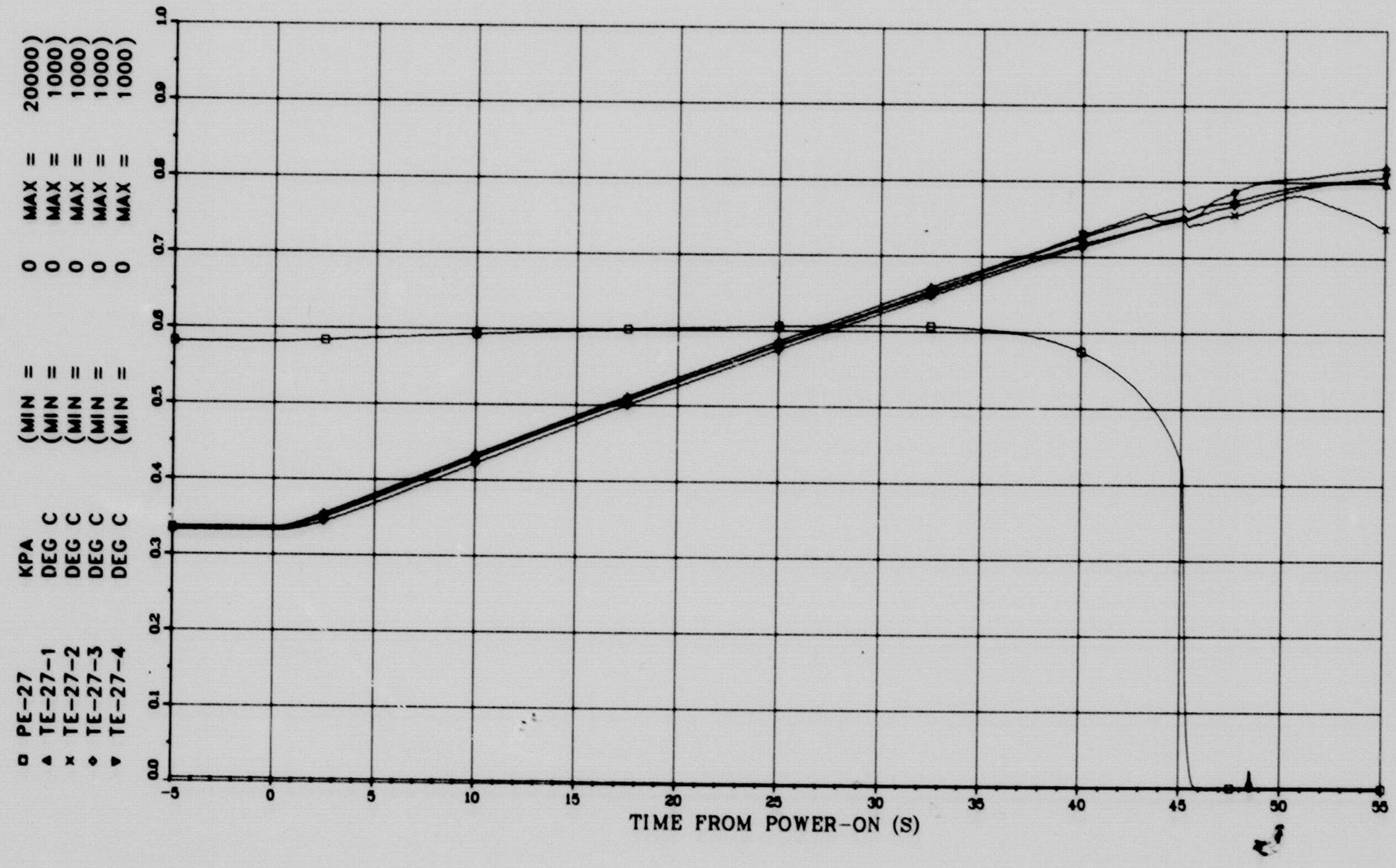


FIG. A-28. PRESSURE AND TEMPERATURE OF ROD NO. 28

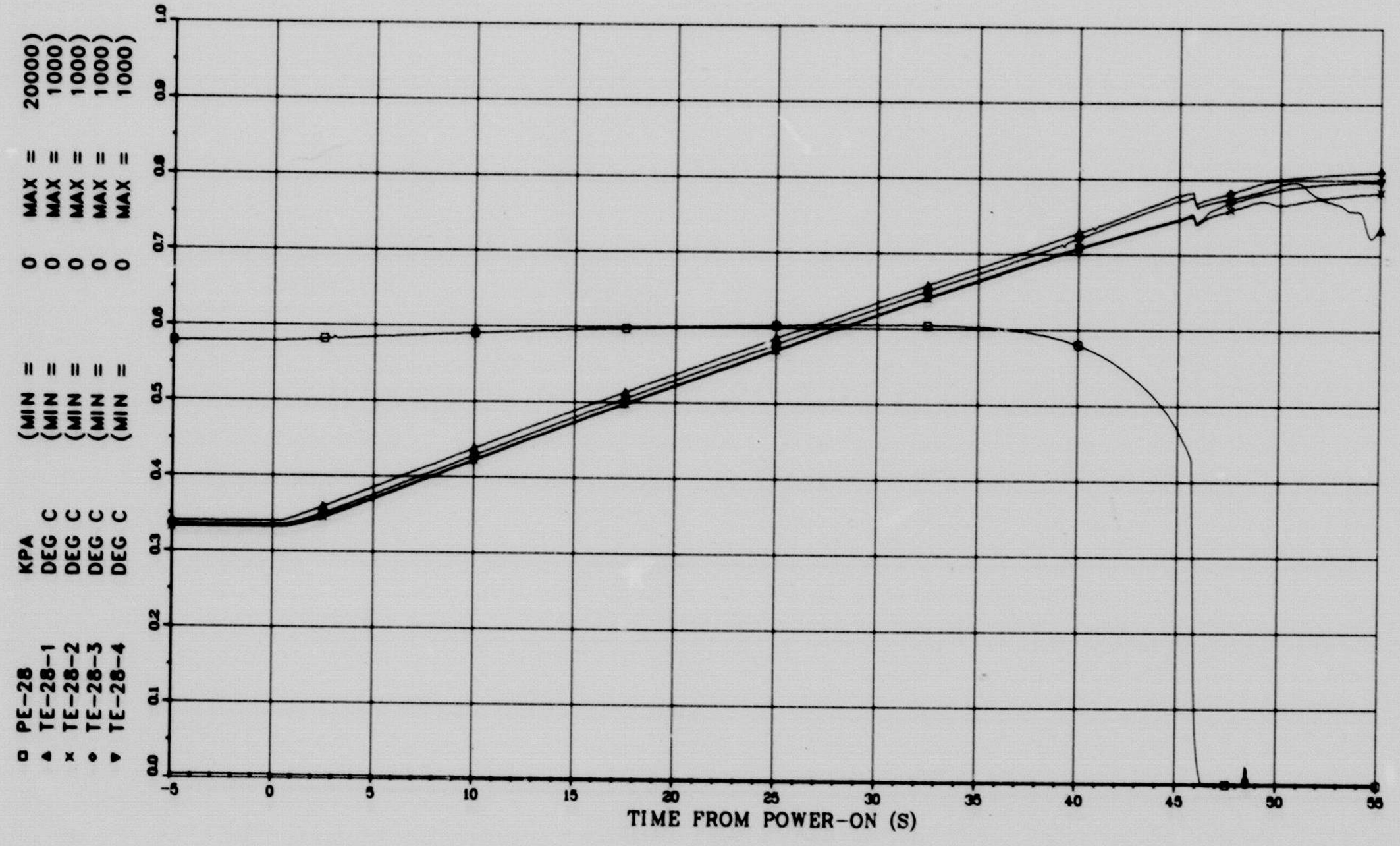


FIG. A-29. PRESSURE AND TEMPERATURE OF ROD NO. 29

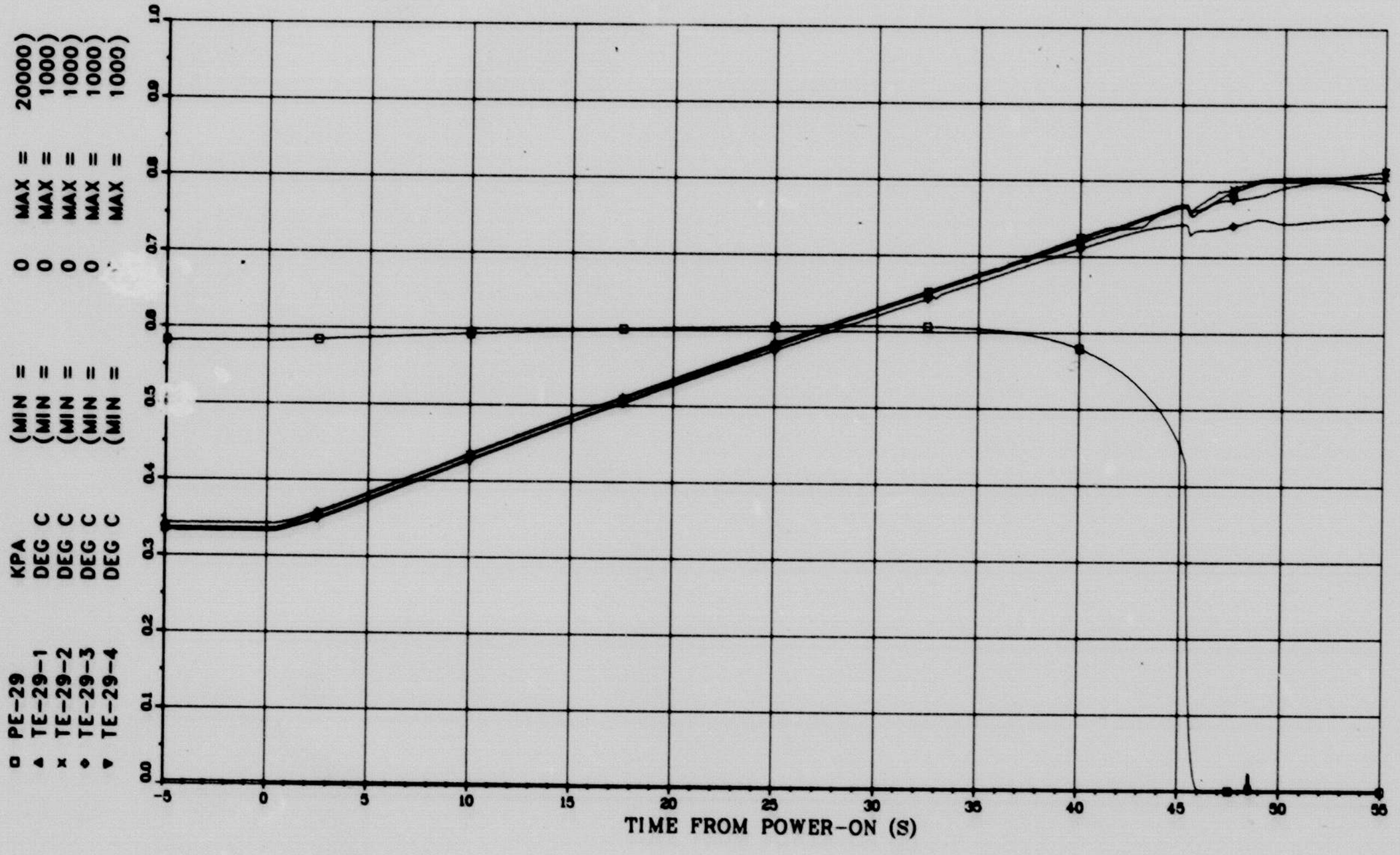


FIG. A-30. PRESSURE AND TEMPERATURE OF ROD NO. 30

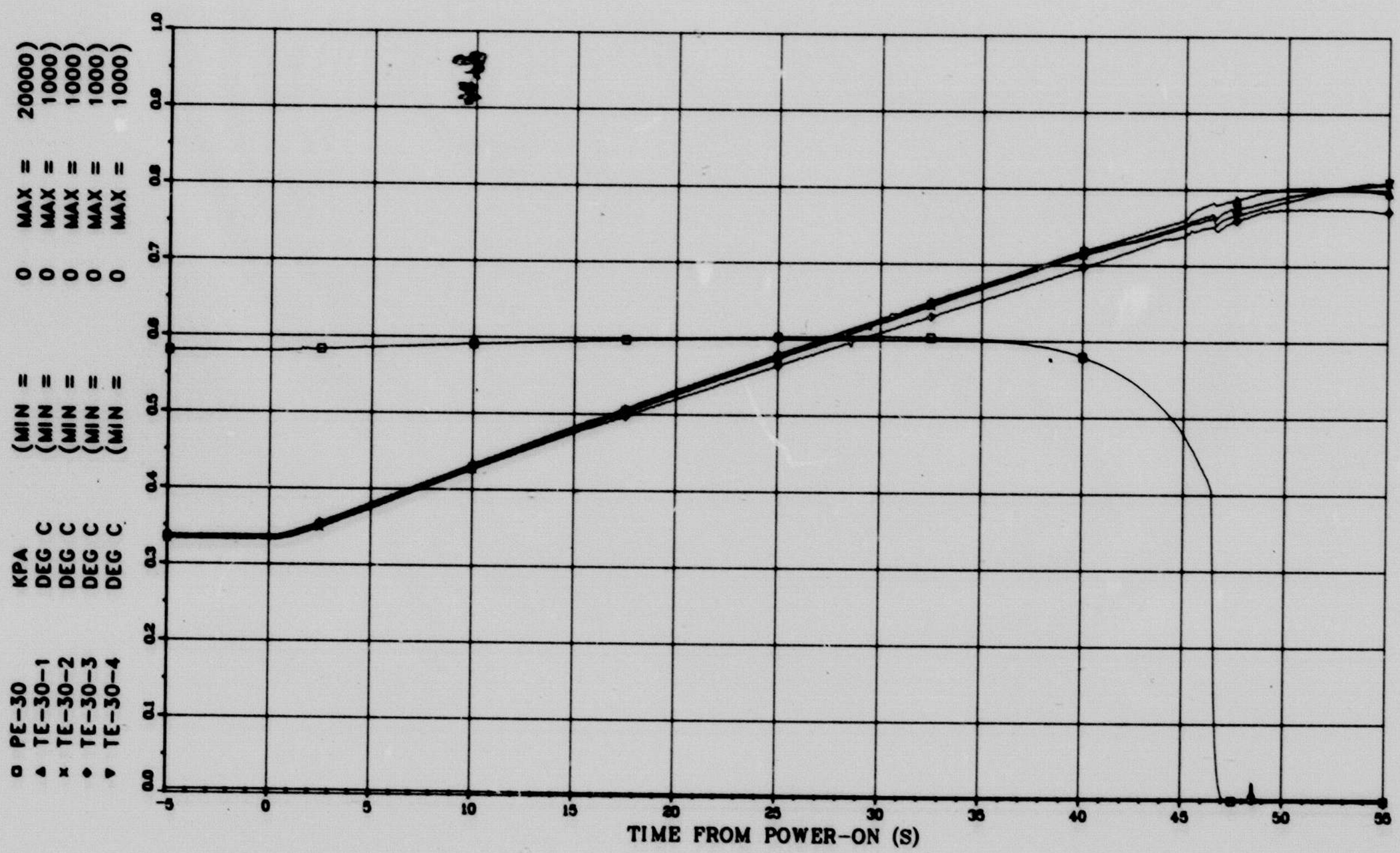


FIG. A-31. PRESSURE AND TEMPERATURE OF ROD NO. 31

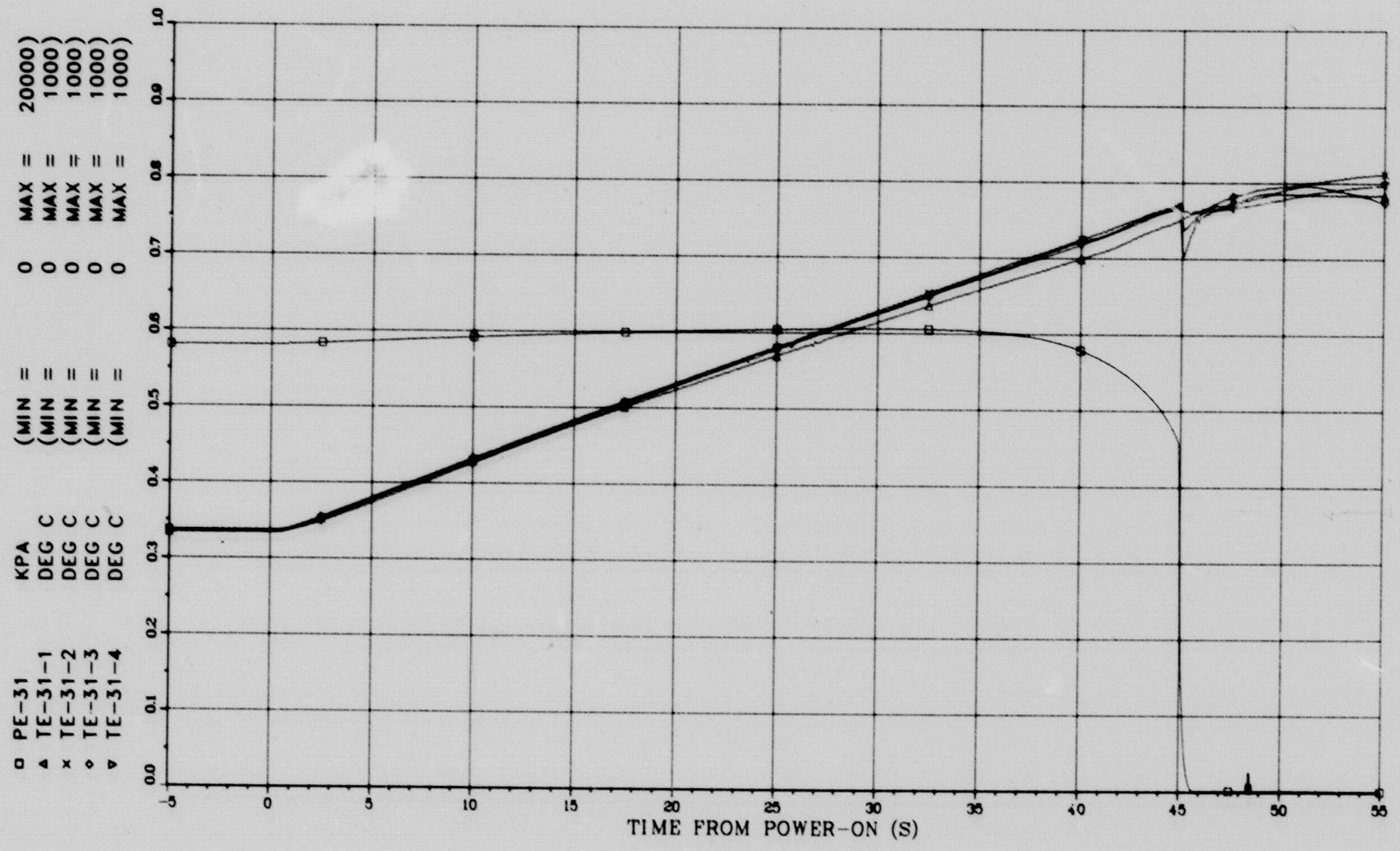


FIG. A-32. PRESSURE AND TEMPERATURE OF ROD NO. 32

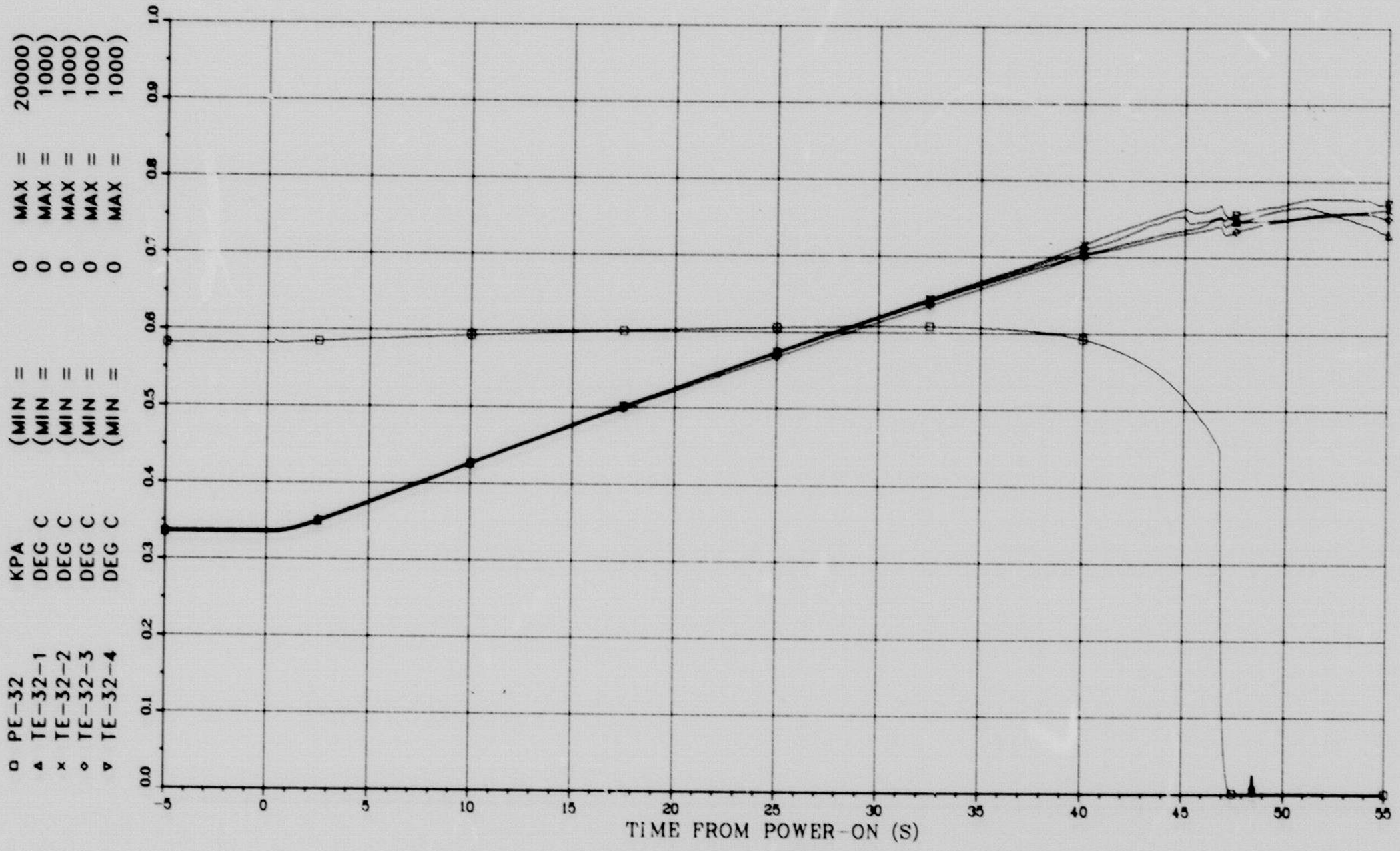


FIG. A-33. PRESSURE AND TEMPERATURE OF ROD NO. 33

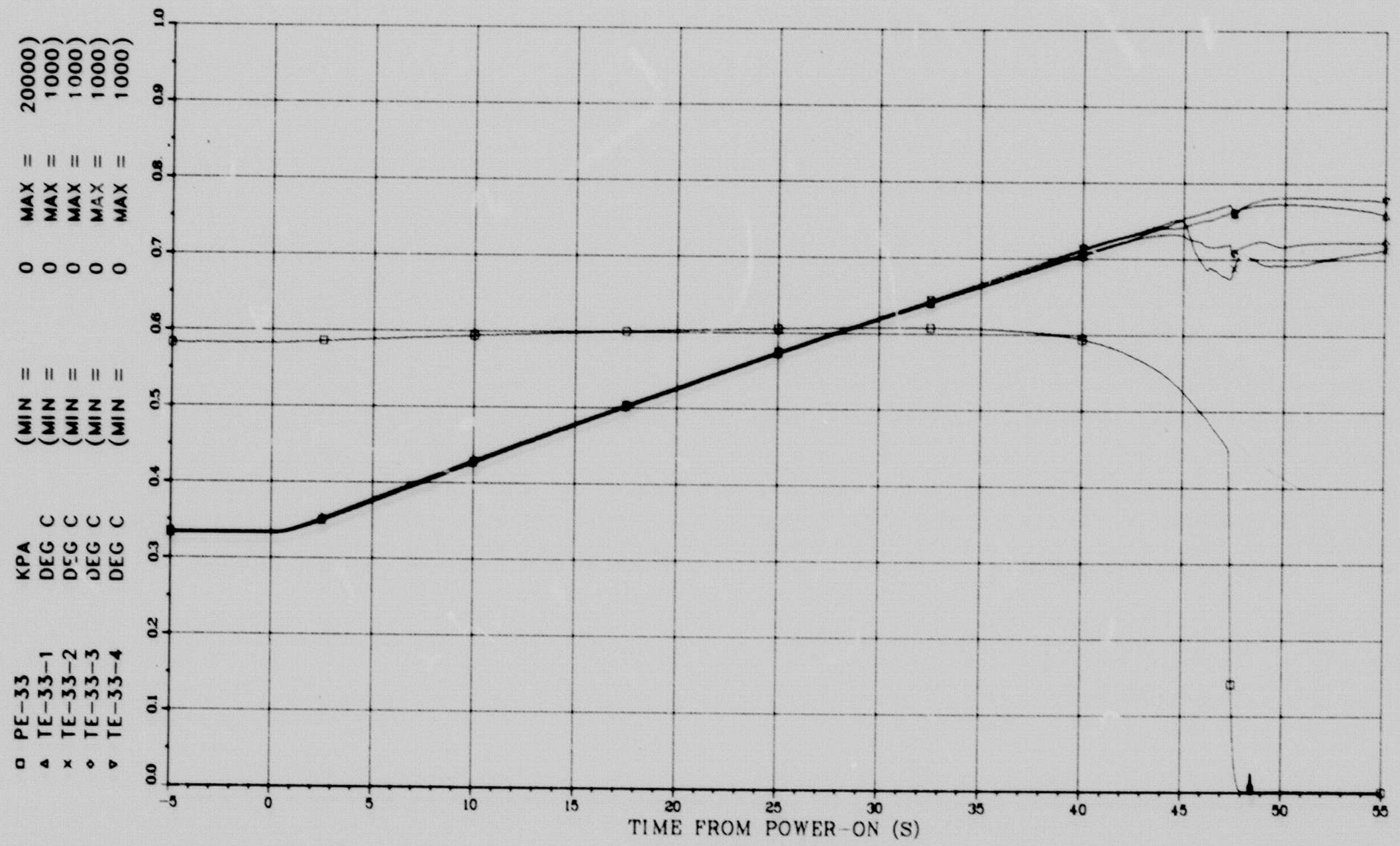


FIG. A-34. PRESSURE AND TEMPERATURE OF ROD NO. 34

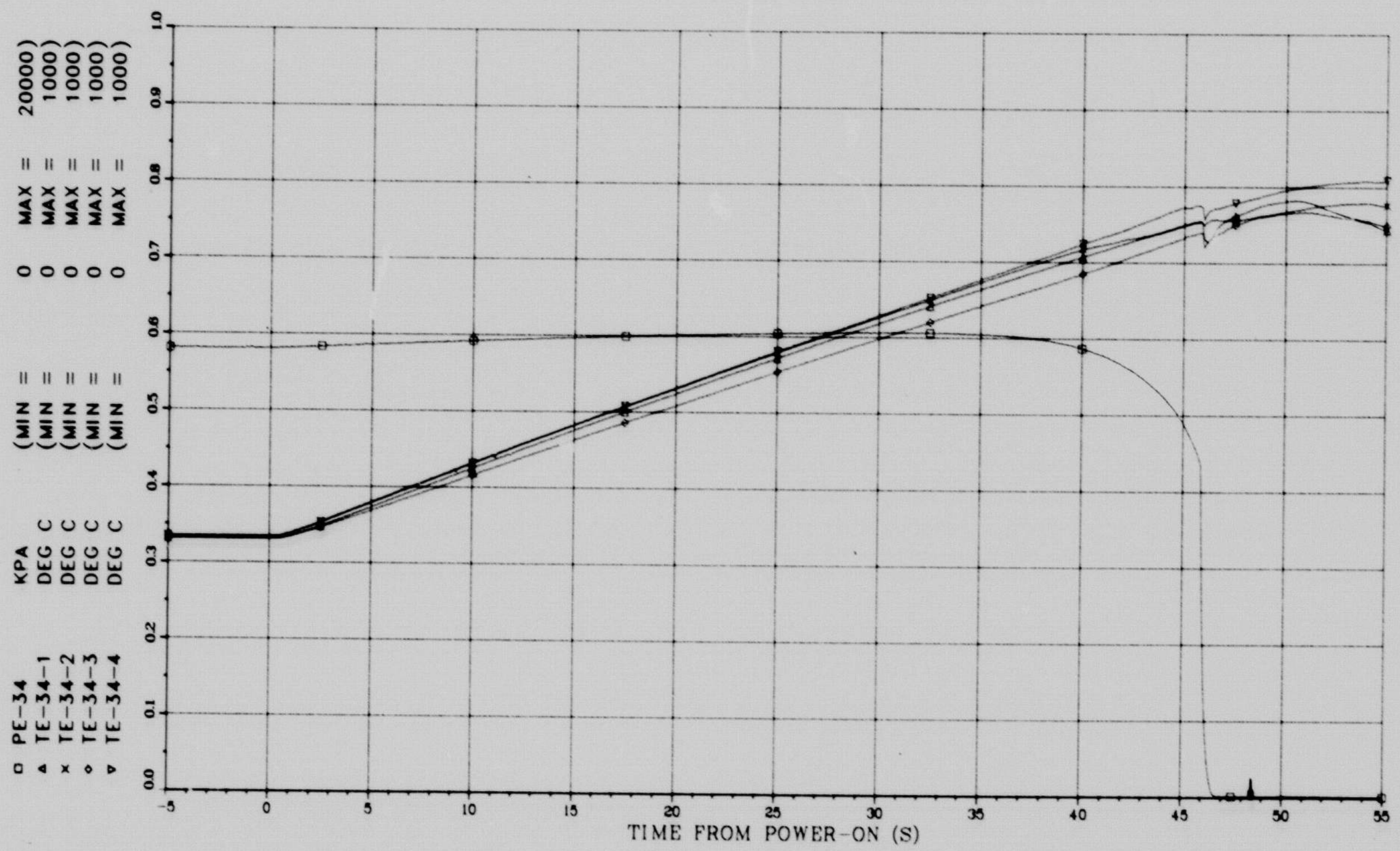


FIG. A-35. PRESSURE AND TEMPERATURE OF ROD NO. 35

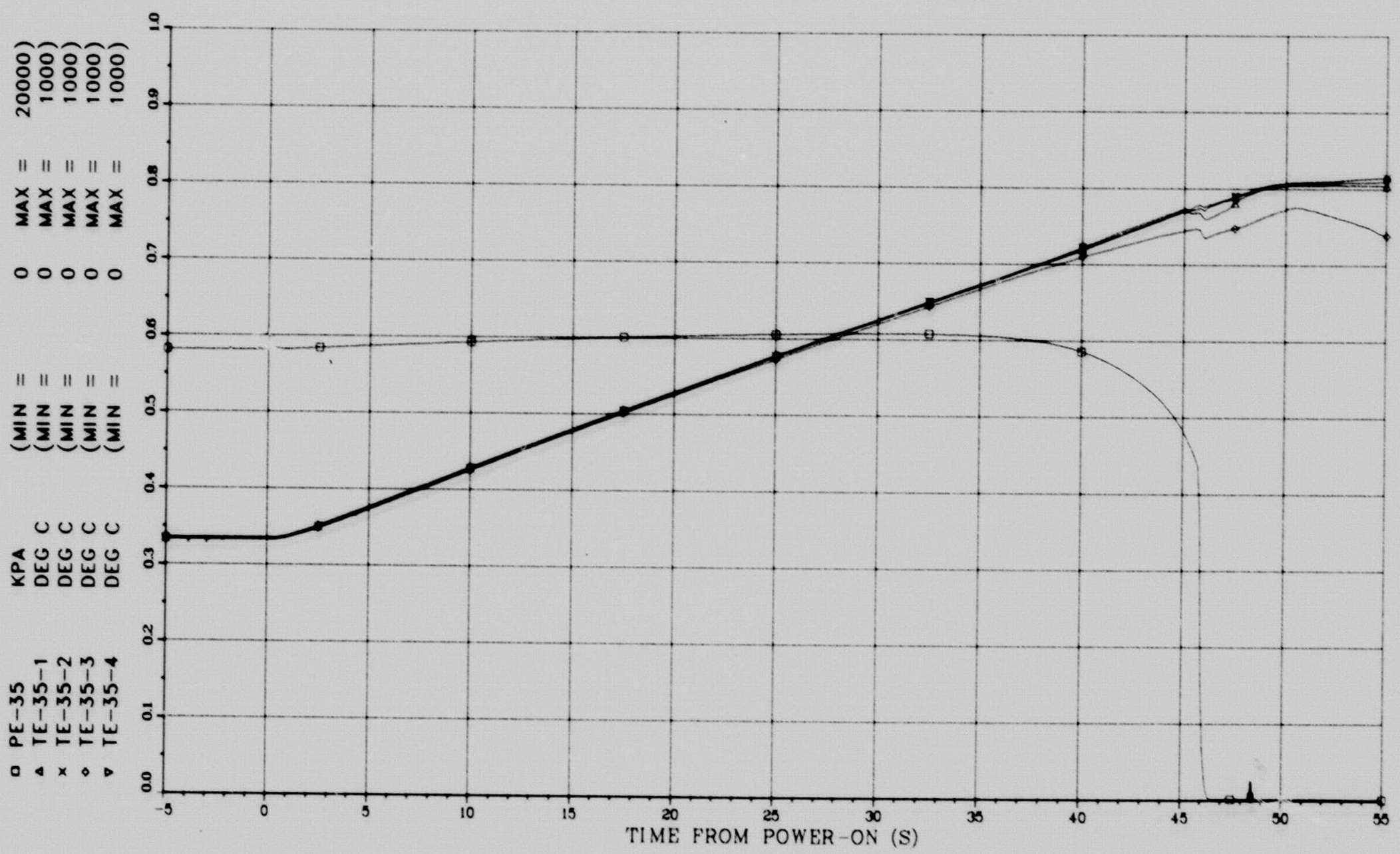


FIG. A-36. PRESSURE AND TEMPERATURE OF ROD NO. 36

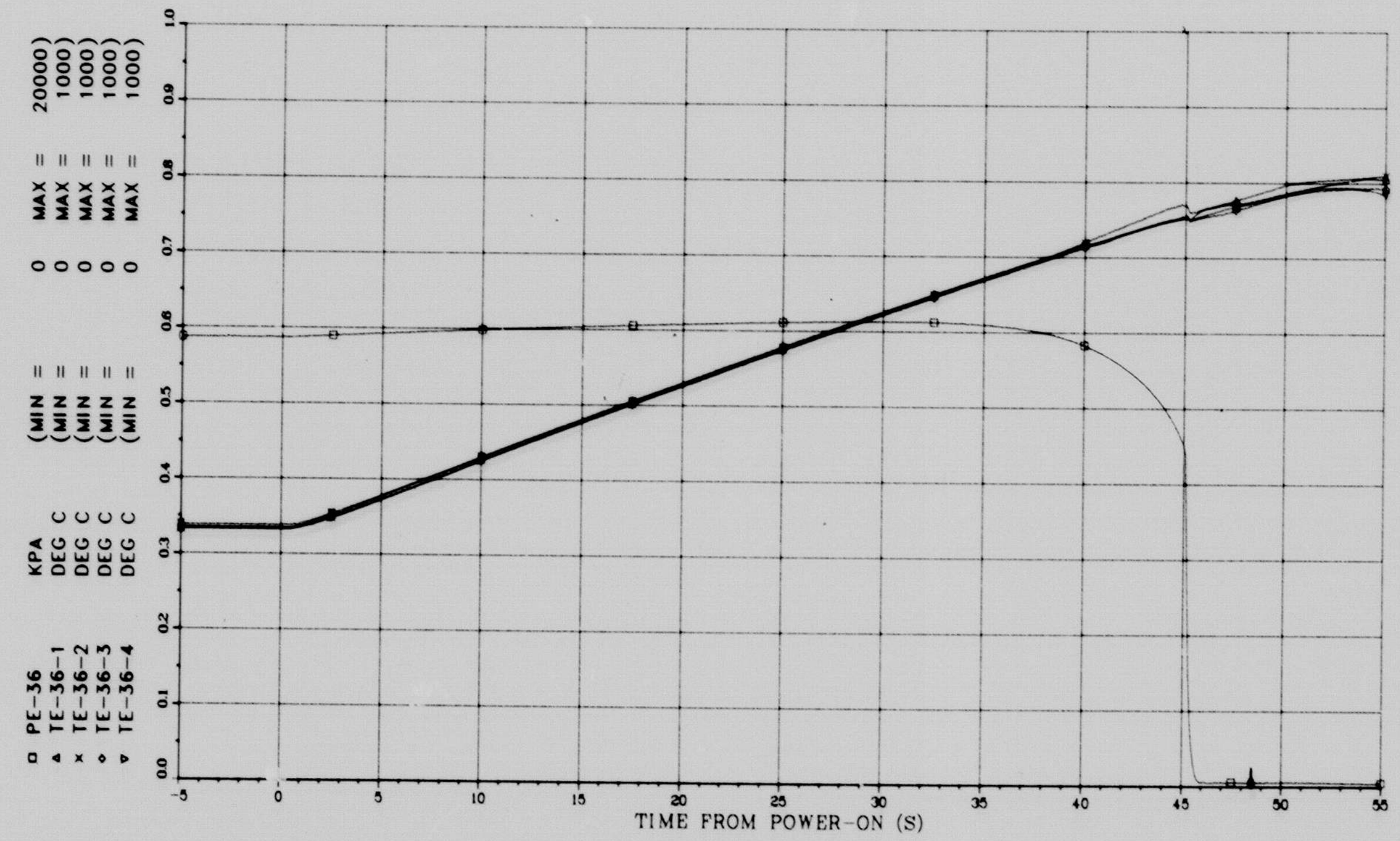


FIG. A-37. PRESSURE AND TEMPERATURE OF ROD NO. 37

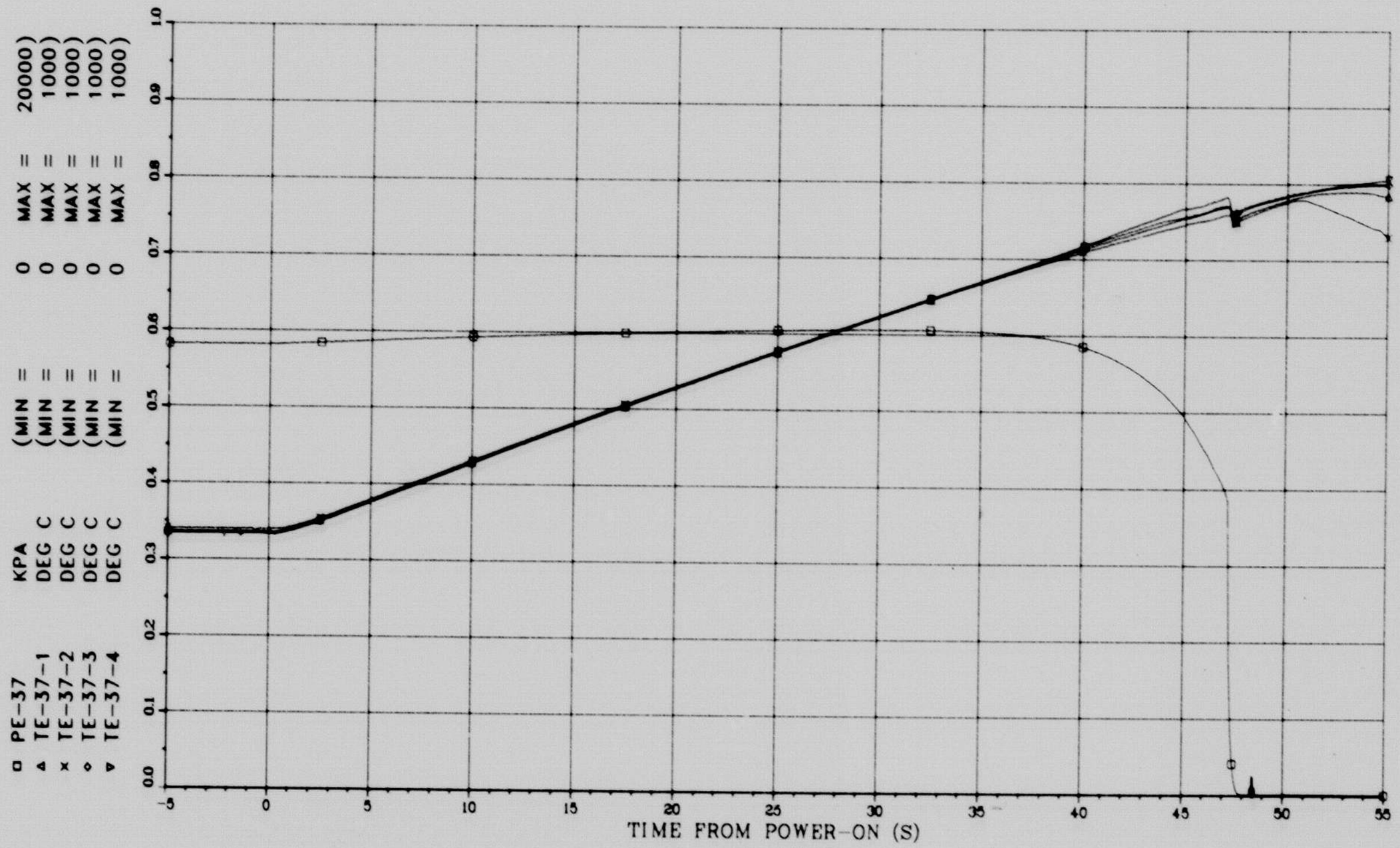


FIG. A-38. PRESSURE AND TEMPERATURE OF ROD NO. 38

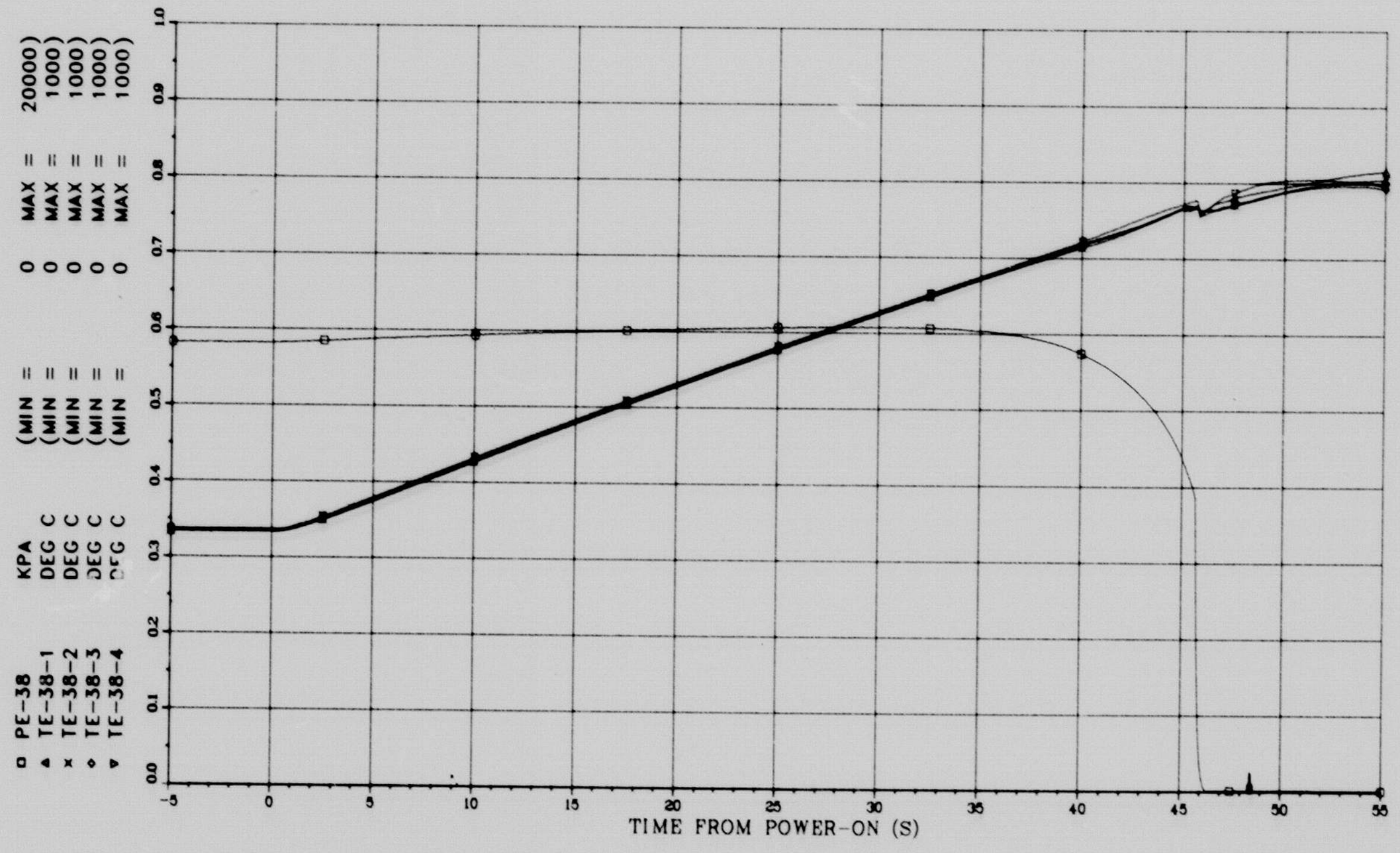


FIG. A-39. PRESSURE AND TEMPERATURE OF ROD NO. 39

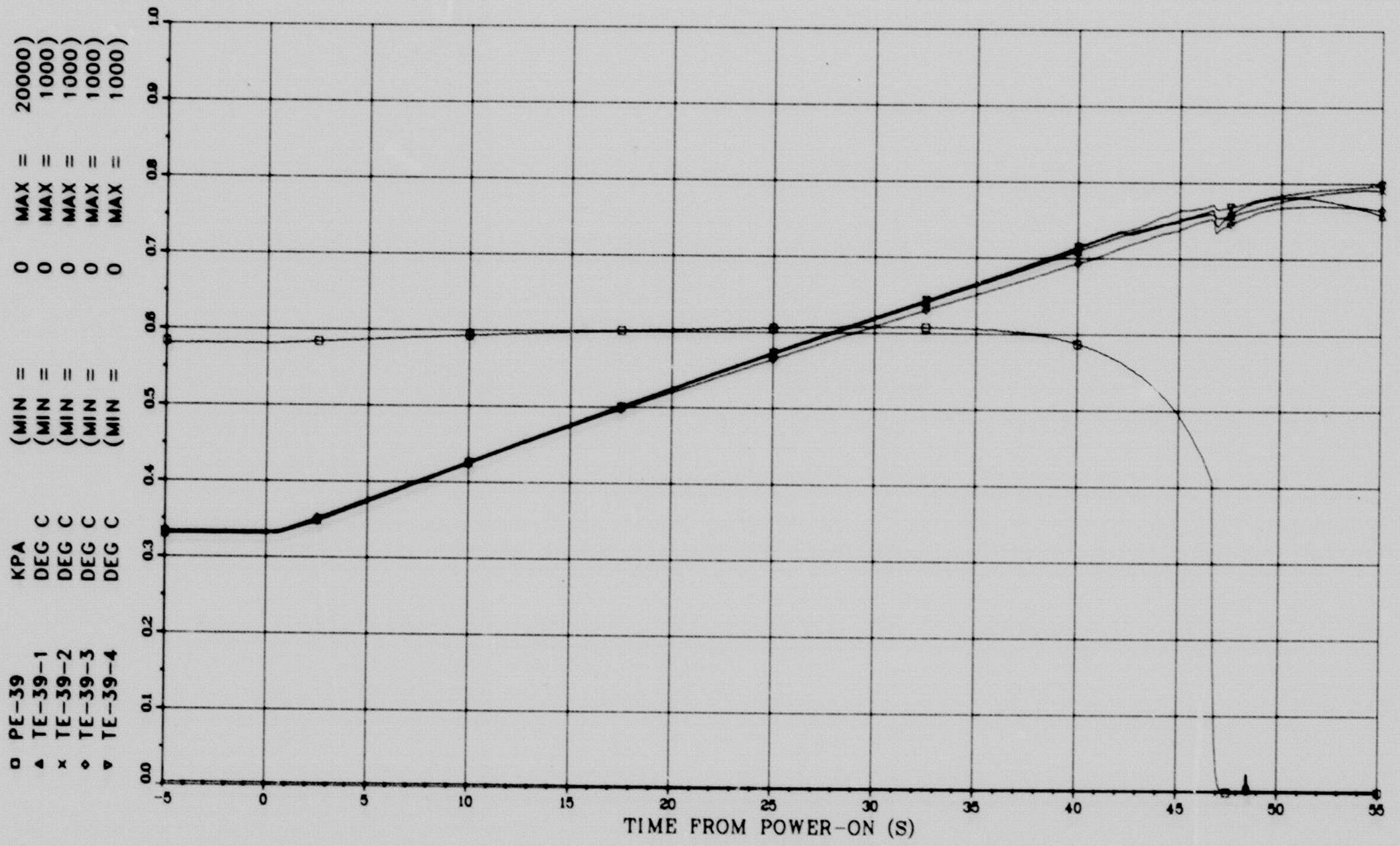


FIG. A-40. PRESSURE AND TEMPERATURE OF ROD NO. 40

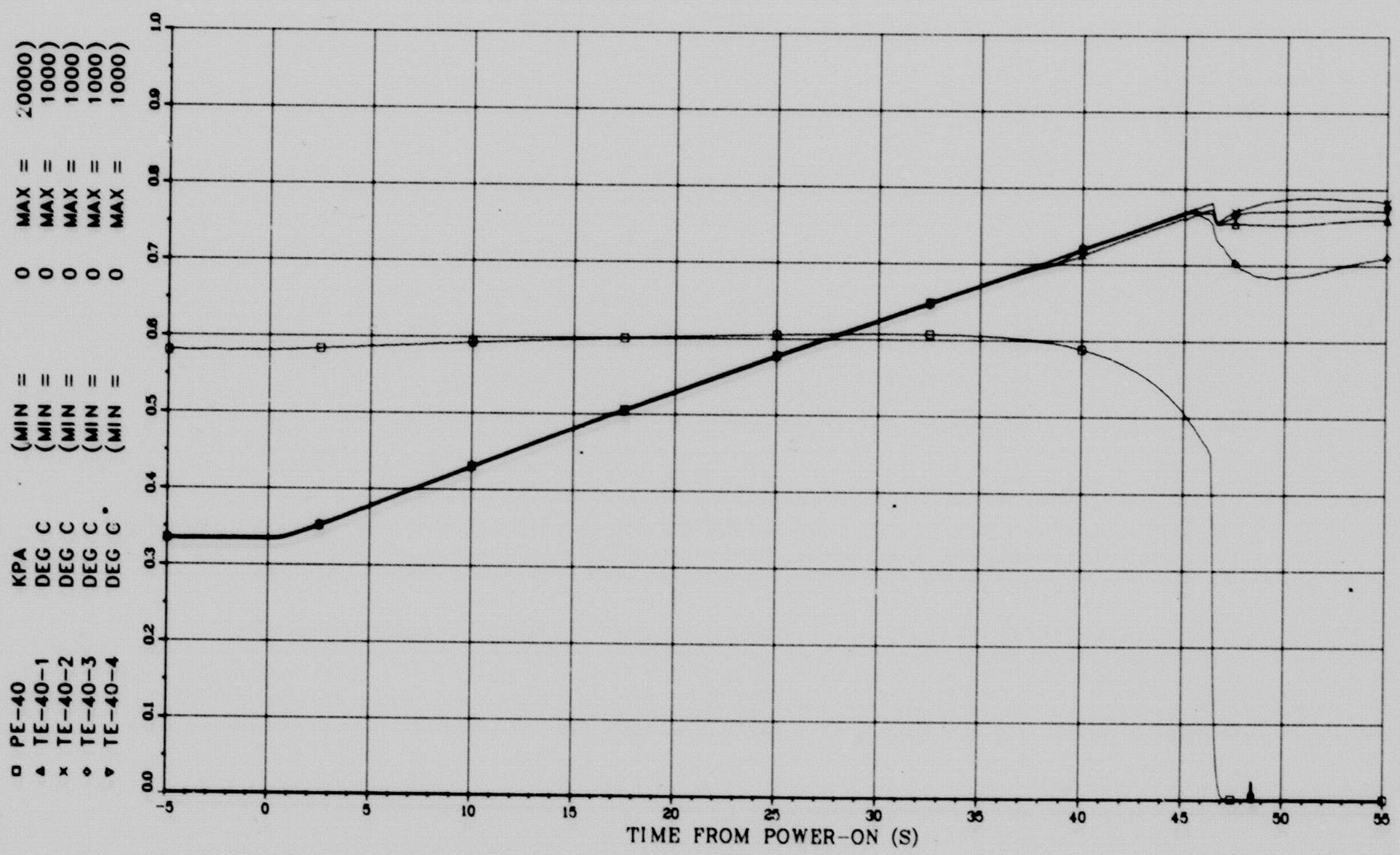


FIG. A-41. PRESSURE AND TEMPERATURE OF ROD NO. 41

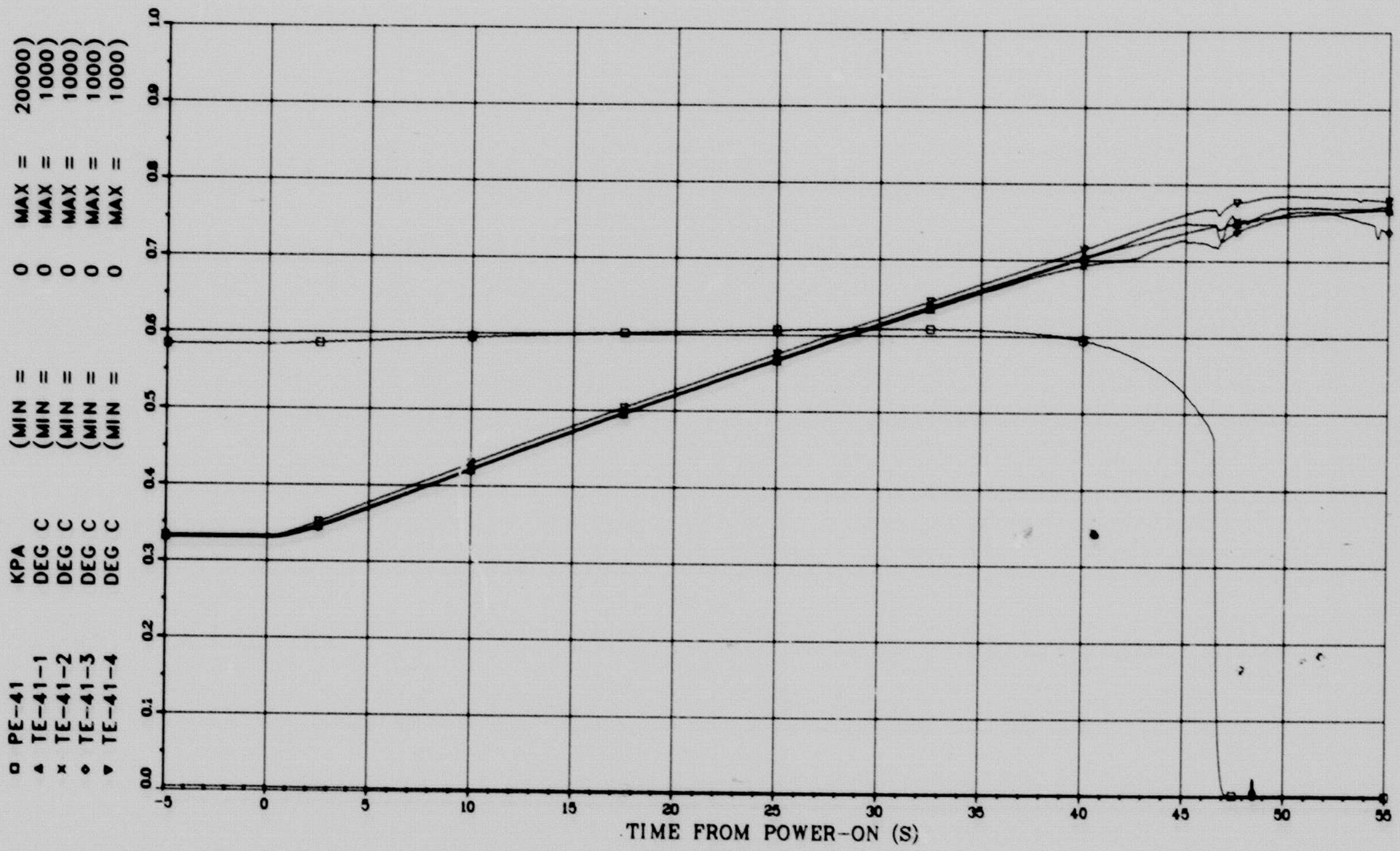


FIG. A-42. PRESSURE AND TEMPERATURE OF ROD NO. 42

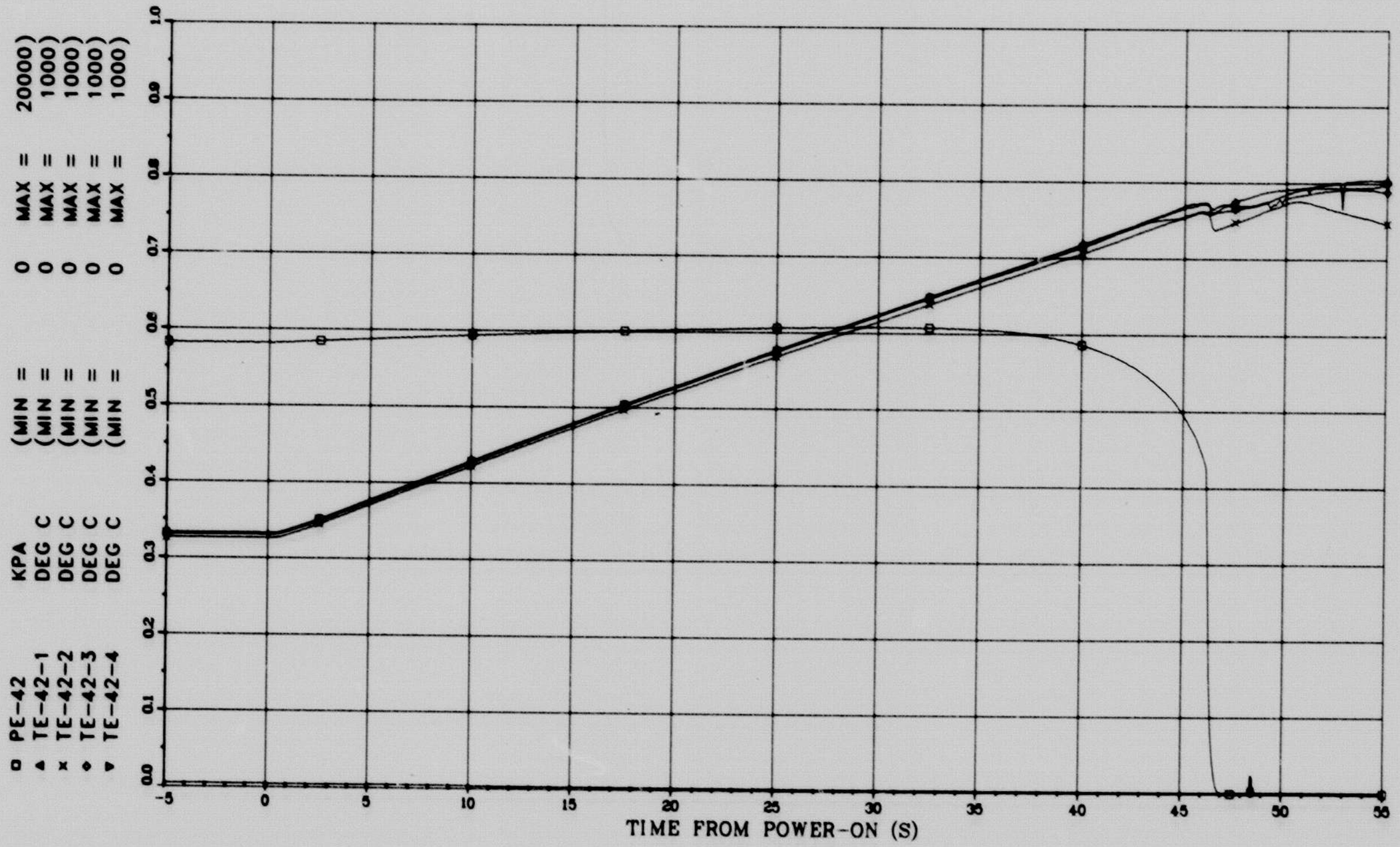


FIG. A-43. PRESSURE AND TEMPERATURE OF ROD NO. 43

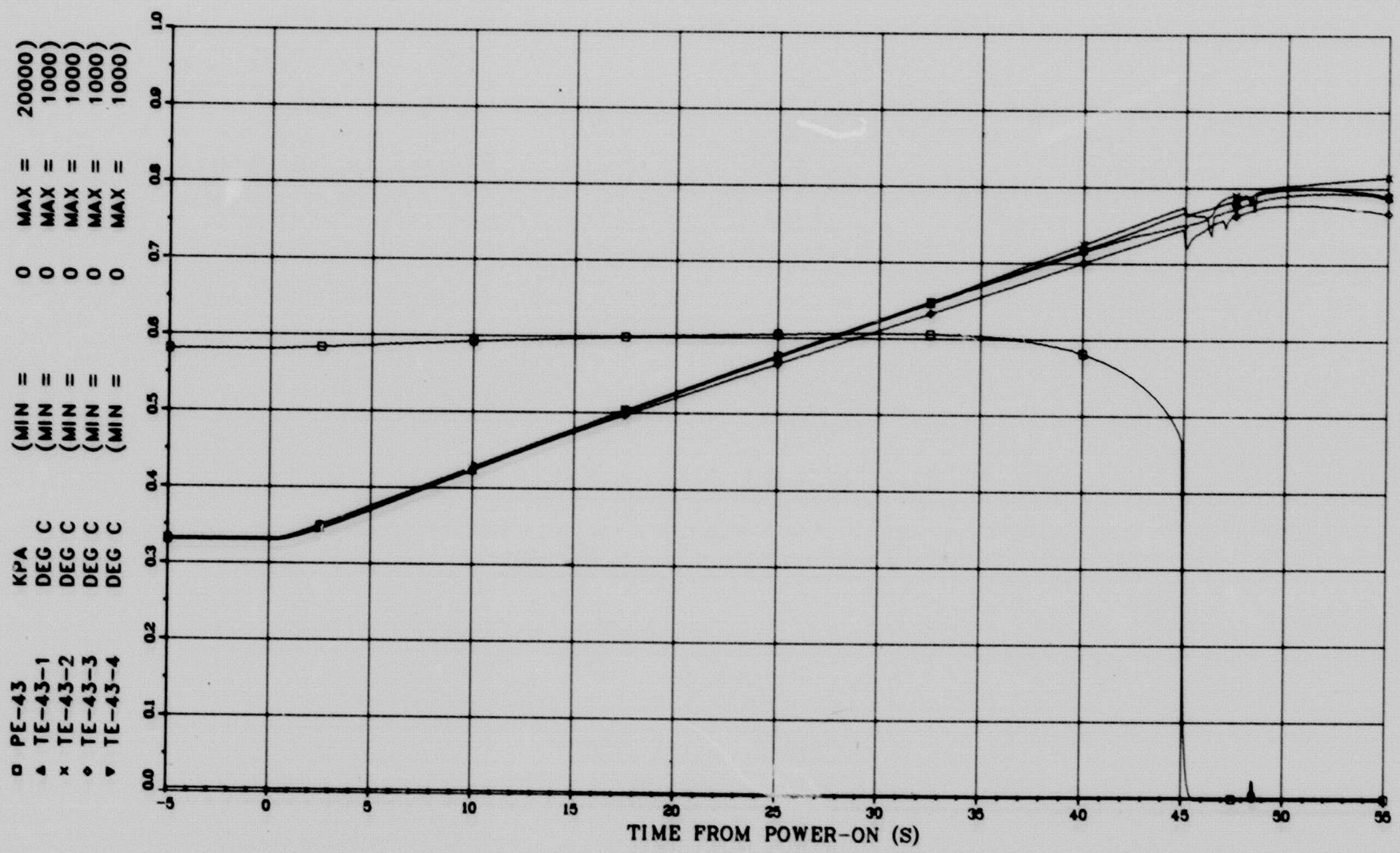


FIG. A-44. PRESSURE AND TEMPERATURE OF ROD NO. 44

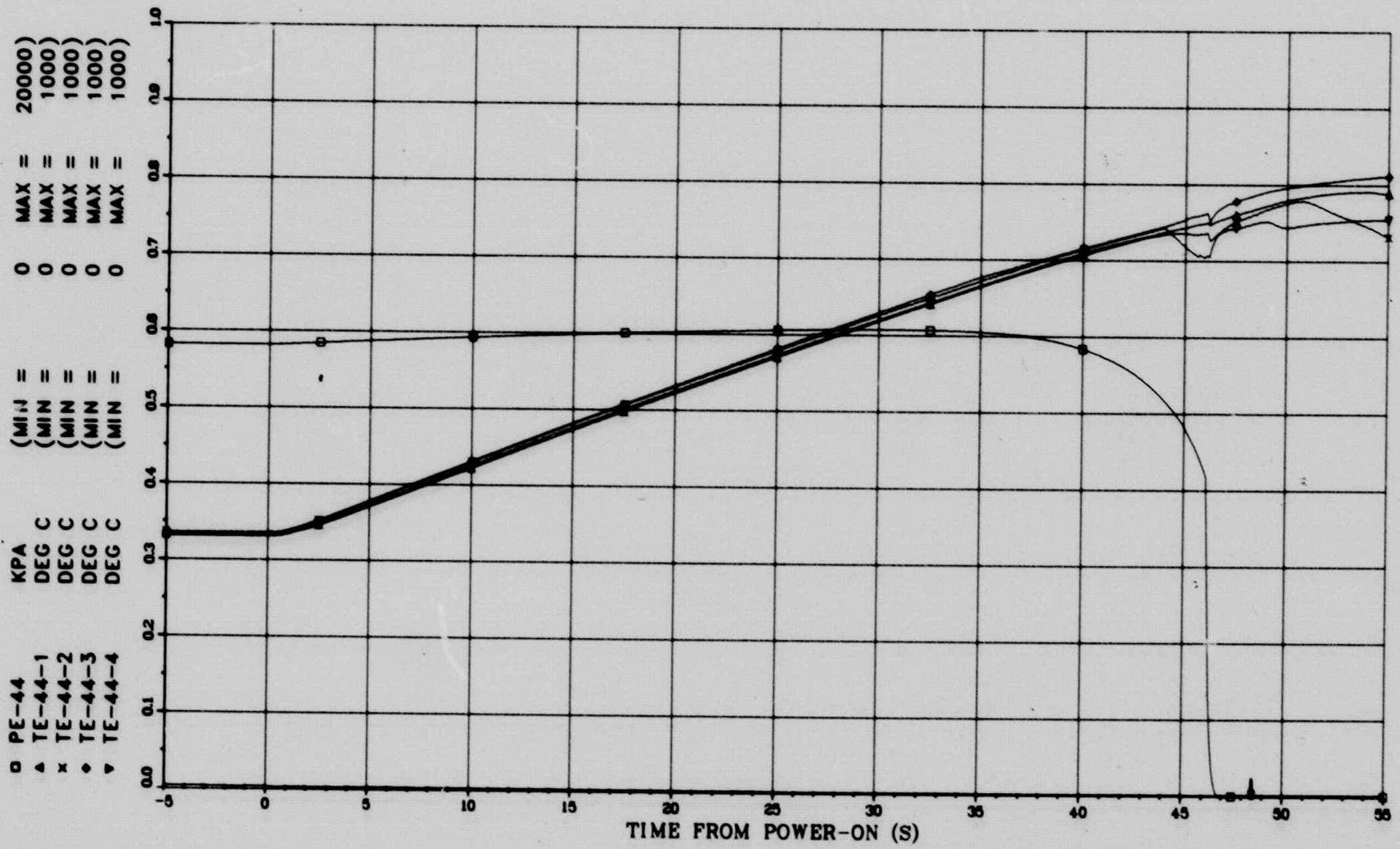


FIG. A-45. PRESSURE AND TEMPERATURE OF ROD NO. 45

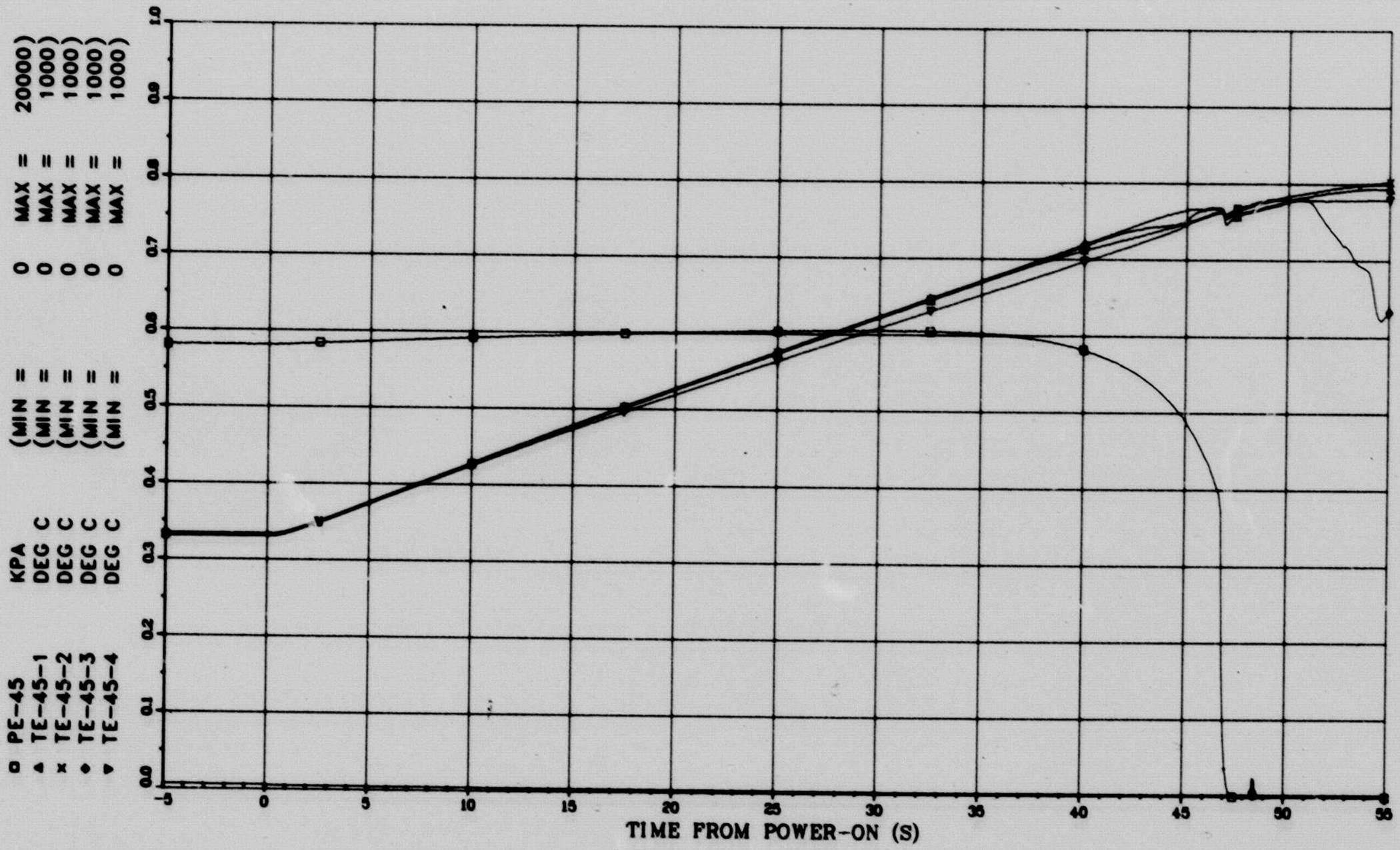


FIG. A-46. PRESSURE AND TEMPERATURE OF ROD NO. 46

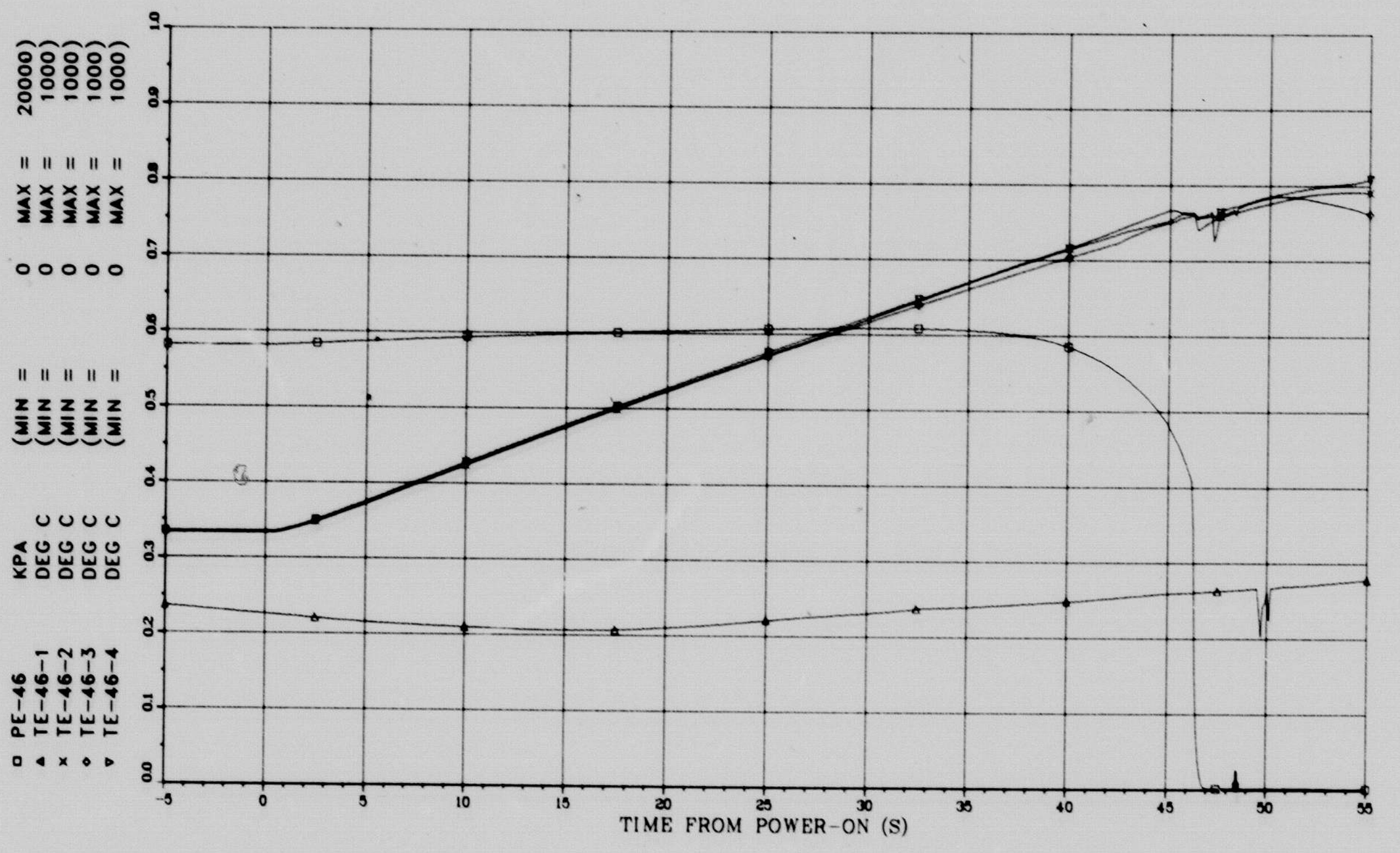


FIG. A-47. PRESSURE AND TEMPERATURE OF ROD NO. 47

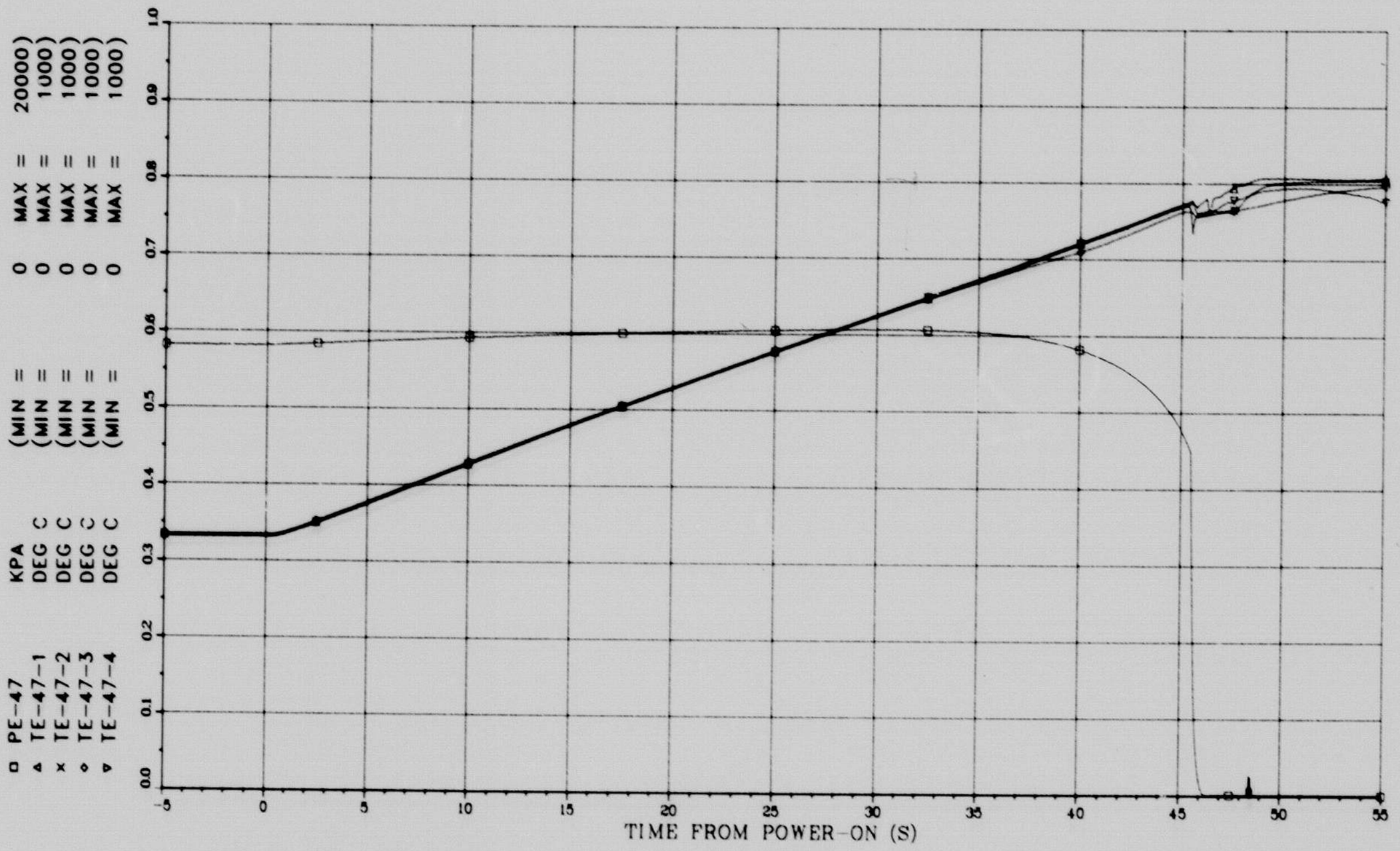


FIG. A-48. PRESSURE AND TEMPERATURE OF ROD NO. 48

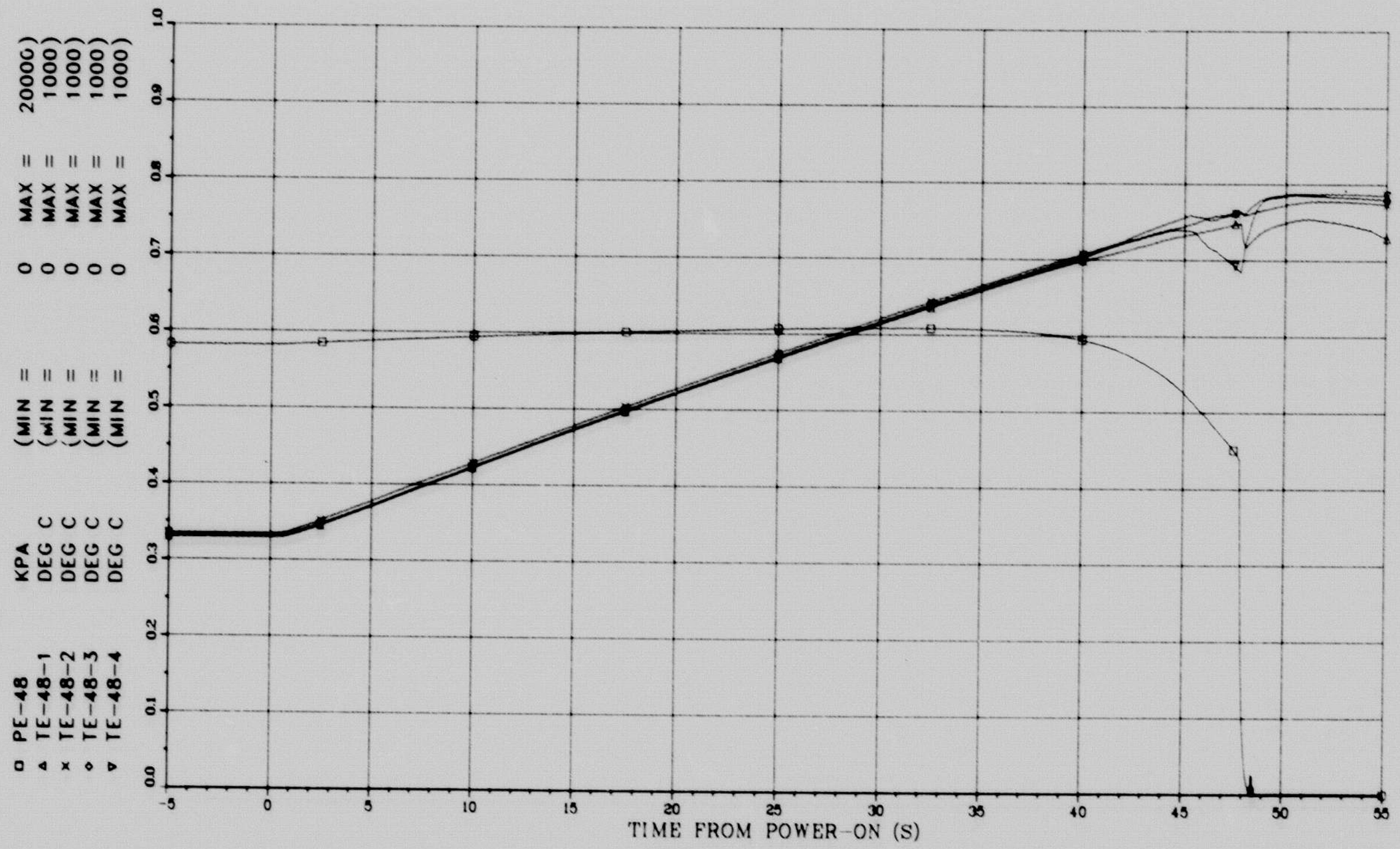


FIG. A-49. PRESSURE AND TEMPERATURE OF ROD NO. 49

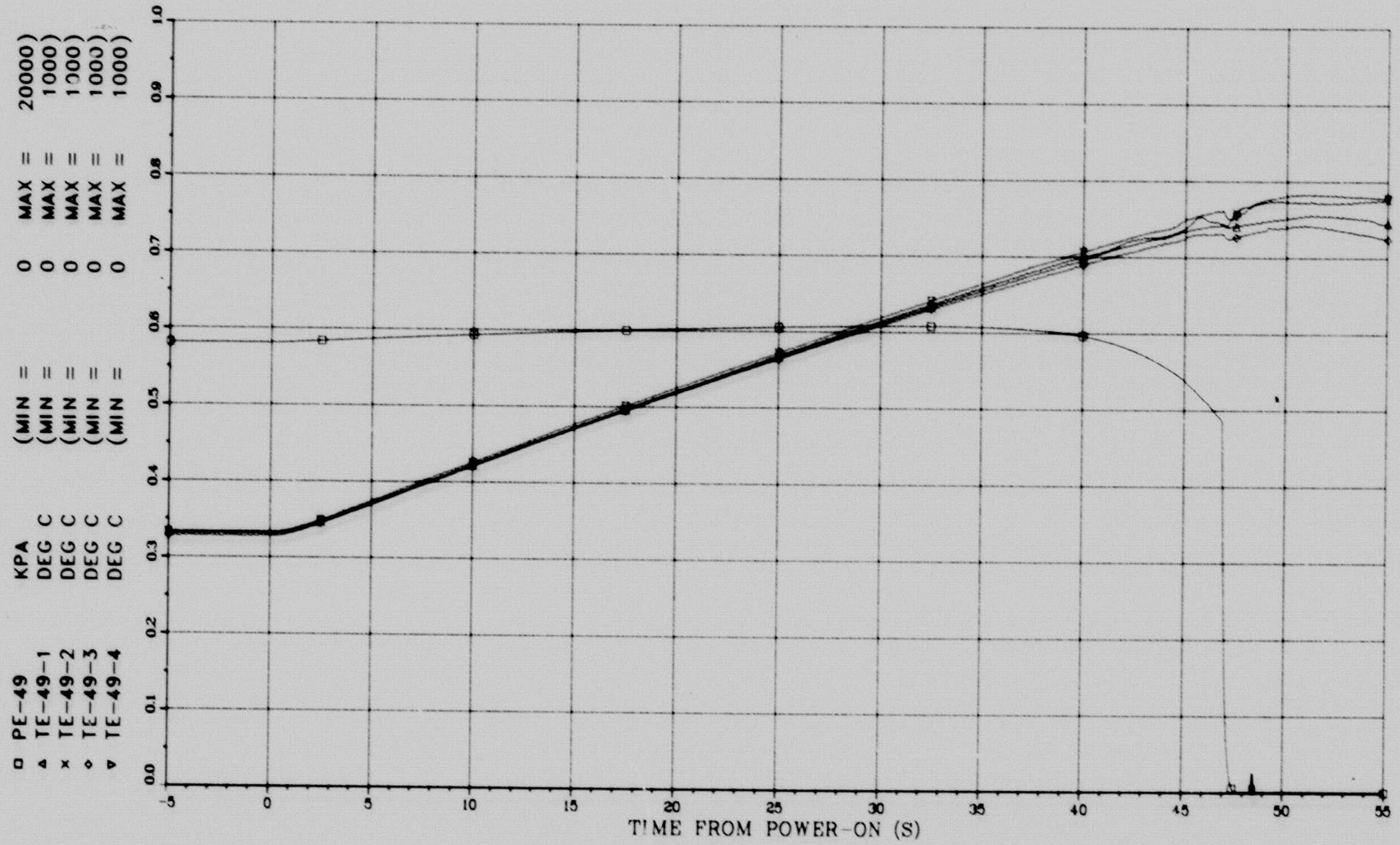


FIG. A-50. PRESSURE AND TEMPERATURE OF ROD NO. 50

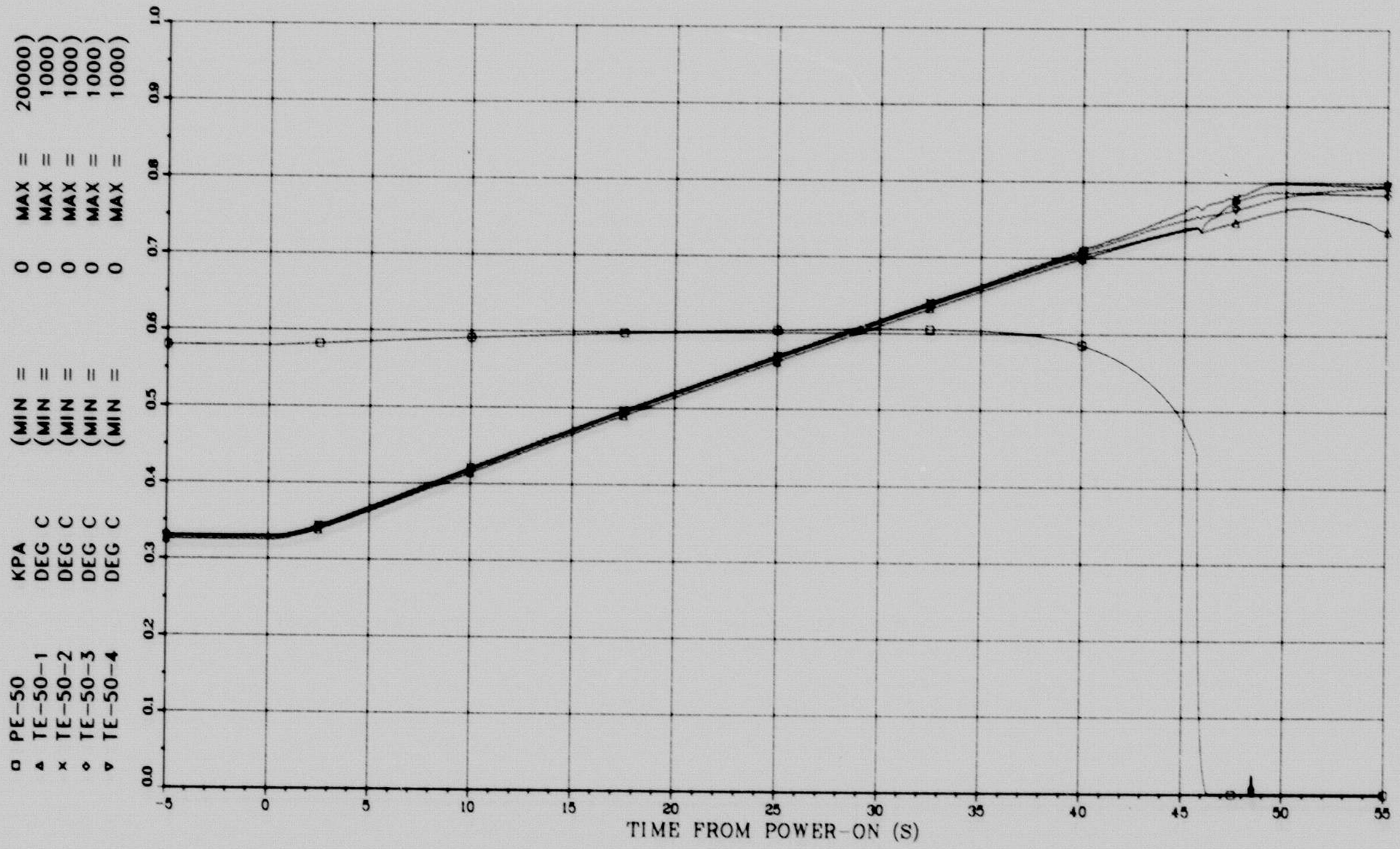


FIG. A-51. PRESSURE AND TEMPERATURE OF ROD NO. 51

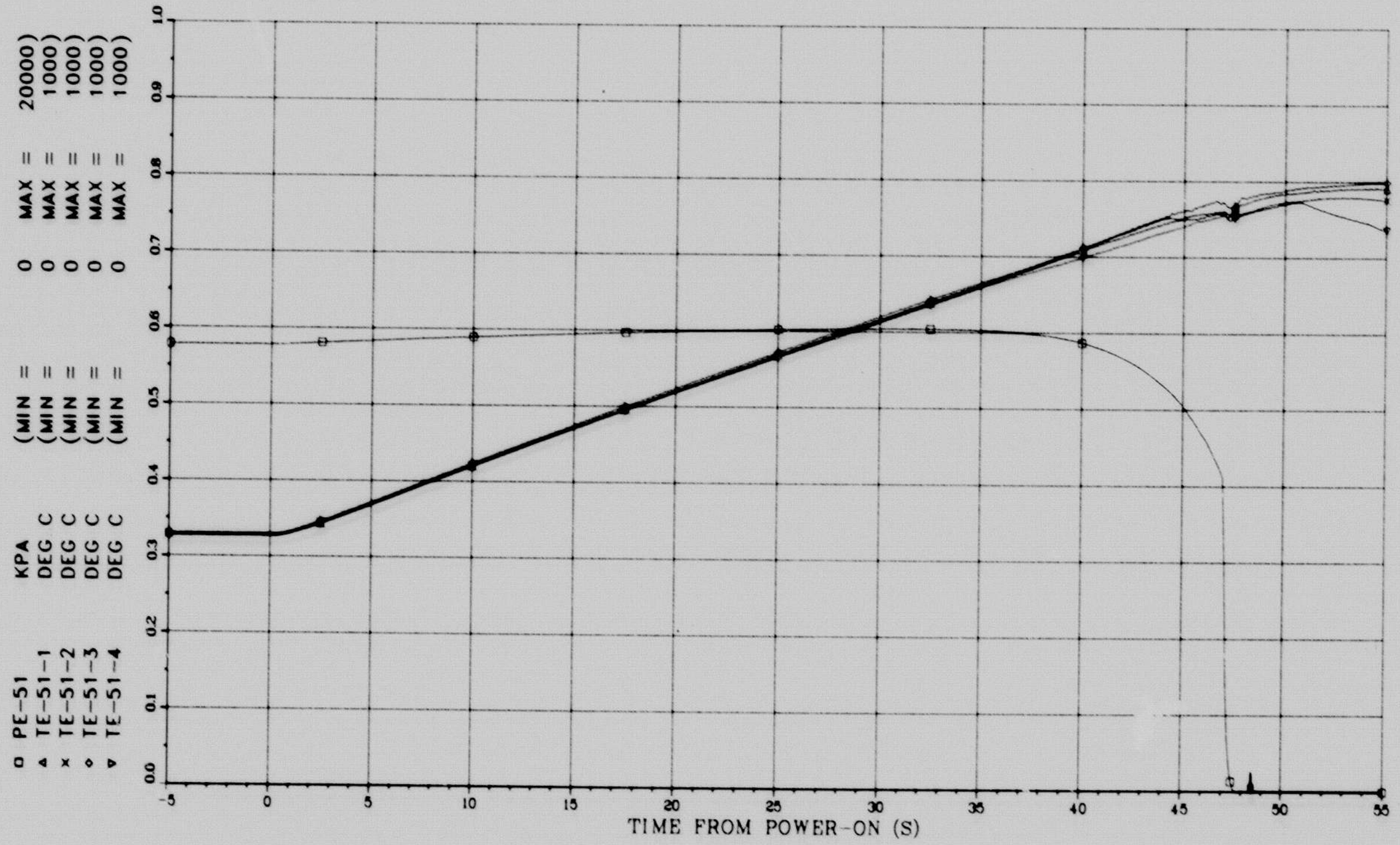


FIG. A-52. PRESSURE AND TEMPERATURE OF ROD NO. 52

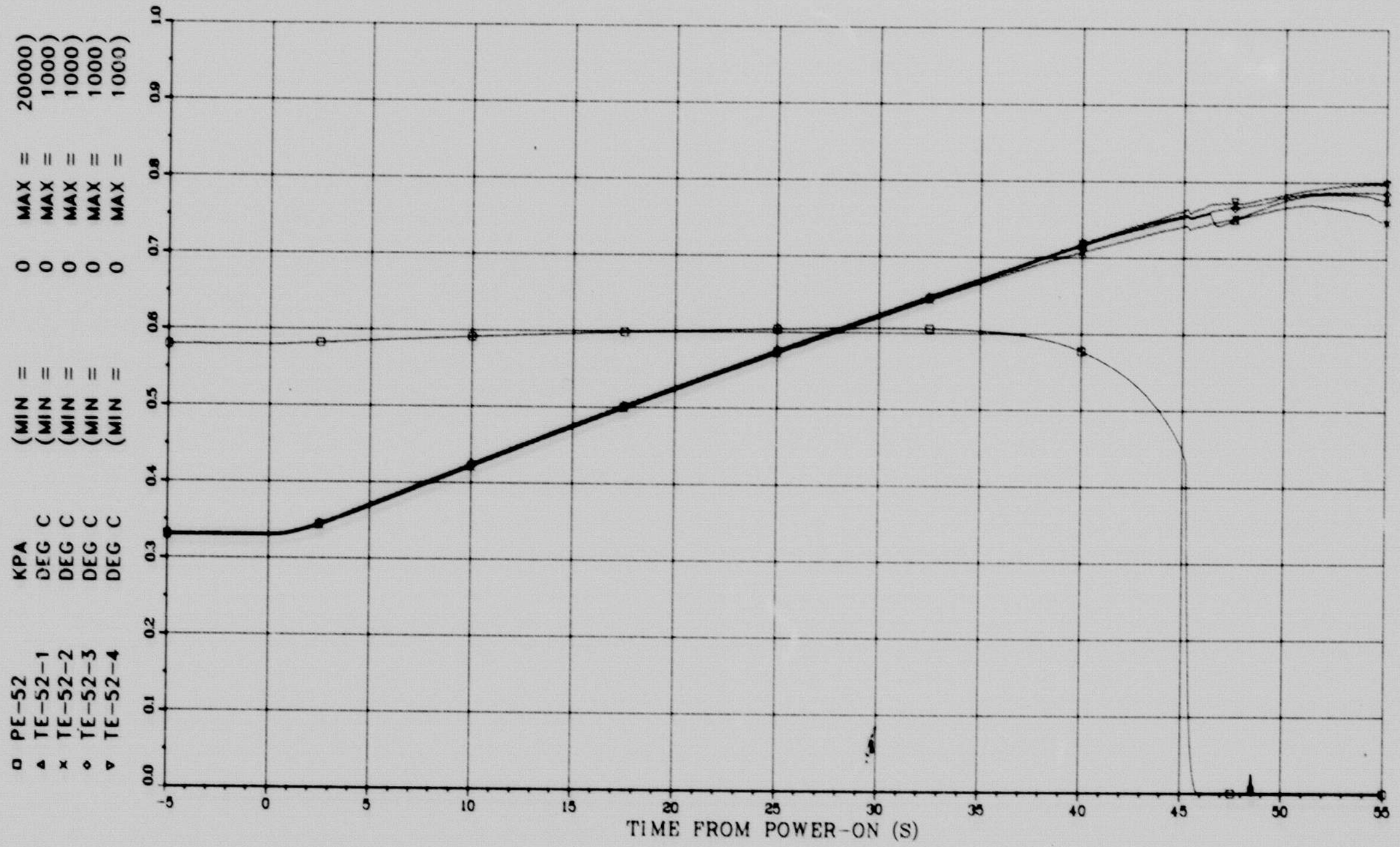


FIG. A-53. PRESSURE AND TEMPERATURE OF ROD NO. 53

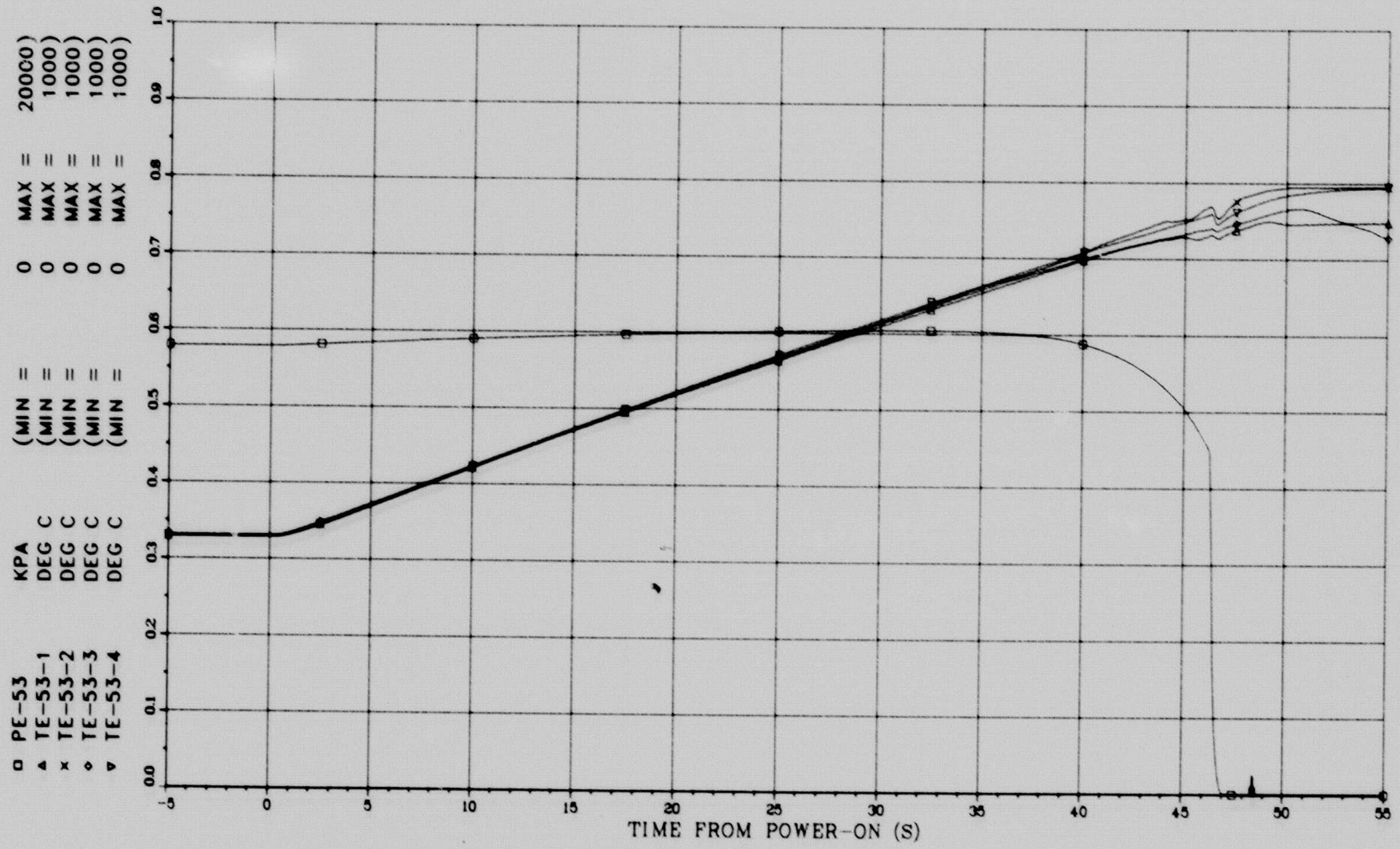


FIG. A-54. PRESSURE AND TEMPERATURE OF ROD NO. 54

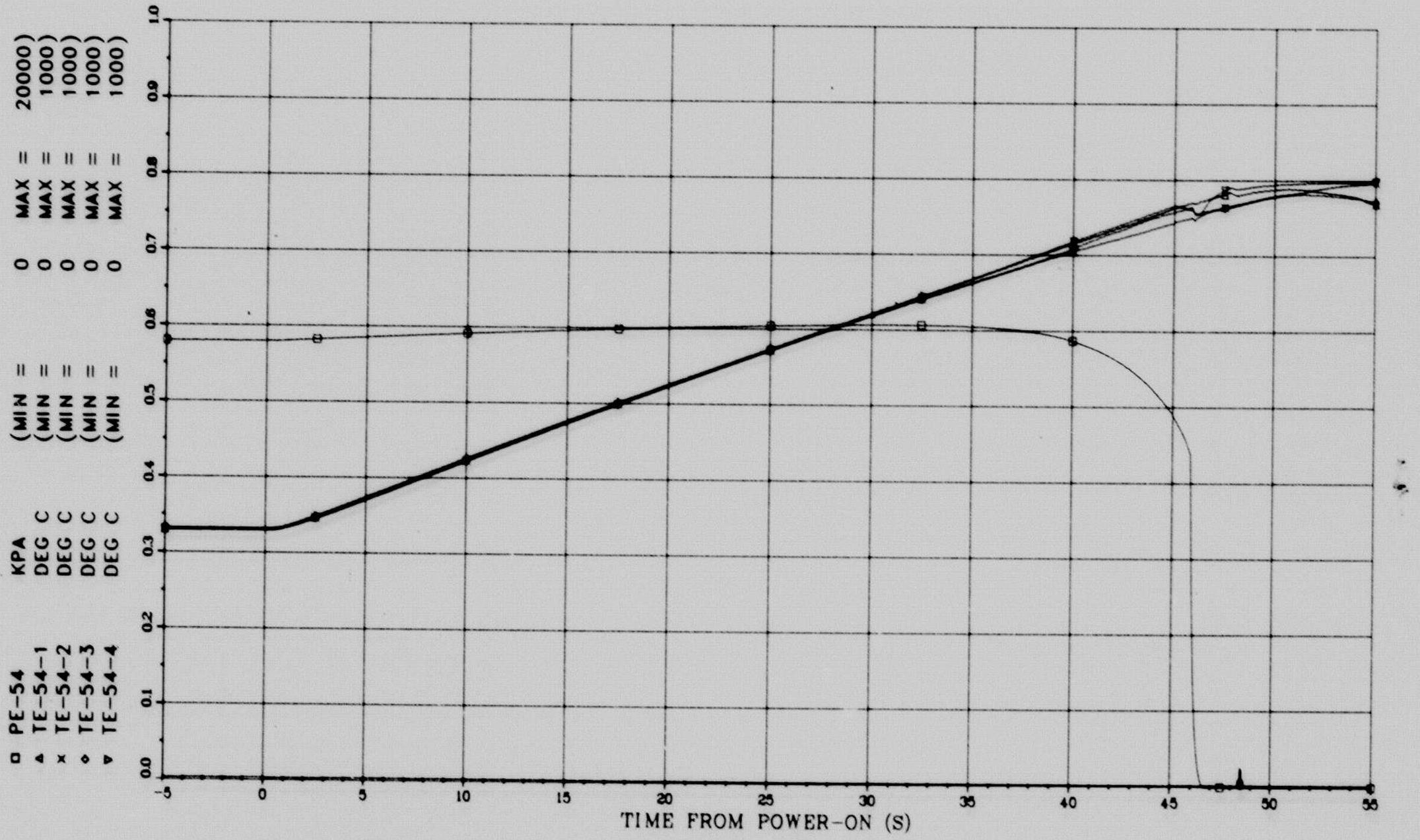


FIG. A-55. PRESSURE AND TEMPERATURE OF ROD NO. 55

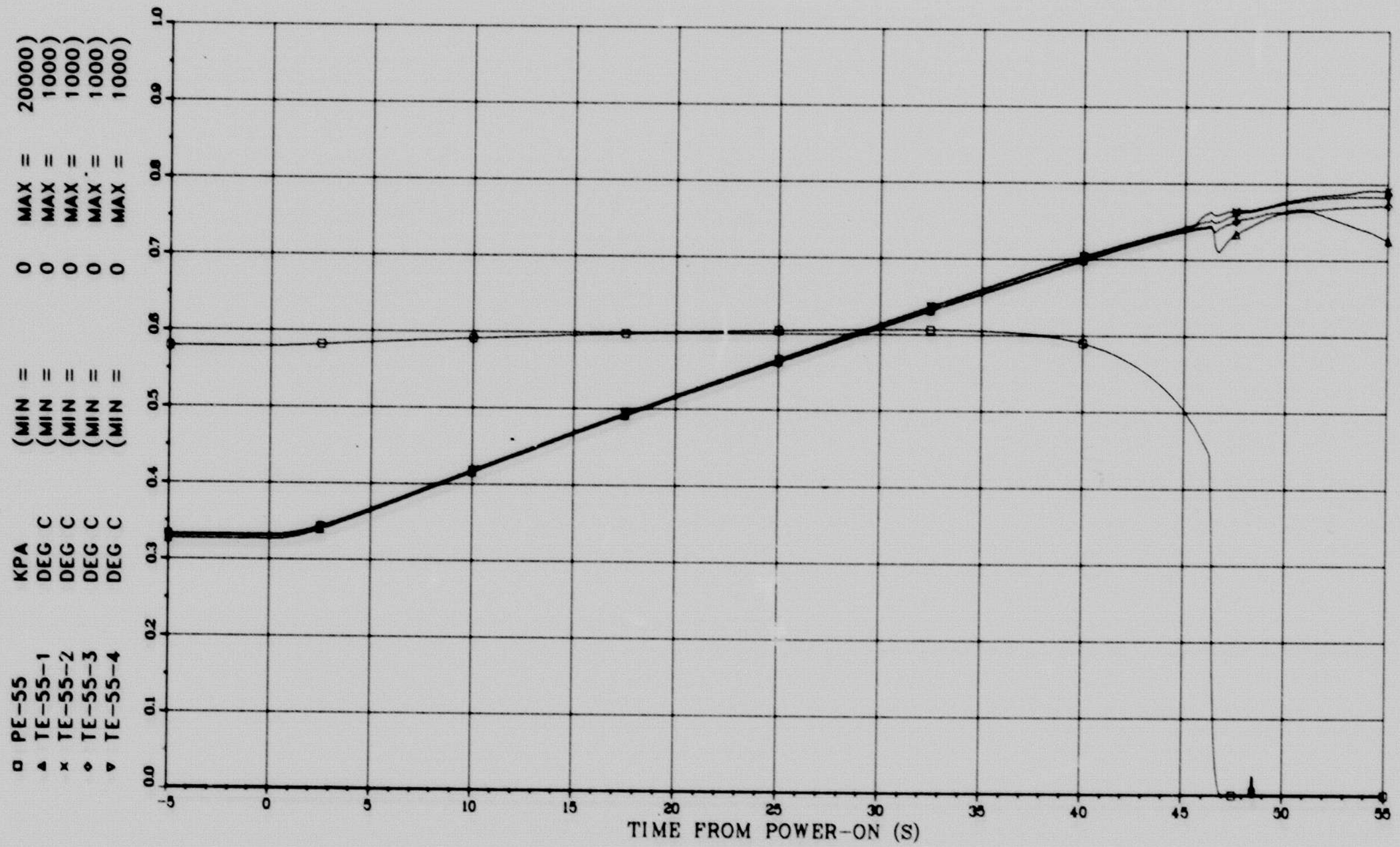


FIG. A-56. PRESSURE AND TEMPERATURE OF ROD NO. 56

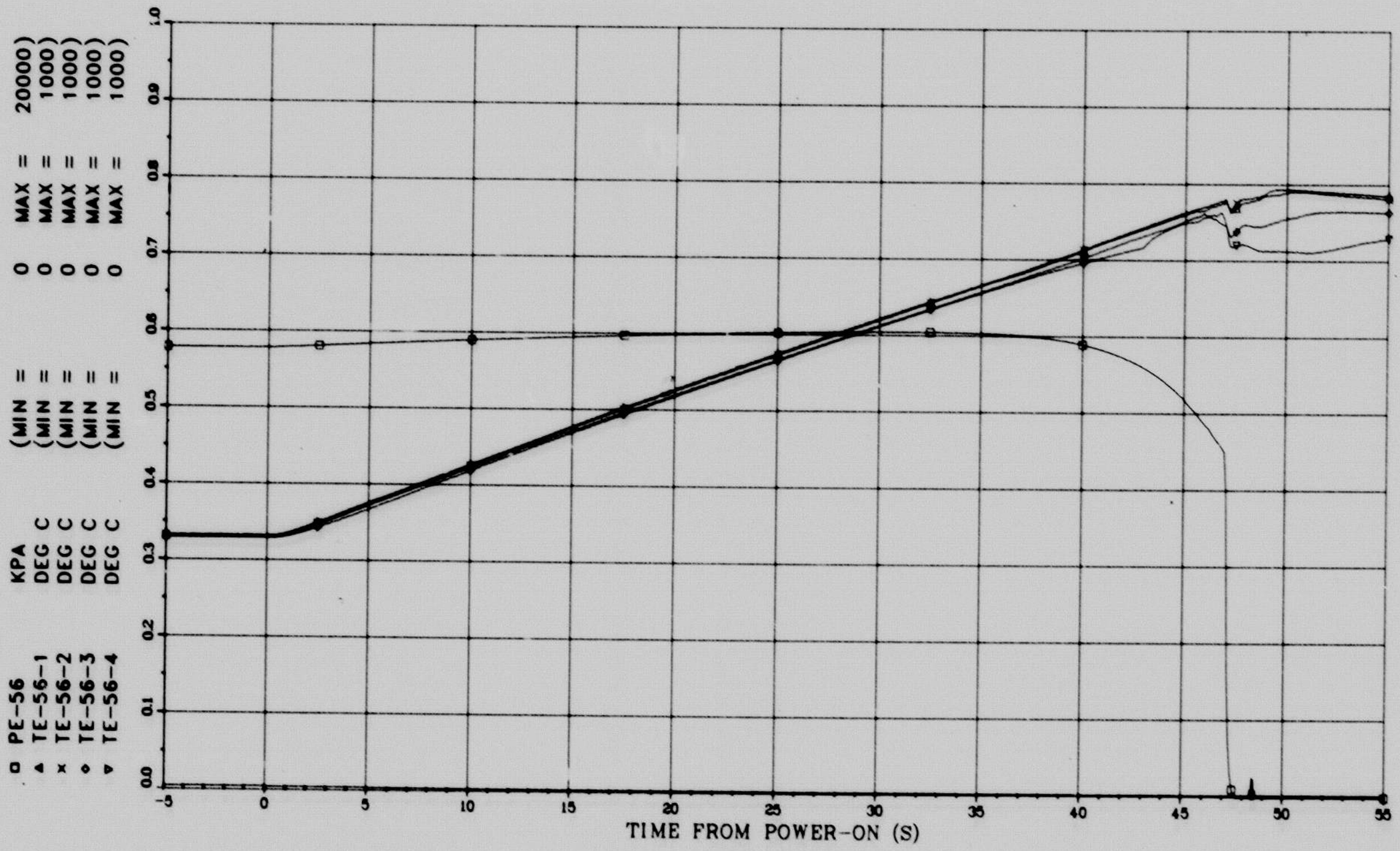


FIG. A-57. PRESSURE AND TEMPERATURE OF ROD NO. 57

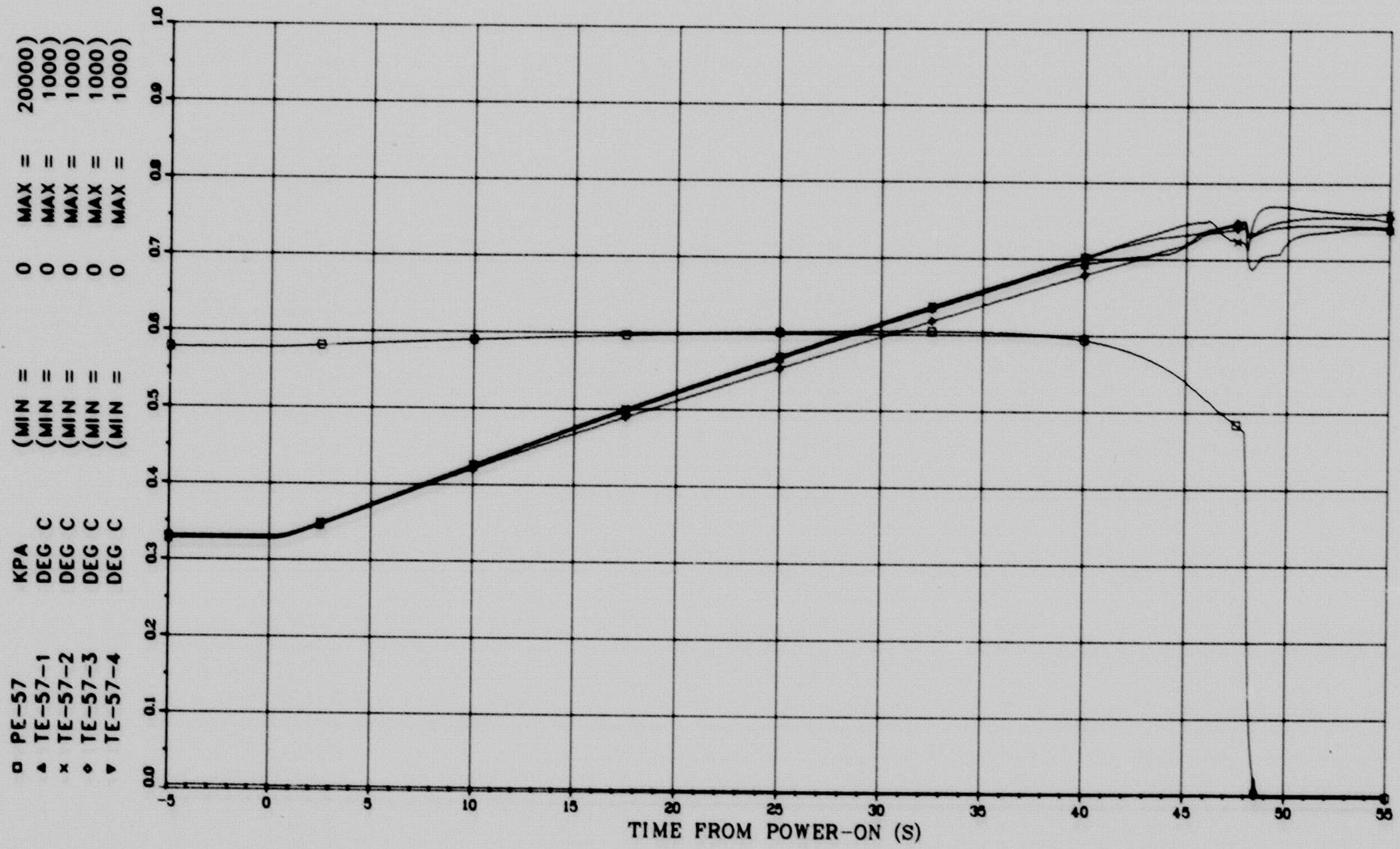


FIG. A-58. PRESSURE AND TEMPERATURE OF ROD NO. 58

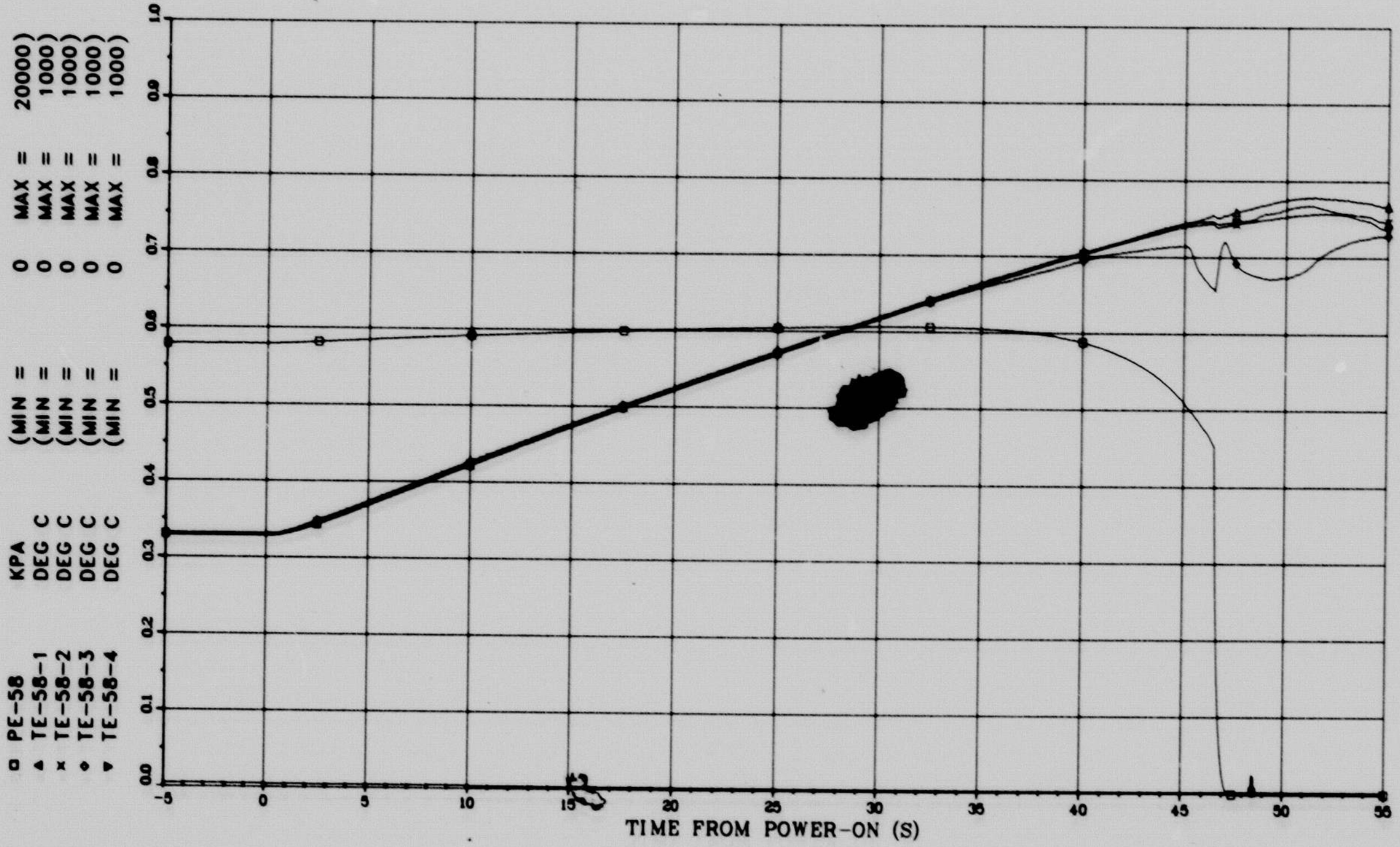


FIG. A-59. PRESSURE AND TEMPERATURE OF ROD NO. 59

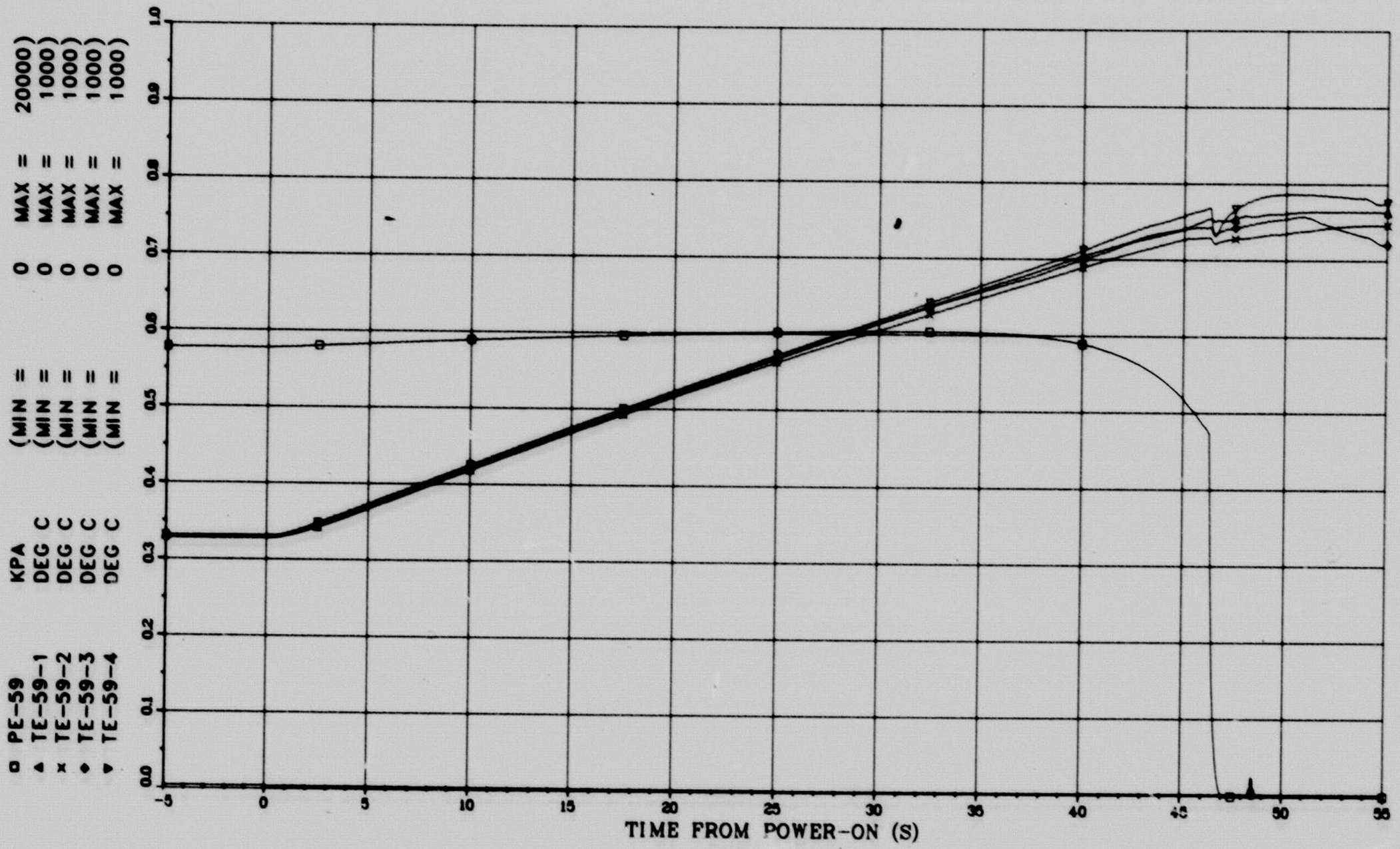


FIG. A-60. PRESSURE AND TEMPERATURE OF ROD NO. 60

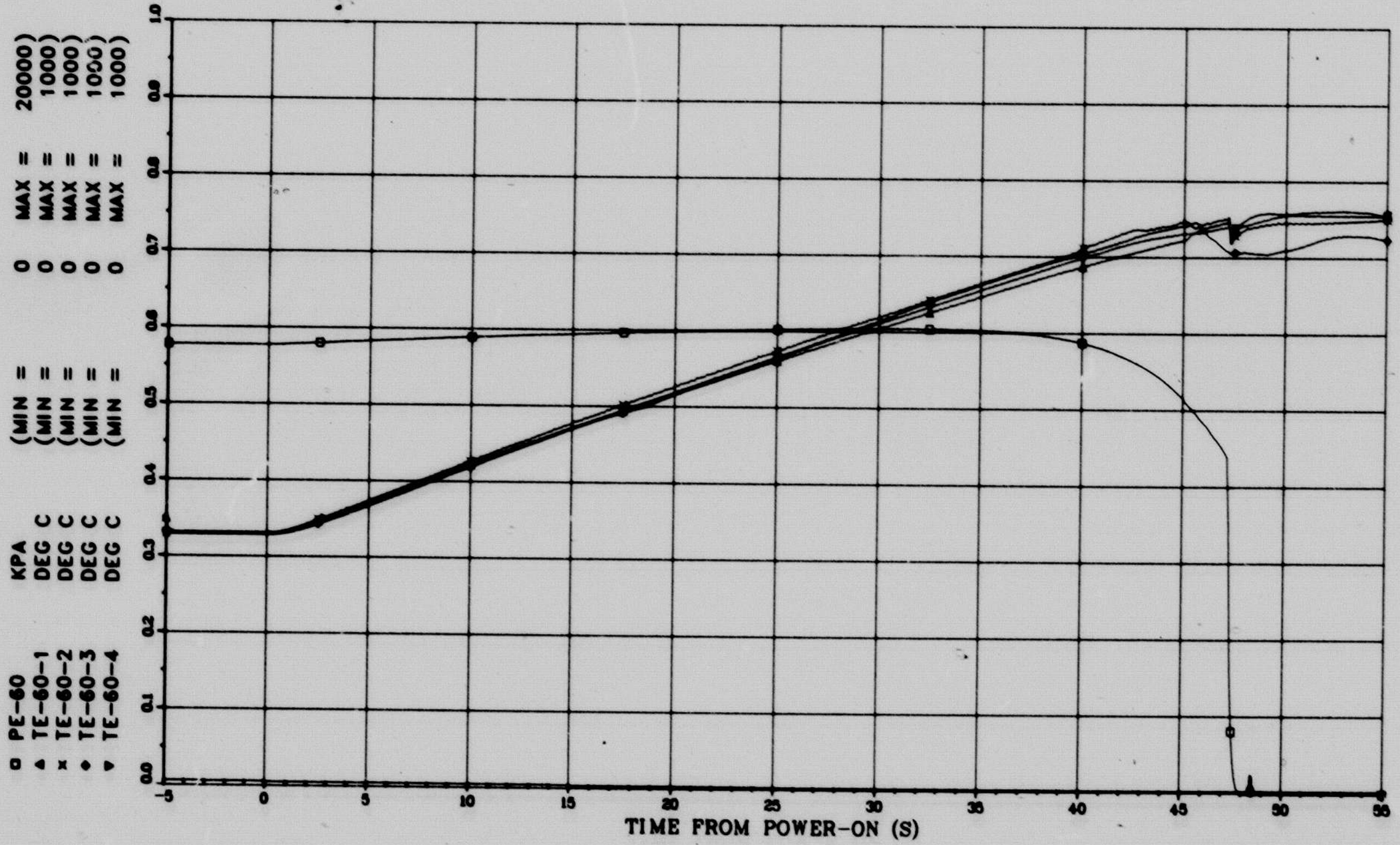


FIG. A-61. PRESSURE AND TEMPERATURE OF ROD NO. 61

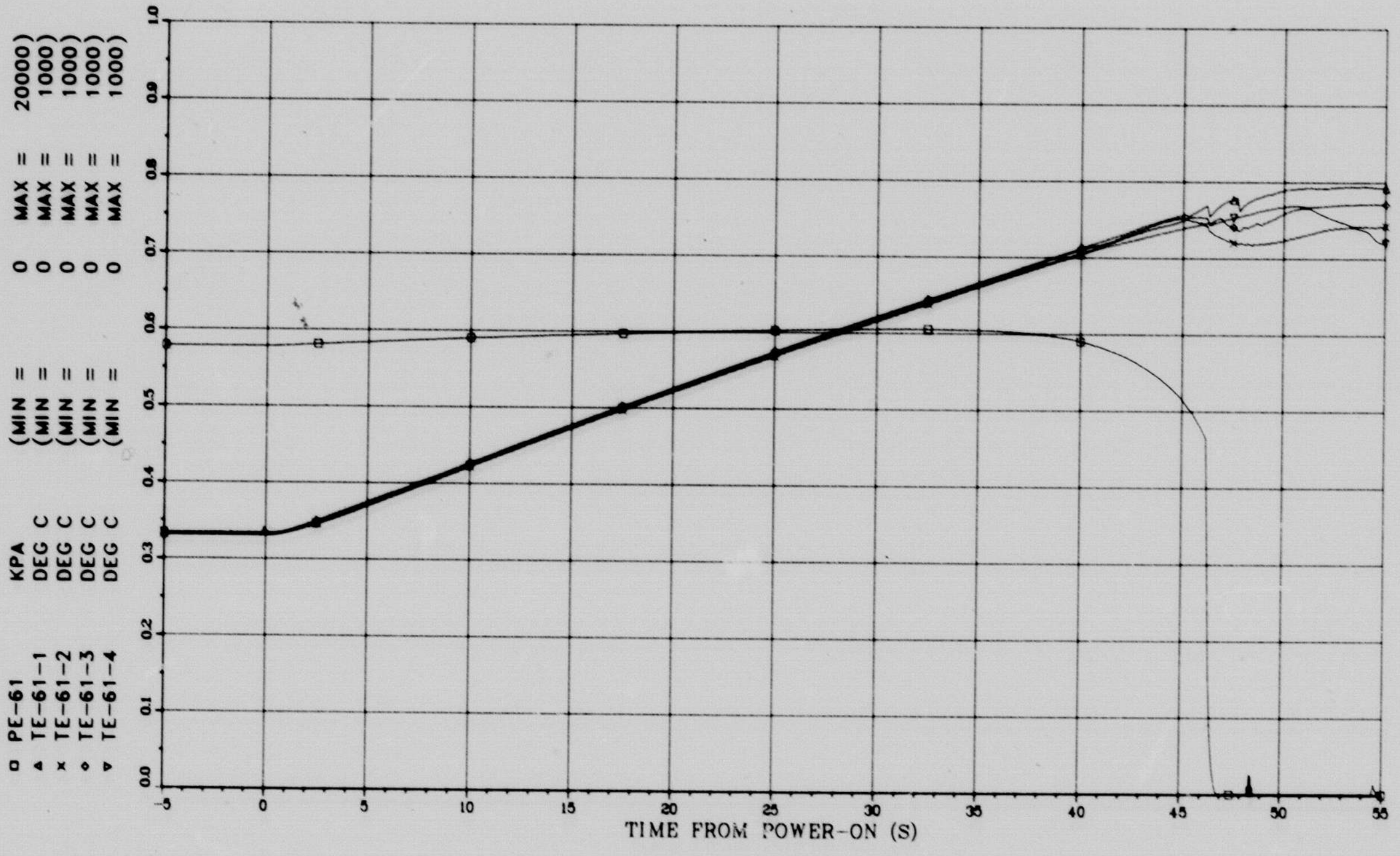


FIG. A-62. PRESSURE AND TEMPERATURE OF ROD NO. 62

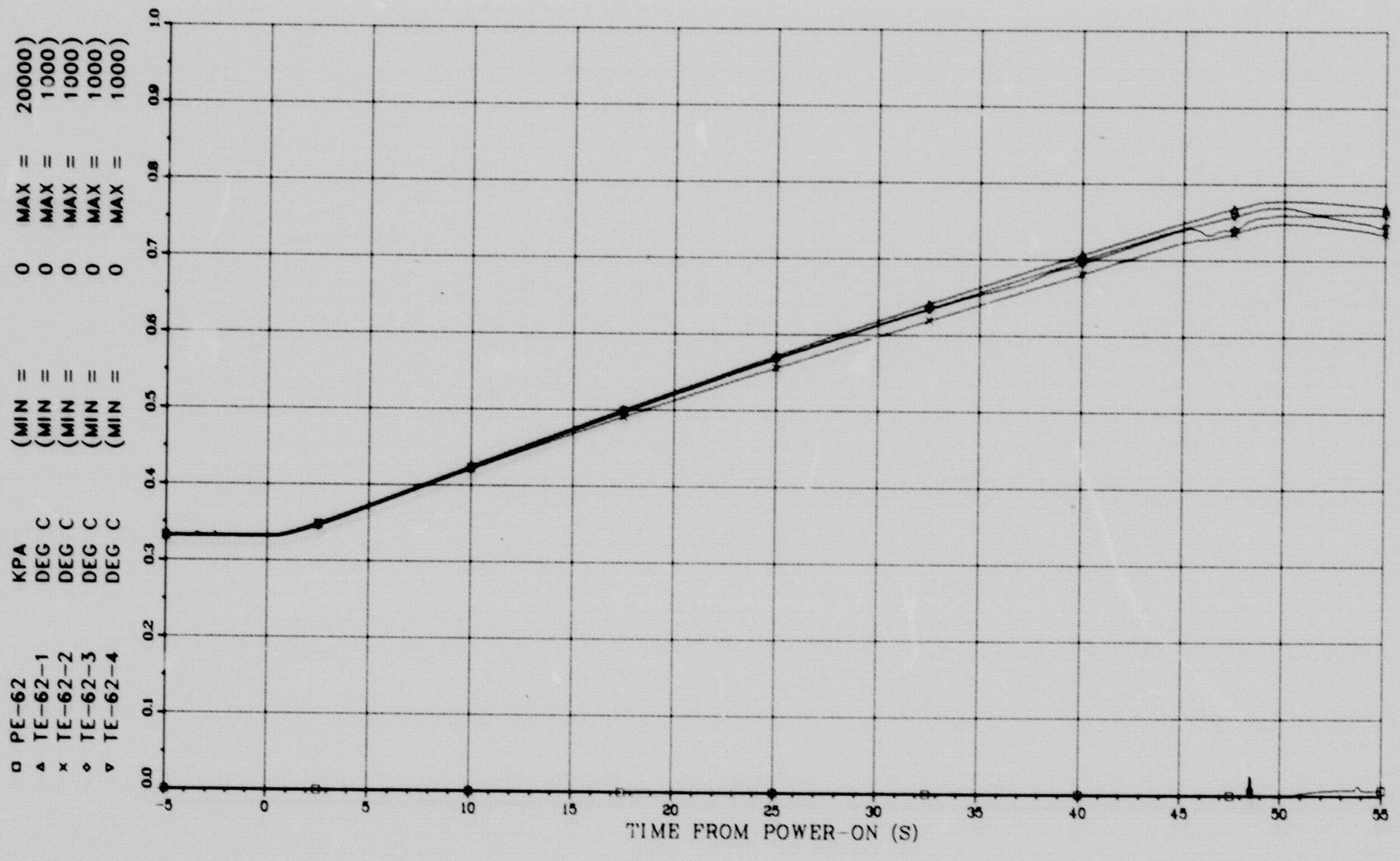


FIG. A-63. PRESSURE AND TEMPERATURE OF ROD NO. 63

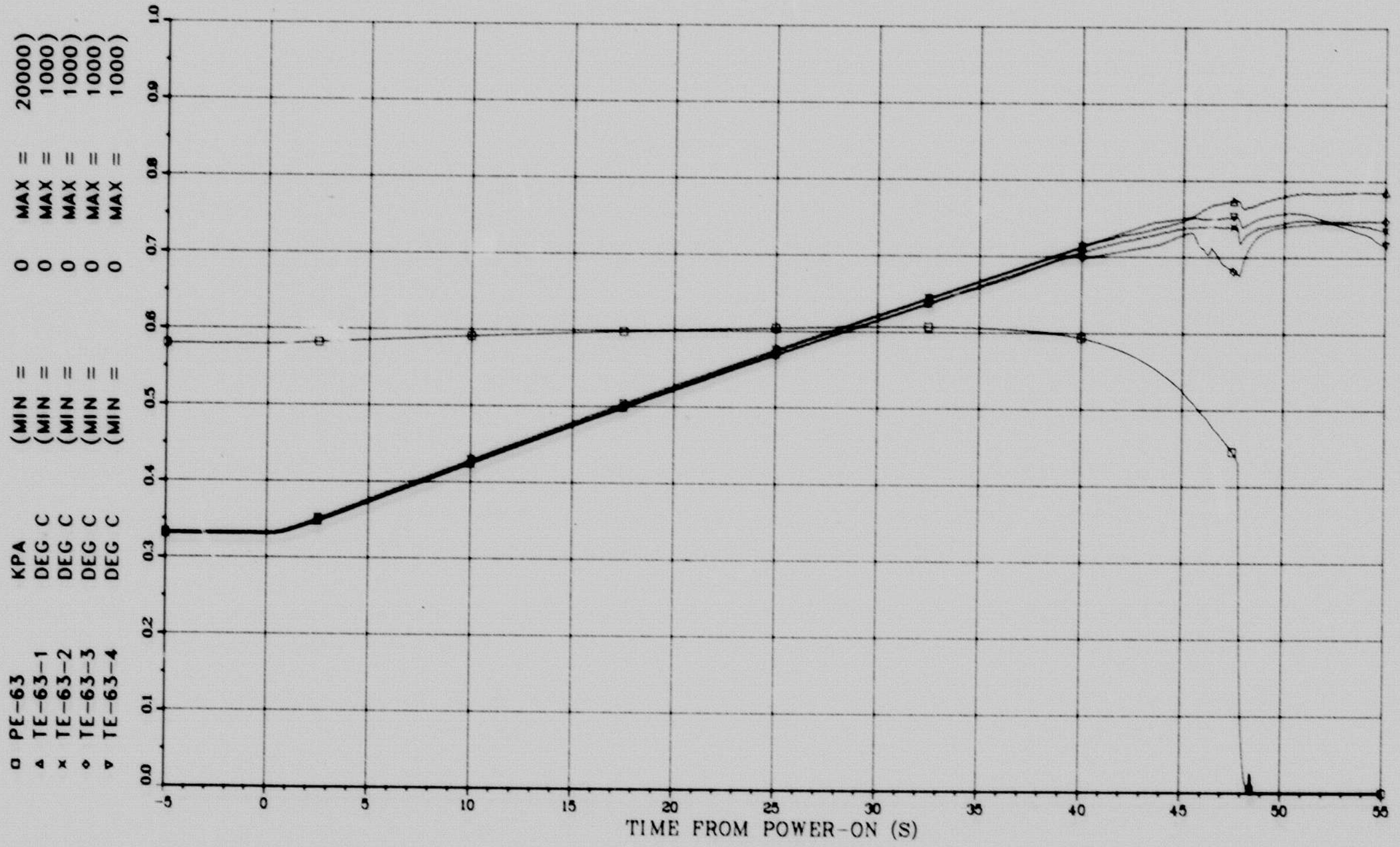


FIG. A-64. PRESSURE AND TEMPERATURE OF ROD NO. 64

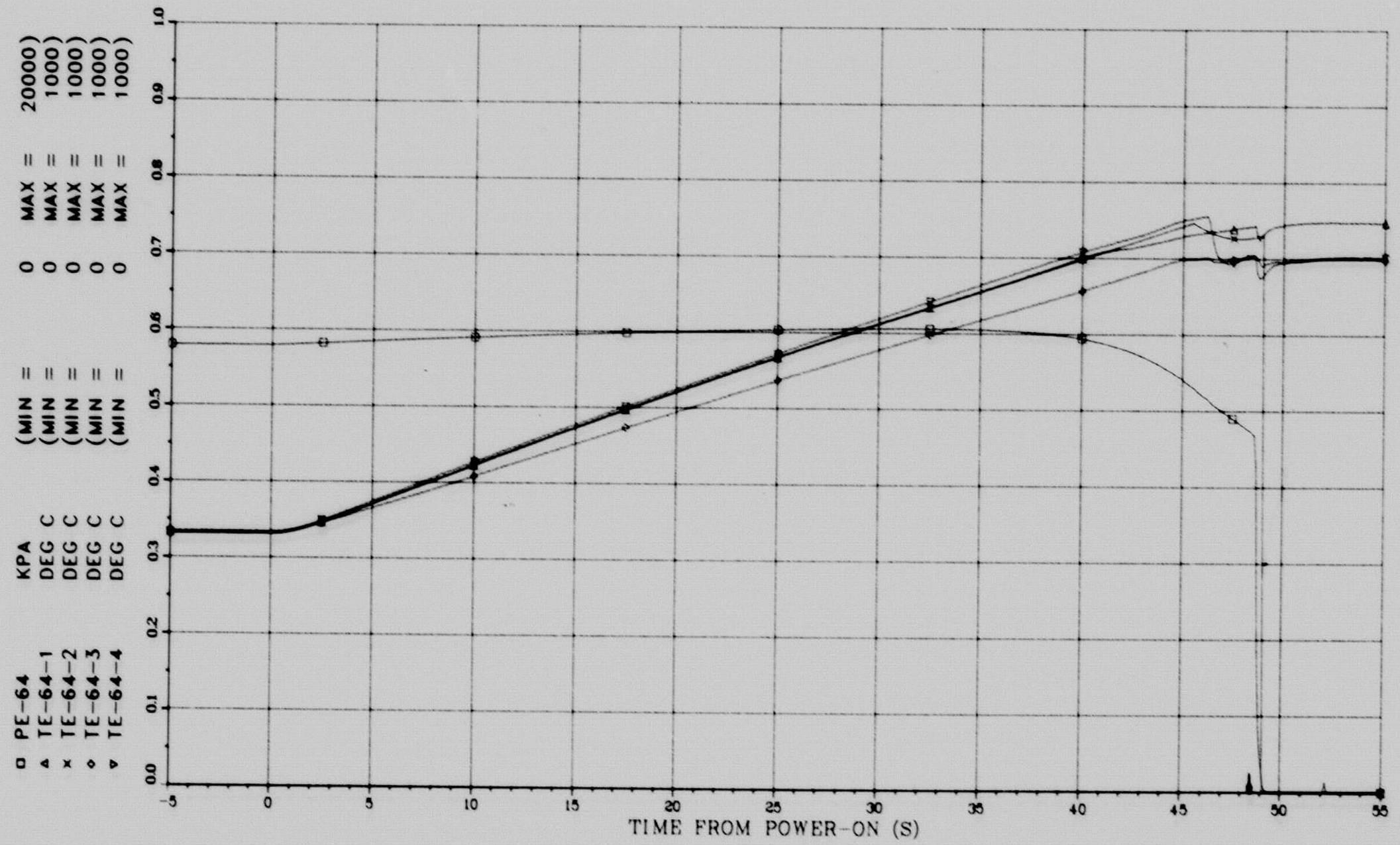


FIG. A-65. TEMPERATURE ON NORTH SIDE OF SHROUD

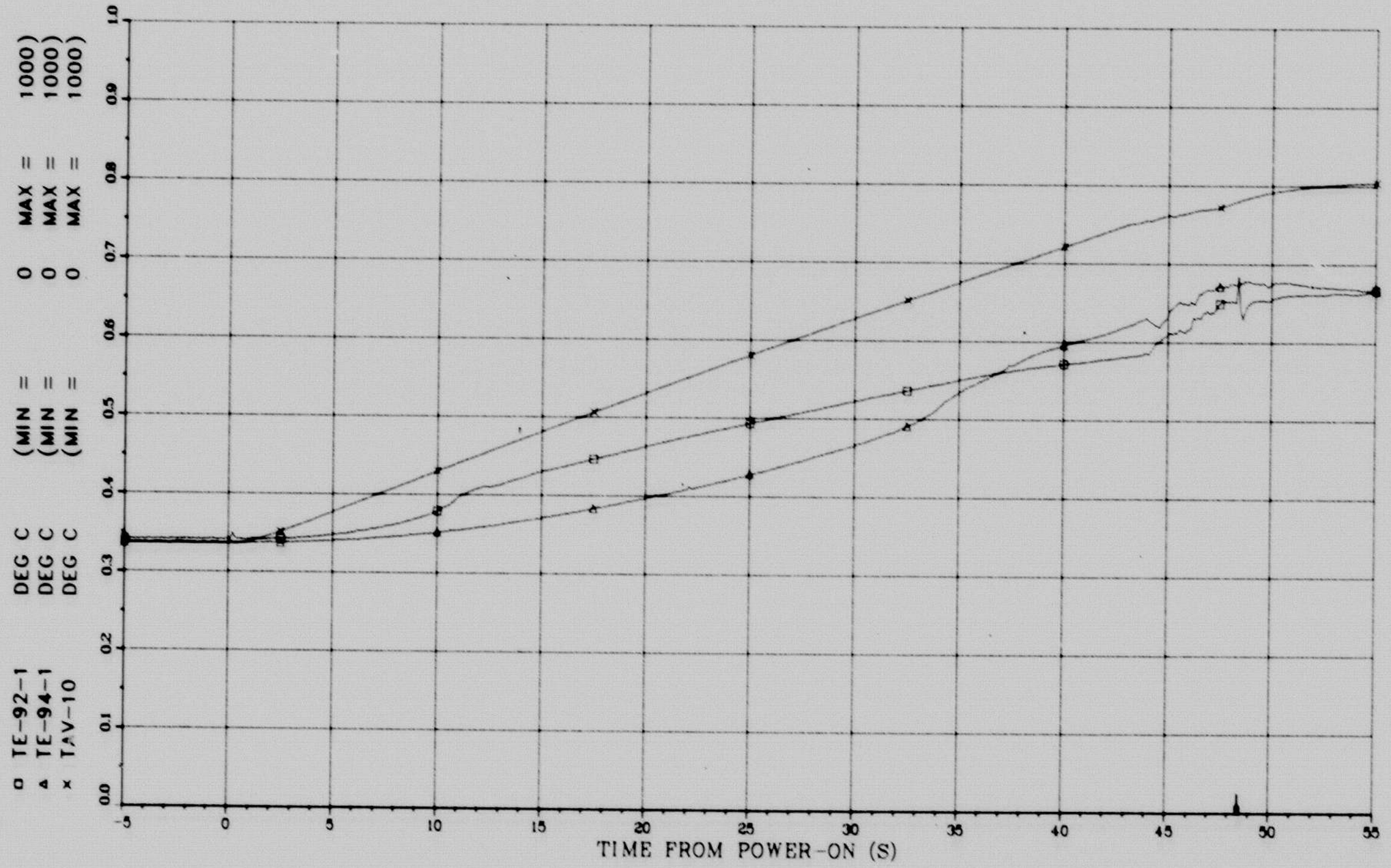


FIG. A-66. TEMPERATURE ON WEST SIDE OF SHROUD

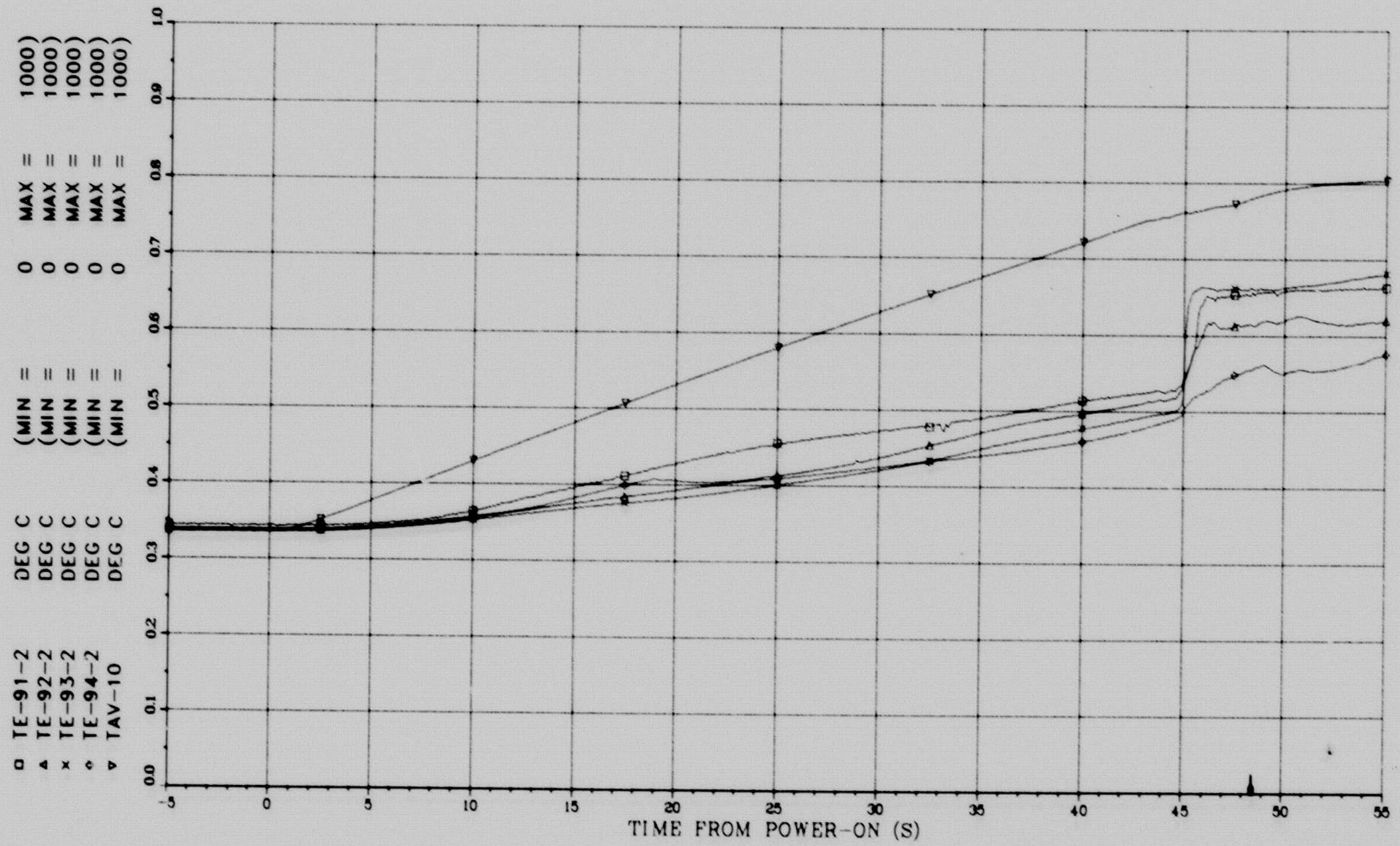


FIG. A-67. TEMPERATURE ON SOUTH SIDE OF SHROUD

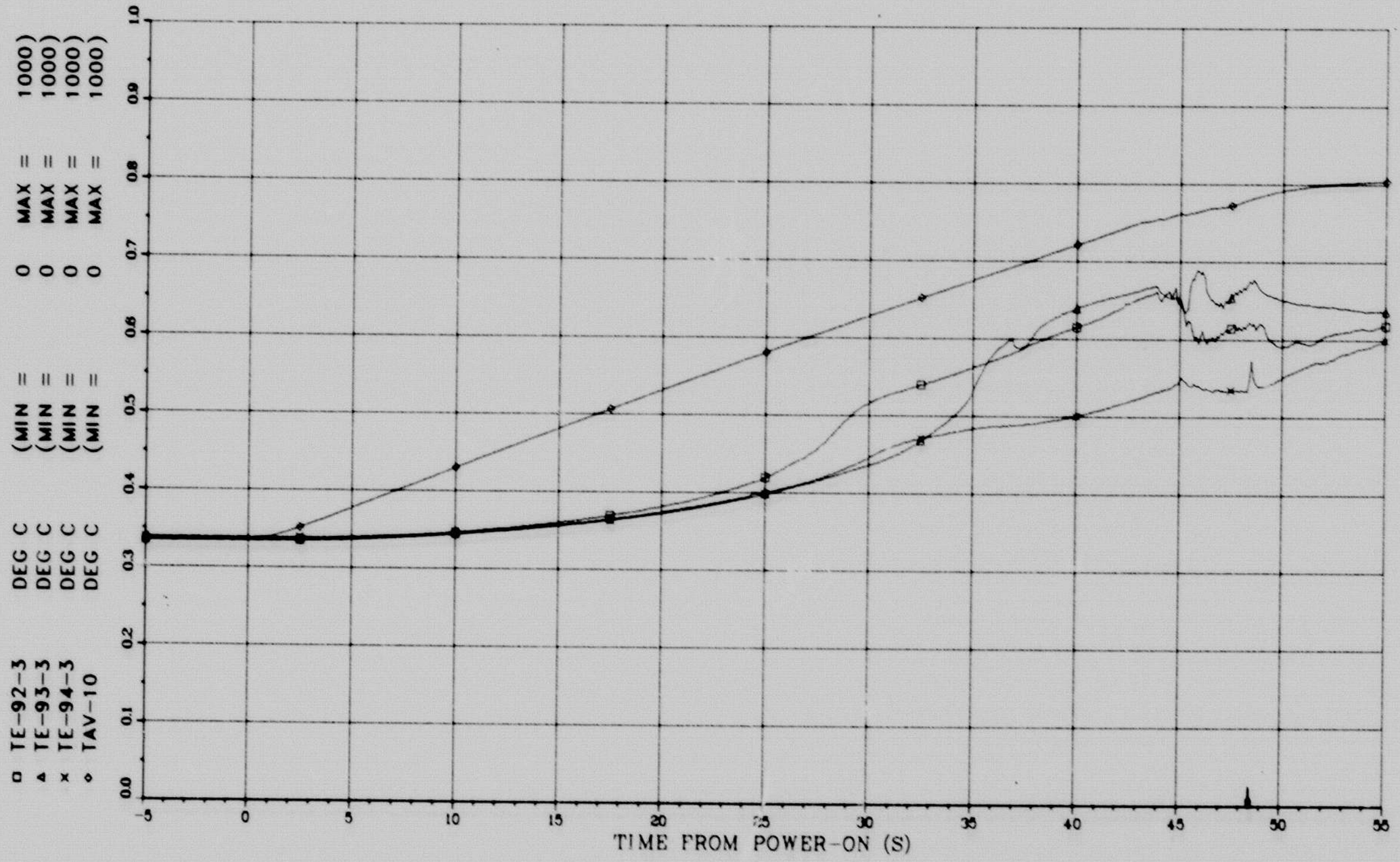


FIG. A-68. TEMPERATURE ON EAST SIDE OF SHROUD

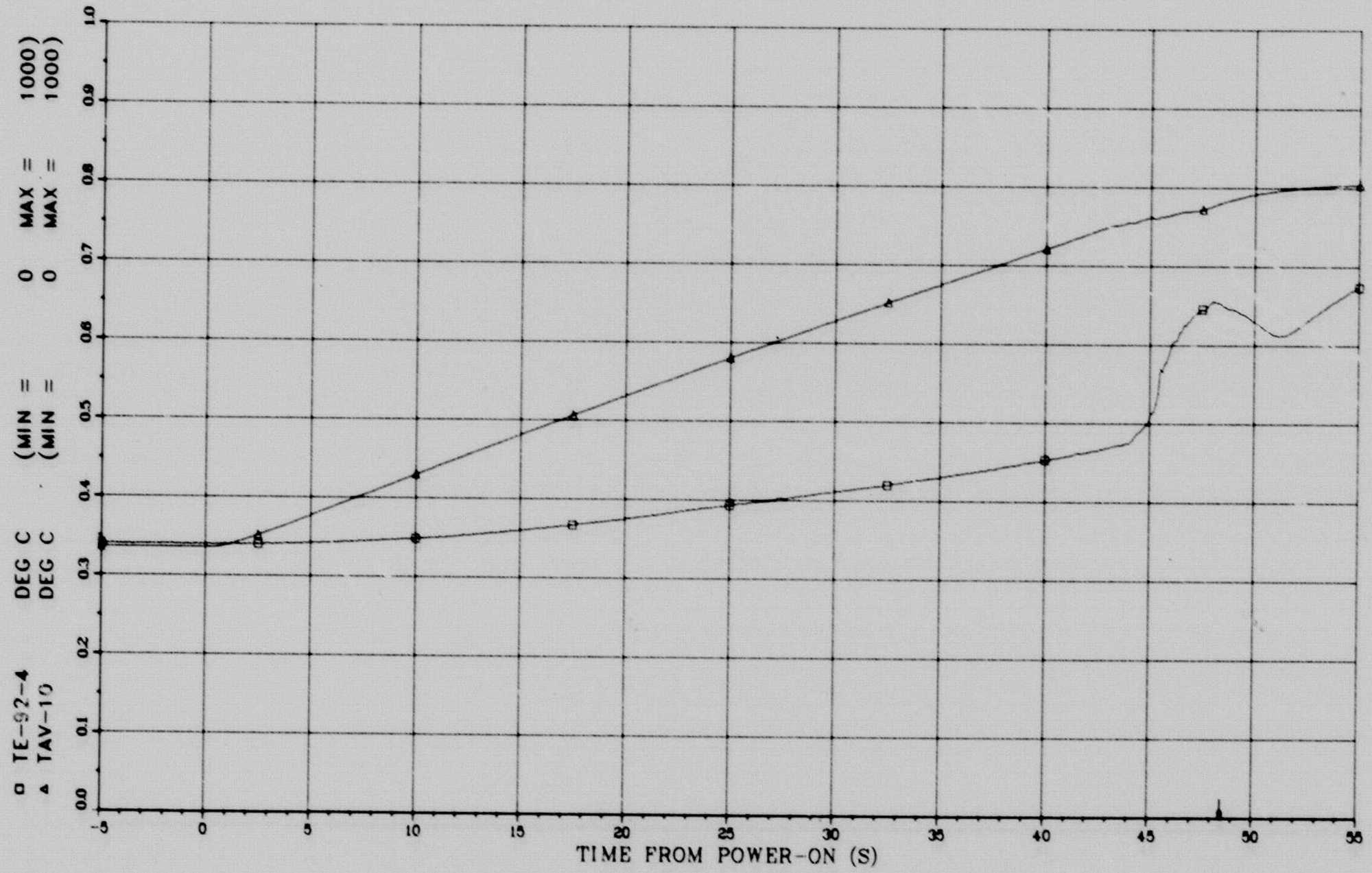


FIG. A-69. TEMPERATURE OF SHROUD AT 76 CM ELEVATION

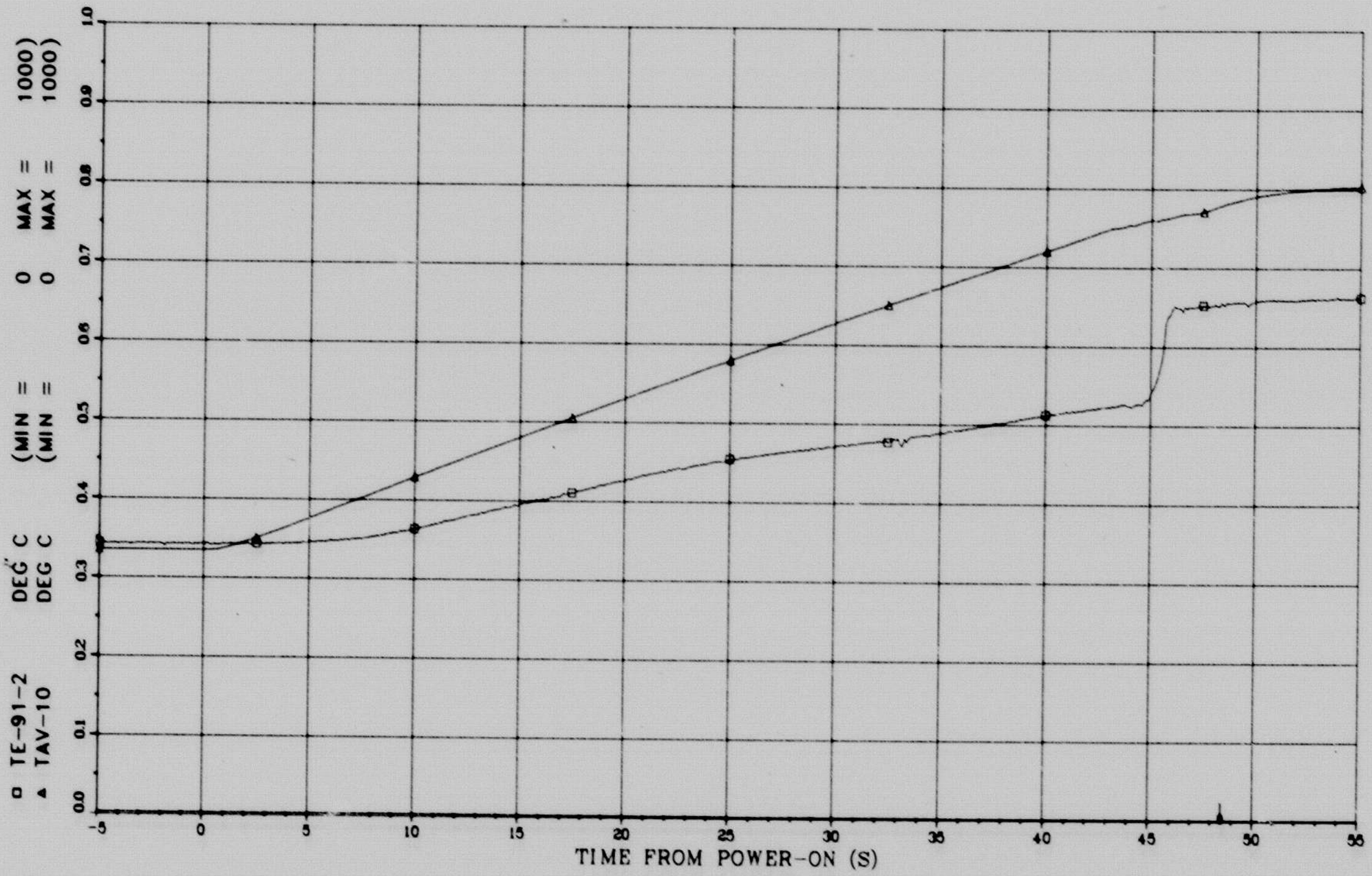


FIG. A-70. TEMPERATURE OF SHROUD AT 48 CM ELEVATION

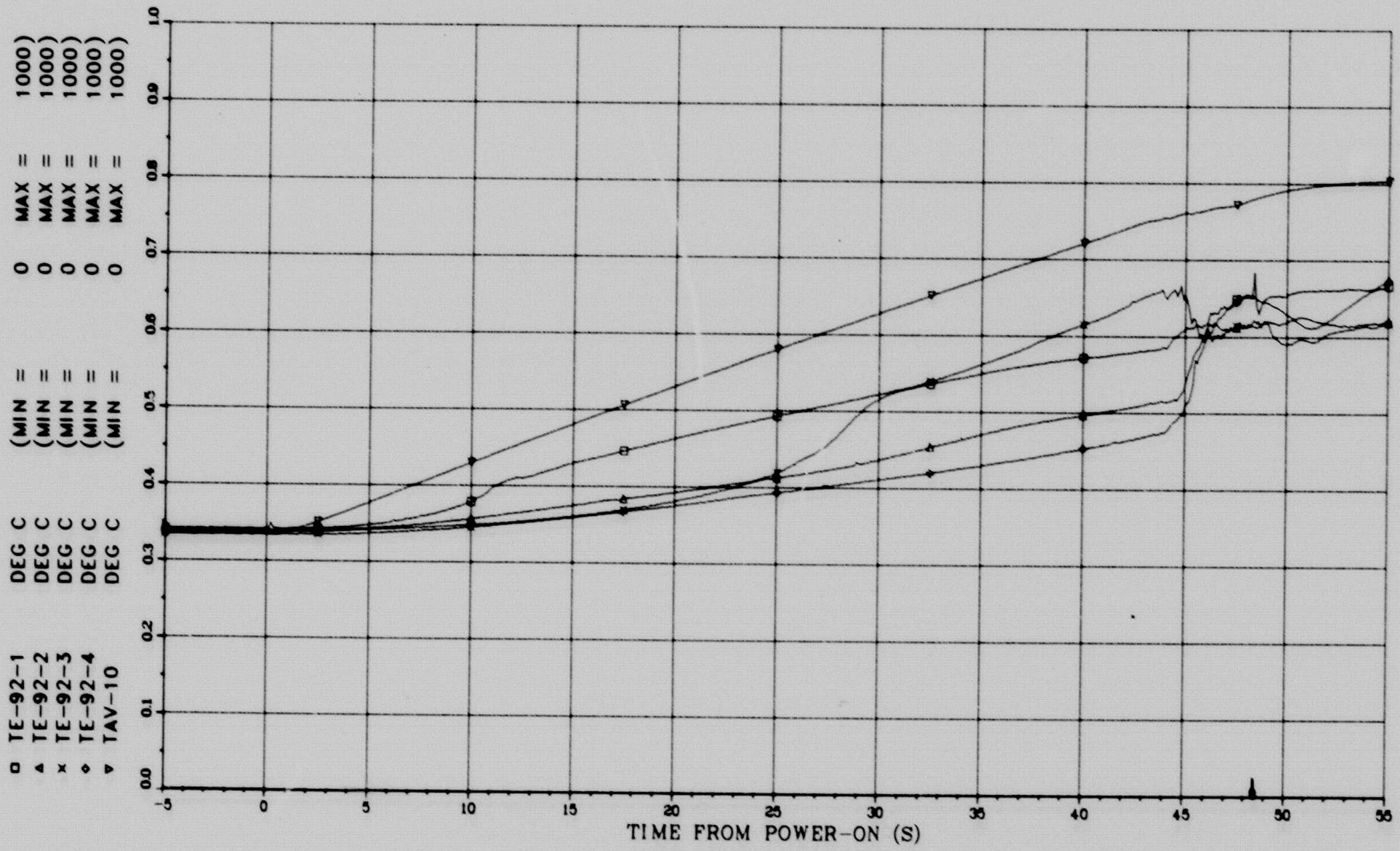


FIG. A-71. TEMPERATURE OF SHROUD AT 28 CM ELEVATION

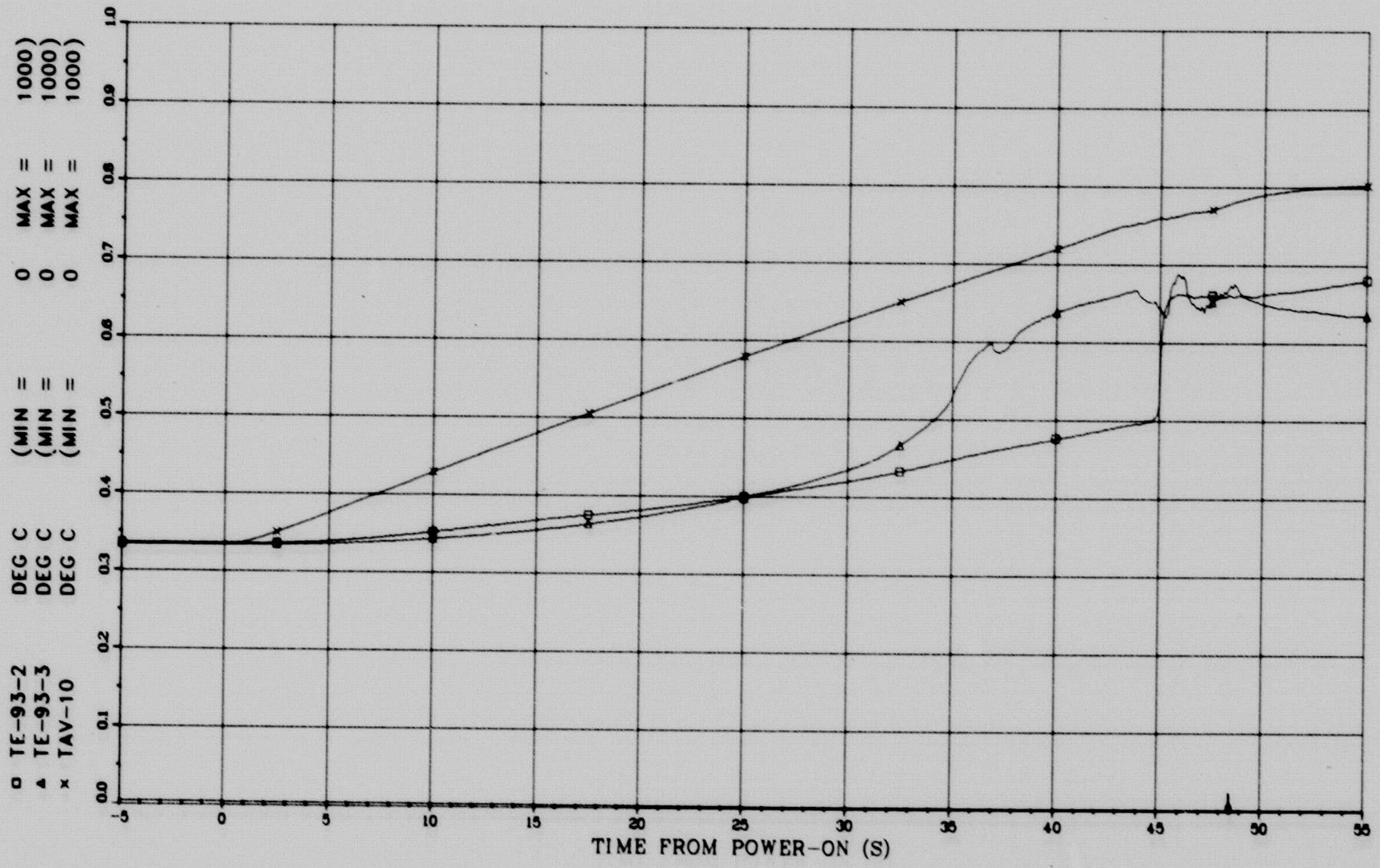


FIG. A-72. TEMPERATURE OF SHROUD AT 5 CM ELEVATION

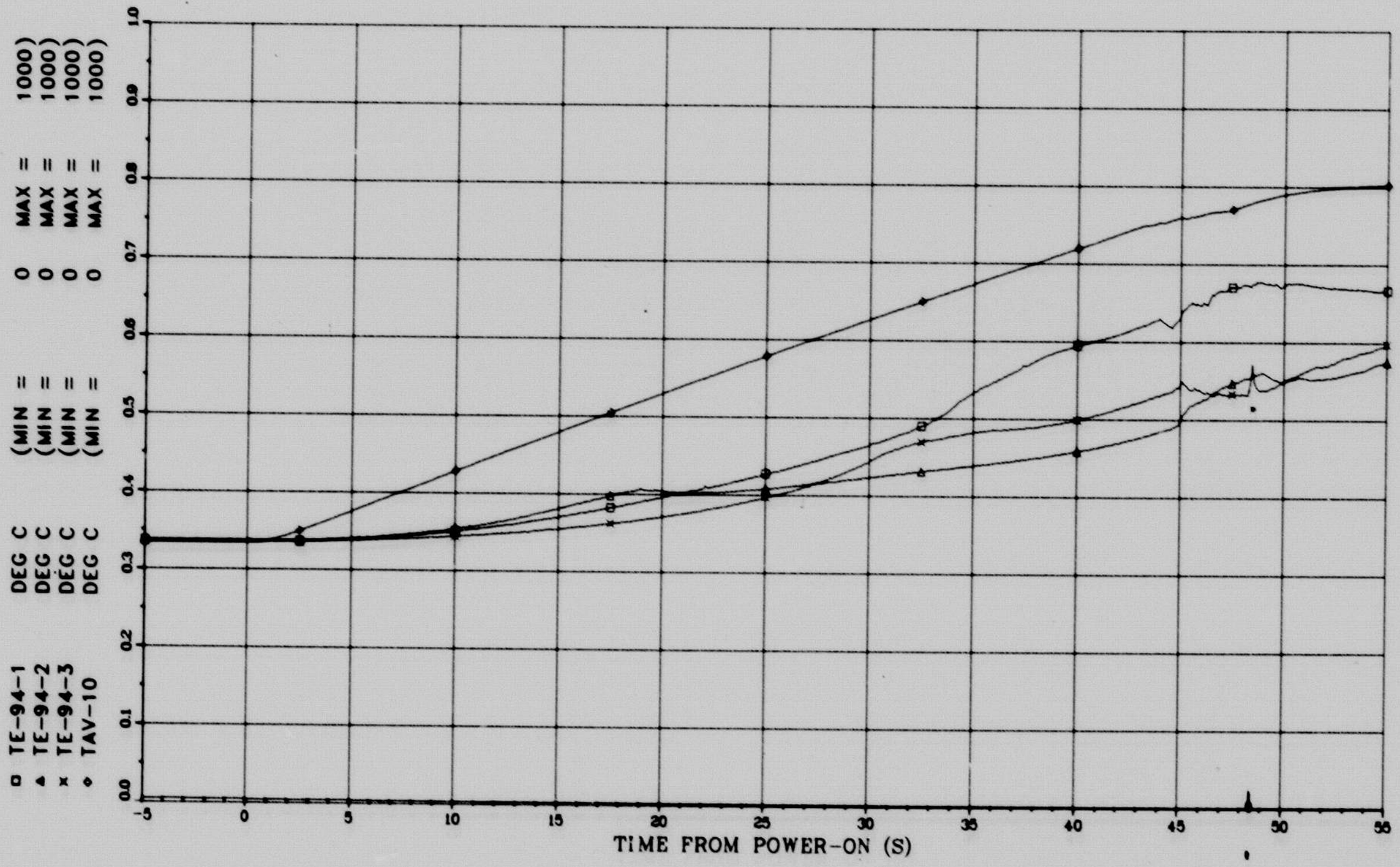


FIG. A-73. AZIMUTHAL TEMPERATURE VARIATIONS IN ROD NO. 5

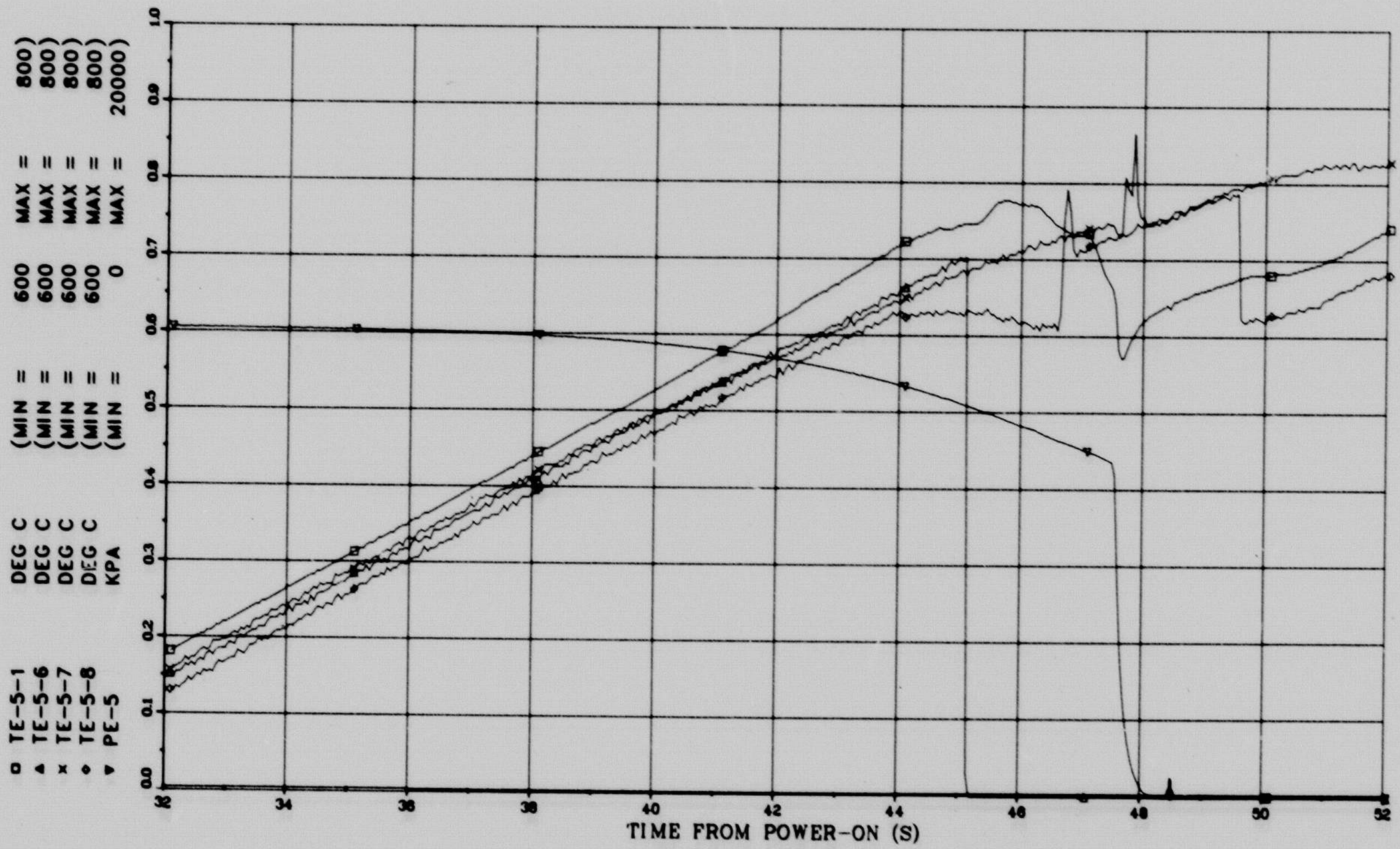


FIG. A-74. AZIMUTHAL TEMPERATURE VARIATIONS IN ROD NO. 28

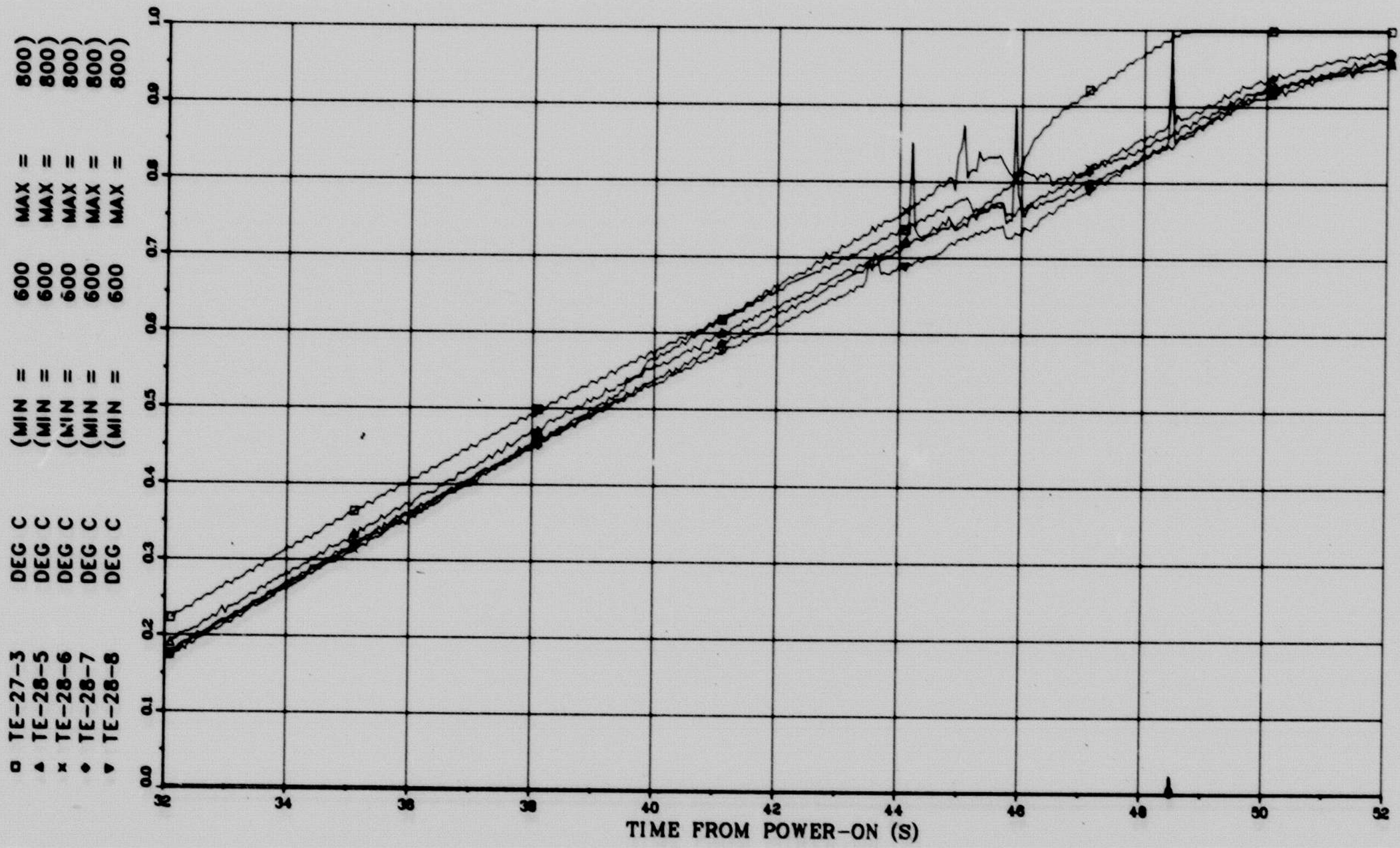


FIG. A-75. AZIMUTHAL TEMPERATURE VARIATIONS IN ROD NO. 39

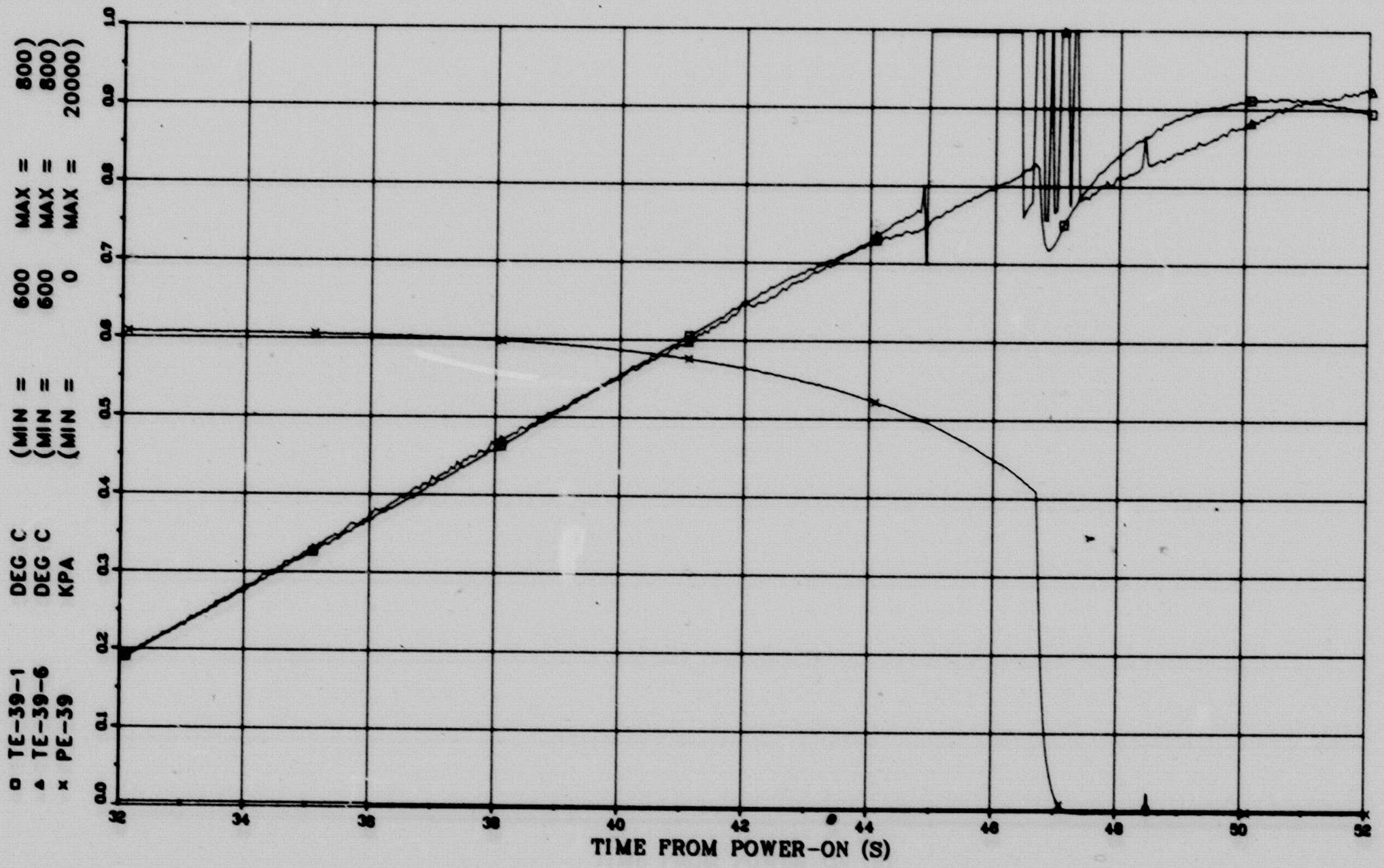


FIG. A-76. AZIMUTHAL TEMPERATURE VARIATIONS IN ROD NO. 44

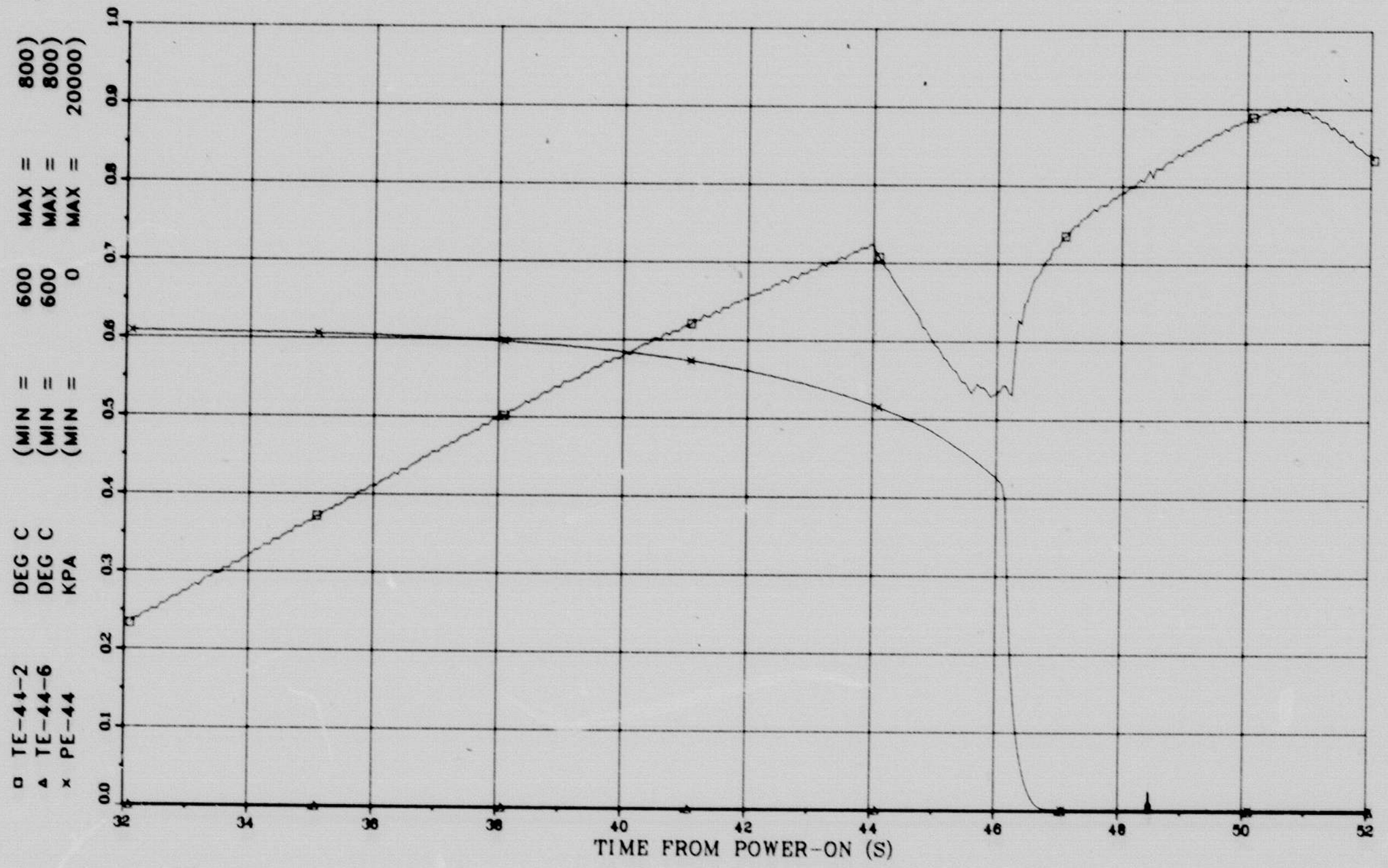


TABLE B- 1. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 1 BURST TIME

TIME FROM POWER-ON 49.60 SEC. TIME FROM POWER-OFF 1.15 SEC. RECORD NUMBER 591-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	9687	708	670	776	747	725	0.00	2	19	764	762	797	688	753	3.95
3	27	739	744	778	758	755	2.70	4	17	701	778	767	774	755	4.75
5	11	735	731	756	791	753	2.10	6	1	776	781	799	692	762	3.20
7	40	748	751	784	768	763	3.85	8	20	741	780	739	704	741	2.25
9	9	728	658	784	680	713	1.45	10	14	777	780	785	746	772	3.30
11	4	788	782	785	801	789	4.10	12	4	785	783	799	782	787	4.00
13	12	787	797	785	791	790	4.05	14	18	790	809	780	786	791	4.55
15	18	784	784	748	774	772	3.80	16	0	749	803	810	633	749	5.05
17	30	786	733	725	792	759	1.15	18	19	783	801	796	801	795	4.35
19	26	796	786	810	759	788	3.10	20	32	781	786	778	782	782	3.40
21	10	784	795	788	785	788	5.60	22	14	796	799	787	782	791	3.35
23	20	799	786	778	788	788	4.40	24	19	794	769	766	742	768	2.95
25	27	781	727	778	752	759	3.40	26	18	770	790	778	784	780	4.00
27	31	789	777	803	785	789	4.50	28	16	789	769	799	785	786	3.90
29	34	803	804	747	789	786	4.30	30	27	802	790	775	784	788	3.20
31	25	785	787	793	776	785	4.70	32	22	761	749	747	766	756	2.80
33	25	773	692	717	781	741	2.30	34	31	779	765	765	794	776	3.70
35	38	803	806	769	804	795	3.75	36	113	794	783	780	782	785	4.50
37	21	775	772	782	780	777	2.40	38	27	792	786	786	802	791	3.90
39	18	780	774	767	783	776	2.90	40	33	753	785	684	771	748	3.15
41	53	759	771	761	786	769	3.10	42	40	782	769	792	777	780	3.35
43	9	798	802	778	790	792	4.70	44	25	778	773	795	747	773	3.50
45	18	776	783	774	781	778	2.85	46	29	238	773	783	781	644	3.35
47	19	807	800	776	792	794	4.10	48	12	746	770	783	784	771	1.80
49	16	749	773	738	779	760	2.70	50	-5	762	799	787	779	782	3.90
51	-17	782	767	786	771	777	2.55	52	-13	773	764	777	781	774	4.40
53	-15	748	792	763	782	771	3.30	54	-9	787	778	777	794	784	3.70
55	-16	761	774	763	773	768	3.25	56	-12	794	787	753	715	762	2.55
57	-8	710	772	744	752	744	1.70	58	-7	774	753	674	761	740	3.15
59	-17	762	735	755	788	760	3.30	60	-13	759	748	710	756	743	2.40
61	-34	786	721	752	765	756	3.40	62	-163	778	747	758	768	763	******
63	-17	777	742	738	756	753	1.85	64	-13	742	0	693	696	533	0.95

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	758 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	780 DEG C	13	TE-28-6	781 DEG C	14	TE-28-7	785 DEG C
15	TE-28-8	781 DEG C	17	TE-39-6	773 DEG C	19	PE-301.	358 KPA
23	TE-44-8	712 DEG C	24	TE-320	383 DEG C	25	TE-321	390 DEG C
26	TE-322	395 DEG C	27	TE-323	629 DEG C	28	TE-324	604 DEG C
29	TE-325	604 DEG C	30	TE-326	577 DEG C	31	TE-327	593 DEG C
41	TE-91-2	652 DEG C	44	TE-92-1	654 DEG C	45	TE-92-2	616 DEG C
46	TE-92-3	595 DEG C	47	TE-92-4	637 DEG C	49	TE-93-2	660 DEG C
50	TE-93-3	654 DEG C	52	TE-94-1	676 DEG C	53	TE-94-2	552 DEG C
54	TE-94-3	544 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	789 DEG C						

TABLE B- 2. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 2 BURST TIME

TIME FROM POWER-ON 45.65 SEC. TIME FROM POWER-OFF -2.80 SEC. RECORD NUMBER 551-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10905	717	665	744	727	713	-3.95	2	9159	756	742	770	719	747	0.0
3	10155	738	746	748	759	748	-1.25	4	69	761	747	745	758	753	0.80
5	9915	755	728	755	762	750	-1.85	6	9965	761	755	772	736	756	-0.75
7	9651	748	752	756	766	756	-0.10	8	10237	740	751	737	713	735	-1.70
9	10192	740	712	765	763	745	-2.50	10	9091	760	753	764	738	754	-0.65
11	3915	756	723	752	756	747	0.15	12	6733	764	776	772	754	766	0.05
13	5246	753	752	759	744	752	0.10	14	214	762	768	767	757	764	0.60
15	9301	765	760	744	765	759	-0.15	16	-17	766	774	780	654	744	1.10
17	10279	759	728	724	763	743	-2.80	18	610	757	766	767	767	765	0.40
19	8850	758	758	768	737	755	-0.85	20	8706	759	758	757	758	758	-0.55
21	15	754	760	762	775	763	1.65	22	8553	773	773	759	760	766	-0.60
23	774	772	765	754	765	764	0.45	24	9797	751	744	768	747	753	-1.00
25	10101	764	745	750	735	749	-0.55	26	8702	757	766	749	758	758	0.05
27	248	766	746	756	756	756	0.55	28	8670	783	754	777	752	767	-0.05
29	1108	757	765	735	762	755	0.35	30	9005	776	763	748	759	761	-0.75
31	47	741	762	753	759	754	0.75	32	9944	739	759	734	745	744	-1.15
33	10152	758	705	724	748	734	-1.65	34	9109	754	753	738	775	755	-0.25
35	8943	768	773	747	778	766	-0.20	36	404	760	762	752	754	757	0.55
37	9363	769	750	759	760	759	-1.55	38	7821	767	770	770	777	771	-0.05
39	9370	757	755	747	766	756	-1.05	40	9662	774	767	766	771	770	-0.80
41	10137	748	725	742	767	746	-0.85	42	9334	773	761	772	761	767	-0.60
43	7	770	764	741	756	758	0.75	44	8983	749	707	761	736	738	-0.45
45	9230	765	756	768	756	761	-1.10	46	8966	260	763	756	763	635	-0.60
47	3936	769	756	756	764	761	0.15	48	10150	736	749	756	732	743	-2.15
49	10449	737	753	729	755	743	-1.25	50	8989	741	770	741	755	752	-0.05
51	9603	766	756	750	747	755	-1.40	52	406	755	740	754	763	753	0.45
53	9583	726	759	737	754	744	-0.65	54	9140	769	749	764	763	761	-0.25
55	9541	742	751	741	748	745	-0.70	56	9968	768	765	759	753	761	-1.40
57	10531	734	750	730	736	738	-2.25	58	9782	749	743	685	747	731	-0.80
59	9901	749	730	744	766	747	-0.65	60	9918	735	742	747	734	740	-1.55
61	9832	760	746	754	742	751	-0.55	62	-75	754	725	739	745	741	******
63	10095	755	740	721	751	742	-2.10	64	10550	732	743	699	753	732	-3.00

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	182 DEG C	10	TE-5-7	740 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	753 DEG C	13	TE-28-6	767 DEG C	14	TE-28-7	754 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	270 KPA
23	TE-44-8	731 DEG C	24	TE-320	376 DEG C	25	TE-321	371 DEG C
26	TE-322	351 DEG C	27	TE-323	709 DEG C	28	TE-324	683 DEG C
29	TE-325	690 DEG C	30	TE-326	660 DEG C	31	TE-327	650 DEG C
41	TE-91-2	617 DEG C	44	TE-92-1	614 DEG C	45	TE-92-2	584 DEG C
46	TE-92-3	606 DEG C	47	TE-92-4	559 DEG C	49	TE-93-2	659 DEG C
50	TE-93-3	677 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	521 DEG C
54	TE-94-3	541 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V
488	TAV-10	763 DEG C						

[redacted] C 1 [redacted]

TABLE B- 3. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 3 BURST TIME

TIME FROM POWER-ON 46.90 SEC. TIME FROM POWER-OFF -1.55 SEC. RECORD NUMBER 564-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10470	718	651	754	736	715	-2.70	2	10	748	733	781	697	740	1.25
3	9241	728	740	755	749	743	0.00	4	9	723	764	753	759	750	2.05
5	9149	746	728	757	773	751	-0.60	6	285	744	759	776	706	746	0.50
7	61	733	744	760	752	747	1.15	8	9601	739	763	733	701	734	-0.45
9	9489	733	684	775	735	732	-1.25	10	197	756	753	765	735	753	0.60
11	3	766	762	765	773	767	1.40	12	-4	768	769	777	763	769	1.30
13	-2	768	777	768	768	770	1.35	14	17	773	782	768	767	773	1.85
15	10	759	763	745	762	757	1.10	16	-5	756	786	791	646	745	2.35
17	9625	766	717	718	772	743	-1.55	18	18	765	784	780	782	778	1.65
19	507	771	756	777	738	760	0.40	20	24	763	766	759	762	763	0.70
21	10	765	773	771	776	771	2.90	22	52	775	776	768	759	769	0.65
23	14	782	766	765	773	772	1.70	24	1557	773	744	749	722	747	0.25
25	33	765	747	761	724	749	0.70	26	4	750	773	756	767	762	1.30
27	24	773	755	781	766	769	1.80	28	16	772	755	778	764	767	1.20
29	26	779	787	739	775	770	1.60	30	378	784	772	753	763	768	0.50
31	17	765	769	775	765	768	2.00	32	4347	742	759	731	748	745	0.10
33	9301	768	678	717	757	730	-0.40	34	24	753	756	740	774	756	1.00
35	30	770	783	744	783	770	1.05	36	114	772	770	758	764	766	1.80
37	8158	781	758	770	768	769	-0.30	38	20	775	766	768	780	772	1.20
39	1420	744	755	738	766	751	0.20	40	358	754	761	725	757	743	0.45
41	727	745	735	728	769	745	0.40	42	77	772	742	769	763	761	0.65
43	17	780	786	759	769	774	2.00	44	24	756	743	772	740	753	0.80
45	3373	748	756	760	759	756	0.15	46	58	262	758	749	761	633	0.65
47	4	784	764	762	771	770	1.40	48	9404	743	758	756	704	740	-0.90
49	9722	742	744	730	761	744	0.00	50	-20	743	776	764	760	761	1.20
51	8369	772	760	757	755	761	-0.15	52	-27	743	748	764	773	757	1.70
53	1[illegible]2	731	759	741	752	746	0.60	54	-24	777	761	762	778	769	1.00
55	78	718	761	744	753	744	0.55	56	9102	779	776	748	757	765	-0.15
57	9960	744	732	745	740	740	-1.00	58	1032	756	742	721	746	741	0.45
59	196	752	726	740	752	743	0.60	60	9070	746	752	714	741	738	-0.30
61	-8	770	726	752	748	749	0.70	62	-215	764	731	738	754	747	******
63	9317	770	739	692	751	738	-0.85	64	10021	736	729	696	697	715	-1.75

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	240 DEG C	10	TE-5-7	747 DEG C	11	TE-5-8	741 DEG C	
12	TE-28-5	758 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	762 DEG C	
15	TE-28-8	756 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	403 KPA	
23	TE-44-8	729 DEG C	24	TE-320	382 DEG C	25	TE-321	398 DEG C	
26	TE-322	372 DEG C	27	TE-323	721 DEG C	28	TE-324	708 DEG C	
29	TE-325	716 DEG C	30	TE-326	681 DEG C	31	TE-327	671 DEG C	
41	TE-91-2	651 DEG C	44	TE-92-1	640 DEG C	45	TE-92-2	610 DEG C	
46	TE-92-3	603 DEG C	47	TE-92-4	630 DEG C	49	TE-93-2	661 DEG C	
50	TE-93-3	643 DEG C	52	TE-94-1	667 DEG C	53	TE-94-2	541 DEG C	
54	TE-94-3	536 DEG C	472	EIE-10	2382 A	473	EEE-10	82 V	
486	TAV-10	769 DEG C							

[redacted] D I [redacted]

TABLE B- 4. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 4 BURST TIME

TIME FROM POWER-ON 44.85 SEC. TIME FROM POWER-OFF -3.60 SEC. RECORD NUMBER 543-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11199	727	727	739	718	728	-4.75	2	9937	762	742	745	741	748	-0.80
3	10598	748	744	742	756	748	-2.05	4	9561	769	751	762	753	759	0.0
5	10364	748	725	750	756	745	-2.65	6	10526	756	758	765	744	756	-1.55
7	10185	761	754	749	772	759	-0.90	8	10631	736	744	736	718	733	-2.50
9	10620	739	753	759	763	753	-3.30	10	9818	768	748	751	737	751	-1.45
11	9392	758	749	757	760	756	-0.65	12	9290	770	781	767	761	770	-0.75
13	9562	752	752	762	754	755	-0.70	14	8931	761	776	772	763	768	-0.20
15	9990	756	755	744	761	754	-0.95	16	1190	760	759	765	672	739	0.30
17	10707	755	739	723	752	742	-3.60	18	9350	763	770	768	765	767	-0.40
19	9643	761	754	770	728	753	-1.65	20	9523	753	750	753	754	752	-1.35
21	26	742	751	763	770	757	0.85	22	9455	772	765	754	765	764	-1.10
23	9163	770	768	753	762	763	-0.35	24	10342	744	736	761	747	747	-1.80
25	10579	756	748	738	730	743	-1.35	26	9830	743	765	745	752	751	-0.75
27	8861	766	751	753	754	756	-0.25	28	9517	778	746	772	747	761	-0.85
29	9261	766	767	744	769	761	-0.45	30	9731	760	754	740	752	751	-1.55
31	9242	749	772	766	769	764	-0.05	32	10453	734	762	730	753	745	-1.95
33	10610	751	750	731	741	743	-2.45	34	9931	747	749	731	772	750	-1.05
35	9797	769	770	743	772	763	-1.00	36	9214	752	771	755	752	757	-0.25
37	9991	766	745	754	754	755	-2.35	38	8961	766	765	765	771	767	-0.85
39	10031	749	751	738	763	750	-1.85	40	10236	768	760	766	765	765	-1.60
41	10634	749	728	737	761	744	-1.65	42	10079	768	754	766	754	761	-1.40
43	9478	767	774	746	752	760	-0.05	44	9800	743	723	753	737	739	-1.25
45	9931	750	749	765	746	753	-1.90	46	9754	259	765	749	751	631	-1.40
47	9699	771	769	761	767	767	-0.65	48	10604	732	743	755	739	742	-2.95
49	10853	733	735	723	748	735	-2.05	50	9857	736	760	737	749	745	-0.85
51	10197	760	750	750	739	750	-2.20	52	9147	753	740	755	760	752	-0.35
53	10198	728	751	732	748	740	-1.45	54	9933	762	743	757	765	757	-1.05
55	10178	737	741	737	741	739	-1.50	56	10464	762	760	750	749	755	-2.20
57	10903	718	747	720	733	730	-3.05	58	10330	742	740	716	745	736	-1.60
59	10478	741	727	741	759	742	-1.45	60	10405	722	748	743	733	737	-2.35
61	10406	747	751	755	737	748	-1.35	62	-12	748	722	739	740	737	******
63	10571	745	737	727	750	740	-2.90	64	10885	728	741	697	748	729	-3.80

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	739 DEG C	10	TE-5-7	735 DEG C	11	TE-5-8	726 DEG C
12	TE-28-5	749 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	749 DEG C
15	TE-28-8	744 DEG C	17	TE-39-6	759 DEG C	19	PE-301	200 KPA
23	TE-44-8	747 DEG C	24	TE-320	368 DEG C	25	TE-321	357 DEG C
26	TE-322	346 DEG C	27	TE-323	686 DEG C	28	TE-324	656 DEG C
29	TE-325	671 DEG C	30	TE-326	631 DEG C	31	TE-327	614 DEG C
41	TE-91-2	535 DEG C	44	TE-92-1	608 DEG C	45	TE-92-2	527 DEG C
46	TE-92-3	666 DEG C	47	TE-92-4	499 DEG C	49	TE-93-2	506 DEG C
50	TE-93-3	653 DEG C	52	TE-94-1	628 DEG C	53	TE-94-2	495 DEG C
54	TE-94-3	543 DEG C	472	EIE-10	2385 A	473	EEE-10	81 V
488	TAV-10	760 DEG C						

[redacted] E 1 [redacted]

TABLE B- 5. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 5 BURST TIME

TIME FROM POWER-ON 47.50 SEC. TIME FROM POWER-OFF -0.95 SEC. RECORD NUMBER 570-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10296	716	653	759	741	717	-2.10	2	18	748	719	776	693	734	1.85
3	111	713	727	753	748	735	0.60	4	11	704	770	756	763	748	2.65
5	8750	732	730	758	778	750	0.00	6	0	756	767	786	698	752	1.10
7	12	734	745	766	757	751	1.75	8	2573	727	763	694	686	718	0.15
9	9123	733	673	781	724	728	-0.65	10	16	760	759	769	743	758	1.20
11	4	771	769	769	781	772	2.00	12	3	771	770	782	767	773	1.90
13	6	775	784	771	774	776	1.95	14	11	777	788	770	773	777	2.45
15	12	765	768	745	764	761	1.70	16	12	746	792	796	644	745	2.95
17	9308	767	718	720	777	746	-0.95	18	20	769	789	785	784	782	2.25
19	26	782	765	794	744	771	1.00	20	26	767	771	763	766	767	1.30
21	13	770	777	774	776	774	3.50	22	10	781	782	772	765	775	1.25
23	18	785	770	768	773	774	2.30	24	17	782	753	754	725	753	0.85
25	21	774	744	766	731	754	1.30	26	7	752	778	762	771	766	1.90
27	35	776	757	787	770	773	2.40	28	19	775	760	783	770	772	1.80
29	29	786	791	742	776	774	2.20	30	21	788	776	761	769	773	1.10
31	20	772	772	782	765	773	2.60	32	18	748	748	733	755	746	0.70
33	2841	761	688	708	759	729	0.20	34	26	761	757	750	778	762	1.60
35	32	781	789	748	789	776	1.65	36	116	776	771	763	758	770	2.40
37	826	750	751	761	758	755	0.30	38	23	780	771	771	705	777	1.80
39	12	760	758	748	769	759	0.80	40	29	754	770	703	764	748	1.05
41	56	751	753	740	778	755	1.00	42	27	769	749	776	766	765	1.25
43	20	784	791	765	774	778	2.60	44	18	761	753	779	744	759	1.40
45	14	759	765	764	769	764	0.75	46	23	263	759	759	764	636	1.25
47	15	794	765	764	778	775	2.00	48	9022	747	761	761	692	740	-0.30
49	109	741	759	726	754	745	0.60	50	-18	747	780	774	763	766	1.80
51	268	767	756	766	751	760	0.45	52	-23	750	752	765	773	760	2.30
53	-27	738	775	746	761	755	1.20	54	-21	782	765	764	788	775	1.60
55	-26	734	764	750	760	752	1.15	56	200	770	776	739	721	752	0.45
57	9717	748	725	749	742	741	-0.40	58	-12	760	744	693	747	736	1.05
59	-28	756	729	744	768	749	1.20	60	1635	738	730	709	740	729	0.30
61	-49	776	720	741	753	747	1.30	62	-235	767	734	740	757	750	******
63	8913	773	739	681	753	737	-0.25	64	9803	739	726	698	694	714	-1.15

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	250 DEG C	10	TE-5-7	749 DEG C	11	TE-5-8	745 DEG C
12	TE-28-5	763 DEG C	13	TE-28-6	766 DEG C	14	TE-28-7	767 DEG C
15	TE-28-8	762 DEG C	17	TE-39-6	757 DEG C	19	PE-301	430 KPA
23	TE-44-8	723 DEG C	24	TE-320	377 DEG C	25	TE-321	388 DEG C
26	TE-322	370 DEG C	27	TE-323	726 DEG C	28	TE-324	707 DEG C
29	TE-325	714 DEG C	30	TE-326	678 DEG C	31	TE-327	664 DEG C
41	TE-91-2	653 DEG C	44	TE-92-1	649 DEG C	45	TE-92-2	612 DEG C
46	TE-92-3	614 DEG C	47	TE-92-4	645 DEG C	49	TE-93-2	662 DEG C
50	TE-93-3	654 DEG C	52	TE-94-1	671 DEG C	53	TE-94-2	548 DEG C
54	TE-94-3	534 DEG C	472	EIE-10	2377 A	473	EEE-10	81 V
488	TAV-10	772 DEG C						

[redacted] F 1 [redacted]

TABLE B- 6. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 6 BURST TIME

TIME FROM POWER-ON 46.40 SEC. TIME FROM POWER-OFF -2.05 SEC. RECORD NUMBER 559-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10631	720	653	750	732	714	-3.20	2	8	750	772	766	700	747	0.75
3	9669	732	747	754	754	747	-0.50	4	-7	743	756	751	758	752	1.55
5	9444	751	727	758	767	751	-1.10	6	9290	768	762	778	725	758	0.00
7	984	732	744	757	746	745	0.65	8	9850	738	757	736	708	735	-0.95
9	9762	735	702	771	759	742	-1.75	10	5246	751	752	765	725	749	0.10
11	-6	764	756	762	764	761	0.90	12	-5	763	770	772	760	766	0.80
13	-5	764	766	766	759	764	0.85	14	0	769	776	768	764	769	1.35
15	132	751	757	741	760	752	0.60	16	-10	765	783	787	657	748	1.85
17	9882	762	719	723	769	743	-2.05	18	1	762	779	776	777	774	1.15
19	7869	763	762	774	741	760	-0.10	20	1919	758	762	754	757	758	0.20
21	-8	761	768	766	775	768	2.40	22	3259	765	768	763	749	761	0.15
23	0	780	763	762	774	770	1.20	24	9236	761	752	762	756	758	-0.25
25	2729	756	746	752	718	743	0.20	26	22	754	769	750	762	759	0.80
27	5	771	750	774	763	765	1.30	28	27	768	750	774	756	762	0.70
29	15	770	779	737	770	764	1.10	30	8133	784	769	753	765	768	0.00
31	-7	761	768	768	763	765	1.50	32	9368	748	763	738	750	750	-0.40
33	9657	764	688	716	752	730	-0.90	34	482	736	756	734	770	749	0.50
35	78	763	778	739	779	765	0.55	36	95	768	767	756	760	763	1.30
37	8668	776	754	767	765	765	-0.80	38	16	770	765	762	770	767	0.70
39	8593	763	760	752	770	761	-0.30	40	9036	782	773	754	767	769	-0.05
41	9499	748	720	748	769	746	-0.10	42	3050	766	742	761	760	757	0.15
43	-1	775	770	754	764	766	1.50	44	1420	751	724	761	732	742	0.30
45	8344	769	763	769	763	766	-0.35	46	3072	261	757	741	755	628	0.15
47	0	768	765	759	763	764	0.90	48	9704	740	756	753	713	741	-1.40
49	10038	741	747	730	759	744	-0.50	50	-8	739	773	753	758	756	0.70
51	8934	772	758	756	751	759	-0.65	52	-32	752	745	762	771	757	1.20
53	6582	730	765	739	755	747	0.10	54	405	773	755	758	760	762	0.50
55	6925	737	759	737	749	746	0.05	56	9457	775	772	756	761	766	-0.65
57	10181	741	747	741	738	742	-1.50	58	9175	756	745	660	748	727	-0.05
59	5720	753	725	736	741	739	0.10	60	9418	742	748	725	738	739	-0.80
61	3020	757	734	746	743	745	0.20	62	-167	759	727	733	750	742	******
63	9626	767	740	712	750	742	-1.35	64	10216	735	733	697	733	724	-2.25

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	234 DEG C	10	TE-5-7	744 DEG C	11	TE-5-8	722 DEG C
12	TE-28-5	755 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	756 DEG C
15	TE-28-8	751 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	362 KPA
23	TE-44-8	731 DEG C	24	TE-320	390 DEG C	25	TE-321	392 DEG C
26	TE-322	365 DEG C	27	TE-323	710 DEG C	28	TE-324	690 DEG C
29	TE-325	709 DEG C	30	TE-326	668 DEG C	31	TE-327	667 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	631 DEG C	45	TE-92-2	618 DEG C
46	TE-92-3	601 DEG C	47	TE-92-4	616 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	657 DEG C	52	TE-94-1	655 DEG C	53	TE-94-2	531 DEG C
54	TE-94-3	535 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	768 DEG C						

TABLE B- 7. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 7 BURST TIME

TIME FROM POWER-ON 45.75 SEC. TIME FROM POWER-OFF -2.70 SEC. RECORD NUMBER 552-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10856	718	661	745	727	713	-3.85	2	4522	747	726	758	703	734	0.10
3	10071	738	748	749	757	748	-1.15	4	19	759	748	746	758	753	0.90
5	9838	755	727	755	763	750	-1.75	6	9880	762	756	773	734	756	-0.65
7	9485	746	751	756	766	755	0.0	8	10173	740	752	737	713	735	-1.60
9	10128	740	708	766	762	744	-2.40	10	8976	759	754	756	738	754	-0.55
11	2012	758	735	754	756	751	0.25	12	2675	752	770	764	749	759	0.15
13	2326	753	753	758	748	753	0.20	14	85	764	770	767	761	765	0.70
15	9185	766	760	745	765	759	-0.05	16	-15	767	775	781	650	743	1.20
17	10229	759	727	724	763	743	-2.70	18	261	759	769	768	769	766	0.50
19	8721	758	759	768	738	756	-0.75	20	8581	759	759	757	758	758	-0.45
21	2	756	761	760	775	763	1.75	22	8404	773	774	761	760	767	-0.50
23	408	774	765	756	767	765	0.55	24	9720	752	745	768	746	753	-0.90
25	10029	763	745	751	735	749	-0.45	26	4493	751	763	742	755	753	0.15
27	83	768	744	758	756	757	0.65	28	8427	780	754	775	749	765	0.05
29	587	759	768	735	763	756	0.45	30	8889	777	763	750	759	762	-0.65
31	4	746	762	755	760	756	0.85	32	9863	740	759	734	746	745	-1.05
33	10087	759	703	724	748	733	-1.55	34	8961	754	753	739	775	755	-0.15
35	8799	768	773	746	778	767	-0.10	36	225	762	763	753	755	758	0.65
37	9267	770	750	760	760	760	-1.45	38	5987	761	766	758	767	763	0.05
39	9261	757	756	747	767	757	-0.95	40	9581	775	768	765	769	769	-0.70
41	10049	748	725	743	767	746	-0.75	42	9204	773	762	772	763	768	-0.50
43	-5	770	765	743	757	759	0.85	44	8855	749	708	761	736	738	-0.35
45	9113	766	757	768	757	762	-1.00	46	8835	260	763	757	763	635	-0.50
47	2036	770	759	756	758	761	0.25	48	10092	736	750	756	729	743	-2.05
49	10391	739	754	731	755	745	-1.15	50	6748	735	764	734	753	747	0.05
51	9513	766	756	751	747	755	-1.30	52	146	755	741	756	764	754	0.55
53	9488	727	762	738	754	745	-0.55	54	9000	770	750	764	762	762	-0.15
55	9435	741	754	741	748	746	-0.60	56	9894	770	765	760	755	763	-1.30
57	10467	736	750	732	737	739	-2.15	58	9701	749	744	681	747	730	-0.70
59	9887	750	730	745	766	748	-0.55	60	9839	737	743	743	734	739	-1.45
61	9733	762	747	753	743	751	-0.45	62	-104	754	726	739	746	741	******
63	10023	758	739	716	750	741	-2.00	64	10493	732	742	699	754	732	-2.90

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	194 DEG C	10	TE-5-7	740 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	749 DEG C	13	TE-28-6	764 DEG C	14	TE-28-7	751 DEG C
15	TE-28-8	745 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	291 KPA
23	TE-44-8	731 DEG C	24	TE-320	384 DEG C	25	TE-321	377 DEG C
26	TE-322	352 DEG C	27	TE-323	712 DEG C	28	TE-324	688 DEG C
29	TE-325	694 DEG C	30	TE-326	669 DEG C	31	TE-327	651 DEG C
41	TE-91-2	633 DEG C	44	TE-92-1	612 DEG C	45	TE-92-2	590 DEG C
46	TE-92-3	600 DEG C	47	TE-92-4	581 DEG C	49	TE-93-2	663 DEG C
50	TE-93-3	682 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	523 DEG C
54	TE-94-3	541 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	763 DEG C						

[redacted] H I [redacted]

TABLE B- 8. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 8 BURST TIME

TIME FROM POWER-ON 47.35 SEC. TIME FROM POWER-OFF -1.10 SEC. RECORD NUMBER 568-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10336	717	652	757	739	716	-2.25	2	10	747	618	777	94	709	1.70
3	427	715	724	752	746	734	0.45	4	2	706	768	756	762	748	2.50
5	8861	736	729	758	777	750	-0.15	6	6	752	765	784	700	750	0.95
7	3	735	745	763	757	750	1.60	8	9327	739	768	730	693	733	0.0
9	9214	733	675	779	726	728	-0.80	10	21	760	757	768	742	757	1.05
11	-4	770	768	768	780	771	1.85	12	2	771	770	781	766	772	1.75
13	5	773	782	770	773	775	1.80	14	9	776	786	769	771	776	2.30
15	3	764	767	744	762	759	1.55	16	10	747	791	795	639	743	2.80
17	9388	767	719	720	776	746	-1.10	18	11	767	788	784	783	781	2.10
19	17	780	764	791	743	769	0.85	20	25	766	770	762	765	766	1.15
21	3	769	776	773	776	774	3.35	22	23	779	781	771	764	774	1.10
23	16	784	769	767	773	773	2.15	24	16	781	751	752	724	752	0.70
25	19	771	746	765	729	753	1.15	26	5	752	777	761	770	765	1.75
27	18	775	757	786	769	772	2.25	28	9	774	759	781	769	771	1.65
29	27	784	789	741	776	773	2.05	30	19	787	776	759	767	772	0.95
31	18	770	771	780	765	771	2.45	32	107	746	750	732	754	745	0.55
33	8752	771	672	713	762	729	0.05	34	32	760	756	748	777	760	1.45
35	30	778	787	747	788	775	1.50	36	115	775	771	762	767	769	2.25
37	2448	744	751	757	755	752	0.15	38	21	779	770	770	785	776	1.65
39	25	757	756	745	768	757	0.65	40	35	754	758	707	763	748	0.90
41	47	750	760	737	778	756	0.85	42	33	771	747	774	765	764	1.10
43	25	783	791	763	773	778	2.45	44	24	760	751	777	743	758	1.25
45	64	756	763	764	767	763	0.60	46	22	262	759	756	730	627	1.10
47	13	792	765	764	777	774	1.85	48	9131	746	760	760	695	740	-0.45
49	459	740	755	725	752	743	0.45	50	-20	746	778	772	762	765	1.65
51	943	766	756	759	750	758	0.30	52	-25	748	751	766	775	760	2.15
53	-29	737	773	745	759	753	1.05	54	-23	781	764	764	786	774	1.45
55	-28	731	765	749	758	751	1.00	56	926	766	772	735	720	748	0.30
57	9781	747	726	748	741	741	-0.55	58	1	759	744	700	747	738	0.90
59	-30	754	729	743	765	748	1.05	60	4758	727	725	708	739	725	0.15
61	-51	775	721	741	751	747	1.15	62	-229	766	733	740	756	749	******
63	9027	773	740	684	752	737	-0.40	64	9860	738	727	697	693	714	-1.30

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	249 DEG C	10	TE-5-7	748 DEG C	11	TE-5-8	745 DEG C
12	TE-28-5	761 DEG C	13	TE-28-6	764 DEG C	14	TE-28-7	766 DEG C
15	TE-28-8	759 DEG C	17	TE-39-6	756 DEG C	19	PE-301	425 KPA
23	TE-44-8	724 DEG C	24	TE-320	378 DEG C	25	TE-321	393 DEG C
26	TE-322	371 DEG C	27	TE-323	726 DEG C	28	TE-324	706 DEG C
29	TE-325	714 DEG C	30	TE-326	681 DEG C	31	TE-327	667 DEG C
41	TE-91-2	650 DEG C	44	TE-92-1	647 DEG C	45	TE-92-2	608 DEG C
46	TE-92-3	608 DEG C	47	TE-92-4	642 DEG C	49	TE-93-2	659 DEG C
50	TE-93-3	644 DEG C	52	TE-94-1	671 DEG C	53	TE-94-2	545 DEG C
54	TE-94-3	534 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	771 DEG C						

[redacted] 11 [redacted]

TABLE B- 9. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 9 BURST TIME

TIME FROM POWER-ON 48.15 SEC. TIME FROM POWER-OFF -0.30 SEC. RECORD NUMBER 576-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10112	715	659	771	745	723	-1.45	2	17	754	752	776	690	743	2.50
3	18	722	736	762	753	743	1.25	4	10	701	771	760	765	749	3.30
5	73	725	721	754	783	746	0.65	6	0	769	773	792	690	756	1.75
7	11	735	746	776	758	754	2.40	8	12	733	781	725	696	734	0.80
9	8588	733	666	787	709	724	0.0	10	8	766	766	774	748	764	1.85
11	-3	776	775	774	788	778	2.65	12	3	775	773	787	771	777	2.55
13	-1	781	788	774	780	781	2.60	14	17	781	797	772	776	782	3.10
15	12	770	773	748	767	765	2.35	16	4	744	798	803	640	746	3.60
17	8890	771	736	724	784	754	-0.30	18	19	774	795	789	790	787	2.90
19	25	791	773	802	750	779	1.65	20	18	771	775	766	771	771	1.95
21	4	774	783	778	777	778	4.15	22	24	787	788	777	770	781	1.90
23	17	790	774	771	777	778	2.95	24	17	788	763	758	728	759	1.50
25	27	777	737	772	738	756	1.95	26	14	758	783	767	775	771	2.55
27	19	780	762	795	774	778	3.05	28	18	779	765	788	775	777	2.45
29	28	793	797	747	779	779	2.85	30	13	792	781	767	773	778	1.75
31	19	779	775	786	768	777	3.25	32	25	750	747	738	760	749	1.35
33	11	769	704	719	772	741	0.85	34	18	768	759	757	783	767	2.25
35	45	792	795	754	794	784	2.30	36	108	782	774	768	772	774	3.05
37	16	762	757	771	768	765	0.95	38	22	785	775	777	793	782	2.45
39	11	770	763	754	774	765	1.45	40	28	754	776	691	770	748	1.70
41	48	754	754	747	781	759	1.65	42	34	770	755	782	770	769	1.90
43	-3	790	779	770	780	780	3.25	44	25	766	759	784	748	765	2.05
45	13	765	772	765	775	769	1.40	46	22	263	763	766	772	641	1.90
47	6	800	782	768	783	783	2.65	48	669	719	761	766	733	745	0.35
49	3	744	767	731	765	752	1.25	50	-19	753	786	781	768	772	2.45
51	-21	772	759	778	759	767	1.10	52	-16	757	756	768	773	763	2.95
53	-20	743	783	751	768	761	1.85	54	-15	781	769	767	790	777	2.25
55	-27	743	765	755	764	757	1.80	56	-17	778	783	747	719	757	1.10
57	3162	689	737	732	736	724	0.25	58	-5	764	748	679	749	735	1.70
59	-29	759	731	748	778	754	1.85	60	-20	753	740	709	745	737	0.95
61	-43	772	718	739	756	746	1.95	62	-236	771	741	750	762	756	******
63	629	765	729	705	742	735	0.40	64	9567	741	726	702	704	718	-0.50

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	198 DEG C	10	TE-5-7	750 DEG C	11	TE-5-8	749 DEG C
12	TE-28-5	768 DEG C	13	TE-28-6	770 DEG C	14	TE-28-7	772 DEG C
15	TE-28-8	769 DEG C	17	TE-39-6	763 DEG C	19	PE-301	431 KPA
23	TE-44-8	720 DEG C	24	TE-320	397 DEG C	25	TE-321	380 DEG C
26	TE-322	363 DEG C	27	TE-323	713 DEG C	28	TE-324	697 DEG C
29	TE-325	700 DEG C	30	TE-326	665 DEG C	31	TE-327	651 DEG C
41	TE-91-2	652 DEG C	44	TE-92-1	651 DEG C	45	TE-92-2	614 DEG C
46	TE-92-3	612 DEG C	47	TE-92-4	654 DEG C	49	TE-93-2	659 DEG C
50	TE-93-3	667 DEG C	52	TE-94-1	675 DEG C	53	TE-94-2	555 DEG C
54	TE-94-3	534 DEG C	472	EIE-10	2377 A	473	EEE-10	81 V
488	TAV-10	778 DEG C						

TABLE B-10. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 10 BURST TIME

TIME FROM POWER-ON 46.30 SEC. TIME FROM POWER-OFF -2.15 SEC. RECORD NUMBER 558-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10670	720	652	749	731	713	-3.30	2	19	751	757	771	697	744	0.65
3	9751	731	747	754	754	747	-0.60	4	-11	749	755	750	758	752	1.45
5	9518	753	727	757	766	751	-1.20	6	9415	767	762	778	726	758	-0.10
7	1447	732	744	756	747	745	0.55	8	9890	738	756	737	709	735	-1.05
9	9830	736	699	771	761	742	-1.65	10	8310	756	759	772	738	756	0.00
11	-9	762	754	761	762	760	0.80	12	-1	761	770	771	760	765	0.70
13	-8	763	764	765	757	762	0.75	14	-16	768	778	768	765	770	1.25
15	362	750	756	739	758	751	0.50	16	-14	765	781	786	659	748	1.75
17	9938	761	718	724	769	743	-2.15	18	-2	762	778	774	776	773	1.05
19	8038	763	762	774	741	760	-0.20	20	4346	758	762	755	756	758	0.10
21	-12	760	767	765	775	767	2.30	22	6799	768	778	764	752	765	0.05
23	3	780	764	760	774	769	1.10	24	9318	756	751	763	755	756	-0.35
25	6347	758	749	753	723	746	0.10	26	86	755	769	749	762	759	0.70
27	1	770	749	773	762	763	1.20	28	98	768	748	774	753	761	0.60
29	4	769	778	736	768	763	1.00	30	8282	783	769	752	764	767	-0.10
31	-11	758	767	766	763	764	1.40	32	9470	748	762	737	749	749	-0.50
33	9734	763	689	716	751	730	-1.00	34	933	731	756	731	769	747	0.40
35	235	762	777	738	779	764	0.45	36	98	767	766	756	759	762	1.20
37	8783	775	753	765	764	764	-0.90	38	27	768	765	762	767	765	0.60
39	8728	762	759	752	769	760	-0.40	40	9137	781	773	757	768	770	-0.15
41	9615	748	720	747	768	746	-0.20	42	6091	768	754	764	759	761	0.05
43	-20	774	765	752	738	758	1.40	44	2713	749	718	757	729	738	0.20
45	8481	769	762	770	763	766	-0.45	46	6919	261	761	754	756	633	0.05
47	3	762	765	758	762	762	0.80	48	9774	739	756	752	715	740	-1.50
49	10101	741	747	730	758	744	-0.60	50	53	738	772	753	757	755	0.60
51	9036	772	758	755	750	759	-0.75	52	-45	758	746	760	770	759	1.10
53	8936	732	769	741	760	750	0.00	54	827	773	753	757	757	760	0.40
55	8862	744	763	743	753	751	-0.05	56	9535	774	772	756	761	766	-0.75
57	10228	741	749	741	737	742	-1.60	58	9276	756	745	662	748	728	-0.15
59	9471	755	731	745	770	750	0.00	60	9494	742	747	727	737	739	-0.90
61	6265	754	735	744	744	744	0.10	62	-156	758	727	733	750	742	******
63	9695	766	740	705	749	740	-1.45	64	10264	735	735	699	747	729	-2.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	224 DEG C	10	TE-5-7	745 DEG C	11	TE-5-8	721 DEG C
12	TE-28-5	754 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	756 DEG C
15	TE-28-8	750 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	344 KPA
23	TE-44-8	732 DEG C	24	TE-320	391 DEG C	25	TE-321	390 DEG C
26	TE-322	362 DEG C	27	TE-323	705 DEG C	28	TE-324	682 DEG C
29	TE-325	706 DEG C	30	TE-326	660 DEG C	31	TE-327	654 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	629 DEG C	45	TE-92-2	614 DEG C
46	TE-92-3	594 DEG C	47	TE-92-4	606 DEG C	49	TE-93-2	662 DEG C
50	TE-93-3	660 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	528 DEG C
54	TE-94-3	537 DEG C	472	EIE-10	2382 A	473	EEE-10	82 V
488	TAV-10	767 DEG C						

TABLE B-11. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 11 BURST TIME

TIME FROM POWER-ON 45.50 SEC. TIME FROM POWER-OFF -2.95 SEC. RECORD NUMBER 550-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10960	717	672	742	725	714	-4.10	2	9384	758	745	769	721	748	-0.15
3	10246	746	747	748	761	750	-1.40	4	279	762	745	744	756	752	0.65
5	10005	753	728	754	762	749	-2.00	6	10078	760	754	771	738	756	-0.90
7	9766	751	752	755	766	756	-0.25	8	10308	740	750	736	714	735	-1.85
9	10282	740	724	765	764	748	-2.65	10	9250	760	752	762	738	753	-0.80
11	8650	762	747	764	768	760	0.00	12	8598	772	781	773	764	772	-0.10
13	8764	759	757	767	757	760	-0.05	14	650	759	763	766	756	761	0.45
15	9445	765	758	744	765	758	-0.30	16	3	765	773	777	638	738	0.95
17	10367	758	732	723	762	744	-2.95	18	1768	757	763	765	765	763	0.25
19	9020	758	758	767	736	755	-1.00	20	8889	758	756	756	757	757	-0.70
21	6	752	758	768	775	763	1.50	22	8738	773	772	759	760	766	-0.75
23	1820	770	764	751	763	762	0.30	24	9908	750	743	766	748	752	-1.15
25	10194	763	746	748	735	748	-0.70	26	9128	756	770	750	757	758	-0.10
27	752	765	745	755	755	755	0.40	28	8861	782	753	776	751	765	-0.20
29	2719	755	761	732	762	752	0.20	30	9164	773	761	747	758	760	-0.90
31	215	734	761	748	758	750	0.60	32	10040	738	758	733	745	744	-1.30
33	10231	756	714	725	747	735	-1.80	34	9293	753	752	736	774	754	-0.40
35	9137	768	772	747	776	766	-0.35	36	956	757	761	751	752	755	0.40
37	9494	769	749	757	759	758	-1.70	38	8088	766	767	769	776	769	-0.20
39	9507	756	754	745	765	755	-1.20	40	9788	774	766	768	772	770	-0.95
41	10247	749	725	741	766	746	-1.00	42	9487	773	760	770	760	766	-0.75
43	50	769	764	739	755	757	0.60	44	9161	748	709	759	736	738	-0.60
45	9377	764	755	768	754	760	-1.25	46	9140	260	764	756	760	635	-0.75
47	8975	777	734	762	773	762	0.00	48	10252	735	748	757	735	744	-2.30
49	10536	737	750	729	754	743	-1.40	50	9192	740	768	740	753	750	-0.20
51	9729	765	755	750	746	754	-1.55	52	1221	753	739	753	762	752	0.30
53	9716	725	756	736	752	743	-0.80	54	9317	767	748	763	765	761	-0.40
55	9678	741	747	741	745	743	-0.85	56	10070	767	766	758	752	761	-1.55
57	10609	732	750	727	736	736	-2.40	58	9892	748	743	695	747	733	-0.95
59	10072	748	730	743	765	746	-0.80	60	10012	734	740	748	734	739	-1.70
61	9959	758	748	753	741	750	-0.70	62	-62	752	725	741	744	741	******
63	10195	753	739	730	751	743	-2.25	64	10622	731	747	699	752	732	-3.15

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	129 DEG C	10	TE-5-7	739 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	754 DEG C	13	TE-28-6	766 DEG C	14	TE-28-7	754 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	250 KPA
23	TE-44-8	731 DEG C	24	TE-320	370 DEG C	25	TE-321	362 DEG C
26	TE-322	350 DEG C	27	TE-323	706 DEG C	28	TE-324	680 DEG C
29	TE-325	688 DEG C	30	TE-326	654 DEG C	31	TE-327	638 DEG C
41	TE-91-2	579 DEG C	44	TE-92-1	615 DEG C	45	TE-92-2	577 DEG C
46	TE-92-3	622 DEG C	47	TE-92-4	569 DEG C	49	TE-93-2	658 DEG C
50	TE-93-3	668 DEG C	52	TE-94-1	650 DEG C	53	TE-94-2	519 DEG C
54	TE-94-3	540 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V
488	TAV-10	763 DEG C						

TABLE B-12. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 12 BURST TIME

TIME FROM POWER-ON 45.60 SEC. TIME FROM POWER-OFF -2.85 SEC. RECORD NUMBER 551-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10925	717	666	743	726	713	-4.00	2	9257	757	746	770	720	748	-0.05
3	10168	743	748	748	760	750	-1.30	4	119	761	746	744	757	752	0.75
5	9935	755	728	755	762	750	-1.90	6	10000	761	754	772	736	756	-0.60
7	9679	749	752	755	766	756	-0.15	8	10265	740	751	737	713	735	-1.75
9	10226	741	715	765	764	746	-2.55	10	9741	759	753	763	738	753	-0.70
11	5558	756	718	751	757	746	0.10	12	8478	772	780	774	765	773	0.00
13	7812	758	756	762	749	756	0.05	14	368	761	766	765	747	760	0.55
15	9343	766	760	745	767	759	-0.20	16	-3	766	773	779	649	742	1.05
17	10308	758	729	724	763	743	-2.85	18	887	757	765	766	766	764	0.35
19	8906	758	758	768	737	755	-0.90	20	8771	759	757	756	758	758	-0.60
21	7	753	759	766	775	763	1.60	22	8611	773	773	759	760	766	-0.65
23	1038	771	765	753	764	763	0.40	24	9831	751	744	768	747	752	-1.05
25	10123	763	746	749	735	748	-0.60	26	8978	758	770	751	758	759	0.00
27	360	766	744	756	755	755	0.50	28	8736	783	754	776	751	766	-0.10
29	1503	756	765	734	762	754	0.30	30	9055	775	762	748	758	761	-0.80
31	75	740	761	751	760	753	0.70	32	9966	738	758	733	745	744	-1.20
33	10173	758	709	724	747	734	-1.70	34	9167	753	753	738	775	755	-0.30
35	9014	768	773	747	777	766	-0.25	36	545	759	762	752	754	757	0.50
37	9406	770	750	758	759	759	-1.60	38	7917	767	768	769	777	770	-0.10
39	9413	756	755	746	766	756	-1.10	40	9706	774	766	767	771	770	-0.85
41	10173	749	725	742	767	746	-0.90	42	9392	773	761	771	761	766	-0.65
43	-1	769	764	741	756	757	0.70	44	9040	748	706	760	735	737	-0.50
45	9274	765	756	768	756	761	-1.15	46	9023	259	763	756	762	635	-0.65
47	5655	773	753	757	768	763	0.10	48	10179	735	748	756	733	743	-2.20
49	10478	738	752	730	754	743	-1.30	50	9061	740	769	741	755	751	-0.10
51	9647	765	756	750	747	754	-1.45	52	605	754	740	754	762	752	0.40
53	9619	726	758	737	753	744	-0.70	54	9206	768	749	763	764	761	-0.30
55	9586	741	749	741	747	744	-0.75	56	10004	768	765	758	752	761	-1.45
57	10552	733	751	729	736	737	-2.30	58	9818	748	743	688	747	732	-0.85
59	10005	749	730	745	765	747	-0.70	60	9947	735	741	748	734	739	-1.60
61	9874	759	748	753	742	750	-0.60	62	-76	753	725	740	745	741	******
63	10130	755	739	725	751	743	-2.15	64	10571	732	744	699	753	732	-3.05

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	169 DEG C	10	TE-5-7	739 DEG C	11	TE-5-8	725 DEG C		
12	TE-28-5	754 DEG C	13	TE-28-6	766 DEG C	14	TE-28-7	754 DEG C		
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	264 KPA		
23	TE-44-8	731 DEG C	24	TE-320	371 DEG C	25	TE-321	367 DEG C		
26	TE-322	351 DEG C	27	TE-323	708 DEG C	28	TE-324	680 DEG C		
29	TE-325	688 DEG C	30	TE-326	657 DEG C	31	TE-327	645 DEG C		
41	TE-91-2	594 DEG C	44	TE-92-1	616 DEG C	45	TE-92-2	583 DEG C		
46	TE-92-3	611 DEG C	47	TE-92-4	566 DEG C	49	TE-93-2	659 DEG C		
50	TE-93-3	677 DEG C	52	TE-94-1	651 DEG C	53	TE-94-2	519 DEG C		
54	TE-94-3	540 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V		
488	TAV-10	762 DEG C								

[redacted] M 1 [redacted]

TABLE B-13. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 13 BURST TIME

TIME FROM POWER-ON 45.55 SEC. TIME FROM POWER-OFF -2.90 SEC. RECORD NUMBER 550-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10943	717	669	743	725	714	-4.05	2	9332	757	747	770	720	748	-0.10
3	10215	748	747	748	761	751	-1.35	4	189	761	746	744	756	752	0.70
5	9974	754	729	754	762	750	-1.95	6	10039	760	754	771	737	756	-0.85
7	9727	750	752	755	766	756	-0.20	8	10291	740	750	737	713	735	-1.80
9	10258	741	718	765	764	747	-2.60	10	9204	759	752	763	738	753	-0.75
11	7826	757	728	755	763	751	0.05	12	8546	771	781	773	765	772	-0.05
13	8659	760	758	767	757	760	0.0	14	482	760	765	766	756	762	0.50
15	9398	765	759	744	765	758	-0.25	16	0	765	773	778	641	739	1.00
17	10341	758	730	724	763	744	-2.90	18	1255	757	765	765	766	763	0.30
19	8960	758	758	767	737	755	-0.95	20	8827	758	757	756	757	757	-0.65
21	10	753	758	769	775	764	1.55	22	8683	773	773	759	760	766	-0.70
23	1386	771	764	752	763	763	0.35	24	9877	750	743	767	747	752	-1.10
25	10169	763	746	748	735	748	-0.65	26	9057	757	771	750	758	759	-0.05
27	538	765	745	756	755	755	0.45	28	8806	783	753	776	751	766	-0.15
29	2007	755	764	733	762	753	0.25	30	9110	773	761	747	758	760	-0.85
31	131	737	761	750	758	752	0.65	32	10022	738	758	733	745	744	-1.25
33	10221	757	711	724	747	735	-1.75	34	9245	753	752	737	774	754	-0.35
35	9084	767	772	747	776	766	-0.30	36	728	757	761	751	753	756	0.45
37	9454	769	749	757	759	759	-1.65	38	8010	767	768	769	777	770	-0.15
39	9468	756	755	745	766	755	-1.15	40	9747	774	766	767	772	770	-0.90
41	10207	748	725	742	766	746	-0.95	42	9447	773	760	771	761	766	-0.70
43	17	769	765	740	755	757	0.65	44	9101	748	708	760	736	738	-0.55
45	9337	765	755	768	755	761	-1.20	46	9086	260	764	756	761	635	-0.70
47	8336	776	741	760	773	763	0.05	48	10219	734	749	757	735	744	-2.25
49	10518	737	750	729	753	742	-1.35	50	9131	741	769	741	754	751	-0.15
51	9696	764	755	750	747	754	-1.50	52	871	754	740	753	761	752	0.35
53	9675	725	757	737	753	743	-0.75	54	9262	768	749	763	764	761	-0.35
55	9636	741	748	741	746	744	-0.80	56	10045	768	765	758	752	761	-1.50
57	10585	733	750	728	736	737	-2.35	58	9867	748	743	691	748	732	-0.90
59	10039	748	730	744	765	747	-0.75	60	9987	734	739	748	734	739	-1.65
61	9921	759	748	753	741	750	-0.65	62	-65	752	726	740	745	741	******
63	10170	753	738	729	751	743	-2.20	64	10597	732	747	699	753	733	-3.10

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	144 DEG C	10	TE-5-7	739 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	753 DEG C	13	TE-28-6	766 DEG C	14	TE-28-7	754 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	253 KPA
23	TE-44-8	731 DEG C	24	TE-320	370 DEG C	25	TE-321	361 DEG C
26	TE-322	350 DEG C	27	TE-323	706 DEG C	28	TE-324	679 DEG C
29	TE-325	687 DEG C	30	TE-326	654 DEG C	31	TE-327	640 DEG C
41	TE-91-2	588 DEG C	44	TE-92-1	616 DEG C	45	TE-92-2	580 DEG C
46	TE-92-3	613 DEG C	47	TE-92-4	572 DEG C	49	TE-93-2	656 DEG C
50	TE-93-3	676 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	519 DEG C
54	TE-94-3	541 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	762 DEG C						

[redacted] N 1 [redacted]

TABLE B-14. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 14 BURST TIME

TIME FROM POWER-ON 45.05 SEC. TIME FROM POWER-OFF -3.40 SEC. RECORD NUMBER 545-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11119	724	716	741	720	725	-4.55	2	9800	763	744	753	739	750	-0.60
3	10476	748	745	743	757	748	-1.85	4	3829	762	741	748	747	749	0.20
5	10249	749	727	751	756	746	-2.45	6	10381	756	760	767	742	756	-1.35
7	10060	759	754	751	771	759	-0.70	8	10535	738	746	736	716	734	-2.30
9	10519	740	755	760	765	755	-3.10	10	9648	770	749	753	737	753	-1.25
11	9182	760	748	759	761	757	-0.45	12	9083	771	783	769	762	771	-0.55
13	9356	755	754	763	755	757	-0.50	14	8657	763	777	773	762	769	0.0
15	9835	759	756	744	763	756	-0.75	16	271	762	765	770	646	736	0.50
17	10601	756	739	722	754	743	-3.40	18	9108	764	772	769	766	768	-0.20
19	9462	759	755	768	730	753	-1.45	20	9328	755	752	754	755	754	-1.15
21	1	746	753	764	773	759	1.05	22	9243	774	768	756	764	765	-1.20
23	8928	771	769	754	765	765	-0.15	24	10214	746	739	763	748	749	-1.60
25	10460	759	748	739	732	744	-1.15	26	9633	748	765	747	754	754	-0.55
27	8535	767	752	755	756	757	-0.05	28	9338	779	747	773	748	762	-0.65
29	9007	766	767	744	770	762	-0.25	30	9562	762	756	741	754	753	-1.35
31	4190	702	763	739	752	739	0.15	32	10331	736	762	731	751	745	-1.75
33	10484	753	748	729	743	743	-2.25	34	9750	749	750	733	772	751	-0.85
35	9620	769	771	745	772	764	-0.80	36	8913	754	769	755	754	758	-0.05
37	9855	766	746	754	756	756	-2.15	38	8720	767	764	769	772	768	-0.65
39	9875	752	752	740	765	752	-1.85	40	10099	769	760	768	767	766	-1.40
41	10520	750	727	739	763	745	-1.45	42	9901	771	756	768	756	763	-1.20
43	2941	765	766	721	751	751	0.15	44	9611	744	718	756	737	739	-1.05
45	9781	755	751	767	748	755	-1.70	46	9569	259	766	750	753	632	-1.20
47	9510	773	770	762	769	768	-0.45	48	10499	732	744	756	739	743	-2.75
49	10755	734	739	725	750	737	-1.85	50	9672	737	761	739	750	747	-0.65
51	10059	762	752	749	740	751	-2.00	52	8884	754	742	756	763	754	-0.15
53	10054	728	752	733	748	740	-1.25	54	9760	765	745	759	766	759	-0.85
55	10029	737	742	738	743	740	-1.30	56	10342	764	762	753	750	757	-2.00
57	10807	722	748	723	734	732	-2.85	58	10201	744	741	716	745	737	-1.40
59	10355	742	730	742	760	744	-1.25	60	10293	72[illegible]	748	743	733	737	-2.15
61	10276	750	751	756	739	749	-1.15	62	-29	[illegible]	723	741	742	739	******
63	10453	748	738	729	750	741	-2.70	64	10802	72[illegible]	743	699	750	730	-3.60

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	739 DEG C	10	TE-5-7	737 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	749 DEG C	13	TE-28-6	775 DEG C	14	TE-28-7	751 DEG C
15	TE-28-8	745 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	217 KPA
23	TE-44-8	741 DEG C	24	TE-320	370 DEG C	25	TE-321	359 DEG C
26	TE-322	346 DEG C	27	TE-323	692 DEG C	28	TE-324	661 DEG C
29	TE-325	680 DEG C	30	TE-326	643 DEG C	31	TE-327	629 DEG C
41	TE-91-2	545 DEG C	44	TE-92-1	611 DEG C	45	TE-92-2	542 DEG C
46	TE-92-3	654 DEG C	47	TE-92-4	512 DEG C	49	TE-93-2	553 DEG C
50	TE-93-3	646 DEG C	52	TE-94-1	637 DEG C	53	TE-94-2	504 DEG C
54	TE-94-3	549 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	762 DEG C						

[redacted] 0 1 [redacted]

TABLE B-15. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 15 BURST TIME

TIME FROM POWER-ON 45.80 SEC. TIME FROM POWER-OFF -2.65 SEC. RECORD NUMBER 553-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10844	718	660	745	728	713	-3.80	2	3024	746	711	759	702	730	0.15
3	10052	738	747	750	756	748	-1.10	4	7	758	748	746	758	753	0.95
5	9812	755	727	756	763	750	-1.70	6	9840	762	757	773	734	757	-0.60
7	8633	743	750	756	766	754	0.05	8	10147	740	752	736	712	735	-1.55
9	10102	740	706	766	762	743	-2.35	10	8927	758	754	767	738	754	-0.50
11	1463	758	739	755	756	752	0.30	12	1756	752	769	763	751	759	0.20
13	1570	754	755	759	749	754	0.25	14	45	764	772	767	762	766	0.75
15	9129	766	761	744	765	759	0.00	16	-4	767	776	781	648	743	1.25
17	10202	759	727	725	763	744	-2.65	18	162	759	770	769	769	767	0.55
19	8666	759	759	769	738	756	-0.70	20	8518	759	760	757	758	759	-0.40
21	5	756	761	760	775	763	1.80	22	8347	773	774	761	761	767	-0.45
23	278	773	765	756	768	766	0.60	24	9680	752	745	768	746	753	-0.85
25	9995	763	746	752	735	749	-0.40	26	3290	750	763	742	756	753	0.20
27	48	768	746	758	757	757	0.70	28	5912	768	745	770	741	756	0.10
29	425	760	769	736	763	757	0.50	30	8841	777	764	750	760	763	-0.60
31	6	747	762	756	760	757	0.90	32	9820	740	759	734	746	745	-1.00
33	10038	759	699	723	749	732	-1.50	34	8890	754	754	739	775	756	-0.10
35	8721	768	774	746	778	767	-0.05	36	176	763	763	753	755	759	0.70
37	9218	770	750	760	761	760	-1.40	38	3787	758	764	755	762	760	0.10
39	9220	758	756	748	767	757	-0.90	40	9546	776	768	765	769	769	-0.65
41	10022	748	725	743	768	746	-0.70	42	9147	773	762	773	763	768	-0.45
43	4	771	764	744	757	759	0.90	44	8785	749	708	761	736	739	-0.30
45	9064	766	757	767	757	762	-0.95	46	8764	260	763	757	761	635	-0.45
47	1497	771	761	756	758	762	0.30	48	10065	737	751	756	727	743	-2.00
49	10364	738	753	730	756	744	-1.10	50	4588	734	764	735	753	746	0.10
51	9471	767	756	752	747	756	-1.25	52	71	756	741	756	765	754	0.60
53	9446	726	763	738	755	745	-0.50	54	8928	770	750	765	762	762	-0.10
55	9391	742	756	742	749	747	-0.55	56	9860	770	766	761	756	763	-1.25
57	10455	737	750	733	736	739	-2.10	58	9667	750	744	679	748	730	-0.65
59	9852	751	730	744	766	748	-0.50	60	9812	738	744	742	734	740	-1.40
61	9693	763	745	753	743	751	-0.40	62	-108	755	726	738	746	741	******
63	9990	758	740	714	750	740	-1.95	64	10473	732	741	699	754	732	-2.85

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	208 DEG C	10	TE-5-7	741 DEG C	11	TE-5-8	724 DEG C
12	TE-28-5	750 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	752 DEG C
15	TE-28-8	745 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	296 KPA
23	TE-44-8	731 DEG C	24	TE-320	392 DEG C	25	TE-321	387 DEG C
26	TE-322	352 DEG C	27	TE-323	713 DEG C	28	TE-324	690 DEG C
29	TE-325	697 DEG C	30	TE-326	671 DEG C	31	TE-327	651 DEG C
41	TE-91-2	639 DEG C	44	TE-92-1	612 DEG C	45	TE-92-2	594 DEG C
46	TE-92-3	603 DEG C	47	TE-92-4	579 DEG C	49	TE-93-2	663 DEG C
50	TE-93-3	688 DEG C	52	TE-94-1	650 DEG C	53	TE-94-2	523 DEG C
54	TE-94-3	540 DEG C	472	EIE-10	2385 A	473	EEE-10	81 V
488	TAV-10	763 DEG C						

TABLE B-16. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 16 BURST TIME

TIME FROM POWER-ON 44.55 SEC. TIME FROM POWER-OFF -3.9) SEC. RECORD NUMBER 540-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11288	728	726	737	716	727	-5.05	2	10140	759	740	745	742	746	-1.10
3	10730	746	741	741	752	745	-2.35	4	9899	765	748	758	747	755	-0.30
5	10502	747	724	749	754	744	-2.95	6	10687	755	755	763	744	754	-1.85
7	10341	760	752	747	768	757	-1.20	8	10765	734	742	734	720	733	-2.80
9	10751	738	750	756	759	751	-3.60	10	10026	765	747	749	736	749	-1.75
11	9653	756	748	755	757	754	-0.95	12	9542	771	778	765	760	769	-1.05
13	9820	747	750	759	752	752	-1.00	14	9249	759	773	769	762	766	-0.50
15	10191	755	754	744	757	752	-1.25	16	9657	763	768	775	765	768	0.0
17	10838	752	738	724	750	741	-3.90	18	9644	761	767	767	764	765	-0.70
19	9884	759	753	767	726	751	-1.95	20	9756	751	748	751	752	750	-1.65
21	300	737	746	761	766	753	0.55	22	9714	769	763	752	763	762	-1.70
23	9448	767	765	751	758	760	-0.65	24	10500	741	734	758	744	745	-2.10
25	10722	754	747	735	728	741	-1.65	26	10052	740	763	742	749	749	-1.05
27	9227	764	749	751	752	754	-0.55	28	9758	775	744	769	745	758	-1.15
29	9555	764	763	743	767	759	-0.75	30	9947	757	751	737	749	749	-1.85
31	9568	745	768	764	766	761	-0.35	32	10601	733	759	729	752	743	-2.25
33	10746	748	750	732	741	743	-2.75	34	10151	745	746	728	769	747	-1.35
35	10026	766	766	742	769	761	-1.30	36	9546	751	768	752	750	755	-0.55
37	10181	764	742	750	754	752	-2.65	38	9265	762	781	762	768	763	-1.15
39	10217	748	748	736	760	748	-2.15	40	10421	765	757	764	762	762	-1.90
41	10795	748	726	735	758	742	-1.95	42	10274	765	751	764	754	758	-1.70
43	9833	764	772	744	750	757	-0.35	44	10019	741	730	751	737	740	-1.55
45	10128	748	747	764	741	750	-2.20	46	9979	259	762	747	749	629	-1.70
47	9958	767	767	758	765	764	-0.95	48	10742	730	741	751	739	740	-3.25
49	10969	731	732	721	741	731	-2.35	50	10081	734	756	735	746	743	-1.15
51	10376	758	748	751	736	748	-2.50	52	9451	750	738	752	759	750	-0.65
53	10374	727	750	730	745	738	-1.75	54	10146	759	741	756	763	755	-1.35
55	10361	735	739	735	738	737	-1.80	56	10617	759	757	747	747	752	-2.50
57	11008	713	744	718	733	727	-3.35	58	10491	741	738	716	743	734	-1.90
59	10634	738	725	740	756	740	-1.75	60	10562	721	745	741	731	734	-2.65
61	10567	745	750	753	735	746	-1.65	62	-8	745	719	736	737	734	******
63	10713	743	735	724	748	738	-3.20	64	10992	725	738	696	746	726	-4.10

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	736 DEG C	10	TE-5-7	733 DEG C	11	TE-5-8	725 DEG C	
12	TE-28-5	746 DEG C	13	TE-28-6	757 DEG C	14	TE-28-7	748 DEG C	
15	TE-28-8	740 DEG C	17	TE-39-6	752 DEG C	19	PE-301	196 KPA	
23	TE-44-8	745 DEG C	24	TE-320	370 DEG C	25	TE-321	358 DEG C	
26	TE-322	347 DEG C	27	TE-323	682 DEG C	28	TE-324	655 DEG C	
29	TE-325	673 DEG C	30	TE-326	621 DEG C	31	TE-327	612 DEG C	
41	TE-91-2	526 DEG C	44	TE-92-1	599 DEG C	45	TE-92-2	516 DEG C	
46	TE-92-3	651 DEG C	47	TE-92-4	489 DEG C	49	TE-93-2	500 DEG C	
50	TE-93-3	651 DEG C	52	TE-94-1	618 DEG C	53	TE-94-2	489 DEG C	
54	TE-94-3	537 DEG C	472	EIE-10	2387 A	473	EEE-10	82 V	
488	TAV-10	758 DEG C							

TABLE B-17. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 17 BURST TIME

TIME FROM POWER-ON 48.45 SEC. TIME FROM POWER-OFF 0.0 SEC. RECORD NUMBER 579-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10037	716	663	773	747	725	-1.15	2	12	757	764	785	685	748	2.80
3	20	725	740	767	753	746	1.55	4	12	700	773	762	768	751	3.60
5	18	727	726	756	788	749	0.95	6	8	773	774	795	691	758	2.05
7	12	737	747	779	761	756	2.70	8	14	736	785	733	698	738	1.10
9	999	719	663	774	689	711	0.30	10	16	770	774	776	751	768	2.15
11	5	779	778	778	791	782	2.95	12	4	778	774	790	773	779	2.85
13	0	786	790	777	784	7[illegible]	2.90	14	26	783	801	773	781	784	3.40
15	13	774	776	750	768	767	2.65	16	5	744	800	807	639	747	3.90
17	8615	776	748	726	786	759	0.0	18	21	777	797	790	792	789	3.20
19	20	794	775	805	753	782	1.95	20	20	772	777	7[illegible]	773	773	2.25
21	6	777	786	779	779	780	4.45	22	11	789	790	7[illegible]	773	783	2.[illegible]
23	11	793	777	773	780	781	3.25	24	11	791	765	759	731	762	1.80
25	29	776	734	773	742	756	2.25	26	8	760	786	770	777	773	2.85
27	13	783	765	798	776	781	3.35	28	19	782	767	791	777	779	2.75
29	30	796	799	750	780	781	3.15	30	14	795	783	770	775	781	2.05
31	6	782	777	788	770	779	3.55	32	26	753	748	741	760	750	1.65
33	5	770	700	722	775	7[illegible]	1.15	34	20	771	759	760	784	768	2.55
35	47	796	799	756	796	787	2.60	36	102	784	775	770	773	776	3.35
37	17	764	760	773	771	767	1.25	38	16	786	777	778	795	784	2.75
39	13	773	765	757	777	768	1.75	40	22	754	779	686	770	747	2.00
41	42	755	759	750	783	762	1.95	42	35	772	758	784	772	771	2.20
43	-1	792	795	773	783	786	3.55	44	26	769	764	787	751	768	2.35
45	22	768	773	768	777	772	1.70	46	24	264	765	770	773	643	2.20
47	8	803	787	769	786	787	2.95	48	16	728	763	772	759	755	0.65
49	5	745	770	733	770	754	1.55	50	-17	755	790	784	771	775	2.75
51	-28	775	761	781	763	770	1.40	52	-23	761	757	769	774	765	3.25
53	-19	746	786	754	772	764	2.15	54	-21	783	771	770	790	778	2.55
55	-25	747	767	757	765	759	2.10	56	-23	780	784	746	716	756	1.40
57	540	696	762	736	739	733	0.55	58	-11	766	749	677	753	736	2.00
59	-27	759	732	749	781	755	2.15	60	-18	756	741	708	748	738	1.25
61	-41	776	718	743	759	749	2.25	62	-249	773	743	753	765	759	*****
63	-8	766	734	718	747	741	0.70	64	9436	743	727	703	704	719	-0.20

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	170 DEG C	10	TE-5-7	751 DEG C	11	TE-5-8	751 DEG C
12	TE-28-5	769 DEG C	13	TE-28-6	772 DEG C	14	TE-28-7	786 DEG C
15	TE-28-8	810 DEG C	17	TE-39-6	765 DEG C	19	PE-301	430 KPA
23	TE-44-8	719 DEG C	24	TE-320	390 DEG C	25	TE-321	375 DEG C
26	TE-322	358 DEG C	27	TE-323	708 DEG C	28	TE-324	689 DEG C
29	TE-325	693 DEG C	30	TE-326	656 DEG C	31	TE-327	641 DEG C
41	TE-91-2	653 DEG C	44	TE-92-1	681 DEG C	45	TE-92-2	615 DEG C
46	TE-92-3	618 DEG C	47	TE-92-4	651 DEG C	49	TE-93-2	660 DEG C
50	TE-93-3	674 DEG C	52	TE-94-1	673 DEG C	53	TE-94-2	556 DEG C
54	TE-94-3	614 DEG C	472	EIE-10	37 A	473	EE[illegible]-10	0 V
488	TAV-10	780 DEG C						

TABLE B-18. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 18 BURST TIME

TIME FROM POWER-ON 45.25 SEC. TIME FROM POWER-OFF -3.20 SEC. RECORD NUMBER 547-8

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11040	720	694	742	722	719	-4.35	2	9614	763	745	759	736	751	-0.40
3	10368	749	746	745	759	750	-1.65	4	1319	762	742	745	750	750	0.40
5	10135	749	729	753	759	747	-2.25	6	10244	757	757	769	741	756	-1.15
7	9913	756	753	753	767	757	-0.50	8	10440	740	748	736	715	735	-2.10
9	10412	740	752	762	765	755	-2.90	10	9472	770	750	757	737	754	-1.05
11	8959	761	746	762	765	758	-0.25	12	8869	772	783	770	763	772	-0.35
13	9115	757	756	765	755	758	-0.30	14	2995	750	754	765	755	756	0.20
15	9658	762	757	744	764	757	-0.55	16	28	765	769	774	649	739	0.70
17	10481	756	738	721	762	744	-3.20	18	8802	765	774	770	768	769	0.0
19	9259	758	756	766	733	753	-1.25	20	9120	756	754	755	756	755	-0.95
21	1	748	756	766	774	761	1.25	22	9018	775	770	757	763	766	-1.00
23	8459	768	767	752	765	763	0.05	24	10079	748	741	765	750	751	-1.40
25	10328	761	748	742	733	746	-0.95	26	9415	753	766	748	756	756	-0.35
27	3937	762	741	753	751	752	0.15	28	9129	781	749	773	749	763	-0.45
29	8702	769	767	744	769	762	-0.05	30	9385	767	758	746	756	757	-1.15
31	1184	718	761	741	756	744	0.35	32	10202	736	761	732	745	743	-1.55
33	10380	756	734	726	744	740	-2.05	34	9556	751	751	736	771	752	-0.65
35	9416	768	771	746	772	764	-0.60	36	4011	749	760	749	749	752	0.15
37	9690	768	748	756	757	757	-1.95	38	8450	767	763	769	775	768	-0.45
39	9706	753	754	742	766	754	-1.45	40	9955	771	763	770	769	768	-1.20
41	10392	749	725	740	764	745	-1.25	42	9724	772	757	769	759	764	-1.00
43	638	766	765	732	754	754	0.35	44	9408	746	713	758	736	738	-0.85
45	9594	759	752	768	751	758	-1.50	46	9377	259	766	751	756	633	-1.00
47	9292	774	771	763	771	770	-0.25	48	10380	733	746	758	738	744	-2.55
49	10657	735	743	729	751	740	-1.65	50	9465	739	765	739	752	749	-0.45
51	9906	760	754	750	743	752	-1.80	52	7506	752	738	752	759	750	0.05
53	9897	728	752	734	750	741	-1.05	54	9573	765	747	760	766	760	-0.65
55	9866	738	744	739	744	741	-1.10	56	10222	765	763	756	751	759	-1.80
57	10705	725	748	724	735	733	-2.65	58	10059	745	743	713	747	737	-1.20
59	10218	744	730	743	762	745	-1.05	60	10153	729	746	745	733	738	-1.95
61	10132	753	749	754	740	749	-0.95	62	-45	750	724	741	742	739	******
63	10335	750	738	731	751	742	-2.50	64	10713	730	744	698	751	731	-3.40

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	737 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	750 DEG C	13	TE-28-6	763 DEG C	14	TE-28-7	751 DEG C
15	TE-28-8	747 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	240 KPA
23	TE-44-8	734 DEG C	24	TE-320	370 DEG C	25	TE-321	361 DEG C
26	TE-322	347 DEG C	27	TE-323	700 DEG C	28	TE-324	671 DEG C
29	TE-325	686 DEG C	30	TE-326	655 DEG C	31	TE-327	638 DEG C
41	TE-91-2	554 DEG C	44	TE-92-1	614 DEG C	45	TE-92-2	558 DEG C
46	TE-92-3	624 DEG C	47	TE-92-4	520 DEG C	49	TE-93-2	645 DEG C
50	TE-93-3	636 DEG C	52	TE-94-1	644 DEG C	53	TE-94-2	511 DEG C
54	TE-94-3	545 DEG C	472	EIE-10	2385 A	473	EEE-10	81 V
488	TAV-10	760 DEG C						

TABLE B-19. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 19 BURST TIME

TIME FROM POWER-ON 46.50 SEC. TIME FROM POWER-OFF -1.95 SEC. RECORD NUMBER 560-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10591	719	652	751	733	714	-3.10	2	4	748	770	773	699	748	0.85
3	9594	731	745	754	754	746	-0.40	4	-4	740	758	751	758	752	1.65
5	9376	750	727	757	768	751	-1.00	6	5866	757	754	770	715	749	0.10
7	652	732	744	758	747	745	0.75	8	9789	738	758	736	707	735	-0.85
9	9708	735	700	772	756	741	-1.65	10	2738	753	749	765	724	747	0.20
11	-17	764	758	763	765	763	1.00	12	-10	765	769	773	761	767	0.90
13	-2	765	768	766	761	765	0.95	14	3	771	777	767	765	770	1.45
15	40	753	759	743	761	754	0.70	16	-6	765	782	787	657	748	1.95
17	9826	763	720	721	770	743	-1.95	18	4	763	780	776	779	774	1.25
19	7693	763	763	774	742	760	0.00	20	874	760	763	756	758	759	0.30
21	2	763	769	767	776	769	2.50	22	1609	766	769	764	751	763	0.25
23	5	780	764	763	775	770	1.30	24	9140	766	753	761	756	759	-0.15
25	1270	761	746	753	718	744	0.30	26	-3	752	770	752	764	759	0.90
27	9	771	751	777	763	766	1.40	28	9	769	751	775	758	764	0.80
29	11	772	781	737	772	765	1.20	30	5712	781	762	748	754	761	0.10
31	3	764	766	771	764	766	1.60	32	9282	750	765	739	751	751	-0.30
33	9580	765	685	716	753	730	-0.80	34	225	741	757	736	771	751	0.60
35	30	764	779	740	780	766	0.65	36	99	768	768	756	761	763	1.40
37	8560	776	755	768	765	766	-0.70	38	12	772	764	764	773	768	0.80
39	8464	764	760	753	772	762	-0.20	40	7332	769	761	742	757	757	0.05
41	9360	748	720	748	769	746	0.00	42	1617	767	739	761	762	757	0.25
43	2	776	776	755	765	768	1.60	44	728	752	730	765	734	745	0.40
45	8192	769	763	769	764	766	-0.25	46	1486	261	757	741	757	629	0.25
47	-3	780	765	760	763	767	1.00	48	9648	741	758	753	712	741	-1.30
49	9975	741	746	731	760	745	-0.40	50	-27	741	773	754	758	757	0.80
51	8824	773	759	756	752	760	-0.55	52	-35	745	746	762	771	756	1.30
53	3276	728	756	737	747	742	0.20	54	147	774	756	759	765	764	0.60
55	3124	718	759	737	749	741	0.15	56	9386	776	772	755	760	766	-0.55
57	10119	742	743	741	738	741	-1.40	58	9067	753	741	657	746	724	0.05
59	3083	752	723	735	733	736	0.20	60	9340	744	749	724	739	739	-0.70
61	1529	759	732	748	745	746	0.30	62	-186	760	729	734	750	743	******
63	9550	768	740	708	749	741	-1.25	64	10161	735	732	696	719	721	-2.15

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	230 DEG C	10	TE-5-7	745 DEG C	11	TE-5-8	722 DEG C	
12	TE-28-5	755 DEG C	13	TE-28-6	759 DEG C	14	TE-28-7	757 DEG C	
15	TE-28-8	752 DEG C	17	TE-39-6	754 DEG C	19	PE-301	381 KPA	
23	TE-44-8	731 DEG C	24	TE-320	389 DEG C	25	TE-321	393 DEG C	
26	TE-322	371 DEG C	27	TE-323	714 DEG C	28	TE-324	697 DEG C	
29	TE-325	713 DEG C	30	TE-326	674 DEG C	31	TE-327	675 DEG C	
41	TE-91-2	645 DEG C	44	TE-92-1	630 DEG C	45	TE-92-2	617 DEG C	
46	TE-92-3	600 DEG C	47	TE-92-4	617 DEG C	49	TE-93-2	660 DEG C	
50	TE-93-3	650 DEG C	52	TE-94-1	662 DEG C	53	TE-94-2	533 DEG C	
54	TE-94-3	534 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V	
488	TAV-10	768 DEG C							

TABLE B-20. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 20 BURST TIME

TIME FROM POWER-ON 46.20 SEC. TIME FROM POWER-OFF -2.25 SEC. RECORD NUMBER 557-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10723	720	652	748	730	712	-3.40	2	122	752	734	769	698	738	0.55
3	9832	733	747	754	754	747	-0.70	4	13	748	753	749	758	752	1.35
5	9599	754	726	756	765	751	-1.30	6	9546	766	761	777	726	758	-0.20
7	2098	732	744	756	748	745	0.45	8	9980	738	754	737	710	735	-1.15
9	9904	737	697	770	762	742	-1.95	10	8481	756	758	772	738	756	-0.10
11	44	761	753	760	760	758	0.70	12	37	759	770	769	759	764	0.60
13	22	762	762	764	755	761	0.65	14	7	767	779	767	764	769	1.15
15	796	748	754	736	756	749	0.40	16	9	765	780	785	659	747	1.65
17	10014	760	721	725	766	743	-2.25	18	14	761	777	774	775	772	0.95
19	8199	761	761	773	741	759	-0.30	20	7984	761	764	759	760	761	0.00
21	11	760	766	764	774	766	2.20	22	7769	774	780	763	762	770	-0.05
23	19	778	766	758	774	769	1.00	24	9419	755	749	763	753	755	-0.45
25	9732	763	754	756	737	752	0.00	26	277	754	768	748	760	757	0.60
27	17	770	748	771	760	762	1.10	28	323	767	747	773	749	759	0.50
29	28	767	776	736	766	761	0.90	30	8431	782	767	752	763	766	-0.20
31	5	759	765	765	763	763	1.30	32	9562	745	761	736	748	747	-0.60
33	9825	762	685	717	751	729	-1.10	34	1650	728	754	729	767	745	0.30
35	615	760	775	736	778	763	0.35	36	115	766	766	755	758	761	1.10
37	8889	774	752	754	764	764	-1.00	38	119	767	764	760	766	764	0.50
39	8847	761	759	751	769	760	-0.50	40	9252	780	772	760	768	770	-0.25
41	9729	749	722	746	768	746	-0.30	42	8516	774	759	772	761	767	-0.05
43	3	773	764	751	743	758	1.30	44	5488	748	706	751	727	733	0.10
45	8639	769	761	769	762	765	-0.55	46	8169	260	762	760	763	636	-0.05
47	58	780	764	758	761	766	0.70	48	9865	738	755	752	716	740	-1.60
49	10177	741	747	731	758	744	-0.70	50	261	737	771	751	757	754	0.50
51	9151	770	758	754	749	758	-0.85	52	-21	758	744	759	769	758	1.00
53	9079	731	768	740	758	749	-0.10	54	1539	771	752	756	757	759	0.30
55	9003	744	762	743	751	750	-0.15	56	9627	774	770	758	760	766	-0.85
57	10296	741	751	740	737	742	-1.70	58	9382	754	745	665	748	728	-0.25
59	9578	755	731	745	770	750	-0.10	60	9577	741	747	729	737	738	-1.00
61	9287	768	742	752	746	752	0.00	62	-124	757	727	733	748	741	******
63	9771	765	739	703	749	739	-1.55	64	10325	734	736	701	755	731	-2.45

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	226 DEG C	10	TE-5-7	742 DEG C	11	TE-5-8	722 DEG C
12	TE-28-5	753 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	755 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	312 KPA
23	TE-44-8	736 DEG C	24	TE-320	392 DEG C	25	TE-321	389 DEG C
26	TE-322	360 DEG C	27	TE-323	706 DEG C	28	TE-324	681 DEG C
29	TE-325	703 DEG C	30	TE-326	657 DEG C	31	TE-327	642 DEG C
41	TE-91-2	650 DEG C	44	TE-92-1	631 DEG C	45	TE-92-2	617 DEG C
46	TE-92-3	600 DEG C	47	TE-92-4	605 DEG C	49	TE-93-2	662 DEG C
50	TE-93-3	680 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	527 DEG C
54	TE-94-3	536 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V
488	TAV-10	766 DEG C						

TABLE B-21. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 21 BURST TIME

TIME FROM POWER-ON 44.00 SEC. TIME FROM POWER-OFF -4.45 SEC. RECORD NUMBER 535-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11425	727	725	733	711	724	-5.60	2	10456	754	736	741	740	743	-1.65
3	10938	746	738	735	748	742	-2.90	4	10295	759	742	750	739	747	-0.85
5	10745	743	721	756	759	745	-3.50	6	10955	752	749	757	743	750	-2.40
7	10614	759	749	742	766	754	-1.75	8	10978	732	737	731	720	730	-3.35
9	10960	734	744	750	754	746	-4.15	10	10366	759	742	745	735	745	-2.30
11	10042	752	744	750	753	750	-1.50	12	9942	765	773	760	757	764	-1.60
13	10209	737	745	751	749	746	-1.55	14	9731	757	768	764	759	762	-1.05
15	10501	749	752	742	753	749	-1.80	16	10097	758	764	770	760	763	-0.55
17	11050	748	736	724	746	738	-4.45	18	10083	756	762	764	761	760	-1.25
19	10246	754	752	762	723	748	-2.50	20	10130	746	743	747	748	746	-2.20
21	9110	745	752	763	766	757	0.00	22	10108	764	757	747	759	757	-2.25
23	9874	763	759	746	747	754	-1.20	24	10764	737	731	753	745	741	-2.65
25	10966	748	744	732	725	737	-2.20	26	10416	734	759	739	745	745	-1.60
27	9737	760	746	747	749	751	-1.10	28	10139	769	740	764	741	753	-1.70
29	10004	759	758	740	761	755	-1.30	30	10287	752	746	736	745	745	-2.40
31	10025	742	762	760	761	756	-0.90	32	10848	731	755	725	748	740	-2.80
33	10985	742	746	732	740	740	-3.30	34	10490	741	740	723	763	742	-1.90
35	10393	760	760	739	764	756	-1.85	36	10013	747	765	748	747	751	-1.10
37	10490	758	739	746	751	748	-3.20	38	9741	756	754	755	763	757	-1.70
39	10543	745	744	732	755	744	-2.70	40	10703	759	752	759	756	756	-2.45
41	11017	744	721	732	754	738	-2.50	42	10586	758	746	758	752	753	-2.25
43	10264	759	766	738	746	752	-0.90	44	10361	738	744	746	735	741	-2.10
45	10444	746	742	760	736	746	-2.75	46	10335	256	756	741	745	625	-2.25
47	10329	762	762	751	758	758	-1.50	48	10975	725	737	746	737	736	-3.80
49	11159	727	725	719	736	727	-2.90	50	10429	731	750	731	743	739	-1.70
51	10653	751	744	750	733	745	-3.05	52	9894	746	735	749	752	746	-1.20
53	10654	726	749	727	740	736	-2.30	54	10486	753	736	750	758	749	-1.90
55	10653	732	735	731	734	733	-2.35	56	10861	754	751	740	742	747	-3.05
57	11185	709	740	713	731	723	-3.90	58	10749	735	735	714	740	731	-2.45
59	10873	734	721	737	751	736	-2.30	60	10800	718	742	738	729	731	-3.20
61	10819	741	747	748	733	742	-2.20	62	-4	740	715	731	733	730	******
63	10942	740	732	718	746	734	-3.75	64	11165	722	733	691	741	722	-4.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	731 DEG C	10	TE-5-7	728 DEG C	11	TE-5-8	726 DEG C
12	TE-28-5	742 DEG C	13	TE-28-6	751 DEG C	14	TE-28-7	741 DEG C
15	TE-28-8	738 DEG C	17	TE-39-6	745 DEG C	19	PE-301	191 KPA
23	TE-44-8	741 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C
26	TE-322	349 DEG C	27	TE-323	676 DEG C	28	TE-324	652 DEG C
29	TE-325	666 DEG C	30	TE-326	613 DEG C	31	TE-327	602 DEG C
41	TE-91-2	525 DEG C	44	TE-92-1	586 DEG C	45	TE-92-2	514 DEG C
46	TE-92-3	652 DEG C	47	TE-92-4	475 DEG C	49	TE-93-2	496 DEG C
50	TE-93-3	662 DEG C	52	TE-94-1	630 DEG C	53	TE-94-2	486 DEG C
54	TE-94-3	532 DEG C	472	EIE-10	2385 A	473	EEE-10	81 V
488	TAV-10	755 DEG C						

TABLE B-22. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 22 BURST TIME

TIME FROM POWER-ON 46.25 SEC. TIME FROM POWER-OFF -2.20 SEC. RECORD NUMBER 557-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10700	720	651	748	731	713	-3.35	2	64	752	741	770	697	740	0.60
3	9796	730	747	754	754	746	-0.65	4	4	748	754	749	759	752	1.40
5	9570	754	726	757	766	751	-1.25	6	9488	766	762	777	726	758	-0.15
7	1755	732	744	756	747	745	0.50	8	9935	738	755	737	709	735	-1.10
9	9881	736	697	770	762	741	-1.90	10	8407	756	758	772	738	756	-0.05
11	21	762	753	760	761	759	0.75	12	7	760	770	770	759	765	0.65
13	7	762	762	764	755	761	0.70	14	13	768	780	769	768	771	1.20
15	561	748	755	737	757	749	0.45	16	-13	765	781	785	659	747	1.70
17	9991	760	719	724	767	743	-2.20	18	13	761	777	774	775	772	1.00
19	8126	762	761	773	741	759	-0.25	20	6594	759	762	757	756	759	0.05
21	10	760	766	764	775	766	2.25	22	7670	774	780	764	762	770	0.0
23	11	778	766	758	775	769	1.05	24	9383	756	751	763	754	756	-0.40
25	9454	762	754	756	733	751	0.05	26	162	754	768	748	760	758	0.65
27	17	770	749	772	762	763	1.15	28	203	767	748	773	751	760	0.55
29	20	768	777	737	767	762	0.95	30	8364	783	768	753	754	767	-0.15
31	4	760	767	765	762	763	1.35	32	9516	746	761	737	748	748	-0.55
33	9780	763	684	717	751	729	-1.05	34	1247	729	756	730	769	746	0.35
35	403	761	776	737	778	763	0.40	36	107	767	766	756	759	762	1.15
37	8836	775	753	765	764	764	-0.95	38	73	767	764	760	766	764	0.55
39	8788	761	759	751	769	760	-0.45	40	9206	781	773	759	768	770	-0.20
41	9690	749	721	746	768	746	-0.25	42	8405	773	759	769	761	766	0.0
43	10	774	765	751	753	761	1.35	44	3827	748	706	755	729	734	0.15
45	8564	769	762	769	762	765	-0.50	46	8036	261	762	761	762	636	0.0
47	27	780	764	758	762	766	0.75	48	9834	739	755	753	715	741	-1.55
49	10147	741	747	730	759	744	-0.65	50	150	738	772	752	757	755	0.55
51	9105	770	757	755	750	758	-0.80	52	-29	759	744	759	769	758	1.05
53	9011	731	769	740	759	750	-0.05	54	1149	772	753	756	756	759	0.35
55	8940	745	763	744	752	751	-0.10	56	9589	774	771	757	761	766	-0.80
57	10273	741	751	740	737	742	-1.65	58	9336	755	745	664	748	728	-0.20
59	9540	756	731	744	770	750	-0.05	60	9547	741	748	728	737	739	-0.95
61	8852	750	736	746	745	744	0.05	62	-132	758	727	733	749	742	******
63	9741	765	739	703	750	739	-1.50	64	10310	734	735	700	751	730	-2.40

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	214 DEG C	10	TE-5-7	743 DEG C	11	TE 5-8	723 DEG C
12	TE-28-5	753 DEG C	13	TE-28-6	760 DEG C	14	TE-28-7	755 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	320 KPA
23	TE-44-8	733 DEG C	24	TE-320	392 DEG C	25	TE-321	390 DEG C
26	TE-322	361 DEG C	27	TE-323	704 DEG C	28	TE-324	680 DEG C
29	TE-325	704 DEG C	30	TE-326	657 DEG C	31	TE-327	646 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	631 DEG C	45	TE-92-2	613 DEG C
46	TE-92-3	592 DEG C	47	TE-92-4	603 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	668 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	528 DEG C
54	TE-94-3	537 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V
488	TAV-10	767 DEG C						

[redacted] H 2 [redacted]

TABLE B-23. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 23 BURST TIME

TIME FROM POWER-ON 45.20 SEC. TIME FROM POWER-OFF -3.25 SEC. RECORD NUMBER 547-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11061	721	699	741	721	721	-4.40	2	9656	764	743	758	737	751	-0.45
3	10403	748	746	744	758	749	-1.70	4	1719	762	742	745	749	750	0.35
5	10162	749	728	753	758	747	-2.30	6	10279	757	758	768	741	756	-1.20
7	9956	757	754	752	768	758	-0.55	8	10461	739	748	736	716	735	-2.15
9	10432	740	755	762	766	756	-2.95	10	9515	770	750	756	737	753	-1.10
11	9016	761	747	761	764	758	-0.30	12	8925	772	783	770	763	772	-0.40
13	9180	757	755	765	755	758	-0.35	14	4182	749	753	764	754	755	0.15
15	9701	761	757	745	764	757	-0.60	16	42	764	768	773	651	739	0.65
17	10517	756	738	721	761	744	-3.25	18	8888	765	773	770	767	769	-0.05
19	9309	758	756	766	733	753	-1.30	20	9171	756	753	754	756	755	-1.00
21	0	748	756	766	774	761	1.20	22	9084	775	769	756	763	766	-1.05
23	8724	772	771	756	767	766	0.00	24	10106	747	740	764	749	750	-1.45
25	10371	760	748	741	733	745	-1.00	26	9474	753	766	748	755	755	-0.40
27	5763	762	744	752	751	752	0.10	28	9173	780	748	773	749	763	-0.50
29	8790	769	767	744	769	762	-0.10	30	9436	766	758	744	756	756	-1.20
31	1618	711	763	740	755	742	0.30	32	10231	737	761	732	745	744	-1.60
33	10401	755	738	726	744	741	-2.10	34	9599	750	751	735	772	752	-0.70
35	9466	769	771	745	772	764	-0.65	36	5625	748	760	749	749	752	0.10
37	9727	767	748	755	757	757	-2.00	38	8516	767	764	770	774	768	-0.50
39	9757	753	753	741	765	753	-1.50	40	9999	771	762	769	769	767	-1.25
41	10428	749	725	740	764	745	-1.30	42	9767	772	757	769	758	764	-1.05
43	929	766	766	729	754	754	0.30	44	9465	745	715	757	736	738	-0.90
45	9645	758	752	768	751	757	-1.55	46	9428	259	766	751	755	633	-1.05
47	9351	774	771	763	771	770	-0.30	48	10408	733	746	757	738	744	-2.60
49	10679	735	742	727	751	739	-1.70	50	9523	738	764	740	751	748	-0.50
51	9951	762	753	750	742	752	-1.85	52	8629	754	741	756	765	754	0.00
53	9941	728	752	734	750	741	-1.10	54	9617	766	746	760	765	759	-0.70
55	9912	738	743	739	744	741	-1.15	56	10251	765	763	755	751	758	-1.85
57	10733	725	748	724	734	733	-2.70	58	10088	746	742	714	746	737	-1.25
59	10255	743	730	744	762	745	-1.10	60	10189	727	748	744	733	738	-2.00
61	10160	752	750	756	740	749	-1.00	62	-46	749	724	741	742	739	******
63	10364	749	738	731	751	742	-2.55	64	10734	730	744	699	750	731	-3.45

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	280 DEG C	10	TE-5-7	737 DEG C	11	TE-5-8	726 DEG C
12	TE-28-5	751 DEG C	13	TE-28-6	763 DEG C	14	TE-28-7	751 DEG C
15	TE-28-8	746 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	234 KPA
23	TE-44-8	734 DEG C	24	TE-320	370 DEG C	25	TE-321	360 DEG C
26	TE-322	346 DEG C	27	TE-323	698 DEG C	28	TE-324	669 DEG C
29	TE-325	685 DEG C	30	TE-326	652 DEG C	31	TE-327	636 DEG C
41	TE-91-2	551 DEG C	44	TE-92-1	610 DEG C	45	TE-92-2	555 DEG C
46	TE-92-3	635 DEG C	47	TE-92-4	515 DEG C	49	TE-93-2	638 DEG C
50	TE-93-3	635 DEG C	52	TE-94-1	643 DEG C	53	TE-94-2	510 DEG C
54	TE-94-3	547 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	760 DEG C						

TABLE B-24. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 24 BURST TIME

TIME FROM POWER-ON 46.65 SEC. TIME FROM POWER-OFF -1.80 SEC. RECORD NUMBER 561-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10541	719	651	752	734	714	-2.95	2	18	748	754	778	699	745	1.00
3	9488	731	743	754	755	745	-0.25	4	10	733	760	752	758	751	1.80
5	9298	748	727	758	770	751	-0.85	6	1907	741	755	768	709	743	0.25
7	331	732	744	759	748	746	0.90	8	9717	739	760	735	705	735	-0.70
9	9630	734	697	773	748	738	-1.50	10	1165	755	750	765	729	750	0.35
11	-3	765	759	763	768	764	1.15	12	-3	766	769	775	761	768	1.05
13	-2	766	772	767	764	767	1.10	14	3	772	779	758	765	771	1.60
15	11	756	761	746	762	756	0.85	16	1	762	785	788	653	747	2.10
17	9752	765	720	719	771	744	-1.80	18	26	764	782	778	780	776	1.40
19	3033	760	752	767	732	753	0.15	20	231	761	764	757	760	761	0.45
21	10	764	770	769	776	770	2.65	22	564	769	772	765	754	765	0.40
23	13	781	765	764	775	771	1.45	24	9007	771	755	759	751	759	0.0
25	385	762	747	756	719	746	0.45	26	4	751	770	754	765	760	1.05
27	24	772	752	779	765	767	1.55	28	24	771	753	776	761	765	0.95
29	19	774	784	737	773	767	1.35	30	2048	782	767	748	758	764	0.25
31	18	764	768	772	764	767	1.75	32	9153	751	766	739	752	752	-0.15
33	9478	766	684	716	754	730	-0.65	34	61	747	756	738	771	753	0.75
35	38	766	780	741	782	767	0.80	36	106	770	769	757	762	764	1.55
37	8418	778	756	769	766	767	-0.55	38	20	774	764	766	776	770	0.95
39	8289	765	760	754	773	763	-0.05	40	2283	754	756	732	754	749	0.20
41	4123	742	720	731	761	738	0.15	42	623	770	740	764	763	759	0.40
43	-12	777	782	756	766	770	1.75	44	220	754	736	768	737	749	0.55
45	7969	769	764	769	765	767	-0.10	46	500	261	758	744	759	631	0.40
47	4	782	764	761	766	768	1.15	48	9560	741	758	754	710	741	-1.15
49	9886	741	745	731	760	744	-0.25	50	-20	742	774	757	758	758	0.95
51	8665	773	760	757	753	761	-0.40	52	-20	742	747	763	771	756	1.45
53	1204	727	754	738	747	741	0.35	54	5	775	758	760	771	766	0.75
55	1037	710	760	741	750	740	0.30	56	9289	777	774	752	762	766	-0.40
57	10062	743	737	743	739	741	-1.25	58	4025	752	741	692	745	733	0.20
59	1298	753	725	737	738	738	0.35	60	9246	745	750	720	740	739	-0.55
61	512	764	729	750	746	747	0.45	62	-200	761	729	736	751	745	******
63	9470	769	739	704	750	740	-1.10	64	10110	735	731	696	706	717	-2.00

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	213 DEG C	10	TE-5-7	746 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	756 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	759 DEG C
15	TE-28-8	754 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	388 KPA
23	TE-44-8	729 DEG C	24	TE-320	386 DEG C	25	TE-321	390 DEG C
26	TE-322	371 DEG C	27	TE-323	719 DEG C	28	TE-324	703 DEG C
29	TE-325	715 DEG C	30	TE-326	684 DEG C	31	TE-327	675 DEG C
41	TE-91-2	652 DEG C	44	TE-92-1	632 DEG C	45	TE-92-2	614 DEG C
46	TE-92-3	604 DEG C	47	TE-92-4	627 DEG C	49	TE-93-2	659 DEG C
50	TE-93-3	653 DEG C	52	TE-94-1	663 DEG C	53	TE-94-2	537 DEG C
54	TE-94-3	533 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V
488	TAV-10	769 DEG C						

TABLE B-25. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 25 BURST TIME

TIME FROM POWER-ON 46.20 SEC. TIME FROM POWER-OFF -2.25 SEC. RECORD NUMBER 557-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10723	720	652	748	730	712	-3.40	2	122	752	734	769	698	738	0.55
3	9832	733	747	754	754	747	-0.70	4	13	748	753	749	758	752	1.35
5	9599	754	726	756	765	751	-1.30	6	9546	766	761	777	726	758	-0.20
7	2098	732	744	756	738	745	0.45	8	9980	738	754	737	710	735	-1.15
9	9904	737	697	770	762	742	-1.95	10	8481	756	758	772	738	756	-0.10
11	44	761	753	760	760	758	0.70	12	37	759	770	769	759	764	0.60
13	22	762	762	764	755	761	0.65	14	7	767	779	767	764	769	1.15
15	796	748	754	736	756	749	0.40	16	9	765	780	785	659	747	1.65
17	10014	760	721	725	766	743	-2.25	18	14	761	777	774	775	772	0.95
19	8199	761	761	773	740	759	-0.30	20	7984	761	764	759	760	761	0.00
21	11	760	766	764	774	766	2.20	22	7769	774	780	763	762	770	-0.05
23	19	778	766	758	774	769	1.00	24	9419	755	749	763	753	755	-0.45
25	9732	763	754	756	737	752	0.00	26	277	754	768	748	760	757	0.60
27	17	770	748	771	760	762	1.10	28	323	767	747	773	749	759	0.50
29	28	767	776	736	766	761	0.90	30	8431	782	767	752	763	766	-0.20
31	5	759	765	765	763	763	1.30	32	9562	745	761	736	748	747	-0.60
33	9825	762	685	717	751	729	-1.10	34	1650	728	754	729	767	745	0.30
35	615	760	775	736	778	763	0.35	36	115	766	766	755	758	761	1.10
37	8889	774	752	764	764	764	+1.00	38	119	767	764	760	766	764	0.50
39	8847	761	759	751	769	760	-0.50	40	9252	780	772	760	768	770	-0.25
41	9729	749	722	746	768	746	-0.30	42	8516	774	759	772	764	767	-0.05
43	3	773	764	751	743	758	1.30	44	5488	748	706	751	727	733	0.10
45	8639	769	761	769	762	765	-0.55	46	8169	260	762	760	763	636	-0.05
47	58	780	764	758	761	766	0.70	48	9865	738	755	752	716	740	-1.60
49	10177	741	747	731	758	744	-0.70	50	26.	737	771	751	757	754	0.50
51	9151	770	758	754	749	758	-0.85	52	-21	758	744	759	769	758	1.00
53	9079	731	768	740	758	749	-0.10	54	1539	771	752	756	757	759	0.30
55	9003	744	762	743	751	750	-0.15	56	9627	774	770	758	760	766	-0.85
57	10296	741	751	740	737	742	-1.70	58	9382	754	745	665	748	728	-0.25
59	9578	755	731	745	770	750	-0.10	60	9577	741	747	729	737	738	-1.00
61	9287	768	742	752	746	752	0.00	62	-124	757	727	733	748	741	******
63	9771	765	739	703	749	739	-1.55	64	10325	734	736	701	755	731	-2.45

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	226 DEG C	10	TE-5-7	742 DEG C	11	TE-5-8	722 DEG C
12	TE-28-5	753 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	755 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	312 KPA
23	TE-44-8	736 DEG C	24	TE-320	392 DEG C	25	TE-321	389 DEG C
26	TE-322	360 DEG C	27	TE-323	706 DEG C	28	TE-324	681 DEG C
29	TE-325	703 DEG C	30	TE-326	657 DEG C	31	TE-327	642 DEG C
41	TE-91-2	650 DEG C	44	TE-92-1	631 DEG C	45	TE-92-2	617 DEG C
46	TE-92-3	600 DEG C	47	TE-92-4	605 DEG C	49	TE-93-2	662 DEG C
50	TE-93-3	680 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	527 DEG C
54	TE-94-3	536 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V
488	TAV-10	766 DEG C						

TABLE B-26. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 26 BURST TIME

TIME FROM POWER-ON 45.60 SEC. TIME FROM POWER-OFF -2.85 SEC. RECORD NUMBER 551-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10925	717	666	743	726	713	-4.00	2	9257	757	746	770	720	748	-0.05
3	10168	743	748	748	760	750	-1.30	4	119	761	746	744	757	752	0.75
5	9935	755	728	755	762	750	-1.90	6	10000	761	754	772	736	756	-0.80
7	9679	749	752	755	766	756	-0.15	8	10265	740	751	737	713	735	-1.75
9	10226	741	715	765	764	746	-2.55	10	9141	759	753	763	738	753	-0.70
11	5558	756	718	751	757	746	0.10	12	8478	772	780	774	765	773	0.00
13	7812	758	756	762	749	756	0.05	14	328	761	766	765	747	760	0.55
15	9343	766	760	745	767	759	-0.20	16	-3	766	773	779	649	742	1.05
17	10308	758	729	724	763	743	-2.85	18	887	757	765	766	766	764	0.35
19	8906	758	758	768	737	755	-0.90	20	8771	759	757	756	758	758	-0.60
21	7	753	759	766	775	763	1.60	22	8611	773	773	759	760	766	-0.65
23	1038	771	765	753	764	763	0.40	24	9831	751	744	768	747	752	-1.05
25	10129	763	746	749	735	748	-0.60	26	8978	758	770	751	758	759	0.00
27	360	766	744	756	755	755	0.50	28	8736	783	754	776	751	766	-0.10
29	1503	756	765	734	762	754	0.30	30	9055	775	762	748	758	761	-0.80
31	75	740	761	751	760	753	0.70	32	9966	738	758	733	745	744	-1.20
33	10173	758	709	724	747	734	-1.70	34	9167	753	753	738	775	755	-0.30
35	9014	768	773	747	777	766	-0.25	36	545	759	762	752	754	757	0.50
37	9406	770	750	758	759	759	-1.60	38	7917	767	768	769	777	770	-0.10
39	9413	756	755	746	766	756	-1.10	40	9706	774	766	767	771	770	-0.85
41	10173	749	725	742	767	746	-0.90	42	9392	773	761	771	761	766	-0.65
43	-1	769	764	741	756	757	0.70	44	9040	748	706	760	735	737	-0.50
45	9274	765	756	768	756	761	-1.15	46	9023	259	763	756	762	635	-0.65
47	5655	773	753	757	768	763	0.10	48	10179	735	748	756	733	743	-2.20
49	10478	738	752	730	754	743	-1.30	50	9061	740	769	741	755	751	-0.10
51	9647	765	756	750	747	754	-1.45	52	605	754	740	754	762	752	0.40
53	9619	726	758	737	753	744	-0.70	54	9206	768	749	763	764	761	-0.30
55	9586	741	749	741	747	744	-0.75	56	10004	768	765	758	752	761	-1.45
57	10552	733	751	729	736	737	-2.30	58	9818	748	743	688	747	732	-0.85
59	10005	749	730	745	765	747	-0.70	60	9947	735	741	748	734	739	-1.60
61	9874	759	748	753	742	750	-0.60	62	-76	753	725	740	745	741	******
63	10130	755	739	725	751	743	-2.15	64	10571	732	744	699	753	732	-3.05

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	169 DEG C	10	TE-5-7	739 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	754 DEG C	13	TE-28-6	766 DEG C	14	TE-28-7	754 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	264 KPA
23	TE-44-8	731 DEG C	24	TE-320	371 DEG C	25	TE-321	367 DEG C
26	TE-322	351 DEG C	27	TE-323	708 DEG C	28	TE-324	680 DEG C
29	TE-325	688 DEG C	30	TE-326	657 DEG C	31	TE-327	645 DEG C
41	TE-91-2	594 DEG C	44	TE-92-1	616 DEG C	45	TE-92-2	583 DEG C
46	TE-92-3	611 DEG C	47	TE-92-4	566 DEG C	49	TE-93-2	659 DEG C
50	TE-93-3	677 DEG C	52	TE-94-1	651 DEG C	53	TE-94-2	519 DEG C
54	TE-94-3	540 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V
488	TAV-10	762 DEG C						

TABLE B-27. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 27 BURST TIME

TIME FROM POWER-ON 45.10 SEC. TIME FROM POWER-OFF -3.35 SEC. RECORD NUMBER 546-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11108	723	710	741	721	724	-4.50	2	9753	764	744	755	738	750	-0.55
3	10465	748	745	744	757	749	-1.80	4	2899	762	741	747	747	749	0.25
5	10210	749	727	752	756	746	-2.40	6	10341	756	761	767	741	757	-1.30
7	10019	758	754	751	770	758	-0.65	8	10516	739	747	737	716	734	-2.25
9	10494	740	755	761	765	755	-3.05	10	9607	771	750	754	737	753	-1.20
11	9135	760	747	760	762	757	-0.40	12	9036	772	783	769	762	771	-0.50
13	9301	755	754	764	755	757	-0.45	14	8210	757	770	769	756	763	0.05
15	9794	760	756	745	763	756	-0.70	16	160	763	766	771	650	737	0.55
17	10574	756	739	721	755	743	-3.35	18	9046	764	773	769	766	768	-0.15
19	9414	758	755	767	730	753	-1.40	20	9272	755	752	754	755	754	-1.10
21	4	746	754	765	773	760	1.10	22	9194	774	768	756	764	766	-1.15
23	8869	771	770	755	766	765	-0.10	24	10181	747	739	763	748	749	-1.55
25	10427	759	748	740	732	745	-1.10	26	9584	750	766	747	754	754	-0.50
27	8432	768	751	756	756	758	0.0	28	9289	780	747	773	748	762	-0.60
29	8944	768	768	744	770	762	-0.20	30	9528	763	756	744	755	754	-1.30
31	3009	703	762	737	753	739	0.20	32	10304	736	763	731	748	745	-1.70
33	10465	754	745	729	743	743	-2.20	34	9716	750	750	734	772	752	-0.80
35	9565	769	771	745	773	764	-0.75	36	8834	754	768	755	754	758	0.00
37	9813	767	747	755	756	756	-2.10	38	8648	767	764	769	773	768	-0.60
39	9835	752	753	741	765	753	-1.60	40	10072	770	760	768	768	767	-1.35
41	10478	750	726	739	763	744	-1.40	42	9853	771	756	768	757	763	-1.15
43	1969	765	766	723	751	751	0.20	44	9563	745	717	756	736	738	-1.00
45	9739	756	751	767	749	756	-1.65	46	9528	259	766	750	754	632	-1.15
47	9453	773	770	763	769	769	-0.40	48	10465	732	745	756	738	743	-2.70
49	10736	734	739	727	750	738	-1.80	50	9623	738	763	739	751	747	-0.60
51	10024	761	753	750	741	751	-1.95	52	8818	754	741	756	762	753	-0.10
53	10013	728	752	733	749	741	-1.20	54	9718	764	746	759	766	759	-0.80
55	9986	738	743	739	742	740	-1.25	56	10315	764	762	754	751	758	-1.95
57	10781	723	748	723	734	732	-2.80	58	10160	744	742	716	746	737	-1.35
59	10328	743	729	743	760	744	-1.20	60	10252	725	748	743	733	737	-2.10
61	10243	750	751	756	739	749	-1.10	62	-34	749	723	741	741	739	******
63	10427	749	737	730	750	742	-2.65	64	10776	729	743	698	751	730	-3.55

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	740 DEG C	10	TE-5-7	736 DEG C	11	TE-5-8	726 DEG C
12	TE-28-5	748 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	750 DEG C
15	TE-28-8	745 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	221 KPA
23	TE-44-8	733 DEG C	24	TE-320	370 DEG C	25	TE-321	360 DEG C
26	TE-322	346 DEG C	27	TE-323	694 DEG C	28	TE-324	663 DEG C
29	TE-325	682 DEG C	30	TE-326	645 DEG C	31	TE-327	630 DEG C
41	TE-91-2	545 DEG C	44	TE-92-1	612 DEG C	45	TE-92-2	545 DEG C
46	TE-92-3	648 DEG C	47	TE-92-4	513 DEG C	49	TE-93-2	606 DEG C
50	TE-93-3	641 DEG C	52	TE-94-1	640 DEG C	53	TE-94-2	506 DEG C
54	TE-94-3	550 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	761 DEG C						

[redacted] M 2 [redacted]

TABLE B-28. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 28 BURST TIME

TIME FROM POWER-ON 45.70 SEC. TIME FROM POWER-OFF -2.75 SEC. RECORD NUMBER 552-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10875	717	663	744	727	713	-3.90	2	6915	751	736	762	709	740	0.05
3	10118	742	749	748	758	749	-1.20	4	38	760	747	745	758	753	0.85
5	9878	755	728	755	762	750	-1.80	6	9914	761	756	773	735	756	-0.70
7	9599	747	752	756	766	755	-0.05	8	10207	740	752	737	713	735	-1.65
9	10169	740	710	766	762	745	-2.45	10	9032	759	753	765	738	754	-0.60
11	2790	758	730	753	755	749	0.20	12	4211	754	771	767	748	760	0.10
13	3460	752	752	758	745	752	0.15	14	126	763	769	767	760	765	0.65
15	9241	766	760	745	766	759	-0.10	16	-3	766	774	780	654	744	1.15
17	10256	759	727	724	763	743	-2.75	18	412	758	768	768	768	766	0.45
19	8784	758	759	768	738	756	-0.80	20	8653	759	759	757	758	758	-0.50
21	7	755	760	761	775	763	1.70	22	8469	773	774	760	760	767	-0.55
23	577	773	765	755	766	765	0.50	24	9750	752	745	768	747	753	-0.95
25	10063	763	745	751	735	749	-0.50	26	6297	753	763	742	756	754	0.10
27	141	767	745	758	756	757	0.60	28	8595	783	754	777	752	767	0.00
29	823	758	767	735	763	756	0.40	30	8953	776	763	748	758	761	-0.70
31	23	755	762	756	761	758	0.80	32	9906	739	759	734	746	745	-1.10
33	10114	758	704	724	748	734	-1.60	34	9033	754	753	739	775	755	-0.20
35	8869	768	773	746	778	766	-0.15	36	290	761	763	753	755	758	0.60
37	9317	769	750	759	760	760	-1.50	38	7715	767	770	769	777	771	0.0
39	9332	757	756	747	766	756	-1.00	40	9623	775	768	765	770	770	-0.75
41	10091	749	725	743	767	746	-0.80	42	9282	773	762	772	762	767	-0.55
43	-16	770	765	742	757	758	0.80	44	8917	748	709	761	736	738	-0.40
45	9170	766	756	768	756	762	-1.05	46	8898	260	763	756	763	636	-0.55
47	2815	768	758	756	761	761	0.20	48	10127	735	750	756	731	743	-2.10
49	10426	738	754	730	754	744	-1.20	50	8900	739	768	740	754	750	0.00
51	9564	766	756	750	748	755	-1.35	52	258	755	741	755	764	753	0.50
53	9537	726	761	738	754	745	-0.60	54	9072	770	749	764	762	761	-0.20
55	9486	741	753	741	748	746	-0.65	56	9929	769	765	759	754	762	-1.35
57	10501	736	750	732	736	739	-2.20	58	9751	749	743	682	748	730	-0.75
59	9922	750	730	744	765	747	-0.60	60	9888	736	742	746	734	739	-1.50
61	9781	761	747	753	742	751	-0.50	62	-91	753	726	739	746	741	******
63	10065	756	739	718	750	741	-2.05	64	10520	733	743	699	753	732	-2.95

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	187 DEG C	10	TE-5-7	741 DEG C	11	TE-5-8	724 DEG C
12	TE-28-5	754 DEG C	13	TE-28-6	765 DEG C	14	TE-28-7	754 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	279 KPA
23	TE-44-8	731 DEG C	24	TE-320	380 DEG C	25	TE-321	371 DEG C
26	TE-322	351 DEG C	27	TE-323	711 DEG C	28	TE-324	685 DEG C
29	TE-325	693 DEG C	30	TE-326	664 DEG C	31	TE-327	652 DEG C
41	TE-91-2	629 DEG C	44	TE-92-1	614 DEG C	45	TE-92-2	586 DEG C
46	TE-92-3	600 DEG C	47	TE-92-4	575 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	678 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	522 DEG C
54	TE-94-3	543 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	763 DEG C						

[redacted] N 2 [redacted]

TABLE B-29. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 29 BURST TIME

TIME FROM POWER-ON 45.30 SEC. TIME FROM POWER-OFF -3.15 SEC. RECORD NUMBER 548-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11019	719	689	742	723	718	-4.30	2	9565	763	744	760	735	751	-0.35
3	10340	748	746	746	759	750	-1.60	4	1005	762	743	745	752	750	0.45
5	10107	749	729	753	760	748	-2.20	6	10202	758	756	769	741	756	-1.10
7	9870	755	753	753	767	757	-0.45	8	10404	740	748	736	715	735	-2.05
9	10377	740	749	763	765	754	-2.85	10	9421	769	751	758	737	754	-1.00
11	8902	762	746	762	765	759	-0.20	12	8820	773	783	771	763	772	-0.30
13	9050	758	756	765	755	759	-0.25	14	2179	752	755	765	756	757	0.25
15	9608	763	757	744	765	757	-0.50	16	-1	765	769	774	647	739	0.75
17	10459	757	737	721	762	744	-3.15	18	8200	763	773	769	768	768	0.05
19	9210	758	756	766	734	754	-1.20	20	9062	757	754	755	756	755	-0.90
21	-5	749	756	766	775	762	1.30	22	8966	776	770	757	762	766	-0.95
23	6211	767	764	748	762	760	0.10	24	10044	748	741	765	750	751	-1.35
25	10299	760	748	744	733	746	-0.90	26	9363	754	766	749	756	756	-0.30
27	2759	763	741	752	753	752	0.20	28	9071	781	750	773	750	763	-0.40
29	8606	770	764	743	768	761	0.00	30	9535	770	760	748	757	759	-1.10
31	867	718	761	742	756	744	0.40	32	10157	736	760	732	744	743	-1.50
33	10351	736	730	725	745	739	-2.00	34	9497	751	752	736	772	753	-0.60
35	9351	768	771	746	772	764	-0.55	36	2920	751	760	750	750	753	0.20
37	9646	768	748	756	757	757	-1.90	38	8368	766	763	769	775	768	-0.40
39	9670	754	754	742	765	754	-1.40	40	9918	772	763	770	770	769	-1.15
41	10355	749	726	740	764	745	-1.20	42	9666	773	758	769	759	765	-0.95
43	413	767	765	734	754	755	0.40	44	9358	746	712	758	736	738	-0.80
45	9550	[illegible]	753	768	752	759	-1.45	46	9334	259	766	752	757	634	-0.95
47	9225	[illegible]	771	763	771	770	-0.20	48	10343	733	746	759	738	744	-2.50
49	10621	736	744	728	751	740	-1.60	50	9407	738	767	740	752	749	-0.40
51	9869	761	754	750	743	752	-1.75	52	5018	753	737	752	758	750	0.10
53	9853	727	753	734	751	741	-1.00	54	9514	766	747	761	765	760	-0.60
55	9829	739	744	741	744	742	-1.05	56	10185	766	764	756	751	759	-1.75
57	10684	726	749	725	736	734	-2.60	58	10015	746	742	711	747	736	-1.15
59	10189	745	730	743	763	745	-1.00	60	10124	730	745	745	734	738	-1.90
61	10090	754	749	753	740	749	-0.90	62	-59	751	724	742	743	740	******
63	10299	751	738	731	751	743	-2.45	64	10691	730	745	698	751	731	-3.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	737 DEG C	11	TE-5-8	726 DEG C
12	TE-28-5	752 DEG C	13	TE-28-6	768 DEG C	14	TE-28-7	753 DEG C
15	TE-28-8	746 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	247 KPA
23	TE-44-8	734 DEG C	24	TE-320	370 DEG C	25	TE-321	362 DEG C
26	TE-322	349 DEG C	27	TE-323	701 DEG C	28	TE-324	675 DEG C
29	TE-325	687 DEG C	30	TE-326	658 DEG C	31	TE-327	641 DEG C
41	TE-91-2	558 DEG C	44	TE-92-1	612 DEG C	45	TE-92-2	561 DEG C
46	TE-92-3	617 DEG C	47	TE-92-4	525 DEG C	49	TE-93-2	647 DEG C
50	TE-93-3	635 DEG C	52	TE-94-1	645 DEG C	53	TE-94-2	512 DEG C
54	TE-94-3	545 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	760 DEG C						

TABLE B-30. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 30 BURST TIME

TIME FROM POWER-ON 46.80 SEC. TIME FROM POWER-OFF -2.05 SEC. RECORD NUMBER 559-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10631	720	653	750	732	714	-3.20	2	8	750	772	766	700	747	0.75
3	9569	732	747	754	754	747	-0.50	4	-7	743	756	751	758	752	1.55
5	9444	751	727	758	767	751	-1.10	6	9290	768	762	778	725	758	0.00
7	984	732	744	757	746	745	0.65	8	9850	738	757	736	708	735	-0.95
9	9762	735	702	771	759	742	-1.75	10	5246	751	752	765	725	749	0.10
11	-6	764	756	762	764	761	0.90	12	-5	763	770	772	760	766	0.80
13	-5	764	766	766	759	764	0.85	14	0	769	776	768	764	769	1.35
15	132	751	757	741	760	752	0.60	16	-10	765	783	787	657	748	1.85
17	9882	762	719	723	769	[illegible]	-2.05	18	1	762	779	776	777	774	1.15
19	7869	763	762	774	741	[illegible]	-0.10	20	1919	758	762	754	757	758	0.20
21	-8	761	768	766	775	768	2.40	22	3259	765	768	763	749	761	0.15
23	0	780	763	762	774	770	1.20	24	9236	761	752	762	756	758	-0.25
25	2729	756	746	752	718	743	0.20	26	22	754	769	750	762	759	0.80
27	5	771	750	774	763	765	1.30	28	27	768	750	774	756	762	0.70
29	15	770	779	737	770	764	1.10	30	8133	784	769	753	765	768	0.00
31	-7	761	768	768	763	765	1.50	32	9368	748	763	738	750	750	-0.40
33	9657	764	688	716	752	730	-0.90	34	482	736	756	734	770	749	0.50
35	78	763	778	739	779	765	0.55	36	95	768	767	756	760	763	1.30
37	8668	776	754	767	765	765	-0.80	38	16	770	765	762	770	767	0.70
39	8593	763	760	752	770	761	-0.30	40	9036	782	773	754	767	769	-0.05
41	9499	748	720	748	769	746	-0.10	42	3050	766	742	761	760	757	0.15
43	-1	775	770	754	764	766	1.50	44	1420	751	724	761	732	742	0.30
45	8344	769	763	769	763	766	-0.35	46	3072	261	757	741	755	628	0.15
47	0	768	765	759	763	764	0.90	48	9704	740	756	753	713	741	-1.40
49	10038	741	747	730	759	744	-0.50	50	3	739	773	753	758	756	0.70
51	8934	772	758	756	751	759	-0.65	52	-32	752	745	762	771	757	1.20
53	6582	730	765	739	755	747	0.10	54	405	773	755	758	760	762	0.50
55	6925	737	759	737	749	746	0.05	56	9457	775	772	756	761	766	-0.65
57	10181	741	747	741	738	742	-1.50	58	9175	756	745	660	748	727	-0.05
59	5720	753	725	736	741	739	0.10	60	9418	742	748	725	738	739	-0.80
61	3020	757	734	746	743	745	0.20	62	-167	759	727	733	750	742	******
63	9626	767	740	712	750	742	-1.35	64	10216	735	733	697	733	724	-2.25

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	234 DEG C	10	TE-5-7	744 DEG C	11	TE-5-8	722 DEG C
12	TE-28-5	755 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	756 DEG C
15	TE-28-8	751 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	362 KPA
2	TE-44-8	731 DEG C	24	TE-320	390 DEG C	25	TE-321	392 DEG C
26	TE-322	365 DEG C	27	TE-323	710 DEG C	28	TE-324	690 DEG C
29	TE-325	709 DEG C	30	TE-326	668 DEG C	31	TE-327	667 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	631 DEG C	45	TE-92-2	618 DEG C
46	TE-92-3	601 DEG C	47	TE-92-4	616 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	657 DEG C	52	TE-94-1	655 DEG C	53	TE-94-2	531 DEG C
54	TE-94-3	535 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	768 DEG C						

TABLE B-31. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 31 BURST TIME

TIME FROM POWER-ON 44.90 SEC. TIME FROM POWER-OFF -3.55 SEC. RECORD NUMBER 544-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11176	726	726	739	718	727	-4.70	2	9907	763	743	746	741	748	-0.75
3	10568	748	744	742	756	748	-2.00	4	9269	768	750	761	753	758	0.05
5	10334	748	725	750	756	745	-2.60	6	10496	756	759	765	743	756	-1.50
7	10154	760	754	749	773	759	-0.85	8	10622	736	745	736	717	733	-2.45
9	10597	739	754	759	763	754	-3.25	10	9779	768	748	752	737	751	-1.40
11	9339	758	750	757	760	756	-0.60	12	9239	770	782	768	761	770	-0.70
13	9516	753	752	762	754	756	-0.65	14	8871	761	776	772	764	768	-0.15
15	9958	757	756	745	761	755	-0.90	16	854	761	761	766	664	738	0.35
17	10667	755	739	723	753	742	-3.55	18	9297	763	771	768	765	767	-0.35
19	9598	761	754	771	728	754	-1.60	20	9469	754	750	753	754	753	-1.30
21	23	743	751	763	771	757	0.90	22	9408	773	766	754	765	764	-1.35
23	9114	770	768	753	762	763	-0.30	24	10312	744	737	761	747	747	-1.75
25	10548	757	748	738	[illegible]	743	-1.30	26	9775	744	765	745	752	752	-0.70
27	8783	766	751	[illegible]	[illegible]	756	-0.20	28	9478	778	746	772	747	761	-0.80
29	9200	767	767	[illegible]	[illegible]	762	-0.40	30	9693	760	754	740	752	751	-1.50
31	9174	751	773	766	769	765	0.00	32	10421	735	762	730	753	745	-1.90
33	10571	751	751	731	741	744	-2.40	34	9891	748	749	732	772	750	-1.00
35	9758	769	770	744	773	764	-0.95	36	9144	752	769	755	753	757	-0.20
37	9959	767	745	754	755	755	-2.30	38	8899	766	766	766	771	767	-0.80
39	9992	749	751	738	764	751	-1.80	40	10204	768	761	766	766	765	-1.55
41	10617	749	728	738	762	744	-1.60	42	10033	769	755	767	755	761	-1.35
43	9386	768	775	746	753	761	0.00	44	9754	743	721	754	737	739	-1.20
45	9899	751	749	766	747	753	-1.85	46	9716	259	766	749	752	632	-1.35
47	9660	771	770	761	768	768	-0.60	48	10580	731	743	755	739	742	-2.90
49	10829	733	736	724	748	735	-2.00	50	9811	736	760	738	749	746	-0.80
51	10172	760	750	749	740	750	-2.15	52	9091	752	741	755	761	752	-0.30
53	10166	728	751	732	748	740	-1.40	54	9894	763	743	758	766	758	-1.00
55	10137	736	742	737	741	739	-1.45	56	10439	762	760	751	750	756	-2.15
57	10879	719	747	720	733	730	-3.00	58	10306	743	741	716	745	736	-1.55
59	10453	741	728	742	759	743	-1.40	60	10381	723	748	743	733	737	-2.30
61	10369	748	752	755	738	748	-1.30	62	-15	748	723	739	740	737	******
63	10547	746	737	728	749	740	-2.85	64	10868	728	741	698	749	729	-3.75

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	738 DEG C	10	TE-5-7	735 DEG C	11	TE-5-8	726 DEG C
12	TE-28-5	747 DEG C	13	TE-28-6	758 DEG C	14	TE-28-7	748 DEG C
15	TE-28-8	743 DEG C	17	TE-39-6	740 DEG C	19	PE-301	202 KPA
23	TE-44-8	752 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C
26	TE-322	345 DEG C	27	TE-323	686 DEG C	28	TE-324	655 DEG C
29	TE-325	671 DEG C	30	TE-326	634 DEG C	31	TE-327	617 DEG C
41	TE-91-2	534 DEG C	44	TE-92-1	607 DEG C	45	TE-92-2	528 DEG C
46	TE-92-3	648 DEG C	47	TE-92-4	498 DEG C	49	TE-93-2	509 DEG C
50	TE-93-3	645 DEG C	52	TE-94-1	629 DEG C	53	TE-94-2	495 DEG C
54	TE-94-3	542 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V
488	TAV-10	761 DEG C						

TABLE B-32. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 32 BURST TIME

TIME FROM POWER-ON 46.80 SEC. TIME FROM POWER-OFF -1.65 SEC. RECORD NUMBER 563-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10492	718	650	753	735	714	-2.80	2	17	748	739	780	698	741	1.15
3	9382	728	741	755	755	745	-0.10	4	9	726	762	753	759	750	1.95
5	9206	747	728	757	772	751	-0.70	6	664	742	758	773	708	745	0.40
7	134	733	744	760	751	747	1.05	8	9637	739	761	734	703	734	-0.55
9	9545	733	688	774	741	734	-1.35	10	447	756	751	765	733	752	0.50
11	-3	766	761	764	771	766	1.30	12	10	767	769	777	762	769	1.20
13	5	768	775	768	766	769	1.25	14	3	773	782	768	766	772	1.75
15	3	758	763	747	762	757	1.00	16	1	759	785	790	648	746	2.25
17	9678	765	718	718	772	743	-1.65	18	11	764	783	779	781	777	1.55
19	1054	767	756	773	736	758	0.30	20	46	763	765	758	761	762	0.60
21	10	765	772	770	776	771	2.80	22	150	773	774	766	757	768	0.55
23	14	782	766	765	774	772	1.60	24	3560	772	743	749	730	749	0.15
25	85	764	747	759	722	748	0.60	26	4	750	772	756	766	761	1.20
27	17	772	754	781	765	768	1.70	28	16	772	754	778	762	766	1.10
29	19	777	787	738	774	769	1.50	30	781	783	770	751	762	767	0.40
31	18	765	768	774	765	768	1.90	32	8972	752	768	739	753	753	0.00
33	9382	768	681	717	756	730	-0.50	34	24	751	756	740	773	755	0.90
35	38	769	792	743	783	769	0.95	36	106	771	770	757	763	765	1.70
37	8269	780	757	770	768	769	-0.40	38	20	775	765	768	778	771	1.10
39	3494	745	756	734	767	751	0.10	40	789	754	759	726	756	749	0.35
41	1430	743	730	727	766	742	0.30	42	188	771	741	767	763	761	0.55
43	-5	779	785	758	768	772	1.90	44	46	755	741	771	739	751	0.70
45	7457	768	763	766	764	765	0.05	46	124	261	758	748	760	632	0.55
47	4	783	763	761	769	769	1.30	48	9463	742	759	756	706	741	-1.00
49	9797	742	744	731	760	744	-0.10	50	-20	743	775	762	759	760	1.10
51	8498	770	760	757	755	760	-0.25	52	-27	742	748	764	771	756	1.60
53	396	730	756	740	750	744	0.50	54	-24	776	760	761	776	768	0.90
55	296	714	761	743	751	742	0.45	56	9185	779	776	749	764	767	-0.25
57	10004	744	733	744	739	740	-1.10	58	1800	754	741	714	746	739	0.35
59	485	753	726	740	747	741	0.50	60	9143	746	751	717	741	738	-0.40
61	91	767	728	752	748	749	0.60	62	-200	763	731	738	753	746	******
63	9383	769	739	697	750	739	-0.95	64	10058	736	730	696	699	715	-1.85

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	222 DEG C	10	TE-5-7	746 DEG C	11	TE-5-8	753 DEG C	
12	TE-28-5	758 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	759 DEG C	
15	TE-28-8	755 DEG C	17	TE-39-6	751 DEG C	19	PE-301	395 KPA	
23	TE-44-8	729 DEG C	24	TE-320	384 DEG C	25	TE-321	390 DEG C	
26	TE-322	370 DEG C	27	TE-323	719 DEG C	28	TE-324	706 DEG C	
29	TE-325	714 DEG C	30	TE-326	683 DEG C	31	TE-327	671 DEG C	
41	TE-91-2	651 DEG C	44	TE-92-1	638 DEG C	45	TE-92-2	609 DEG C	
46	TE-92-3	604 DEG C	47	TE-92-4	629 DEG C	49	TE-93-2	660 DEG C	
50	TE-93-3	647 DEG C	52	TE-94-1	666 DEG C	53	TE-94-2	538 DEG C	
54	TE-94-3	535 DEG C	472	EIE-10	2380 A	473	EEE-10	82 V	
488	TAV-10	769 DEG C							

TABLE B-33. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 33 BURST TIME

TIME FROM POWER-ON 47.30 SEC. TIME FROM POWER-OFF -1.15 SEC. RECORD NUMBER 568-A

ROD NO.	DIFFERENTIAL PRESS. (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10344	717	652	756	738	716	-2.30	2	17	747	643	777	694	715	1.65
3	618	715	724	751	746	734	0.40	4	10	707	768	755	762	748	2.45
5	8896	739	729	758	777	751	-0.20	6	0	751	765	783	701	750	0.90
7	3	735	745	763	757	750	1.55	8	9378	740	767	731	695	733	-0.05
9	9256	733	677	779	727	729	-0.85	10	7	759	757	768	741	756	1.00
11	-11	769	767	768	779	771	1.80	12	9	770	770	781	765	771	1.70
13	-9	773	782	770	772	774	1.75	14	3	776	785	769	770	775	2.25
15	4	764	767	744	763	759	1.50	16	3	747	790	794	637	742	2.75
17	9410	767	718	719	776	745	-1.15	18	19	767	788	783	783	780	2.05
19	25	779	763	789	742	768	0.80	20	10	765	769	761	765	765	1.10
21	4	768	776	773	776	773	3.30	22	16	779	780	771	763	773	1.05
23	16	784	769	766	773	773	2.10	24	23	780	749	751	723	751	0.65
25	20	770	746	765	729	752	1.10	26	5	751	776	760	769	764	1.70
27	18	775	756	786	768	771	2.20	28	10	774	758	781	768	770	1.60
29	28	783	789	741	776	772	2.00	30	12	787	775	759	767	772	0.90
31	11	770	771	780	765	771	2.40	32	191	745	750	731	754	745	0.50
33	8972	772	674	719	761	732	0.00	34	18	759	755	748	777	760	1.40
35	38	777	787	747	787	774	1.45	36	107	774	771	762	767	769	2.20
37	3600	744	759	757	753	752	0.10	38	21	778	769	770	785	776	1.60
39	25	755	756	744	768	756	0.60	40	20	755	767	709	762	748	0.85
41	47	749	761	736	777	756	0.80	42	19	771	747	773	765	764	1.05
43	-3	782	791	763	773	777	2.40	44	17	760	749	777	743	757	1.20
45	124	756	762	763	766	762	0.55	46	22	262	759	756	732	627	1.05
47	6	792	764	763	775	774	1.80	48	9154	745	760	759	695	740	-0.50
49	676	741	752	725	751	742	0.40	50	-19	746	779	771	763	765	1.60
51	1354	765	756	756	749	757	0.25	52	-25	748	750	767	772	759	2.10
53	-28	736	772	745	759	753	1.00	54	-15	781	764	763	785	773	1.40
55	-28	730	764	749	758	750	0.95	56	1407	766	769	734	719	747	0.25
57	9795	746	728	748	741	741	-0.60	58	16	758	744	702	747	738	0.85
59	-30	754	729	743	764	747	1.00	60	7032	721	720	707	738	721	0.10
61	-43	775	722	742	751	748	1.10	62	-229	766	733	740	756	749	******
63	9057	773	739	684	751	737	-0.45	64	9875	738	727	697	694	714	-1.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	249 DEG C	10	TE-5-7	748 DEG C	11	TE-5-8	745 DEG C
12	TE-28-5	761 DEG C	13	TE-28-6	765 DEG C	14	TE-28-7	765 DEG C
15	TE-28-8	760 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	424 KPA
23	TE-44-8	725 DEG C	24	TE-320	378 DEG C	25	TE-321	394 DEG C
26	TE-322	370 DEG C	27	TE-323	726 DEG C	28	TE-324	705 DEG C
29	TE-325	714 DEG C	30	TE-326	681 DEG C	31	TE-327	665 DEG C
41	TE-91-2	653 DEG C	44	TE-92-1	641 DEG C	45	TE-92-2	610 DEG C
46	TE-92-3	610 DEG C	47	TE-92-4	641 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	648 DEG C	52	TE-94-1	670 DEG C	53	TE-94-2	545 DEG C
54	TE-94-3	533 DEG C	472	EIE-10	2377 A	473	EEE-10	81 V
488	TAV-10	771 DEG C						

TABLE B-34. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 34 BURST TIME

TIME FROM POWER-ON 45.90 SEC. TIME FROM POWER-OFF -2.55 SEC. RECORD NUMBER 554-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10807	719	657	745	729	712	-3.70	2	1448	746	718	761	703	732	0.25
3	9987	737	748	751	756	748	-1.00	4	5	756	750	747	758	753	1.05
5	9754	755	726	756	764	750	-1.60	6	9774	763	759	774	732	757	-0.50
7	6186	734	747	755	753	747	0.15	8	10102	740	753	736	711	735	-1.45
9	10052	739	702	767	762	742	-2.25	10	9816	757	755	769	738	755	-0.40
11	767	759	745	757	756	754	0.40	12	782	754	770	764	754	760	0.30
13	708	757	757	760	752	756	0.35	14	29	765	774	767	764	767	0.85
15	5979	757	750	734	753	749	0.10	16	-5	767	777	782	653	745	1.35
17	10148	759	728	725	764	744	-2.55	18	58	759	772	770	771	768	0.65
19	8550	759	759	770	738	756	-0.60	20	8398	759	761	757	758	759	-0.30
21	3	757	762	760	774	763	1.90	22	8203	773	776	762	762	768	-0.35
23	120	774	765	756	770	767	0.70	24	9615	753	746	767	748	753	-0.75
25	9928	763	748	753	735	750	-0.30	26	1833	751	763	744	757	754	0.30
27	25	769	745	761	758	758	0.80	28	2733	763	741	769	743	754	0.20
29	185	761	771	736	764	758	0.60	30	8737	779	765	751	761	764	-0.50
31	5	754	762	758	761	759	1.00	32	9751	741	759	734	747	745	-0.90
33	9986	760	695	722	749	732	-1.40	34	8695	752	752	739	773	754	0.0
35	7458	764	773	741	777	763	0.05	36	122	764	764	754	756	759	0.80
37	9135	771	751	761	761	761	-1.30	38	1634	760	763	757	761	760	0.20
39	9117	759	757	748	768	758	-0.80	40	9470	777	769	764	769	770	-0.55
41	9953	748	725	744	769	746	-0.60	42	9007	773	762	773	763	768	-0.35
43	-11	772	765	745	759	760	1.00	44	8654	749	705	762	736	738	-0.20
45	8951	767	758	768	758	763	-0.85	46	8631	260	763	758	762	635	-0.35
47	803	774	762	757	758	763	0.40	48	10012	736	752	756	724	742	-1.90
49	10318	740	752	731	756	745	-1.00	50	2267	734	765	740	756	749	0.20
51	9386	767	757	752	748	756	-1.15	52	1	756	741	757	765	755	0.70
53	9355	728	765	738	756	747	-0.40	54	8770	771	751	765	761	762	0.00
55	9297	742	757	742	749	748	-0.45	56	9799	771	766	763	757	764	-1.15
57	10404	738	751	735	737	740	-2.00	58	9591	751	744	675	748	729	-0.55
59	9782	752	730	745	767	748	-0.40	60	9753	740	745	738	735	739	-1.30
61	9506	764	746	753	744	752	-0.30	62	-109	755	726	737	746	741	******
63	9930	761	739	711	749	740	-1.85	64	10428	733	740	700	755	732	-2.75

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	204 DEG C	10	TE-5-7	741 DEG C	11	TE-5-8	724 DEG C
12	TE-28-5	779 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	751 DEG C
15	TE-28-8	747 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	305 KPA
23	TE-44-8	720 DEG C	24	TE-320	398 DEG C	25	TE-321	390 DEG C
26	TE-322	352 DEG C	27	TE-323	714 DEG C	28	TE-324	693 DEG C
29	TE-325	701 DEG C	30	TE-326	670 DEG C	31	TE-327	651 DEG C
41	TE-91-2	640 DEG C	44	TE-92-1	615 DEG C	45	TE-92-2	598 DEG C
46	TE-92-3	594 DEG C	47	TE-92-4	587 DEG C	49	TE-93-2	663 DEG C
50	TE-93-3	689 DEG C	52	TE-94-1	648 DEG C	53	TE-94-2	523 DEG C
54	TE-94-3	540 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V
488	TAV-10	764 DEG C						

TABLE B-35. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 35 BURST TIME

TIME FROM POWER-ON 45.85 SEC. TIME FROM POWER-OFF -2.60 SEC. RECORD NUMBER 553-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10825	718	658	745	728	713	-3.75	2	2065	746	708	761	703	729	0.20
3	10012	739	748	750	756	748	-1.05	4	9	757	749	747	758	753	1.00
5	9786	755	727	756	763	750	-1.65	6	9800	762	758	774	733	757	-0.55
7	7402	738	748	755	762	751	0.10	8	10128	740	752	737	712	735	-1.50
9	10077	739	704	767	761	743	-2.30	10	8871	758	755	768	738	755	-0.45
11	1065	759	742	756	756	753	0.35	12	1162	753	769	763	753	759	0.25
13	1077	756	756	760	751	755	0.30	14	33	764	773	767	764	767	0.80
15	8447	764	753	741	760	755	0.05	16	5	767	776	782	650	744	1.30
17	10167	759	728	725	764	744	-2.60	18	99	759	771	770	770	767	0.60
19	8604	759	759	770	738	756	-0.65	20	8454	759	761	757	758	759	-0.35
21	7	756	762	760	775	763	1.85	22	8275	773	775	761	762	768	-0.40
23	187	774	765	756	769	766	0.65	24	9647	753	745	768	746	753	-0.80
25	9961	763	747	752	735	749	-0.35	26	2433	750	763	743	756	753	0.25
27	36	767	745	759	757	757	0.75	28	3955	764	741	769	741	754	0.15
29	286	761	770	736	764	758	0.55	30	8792	778	765	750	760	763	-0.55
31	2	749	762	757	760	757	0.95	32	9801	741	759	734	746	745	-0.95
33	10019	759	697	723	749	732	-1.45	34	8810	754	754	740	775	756	-0.05
35	8644	768	774	746	779	767	0.0	36	141	764	765	753	756	759	0.75
37	9183	771	751	760	761	761	-1.35	38	2448	758	763	756	760	760	0.15
39	9172	758	756	748	768	758	-0.85	40	9504	776	769	764	769	769	-0.60
41	9979	748	725	744	768	746	-0.65	42	9084	773	762	773	763	768	-0.40
43	0	771	765	744	759	760	0.95	44	8730	749	707	762	736	739	-0.25
45	9007	767	757	768	758	763	-0.90	46	8701	260	763	757	762	635	-0.40
47	1101	772	761	756	758	762	0.35	48	10039	736	752	755	726	742	-1.95
49	10337	739	753	731	755	744	-1.05	50	3189	734	764	738	754	748	0.15
51	9436	768	757	751	748	756	-1.20	52	28	756	742	756	765	755	0.65
53	9404	727	764	738	755	746	-0.45	54	8849	771	751	765	762	762	-0.05
55	9340	742	757	742	749	748	-0.50	56	9825	770	765	762	756	764	-1.20
57	10429	738	751	734	736	740	-2.05	58	9632	750	744	677	748	730	-0.60
59	9817	751	731	744	766	748	-0.45	60	9778	739	744	741	734	739	-1.35
61	9646	764	746	753	743	752	-0.35	62	-113	754	726	737	746	741	******
63	9963	759	739	712	749	740	-1.90	64	10454	733	740	700	754	732	-2.80

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	209 DEG C	10	TE-5-7	741 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	750 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	751 DEG C
15	TE-28-8	745 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	301 KPA
23	TE-44-8	729 DEG C	24	TE-320	397 DEG C	25	TE-321	390 DEG C
26	TE-322	352 DEG C	27	TE-323	713 DEG C	28	TE-324	693 DEG C
29	TE-325	699 DEG C	30	TE-326	673 DEG C	31	TE-327	652 DEG C
41	TE-91-2	640 DEG C	44	TE-92-1	613 DEG C	45	TE-92-2	596 DEG C
46	TE-92-3	600 DEG C	47	TE-92-4	584 DEG C	49	TE-93-2	664 DEG C
50	TE-93-3	692 DEG C	52	TE-94-1	651 DEG C	53	TE-94-2	524 DEG C
54	TE-94-3	540 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V
488	TAV-10	764 DEG C						

TABLE B-36. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 36 BURST TIME

TIME FROM POWER-ON 45.10 SEC. TIME FROM POWER-OFF -3.35 SEC. RECORD NUMBER 546-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11108	723	710	741	721	724	-4.50	2	9753	764	744	755	738	750	-0.55
3	10465	748	745	744	757	749	-1.80	4	2899	762	741	747	747	749	0.25
5	10210	749	727	752	756	746	-2.40	6	10341	756	761	767	741	757	-1.30
7	10019	758	754	751	770	758	-0.65	8	10516	739	747	737	716	734	-2.25
9	10494	740	755	761	765	755	-3.05	10	9607	771	750	754	737	753	-1.20
11	9135	760	747	760	762	757	-0.40	12	9036	772	783	769	762	771	-0.50
13	9301	755	754	764	755	757	-0.45	14	8210	757	770	769	756	763	0.05
15	9794	760	756	745	763	756	-0.70	16	160	763	766	771	650	737	0.55
17	10574	756	739	721	755	743	-3.35	18	9046	764	773	769	766	768	-0.15
19	9414	758	755	767	730	753	-1.40	20	9272	755	752	754	755	754	-1.10
21	4	746	754	765	773	760	1.10	22	9194	774	768	756	764	766	-1.15
23	8869	771	770	755	766	765	-0.10	24	10181	747	739	763	748	749	-1.55
25	10427	759	748	740	732	745	-1.10	26	9584	750	766	747	754	754	-0.50
27	8432	768	751	756	756	758	0.0	28	9289	780	747	773	748	762	-0.60
29	8944	768	768	744	770	762	-0.20	30	9528	763	756	744	755	754	-1.30
31	3009	703	762	737	753	739	0.20	32	10304	736	763	731	748	745	-1.70
33	10465	754	745	729	743	743	-2.20	34	9716	750	750	734	772	752	-0.80
35	9565	769	771	745	773	764	-0.75	36	8834	754	768	755	754	758	0.00
37	9813	767	747	755	756	756	-2.10	38	8648	767	764	769	773	768	-0.60
39	9835	752	753	741	765	753	-1.60	40	10072	770	760	768	768	767	-1.35
41	10478	750	726	739	763	744	-1.40	42	9853	771	756	768	757	763	-1.15
43	1969	765	766	723	751	751	0.20	44	9563	745	717	756	736	738	-1.00
45	9739	756	751	767	749	756	-1.65	46	9528	259	766	750	754	632	-1.15
47	9453	773	770	763	769	769	-0.40	48	10465	732	745	756	738	743	-2.70
49	10736	734	739	727	750	738	-1.80	50	9623	738	763	739	751	747	-0.60
51	10024	761	753	750	741	751	-1.95	52	8818	754	741	756	762	753	-0.10
53	10013	728	752	733	749	741	-1.20	54	9718	764	746	759	766	759	-0.80
55	9986	738	743	739	742	740	-1.25	56	10315	764	762	754	751	758	-1.95
57	10781	723	748	723	734	732	-2.80	58	10160	744	742	716	746	737	-1.35
59	10328	743	729	743	760	744	-1.20	60	10252	725	748	743	733	737	-2.10
61	10243	750	751	756	739	749	-1.10	62	-34	749	723	741	741	739	******
63	10427	749	737	730	750	742	-2.65	64	10776	729	743	698	751	730	-3.55

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	740 DEG C	10	TE-5-7	736 DEG C	11	TE-5-8	726 DEG C
12	TE-28-5	748 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	750 DEG C
15	TE-28-8	745 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	221 KPA
23	TE-44-8	733 DEG C	24	TE-320	370 DEG C	25	TE-321	360 DEG C
26	TE-322	346 DEG C	27	TE-323	694 DEG C	28	TE-324	663 DEG C
29	TE-325	682 DEG C	30	TE-326	645 DEG C	31	TE-327	630 DEG C
41	TE-91-2	545 DEG C	44	TE-92-1	612 DEG C	45	TE-92-2	545 DEG C
46	TE-92-3	648 DEG C	47	TE-92-4	513 DEG C	49	TE-93-2	606 DEG C
50	TE-93-3	641 DEG C	52	TE-94-1	640 DEG C	53	TE-94-2	506 DEG C
54	TE-94-3	550 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	761 DEG C						

TABLE B-37. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 37 BURST TIME

TIME FROM POWER-ON 47.20 SEC. TIME FROM POWER-OFF -1.25 SEC. RECORD NUMBER 567-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10386	717	652	756	738	715	-2.40	2	17	746	735	779	696	739	1.55
3	1240	713	722	751	743	732	0.30	4	10	711	767	755	761	748	2.35
5	8967	743	729	757	776	751	-0.30	6	14	749	764	782	702	749	0.80
7	11	735	745	762	756	749	1.45	8	9458	740	766	730	697	733	-0.15
9	9313	733	679	778	729	730	-0.95	10	15	759	756	768	740	756	0.90
11	-3	769	766	767	777	770	1.70	12	3	770	770	780	765	771	1.60
13	12	772	781	770	771	773	1.65	14	10	775	785	769	770	775	2.15
15	4	762	765	744	763	759	1.40	16	10	748	789	793	639	742	2.65
17	9470	767	717	719	775	744	-1.25	18	12	766	787	783	782	780	1.95
19	40	778	762	786	741	767	0.70	20	10	765	768	761	764	765	1.00
21	4	767	774	773	776	773	3.20	22	16	778	779	770	762	772	0.95
23	16	784	768	766	773	773	2.00	24	80	779	748	750	722	749	0.55
25	20	769	747	764	727	752	1.00	26	5	751	775	759	769	764	1.60
27	26	774	756	784	768	771	2.10	28	10	773	757	781	768	770	1.50
29	28	783	788	741	776	772	1.90	30	35	786	776	758	766	772	0.80
31	11	768	770	779	765	770	2.30	32	494	743	751	731	753	745	0.40
33	9082	771	675	718	760	731	-0.10	34	33	758	756	746	776	759	1.30
35	31	774	785	746	786	773	1.35	36	115	774	771	761	766	768	2.10
37	7697	774	760	770	765	767	0.0	38	29	777	768	769	784	775	1.50
39	77	753	756	743	767	755	0.50	40	43	755	766	713	761	749	0.75
41	62	749	759	734	775	754	0.70	42	26	772	745	772	765	763	0.95
43	11	782	790	760	772	776	2.30	44	25	759	748	776	743	757	1.10
45	341	754	760	764	765	761	0.45	46	22	262	759	754	725	625	0.95
47	13	790	764	763	776	773	1.70	48	9228	745	760	759	697	740	-0.60
49	1386	740	748	724	750	740	0.30	50	-19	745	780	770	761	764	1.50
51	2792	766	756	754	748	756	0.15	52	-25	747	750	766	773	759	2.00
53	-21	735	769	744	757	751	0.90	54	-23	780	762	763	783	772	1.30
55	-20	728	764	748	757	749	0.85	56	3274	763	767	733	720	746	0.15
57	9846	746	727	748	741	740	-0.70	58	76	758	743	708	746	739	0.75
59	-22	753	728	742	762	746	0.90	60	8801	748	755	709	743	739	0.0
61	-50	774	722	744	750	748	1.00	62	-222	765	733	739	755	748	******
63	9129	772	740	686	752	737	-0.55	64	9912	737	727	697	693	714	-1.45

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	246 DEG C	10	TE-5-7	748 DEG C	11	TE-5-8	743 DEG C
12	TE-28-5	760 DEG C	13	TE-28-6	764 DEG C	14	TE-28-7	765 DEG C
15	TE-28-8	759 DEG C	17	TE-39-6	755 DEG C	19	PE-301	417 KPA
23	TE-44-8	725 DEG C	24	TE-320	377 DEG C	25	TE-321	393 DEG C
26	TE-322	369 DEG C	27	TE-323	726 DEG C	28	TE-324	703 DEG C
29	TE-325	713 DEG C	30	TE-326	685 DEG C	31	TE-327	662 DEG C
41	TE-91-2	652 DEG C	44	TE-92-1	638 DEG C	45	TE-92-2	611 DEG C
46	TE-92-3	612 DEG C	47	TE-92-4	641 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	649 DEG C	52	TE-94-1	667 DEG C	53	TE-94-2	545 DEG C
54	TE-94-3	533 DEG C	472	EIE-10	2377 A	473	EEE-10	81 V
488	TAV-10	770 DEG C						

[redacted] H 3 [redacted]

TABLE B-38. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 38 BURST TIME

TIME FROM POWER-ON 45.70 SEC. TIME FROM POWER-OFF -2.75 SEC. RECORD NUMBER 552-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10875	717	663	744	727	713	-3.90	2	6915	751	736	762	709	740	0.05
3	10118	772	749	748	758	749	-1.20	4	38	760	747	745	758	753	0.85
5	9878	755	728	755	762	750	-1.80	6	9914	761	756	773	735	756	-0.70
7	9599	747	752	756	766	755	-0.05	8	10207	740	752	737	713	735	-1.65
9	10169	740	710	766	762	745	-2.45	10	9032	759	753	765	738	754	-0.60
11	2790	758	730	753	755	749	0.20	12	4211	754	771	767	748	760	0.10
13	3460	752	752	758	745	752	0.15	14	126	763	769	767	760	765	0.65
15	9241	766	760	745	766	759	-0.10	16	-3	766	774	780	654	744	1.15
17	10256	759	727	724	763	743	-2.75	18	412	758	768	768	768	766	0.45
19	8784	758	759	768	738	756	-0.80	20	8653	759	759	757	758	758	-0.50
21	7	755	760	761	775	763	1.70	22	8469	773	774	760	760	767	-0.55
23	577	773	765	755	766	765	0.50	24	9760	752	745	768	747	753	-0.95
25	10063	763	745	751	735	749	-0.50	26	6297	753	763	742	756	754	0.10
27	141	767	745	758	756	757	0.60	28	8595	783	754	777	752	767	0.00
29	923	758	767	735	763	756	0.40	30	8953	776	763	748	758	761	-0.70
31	23	755	762	756	761	758	0.80	32	9906	739	759	734	746	745	-1.10
33	10114	758	704	724	748	734	-1.60	34	9033	754	753	739	775	755	-0.20
35	8869	768	773	746	778	766	-0.15	36	290	761	763	753	755	758	0.60
37	9317	769	750	759	760	760	-1.50	38	7715	767	770	769	777	771	0.0
39	9332	757	756	747	766	756	-1.00	40	9623	775	768	765	770	770	-0.75
41	10091	749	725	743	767	746	-0.80	42	9282	773	762	772	762	767	-0.55
43	-16	770	765	742	757	758	0.80	44	8917	748	709	761	736	738	-0.40
45	9170	766	756	768	756	762	-1.05	46	8898	260	763	756	763	636	-0.55
47	2815	768	758	756	761	761	0.20	48	10127	735	750	756	731	743	-2.10
49	10426	738	754	730	754	744	-1.20	50	8900	739	768	740	754	750	0.00
51	9564	766	756	750	748	755	-1.35	52	258	755	741	755	764	753	0.50
53	9537	726	761	738	754	745	-0.60	54	9072	770	749	764	762	761	-0.20
55	9486	741	753	741	748	746	-0.65	56	9929	769	765	759	754	762	-1.35
57	10501	736	750	732	736	739	-2.20	58	9751	749	743	682	748	730	-0.75
59	9922	750	730	744	765	747	-0.60	60	9888	736	742	746	734	739	-1.50
61	9781	761	747	753	742	751	-0.50	62	-91	753	726	739	746	741	******
63	10065	756	739	718	750	741	-2.05	64	10520	733	743	699	753	732	-2.95

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	187 DEG C	10	TE-5-7	741 DEG C	11	TE-5-8	724 DEG C
12	TE-28-5	754 DEG C	13	TE-28-6	765 DEG C	14	TE-28-7	754 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	279 KPA
23	TE-44-8	731 DEG C	24	TE-320	380 DEG C	25	TE-321	371 DEG C
26	TE-322	351 DEG C	27	TE-323	711 DEG C	28	TE-324	685 DEG C
29	TE-325	693 DEG C	30	TE-326	664 DEG C	31	TE-327	652 DEG C
41	TE-91-2	629 DEG C	44	TE-92-1	614 DEG C	45	TE-92-2	586 DEG C
46	TE-92-3	600 DEG C	47	TE-92-4	575 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	678 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	522 DEG C
54	TE-94-3	543 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	763 DEG C						

TABLE B-39. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 39 BURST TIME

TIME FROM POWER-ON 46.70 SEC. TIME FROM POWER-OFF -1.75 SEC. RECORD NUMBER 562-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10531	719	651	752	734	714	-2.90	2	14	749	748	779	697	744	1.05
3	9464	729	737	754	755	744	-0.20	4	14	730	761	752	758	750	1.85
5	9267	748	727	757	771	751	-0.80	6	1354	740	756	770	709	744	0.30
7	255	732	744	759	749	746	0.95	8	9685	739	760	735	705	735	-0.65
9	9599	734	693	773	745	736	-1.45	10	869	756	750	765	731	751	0.40
11	-6	765	760	764	769	765	1.20	12	14	766	769	776	762	768	1.10
13	-5	767	773	768	765	768	1.15	14	7	772	780	768	766	771	1.65
15	0	756	762	746	762	757	0.90	16	-1	761	785	789	651	746	2.15
17	9727	765	719	718	772	744	-1.75	18	8	764	782	778	780	776	1.45
19	2117	763	753	769	733	755	0.20	20	125	762	765	757	760	761	0.50
21	7	764	771	759	776	770	2.70	22	380	770	773	766	755	766	0.45
23	18	781	765	764	775	771	1.50	24	8458	772	752	756	748	757	0.05
25	235	762	747	757	720	747	0.50	26	8	751	771	754	765	760	1.10
27	14	772	752	779	765	767	1.60	28	6	771	754	776	761	765	1.00
29	23	775	785	738	773	768	1.40	30	1488	783	768	749	760	765	0.30
31	14	765	770	773	764	768	1.80	32	9105	751	767	739	752	752	-0.10
33	9445	767	682	716	755	730	-0.60	34	43	748	756	738	772	754	0.80
35	27	767	781	742	782	768	0.85	36	118	770	769	758	762	765	1.60
37	8378	779	756	769	767	768	-0.50	38	17	774	764	766	777	770	1.00
39	8206	765	759	750	773	762	0.00	40	1608	754	756	730	755	749	0.25
41	2855	742	723	728	762	739	0.20	42	435	770	741	765	763	760	0.45
43	6	778	783	757	766	771	1.80	44	130	754	737	769	738	749	0.60
45	7892	769	765	768	765	767	-0.05	46	335	261	757	745	759	631	0.45
47	8	783	763	761	767	768	1.20	48	9527	741	757	755	708	740	-1.10
49	9853	742	745	731	760	745	-0.20	50	-23	741	775	759	759	759	1.00
51	8608	772	759	757	753	760	-0.35	52	-23	742	747	764	771	756	1.50
53	857	727	754	738	748	742	0.40	54	-12	776	759	760	773	767	0.80
55	706	711	759	742	750	741	0.35	56	9249	778	774	750	764	767	-0.35
57	10044	743	736	744	739	740	-1.20	58	3053	753	741	703	745	735	0.25
59	960	754	725	738	741	739	0.40	60	9213	744	751	719	740	739	-0.50
61	330	765	729	751	746	748	0.50	62	-203	762	729	737	752	745	******
63	9438	769	739	700	750	740	-1.05	64	10092	735	731	696	703	716	-1.95

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	217 DEG C	10	TE-5-7	745 DEG C	11	TE-5-8	750 DEG C
12	TE-28-5	756 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	759 DEG C
15	TE-28-8	754 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	391 KPA
23	TE-44-8	729 DEG C	24	TE-320	385 DEG C	25	TE-321	388 DEG C
26	TE-322	371 DEG C	27	TE-323	719 DEG C	28	TE-324	704 DEG C
29	TE-325	714 DEG C	30	TE-326	684 DEG C	31	TE-327	674 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	638 DEG C	45	TE-92-2	610 DEG C
46	TE-92-3	598 DEG C	47	TE-92-4	625 DEG C	49	TE-93-2	660 DEG C
50	TE-93-3	646 DEG C	52	TE-94-1	665 DEG C	53	TE-94-2	537 DEG C
54	TE-94-3	535 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V
488	TAV-10	769 DEG C						

TABLE B-40. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 40 BURST TIME

TIME FROM POWER-ON 46.45 SEC. TIME FROM POWER-OFF -2.00 SEC. RECORD NUMBER 559-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10610	719	652	750	733	713	-3.15	2	8	749	771	769	700	747	0.80
3	9634	731	746	754	754	746	-0.45	4	0	741	757	751	758	752	1.60
5	9416	751	727	757	768	751	-1.05	6	8685	767	760	778	722	757	0.05
7	795	732	744	757	746	745	0.70	8	9808	738	757	737	708	735	-0.90
9	9741	735	701	772	758	742	-1.70	10	3806	752	749	765	724	747	0.15
11	-12	764	757	762	765	762	0.95	12	-12	764	770	773	760	767	0.85
13	-12	764	768	766	760	764	0.90	14	1	770	776	768	765	770	1.40
15	74	752	758	742	760	753	0.65	16	-1	765	783	787	658	748	1.90
17	9853	763	720	722	770	744	-2.00	18	8	763	780	776	778	774	1.20
19	7791	763	762	774	742	760	-0.05	20	1299	759	762	755	758	759	0.25
21	-7	762	768	767	775	768	2.45	22	2298	766	768	763	750	762	0.20
23	1	780	764	762	774	770	1.25	24	9187	764	753	762	757	759	-0.20
25	1867	758	746	753	718	744	0.25	26	8	753	769	751	763	759	0.85
27	13	771	751	775	763	765	1.35	28	20	769	751	775	757	763	0.75
29	8	771	780	737	771	765	1.15	30	7936	781	764	751	755	763	0.05
31	0	761	767	770	762	765	1.55	32	9331	749	764	738	750	750	-0.35
33	9614	765	686	716	753	730	-0.85	34	341	738	757	734	770	750	0.55
35	57	763	778	740	780	765	0.60	36	103	768	767	756	760	763	1.35
37	8624	776	754	767	765	766	-0.75	38	17	771	764	763	771	767	0.75
39	8549	764	760	753	771	762	-0.25	40	8977	782	771	750	767	768	0.0
41	9440	748	719	748	769	746	-0.05	42	2211	767	739	761	761	757	0.20
43	-8	775	773	755	765	767	1.55	44	1029	751	729	763	733	744	0.35
45	8263	769	763	769	764	766	-0.30	46	2124	261	757	741	756	629	0.20
47	-6	779	765	759	763	767	0.95	48	9690	740	757	752	713	741	-1.35
49	10001	741	748	730	760	745	-0.45	50	-23	740	773	754	758	756	0.75
51	8881	773	758	756	751	760	-0.60	52	-39	748	746	762	772	757	1.25
53	4655	729	760	737	749	744	0.15	54	263	774	756	759	762	763	0.55
55	4631	725	758	736	749	742	0.10	56	9421	775	772	756	760	766	-0.60
57	10153	741	744	741	738	741	-1.45	58	9123	757	745	658	748	727	0.0
59	4173	752	724	734	735	736	0.15	60	9382	743	748	725	738	739	-0.75
61	2138	758	733	748	744	746	0.25	62	-174	759	728	733	751	743	******
63	9590	768	740	712	749	742	-1.30	64	10195	735	733	697	725	722	-2.20

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	233 DEG C	10	TE-5-7	744 DEG C	11	TE-5-8	723 DEG C
12	TE-28-5	755 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	758 DEG C
15	TE-28-8	752 DEG C	17	TE-39-6	752 DEG C	19	PE-301	369 KPA
23	TE-44-8	731 DEG C	24	TE-320	389 DEG C	25	TE-321	393 DEG C
26	TE-322	369 DEG C	27	TE-323	712 DEG C	28	TE-324	694 DEG C
29	TE-325	711 DEG C	30	TE-326	670 DEG C	31	TE-327	672 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	630 DEG C	45	TE-92-2	618 DEG C
46	TE-92-3	599 DEG C	47	TE-92-4	615 DEG C	49	TE-93-2	662 DEG C
50	TE-93-3	653 DEG C	52	TE-94-1	659 DEG C	53	TE-94-2	532 DEG C
54	TE-94-3	534 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	768 DEG C						

TABLE B-41. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 41 BURST TIME

TIME FROM POWER-ON 46.50 SEC. TIME FROM POWER-OFF -1.95 SEC. RECORD NUMBER 560-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10591	719	652	751	733	714	-3.10	2	4	748	770	773	699	748	0.85
3	9594	731	745	754	754	746	-0.40	4	-4	740	758	751	758	752	1.65
5	9376	750	727	757	768	751	-1.00	6	5866	757	754	770	715	749	0.10
7	652	732	744	758	747	745	0.75	8	9789	738	758	736	707	735	-0.85
9	9708	735	700	772	756	741	-1.65	10	2798	753	749	765	724	747	0.20
11	-17	764	758	763	765	763	1.00	12	-10	765	769	773	761	767	0.90
13	-2	765	768	766	761	765	0.95	14	3	771	777	767	765	770	1.45
15	40	753	759	743	761	754	0.70	16	-6	765	783	787	657	748	1.95
17	9826	763	720	721	770	743	-1.95	18	4	763	780	776	779	774	1.25
19	7693	763	763	774	742	760	0.00	20	874	760	763	756	758	759	0.30
21	2	763	769	767	776	769	2.50	22	1609	766	769	764	751	763	0.25
23	5	780	764	763	775	770	1.30	24	9140	766	753	761	756	759	-0.15
25	1270	761	746	753	718	744	0.30	26	-3	752	770	752	764	759	0.90
27	9	771	751	777	763	766	1.40	28	9	769	751	775	758	764	0.80
29	11	772	781	737	772	765	1.20	30	5712	781	762	748	754	761	0.10
31	3	764	766	771	764	766	1.60	32	9282	750	765	739	751	751	-0.30
33	9580	765	685	716	753	730	-0.80	34	225	741	757	736	771	751	0.60
35	30	764	779	740	780	766	0.65	36	99	768	768	756	761	763	1.40
37	8560	776	755	768	765	766	-0.70	38	12	772	764	764	773	768	0.80
39	8464	764	760	753	772	762	-0.20	40	7332	769	761	742	757	757	0.05
41	9360	748	720	748	769	746	0.00	42	1617	767	739	761	762	757	0.25
43	2	776	776	755	765	768	1.60	44	728	752	730	765	734	745	0.40
45	8192	769	763	769	764	766	-0.25	46	1486	261	757	741	757	629	0.25
47	-3	780	765	760	763	767	1.00	48	9648	741	758	753	712	741	-1.30
49	9975	741	746	731	760	745	-0.40	50	-27	741	773	754	758	757	0.80
51	8824	773	759	756	752	760	-0.55	52	-35	745	746	762	771	756	1.30
53	3276	728	756	737	747	742	0.20	54	147	774	756	759	765	764	0.60
55	3124	718	759	737	749	741	0.15	56	9386	776	772	755	760	766	-0.55
57	10119	742	743	741	738	741	-1.40	58	9067	753	741	657	746	724	0.05
59	3083	752	723	735	733	736	0.20	60	9340	744	749	729	739	739	-0.70
61	1529	759	732	748	745	746	0.30	62	-186	760	729	734	750	743	******
63	9550	768	740	708	749	741	-1.25	64	10161	735	732	696	719	721	-2.15

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	230 DEG C	10	TE-5-7	745 DEG C	11	TE-5-8	722 DEG C
12	TE-28-5	755 DEG C	13	TE-28-6	759 DEG C	14	TE-28-7	757 DEG C
15	TE-28-8	752 DEG C	17	TE-39-6	754 DEG C	19	PE-301	381 KPA
23	TE-44-8	731 DEG C	24	TE-320	389 DEG C	25	TE-321	393 DEG C
26	TE-322	371 DEG C	27	TE-323	714 DEG C	28	TE-324	697 DEG C
29	TE-325	713 DEG C	30	TE-326	674 DEG C	31	TE-327	675 DEG C
41	TE-91-2	645 DEG C	44	TE-92-1	630 DEG C	45	TE-92-2	617 DEG C
46	TE-92-3	600 DEG C	47	TE-92-4	617 DEG C	49	TE-93-2	660 DEG C
50	TE-93-3	650 DEG C	52	TE-94-1	662 DEG C	53	TE-94-2	533 DEG C
54	TE-94-3	534 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V
488	TAV-10	768 DEG C						

TABLE B-42. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 42 BURST TIME

TIME FROM POWER-ON 46.25 SEC. TIME FROM POWER-OFF -2.20 SEC. RECORD NUMBER 557-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10700	720	651	748	731	713	-3.35	2	64	752	741	770	697	740	0.60
3	9796	730	747	754	754	746	-0.65	4	4	748	754	749	759	752	1.40
5	9570	754	726	757	766	751	-1.25	6	9488	766	762	777	726	758	-0.15
7	1755	732	744	756	747	745	0.50	8	9935	738	755	737	709	735	-1.10
9	9881	736	697	770	762	741	-1.90	10	8407	756	758	772	738	756	-0.05
11	21	762	753	760	761	759	0.75	12	7	760	770	770	759	765	0.65
13	7	762	762	764	755	761	0.70	14	13	768	780	769	768	771	1.20
15	561	748	755	737	757	749	0.45	16	-13	765	781	785	659	747	1.70
17	9991	760	719	724	767	743	-2.20	18	13	761	777	774	775	772	1.00
19	8126	762	761	773	741	759	-0.25	20	6594	759	762	757	756	759	0.05
21	10	760	766	764	775	766	2.25	22	7670	774	780	764	762	770	0.0
23	11	778	766	758	775	769	1.05	24	9383	756	751	763	754	756	-0.40
25	9454	762	754	756	733	751	0.05	26	162	754	768	748	760	758	0.65
27	17	770	749	772	762	763	1.15	28	203	767	748	773	751	760	0.55
29	20	768	777	737	767	762	0.95	30	8364	783	768	753	764	767	-0.15
31	4	760	767	765	762	763	1.35	32	9516	746	761	737	748	748	-0.55
33	9780	763	684	717	751	729	-1.05	34	1247	729	756	730	769	746	0.35
35	403	761	776	737	778	763	0.40	36	107	767	766	756	759	762	1.15
37	8836	775	753	765	764	764	-0.95	38	73	767	764	760	766	764	0.55
39	8788	761	759	751	769	760	-0.45	40	9206	781	773	759	768	770	-0.20
41	9690	749	721	746	768	746	-0.25	42	8405	773	759	769	761	766	0.0
43	10	774	765	751	753	761	1.35	44	3827	748	706	755	728	734	0.15
45	8564	769	762	769	762	765	-0.50	46	8036	261	762	761	762	636	0.0
47	27	780	764	758	762	766	0.75	48	9834	739	755	753	715	741	-1.55
49	10147	741	747	730	759	744	-0.65	50	150	738	772	752	757	755	0.55
51	9105	770	757	755	750	758	-0.80	52	-29	759	744	759	769	758	1.05
53	9011	731	769	740	759	750	-0.05	54	1149	772	753	756	756	759	0.35
55	8940	745	763	744	752	751	-0.10	56	9589	774	771	757	761	766	-0.80
57	10273	741	751	740	737	742	-1.65	58	9336	755	745	664	748	728	-0.20
59	9540	756	731	744	770	750	-0.05	60	9547	741	748	728	737	739	-0.95
61	8852	750	736	746	745	744	0.05	62	-132	758	727	733	749	742	******
63	9741	765	739	703	750	739	-1.50	64	10310	734	735	700	751	730	-2.40

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	214 DEG C	10	TE-5-7	743 DEG C	11	TE-5-8	723 DEG C
12	TE-28-5	753 DEG C	13	TE-28-6	760 DEG C	14	TE-28-7	755 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	320 KPA
23	TE-44-8	733 DEG C	24	TE-320	392 DEG C	25	TE-321	390 DEG C
26	TE-322	361 DEG C	27	TE-323	704 DEG C	28	TE-324	680 DEG C
29	TE-325	704 DEG C	30	TE-326	657 DEG C	31	TE-327	646 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	631 DEG C	45	TE-92-2	613 DEG C
46	TE-92-3	592 DEG C	47	TE-92-4	603 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	668 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	528 DEG C
54	TE-94-3	537 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V
488	TAV-10	767 DEG C						

[redacted] M 3 [redacted]

TABLE B-43. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 43 BURST TIME

TIME FROM POWER-ON 44.90 SEC. TIME FROM POWER-OFF -3.55 SEC. RECORD NUMBER 544-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11176	726	726	739	718	727	-4.70	2	9907	763	743	746	741	748	-0.75
3	10568	748	744	742	756	748	-2.00	4	9269	768	750	761	753	758	0.05
5	10334	748	725	750	756	745	-2.60	6	10496	756	759	765	743	756	-1.50
7	10154	760	754	749	773	759	-0.85	8	10622	736	745	736	717	733	-2.45
9	10597	739	754	759	763	754	-3.25	10	9779	768	748	752	737	751	-1.40
11	9339	758	750	757	760	756	-0.60	12	9239	770	782	768	761	770	-0.70
13	9516	753	752	762	754	756	-0.65	14	8871	761	776	772	764	768	-0.15
15	9958	757	756	745	761	755	-0.90	16	854	761	761	766	664	738	0.35
17	10667	755	739	723	753	742	-3.55	18	9297	763	771	768	765	767	-0.35
19	9598	761	754	771	728	754	-1.60	20	9469	754	750	753	754	753	-1.30
21	23	743	751	763	771	757	0.90	22	9409	773	766	754	765	764	-1.35
23	9114	770	768	753	762	763	-0.30	24	10312	744	737	761	747	747	-1.75
25	10548	757	748	738	731	743	-1.30	26	9775	744	765	745	752	752	-0.70
27	8783	766	751	754	754	756	-0.20	28	9478	778	746	772	747	761	-0.80
29	9200	767	767	744	769	762	-0.40	30	9693	760	754	740	752	751	-1.50
31	9174	751	773	766	769	765	0.00	32	10421	735	762	730	753	745	-1.90
33	10571	751	751	731	741	744	-2.40	34	9891	748	749	732	772	750	-1.00
35	9758	769	770	744	773	764	-0.95	36	9144	752	769	755	753	757	-0.20
37	9959	767	745	754	755	755	-2.30	38	8899	766	766	766	771	767	-0.80
39	9992	749	751	738	764	751	-1.80	40	10204	768	761	766	766	765	-1.55
41	10617	749	728	738	762	744	-1.60	42	10033	769	755	767	755	761	-1.35
43	9386	768	775	746	753	761	0.00	44	9754	743	721	754	737	739	-1.20
45	9899	751	749	766	747	753	-1.85	46	9716	259	766	749	752	632	-1.35
47	9660	771	770	761	768	768	-0.60	48	10580	731	743	755	739	742	-2.90
49	10829	733	736	724	748	735	-2.00	50	9811	736	760	738	749	746	-0.80
51	10172	760	750	749	740	750	-2.15	52	9091	752	741	755	761	752	-0.30
53	10166	728	751	732	748	740	-1.40	54	9894	763	743	758	766	758	-1.00
55	10137	736	742	737	741	739	-1.45	56	10439	762	760	751	750	756	-2.15
57	10879	719	747	720	733	730	-3.00	58	10306	743	741	716	745	736	-1.55
59	10453	741	728	742	759	743	-1.40	60	10381	723	748	743	733	737	-2.30
61	10369	748	752	755	738	748	-1.30	62	-15	748	723	739	740	737	******
63	10547	746	737	728	749	740	-2.85	64	10868	728	741	698	749	729	-3.75

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	738 DEG C	10	TE-5-7	735 DEG C	11	TE-5-8	726 DEG C	
12	TE-28-5	747 DEG C	13	TE-28-6	758 DEG C	14	TE-28-7	748 DEG C	
15	TE-28-8	743 DEG C	17	TE-39-6	740 DEG C	19	PE-301	202 KPA	
23	TE-44-8	752 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C	
26	TE-322	345 DEG C	27	TE-323	686 DEG C	28	TE-324	655 DEG C	
29	TE-325	671 DEG C	30	TE-326	634 DEG C	31	TE-327	617 DEG C	
41	TE-91-2	534 DEG C	44	TE-92-1	607 DEG C	45	TE-92-2	528 DEG C	
46	TE-92-3	648 DEG C	47	TE-92-4	498 DEG C	49	TE-93-2	509 DEG C	
50	TE-93-3	645 DEG C	52	TE-94-1	629 DEG C	53	TE-94-2	495 DEG C	
54	TE-94-3	542 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V	
488	TAV-10	761 DEG C							

[redacted] N 3 [redacted]

TABLE B-44. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 44 BURST TIME

TIME FROM POWER-ON 46.10 SEC. TIME FROM POWER-OFF -2.35 SEC. RECORD NUMBER 556-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10752	720	653	747	730	712	-3.50	2	316	750	741	767	701	740	0.45
3	9882	733	747	753	755	747	-0.80	4	6	751	752	748	758	752	1.25
5	9642	754	726	756	765	750	-1.40	6	9611	765	761	776	729	758	-0.30
7	2980	732	744	755	748	745	0.35	8	10016	739	754	737	711	735	-1.25
9	9954	738	698	769	762	742	-2.05	10	8606	756	757	771	738	756	-0.20
11	152	760	751	759	758	757	0.60	12	108	757	770	767	757	763	0.50
13	96	760	760	763	754	759	0.55	14	22	766	777	767	764	769	1.05
15	1520	748	753	734	755	747	0.30	16	10	766	779	784	659	747	1.55
17	10060	759	725	725	765	744	-2.35	18	15	761	775	773	773	771	0.85
19	8321	761	761	772	739	758	-0.40	20	8140	760	763	758	760	760	-0.10
[illegible]	12	758	765	762	775	765	2.10	22	7927	773	778	763	762	769	-0.15
23	28	777	765	758	773	768	0.90	24	9483	754	748	765	752	755	-0.55
25	9805	762	753	755	736	752	-0.10	26	557	753	766	746	759	756	0.50
27	18	769	748	767	760	761	1.00	28	696	766	745	772	748	758	0.40
29	44	765	774	737	765	760	0.80	30	8534	781	766	751	763	765	-0.30
31	13	756	765	763	761	761	1.20	32	9631	743	760	736	748	747	-0.70
33	9877	762	687	717	751	729	-1.20	34	2843	728	753	725	763	742	0.20
35	1349	760	773	735	777	761	0.25	36	123	766	765	755	757	761	1.00
37	8972	773	752	763	763	763	-1.10	38	322	765	764	759	764	763	0.40
39	8935	760	758	750	768	759	-0.60	40	9320	779	771	761	768	770	-0.35
41	9804	749	724	745	768	747	-0.40	42	8722	774	760	773	763	767	-0.15
43	19	773	762	749	761	761	1.20	44	8353	751	708	763	738	740	0.00
45	8752	769	760	768	761	764	-0.65	46	8338	261	762	760	762	636	-0.15
47	171	778	763	758	760	765	0.60	48	9902	739	754	754	719	741	-1.70
49	10223	740	748	730	757	744	-0.80	50	593	736	770	748	756	753	0.40
51	9235	770	757	755	749	758	-0.95	52	-20	757	743	758	768	757	0.90
53	9170	729	767	739	757	748	-0.20	54	2735	770	750	756	756	758	0.20
55	9104	744	761	743	750	749	-0.25	56	9680	772	768	759	759	765	-0.95
57	10340	740	753	739	736	742	-1.80	58	9457	753	745	669	748	729	-0.35
59	9647	755	731	744	769	749	-0.20	60	9637	740	747	732	736	739	-1.10
61	9408	767	742	752	745	752	-0.10	62	-116	756	726	733	748	741	******
63	9829	763	740	705	749	739	-1.65	64	10363	734	737	700	755	732	-2.55

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	233 DEG C	10	TE-5-7	743 DEG C	11	TE-5-8	723 DEG C
12	TE-28-5	753 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	754 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	311 KPA
23	TE-44-8	722 DEG C	24	TE-320	395 DEG C	25	TE-321	387 DEG C
26	TE-322	358 DEG C	27	TE-323	711 DEG C	28	TE-324	689 DEG C
29	TE-325	702 DEG C	30	TE-326	663 DEG C	31	TE-327	647 DEG C
41	TE-91-2	652 DEG C	44	TE-92-1	618 DEG C	45	TE-92-2	614 DEG C
46	TE-92-3	610 DEG C	47	TE-92-4	604 DEG C	49	TE-93-2	663 DEG C
50	TE-93-3	687 DEG C	52	TE-94-1	651 DEG C	53	TE-94-2	527 DEG C
54	TE-94-3	536 DEG C	472	EIE-10	2385 A	473	EEE-10	81 V
488	TAV-10	766 DEG C						

TABLE B-45. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 45 BURST TIME

TIME FROM POWER-ON 46.75 SEC. TIME FROM POWER-OFF -1.70 SEC. RECORD NUMBER 562-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10514	718	651	753	735	714	-2.85	2	12	748	743	780	698	742	1.10
3	9426	730	741	754	755	745	-0.15	4	11	728	762	752	758	750	1.90
5	9243	747	727	757	771	751	-0.75	6	944	741	757	772	708	744	0.35
7	194	733	744	760	750	747	1.00	8	9674	739	761	734	704	735	-0.60
9	9568	733	691	774	743	735	-1.40	10	631	756	751	765	732	751	0.45
11	4	765	761	764	770	765	1.25	12	-2	767	769	776	752	769	1.15
13	6	767	774	768	765	769	1.20	14	11	772	781	768	765	772	1.70
15	5	757	762	746	762	757	0.95	16	-4	761	785	789	649	746	2.20
17	9694	765	718	718	772	743	-1.70	18	12	764	783	778	781	776	1.50
19	1495	765	754	772	735	757	0.25	20	92	762	765	758	761	761	0.55
21	4	764	771	770	776	770	2.75	22	242	772	773	766	756	767	0.50
23	15	781	765	764	775	771	1.55	24	5569	771	744	751	738	751	0.10
25	138	763	747	758	721	747	0.55	26	-1	750	771	755	766	761	1.15
27	26	772	754	779	765	767	1.65	28	10	771	754	777	762	766	1.05
29	28	777	786	738	774	769	1.45	30	1083	783	770	750	761	766	0.35
31	12	764	770	773	765	768	1.85	32	9049	752	768	740	752	753	-0.05
33	9413	767	682	716	756	730	-0.55	34	25	750	756	739	772	754	0.85
35	24	768	782	743	782	769	0.90	36	108	771	769	758	763	765	1.65
37	8316	779	757	769	767	768	-0.45	38	22	774	764	767	778	771	1.05
39	5708	751	756	735	769	753	0.05	40	1130	754	757	728	756	749	0.30
41	2022	743	727	727	764	740	0.25	42	292	771	741	766	763	760	0.50
43	18	778	783	757	768	772	1.85	44	83	755	739	770	739	751	0.65
45	7800	769	765	769	765	767	0.0	46	207	262	758	746	760	631	0.50
47	6	782	764	761	768	769	1.25	48	9502	742	757	755	707	740	-1.05
49	9820	741	746	730	761	745	-0.15	50	-26	742	774	760	759	759	1.05
51	8552	772	760	757	754	761	-0.30	52	-26	742	748	763	773	756	1.55
53	592	728	756	739	748	743	0.45	54	-15	776	759	761	774	767	0.85
55	469	712	760	742	751	741	0.40	56	9216	778	776	750	764	767	-0.30
57	10027	743	734	744	739	740	-1.15	58	2335	754	741	709	746	737	0.30
59	691	753	725	739	744	740	0.45	60	9181	745	751	718	740	738	-0.45
61	192	766	728	752	747	748	0.55	62	-199	762	730	737	753	745	******
63	9406	769	740	698	750	739	-1.00	64	10074	736	730	696	701	716	-1.90

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	224 DEG C	10	TE-5-7	746 DEG C	11	TE-5-8	758 DEG C
12	TE-28-5	758 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	760 DEG C
15	TE-28-8	755 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	394 KPA
23	TE-44-8	729 DEG C	24	TE-320	384 DEG C	25	TE-321	387 DEG C
26	TE-322	370 DEG C	27	TE-323	719 DEG C	28	TE-324	706 DEG C
29	TE-325	714 DEG C	30	TE-326	683 DEG C	31	TE-327	671 DEG C
41	TE-91-2	651 DEG C	44	TE-92-1	640 DEG C	45	TE-92-2	611 DEG C
46	TE-92-3	603 DEG C	47	TE-92-4	628 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	649 DEG C	52	TE-94-1	664 DEG C	53	TE-94-2	538 DEG C
54	TE-94-3	534 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	769 DEG C						

TABLE B-46. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 46 BURST TIME

TIME FROM POWER-ON 46.25 SEC. TIME FROM POWER-OFF -2.20 SEC. RECORD NUMBER 557-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10700	720	651	748	731	713	-3.35	2	64	752	741	770	697	740	0.60
3	9796	730	747	754	754	746	-0.65	4	4	748	754	749	759	752	1.40
5	9570	754	726	757	766	751	-1.25	6	9488	766	762	777	726	758	-0.15
7	1755	732	744	756	747	745	0.50	8	9935	738	755	737	709	735	-1.10
9	9881	736	697	770	762	741	-1.90	10	8407	756	758	772	738	756	-0.05
11	21	762	753	760	761	759	0.75	12	7	760	770	770	759	765	0.65
13	7	762	762	764	755	761	0.70	14	13	768	780	769	768	771	1.20
15	561	748	755	737	757	749	0.45	16	-13	765	781	785	659	747	1.70
17	9991	760	719	724	767	743	-2.20	18	13	761	777	774	775	772	1.00
19	8126	762	761	773	741	759	-0.25	20	6594	759	762	757	756	759	0.05
21	10	760	766	764	775	766	2.25	22	7670	774	780	764	762	770	0.0
23	11	778	766	758	775	769	1.05	24	9383	756	751	763	754	756	-0.40
25	9454	762	754	756	733	751	0.05	26	162	754	768	748	760	758	0.65
27	17	770	749	772	762	763	1.15	28	203	767	748	773	751	760	0.55
29	20	768	777	737	767	752	0.95	30	8364	783	768	753	764	767	-0.15
31	4	760	767	765	762	763	1.35	32	9516	746	761	737	748	748	-0.55
33	9780	763	684	717	751	729	-1.05	34	1247	729	756	730	769	746	0.35
35	403	761	776	737	778	763	0.40	36	107	767	766	756	759	762	1.15
37	8836	775	753	765	764	764	-0.95	38	73	767	764	760	766	764	0.55
39	8788	761	759	751	769	760	-0.45	40	9206	781	773	759	768	770	-0.20
41	9690	749	721	746	768	746	-0.25	42	8405	773	759	769	761	766	0.0
43	10	774	765	751	753	761	1.35	44	3827	748	706	755	728	734	0.15
45	8564	759	762	769	762	765	-0.50	46	8036	261	762	761	762	636	0.0
47	27	780	764	758	762	766	0.75	48	9834	739	755	753	715	741	-1.55
49	10147	741	747	730	759	744	-0.65	50	150	738	772	752	757	755	0.55
51	9105	770	757	755	750	758	-0.80	52	-29	759	744	759	769	758	1.05
53	9011	731	769	740	759	750	-0.05	54	1149	772	753	756	756	759	0.35
55	8940	745	763	744	752	751	-0.10	56	9589	774	771	757	761	766	-0.80
57	10273	741	751	740	737	742	-1.65	58	9336	755	745	664	748	728	-0.20
59	9540	756	731	744	770	750	-0.05	60	9547	741	748	728	737	739	-0.95
61	8852	750	736	746	745	744	0.05	62	-132	758	727	733	749	742	******
63	9741	765	739	703	750	739	-1.50	64	10310	734	735	700	751	730	-2.40

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	214 DEG C	10	TE-5-7	743 DEG C	11	TE-5-8	723 DEG C
12	TE-28-5	753 DEG C	13	TE-28-6	760 DEG C	14	TE-28-7	755 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	320 KPA
23	TE-44-8	733 DEG C	24	TE-320	392 DEG C	25	TE-321	390 DEG C
26	TE-322	361 DEG C	27	TE-323	704 DEG C	28	TE-324	680 DEG C
29	TE-325	704 DEG C	30	TE-326	657 DEG C	31	TE-327	646 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	631 DEG C	45	TE-92-2	613 DEG C
46	TE-92-3	592 DEG C	47	TE-92-4	603 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	668 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	528 DEG C
54	TE-94-3	537 DEG C	472	E1E-10	2380 A	473	EEE-10	81 V
486	TAV-10	767 DEG C						

TABLE B-47. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 47 BURST TIME

TIME FROM POWER-ON 45.50 SEC. TIME FROM POWER-OFF -2.95 SEC. RECORD NUMBER 550-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10960	717	672	742	725	714	-4.10	2	9384	758	745	769	721	748	-0.15
3	10246	746	747	748	761	750	-1.40	4	279	762	745	744	756	752	0.65
5	10005	753	728	754	762	749	-2.00	6	10078	760	754	771	738	756	-0.90
7	9766	751	752	755	766	756	-0.25	8	10308	740	750	736	714	735	-1.85
9	10282	740	724	765	764	748	-2.65	10	9250	760	752	762	738	753	-0.80
11	8650	762	747	764	768	760	0.00	12	8598	772	781	773	764	772	-0.10
13	8764	759	757	767	757	760	-0.05	14	650	759	763	766	756	761	0.45
15	9445	765	758	744	765	758	-0.30	16	3	765	773	777	638	738	0.95
17	10367	758	732	723	762	744	-2.95	18	1768	757	763	765	765	763	0.25
19	9020	758	758	767	736	755	-1.00	20	8889	758	756	756	757	757	-0.70
21	6	752	758	768	775	763	1.50	22	8738	773	772	759	760	766	-0.75
23	1820	770	764	751	763	762	0.30	24	9908	750	743	766	748	752	-1.15
25	10194	763	746	748	735	748	-0.70	26	9128	756	770	750	757	758	-0.10
27	752	765	745	755	755	755	0.40	28	8861	782	753	776	751	765	-0.20
29	2719	755	761	732	762	752	0.20	30	9164	773	761	747	758	760	-0.90
31	215	734	761	748	758	750	0.60	32	10040	738	758	733	745	744	-1.30
33	10231	756	714	725	747	735	-1.80	34	9293	753	752	736	774	754	-0.40
35	9137	768	772	747	776	766	-0.35	36	956	757	761	751	752	755	0.40
37	9494	769	749	757	759	758	-1.70	38	8088	766	767	769	776	769	-0.20
39	9507	756	754	745	765	755	-1.20	40	9788	774	766	768	772	770	-0.95
41	10247	749	725	741	766	746	-1.00	42	9487	773	760	770	760	766	-0.75
43	50	769	764	739	755	757	0.60	44	9161	748	709	759	736	738	-0.60
45	9377	764	755	768	754	760	-1.25	46	9140	260	764	756	760	635	-0.75
47	8975	777	734	762	773	762	0.00	48	10252	735	748	757	735	744	-2.30
49	10536	737	750	729	754	743	-1.40	50	9192	740	768	740	753	750	-0.20
51	9729	765	755	750	746	754	-1.55	52	1221	753	739	753	762	752	0.30
53	9716	725	756	736	752	743	-0.80	54	9317	767	748	763	765	761	-0.40
55	9678	741	747	741	745	743	-0.85	56	10070	767	766	758	752	761	-1.55
57	10609	732	750	727	736	736	-2.40	58	9892	748	743	695	747	733	-0.95
59	10072	748	730	743	765	746	-0.80	60	10012	734	740	748	734	739	-1.70
61	9959	758	748	753	741	750	-0.70	62	-62	752	725	741	744	741	******
63	10195	753	739	730	751	743	-2.25	64	10622	731	747	699	752	732	-3.15

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	129 DEG C	10	TE-5-7	739 DEG C	11	TE-5-8	725 DEG C
12	TE-28-5	754 DEG C	13	TE-28-6	766 DEG C	14	TE-28-7	754 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	250 KPA
23	TE-44-8	731 DEG C	24	TE-320	370 DEG C	25	TE-321	362 DEG C
26	TE-322	350 DEG C	27	TE-323	706 DEG C	28	TE-324	680 DEG C
29	TE-325	688 DEG C	30	TE-326	654 DEG C	31	TE-327	638 DEG C
41	TE-91-2	579 DEG C	44	TE-92-1	615 DEG C	45	TE-92-2	579 DEG C
46	TE-92-3	622 DEG C	47	TE-92-4	569 DEG C	49	TE-93-2	658 DEG C
50	TE-93-3	668 DEG C	52	TE-94-1	650 DEG C	53	TE-94-2	519 DEG C
54	TE-94-3	540 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V
488	TAV-10	763 DEG C						

TABLE B-48. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 48 BURST TIME

TIME FROM POWER-ON 47.80 SEC. TIME FROM POWER-OFF -0.65 SEC. RECORD NUMBER 573-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10216	714	654	764	742	719	-1.80	2	9	752	752	775	696	744	2.15
3	24	715	729	756	751	738	0.90	4	16	703	770	758	764	749	2.95
5	1378	718	712	750	775	739	0.30	6	5	763	770	789	693	754	1.40
7	9	734	746	771	756	752	2.05	8	148	731	774	709	691	727	0.45
9	8924	733	668	784	712	724	-0.35	10	13	763	762	771	745	760	1.50
11	2	773	772	772	784	775	2.30	12	8	773	772	784	769	774	2.20
13	-2	777	786	772	777	778	2.25	14	16	778	792	770	773	778	2.75
15	10	766	771	747	765	762	2.00	16	2	743	795	800	643	745	3.25
17	9141	769	720	722	781	748	-0.65	18	25	771	792	787	787	784	2.55
19	24	786	769	798	747	775	1.30	20	17	769	773	763	769	768	1.60
21	10	772	781	776	776	776	3.80	22	22	784	785	773	767	777	1.55
23	15	788	772	769	775	776	2.60	24	8	785	758	756	724	756	1.15
25	26	778	740	769	734	755	1.60	26	12	756	781	765	773	768	2.20
27	25	778	759	791	772	775	2.70	28	16	776	763	785	773	774	2.10
29	34	790	794	744	777	776	2.50	30	11	790	778	764	771	776	1.40
31	17	775	774	783	767	775	2.90	32	15	748	746	736	757	747	1.00
33	313	766	704	715	767	738	0.50	34	24	765	757	752	780	763	1.90
35	44	787	792	750	792	780	1.95	36	114	779	772	765	770	772	2.70
37	59	757	753	767	764	760	0.60	38	20	782	773	774	790	780	2.10
39	10	765	760	751	771	762	1.10	40	34	754	773	695	768	748	1.35
41	54	752	755	743	779	757	1.30	42	32	770	751	779	767	767	1.55
43	10	787	790	767	777	780	2.90	44	23	764	756	782	746	762	1.70
45	11	762	769	763	772	767	1.05	46	28	263	760	762	768	638	1.55
47	12	798	771	765	780	778	2.30	48	8776	748	762	763	684	739	0.00
49	9	742	765	729	758	749	0.90	50	-13	749	784	777	766	769	2.10
51	-16	769	756	778	755	765	0.75	52	-18	754	753	766	772	761	2.60
53	-22	740	781	748	765	758	1.50	54	-16	784	767	765	792	777	1.90
55	-21	739	765	754	763	755	1.45	56	-19	775	782	748	723	757	0.75
57	9593	749	725	751	744	742	-0.10	58	-7	762	746	685	748	735	1.35
59	-23	758	730	745	773	752	1.50	60	132	746	735	708	743	733	0.60
61	-44	761	719	736	754	743	1.60	62	-230	769	738	742	759	752	******
63	8621	773	717	675	748	728	0.05	64	9705	740	726	700	697	716	-0.85

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	212 DEG C	10	TE-5-7	757 DEG C	11	TE-5-8	747 DEG C
12	TE-28-5	764 DEG C	13	TE-28-6	767 DEG C	14	TE-28-7	770 DEG C
15	TE-28-8	764 DEG C	17	TE-39-6	761 DEG C	19	PE-301	425 KPA
23	TE-44-8	723 DEG C	24	TE-320	402 DEG C	25	TE-321	385 DEG C
26	TE-322	364 DEG C	27	TE-323	718 DEG C	28	TE-324	701 DEG C
29	TE-325	705 DEG C	30	TE-326	667 DEG C	31	TE-327	655 DEG C
41	TE-91-2	652 DEG C	44	TE-92-1	652 DEG C	45	TE-92-2	612 DEG C
46	TE-92-3	612 DEG C	47	TE-92-4	649 DEG C	49	TE-93-2	659 DEG C
50	TE-93-3	658 DEG C	52	TE-94-1	672 DEG C	53	TE-94-2	550 DEG C
54	TE-94-3	534 DEG C	472	EIE-10	2377 A	473	EEE-10	81 V
488	TAV-10	774 DEG C						

TABLE B-49. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 49 BURST TIME

TIME FROM POWER-ON 46.90 SEC. TIME FROM POWER-OFF -1.55 SEC. RECORD NUMBER 564-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10470	718	651	754	736	715	-2.70	2	10	748	733	781	697	740	1.25
3	9241	728	740	755	749	743	0.00	4	9	723	764	753	759	750	2.05
5	9149	746	728	757	773	751	-0.60	6	285	744	759	776	706	746	0.50
7	61	733	744	760	752	747	1.15	8	9601	739	763	733	701	734	-0.45
9	9489	733	684	775	735	732	-1.25	10	197	756	753	765	735	753	0.60
11	3	766	762	765	773	767	1.40	12	-4	768	769	777	763	769	1.30
13	-2	768	777	768	768	770	1.35	14	17	773	782	768	767	773	1.85
15	10	759	763	745	762	757	1.10	16	-5	756	786	791	646	745	2.35
17	9625	766	717	718	772	743	-1.55	18	18	765	784	780	782	778	1.65
19	507	771	756	777	738	760	0.40	20	24	763	766	759	762	763	0.70
21	10	765	773	771	776	771	2.90	22	52	775	776	768	759	769	0.65
23	14	782	766	765	773	772	1.70	24	1557	773	744	749	722	747	0.25
25	33	765	747	761	724	749	0.70	26	4	750	773	756	767	762	1.30
27	24	773	755	781	766	769	1.80	28	16	772	755	778	764	767	1.20
29	26	779	787	739	775	770	1.60	30	378	784	772	753	763	768	0.50
31	17	765	769	775	765	768	2.00	32	4347	742	759	731	748	745	0.10
33	9301	768	678	717	757	730	-0.40	34	24	753	756	740	774	756	1.00
35	30	770	783	744	783	770	1.05	36	114	772	770	758	764	766	1.80
37	8158	781	758	770	768	769	-0.30	38	20	775	766	768	780	772	1.20
39	1420	744	755	738	766	751	0.20	40	358	754	761	725	757	749	0.45
41	727	745	735	728	769	745	0.40	42	77	772	742	769	763	761	0.65
43	17	780	786	759	769	774	2.00	44	24	756	743	772	740	753	0.80
45	3373	748	756	760	759	756	0.15	46	58	262	758	749	761	633	0.65
47	4	784	764	762	771	770	1.40	48	9404	743	758	756	704	740	-0.90
49	9722	742	744	730	761	744	0.00	50	-20	743	776	764	760	761	1.20
51	8369	772	760	757	755	761	-0.15	52	-27	743	748	764	773	757	1.70
53	142	731	759	741	752	746	0.60	54	-24	777	761	762	778	769	1.00
55	78	718	761	744	753	744	0.55	56	9102	779	776	748	757	765	-0.15
57	9960	744	732	745	740	740	-1.00	58	1032	756	742	721	746	741	0.45
59	196	752	726	740	752	743	0.60	60	9070	746	752	714	741	738	-0.30
61	-8	770	726	752	748	749	0.70	62	-215	764	731	738	754	747	******
63	9317	770	739	692	751	738	-0.85	64	10021	736	729	696	697	715	-1.75

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	240 DEG C	10	TE-5-7	747 DEG C	11	TE-5-8	741 DEG C	
12	TE-28-5	758 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	762 DEG C	
15	TE-28-8	756 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	403 KPA	
23	TE-44-8	729 DEG C	24	TE-320	382 DEG C	25	TE-321	398 DEG C	
26	TE-322	372 DEG C	27	TE-323	721 DEG C	28	TE-324	708 DEG C	
29	TE-325	716 DEG C	30	TE-326	681 DEG C	31	TE-327	671 DEG C	
41	TE-91-2	651 DEG C	44	TE-92-1	640 DEG C	45	TE-92-2	610 DEG C	
46	TE-92-3	603 DEG C	47	TE-92-4	630 DEG C	49	TE-93-2	661 DEG C	
50	TE-93-3	643 DEG C	52	TE-94-1	667 DEG C	53	TE-94-2	541 DEG C	
54	TE-94-3	536 DEG C	472	EIE-10	2382 A	473	EEE-10	82 V	
488	TAV-10	769 DEG C							

TABLE B-50. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 50 BURST TIME

TIME FROM POWER-ON 45.70 SEC. TIME FROM POWER-OFF -2.75 SEC. RECORD NUMBER 552-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10875	717	663	744	727	713	-3.90	2	6915	751	736	762	709	740	0.05
3	10118	742	749	748	758	749	-1.20	4	38	760	747	745	758	753	0.85
5	9878	755	728	755	762	750	-1.80	6	9914	761	756	773	735	756	-0.70
7	9599	747	752	756	766	755	-0.05	8	10207	740	752	737	713	735	-1.65
9	10169	740	710	766	762	745	-2.45	10	9032	759	753	765	738	754	-0.60
11	2790	758	730	753	755	749	0.20	12	4211	754	771	767	748	760	0.10
13	3460	752	752	758	745	752	0.15	14	126	763	769	767	760	765	0.65
15	9241	766	760	745	766	759	-0.10	16	-3	766	774	780	654	744	1.15
17	10256	759	727	724	763	743	-2.75	18	412	758	768	768	768	766	0.45
19	8784	758	759	768	738	756	-0.80	20	8653	759	759	757	758	758	-0.50
21	7	755	760	761	775	763	1.70	22	8469	773	774	760	760	767	-0.55
23	577	773	765	755	766	765	0.50	24	9760	752	745	768	747	753	-0.95
25	10063	763	745	751	735	749	-0.50	26	6297	753	763	742	756	754	0.10
27	141	767	745	758	756	757	0.60	28	8595	783	754	777	752	767	0.00
29	823	758	767	735	763	756	0.40	30	8953	776	763	748	758	761	-0.70
31	23	755	762	756	761	758	0.80	32	9906	739	759	734	746	745	-1.10
33	10114	758	704	724	748	734	-1.60	34	9033	754	753	739	775	755	-0.20
35	8869	768	773	746	778	766	-0.15	36	290	761	763	753	755	758	0.60
37	9317	769	750	759	760	760	-1.50	38	7715	767	770	769	777	771	0.0
39	9332	757	756	747	766	756	-1.00	40	9623	775	768	765	770	770	-0.75
41	10091	749	725	743	767	746	-0.80	42	9282	773	762	772	762	767	-0.55
43	-16	770	765	742	757	758	0.80	44	8917	748	709	761	736	738	-0.40
45	9170	766	756	768	756	762	-1.05	46	8898	260	763	756	763	636	-0.55
47	2815	768	758	756	761	761	0.20	48	10127	735	750	756	731	743	-2.10
49	10426	738	754	730	754	744	-1.20	50	8900	739	768	740	754	750	0.00
51	9564	766	756	750	748	755	-1.35	52	258	755	741	755	764	753	0.50
53	9537	726	761	738	754	745	-0.60	54	9072	770	749	764	762	761	-0.20
55	9486	741	753	741	748	746	-0.65	56	9929	769	765	759	754	762	-1.35
57	10501	736	750	732	736	739	-2.20	58	9751	749	743	682	748	730	-0.75
59	9922	750	730	744	765	747	-0.60	60	9888	736	742	746	734	739	-1.50
61	9781	761	747	753	742	751	-0.50	62	-91	753	726	739	746	741	******
63	10065	756	739	718	750	741	-2.05	64	10520	733	743	699	753	732	-2.95

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	187 DEG C	10	TE-5-7	741 DEG C	11	TE-5-8	724 DEG C
12	TE-28-5	754 DEG C	13	TE-28-6	765 DEG C	14	TE-28-7	754 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	279 KPA
23	TE-44-8	731 DEG C	24	TE-320	380 DEG C	25	TE-321	371 DEG C
26	TE-322	351 DEG C	27	TE-323	711 DEG C	28	TE-324	685 DEG C
29	TE-325	693 DEG C	30	TE-326	664 DEG C	31	TE-327	652 DEG C
41	TE-91-2	629 DEG C	44	TE-92-1	614 DEG C	45	TE-92-2	586 DEG C
46	TE-92-3	600 DEG C	47	TE-92-4	575 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	678 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	522 DEG C
54	TE-94-3	543 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	763 DEG C						

TABLE B-51. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 51 BURST TIME

TIME FROM POWER-ON 47.05 SEC. TIME FROM POWER-OFF -1.40 SEC. RECORD NUMBER 565-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10421	717	651	755	737	715	-2.55	2	17	747	732	781	698	739	1.40
3	3300	723	721	749	741	733	0.15	4	10	717	765	754	760	749	2.20
5	9058	747	728	757	774	751	-0.45	6	56	747	762	779	704	748	0.65
7	10	734	744	761	754	748	1.30	8	9529	740	765	732	699	734	-0.30
9	9404	733	682	777	731	731	-1.10	10	44	758	754	767	738	754	0.75
11	3	768	755	766	775	768	1.55	12	2	769	769	779	764	770	1.45
13	-2	770	779	769	769	772	1.50	14	10	775	783	768	769	774	2.00
15	4	761	763	745	763	758	1.25	16	2	751	788	792	642	743	2.50
17	9551	766	717	719	773	744	-1.40	18	26	765	785	782	781	778	1.80
19	133	774	759	781	739	763	0.55	20	17	765	768	760	763	764	0.85
21	11	766	773	772	776	772	3.05	22	30	776	777	768	760	771	0.80
23	15	783	767	766	773	772	1.85	24	439	776	745	749	721	748	0.40
25	19	766	747	763	726	750	0.85	26	5	750	774	758	768	763	1.45
27	25	773	756	783	767	769	1.95	28	17	773	756	780	765	769	1.35
29	27	781	788	740	776	771	1.75	30	93	785	774	755	765	770	0.65
31	18	767	769	777	765	769	2.15	32	1500	741	754	729	750	743	0.25
33	9206	769	676	718	759	731	-0.25	34	17	755	756	744	775	757	1.15
35	38	772	785	745	785	772	1.20	36	107	773	771	760	765	767	1.95
37	7972	782	759	770	769	770	-0.15	38	21	776	768	769	782	774	1.35
39	369	748	755	741	766	753	0.35	40	95	755	764	718	759	749	0.60
41	219	748	752	731	773	751	0.55	42	26	772	744	771	764	763	0.80
43	10	781	788	749	771	772	2.15	44	17	757	746	774	742	755	0.95
45	1131	750	757	763	763	758	0.30	46	29	262	759	751	763	634	0.80
47	12	788	764	762	773	772	1.55	48	9323	744	759	757	701	740	-0.75
49	3961	739	742	725	752	739	0.15	50	-20	744	777	768	760	762	1.35
51	8134	771	760	756	756	761	0.0	52	-18	745	749	765	773	758	1.85
53	0	733	765	742	755	749	0.75	54	-23	778	762	763	781	771	1.15
55	-13	723	763	746	755	747	0.70	56	8983	781	779	745	745	763	0.0
57	9903	745	729	746	740	740	-0.85	58	377	756	743	719	746	741	0.60
59	14	753	727	741	757	745	0.75	60	8953	747	753	711	742	738	-0.15
61	-43	772	724	747	749	748	0.85	62	-215	765	732	739	754	747	******
63	9223	771	739	688	751	737	-0.70	64	9963	737	728	697	695	714	-1.60

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	246 DEG C	10	TE-5-7	748 DEG C	11	TE-5-8	742 DEG C
12	TE-28-5	760 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	763 DEG C
15	TE-28-8	757 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	410 KPA
23	TE-44-8	729 DEG C	24	TE-320	380 DEG C	25	TE-321	395 DEG C
26	TE-322	371 DEG C	27	TE-323	726 DEG C	28	TE-324	707 DEG C
29	TE-325	713 DEG C	30	TE-326	682 DEG C	31	TE-327	666 DEG C
41	TE-91-2	653 DEG C	44	TE-92-1	638 DEG C	45	TE-92-2	610 DEG C
46	TE-92-3	603 DEG C	47	TE-92-4	635 DEG C	49	TE-93-2	660 DEG C
50	TE-93-3	641 DEG C	52	TE-94-1	668 DEG C	53	TE-94-2	542 DEG C
54	TE-94-3	535 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V
488	TAV-10	770 DEG C						

TABLE B-52. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 52 BURST TIME

TIME FROM POWER-ON 45.20 SEC. TIME FROM POWER-OFF -3.25 SEC. RECORD NUMBER 547-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11061	721	699	741	721	721	-4.40	2	9656	764	743	758	737	751	-0.45
3	10403	748	746	744	758	749	-1.70	4	1719	762	742	745	749	750	0.35
5	10162	749	728	753	758	747	-2.30	6	10279	757	758	768	741	756	-1.20
7	9956	757	754	752	768	758	-0.55	8	10461	739	748	736	716	735	-2.15
9	10432	740	755	762	766	756	-2.95	10	9515	770	750	756	737	753	-1.10
11	9016	761	747	761	764	758	-0.30	12	8925	772	783	770	763	772	-0.40
13	9180	757	755	765	755	758	-0.35	14	4182	749	753	764	754	755	0.15
15	9701	761	757	745	764	757	-0.60	16	42	764	768	773	651	739	0.65
17	10517	756	738	721	761	744	-3.25	18	8888	765	773	770	767	769	-0.05
19	9309	758	756	766	733	753	-1.30	20	9171	756	753	754	756	755	-1.00
21	0	748	756	766	774	761	1.20	22	9084	775	769	756	763	766	-1.05
23	8724	772	771	756	767	766	0.00	24	10106	747	740	764	749	750	-1.45
25	10371	760	748	741	733	745	-1.00	26	9474	753	766	748	755	755	-0.40
27	5763	762	744	752	751	752	0.10	28	9173	780	748	773	749	753	-0.50
29	8790	769	767	744	769	762	-0.10	30	9436	766	758	744	756	756	-1.20
31	1618	711	763	740	755	742	0.30	32	10231	737	761	732	745	744	-1.60
33	10401	755	738	726	744	741	-2.10	34	9599	750	751	735	772	752	-0.70
35	9466	769	771	745	772	764	-0.65	36	5625	748	760	749	749	752	0.10
37	9727	767	748	755	757	757	-2.00	38	8516	767	764	770	774	768	-0.50
39	9757	753	753	741	765	753	-1.50	40	9999	771	762	769	769	767	-1.25
41	10428	749	725	740	764	745	-1.30	42	9767	772	757	769	758	764	-1.05
43	929	766	766	729	754	754	0.30	44	9465	745	715	757	736	738	-0.90
45	9645	758	752	768	751	757	-1.55	46	9428	259	766	751	755	633	-1.05
47	9351	774	771	763	771	770	-0.30	48	10408	733	746	757	738	744	-2.60
49	10679	735	742	727	751	739	-1.70	50	9523	738	764	740	751	748	-0.50
51	9951	762	753	750	742	752	-1.85	52	8629	754	741	756	765	754	0.00
53	9941	728	752	734	750	741	-1.10	54	9617	766	746	760	765	759	-0.70
55	9912	738	743	739	744	741	-1.15	56	10251	765	763	755	751	758	-1.85
57	10733	725	748	724	734	733	-2.70	58	10088	746	742	714	746	737	-1.25
59	10255	743	730	744	762	745	-1.10	60	10189	727	748	744	733	738	-2.00
61	10160	752	750	756	740	749	-1.00	62	-46	749	724	741	742	739	******
63	10364	749	738	731	751	742	-2.55	64	10734	730	744	699	750	731	-3.45

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	280 DEG C	10	TE-5-7	737 DEG C	11	TE-5-8	726 DEG C
12	TE-28-5	751 DEG C	13	TE-28-6	763 DEG C	14	TE-28-7	751 DEG C
15	TE-28-8	746 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	234 KPA
23	TE-44-8	734 DEG C	24	TE-320	370 DEG C	25	TE-321	360 DEG C
26	TE-322	346 DEG C	27	TE-323	698 DEG C	28	TE-324	669 DEG C
29	TE-325	685 DEG C	30	TE-326	652 DEG C	31	TE-327	636 DEG C
41	TE-91-2	551 DEG C	44	TE-92-1	610 DEG C	45	TE-92-2	555 DEG C
46	TE-92-3	635 DEG C	47	TE-92-4	515 DEG C	49	TE-93-2	638 DEG C
50	TE-93-3	635 DEG C	52	TE-94-1	643 DEG C	53	TE-94-2	510 DEG C
54	TE-94-3	547 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	760 DEG C						

TABLE B-53. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 53 BURST TIME

TIME FROM POWER-ON 46.30 SEC. TIME FROM POWER-OFF -2.15 SEC. RECORD NUMBER 558-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10670	720	652	749	731	713	-3.30	2	19	751	757	771	697	744	0.65
3	9751	731	747	754	754	747	-0.60	4	-11	746	755	750	758	752	1.45
5	9518	753	727	757	766	751	-1.20	6	9415	767	762	778	726	758	-0.10
7	1447	732	744	756	747	745	0.55	8	9890	738	756	737	709	735	-1.05
9	9830	736	699	771	761	742	-1.85	10	8310	756	759	772	738	756	0.00
11	-9	762	754	761	762	760	0.80	12	-1	761	770	771	760	765	0.70
13	-8	763	764	765	757	762	0.75	14	-16	768	778	768	765	770	1.25
15	362	750	756	739	758	751	0.50	16	-14	765	781	786	659	748	1.75
17	9938	761	[illegible]	724	769	743	-2.15	18	-2	762	778	774	776	773	1.05
19	8038	763	762	774	741	760	-0.20	20	4346	758	762	755	756	758	0.10
21	-12	760	767	765	775	767	2.30	22	6799	768	778	764	752	765	0.05
23	3	780	764	760	774	769	1.10	24	9318	756	751	763	755	756	-0.35
25	6347	758	749	753	723	746	0.10	26	86	755	769	749	762	759	0.70
27	1	770	749	773	762	763	1.20	28	98	768	748	774	753	761	0.60
29	4	769	778	736	768	763	1.00	30	8282	783	769	752	764	767	-0.10
31	-11	758	767	766	763	764	1.40	32	9470	748	762	737	749	749	-0.50
33	9734	763	689	716	751	730	-1.00	34	933	731	756	731	769	747	0.40
35	235	762	777	738	779	764	0.45	36	98	767	766	756	759	762	1.20
37	8783	775	753	765	764	764	-0.90	38	27	768	765	762	767	765	0.60
39	8728	762	759	752	769	760	-0.40	40	9137	781	773	757	768	770	-0.15
41	9615	748	720	747	768	746	-0.20	42	6091	768	754	764	759	761	0.05
43	-20	774	765	752	736	758	1.40	44	2713	749	718	757	729	738	0.20
45	8481	769	762	770	763	766	-0.45	46	6919	261	761	754	756	633	0.05
47	3	762	765	758	762	762	0.80	48	9774	739	756	75[illegible]	715	740	-1.50
49	10101	741	747	730	758	744	-0.60	50	53	738	772	753	757	755	0.60
51	9036	772	758	755	750	759	-0.75	52	-45	758	746	760	770	759	1.10
53	8936	732	769	741	760	750	0.00	54	827	773	753	757	757	760	0.40
55	8862	744	763	743	753	751	-0.05	56	9535	774	772	756	761	766	-0.75
57	10228	741	749	741	737	742	-1.60	58	9276	756	745	662	748	728	-0.15
59	9471	755	731	745	770	750	0.00	60	9494	742	747	727	737	739	-0.90
61	6265	754	735	744	744	744	0.10	62	-156	758	727	733	750	742	******
63	9695	766	740	705	749	740	-1.45	64	10264	735	735	699	747	729	-2.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	224 DEG C	10	TE-5-7	745 DEG C	11	TE-5-8	721 DEG C
12	TE-28-5	754 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	756 DEG C
15	TE-28-8	750 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	344 KPA
23	TE-44-8	732 DEG C	24	TE-320	391 DEG C	25	TE-321	390 DEG C
26	TE-322	362 DEG C	27	TE-323	705 DEG C	28	TE-324	682 DEG C
29	TE-325	706 DEG C	30	TE-326	660 DEG C	31	TE-327	654 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	629 DEG C	45	TE-92-2	614 DEG C
46	TE-92-3	594 DEG C	47	TE-92-4	606 DEG C	49	TE-93-2	662 DEG C
50	TE-93-3	660 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	528 DEG C
54	TE-94-3	537 DEG C	472	EIE-10	2382 A	473	EEE-10	82 V
488	TAV-10	767 DEG C						

TABLE B-54. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 54 BURST TIME

TIME FROM POWER-ON 45.90 SEC. TIME FROM POWER-OFF -2.55 SEC. RECORD NUMBER 554-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10807	719	657	745	729	712	-3.70	2	1448	746	718	761	703	732	0.25
3	9987	737	748	751	756	748	-1.00	4	5	756	750	747	758	753	1.05
5	9754	755	726	756	764	750	-1.60	6	9774	763	759	774	732	757	-0.50
7	6186	734	747	755	753	747	0.15	8	10102	740	753	736	711	735	-1.45
9	10052	739	702	767	762	742	-2.25	10	8816	757	755	769	738	755	-0.40
11	767	759	745	757	756	754	0.40	12	782	754	770	764	754	760	0.30
13	708	757	757	760	752	756	0.35	14	29	765	774	767	764	767	0.85
15	5979	757	750	734	753	749	0.10	16	-5	767	777	782	653	745	1.35
17	10148	759	728	725	764	744	-2.55	18	58	759	772	770	771	768	0.65
19	8550	759	759	770	738	756	-0.60	20	8398	759	761	757	758	759	-0.30
21	3	757	762	760	774	763	1.90	22	8203	773	776	762	762	768	-0.35
23	120	774	765	756	770	767	0.70	24	9615	753	746	767	748	753	-0.75
25	9928	763	748	753	735	750	-0.30	26	1833	751	763	744	757	754	0.30
27	25	769	745	761	758	758	0.80	28	2733	763	741	769	743	754	0.20
29	185	761	771	736	764	758	0.60	30	8737	779	765	751	761	764	-0.50
31	5	754	762	758	761	759	1.00	32	9751	741	759	734	747	745	-0.90
33	9986	760	695	722	749	732	-1.40	34	8695	752	752	739	773	754	0.0
35	7458	764	773	741	777	763	0.05	36	122	764	764	754	756	759	0.80
37	9135	771	751	761	761	761	-1.30	38	1634	760	763	757	761	760	0.20
39	9117	759	757	748	768	758	-0.80	40	9470	777	769	764	769	770	-0.55
41	9953	748	725	744	769	746	-0.60	42	9007	773	762	773	763	768	-0.35
43	-11	772	765	745	759	760	1.00	44	8654	749	705	762	736	738	-0.20
45	8951	767	758	768	758	763	-0.85	46	8631	260	763	758	762	635	-0.35
47	803	774	762	757	758	763	0.40	48	10012	736	752	756	724	742	-1.90
49	10318	740	752	731	756	745	-1.00	50	2267	734	765	740	756	749	0.20
51	9386	767	757	752	748	756	-1.15	52	1	756	741	757	765	755	0.70
53	9355	728	765	738	756	747	-0.40	54	8770	771	751	765	761	762	0.00
55	9297	742	757	742	749	748	-0.45	56	9799	771	766	763	757	764	-1.15
57	10404	738	751	735	737	740	-2.00	58	9591	751	744	675	748	729	-0.55
59	9782	752	730	745	767	748	-0.40	60	9753	740	745	738	735	739	-1.30
61	9606	764	746	753	744	752	-0.30	62	-109	755	726	737	746	741	******
63	9930	761	739	711	749	740	-1.85	64	10428	733	740	700	755	732	-2.75

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	204 DEG C	10	TE-5-7	741 DEG C	11	TE-5-8	724 DEG C
12	TE-28-5	779 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	751 DEG C
15	TE-28-8	747 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	305 KPA
23	TE-44-8	720 DEG C	24	TE-320	398 DEG C	25	TE-321	390 DEG C
26	TE-322	352 DEG C	27	TE-323	714 DEG C	28	TE-324	693 DEG C
29	TE-325	701 DEG C	30	TE-326	670 DEG C	31	TE-327	651 DEG C
41	TE-91-2	640 DEG C	44	TE-92-1	615 DEG C	45	TE-92-2	598 DEG C
46	TE-92-3	594 DEG C	47	TE-92-4	587 DEG C	49	TE-93-2	663 DEG C
50	TE-93-3	689 DEG C	52	TE-94-1	648 DEG C	53	TE-94-2	523 DEG C
54	TE-94-3	540 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V
488	TAV-10	764 DEG C						

TABLE B-55. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 55 BURST TIME

TIME FROM POWER-ON 46.35 SEC. TIME FROM POWER-OFF -2.10 SEC. RECORD NUMBER 558-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10641	720	652	750	732	713	-3.25	2	11	751	768	768	699	747	0.70
3	9700	731	748	754	754	747	-0.55	4	-12	745	756	750	758	752	1.50
5	9489	752	727	757	767	751	-1.15	6	9364	767	762	778	725	758	-0.05
7	1198	732	744	756	746	745	0.60	8	9875	738	756	737	708	735	-1.00
9	9807	736	701	771	760	742	-1.80	10	7295	752	757	767	734	752	0.05
11	-10	763	756	762	763	761	0.85	12	-17	762	770	772	760	766	0.75
13	-17	763	765	765	758	763	0.80	14	3	769	777	766	766	770	1.30
15	230	751	757	741	759	752	0.55	16	-15	765	782	786	658	748	1.80
17	9915	762	719	724	769	743	-2.10	18	4	762	779	775	777	773	1.10
19	7958	763	762	773	741	760	-0.15	20	2860	758	761	754	757	758	0.15
21	-5	761	767	765	775	767	2.35	22	4727	765	772	763	748	762	0.10
23	3	780	763	761	774	769	1.15	24	9274	758	751	763	756	757	-0.30
25	4112	756	747	751	719	743	0.15	26	47	755	769	749	762	759	0.75
27	7	771	749	774	762	764	1.25	28	60	768	749	774	755	762	0.65
29	3	769	778	736	769	763	1.05	30	8208	784	768	753	764	767	-0.05
31	2	759	767	768	761	764	1.45	32	9416	748	762	737	749	749	-0.45
33	9697	764	690	716	752	730	-0.95	34	679	734	756	733	769	748	0.45
35	139	762	777	738	779	764	0.50	36	90	767	767	756	760	762	1.25
37	8723	776	753	766	765	765	-0.85	38	26	769	764	762	769	766	0.65
39	8668	762	760	752	770	761	-0.35	40	9084	782	773	756	768	770	-0.10
41	9554	748	720	747	768	746	-0.15	42	4252	766	747	762	759	758	0.10
43	-14	775	768	753	756	763	1.45	44	1959	750	725	759	730	741	0.25
45	8421	770	762	769	763	766	-0.40	46	4531	260	758	743	755	629	0.10
47	-12	741	765	759	762	756	0.85	48	9743	739	756	752	714	740	-1.45
49	10070	741	746	731	759	744	-0.55	50	15	739	772	752	757	755	0.65
51	8989	771	759	755	751	759	-0.70	52	-38	756	745	761	770	758	1.15
53	8622	733	768	741	760	750	0.05	54	594	773	754	758	759	761	0.45
55	8784	745	763	741	752	750	0.0	56	9497	775	772	756	762	766	-0.70
57	10198	741	748	741	737	742	-1.55	58	9230	755	746	661	748	728	-0.10
59	7840	753	727	740	756	744	0.05	60	9457	743	748	726	738	739	-0.85
61	4310	756	735	745	743	745	0.15	62	-164	758	727	733	749	742	******
63	9658	767	740	710	749	742	-1.40	64	10241	735	734	697	741	727	-2.30

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	228 DEG C	10	TE-5-7	744 DEG C	11	TE-5-8	723 DEG C
12	TE-28-5	754 DEG C	13	TE-28-6	761 DEG C	14	TE-28-7	756 DEG C
15	TE-28-8	751 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	352 KPA
23	TE-44-8	731 DEG C	24	TE-320	390 DEG C	25	TE-321	390 DEG C
26	TE-322	363 DEG C	27	TE-323	707 DEG C	28	TE-324	687 DEG C
29	TE-325	707 DEG C	30	TE-326	665 DEG C	31	TE-327	661 DEG C
41	TE-91-2	648 DEG C	44	TE-92-1	630 DEG C	45	TE-92-2	616 DEG C
46	TE-92-3	597 DEG C	47	TE-92-4	611 DEG C	49	TE-93-2	660 DEG C
50	TE-93-3	659 DEG C	52	TE-94-1	653 DEG C	53	TE-94-2	530 DEG C
54	TE-94-3	536 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V
488	TAV-10	767 DEG C						

TABLE B-56. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 56 BURST TIME

TIME FROM POWER-ON 47.05 SEC. TIME FROM POWER-OFF -1.40 SEC. RECORD NUMBER 565-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10421	717	651	755	737	715	-2.55	2	17	747	732	781	698	739	1.40
3	3300	723	721	749	741	733	0.15	4	10	717	765	754	760	749	2.20
5	9058	747	728	757	774	751	-0.45	6	56	747	762	779	704	748	0.65
7	10	734	744	761	754	748	1.30	8	9529	740	765	732	699	734	-0.30
9	9404	733	682	777	731	731	-1.10	10	44	758	754	767	738	754	0.75
11	3	768	765	766	775	768	1.55	12	2	769	769	779	764	770	1.45
13	-2	770	779	769	769	772	1.50	14	10	775	783	768	769	774	2.00
15	4	761	765	745	763	758	1.25	16	2	751	788	792	642	743	2.50
17	9551	766	717	719	773	744	-1.40	18	26	765	785	782	781	778	1.80
19	133	774	759	781	739	763	0.55	20	17	765	768	760	763	764	0.85
21	11	766	773	772	776	772	3.05	22	30	776	777	768	760	771	0.80
23	15	783	767	766	773	772	1.85	24	439	776	745	749	721	748	0.40
25	19	766	747	763	726	750	0.85	26	5	750	774	758	768	763	1.45
27	25	773	756	783	767	769	1.95	28	17	773	756	780	765	769	1.35
29	27	781	788	740	776	771	1.75	30	93	785	774	755	765	770	0.65
31	18	767	769	777	765	769	2.15	32	1500	741	754	729	750	743	0.25
33	9206	769	676	718	759	731	-0.25	34	17	755	756	744	775	757	1.15
35	38	772	785	745	785	772	1.20	36	107	773	771	760	765	767	1.95
37	7972	782	759	770	769	770	-0.15	38	21	776	768	769	782	774	1.35
39	369	748	755	741	766	753	0.35	40	95	755	764	718	759	749	0.60
41	219	748	752	731	773	751	0.55	42	26	772	744	771	764	763	0.80
43	10	781	788	749	771	772	2.15	44	17	757	746	774	742	755	0.95
45	1131	750	757	763	763	758	0.30	46	29	262	759	751	763	634	0.80
47	12	788	764	762	773	772	1.55	48	9323	744	759	757	701	740	-0.75
49	3961	739	742	725	752	739	0.15	50	-20	744	777	768	760	762	1.35
51	8134	771	760	756	756	761	0.0	52	-18	745	749	765	773	758	1.85
53	0	733	765	742	755	749	0.75	54	-23	778	762	763	781	771	1.15
55	-13	723	763	746	755	747	0.70	56	8983	781	779	745	745	763	0.0
57	9903	745	729	746	740	740	-0.85	58	377	756	743	719	746	741	0.60
59	14	753	727	741	757	745	0.75	60	8953	747	753	711	742	738	-0.15
61	-43	772	724	747	749	748	0.85	62	-215	765	732	739	754	747	******
63	9223	771	739	688	751	737	-0.70	64	9963	737	728	697	695	714	-1.60

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	246 DEG C	10	TE-5-7	748 DEG C	11	TE-5-8	742 DEG C
12	TE-28-5	760 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	763 DEG C
15	TE-28-8	757 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	410 KPA
23	TE-44-8	729 DEG C	24	TE-320	380 DEG C	25	TE-321	395 DEG C
26	TE-322	371 DEG C	27	TE-323	726 DEG C	28	TE-324	707 DEG C
29	TE-325	713 DEG C	30	TE-326	682 DEG C	31	TE-327	666 DEG C
41	TE-91-2	653 DEG C	44	TE-92-1	638 DEG C	45	TE-92-2	610 DEG C
46	TE-92-3	603 DEG C	47	TE-92-4	635 DEG C	49	TE-93-2	660 DEG C
50	TE-93-3	641 DEG C	52	TE-94-1	668 DEG C	53	TE-94-2	542 DEG C
54	TE-94-3	535 DEG C	472	EIE-10	2380 A	473	EEE-10	81 V
488	TAV-10	770 DEG C						

TABLE B-57. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 57 BURST TIME

TIME FROM POWER-ON 47.90 SEC. TIME FROM POWER-OFF -0.55 SEC. RECORD NUMBER 574-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10188	714	656	766	743	720	-1.70	2	16	752	750	775	693	743	2.25
3	17	717	733	757	752	740	1.00	4	8	703	770	758	764	749	3.05
5	679	721	715	752	798	742	0.40	6	5	765	771	790	692	755	1.50
7	9	735	746	773	757	753	2.15	8	39	732	776	713	693	729	0.55
9	8839	733	668	785	711	724	-0.25	10	6	763	763	772	746	761	1.60
11	-5	774	773	773	785	776	2.40	12	8	774	772	785	769	775	2.30
13	11	778	786	773	777	779	2.35	14	15	779	794	771	773	779	2.85
15	10	768	771	747	765	763	2.10	16	2	744	795	801	642	745	3.35
17	9059	771	724	723	782	750	-0.55	18	17	772	793	788	788	785	2.65
19	23	787	770	800	748	776	1.40	20	16	769	773	764	769	769	1.70
21	10	773	782	776	777	777	3.90	22	7	785	786	774	768	778	1.65
23	16	789	773	770	776	777	2.70	24	15	786	759	757	725	757	1.25
25	26	778	739	770	736	756	1.70	26	12	756	782	765	773	769	2.30
27	25	779	759	792	773	776	2.80	28	16	777	764	786	773	775	2.20
29	19	791	795	745	778	777	2.60	30	11	791	778	765	772	776	1.50
31	17	776	773	784	768	775	3.00	32	8	748	747	736	758	747	1.10
33	106	768	707	716	768	740	0.60	34	16	766	757	753	781	764	2.00
35	36	788	793	751	792	781	2.05	36	106	779	773	766	770	772	2.80
37	29	759	755	769	765	762	0.70	38	20	783	773	775	791	781	2.20
39	9	766	761	752	772	763	1.20	40	27	754	774	695	768	748	1.45
41	46	753	755	744	779	758	1.40	42	25	770	752	780	768	768	1.65
43	-5	787	791	768	778	781	3.00	44	23	765	756	783	746	762	1.80
45	11	764	770	764	773	767	1.15	46	21	263	761	763	769	639	1.65
47	12	798	773	766	781	780	2.40	48	3997	726	759	759	697	735	0.10
49	9	744	766	730	759	750	1.00	50	-21	750	784	778	767	770	2.20
51	-31	769	758	779	756	766	0.85	52	-18	755	754	768	772	762	2.70
53	-22	741	782	749	765	759	1.60	54	-16	783	768	766	791	777	2.00
55	-29	740	765	754	763	755	1.55	56	-19	777	782	748	722	757	0.85
57	9528	749	720	752	745	742	0.0	58	-14	763	747	683	748	735	1.45
59	-23	759	730	747	774	752	1.60	60	21	748	737	709	744	735	0.70
61	-38	765	720	738	755	744	1.70	62	-238	770	739	745	760	753	******
63	4122	765	720	683	739	727	0.15	64	9653	740	726	700	700	717	-0.75

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	216 DEG C	10	TE-5-7	754 DEG C	11	TE-5-8	749 DEG C
12	TE-28-5	765 DEG C	13	TE-28-6	769 DEG C	14	TE-28-7	771 DEG C
15	TE-28-8	765 DEG C	17	TE-39-6	760 DEG C	19	PE-301	433 KPA
23	TE-44-8	722 DEG C	24	TE-320	405 DEG C	25	TE-321	384 DEG C
26	TE-322	364 DEG C	27	TE-323	718 DEG C	28	TE-324	702 DEG C
29	TE-325	704 DEG C	30	TE-326	665 DEG C	31	TE-327	659 DEG C
41	TE-91-2	653 DEG C	44	TE-92-1	652 DEG C	45	TE-92-2	613 DEG C
46	TE-92-3	616 DEG C	47	TE-92-4	654 DEG C	49	TE-93-2	660 DEG C
50	TE-93-3	664 DEG C	52	TE-94-1	671 DEG C	53	TE-94-2	551 DEG C
54	TE-94-3	533 DEG C	472	EIE-10	2377 A	473	EEE-10	81 V
488	TAV-10	775 DEG C						

[redacted] M 4 [redacted]

TABLE B-58. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 58 BURST TIME

TIME FROM POWER-ON 46.45 SEC. TIME FROM POWER-OFF -2.00 SEC. RECORD NUMBER 559-8

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10610	719	652	750	733	713	-3.15	2	8	749	771	769	700	747	0.80
3	9634	731	746	754	754	746	-0.45	4	0	741	757	751	758	752	1.60
5	9416	751	727	757	768	751	-1.05	6	8685	767	760	778	722	757	0.05
7	795	732	744	757	746	745	0.70	8	9808	738	757	737	708	735	-0.90
9	9741	735	701	772	758	742	-1.70	10	3806	752	749	765	724	747	0.15
11	-12	764	757	762	765	762	0.95	12	-12	764	770	773	760	767	0.85
13	-12	764	768	766	760	764	0.90	14	1	770	776	768	765	770	1.40
15	74	752	758	742	760	753	0.65	16	-1	765	783	787	658	748	1.90
17	9853	763	720	722	770	744	-2.00	18	8	763	780	776	778	774	1.20
19	7791	763	762	774	742	760	-0.05	20	1299	759	762	755	758	759	0.25
21	-7	762	768	767	775	768	2.45	22	2298	766	768	763	750	762	0.20
23	1	780	764	762	774	770	1.25	24	9187	764	753	762	757	759	-0.20
25	1867	758	746	753	718	744	0.25	26	8	753	769	751	763	759	0.85
27	13	771	751	775	763	765	1.35	28	20	769	751	775	757	763	0.75
29	8	771	780	737	771	765	1.15	30	7936	781	764	751	755	763	0.05
31	0	761	767	770	762	765	1.55	32	9331	749	764	738	750	750	-0.35
33	9614	765	686	716	753	730	-0.85	34	341	738	757	734	770	750	0.55
35	57	763	778	740	780	765	0.60	36	103	768	767	756	760	763	1.35
37	8624	776	754	767	765	766	-0.75	38	17	771	764	763	771	767	0.75
39	8549	764	760	753	771	762	-0.25	40	8977	782	771	750	767	768	0.0
41	9440	748	719	748	769	746	-0.05	42	2211	767	739	761	761	757	0.20
43	-9	775	773	755	765	767	1.55	44	1029	751	729	763	733	744	0.35
45	8263	769	763	769	764	766	-0.30	46	2124	261	757	741	756	629	0.20
47	-6	779	765	759	763	767	0.95	48	9690	740	757	752	713	741	-1.35
49	10001	741	748	730	760	745	-0.45	50	-23	740	773	754	758	756	0.75
51	8881	773	758	756	751	760	-0.60	52	-39	748	746	762	772	757	1.25
53	4655	729	760	737	749	744	0.15	54	263	774	756	759	762	763	0.55
55	4631	725	758	736	749	742	0.10	56	9421	775	772	756	760	766	-0.60
57	10153	741	744	741	738	741	-1.45	58	9123	757	745	658	748	727	0.0
59	4173	752	724	734	735	736	0.15	60	9382	743	748	725	738	739	-0.75
61	2138	758	733	748	744	746	0.25	62	-174	759	728	733	751	743	******
63	9590	768	740	712	749	742	-1.30	64	10195	735	733	697	725	722	-2.20

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	233 DEG C	10	TE-5-7	744 DEG C	11	TE-5-8	723 DEG C
12	TE-28-5	755 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	758 DEG C
15	TE-28-8	752 DEG C	17	TE-39-6	752 DEG C	19	PE-301	369 KPA
23	TE-44-8	731 DEG C	24	TE-320	389 DEG C	25	TE-321	393 DEG C
26	TE-322	369 DEG C	27	TE-323	712 DEG C	28	TE-324	694 DEG C
29	TE-325	711 DEG C	30	TE-326	670 DEG C	31	TE-327	672 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	630 DEG C	45	TE-92-2	618 DEG C
46	TE-92-3	599 DEG C	47	TE-92-4	615 DEG C	49	TE-93-2	662 DEG C
50	TE-93-3	653 DEG C	52	TE-94-1	659 DEG C	53	TE-94-2	532 DEG C
54	TE-94-3	534 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	768 DEG C						

[redacted] N 4 [redacted]

TABLE B-59. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 59 BURST TIME

TIME FROM POWER-ON 46.30 SEC. TIME FROM POWER-OFF -2.15 SEC. RECORD NUMBER 558-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10670	720	652	749	731	713	-3.30	2	19	751	757	771	697	744	0.65
3	9751	731	747	754	754	747	-0.60	4	-11	746	755	750	758	752	1.45
5	9518	753	727	757	766	751	-1.20	6	9415	767	762	778	726	758	-0.10
7	1447	732	744	756	747	745	0.55	8	9890	738	756	737	709	735	-1.05
9	9830	736	699	771	761	742	-1.85	10	8310	756	759	772	738	756	0.00
11	-9	762	754	761	762	760	0.80	12	-1	761	770	771	760	765	0.70
13	-8	763	764	765	757	762	0.75	14	-16	768	778	768	765	770	1.25
15	362	750	756	739	758	751	0.50	16	-14	765	781	786	659	748	1.75
17	9938	761	718	724	769	743	-2.15	18	-2	762	778	774	776	773	1.05
19	8038	763	762	774	741	760	-0.20	20	4346	758	762	755	756	758	0.10
21	-12	760	767	765	775	767	2.30	22	6799	768	778	764	752	765	0.05
23	3	780	764	760	774	769	1.10	24	9318	756	751	763	755	756	-0.35
25	6347	758	749	753	723	746	0.10	26	86	755	769	749	762	759	0.70
27	1	770	749	773	762	763	1.20	28	98	768	748	774	753	761	0.60
29	4	769	778	736	768	763	1.00	30	8282	783	769	752	764	767	-0.10
31	-11	758	767	766	763	764	1.40	32	9470	748	762	737	749	749	-0.50
33	9734	763	689	716	751	730	-1.00	34	933	731	756	731	769	747	0.40
35	235	762	777	738	779	764	0.45	36	98	767	766	756	759	762	1.20
37	8783	775	753	765	764	764	-0.90	38	27	768	765	762	767	765	0.60
39	8728	762	759	752	769	760	-0.40	40	9137	781	773	757	768	770	-0.15
41	9615	748	720	747	768	746	-0.20	42	6091	768	754	764	759	761	0.05
43	-20	774	765	752	738	758	1.40	44	2713	749	718	757	729	738	0.20
45	8481	769	762	770	763	766	-0.45	46	6919	261	761	754	756	633	0.05
47	3	762	765	758	762	762	0.80	48	9774	739	756	752	715	740	-1.50
49	10101	741	747	730	758	744	-0.60	50	53	738	772	753	757	755	0.60
51	9036	772	758	755	750	759	-0.75	52	-45	758	746	760	770	759	1.10
53	8936	732	769	741	760	750	0.00	54	827	773	753	757	757	760	0.40
55	8862	744	763	743	753	751	-0.05	56	9535	774	772	756	761	766	-0.75
57	10228	741	749	741	737	742	-1.60	58	9276	756	745	662	748	728	-0.15
59	9471	755	731	745	770	750	0.00	60	9494	742	747	727	737	739	-0.90
61	6265	754	735	744	744	744	0.10	62	-156	758	727	733	750	742	******
63	9695	766	740	705	749	740	-1.45	64	10264	735	735	699	747	729	-2.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	224 DEG C	10	TE-5-7	745 DEG C	11	TE-5-8	721 DEG C
12	TE-28-5	754 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	756 DEG C
15	TE-28-8	750 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	344 KPA
23	TE-44-8	732 DEG C	24	TE-320	391 DEG C	25	TE-321	390 DEG C
26	TE-322	362 DEG C	27	TE-323	705 DEG C	28	TE-324	682 DEG C
29	TE-325	706 DEG C	30	TE-326	660 DEG C	31	TE-327	654 DEG C
41	TE-91-2	649 DEG C	44	TE-92-1	629 DEG C	45	TE-92-2	614 DEG C
46	TE-92-3	594 DEG C	47	TE-92-4	606 DEG C	49	TE-93-2	662 DEG C
50	TE-93-3	660 DEG C	52	TE-94-1	649 DEG	53	TE-94-2	528 DEG C
54	TE-94-3	537 DEG C	472	EIE-10	2382 A	473	EEE-10	82 V
488	TAV-10	767 DEG C						

TABLE B-60. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 60 BURST TIME

TIME FROM POWER-ON 47.20 SEC. TIME FROM POWER-OFF -1.25 SEC. RECORD NUMBER 567-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10386	717	652	756	738	715	-2.40	2	17	746	735	779	696	739	1.55
3	1240	713	722	751	743	732	0.30	4	10	711	767	755	761	748	2.35
5	8967	743	729	757	776	751	-0.30	6	14	749	764	782	702	749	0.80
7	11	735	745	762	756	749	1.45	8	9458	740	766	730	697	733	-0.15
9	9313	733	679	778	729	730	-0.95	10	15	759	756	768	740	756	0.90
11	-3	769	766	767	777	770	1.70	12	3	770	770	780	765	771	1.60
13	12	772	781	770	771	773	1.65	14	10	775	785	769	770	775	2.15
15	4	762	765	744	763	759	1.40	16	10	748	789	793	639	742	2.65
17	9470	767	717	719	775	744	-1.25	18	12	766	787	783	782	780	1.95
19	40	778	762	786	741	767	0.70	20	10	765	768	761	764	765	1.00
21	4	767	774	773	776	773	3.20	22	16	778	779	770	762	772	0.95
23	16	784	768	766	773	773	2.00	24	80	779	748	750	722	749	0.55
25	20	769	747	764	727	752	1.00	26	5	751	775	759	769	764	1.60
27	26	774	756	784	768	771	2.10	28	10	773	757	781	768	770	1.50
29	28	783	788	741	776	772	1.90	30	35	786	776	758	766	772	0.80
31	11	768	770	779	765	770	2.30	32	494	743	751	731	753	745	0.40
33	9082	771	675	718	760	731	-0.10	34	33	758	756	746	776	759	1.30
35	31	774	785	746	786	773	1.35	36	115	774	771	761	766	768	2.10
37	7697	774	760	770	765	767	0.0	38	29	777	768	769	784	775	1.50
39	77	753	756	743	767	755	0.50	40	43	755	766	713	761	749	0.75
41	62	749	759	734	775	754	0.70	42	26	772	745	772	765	763	0.95
43	11	782	790	760	772	776	2.30	44	25	759	748	776	743	757	1.10
45	341	754	760	764	765	761	0.45	46	22	262	759	754	725	625	0.95
47	13	790	764	763	776	773	1.70	48	9228	745	760	759	697	740	-0.60
49	1386	740	748	724	750	740	0.30	50	-19	745	780	770	761	764	1.50
51	2792	766	756	754	748	756	0.15	52	-25	747	750	766	773	759	2.00
53	-21	735	769	744	757	751	0.90	54	-23	780	762	763	783	772	1.30
55	-20	728	764	748	757	749	0.85	56	3274	763	767	733	720	746	0.15
57	9846	746	727	748	741	740	-0.70	58	76	758	743	708	746	739	0.75
59	-22	753	728	742	762	746	0.90	60	8801	748	755	709	743	739	0.0
61	-50	774	722	744	750	748	1.00	62	-222	765	733	739	755	748	******
63	9129	772	740	686	752	737	-0.55	64	9912	737	727	697	693	714	-1.45

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	246 DEG C	10	TE-5-7	748 DEG C	11	TE-5-8	743 DEG C
12	TE-28-5	760 DEG C	13	TE-28-6	764 DEG C	14	TE-28-7	765 DEG C
15	TE-28-8	759 DEG C	17	TE-39-6	755 DEG C	19	PE-301	417 KPA
23	TE-44-8	725 DEG C	24	TE-320	377 DEG C	25	TE-321	393 DEG C
26	TE-322	369 DEG C	27	TE-323	726 DEG C	28	TE-324	703 DEG C
29	TE-325	713 DEG C	30	TE-326	685 DEG C	31	TE-327	662 DEG C
41	TE-91-2	652 DEG C	44	TE-92-1	638 DEG C	45	TE-92-2	611 DEG C
46	TE-92-3	612 DEG C	47	TE-92-4	641 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	649 DEG C	52	TE-94-1	667 DEG C	53	TE-94-2	545 DEG C
54	TE-94-3	533 DEG C	472	EIE-10	2377 A	473	EEE-10	81 V
488	TAV-10	770 DEG C						

TABLE B-61. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 61 BURST TIME

TIME FROM POWER-ON 46.20 SEC. TIME FROM POWER-OFF -2.25 SEC. RECORD NUMBER 557-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10723	720	652	748	730	712	-3.40	2	122	752	734	769	698	738	0.55
3	9832	733	747	754	754	747	-0.70	4	13	748	753	749	758	752	1.35
5	9599	754	726	756	765	751	-1.30	6	9546	766	761	777	726	758	-0.20
7	2098	732	744	756	748	745	0.45	8	9980	738	754	737	710	735	-1.15
9	9904	737	697	770	762	742	-1.95	10	8481	756	758	772	738	756	-0.10
11	44	761	753	760	760	758	0.70	12	37	759	770	769	759	764	0.60
13	22	762	762	764	755	761	0.65	14	7	767	779	767	764	769	1.15
15	796	748	754	736	756	749	0.40	16	9	765	780	785	659	747	1.65
17	10014	760	721	725	766	743	-2.25	18	14	761	777	774	775	772	0.95
19	8199	761	761	773	760	759	-0.30	20	7984	761	764	759	760	761	0.00
21	11	760	766	764	774	766	2.20	22	7769	774	780	763	762	770	-0.05
23	19	778	766	758	774	769	1.00	24	9419	755	749	763	753	755	-0.45
25	9732	763	754	756	737	752	0.00	26	277	754	768	748	760	757	0.60
27	17	770	748	771	760	762	1.10	28	323	767	747	773	749	759	0.50
29	28	767	776	736	766	761	0.90	30	8431	782	767	752	763	766	-0.20
31	5	759	765	765	763	763	1.30	32	9562	745	761	736	748	747	-0.60
33	9825	762	685	717	751	729	-1.10	34	1650	728	754	729	767	745	0.30
35	615	760	775	736	778	763	0.35	36	115	766	766	755	758	761	1.10
37	8889	774	752	764	764	764	-1.00	38	119	767	764	760	766	764	0.50
39	8847	761	759	751	769	760	-0.50	40	9252	780	772	760	768	770	-0.25
41	9729	749	722	746	768	746	-0.30	42	8516	774	759	772	764	767	-0.05
43	3	773	764	751	743	758	1.30	44	5488	748	706	751	727	733	0.10
45	8639	769	761	769	762	765	-0.55	46	8169	260	762	760	763	636	-0.05
47	58	780	764	758	761	766	0.70	48	9865	738	755	752	716	740	-1.60
49	10177	741	747	731	758	744	-0.70	50	261	737	771	751	757	754	0.50
51	9151	770	758	754	749	758	-0.85	52	-21	758	744	759	769	758	1.00
53	9079	731	768	740	758	749	-0.10	54	1539	771	752	756	757	759	0.30
55	9003	744	762	743	751	750	-0.15	56	9627	774	770	758	760	766	-0.85
57	10296	741	751	740	737	742	-1.70	58	9782	754	745	665	748	728	-0.25
59	9578	755	731	745	770	750	-0.10	60	9577	741	747	729	737	738	-1.00
61	9287	768	742	752	746	752	0.00	62	-124	757	727	733	748	741	******
63	9771	765	739	703	749	739	-1.55	64	10325	734	736	701	755	731	-2.45

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	226 DEG C	10	TE-5-7	742 DEG C	11	TE-5-8	722 DEG C
12	TE-28-5	753 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	755 DEG C
15	TE-28-8	748 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	312 KPA
23	TE-44-8	736 DEG C	24	TE-320	392 DEG C	25	TE-321	389 DEG C
26	TE-322	360 DEG C	27	TE-323	706 DEG C	28	TE-324	681 DEG C
29	TE-325	703 DEG C	30	TE-326	657 DEG C	31	TE-327	642 DEG C
41	TE-91-2	650 DEG C	44	TE-92-1	631 DEG C	45	TE-92-2	617 DEG C
46	TE-92-3	600 DEG C	47	TE-92-4	605 DEG C	49	TE-93-2	662 DEG C
50	TE-93-3	680 DEG C	52	TE-94-1	649 DEG C	53	TE-94-2	527 DEG C
54	TE-94-3	536 DEG C	472	EIE-10	2385 A	473	EEE-10	82 V
488	TAV-10	766 DEG C						

TABLE B-62. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 63 BURST TIME

TIME FROM POWER-ON 47.75 SEC. TIME FROM POWER-OFF -0.70 SEC. RECORD NUMBER 572-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10228	714	653	764	742	718	-1.85	2	14	751	750	775	693	742	2.10
3	29	714	731	756	751	738	0.85	4	14	703	770	758	763	748	2.90
5	1920	717	711	750	773	738	0.25	6	3	762	769	789	694	753	1.35
7	14	734	745	770	756	751	2.00	8	261	731	773	706	691	725	0.40
9	8964	733	669	783	714	725	-0.40	10	19	762	762	771	745	760	1.45
11	0	773	771	771	784	775	2.25	12	6	773	771	783	768	774	2.15
13	9	777	786	771	777	778	2.20	14	14	778	792	770	773	778	2.70
15	8	766	770	747	765	762	1.95	16	7	744	794	800	643	745	3.20
17	9161	768	718	722	780	747	-0.70	18	23	771	792	787	786	784	2.50
19	22	785	769	798	747	774	1.25	20	14	768	772	763	768	768	1.55
21	15	772	780	775	776	776	3.75	22	13	783	784	772	767	777	1.50
23	21	787	771	769	775	776	2.55	24	13	784	757	756	724	755	1.10
25	24	779	741	769	734	755	1.55	26	10	755	780	764	773	768	2.15
27	30	777	757	791	771	774	2.65	28	21	776	762	785	772	774	2.05
29	32	789	793	744	777	776	2.45	30	24	790	777	763	770	775	1.35
31	15	775	773	783	767	774	2.85	32	13	747	747	735	756	746	0.95
33	481	765	703	714	765	737	0.45	34	29	764	756	752	779	763	1.85
35	42	786	792	749	791	780	1.90	36	112	778	772	765	769	771	2.65
37	94	756	753	766	763	760	0.55	38	18	782	772	774	789	779	2.05
39	15	764	760	750	771	761	1.05	40	40	754	773	697	767	748	1.30
41	44	752	754	742	779	757	1.25	42	23	769	750	778	767	766	1.50
43	15	786	790	766	777	780	2.85	44	28	763	755	781	745	761	1.65
45	9	762	768	763	772	766	1.00	46	26	262	760	762	768	638	1.50
47	10	797	768	765	779	778	2.25	48	8825	748	763	762	684	739	-0.05
49	7	743	765	729	757	748	0.85	50	-15	748	783	777	766	769	2.05
51	-10	769	757	776	754	764	0.70	52	-20	753	753	766	772	761	2.55
53	-24	740	780	748	765	758	1.45	54	-19	784	766	765	792	777	1.85
55	-23	737	765	753	762	754	1.40	56	-13	775	781	747	722	756	0.70
57	9605	749	725	751	744	742	-0.15	58	-16	761	746	685	748	735	1.30
59	-25	758	730	746	773	751	1.45	60	232	745	734	708	743	732	0.55
61	-39	779	720	736	754	747	1.55	62	-232	769	737	742	758	752	******
63	8684	775	739	678	753	736	0.0	64	9717	740	726	699	697	715	-0.90

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	216 DEG C	10	TE-5-7	758 DEG C	11	TE-5-8	747 DEG C
12	TE-28-5	764 DEG C	13	TE-28-6	768 DEG C	14	TE-28-7	759 DEG C
15	TE-28-8	764 DEG C	17	TE-39-6	760 DEG C	19	PE-301	427 KPA
23	TE-44-8	722 DEG C	24	TE-320	408 DEG C	25	TE-321	386 DEG C
26	TE-322	365 DEG C	27	TE-323	720 DEG C	28	TE-324	703 DEG C
29	TE-325	707 DEG C	30	TE-326	669 DEG C	31	TE-327	656 DEG C
41	TE-91-2	655 DEG C	44	TE-92-1	654 DEG C	45	TE-92-2	616 DEG C
46	TE-92-3	619 DEG C	47	TE-92-4	646 DEG C	49	TE-93-2	663 DEG C
50	TE-93-3	663 DEG C	52	TE-94-1	671 DEG C	53	TE-94-2	550 DEG C
54	TE-94-3	534 DEG C	472	EIE-10	2377 A	473	EEE-10	81 V
488	TAV-10	774 DEG C						

TABLE B-63. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS AT ROD 64 BURST TIME

TIME FROM POWER-ON 48.65 SEC. TIME FROM POWER-OFF 0.20 SEC. RECORD NUMBER 581-B

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	9967	715	665	775	748	726	-0.95	2	12	760	759	791	683	748	3.00
3	20	727	743	770	754	749	1.75	4	5	700	773	763	770	752	3.80
5	4	730	729	756	788	751	1.15	6	1	774	776	797	689	759	2.25
7	13	738	748	781	762	757	2.90	8	7	735	785	736	700	739	1.30
9	172	723	662	776	686	712	0.50	10	9	771	777	778	751	769	2.35
11	-1	781	779	778	793	783	3.15	12	11	779	776	792	774	780	3.05
13	7	785	791	778	784	785	3.10	14	12	783	803	774	781	785	3.60
15	6	775	777	752	769	769	2.85	16	5	745	802	808	637	748	4.10
17	2551	774	733	711	782	750	0.20	18	14	778	798	792	794	790	3.40
19	27	794	777	807	755	783	2.15	20	13	774	779	770	774	774	2.45
21	6	778	788	781	780	782	4.65	22	11	790	792	782	774	785	2.40
23	19	794	779	774	781	782	3.45	24	11	792	767	761	734	764	2.00
25	22	777	733	775	744	757	2.45	26	15	763	787	772	779	775	3.05
27	21	784	767	799	778	782	3.55	28	12	782	770	792	779	781	2.95
29	30	798	801	750	782	783	3.35	30	22	797	783	772	777	783	2.25
31	13	784	779	790	771	781	3.75	32	11	754	748	742	763	752	1.85
33	20	771	697	723	776	742	1.35	34	28	774	760	761	786	770	2.75
35	33	797	800	759	799	789	2.80	36	117	786	777	773	775	778	3.55
37	17	767	763	775	773	769	1.45	38	24	787	778	780	798	786	2.95
39	13	774	766	760	778	770	1.95	40	38	754	781	686	770	747	2.20
41	35	756	761	752	784	763	2.15	42	28	773	760	786	773	773	2.40
43	13	793	796	775	784	787	3.75	44	26	771	764	789	752	769	2.55
45	15	769	776	768	779	773	1.90	46	32	264	767	773	774	644	2.40
47	8	806	791	770	788	789	3.15	48	1	733	764	777	770	761	0.85
49	13	747	771	735	772	756	1.75	50	-17	756	793	785	773	776	2.95
51	-27	776	762	782	764	771	1.60	52	-22	763	758	771	776	767	3.45
53	-26	748	788	755	773	766	2.35	54	-20	783	772	771	792	780	2.75
55	-25	750	767	758	766	761	2.30	56	-23	782	785	746	715	757	1.60
57	93	704	768	738	743	738	0.75	58	-10	768	749	676	755	737	2.20
59	-19	760	733	751	783	757	2.35	60	-18	758	743	707	749	739	1.45
61	-34	779	719	745	760	751	2.45	62	-242	774	744	755	765	760	******
63	-30	769	737	725	749	745	0.90	64	9348	743	728	703	703	719	0.0

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	128 DEG C	10	TE-5-7	752 DEG C	11	TE-5-8	752 DEG C
12	TE-28-5	771 DEG C	13	TE-28-6	775 DEG C	14	TE-28-7	777 DEG C
15	TE-28-8	772 DEG C	17	TE-39-6	767 DEG C	19	PE-301	429 KPA
23	TE-44-8	718 DEG C	24	TE-320	386 DEG C	25	TE-321	373 DEG C
26	TE-322	357 DEG C	27	TE-323	704 DEG C	28	TE-324	686 DEG C
29	TE-325	689 DEG C	30	TE-326	651 DEG C	31	TE-327	635 DEG C
41	TE-91-2	657 DEG C	44	TE-92-1	634 DEG C	45	TE-92-2	615 DEG C
46	TE-92-3	618 DEG C	47	TE-92-4	648 DEG C	49	TE-93-2	660 DEG C
50	TE-93-3	678 DEG C	52	TE-94-1	675 DEG C	53	TE-94-2	559 DEG C
54	TE-94-3	546 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	782 DEG C						

TABLE B- 64. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 0 S AFTER POWER-ON

TIME FROM POWER-ON 0.0 SEC. TIME FROM POWER-OFF -48.45 SEC. RECORD NUMBER 95-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11651	340	345	336	337	340	-49.60	2	11648	337	348	343	338	342	-45.65
3	11622	338	337	341	347	341	-46.90	4	11645	340	349	344	337	343	-44.85
5	11667	342	337	337	349	341	-47.50	6	11632	349	338	340	344	343	-46.40
7	11643	339	344	337	347	342	-45.75	8	11656	347	337	338	342	341	-47.35
9	11636	342	337	341	338	339	-48.15	10	11635	341	342	337	336	339	-46.30
11	11591	341	343	338	346	342	-45.50	12	11608	340	337	347	343	342	-45.60
13	11633	338	339	350	343	342	-45.55	14	11650	346	343	341	338	342	-45.05
15	11631	345	342	337	339	341	-45.80	16	11628	337	338	343	345	341	-44.55
17	11632	340	339	337	337	338	-48.45	18	11642	334	335	337	335	335	-45.25
19	11629	337	340	335	334	337	-46.50	20	11654	335	336	344	339	339	-46.20
21	11642	337	340	343	335	339	-44.00	22	11637	336	340	335	339	337	-46.25
23	11615	340	339	335	336	337	-45.20	24	11604	337	340	335	339	338	-46.65
25	11630	334	335	333	333	334	-46.20	26	11638	334	334	334	335	334	-45.60
27	11630	336	337	334	335	335	-45.10	28	11581	341	333	335	336	336	-45.70
29	11649	343	336	334	335	337	-45.30	30	11622	339	334	338	337	337	-46.40
31	11609	333	336	335	335	335	-44.90	32	11629	335	334	337	334	335	-46.80
33	11696	333	332	333	333	333	-47.30	34	11615	330	334	333	333	333	-45.90
35	11620	334	333	334	333	334	-45.85	36	11738	333	332	334	338	334	-45.10
37	11636	335	339	335	334	336	-47.20	38	11635	333	334	336	336	335	-45.70
39	11638	331	334	334	334	333	-46.70	40	11614	336	334	333	334	334	-46.45
41	11684	332	333	331	334	333	-46.50	42	11649	332	327	333	333	331	-46.25
43	11632	332	332	332	333	332	-44.90	44	11644	334	335	333	332	334	-46.10
45	11625	333	333	335	333	333	-46.75	46	11626	225	334	333	332	306	-46.25
47	11632	333	333	332	330	332	-45.50	48	11619	329	333	332	333	332	-47.80
49	11620	333	331	328	331	331	-46.90	50	11586	325	330	330	329	328	-45.70
51	11558	329	329	328	326	328	-47.05	52	11588	330	329	331	329	330	-45.20
53	11572	329	329	330	330	330	-46.30	54	11598	330	331	332	331	331	-45.90
55	11585	327	331	332	332	330	-46.35	56	11572	333	331	331	331	331	-47.05
57	11574	329	331	332	331	331	-47.90	58	11594	330	331	330	329	330	-46.45
59	11564	331	331	329	331	331	-46.30	60	11561	331	330	331	331	331	-47.20
61	11559	331	335	330	332	332	-46.20	62	-25	332	332	331	331	331	******
63	11588	331	329	331	332	331	-47.75	64	11578	332	332	333	331	332	-48.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	340 DEG C	10	TE-5-7	340 DEG C	11	TE-5-8	342 DEG C
12	TE-28-5	337 DEG C	13	TE-28-6	336 DEG C	14	TE-28-7	336 DEG C
15	TE-28-8	337 DEG C	17	TE-39-6	337 DEG C	19	PE-301	190 KPA
23	TE-44-8	336 DEG C	24	TE-320	367 DEG C	25	TE-321	355 DEG C
26	TE-322	344 DEG C	27	TE-323	340 DEG C	28	TE-324	340 DEG C
29	TE-325	338 DEG C	30	TE-326	338 DEG C	31	TE-327	338 DEG C
41	TE-91-2	342 DEG C	44	TE-92-1	342 DEG C	45	TE-92-2	338 DEG C
46	TE-92-3	334 DEG C	47	TE-92-4	339 DEG C	49	TE-93-2	336 DEG C
50	TE-93-3	335 DEG C	52	TE-94-1	337 DEG C	53	TE-94-2	337 DEG C
54	TE-94-3	338 DEG C	472	EIE-10	2 A	473	EEE-10	0 V
488	TAV-10	335 DEG C						

TABLE B- 65. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 2 S AFTER POWER-ON

TIME FROM POWER-ON 2.00 SEC. TIME FROM POWER-OFF -46.45 SEC. RECORD NUMBER 115-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11679	349	357	348	348	351	-47.60	2	11683	347	358	352	348	351	-43.65
3	11657	351	350	352	356	352	-44.90	4	11688	349	359	355	348	353	-42.85
5	11701	355	347	347	359	352	-45.50	6	11696	360	347	349	354	352	-44.40
7	11693	351	353	350	358	353	-43.75	8	11684	356	348	349	354	352	-45.35
9	11678	353	348	352	347	350	-46.15	10	11679	353	352	350	348	351	-44.30
11	11640	351	354	348	356	352	-43.50	12	11650	353	348	356	356	353	-43.60
13	11669	348	346	359	353	351	-43.55	14	11692	359	355	353	351	355	-43.05
15	11674	357	351	350	351	352	-43.80	16	11665	347	352	355	357	353	-42.55
17	11676	354	351	350	346	350	-46.45	18	11685	343	349	350	346	347	-43.25
19	11672	348	352	349	343	348	-44.50	20	11698	343	344	355	348	348	-44.20
21	11679	346	348	352	346	348	-42.00	22	11667	348	353	346	349	349	-44.25
23	11669	352	351	345	349	349	-43.20	24	11645	350	352	344	348	349	-44.65
25	11673	346	343	342	341	343	-44.20	26	11682	344	346	347	345	345	-43.60
27	11675	351	348	342	346	347	-43.10	28	11625	355	342	346	344	347	-43.70
29	11693	354	351	346	345	349	-43.30	30	11666	351	346	350	349	349	-44.40
31	11645	347	345	349	344	346	-42.90	32	11666	346	344	345	344	345	-44.80
33	11681	347	344	344	345	345	-45.30	34	11652	343	347	342	347	345	-43.90
35	11670	346	345	344	344	345	-43.85	36	11782	346	343	342	348	345	-43.10
37	11673	347	349	346	345	347	-45.20	38	11680	345	344	346	348	346	-43.70
39	11666	345	346	348	344	346	-44.70	40	11659	348	346	346	347	347	-44.45
41	11714	343	342	341	348	344	-44.50	42	11685	344	340	346	347	344	-44.25
43	11669	342	342	346	345	344	-42.90	44	11680	342	348	347	343	345	-44.10
45	11669	346	345	346	346	345	-44.75	46	11662	220	343	343	344	313	-44.25
47	11669	347	344	345	344	345	-43.50	48	11670	340	347	342	342	342	-45.80
49	11664	342	341	341	343	342	-44.90	50	11629	334	338	338	337	337	-43.70
51	11596	338	339	342	339	339	-45.05	52	11618	340	338	340	338	339	-43.20
53	11609	342	340	343	340	341	-44.30	54	11634	343	342	344	342	343	-43.90
55	11624	335	338	339	339	338	-44.35	56	11616	345	343	340	343	343	-45.05
57	11617	342	344	343	343	343	-45.90	58	11638	340	343	344	341	342	-44.45
59	11602	339	340	342	344	341	-44.30	60	11605	343	344	344	340	343	-45.20
61	11601	342	342	344	341	342	-44.20	62	-18	342	344	341	341	342	******
63	11624	344	342	343	345	344	-45.75	64	11621	342	341	342	344	342	-46.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	348 DEG C	10	TE-5-7	347 DEG C	11	TE-5-8	347 DEG C
12	TE-28-5	345 DEG C	13	TE-28-6	344 DEG C	14	TE-28-7	342 DEG C
15	TE-28-8	345 DEG C	17	TE-39-6	344 DEG C	19	PE-301	190 KPA
23	TE-44-8	343 DEG C	24	TE-320	368 DEG C	25	TE-321	355 DEG C
26	TE-322	344 DEG C	27	TE-323	340 DEG C	28	TE-324	340 DEG C
29	TE-325	338 DEG C	30	TE-326	338 DEG C	31	TE-327	338 DEG C
41	TE-91-2	344 DEG C	44	TE-92-1	342 DEG C	45	TE-92-2	338 DEG C
46	TE-92-3	334 DEG C	47	TE-92-4	339 DEG C	49	TE-93-2	335 DEG C
50	TE-93-3	335 DEG C	52	TE-94-1	338 DEG C	53	TE-94-2	338 DEG C
54	TE-94-3	337 DEG C	472	EIE-10	2407 A	473	EEE-10	80 V
488	TAV-10	346 DEG C						

TABLE B- 66. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 4 S AFTER POWER-ON

TIME FROM POWER-ON 4.00 SEC. TIME FROM POWER-OFF -44.45 SEC. RECORD NUMBER 135-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11735	368	377	368	367	370	-45.60	2	11739	366	377	371	367	370	-41.65
3	11699	371	370	371	374	372	-42.90	4	11732	368	377	375	368	372	-40.85
5	11750	375	366	367	378	371	-43.50	6	11745	380	367	367	372	372	-42.40
7	11729	371	372	370	378	373	-41.75	8	11734	374	368	369	374	371	-43.35
9	11720	373	367	372	366	369	-44.15	10	11730	373	372	370	368	371	-42.30
11	11683	371	372	367	376	371	-41.50	12	11700	374	368	376	376	374	-41.60
13	11734	367	363	377	372	370	-41.55	14	11749	379	375	374	375	376	-41.05
15	11718	377	370	365	372	371	-41.80	16	11725	366	373	375	378	373	-40.55
17	11713	374	372	369	364	370	-44.45	18	11743	362	370	371	367	367	-41.25
19	11722	367	373	370	361	368	-42.50	20	11735	362	363	374	368	367	-42.20
21	11731	365	367	371	365	367	-40.00	22	11734	368	373	366	370	369	-42.25
23	11724	372	371	365	370	369	-41.20	24	11694	370	371	363	366	368	-42.65
25	11717	366	362	360	359	362	-42.20	26	11742	365	365	367	365	365	-41.60
27	11735	372	368	360	366	366	-41.10	28	11684	375	360	367	362	366	-41.70
29	11730	373	372	367	364	369	-41.30	30	11709	372	366	370	369	369	-42.40
31	11696	367	365	369	362	366	-40.90	32	11727	366	363	364	363	364	-42.80
33	11732	367	363	365	365	365	-43.30	34	11696	362	369	359	367	364	-41.90
35	11714	366	365	362	363	364	-41.85	36	11827	366	363	361	367	364	-41.10
37	11718	366	369	367	365	367	-43.20	38	11732	366	363	366	369	366	-41.70
39	11725	365	365	367	364	365	-42.70	40	11712	368	367	366	367	367	-42.45
41	11766	361	361	360	368	363	-42.50	42	11737	364	361	367	367	365	-42.25
43	11714	361	361	366	365	364	-40.90	44	11744	361	367	367	363	365	-42.10
45	11728	366	366	366	366	366	-42.75	46	11728	216	361	362	364	326	-42.25
47	11722	367	363	365	365	365	-41.50	48	11721	360	367	361	361	362	-43.80
49	11716	361	360	360	364	361	-42.90	50	11673	353	357	356	355	355	-41.70
51	11649	357	359	361	359	359	-43.05	52	11672	360	357	359	357	358	-41.20
53	11661	361	359	363	359	361	-42.30	54	11687	364	361	363	361	362	-41.90
55	11678	353	356	356	356	355	-42.35	56	11668	367	363	358	363	363	-43.05
57	11667	363	364	362	363	363	-43.90	58	11690	359	362	365	361	362	-42.45
59	11647	358	358	362	366	361	-42.30	60	11656	363	365	360	359	362	-43.20
61	11658	361	359	365	360	361	-42.20	62	-25	362	363	359	360	361	******
63	11675	363	361	363	366	363	-43.75	64	11673	361	361	357	364	361	-44.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	366 DEG C	10	TE-5-7	365 DEG C	11	TE-5-8	364 DEG C
12	TE-28-5	363 DEG C	13	TE-28-6	360 DEG C	14	TE-28-7	359 DEG C
15	TE-28-8	361 DEG C	17	TE-39-6	362 DEG C	19	PE-301	190 KPA
23	TE-44-8	360 DEG C	24	TE-320	368 DEG C	25	TE-321	355 DEG C
26	TE-322	345 DEG C	27	TE-323	344 DEG C	28	TE-324	344 DEG C
29	TE-325	342 DEG C	30	TE-326	342 DEG C	31	TE-327	342 DEG C
41	TE-91-2	344 DEG C	44	TE-92-1	344 DEG C	45	TE-92-2	341 DEG C
46	TE-92-3	336 DEG C	47	TE-92-4	340 DEG C	49	TE-93-2	338 DEG C
50	TE-93-3	336 DEG C	52	TE-94-1	339 DEG C	53	TE-94-2	339 DEG C
54	TE-94-3	338 DEG C	472	EIE-10	2422 A	473	EEE-10	81 V
488	TAV-10	366 DEG C						

TABLE B- 67. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 6 S AFTER POWER-ON

TIME FROM POWER-ON 6.00 SEC. TIME FROM POWER-OFF -42.45 SEC. RECORD NUMBER 155-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11784	388	398	389	387	390	-43.60	2	11782	386	397	391	386	390	-39.65
3	11756	391	390	392	394	392	-40.90	4	11782	388	398	396	388	393	-38.85
5	11800	395	387	387	398	392	-41.50	6	11802	400	387	388	392	392	-40.40
7	11787	391	393	391	399	394	-39.75	8	11792	395	389	390	394	392	-41.35
9	11763	393	387	392	387	390	-42.15	10	11781	393	392	391	389	391	-40.30
11	11740	391	391	387	397	392	-39.50	12	11756	395	390	397	397	394	-39.60
13	11771	387	384	397	393	390	-39.55	14	11792	401	396	395	393	396	-39.05
15	11761	397	391	385	392	391	-39.80	16	11785	387	394	396	399	394	-38.55
17	11766	395	392	390	384	390	-42.45	18	11794	384	391	392	388	389	-39.25
19	11772	388	393	391	382	388	-40.50	20	11780	384	384	395	389	388	-40.20
21	11783	385	388	392	386	388	-38.00	22	11787	389	394	386	390	390	-40.25
23	11771	393	391	386	391	390	-39.20	24	11743	391	391	384	386	388	-40.65
25	11812	386	383	380	379	382	-40.20	26	11795	385	386	388	386	386	-39.60
27	11788	393	389	380	387	387	-39.10	28	11729	397	381	387	383	387	-39.70
29	11782	394	393	388	385	390	-39.30	30	11753	393	386	390	390	390	-40.40
31	11747	388	387	390	383	387	-38.90	32	11764	385	384	384	384	384	-40.80
33	11791	388	384	385	385	386	-41.30	34	11756	383	389	377	388	384	-39.90
35	11765	387	384	383	394	384	-39.85	36	11879	387	383	382	388	385	-39.10
37	11770	387	390	387	385	387	-41.20	38	11770	387	384	387	389	387	-39.70
39	11776	386	386	388	384	386	-40.70	40	11764	389	388	387	388	388	-40.45
41	11819	381	382	380	389	383	-40.50	42	11795	385	381	387	387	385	-40.25
43	11766	383	382	386	386	384	-38.90	44	11787	381	388	389	384	386	-40.10
45	11772	386	387	386	386	387	-40.75	46	11772	213	382	383	385	341	-40.25
47	11774	387	384	386	386	386	-39.50	48	11780	380	387	381	381	383	-41.80
49	11768	381	380	380	384	381	-40.90	50	11725	373	379	377	376	376	-39.70
51	11694	378	379	382	379	379	-41.05	52	11734	382	378	380	379	380	-39.20
53	11706	381	379	383	380	381	-40.30	54	11739	385	381	385	381	383	-39.90
55	11732	374	376	376	376	376	-40.35	56	11713	387	384	378	384	383	-41.05
57	11717	383	385	383	384	384	-41.90	58	11743	380	383	385	381	382	-40.45
59	11708	379	378	384	385	382	-40.30	60	11707	383	385	381	379	382	-41.20
61	11707	382	380	385	380	382	-40.20	62	-18	382	382	380	380	381	******
63	11726	384	382	383	386	384	-41.75	64	11724	381	381	373	385	380	-42.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	385 DEG C	10	TE-5-7	384 DEG C	11	TE-5-8	382 DEG C	
12	TE-28-5	383 DEG C	13	TE-28-6	380 DEG C	14	TE-28-7	381 DEG C	
15	TE-28-8	380 DEG C	17	TE-39-6	381 DEG C	19	PE-301	190 KPA	
23	TE-44-8	380 DEG C	24	TE-320	368 DEG C	25	TE-321	356 DEG C	
26	TE-322	345 DEG C	27	TE-323	351 DEG C	28	TE-324	351 DEG C	
29	TE-325	349 DEG C	30	TE-326	350 DEG C	31	TE-327	349 DEG C	
41	TE-91-2	349 DEG C	44	TE-92-1	351 DEG C	45	TE-92-2	344 DEG C	
46	TE-92-3	338 DEG C	47	TE-92-4	343 DEG C	49	TE-93-2	341 DEG C	
50	TE-93-3	338 DEG C	52	TE-94-1	342 DEG C	53	TE-94-2	342 DEG C	
54	TE-94-3	340 DEG C	472	EIE-10	2427 A	473	EEE-10	81 V	
488	TAV-10	387 DEG C							

TABLE B- 68. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 8 S AFTER POWER-ON

TIME FROM POWER-ON 8.00 SEC. TIME FROM POWER-OFF -40.45 SEC. RECORD NUMBER 175-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11833	408	419	409	406	411	-41.60	2	11824	407	419	412	408	411	-37.65
3	11811	411	410	413	415	412	-38.90	4	11833	409	419	417	409	413	-36.85
5	11841	415	408	408	419	413	-39.50	6	11866	421	408	409	413	412	-38.40
7	11823	413	414	412	421	415	-37.75	8	11820	415	410	411	415	413	-39.35
9	11797	414	407	413	408	410	-40.15	10	11831	415	413	412	409	412	-38.30
11	11782	413	411	409	418	413	-37.60	12	11791	416	411	418	419	416	-37.60
13	11814	407	404	418	414	411	-37.55	14	11834	422	417	416	414	417	-37.05
15	11812	418	411	405	413	412	-37.80	16	11829	409	415	417	420	415	-36.55
17	11802	415	412	411	405	411	-40.45	18	11844	405	412	413	409	410	-37.25
19	11821	409	414	411	402	409	-38.50	20	11831	404	404	415	410	409	-38.20
21	11834	407	409	413	407	409	-36.00	22	11831	411	415	407	411	411	-38.25
23	11809	414	412	407	412	411	-37.20	24	11791	411	411	404	407	408	-38.65
25	11804	407	403	402	400	403	-38.20	26	11839	406	407	409	406	407	-37.60
27	11825	414	411	401	409	409	-37.10	28	11780	417	402	409	403	408	-37.70
29	11833	415	414	409	406	411	-37.30	30	11796	413	408	409	411	410	-38.40
31	11791	408	408	411	404	408	-36.90	32	11817	407	404	405	404	405	-38.80
33	11827	409	404	406	407	407	-39.30	34	11785	404	411	396	410	405	-37.90
35	11808	408	406	404	405	406	-37.85	36	11924	408	403	403	409	406	-37.10
37	11806	407	410	407	406	408	-39.20	38	11829	408	405	407	411	408	-37.70
39	11819	407	406	408	405	406	-38.70	40	11809	410	409	408	409	409	-38.45
41	11863	402	403	401	409	404	-38.50	42	11839	406	402	409	408	406	-38.25
43	11818	404	403	407	408	405	-36.90	44	11823	402	410	409	405	407	-38.10
45	11802	407	408	408	406	407	-38.75	46	11823	211	402	404	406	356	-38.25
47	11818	409	405	407	407	407	-37.50	48	11824	402	408	401	402	403	-39.80
49	11812	401	402	400	405	402	-38.90	50	11775	393	399	398	396	397	-37.70
51	11740	400	400	403	399	400	-39.05	52	11779	403	399	402	402	401	-37.20
53	11765	401	400	403	401	401	-38.30	54	11783	406	403	406	402	404	-37.90
55	11778	395	397	397	397	396	-38.35	56	11758	407	405	399	403	404	-39.05
57	11767	404	406	403	404	404	-39.90	58	11794	402	403	407	403	404	-38.45
59	11745	399	399	403	407	402	-38.30	60	11758	403	407	402	400	403	-39.20
61	11750	404	400	406	402	403	-38.20	62	-18	403	402	400	402	402	******
63	11776	404	403	403	408	405	-39.75	64	11768	402	401	391	406	400	-40.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	404 DEG C	10	TE-5-7	405 DEG C	11	TE-5-8	400 DEG C
12	TE-28-5	403 DEG C	13	TE-28-6	399 DEG C	14	TE-28-7	400 DEG C
15	TE-28-8	400 DEG C	17	TE-39-6	401 DEG C	19	PE-301	191 KPA
23	TE-44-8	400 DEG C	24	TE-320	368 DEG C	25	TE-321	356 DEG C
26	TE-322	345 DEG C	27	TE-323	362 DEG C	28	TE-324	361 DEG C
29	TE-325	358 DEG C	30	TE-326	359 DEG C	31	TE-327	358 DEG C
41	TE-91-2	354 DEG C	44	TE-92-1	362 DEG C	45	TE-92-2	349 DEG C
46	TE-92-3	341 DEG C	47	TE-92-4	345 DEG C	49	TE-93-2	347 DEG C
50	TE-93-3	340 DEG C	52	TE-94-1	346 DEG C	53	TE-94-2	347 DEG C
54	TE-94-3	343 DEG C	472	EIE-10	2430 A	473	EEE-10	81 V
488	TAV-10	408 DEG C						

TABLE B- 69. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 10 S AFTER POWER-ON

TIME FROM POWER-ON 10.00 SEC. TIME FROM POWER-OFF -38.45 SEC. RECORD NUMBER 195-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11868	428	439	430	425	430	-39.60	2	11867	428	439	432	428	432	-35.65
3	11847	432	430	433	435	432	-36.90	4	11869	430	440	437	429	434	-34.85
5	11884	434	429	428	440	433	-37.50	6	11923	441	429	429	433	433	-36.40
7	11867	433	434	433	442	436	-35.75	8	11864	436	431	431	435	433	-37.35
9	11840	435	427	433	429	431	-38.15	10	11868	435	433	433	430	433	-36.30
11	11825	434	430	430	439	433	-35.50	12	11855	437	432	439	439	437	-35.60
13	11858	428	426	439	435	432	-35.55	14	11877	443	438	438	436	439	-35.05
15	11849	438	431	426	433	432	-35.80	16	11882	430	436	438	441	436	-34.55
17	11855	436	433	431	426	431	-38.45	18	11888	427	433	434	431	431	-35.25
19	11865	430	435	432	422	430	-36.50	20	11861	426	425	436	431	429	-36.20
21	11879	428	431	434	429	431	-34.00	22	11876	432	435	428	432	432	-36.25
23	11856	434	433	428	433	432	-35.20	24	11841	431	430	426	427	428	-36.65
25	11848	427	425	422	421	424	-36.20	26	11884	426	428	429	427	427	-35.60
27	11879	435	432	423	430	430	-35.10	28	11825	439	423	429	424	429	-35.70
29	11871	436	435	430	427	432	-35.30	30	11833	434	427	429	431	430	-36.40
31	11835	428	429	432	425	429	-34.90	32	11863	426	425	425	425	425	-36.80
33	11871	429	425	427	427	427	-37.30	34	11838	424	431	415	430	425	-35.90
35	11859	428	427	425	426	427	-35.85	36	11969	429	425	424	429	427	-35.10
37	11851	428	431	428	427	428	-37.20	38	11859	429	426	428	432	429	-35.70
39	11871	427	427	427	426	427	-36.70	40	11854	431	430	428	429	430	-36.45
41	11908	421	423	422	431	424	-36.50	42	11890	427	423	429	429	427	-36.25
43	11863	425	424	427	428	426	-34.90	44	11880	422	431	431	426	427	-36.10
45	11861	428	429	427	427	428	-36.75	46	11874	209	423	425	427	371	-36.25
47	11856	429	426	427	427	427	-35.50	48	11876	421	427	422	422	423	-37.80
49	11857	422	421	421	425	422	-36.90	50	11820	414	421	418	418	418	-35.70
51	11786	420	420	423	419	421	-37.05	52	11826	425	420	423	421	423	-35.20
53	11795	421	420	423	422	422	-36.30	54	11835	427	423	426	423	425	-35.90
55	11825	415	417	417	417	417	-36.35	56	11803	427	426	420	424	424	-37.05
57	11811	425	427	422	425	425	-37.90	58	11840	422	424	427	423	424	-36.45
59	11799	421	419	425	427	423	-36.30	60	11802	423	427	422	421	424	-37.20
61	11800	425	421	426	422	423	-36.20	62	-18	424	421	421	422	422	******
63	11820	425	423	424	428	425	-37.75	64	11812	422	422	408	427	420	-38.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	424 DEG C	10	TE-5-7	424 DEG C	11	TE-5-8	421 DEG C
12	TE-28-5	422 DEG C	13	TE-28-6	420 DEG C	14	TE-28-7	420 DEG C
15	TE-28-8	420 DEG C	17	TE-39-6	421 DEG C	19	PE-301	190 KPA
23	TE-44-8	421 DEG C	24	TE-320	368 DEG C	25	TE-321	356 DEG C
26	TE-322	345 DEG C	27	TE-323	375 DEG C	28	TE-324	372 DEG C
29	TE-325	370 DEG C	30	TE-326	371 DEG C	31	TE-327	368 DEG C
41	TE-91-2	364 DEG C	44	TE-92-1	378 DEG C	45	TE-92-2	356 DEG C
46	TE-92-3	345 DEG C	47	TE-92-4	348 DEG C	49	TE-93-2	352 DEG C
50	TE-93-3	344 DEG C	52	TE-94-1	352 DEG C	53	TE-94-2	355 DEG C
54	TE-94-3	345 DEG C	472	EIE-10	2427 A	473	EEE-10	81 V
488	TAV-10	429 DEG C						

TABLE B- 70. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 12 S AFTER POWER-ON

TIME FROM POWER-ON 12.00 SEC. TIME FROM POWER-OFF -36.45 SEC. RECORD NUMBER 215-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11903	448	458	450	444	450	-37.60	2	11916	449	459	453	448	452	-33.65
3	11882	451	450	453	455	452	-34.90	4	11920	450	460	458	450	454	-32.85
5	11904	453	449	449	460	453	-35.50	6	11973	461	450	450	454	453	-34.40
7	11910	454	455	453	462	456	-33.75	8	11907	456	452	451	456	454	-35.35
9	11875	455	446	453	450	451	-36.15	10	11919	456	455	453	450	453	-34.30
11	11875	455	450	450	459	454	-33.50	12	11883	458	453	460	460	458	-33.60
13	11901	447	446	459	455	452	-33.55	14	11920	463	459	458	456	459	-33.05
15	11892	457	451	446	454	452	-33.80	16	11926	451	456	458	461	457	-32.55
17	11884	456	452	451	446	451	-36.45	18	11924	448	454	455	452	452	-33.25
19	11907	450	456	453	442	450	-34.50	20	11890	446	446	456	451	450	-34.20
21	11924	449	451	456	450	452	-32.00	22	11913	453	456	449	453	453	-34.25
23	11903	456	454	449	453	453	-33.20	24	11882	451	450	445	448	449	-34.65
25	11899	448	445	443	441	444	-34.20	26	11929	446	449	450	448	448	-33.60
27	11923	456	453	445	451	451	-33.10	28	11869	459	444	450	444	449	-33.70
29	11922	456	456	449	449	453	-33.30	30	11876	454	449	449	451	451	-34.40
31	11878	447	449	452	446	449	-32.90	32	11908	447	446	445	446	446	-34.80
33	11922	450	445	447	448	447	-35.30	34	11875	444	452	435	451	445	-33.90
35	11909	449	448	445	447	447	-33.85	36	12013	450	446	444	450	447	-33.10
37	11888	448	451	449	448	449	-35.20	38	11904	450	447	449	453	450	-33.70
39	11921	447	448	446	446	447	-34.70	40	11892	450	451	449	450	450	-34.45
41	11953	442	443	443	451	445	-34.50	42	11919	448	443	450	450	447	-34.25
43	11900	446	445	446	449	447	-32.90	44	11916	443	452	451	446	448	-34.10
45	11891	448	449	449	446	448	-34.75	46	11903	207	444	445	447	386	-34.25
47	11893	450	447	449	448	448	-33.50	48	11906	442	448	442	443	444	-35.80
49	11901	442	441	441	445	442	-34.90	50	11856	434	441	439	438	438	-33.70
51	11831	440	441	444	440	441	-35.05	52	11864	445	441	444	443	443	-33.20
53	11840	442	441	443	443	442	-34.30	54	11872	447	444	446	444	445	-33.90
55	11864	436	438	437	438	437	-34.35	56	11847	447	446	440	444	444	-35.05
57	11853	446	447	441	445	445	-35.90	58	11884	443	444	448	444	445	-34.45
59	11836	441	439	445	447	443	-34.30	60	11845	444	449	443	441	444	-35.20
61	11835	445	441	446	444	444	-34.20	62	-18	445	440	441	442	442	******
63	11863	445	443	444	448	445	-35.75	64	11856	443	442	425	447	439	-36.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	443 DEG C	10	TE-5-7	445 DEG C	11	TE-5-8	439 DEG C	
12	TE-28-5	443 DEG C	13	TE-28-6	440 DEG C	14	TE-28-7	440 DEG C	
15	TE-28-8	442 DEG C	17	TE-39-6	442 DEG C	19	PE-301	191 KPA	
23	TE-44-8	441 DEG C	24	TE-320	368 DEG C	25	TE-321	356 DEG C	
26	TE-322	345 DEG C	27	TE-323	390 DEG C	28	TE-324	386 DEG C	
29	TE-325	384 DEG C	30	TE-326	384 DEG C	31	TE-327	380 DEG C	
41	TE-91-2	377 DEG C	44	TE-92-1	408 DEG C	45	TE-92-2	363 DEG C	
46	TE-92-3	351 DEG C	47	TE-92-4	352 DEG C	49	TE-93-2	358 DEG C	
50	TE-93-3	348 DEG C	52	TE-94-1	358 DEG C	53	TE-94-2	364 DEG C	
54	TE-94-3	349 DEG C	472	EIE-10	2430 A	473	EEE-10	81 V	
488	TAV-10	450 DEG C							

TABLE B- 71. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 14 S AFTER POWER-ON

TIME FROM POWER-ON 14.00 SEC. TIME FROM POWER-OFF -34.15 SEC. RECORD NUMBER 235-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11952	467	478	470	462	469	-35.60	2	11951	468	479	473	468	472	-31.65
3	11924	471	469	473	474	472	-32.90	4	11949	470	480	478	469	474	-30.85
5	11954	472	469	469	480	472	-33.50	6	12022	480	470	471	473	474	-32.40
7	11939	474	475	473	483	476	-31.75	8	11943	477	472	472	475	474	-33.35
9	11917	475	465	473	470	471	-34.15	10	11955	476	474	473	470	473	-32.30
11	11911	475	469	471	480	474	-31.50	12	11925	478	474	481	481	478	-31.60
13	11937	466	467	479	475	472	-31.55	14	11948	483	479	478	478	480	-31.05
15	11928	478	471	466	473	472	-31.80	16	11964	472	477	479	481	477	-30.55
17	11921	476	472	470	466	471	-34.45	18	11967	469	474	475	473	473	-31.25
19	11943	471	476	473	462	470	-32.50	20	11927	467	467	477	472	470	-32.20
21	11961	470	472	477	471	472	-30.00	22	11936	473	476	470	473	473	-32.25
23	11942	476	474	470	474	473	-31.20	24	11910	471	469	465	467	468	-32.65
25	11942	468	465	463	461	464	-32.20	26	11966	466	469	470	468	468	-31.60
27	11961	476	473	466	472	472	-31.10	28	11913	480	464	471	464	470	-31.70
29	11966	477	476	470	470	473	-31.30	30	11913	474	469	467	472	471	-32.40
31	11914	467	470	473	467	470	-30.90	32	11946	467	467	465	467	466	-32.80
33	11951	469	467	467	469	468	-33.30	34	11919	465	472	453	472	466	-31.90
35	11946	469	468	466	467	468	-31.85	36	12058	470	467	465	470	468	-31.10
37	11918	468	471	469	468	469	-33.20	38	11956	470	467	470	473	470	-31.70
39	11965	467	468	466	467	467	-32.70	40	11937	471	472	469	469	470	-32.45
41	11975	462	464	463	471	465	-32.50	42	11970	468	463	470	470	468	-32.25
43	11938	467	466	466	470	467	-30.90	44	11951	463	473	473	467	469	-32.10
45	11920	468	469	469	465	468	-32.75	46	11954	206	464	465	468	401	-32.25
47	11931	470	467	469	468	469	-31.50	48	11950	462	468	462	464	464	-33.80
49	11946	462	461	460	466	462	-32.90	50	11892	455	462	459	459	459	-31.70
51	11869	461	461	464	460	461	-33.05	52	11902	466	462	465	463	464	-31.20
53	11877	461	461	463	463	462	-32.30	54	11917	467	464	467	463	465	-31.90
55	11902	456	459	457	459	458	-32.35	56	11885	467	467	460	463	464	-33.05
57	11889	466	467	459	465	464	-33.90	58	11929	464	465	468	465	466	-32.45
59	11874	461	460	465	467	463	-32.30	60	11882	462	468	463	462	464	-33.20
61	11877	466	462	467	464	465	-32.20	62	-10	465	459	462	462	462	******
63	11906	466	463	464	468	465	-33.75	64	11893	463	463	443	467	459	-34.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	463 DEG C	10	TE-5-7	465 DEG C	11	TE-5-8	458 DEG C	
12	TE-28-5	463 DEG C	13	TE-28-6	459 DEG C	14	TE-28-7	461 DEG C	
15	TE-28-8	460 DEG C	17	TE-39-6	463 DEG C	19	PE-301	191 KPA	
23	TE-44-8	461 DEG C	24	TE-320	368 DEG C	25	TE-321	356 DEG C	
26	TE-322	346 DEG C	27	TE-323	406 DEG C	28	TE-324	401 DEG C	
29	TE-325	399 DEG C	30	TE-326	398 DEG C	31	TE-327	393 DEG C	
41	TE-91-2	389 DEG C	44	TE-92-1	421 DEG C	45	TE-92-2	371 DEG C	
46	TE-92-3	357 DEG C	47	TE-92-4	357 DEG C	49	TE-93-2	365 DEG C	
50	TE-93-3	353 DEG C	52	TE-94-1	366 DEG C	53	TE-94-2	375 DEG C	
54	TE-94-3	353 DEG C	472	EIE-10	2427 A	473	EEE-10	82 V	
488	TAV-10	470 DEG C							

[redacted] L 5 [redacted]

TABLE B- 72. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 16 S AFTER POWER-ON

TIME FROM POWER-ON 16.00 SEC. TIME FROM POWER-OFF -32.45 SEC. RECORD NUMBER 255-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11973	486	497	489	479	488	-33.60	2	11994	488	499	493	488	492	-29.65
3	11960	491	489	492	494	491	-30.90	4	11978	490	499	498	489	494	-28.85
5	11982	491	489	489	499	492	-31.50	6	12080	499	490	490	493	493	-30.40
7	11983	494	495	493	502	496	-29.75	8	11979	496	492	491	494	493	-31.35
9	11945	494	484	493	490	490	-32.15	10	11992	495	494	494	490	493	-30.30
11	11947	495	487	491	499	493	-29.50	12	11961	499	494	501	501	499	-29.60
13	11967	485	487	499	495	491	-29.55	14	11991	504	499	499	497	500	-29.05
15	11965	497	491	485	493	492	-29.80	16	12002	492	497	499	501	497	-28.55
17	11959	486	491	489	486	490	-32.45	18	12004	489	494	495	494	493	-29.25
19	11979	490	496	493	480	490	-30.50	20	11972	487	487	496	491	490	-30.20
21	12006	490	493	497	491	493	-28.00	22	11974	493	496	490	494	493	-30.25
23	11966	495	494	490	494	493	-29.20	24	11953	490	486	486	488	487	-30.65
25	11964	487	485	483	481	484	-30.20	26	12004	485	489	489	488	488	-29.60
27	11999	497	494	487	492	492	-29.10	28	11943	499	484	491	484	490	-29.70
29	11996	497	496	489	491	493	-29.30	30	11950	494	489	486	492	490	-30.40
31	11959	487	490	493	488	489	-28.90	32	11984	487	486	484	486	486	-30.80
33	11988	489	486	486	488	487	-31.30	34	11949	485	491	472	492	485	-29.90
35	11990	489	489	486	488	488	-29.85	36	12088	490	487	485	490	488	-29.10
37	11955	488	491	489	488	489	-31.20	38	11994	491	487	489	493	490	-29.70
39	12002	487	488	484	486	486	-30.70	40	11967	491	492	489	490	491	-30.45
41	12006	482	483	483	490	485	-30.50	42	11993	488	483	490	490	488	-30.25
43	11975	487	487	484	490	487	-28.90	44	11987	483	492	493	487	489	-30.10
45	11965	489	489	489	484	488	-30.75	46	11984	206	484	485	488	416	-30.25
47	11968	490	488	489	489	489	-29.50	48	11987	482	488	482	483	484	-31.80
49	11983	482	480	480	485	482	-30.90	50	11937	475	481	479	479	479	-29.70
51	11907	480	480	484	480	481	-31.05	52	11941	487	483	485	484	485	-29.20
53	11907	480	481	483	483	482	-30.30	54	11947	487	484	486	484	485	-29.90
55	11949	476	478	477	478	477	-30.35	56	11922	488	486	480	483	484	-31.05
57	11925	485	487	477	484	483	-31.90	58	11966	484	485	489	484	486	-30.45
59	11912	481	479	484	487	483	-30.30	60	11926	482	488	481	482	483	-31.20
61	11913	485	481	487	484	484	-30.20	62	-10	485	477	482	483	482	******
63	11943	485	483	484	489	485	-31.75	64	11930	483	482	460	486	478	-32.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	482 DEG C	10	TE-5-7	484 DEG C	11	TE-5-8	477 DEG C
12	TE-28-5	483 DEG C	13	TE-28-6	479 DEG C	14	TE-28-7	480 DEG C
15	TE-28-8	480 DEG C	17	TE-39-6	482 DEG C	19	PE-301	190 KPA
23	TE-44-8	481 DEG C	24	TE-320	368 DEG C	25	TE-321	356 DEG C
26	TE-322	346 DEG C	27	TE-323	422 DEG C	28	TE-324	417 DEG C
29	TE-325	415 DEG C	30	TE-326	413 DEG C	31	TE-327	407 DEG C
41	TE-91-2	401 DEG C	44	TE-92-1	436 DEG C	45	TE-92-2	378 DEG C
46	TE-92-3	363 DEG C	47	TE-92-4	363 DEG C	49	TE-93-2	371 DEG C
50	TE-93-3	359 DEG C	52	TE-94-1	376 DEG C	53	TE-94-2	388 DEG C
54	TE-94-3	359 DEG C	472	EIE-10	2425 A	473	EEE-10	81 V
488	TAV-10	491 DEG C						

TABLE B- 73. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 18 S AFTER POWER-ON

TIME FROM POWER-ON 18.00 SEC. TIME FROM POWER-OFF -30.45 SEC. RECORD NUMBER 275-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12008	505	516	508	497	507	-31.60	2	12022	507	518	512	507	511	-27.65
3	11994	511	508	511	513	511	-28.90	4	12014	509	518	517	507	513	-26.85
5	12017	509	507	508	518	511	-29.50	6	12122	518	509	510	512	512	-28.40
7	12011	513	515	512	522	515	-27.75	8	12015	515	511	510	514	513	-29.35
9	11973	513	503	512	510	509	-30.15	10	12028	515	514	513	509	513	-28.30
11	11982	515	506	511	519	513	-27.50	12	11995	519	515	521	520	519	-27.60
13	12010	504	507	518	514	511	-27.55	14	12033	524	519	519	517	520	-27.05
15	12001	515	510	505	512	511	-27.80	16	12039	511	516	519	520	517	-26.55
17	11988	515	510	508	505	509	-30.45	18	12039	509	514	515	514	513	-27.25
19	12015	510	515	513	499	509	-28.50	20	11994	506	507	515	511	510	-28.20
21	12035	510	512	517	511	513	-26.00	22	12018	513	515	510	513	513	-28.25
23	12004	515	513	510	513	513	-27.20	24	11987	509	504	505	507	506	-28.65
25	12008	507	505	502	500	504	-28.20	26	12034	503	509	509	508	507	-27.60
27	12036	518	514	507	513	513	-27.10	28	11987	519	504	511	504	509	-27.70
29	12033	516	516	509	511	513	-27.30	30	11978	514	508	504	511	509	-28.40
31	11987	505	510	513	508	509	-26.90	32	12014	505	506	503	506	505	-28.80
33	12024	508	505	505	507	506	-29.30	34	11986	504	511	490	512	504	-27.90
35	12018	509	508	505	508	508	-27.85	36	12125	509	507	505	509	508	-27.10
37	11992	508	510	509	508	509	-29.20	38	12031	510	507	509	513	510	-27.70
39	12023	506	507	503	505	505	-28.70	40	12012	510	511	509	509	510	-28.45
41	12058	501	503	503	509	504	-28.50	42	12036	508	503	509	509	507	-28.25
43	12012	507	507	503	509	506	-26.90	44	12030	503	512	513	507	509	-28.10
45	12002	508	509	509	503	507	-28.75	46	12013	207	504	504	507	430	-28.25
47	12005	509	508	509	508	508	-27.50	48	12024	501	508	501	503	503	-29.80
49	12013	501	499	499	505	501	-28.90	50	11965	494	502	499	499	498	-27.70
51	11937	500	500	504	499	501	-29.05	52	11979	507	503	505	504	505	-27.20
53	11944	499	500	502	503	501	-28.30	54	11984	507	504	506	504	505	-27.90
55	11980	496	498	496	498	497	-28.35	56	11959	508	506	499	502	504	-29.05
57	11961	504	506	495	504	502	-29.90	58	12003	504	505	508	504	505	-28.45
59	11942	500	498	504	506	502	-28.30	60	11955	500	508	497	501	501	-29.20
61	11948	504	501	506	504	504	-28.20	62	-10	504	495	501	501	500	******
63	11971	505	502	503	508	505	-29.75	64	11966	502	501	477	506	496	-30.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	501 DEG C	10	TE-5-7	502 DEG C	11	TE-5-8	496 DEG C	
12	TE-28-5	501 DEG C	13	TE-28-6	498 DEG C	14	TE-28-7	499 DEG C	
15	TE-28-8	499 DEG C	17	TE-39-6	502 DEG C	19	PE-301	191 KPA	
23	TE-44-8	501 DEG C	24	TE-320	368 DEG C	25	TE-321	356 DEG C	
26	TE-322	346 DEG C	27	TE-323	439 DEG C	28	TE-324	433 DEG C	
29	TE-325	432 DEG C	30	TE-326	427 DEG C	31	TE-327	420 DEG C	
41	TE-91-2	414 DEG C	44	TE-92-1	449 DEG C	45	TE-92-2	385 DEG C	
46	TE-92-3	371 DEG C	47	TE-92-4	368 DEG C	49	TE-93-2	376 DEG C	
50	TE-93-3	366 DEG C	52	TE-94-1	385 DEG C	53	TE-94-2	402 DEG C	
54	TE-94-3	364 DEG C	472	EIE-10	2422 A	473	EEE-10	81 V	
488	TAV-10	511 DEG C							

[redacted] N 5 [redacted]

TABLE B- 74. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 20 S AFTER POWER-ON

TIME FROM POWER-ON 20.00 SEC. TIME FROM POWER-OFF -28.45 SEC. RECORD NUMBER 295-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12051	524	535	527	515	525	-29.60	2	12044	526	537	531	527	530	-25.65
3	12023	530	526	530	531	529	-26.90	4	12050	529	537	536	525	532	-24.85
5	12052	527	526	526	537	529	-27.50	6	12165	537	528	530	531	532	-26.40
7	12040	532	534	531	541	535	-25.75	8	12051	535	530	528	533	532	-27.35
9	12009	532	522	531	529	528	-28.15	10	12057	534	534	533	528	532	-26.30
11	12011	534	524	531	539	532	-25.50	12	12095	538	535	541	540	538	-25.60
13	12039	522	526	537	534	530	-25.55	14	12048	543	538	538	536	539	-25.05
15	12031	535	530	523	531	530	-25.80	16	12077	531	536	538	539	536	-24.55
17	12018	534	529	527	525	529	-28.45	18	12076	530	534	535	534	533	-25.25
19	12051	530	535	532	517	528	-26.50	20	12038	525	526	535	530	529	-26.20
21	12065	530	532	537	531	532	-24.00	22	12064	532	535	530	532	532	-26.25
23	12036	535	533	530	533	532	-25.20	24	12015	528	521	525	526	525	-26.65
25	12030	525	524	521	520	523	-26.20	26	12071	521	528	529	527	526	-25.60
27	12067	537	534	526	533	533	-25.10	28	12017	538	524	531	523	529	-25.70
29	12063	536	534	529	531	532	-25.30	30	12008	533	528	522	530	528	-26.40
31	12017	523	531	532	528	528	-24.90	32	12052	525	525	521	525	524	-26.80
33	12047	527	524	524	526	525	-27.30	34	12016	524	531	507	532	523	-25.90
35	12040	529	528	525	527	527	-25.85	36	12163	530	526	525	529	527	-25.10
37	12015	527	529	528	528	528	-27.20	38	12061	529	527	528	533	529	-25.70
39	12067	525	526	521	525	524	-26.70	40	12042	530	530	528	528	529	-26.45
41	12091	520	521	521	529	523	-26.50	42	12066	527	521	529	528	526	-26.25
43	12050	527	526	521	528	526	-24.90	44	12059	522	532	533	527	528	-26.10
45	12017	527	528	528	521	526	-26.75	46	12057	210	523	523	526	445	-26.25
47	12036	529	527	528	528	528	-25.50	48	12061	521	526	521	522	522	-27.80
49	12043	520	519	517	525	520	-26.90	50	12002	514	521	518	518	518	-25.70
51	11968	520	519	524	518	520	-27.05	52	12010	527	522	525	525	525	-25.20
53	11974	517	520	520	522	520	-26.30	54	12022	526	524	525	524	525	-25.90
55	12019	516	517	515	518	516	-26.35	56	11989	527	526	518	521	523	-27.05
57	11997	524	525	513	522	521	-27.90	58	12033	525	523	528	523	525	-26.45
59	11981	520	517	523	526	521	-26.30	60	11991	517	528	517	520	521	-27.20
61	11977	525	520	525	523	523	-26.20	62	-10	524	512	520	520	519	******
63	12008	524	522	522	528	524	-27.75	64	12003	520	520	494	524	515	-28.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	519 DEG C	10	TE-5-7	520 DEG C	11	TE-5-8	515 DEG C	
12	TE-28-5	522 DEG C	13	TE-28-6	518 DEG C	14	TE-28-7	519 DEG C	
15	TE-28-8	518 DEG C	17	TE-39-6	522 DEG C	19	PE-301	190 KPA	
23	TE-44-8	520 DEG C	24	TE-320	368 DEG C	25	TE-321	356 DEG C	
26	TE-322	346 DEG C	27	TE-323	457 DEG C	28	TE-324	450 DEG C	
29	TE-325	450 DEG C	30	TE-326	443 DEG C	31	TE-327	434 DEG C	
41	TE-91-2	427 DEG C	44	TE-92-1	463 DEG C	45	TE-92-2	393 DEG C	
46	TE-92-3	381 DEG C	47	TE-92-4	375 DEG C	49	TE-93-2	382 DEG C	
50	TE-93-3	374 DEG C	52	TE-94-1	397 DEG C	53	TE-94-2	405 DEG C	
54	TE-94-3	372 DEG C	472	EIE-10	2417 A	473	EEE-10	81 V	
488	TAV-10	531 DEG C							

TABLE B- 75. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 22 S AFTER POWER-ON

TIME FROM POWER-ON 22.00 SEC. TIME FROM POWER-OFF -26.45 SEC. RECORD NUMBER 31[illegible]-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12071	541	553	546	531	543	-27.60	2	12079	545	557	551	[illegible]	550	-23.65
3	12051	549	544	548	550	548	-24.90	4	12072	548	556	555	54[illegible]	551	-22.85
5	12080	545	544	545	556	548	-25.50	6	12200	555	547	548	55[illegible]	550	-24.40
7	12083	551	553	550	561	554	-23.75	8	12065	553	550	547	551	550	-25.35
9	12029	551	541	550	548	547	-26.15	10	12086	553	553	552	547	551	-24.30
11	12039	553	543	551	558	551	-23.50	12	12059	558	554	561	560	558	-23.60
13	12068	540	546	556	553	549	-23.55	14	12083	562	558	558	555	558	-23.05
15	12052	554	548	542	551	549	-23.80	16	12114	551	555	558	558	555	-22.55
17	12048	553	549	545	544	547	-26.45	18	12112	550	553	554	554	553	-23.25
19	12086	548	554	552	536	547	-24.50	20	12068	545	546	554	550	549	-24.20
21	12095	550	552	557	551	552	-22.00	22	12086	552	555	549	552	552	-24.25
23	12067	554	552	549	552	552	-23.20	24	12050	547	538	544	546	544	-24.65
25	12066	545	543	540	538	542	-24.20	26	12101	540	548	549	546	546	-23.60
27	12097	558	552	547	552	552	-23.10	28	12053	558	542	550	543	548	-23.70
29	12085	555	554	547	551	552	-23.30	30	12044	552	547	540	550	547	-24.40
31	12046	542	550	552	548	548	-22.90	32	12082	544	545	540	544	543	-24.80
33	12075	546	544	543	546	545	-25.30	34	12053	543	550	527	551	543	-23.90
35	12076	548	548	544	547	547	-23.85	36	12185	550	547	544	548	547	-23.10
37	12044	546	548	548	547	547	-25.20	38	12091	550	546	548	552	549	-23.70
39	12089	544	546	539	545	543	-24.70	40	12079	549	550	547	547	548	-24.45
41	12110	540	540	541	548	542	-24.50	42	12102	547	541	548	548	546	-24.25
43	12065	547	547	539	548	545	-22.90	44	12087	542	551	553	546	548	-24.10
45	12046	547	548	548	539	545	-24.75	46	12086	213	542	542	546	461	-24.25
47	12065	548	547	548	547	548	-23.50	48	12090	539	546	540	541	541	-25.80
49	12079	539	537	536	543	539	-24.90	50	12031	534	540	538	538	538	-23.70
51	11998	539	538	543	537	539	-25.05	52	12041	547	542	545	543	544	-23.20
53	12004	536	538	539	542	539	-24.30	54	12051	546	543	544	543	544	-23.90
55	12042	535	537	534	537	536	-24.35	56	12019	547	545	538	539	542	-25.05
57	12018	543	544	530	541	539	-25.5[illegible]	58	12070	543	543	546	542	544	-24.45
59	12011	539	536	542	545	540	-24.30	60	12020	536	546	536	540	539	-25.20
61	12012	545	540	545	542	543	-24.20	62	-10	542	530	539	540	538	******
63	12044	544	540	541	546	543	-25.75	64	12032	539	539	511	543	533	-26.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	536 DEG C	10	TE-5-7	539 DEG C	11	TE-5-8	53[illegible] DEG C	
12	TE-28-5	541 DEG C	13	TE-28-6	538 DEG C	14	TE-28-7	538 DEG C	
15	TE-28-8	538 DEG C	17	TE-39-6	541 DEG C	19	PE-301	191 KPA	
23	TE-44-8	540 DEG C	24	TE-320	368 DEG C	25	TE-321	357 DEG C	
26	TE-322	346 DEG C	27	TE-323	475 DEG C	28	TE-324	467 DEG C	
29	TE-325	467 DEG C	30	TE-326	457 DEG C	31	TE-327	449 DEG C	
41	TE-91-2	439 DEG C	44	TE-92-1	475 DEG C	45	TE-92-2	400 DEG C	
46	TE-92-3	393 DEG C	47	TE-92-4	383 DEG C	49	TE-93-2	389 DEG C	
50	TE-93-3	383 DEG C	52	TE-94-1	409 DEG C	53	TE-94-2	404 DEG C	
54	TE-94-3	381 DEG C	472	EIE-10	2412 A	473	EEE-10	81 V	
488	TAV-10	550 DEG C							

[illegible] P 5 [illegible]

TABLE B- 76. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 24 S AFTER POWER-ON

TIME FROM POWER-ON 24.00 SEC. TIME FROM POWER-OFF -24.45 SEC. RECORD NUMBER 335-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12100	559	572	564	548	561	-25.60	2	12107	564	575	569	564	568	-21.65
3	12079	569	563	567	569	567	-22.90	4	12101	568	574	574	562	570	-20.85
5	12094	564	562	564	574	566	-23.50	6	12243	574	565	568	569	569	-22.40
7	12106	570	572	569	580	573	-21.75	8	12094	572	569	565	570	569	-23.35
9	12051	569	560	568	567	566	-24.15	10	12116	572	572	572	566	571	-22.30
11	12068	573	560	570	577	570	-21.50	12	12087	578	574	580	579	578	-21.60
13	12104	558	566	575	572	568	-21.55	14	12105	582	577	578	576	578	-21.05
15	12082	573	568	561	570	568	-21.80	16	12129	570	574	577	578	575	-20.55
17	12078	572	566	564	563	566	-24.45	18	12134	569	572	574	574	572	-21.25
19	12108	567	574	571	554	566	-22.50	20	12075	565	565	573	569	568	-22.20
21	12125	570	571	576	570	572	-20.00	22	12101	571	574	569	572	571	-22.25
23	12090	574	572	569	572	571	-21.20	24	12078	565	556	563	565	562	-22.65
25	12095	563	563	559	557	560	-22.20	26	12124	558	567	568	566	565	-21.60
27	12120	577	572	566	573	572	-21.10	28	12076	578	562	570	562	568	-21.70
29	12115	574	574	566	570	571	-21.30	30	12059	571	567	558	569	566	-22.40
31	12082	560	570	571	566	567	-20.90	32	12105	563	564	558	563	562	-22.80
33	12098	565	563	562	565	564	-23.30	34	12068	562	569	545	571	561	-21.90
35	12106	568	567	563	567	566	-21.85	36	12215	569	566	563	568	566	-21.10
37	12067	565	567	566	566	566	-23.20	38	12114	569	566	567	571	568	-21.70
39	12133	563	565	557	564	562	-22.70	40	12102	569	569	567	566	568	-22.45
41	12125	558	559	560	567	561	-22.50	42	12117	566	560	568	567	565	-22.25
43	12095	567	566	558	568	564	-20.90	44	12109	561	570	573	565	567	-22.10
45	12076	566	567	568	557	564	-22.75	46	12109	217	562	561	566	476	-22.25
47	12088	568	566	567	567	567	-21.50	48	12112	558	565	558	561	560	-23.80
49	12102	558	556	554	562	558	-22.90	50	12054	553	560	557	557	557	-21.70
51	12028	558	557	562	556	558	-23.05	52	12072	566	562	565	563	564	-21.20
53	12026	554	558	558	561	558	-22.30	54	12081	565	562	563	563	563	-21.90
55	12073	553	556	553	557	555	-22.35	56	12049	566	564	557	558	561	-23.05
57	12048	561	562	548	559	557	-23.90	58	12093	563	562	565	562	563	-22.45
59	12034	558	554	561	563	559	-22.30	60	12050	553	565	556	558	558	-23.20
61	12041	564	558	564	561	562	-22.20	62	-10	561	548	558	558	556	******
63	12066	563	559	559	565	562	-23.75	64	12055	558	558	528	562	551	-24.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	555 DEG C	10	TE-5-7	558 DEG C	11	TE-5-8	552 DEG C
12	TE-28-5	561 DEG C	13	TE-28-6	557 DEG C	14	TE-28-7	558 DEG C
15	TE-28-8	557 DEG C	17	TE-39-6	561 DEG C	19	PE-301	190 KPA
23	TE-44-8	559 DEG C	24	TE-320	368 DEG C	25	TE-321	357 DEG C
26	TE-322	347 DEG C	27	TE-323	493 DEG C	28	TE-324	484 DEG C
29	TE-325	485 DEG C	30	TE-326	473 DEG C	31	TE-327	463 DEG C
41	TE-91-2	449 DEG C	44	TE-92-1	487 DEG C	45	TE-92-2	408 DEG C
46	TE-92-3	409 DEG C	47	TE-92-4	390 DEG C	49	TE-93-2	396 DEG C
50	TE-93-3	393 DEG C	52	TE-94-1	420 DEG C	53	TE-94-2	406 DEG C
54	TE-94-3	391 DEG C	472	EIE-10	2407 A	473	EEE-10	81 V
488	TAV-10	570 DEG C						

TABLE B- 77. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 26 S AFTER POWER-ON

TIME FROM POWER-ON 26.00 SEC. TIME FROM POWER-OFF -22.45 SEC. RECORD NUMBER 355-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12121	577	590	583	565	579	-23.60	2	12128	584	594	588	584	587	-19.65
3	12107	587	581	585	587	585	-20.90	4	12123	586	594	593	580	588	-18.85
5	12122	582	580	583	593	584	-21.50	6	12279	592	583	587	588	587	-20.40
7	12127	589	591	588	599	592	-19.75	8	12123	591	587	583	587	587	-21.35
9	12072	587	578	587	585	584	-22.15	10	12145	592	591	591	585	590	-20.30
11	12089	592	578	590	596	589	-19.50	12	12102	597	594	600	598	597	-19.60
13	12133	576	585	594	591	587	-19.55	14	12134	601	595	597	595	597	-19.05
15	12104	591	586	579	589	586	-19.80	16	12151	589	594	596	597	594	-18.55
17	12100	591	584	582	582	585	-22.45	18	12156	589	591	593	593	592	-19.25
19	12129	586	593	590	572	585	-20.50	20	12097	584	584	591	588	587	-20.20
21	12140	590	591	596	590	592	-18.00	22	12138	590	593	588	591	590	-20.25
23	12106	592	590	588	591	590	-19.20	24	12099	584	573	582	584	581	-[illegible].65
25	12117	581	581	577	575	579	-20.20	26	12154	576	586	587	585	583	-19.60
27	12150	597	592	585	593	592	-19.10	28	12098	597	581	590	581	587	-19.70
29	12137	593	592	585	590	590	-19.30	30	12081	590	585	576	588	585	-20.40
31	12090	577	590	589	587	586	-18.90	32	12127	582	583	576	581	581	-20.80
33	12120	583	581	581	584	582	-21.30	34	12098	581	588	562	590	580	-19.90
35	12120	586	587	582	586	585	-19.85	36	12237	588	585	583	586	586	-19.10
37	12089	585	586	586	585	585	-21.20	38	12136	588	586	587	591	588	-19.70
39	12140	582	584	575	583	581	-20.70	40	12125	588	588	585	585	587	-20.45
41	12155	577	577	579	586	580	-20.50	42	12146	585	579	587	586	584	-20.25
43	12132	586	585	576	586	583	-18.90	44	12131	580	590	592	585	587	-20.10
45	12091	585	586	586	575	583	-20.75	46	12138	223	580	579	585	492	-20.25
47	12118	587	585	586	586	586	-19.50	48	12142	577	583	578	579	579	-21.80
49	12124	577	574	572	581	576	-20.90	50	12083	571	580	576	577	576	-19.70
51	12051	578	576	582	574	578	-21.05	52	12095	585	580	584	583	583	-19.20
53	12049	573	577	576	580	576	-20.30	54	12104	584	581	583	582	582	-19.90
55	12097	573	575	571	575	574	-20.35	56	12064	585	583	575	577	580	-21.05
57	12076	579	580	564	577	575	-21.90	58	12115	583	580	584	580	582	-20.45
59	12056	577	572	579	583	578	-20.30	60	12072	570	585	576	577	577	-21.20
61	12062	583	577	583	580	581	-20.20	62	-3	581	563	576	576	574	******
63	12088	582	578	578	585	580	-21.75	64	12084	575	576	544	580	569	-22.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	575 DEG C	10	TE-5-7	577 DEG C	11	TE-5-8	570 DEG C
12	TE-28-5	579 DEG C	13	TE-28-6	576 DEG C	14	TE-28-7	577 DEG C
15	TE-28-8	577 DEG C	17	TE-39-6	581 DEG C	19	PE-301	190 KPA
23	TE-44-8	579 DEG C	24	TE-320	358 DEG C	25	TE-321	357 DEG C
26	TE-322	347 DEG C	27	TE-323	511 DEG C	28	TE-324	501 DEG C
29	TE-325	503 DEG C	30	TE-326	487 DEG C	31	TE-327	478 DEG C
41	TE-91-2	458 DEG C	44	TE-92-1	499 DEG C	45	TE-92-2	416 DEG C
46	TE-92-3	433 DEG C	47	TE-92-4	396 DEG C	49	TE-93-2	404 DEG C
50	TE-93-3	405 DEG C	52	TE-94-1	434 DEG C	53	TE-94-2	412 DEG C
54	TE-94-3	405 DEG C	472	EIE-10	2407 A	473	EEE-10	81 V
488	TAV-10	590 DEG C						

TABLE B- 78. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 28 S AFTER POWER-ON

TIME FROM POWER-ON 28.00 SEC. TIME FROM POWER-OFF -20.45 SEC. RECORD NUMBER 375-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12134	594	608	601	581	596	-21.60	2	12149	602	612	607	601	606	-17.65
3	12128	606	599	605	605	604	-18.90	4	12137	606	612	612	598	607	-16.85
5	12129	600	597	601	611	602	-19.50	6	12307	610	601	606	607	606	-18.40
7	12141	607	609	607	618	610	-17.75	8	12144	609	606	601	605	605	-19.35
9	12086	606	596	605	604	603	-20.15	10	12159	611	610	610	603	608	-18.30
11	12096	611	596	609	614	608	-17.50	12	12129	617	613	619	618	617	-17.60
13	12133	594	604	612	610	605	-17.55	14	12147	620	614	617	614	616	-17.05
15	12118	610	605	598	608	605	-17.80	16	12166	608	613	615	615	613	-16.55
17	12115	609	602	600	601	603	-20.45	18	12170	608	610	613	613	611	-17.25
19	12143	605	611	609	590	604	-18.50	20	12105	603	603	610	607	606	-18.20
21	12154	609	610	615	609	611	-16.00	22	12138	610	612	607	610	610	-18.25
23	12121	611	609	607	610	610	-17.20	24	12113	602	590	601	602	599	-18.65
25	12124	600	600	596	593	597	-18.20	26	12168	594	606	606	604	602	-17.60
27	12165	617	610	605	612	611	-17.10	28	12112	616	600	608	600	606	-17.70
29	12144	612	611	603	609	609	-17.30	30	12102	610	604	593	607	603	-18.40
31	12111	596	610	607	607	605	-16.90	32	12150	599	602	595	601	599	-18.80
33	12134	601	600	599	602	601	-19.30	34	12113	599	607	580	609	599	-17.90
35	12134	606	606	601	605	604	-17.85	36	12252	607	604	602	605	605	-17.10
37	12103	603	604	605	604	604	-19.20	38	12158	607	605	605	610	607	-17.70
39	12162	600	603	592	602	599	-18.70	40	12132	607	606	604	604	605	-18.45
41	12170	596	596	598	605	598	-18.50	42	12161	605	597	606	605	603	-18.25
43	12139	606	605	594	605	602	-16.90	44	12152	600	608	612	603	606	-18.10
45	12113	604	606	605	593	602	-18.75	46	12145	226	600	598	603	507	-18.25
47	12125	607	604	605	605	605	-17.50	48	12156	595	601	597	598	598	-19.80
49	12146	596	593	590	600	595	-18.90	50	12097	590	599	595	596	595	-17.70
51	12066	596	595	600	592	596	-19.05	52	12110	606	600	604	602	603	-17.20
53	12071	591	596	594	599	595	-18.30	54	12126	603	600	601	601	601	-17.90
55	12112	591	594	590	595	592	-18.35	56	12086	604	601	594	595	599	-19.05
57	12097	597	599	581	596	593	-19.90	58	12130	601	599	601	598	600	-18.45
59	12079	597	590	598	601	597	-18.30	60	12086	588	603	596	595	595	-19.20
61	12083	602	596	601	599	600	-18.20	62	-10	599	580	595	595	592	******
63	12116	601	596	596	603	599	-19.75	64	12098	593	594	561	600	587	-20.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	592 DEG C	10	TE-5-7	594 DEG C	11	TE-5-8	589 DEG C
12	TE-28-5	599 DEG C	13	TE-28-6	595 DEG C	14	TE-28-7	597 DEG C
15	TE-28-8	596 DEG C	17	TE-39-6	599 DEG C	19	PE-301	191 KPA
23	TE-44-8	599 DEG C	24	TE-320	368 DEG C	25	TE-321	357 DEG C
26	TE-322	347 DEG C	27	TE-323	530 DEG C	28	TE-324	518 DEG C
29	TE-325	522 DEG C	30	TE-326	502 DEG C	31	TE-327	492 DEG C
41	TE-91-2	466 DEG C	44	TE-92-1	510 DEG C	45	TE-92-2	426 DEG C
46	TE-92-3	469 DEG C	47	TE-92-4	403 DEG C	49	TE-93-2	412 DEG C
50	TE-93-3	419 DEG C	52	TE-94-1	450 DEG C	53	TE-94-2	418 DEG C
54	TE-94-3	421 DEG C	472	EIE-10	2402 A	473	EEE-10	82 V
488	TAV-10	609 DEG C						

TABLE B- 79. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 30 S AFTER POWER-ON

TIME FROM POWER-ON 30.00 SEC. TIME FROM POWER-OFF -18.45 SEC. RECORD NUMBER 395-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12155	611	625	618	597	613	-19.60	2	12149	621	630	625	620	624	-15.65
3	12149	624	617	621	623	621	-16.90	4	12144	624	630	630	616	625	-14.85
5	12136	618	614	620	629	620	-17.50	6	12321	628	619	624	624	624	-16.40
7	12141	626	628	625	636	629	-15.75	8	12151	627	624	618	624	623	-17.35
9	12093	623	614	623	623	621	-18.15	10	12174	630	629	629	622	627	-16.30
11	12110	630	614	628	633	626	-15.50	12	12122	636	633	638	636	636	-15.60
13	12148	612	623	631	629	624	-15.55	14	12162	639	633	636	632	635	-15.05
15	12125	628	624	616	627	624	-15.80	16	12174	627	631	634	634	632	-14.55
17	12130	628	620	618	619	621	-18.45	18	12184	628	629	632	632	630	-15.25
19	12158	623	630	629	607	622	-16.50	20	12112	622	622	628	626	624	-15.20
21	12154	628	629	635	628	630	-14.00	22	12145	629	630	626	629	628	-16.25
23	12129	630	628	626	629	628	-15.20	24	12127	620	607	619	621	617	-16.65
25	12146	618	618	614	611	615	-16.20	26	12176	612	624	625	623	621	-15.60
27	12172	636	630	624	632	630	-15.10	28	12120	635	618	628	619	625	-15.70
29	12166	630	630	622	628	628	-15.30	30	12102	629	624	611	626	622	-16.40
31	12118	614	630	625	626	624	-14.90	32	12157	618	621	613	619	618	-16.80
33	12156	618	618	618	621	619	-17.30	34	12113	618	626	598	628	617	-15.90
35	12156	624	625	620	624	624	-15.85	36	12259	626	624	622	624	624	-15.10
37	12118	622	623	624	623	623	-17.20	38	12151	626	624	625	629	626	-15.70
39	12169	618	622	610	621	618	-16.70	40	12155	625	625	623	624	624	-16.45
41	12185	614	614	617	624	617	-16.50	42	12183	624	616	625	624	622	-16.25
43	12154	625	624	612	624	621	-14.90	44	12159	618	627	630	622	624	-16.10
45	12120	623	625	624	611	621	-16.75	46	12167	230	619	616	622	522	-16.25
47	12132	625	623	623	624	624	-15.50	48	12164	613	620	616	616	616	-17.80
49	12161	614	610	608	619	613	-16.90	50	12112	609	618	614	615	614	-15.70
51	12074	615	613	619	612	615	-17.05	52	12125	624	619	623	621	622	-15.20
53	12085	609	614	613	618	613	-16.30	54	12140	622	620	619	620	620	-15.90
55	12127	610	613	609	613	611	-16.35	56	12101	622	620	613	613	617	-17.05
57	12112	615	617	598	613	611	-17.90	58	12145	620	618	619	617	619	-16.45
59	12094	615	606	616	620	614	-16.30	60	12101	605	622	616	613	614	-17.20
61	12097	621	614	620	617	618	-16.20	62	-3	618	597	613	612	610	******
63	12131	620	614	614	622	618	-17.75	64	12113	611	612	577	618	604	-18.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	612 DEG C	10	TE-5-7	613 DEG C	11	TE-5-8	607 DEG C
12	TE-28-5	618 DEG C	13	TE-28-6	614 DEG C	14	TE-28-7	615 DEG C
15	TE-28-8	616 DEG C	17	TE-39-6	618 DEG C	19	PE-301	191 KPA
23	TE-44-8	617 DEG C	24	TE-320	368 DEG C	25	TE-321	357 DEG C
26	TE-322	347 DEG C	27	TE-323	549 DEG C	28	TE-324	535 DEG C
29	TE-325	540 DEG C	30	TE-326	517 DEG C	31	TE-327	507 DEG C
41	TE-91-2	471 DEG C	44	TE-92-1	522 DEG C	45	TE-92-2	436 DEG C
46	TE-92-3	515 DEG C	47	TE-92-4	411 DEG C	49	TE-93-2	420 DEG C
50	TE-93-3	436 DEG C	52	TE-94-1	465 DEG C	53	TE-94-2	424 DEG C
54	TE-94-3	445 DEG C	472	EIE-10	2400 A	473	EEE-10	81 V
488	TAV-10	628 DEG C						

TABLE B- 80. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 32 S AFTER POWER-ON

TIME FROM POWER-ON 32.00 SEC. TIME FROM POWER-OFF -16.45 SEC. RECORD NUMBER 415-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12155	628	642	637	614	630	-17.60	2	12149	641	647	643	638	642	-13.65
3	12142	642	635	639	640	639	-14.90	4	12144	643	648	648	634	643	-12.85
5	12129	635	630	638	646	637	-15.50	6	12335	646	636	643	643	642	-14.40
7	12156	644	646	643	654	647	-13.75	8	12144	645	642	635	640	641	-15.35
9	12086	639	633	641	641	639	-16.15	10	12174	648	647	647	640	646	-14.30
11	12103	648	632	647	652	645	-13.50	12	12122	655	653	657	655	655	-13.60
13	12148	629	642	649	648	642	-13.55	14	12155	658	652	655	651	654	-13.05
15	12125	646	641	634	646	642	-13.80	16	12166	646	650	653	652	650	-12.55
17	12130	646	637	635	637	639	-16.45	18	12177	647	647	651	651	649	-13.25
19	12150	641	648	646	625	640	-14.50	20	12112	641	641	647	644	643	-14.20
21	12147	647	647	653	647	649	-12.00	22	12145	647	648	644	648	647	-14.25
23	12121	649	647	645	648	647	-13.20	24	12134	639	624	639	639	635	-14.65
25	12153	636	637	632	628	633	-14.20	26	12183	629	644	644	642	640	-13.60
27	12165	654	647	643	651	649	-13.10	28	12112	654	637	647	638	644	-13.70
29	12159	649	649	640	647	646	-13.30	30	12102	647	642	628	645	640	-14.40
31	12111	631	648	644	644	642	-12.90	32	12157	636	639	630	638	636	-14.80
33	12149	635	637	635	639	637	-15.30	34	12128	636	644	615	647	636	-13.90
35	12156	644	644	639	643	643	-13.85	36	12252	645	643	640	643	643	-13.10
37	12118	641	641	642	641	641	-15.20	38	12143	645	642	644	647	645	-13.70
39	12191	637	639	627	640	636	-14.70	40	12147	644	644	641	642	643	-14.45
41	12185	632	631	635	641	635	-14.50	42	12168	643	634	644	643	641	-14.25
43	12147	644	644	630	644	640	-12.90	44	12152	637	646	650	640	643	-14.10
45	12120	642	644	644	628	640	-14.75	46	12159	235	639	634	641	537	-14.25
47	12132	644	642	642	643	643	-13.50	48	12164	631	638	633	635	634	-15.80
49	12161	631	629	625	636	630	-14.90	50	12112	627	636	633	634	632	-13.70
51	12081	634	632	638	630	634	-15.05	52	12118	643	639	642	641	641	-13.20
53	12093	627	633	631	636	632	-14.30	54	12140	641	637	637	639	639	-13.90
55	12135	628	632	626	632	630	-14.35	56	12101	640	639	630	631	635	-15.05
57	12112	633	634	615	630	628	-15.90	58	12152	639	636	636	636	637	-14.45
59	12094	633	624	634	639	632	-14.30	60	12108	622	638	636	630	632	-15.20
61	12104	639	633	638	635	636	-14.20	62	-3	636	615	630	630	628	******
63	12138	639	633	632	639	636	-15.75	64	12120	629	629	594	636	622	-16.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	628 DEG C	10	TE-5-7	631 DEG C	11	TE-5-8	624 DEG C
12	TE-28-5	637 DEG C	13	TE-28-6	634 DEG C	14	TE-28-7	634 DEG C
15	TE-28-8	634 DEG C	17	TE-39-6	637 DEG C	19	PE-301	191 KPA
23	TE-44-8	636 DEG C	24	TE-320	368 DEG C	25	TE-321	357 DEG C
26	TE-322	347 DEG C	27	TE-323	567 DEG C	28	TE-324	553 DEG C
29	TE-325	558 DEG C	30	TE-326	532 DEG C	31	TE-327	521 DEG C
41	TE-91-2	478 DEG C	44	TE-92-1	533 DEG C	45	TE-92-2	450 DEG C
46	TE-92-3	535 DEG C	47	TE-92-4	418 DEG C	49	TE-93-2	431 DEG C
50	TE-93-3	459 DEG C	52	TE-94-1	485 DEG C	53	TE-94-2	431 DEG C
54	TE-94-3	467 DEG C	472	EIE-10	2395 A	473	EEE-10	81 V
488	TAV-10	646 DEG C						

TABLE B- 81. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 34 S AFTER POWER-ON

TIME FROM POWER-ON 34.00 SEC. TIME FROM POWER-OFF -14.45 SEC. RECORD NUMBER 435-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12169	643	658	654	630	646	-15.60	2	12128	659	664	662	656	660	-11.65
3	12128	660	653	656	658	657	-12.90	4	12115	661	667	666	652	662	-10.85
5	12122	653	647	656	663	655	-13.50	6	12342	664	654	662	661	660	-12.40
7	12134	662	664	662	672	665	-11.75	8	12136	662	660	652	657	658	-13.35
9	12078	655	652	659	659	656	-14.15	10	12159	665	666	666	659	664	-12.30
11	12067	666	649	666	671	663	-11.50	12	12087	675	672	675	674	674	-11.60
13	12118	647	660	667	667	660	-11.55	14	12126	677	670	674	669	672	-11.05
15	12110	664	660	652	664	660	-11.80	16	12136	664	668	672	670	668	-10.55
17	12122	664	655	653	655	657	-14.45	18	12155	666	666	670	671	668	-11.25
19	12136	659	666	664	642	658	-12.50	20	12089	659	659	665	663	662	-12.20
21	12102	665	666	672	665	667	-10.00	22	12130	666	666	662	667	665	-12.25
23	12090	668	665	665	666	666	-11.20	24	12119	657	642	657	657	653	-12.65
25	12146	654	655	650	645	651	-12.20	26	12161	647	663	664	662	659	-11.60
27	12134	674	665	663	670	668	-11.10	28	12097	673	655	665	657	662	-11.70
29	12129	667	668	658	665	664	-11.30	30	12080	666	661	646	663	659	-12.40
31	12096	649	667	663	663	661	-10.90	32	12149	653	658	648	656	654	-12.80
33	12141	653	655	654	657	655	-13.30	34	12105	655	662	633	666	654	-11.90
35	12141	662	664	657	662	661	-11.85	36	12229	662	662	659	661	661	-11.10
37	12096	660	659	660	660	660	-13.20	38	12113	664	661	663	666	664	-11.70
39	12154	655	657	644	659	654	-12.70	40	12139	663	662	661	661	662	-12.45
41	12170	650	648	653	660	653	-12.50	42	12146	662	653	663	661	659	-12.25
43	12116	662	663	647	662	659	-10.90	44	12137	656	664	669	658	662	-12.10
45	12090	661	663	663	646	658	-12.75	46	12159	238	659	651	660	552	-12.25
47	12102	663	660	660	662	661	-11.50	48	12156	648	656	651	652	652	-13.80
49	12161	649	646	643	655	648	-12.90	50	12089	646	654	650	652	651	-11.70
51	12066	652	652	656	649	652	-13.05	52	12086	662	656	661	659	659	-11.20
53	12078	646	653	649	654	650	-12.30	54	12133	659	655	654	659	657	-11.90
55	12119	646	650	644	650	647	-12.35	56	12086	658	657	648	649	653	-13.05
57	12104	650	652	631	648	645	-13.90	58	12130	657	655	653	653	654	-12.45
59	12086	652	641	650	657	650	-12.30	60	12093	640	657	654	648	650	-13.20
61	12097	655	652	657	653	654	-12.20	62	-3	654	631	646	647	644	******
63	12123	658	651	651	658	654	-13.75	64	12113	646	646	609	655	639	-14.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	647 DEG C	10	TE-5-7	648 DEG C	11	TE-5-8	642 DEG C	
12	TE-28-5	656 DEG C	13	TE-28-6	652 DEG C	14	TE-28-7	653 DEG C	
15	TE-28-8	654 DEG C	17	TE-39-6	656 DEG C	19	PE-301	191 KPA	
23	TE-44-8	655 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C	
26	TE-322	348 DEG C	27	TE-323	585 DEG C	28	TE-324	570 DEG C	
29	TE-325	576 DEG C	30	TE-326	546 DEG C	31	TE-327	535 DEG C	
41	TE-91-2	486 DEG C	44	TE-92-1	544 DEG C	45	TE-92-2	464 DEG C	
46	TE-92-3	552 DEG C	47	TE-92-4	426 DEG C	49	TE-93-2	443 DEG C	
50	TE-93-3	499 DEG C	52	TE-94-1	515 DEG C	53	TE-94-2	437 DEG C	
54	TE-94-3	478 DEG C	472	EIE-10	2392 A	473	EEE-10	81 V	
488	TAV-10	665 DEG C							

TABLE B- 82. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 35 S AFTER POWER-ON

TIME FROM POWER-ON 35.00 SEC. TIME FROM POWER-OFF -13.45 SEC. RECORD NUMBER 445-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12162	651	666	663	638	655	-14.60	2	12099	669	672	671	665	669	-10.65
3	12121	669	662	665	666	665	-11.90	4	12093	671	676	675	662	671	-9.85
5	12115	661	656	665	672	664	-12.50	6	12328	672	663	672	669	669	-11.40
7	12119	671	673	672	681	674	-10.75	8	12122	671	670	660	665	666	-12.35
9	12057	663	661	668	669	665	-13.15	10	12137	674	675	676	667	673	-11.30
11	12024	675	658	676	678	672	-10.50	12	12059	684	682	684	684	684	-10.60
13	12104	656	669	675	676	669	-10.55	14	12090	686	679	684	678	682	-10.05
15	12088	672	669	661	674	669	-10.80	16	12106	673	678	681	678	678	-9.55
17	12107	673	663	662	664	666	-13.45	18	12133	675	675	679	680	677	-10.25
19	12114	668	676	673	651	667	-11.50	20	12067	669	669	674	672	671	-11.20
21	12057	675	675	681	675	677	-9.00	22	12115	675	674	671	676	674	-11.25
23	12051	678	674	676	676	676	-10.20	24	12105	666	652	667	666	663	-11.65
25	12131	663	664	659	653	660	-11.20	26	12153	655	672	673	672	668	-10.60
27	12104	683	675	672	680	677	-10.10	28	12075	682	665	674	666	672	-10.70
29	12099	676	677	667	674	673	-10.30	30	12058	675	670	655	673	668	-11.40
31	12060	658	677	673	672	670	-9.90	32	12142	662	667	657	665	662	-11.80
33	12134	661	664	662	666	663	-12.30	34	12097	663	672	641	676	663	-10.90
35	12119	671	672	666	672	670	-10.85	36	12192	672	671	668	670	670	-10.10
37	12073	669	667	669	669	669	-12.20	38	12068	673	670	672	675	673	-10.70
39	12139	664	666	652	668	663	-11.70	40	12117	672	671	671	671	671	-11.45
41	12162	659	657	662	669	662	-11.50	42	12131	671	662	672	670	669	-11.25
43	12087	672	674	657	671	668	-9.90	44	12116	665	672	678	666	670	-11.10
45	12068	671	672	673	655	668	-11.75	46	12137	239	669	660	670	559	-11.25
47	12072	673	669	669	672	671	-10.50	48	12149	657	665	660	661	661	-12.80
49	12146	659	654	651	664	657	-11.90	50	12075	655	663	659	662	660	-10.70
51	12050	661	660	665	658	661	-12.05	52	12063	671	665	670	668	669	-10.20
53	12063	654	662	659	663	659	-11.30	54	12110	668	664	663	669	666	-10.90
55	12104	654	659	653	659	657	-11.35	56	12078	667	666	657	658	662	-12.05
57	12090	658	660	640	657	654	-12.90	58	12115	665	663	660	662	663	-11.45
59	12078	661	649	659	666	659	-11.30	60	12078	648	665	664	657	659	-12.20
61	12090	665	661	666	662	663	-11.20	62	-3	663	639	653	655	653	******
63	12116	667	660	659	666	663	-12.75	64	12098	655	654	617	664	647	-13.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	655 DEG C	10	TE-5-7	657 DEG C	11	TE-5-8	651 DEG C
12	TE-28-5	664 DEG C	13	TE-28-6	661 DEG C	14	TE-28-7	662 DEG C
15	TE-28-8	662 DEG C	17	TE-39-6	665 DEG C	19	PE-301	191 KPA
23	TE-44-8	665 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C
26	TE-322	348 DEG C	27	TE-323	594 DEG C	28	TE-324	578 DEG C
29	TE-325	585 DEG C	30	TE-326	553 DEG C	31	TE-327	541 DEG C
41	TE-91-2	490 DEG C	44	TE-92-1	550 DEG C	45	TE-92-2	471 DEG C
46	TE-92-3	562 DEG C	47	TE-92-4	430 DEG C	49	TE-93-2	449 DEG C
50	TE-93-3	531 DEG C	52	TE-94-1	534 DEG C	53	TE-94-2	440 DEG C
54	TE-94-3	484 DEG C	472	EIE-10	2395 A	473	EEE-10	82 V
488	TAV-10	674 DEG C						

TABLE B- 83. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 36 S AFTER POWER-ON

TIME FROM POWER-ON 36.00 SEC. TIME FROM POWER-OFF -12.45 SEC. RECORD NUMBER 455-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12141	659	674	672	646	663	-13.60	2	12064	678	681	680	674	678	-9.65
3	12093	678	671	673	675	675	-10.90	4	12057	680	685	683	671	680	-8.85
5	12073	670	664	674	681	672	-11.50	6	12307	681	672	681	678	678	-10.40
7	12091	680	682	682	690	684	-9.75	8	12108	679	678	668	673	675	-11.35
9	12043	670	671	677	678	674	-12.5	10	12101	681	684	685	677	682	-10.30
11	11982	684	667	685	687	681	-9.50	12	12017	694	690	694	693	693	-9.60
13	12061	664	678	685	685	678	-9.55	14	12026	696	689	693	686	691	-9.05
15	12059	681	678	670	683	678	-9.80	16	12076	682	687	691	686	687	-8.55
17	12085	682	672	671	673	674	-12.45	18	12097	684	685	689	690	687	-9.25
19	12072	677	684	683	660	676	-10.50	20	12023	678	678	683	682	680	-10.20
21	11991	684	684	691	685	686	-8.00	22	12063	684	683	680	686	683	-10.25
23	12012	687	683	686	685	685	-9.20	24	12085	675	660	676	675	671	-10.65
25	12110	672	673	668	662	669	-10.20	26	12116	664	682	681	681	677	-9.60
27	12052	691	684	681	689	686	-9.10	28	12038	691	672	683	675	680	-9.70
29	12063	684	683	676	684	682	-9.30	30	12022	683	679	663	683	677	-10.40
31	12024	666	686	683	681	679	-8.90	32	12112	671	676	666	673	672	-10.80
33	12119	670	672	671	675	672	-11.30	34	12075	672	681	650	685	672	-9.90
35	12091	681	682	676	681	680	-9.85	36	12147	681	680	676	679	679	-9.10
37	12051	678	676	678	679	678	-11.20	38	12016	682	679	681	684	681	-9.70
39	12125	673	676	661	678	672	-10.70	40	12087	681	679	680	681	680	-10.45
41	12148	668	665	671	678	671	-10.50	42	12102	680	671	681	679	678	-10.25
43	12035	681	684	665	680	678	-8.90	44	12073	674	682	686	675	679	-10.10
45	12031	680	681	683	664	677	-10.75	46	12094	241	679	669	679	567	-10.25
47	12035	682	678	677	681	680	-9.50	48	12119	665	674	669	670	670	-11.80
49	12131	667	663	658	672	665	-10.90	50	12053	665	673	669	670	669	-9.70
51	12036	671	670	673	667	670	-11.05	52	12025	680	674	678	678	678	-9.20
53	12041	663	670	668	672	668	-10.30	54	12081	678	672	672	678	675	-9.90
55	12089	663	669	662	669	666	-10.35	56	12056	674	676	665	667	671	-11.05
57	12076	667	669	648	665	662	-11.90	58	12085	674	672	666	672	671	-10.45
59	12056	670	658	666	675	667	-10.30	60	12050	656	674	673	666	667	-11.20
61	12062	673	669	675	671	672	-10.20	62	-3	671	648	659	664	661	******
63	12095	675	669	667	675	672	-11.75	64	12084	664	663	625	672	656	-12.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6.	663 DEG C	10	TE-5-7	666 DEG C	11	TE-5-8	661 DEG C
12	TE-28-5	674 DEG C	13	TE-28-6	671 DEG C	14	TE-28-7	671 DEG C
15	TE-28-8	671 DEG C	17	TE-39-6	674 DEG C	19	PE-301	191 KPA
23	TE-44-8	674 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C
26	TE-322	348 DEG C	27	TE-323	603 DEG C	28	TE-324	586 DEG C
29	TE-325	594 DEG C	30	TE-326	560 DEG C	31	TE-327	548 DEG C
41	TE-91-2	493 DEG C	44	TE-92-1	555 DEG C	45	TE-92-2	477 DEG C
46	TE-92-3	571 DEG C	47	TE-92-4	434 DEG C	49	TE-93-2	455 DEG C
50	TE-93-3	579 DEG C	52	TE-94-1	549 DEG C	53	TE-94-2	443 DEG C
54	TE-94-3	487 DEG C	472	EIE-10	2392 A	473	EEE-10	81 V
488	TAV-10	684 DEG C						

TABLE B- 84. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 37 S AFTER POWER-ON

TIME FROM POWER-ON 37.00 SEC. TIME FROM POWER-OFF -11.45 SEC. RECORD NUMBER 465-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12127	666	682	681	653	670	-12.60	2	12008	687	689	689	683	687	-8.65
3	12065	687	679	682	684	683	-9.90	4	11999	689	695	691	680	689	-7.85
5	12045	679	672	684	689	681	-10.50	6	12264	690	681	691	687	687	-9.40
7	12047	689	691	691	698	693	-8.75	8	12065	687	688	677	679	683	-10.35
9	12001	677	681	686	687	683	-11.15	10	12050	690	693	694	685	691	-9.30
11	11911	693	676	694	696	690	-8.50	12	11939	703	697	702	703	701	-8.60
13	12010	673	687	694	694	687	-8.55	14	11955	706	698	703	695	700	-8.05
15	12023	690	687	679	692	687	-8.80	16	12001	691	697	700	694	695	-7.55
17	12070	691	681	679	682	683	-11.45	18	12039	694	694	698	699	696	-8.25
19	12029	685	693	691	668	684	-9.50	20	11957	687	696	692	691	689	-9.20
21	11901	692	693	699	695	695	-7.00	22	12011	695	691	689	695	693	-9.25
23	11942	695	692	696	694	694	-8.20	24	12043	684	669	686	684	681	-9.65
25	12088	681	682	677	670	677	-9.20	26	12071	672	691	688	691	686	-8.60
27	11984	700	693	690	699	696	-8.10	28	11987	700	682	693	684	690	-8.70
29	12003	693	695	685	693	692	-8.30	30	11964	691	688	672	692	686	-9.40
31	11965	675	695	693	691	688	-7.90	32	12082	679	685	675	682	680	-9.80
33	12090	679	682	680	684	681	-10.30	34	12031	681	690	659	695	681	-8.90
35	12047	691	691	694	691	689	-8.85	36	12080	690	689	685	689	688	-8.10
37	12000	687	684	686	688	687	-10.20	38	11956	692	688	690	694	691	-8.70
39	12082	682	685	669	687	681	-9.70	40	12042	691	687	690	691	690	-9.45
41	12110	677	674	679	687	680	-9.50	42	12044	690	680	691	688	687	-9.25
43	11982	691	696	674	689	687	-7.90	44	12023	683	691	694	684	688	-9.10
45	11972	690	689	692	672	686	-9.75	46	12042	243	688	678	688	574	-9.25
47	11983	692	688	685	691	689	-8.50	48	12097	674	683	677	678	678	-10.80
49	12109	676	672	666	682	674	-9.90	50	12009	673	682	677	680	678	-8.70
51	11998	679	679	682	676	679	-10.05	52	11956	690	683	688	687	687	-8.20
53	12011	672	678	676	682	677	-9.30	54	12036	687	681	680	689	684	-8.90
55	12050	672	678	672	678	675	-9.35	56	12026	682	685	674	676	679	-10.05
57	12054	675	677	657	675	671	-10.90	58	12048	682	681	674	680	679	-9.45
59	12026	678	666	674	684	676	-9.30	60	12013	665	683	682	675	676	-10.20
61	12033	683	678	684	680	681	-9.20	62	-3	680	656	666	673	669	******
63	12066	684	678	677	685	681	-10.75	64	12054	672	671	632	681	664	-11.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	673 DEG C	10	TE-5-7	675 DEG C	11	TE-5-8	669 DEG C
12	TE-28-5	684 DEG C	13	TE-28-6	679 DEG C	14	TE-28-7	680 DEG C
15	TE-28-8	681 DEG C	17	TE-39-6	685 DEG C	19	PE-301	191 KPA
23	TE-44-8	683 DEG C	24	TE-320	368 DEG C	25	TE-321	358 DEG C
26	TE-322	348 DEG C	27	TE-323	613 DEG C	28	TE-324	595 DEG C
29	TE-325	603 DEG C	30	TE-326	566 DEG C	31	TE-327	555 DEG C
41	TE-91-2	499 DEG C	44	TE-92-1	560 DEG C	45	TE-92-2	483 DEG C
46	TE-92-3	582 DEG C	47	TE-92-4	439 DEG C	49	TE-93-2	461 DEG C
50	TE-93-3	591 DEG C	52	TE-94-1	561 DEG C	53	TE-94-2	447 DEG C
54	TE-94-3	488 DEG C	472	EIE-10	2390 A	473	EEE-10	81 V
488	TAV-10	693 DEG C						

TABLE B- 85. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 38 S AFTER POWER-ON

TIME FROM POWER-ON 38.00 SEC. TIME FROM POWER-OFF -10.45 SEC. RECORD NUMBER 475-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12085	674	689	690	661	679	-11.60	2	11916	697	697	697	692	696	-7.65
3	11994	696	687	690	692	691	-8.90	4	11891	698	703	699	690	697	-6.85
5	11975	688	680	694	697	690	-9.50	6	12214	699	690	701	696	696	-8.40
7	11961	697	699	700	707	701	-7.75	8	12015	695	697	685	686	691	-9.35
9	11924	684	690	695	696	691	-10.15	10	11955	700	701	704	694	700	-8.30
11	11782	702	684	703	704	698	-7.50	12	11812	711	709	711	711	710	-7.60
13	11908	681	696	702	703	696	-7.55	14	11813	715	707	712	705	710	-7.05
15	11943	698	696	689	702	696	-7.80	16	11889	700	706	709	702	704	-6.55
17	12018	700	690	687	691	692	-10.45	18	11931	703	703	707	708	705	-7.25
19	11929	695	701	701	676	693	-8.50	20	11853	696	695	700	699	698	-8.20
21	11723	701	702	707	705	704	-6.00	22	11921	706	700	697	705	702	-8.25
23	11817	705	701	705	702	703	-7.20	24	11980	693	677	696	692	689	-8.65
25	12022	690	691	685	679	686	-8.20	26	12004	680	701	695	701	694	-7.60
27	11878	709	703	698	710	704	-7.10	28	11898	710	691	702	692	699	-7.70
29	11900	702	706	694	703	701	-7.30	30	11884	700	697	681	702	695	-8.40
31	11885	682	706	703	699	698	-6.90	32	12029	687	694	683	691	689	-8.80
33	12046	687	691	689	693	690	-9.30	34	11979	690	700	667	705	690	-7.90
35	11975	700	700	693	701	699	-7.85	36	11983	697	698	695	697	697	-7.10
37	11933	697	693	695	697	695	-9.20	38	11852	701	697	699	703	700	-7.70
39	12001	691	695	678	697	690	-8.70	40	11982	697	695	700	700	698	-8.45
41	12073	686	682	688	697	688	-8.50	42	11985	699	689	700	697	696	-8.25
43	11908	700	705	684	698	697	-6.90	44	11951	691	699	701	693	696	-8.10
45	11898	699	698	702	681	695	-8.75	46	11962	244	697	686	697	581	-8.25
47	11901	702	698	693	700	698	-7.50	48	12053	683	691	686	687	686	-9.80
49	12065	684	679	674	690	682	-8.90	50	11943	682	693	687	690	688	-7.70
51	11937	689	688	691	683	688	-9.05	52	11872	699	691	698	697	696	-7.20
53	11951	679	687	684	691	685	-8.30	54	11984	697	689	690	699	694	-7.90
55	12003	681	686	681	687	684	-8.35	56	11974	692	694	682	685	688	-9.05
57	12026	682	687	665	684	680	-9.90	58	11981	691	689	681	688	687	-8.45
59	11980	688	674	683	694	684	-8.30	60	11955	673	692	690	684	685	-9.20
61	11984	692	687	693	689	690	-8.20	62	-3	689	664	678	682	678	******
63	12022	694	687	687	694	691	-9.75	64	12017	681	680	640	690	673	-10.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	681 DEG C	10	TE-5-7	682 DEG C	11	TE-5-8	678 DEG C	
12	TE-28-5	694 DEG C	13	TE-28-6	691 DEG C	14	TE-28-7	690 DEG C	
15	TE-28-8	690 DEG C	17	TE-39-6	693 DEG C	19	PE-301	191 KPA	
23	TE-44-8	692 DEG C	24	TE-320	368 DEG C	25	TE-321	358 DEG C	
26	TE-322	348 DEG C	27	TE-323	621 DEG C	28	TE-324	603 DEG C	
29	TE-325	612 DEG C	30	TE-326	574 DEG C	31	TE-327	561 DEG C	
41	TE-91-2	503 DEG C	44	TE-92-1	564 DEG C	45	TE-92-2	488 DEG C	
46	TE-92-3	594 DEG C	47	TE-92-4	443 DEG C	49	TE-93-2	467 DEG C	
50	TE-93-3	606 DEG C	52	TE-94-1	575 DEG C	53	TE-94-2	451 DEG C	
54	TE-94-3	491 DEG C	472	EIE-10	2392 A	473	EEE-10	81 V	
488	TAV-10	702 DEG C							

TABLE B- 86. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 39 S AFTER POWER-ON

TIME FROM POWER-ON 39.00 SEC. TIME FROM POWER-OFF -9.45 SEC. RECORD NUMBER 485-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12057	682	698	698	669	687	-10.60	2	11824	706	704	706	701	704	-6.65
3	11938	704	696	698	701	700	-7.90	4	11804	707	708	707	697	705	-5.85
5	11904	696	688	704	707	699	-8.50	6	12143	708	700	710	704	706	-7.40
7	11881	706	708	707	716	709	-6.75	8	11950	702	705	694	693	699	-8.35
9	11868	691	699	704	705	700	-9.15	10	11868	713	711	711	702	709	-7.30
11	11675	711	694	711	712	707	-6.50	12	11699	718	720	721	721	720	-6.60
13	11807	691	704	710	712	704	-6.55	14	11692	724	716	720	714	719	-6.05
15	11863	708	706	697	711	706	-6.80	16	11777	710	716	718	709	713	-5.55
17	11973	709	698	695	699	700	-9.45	18	11822	712	710	717	717	714	-6.25
19	11836	709	709	712	685	704	-7.50	20	11757	705	703	708	708	706	-7.20
21	11582	710	711	715	715	713	-5.00	22	11816	716	709	705	713	711	-7.25
23	11692	715	710	714	710	712	-6.20	24	11917	702	685	706	700	698	-7.65
25	11979	699	700	694	687	695	-7.20	26	11907	688	711	703	709	703	-6.60
27	11720	718	710	707	720	714	-6.10	28	11780	720	700	711	701	708	-6.70
29	11781	711	716	703	713	711	-6.30	30	11774	710	706	690	712	704	-7.40
31	11761	691	715	712	708	707	-5.90	32	11953	695	705	693	700	698	-7.80
33	11980	696	701	697	703	699	-8.30	34	11882	699	708	675	714	699	-6.90
35	11873	710	709	701	711	708	-6.85	36	11849	708	709	704	706	707	-6.10
37	11844	707	701	704	707	705	-8.20	38	11702	710	705	708	713	709	-6.70
39	11914	701	704	687	706	700	-7.70	40	11892	705	703	711	710	707	-7.45
41	12005	695	688	697	706	696	-7.50	42	11883	709	698	709	706	706	-7.25
43	11796	709	716	693	707	706	-5.90	44	11844	699	707	709	702	704	-7.10
45	11802	709	706	711	690	704	-7.75	46	11859	246	707	695	705	588	-7.25
47	11781	712	709	702	710	708	-6.50	48	11987	691	698	693	696	694	-8.80
49	12013	593	688	681	698	690	-7.90	50	11856	691	702	695	699	697	-6.70
51	11861	700	697	701	690	697	-8.05	52	11741	709	699	706	710	706	-6.20
53	11877	689	697	691	699	694	-7.30	54	11887	706	697	699	709	703	-6.90
55	11918	690	695	691	695	693	-7.35	56	11900	703	704	690	694	698	-8.05
57	11975	690	695	673	694	688	-8.90	58	11891	698	697	688	696	695	-7.45
59	11905	697	683	692	703	694	-7.30	60	11874	680	701	698	692	693	-8.20
61	11913	702	696	703	697	699	-7.20	62	-3	698	672	687	690	687	******
63	11964	703	696	697	704	700	-8.75	64	11966	691	689	648	699	682	-9.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	691 DEG C	10	TE-5-7	690 DEG C	11	TE-5-8	686 DEG C
12	TE-28-5	703 DEG C	13	TE-28-6	699 DEG C	14	TE-28-7	699 DEG C
15	TE-28-8	698 DEG C	17	TE-39-6	702 DEG C	19	PE-301	191 KPA
23	TE-44-8	700 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C
26	TE-322	348 DEG C	27	TE-323	630 DEG C	28	TE-324	612 DEG C
29	TE-325	621 DEG C	30	TE-326	581 DEG C	31	TE-327	568 DEG C
41	TE-91-2	509 DEG C	44	TE-92-1	568 DEG C	45	TE-92-2	492 DEG C
46	TE-92-3	605 DEG C	47	TE-92-4	448 DEG C	49	TE-93-2	471 DEG C
50	TE-93-3	628 DEG C	52	TE-94-1	587 DEG C	53	TE-94-2	455 DEG C
54	TE-94-3	495 DEG C	472	EIE-10	2390 A	473	EEE-10	81 V
488	TAV-10	712 DEG C						

TABLE B- 87. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 40 S AFTER POWER-ON

TIME FROM POWER-ON 40.00 SEC. TIME FROM POWER-OFF -8.45 SEC. RECORD NUMBER 495-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11994	688	704	707	678	694	-9.60	2	11682	716	711	713	709	712	-5.65
3	11840	714	705	706	710	709	-6.90	4	11652	716	714	716	704	713	-4.85
5	11785	705	696	714	717	708	-7.50	6	12022	718	710	720	713	715	-6.40
7	11758	715	716	714	725	718	-5.75	8	11856	709	711	703	701	706	-7.35
9	11769	699	709	713	714	709	-8.15	10	11700	723	718	718	710	717	-6.30
11	11504	719	704	719	720	716	-5.50	12	11502	725	732	728	732	729	-5.60
13	11662	700	712	718	722	713	-5.55	14	11485	731	727	729	725	728	-5.05
15	11725	716	716	707	721	715	-5.80	16	11597	720	725	728	718	723	-4.55
17	11884	718	707	702	708	709	-8.45	18	11649	722	718	726	725	723	-5.25
19	11671	718	717	722	693	712	-6.50	20	11594	715	711	716	717	715	-6.20
21	11329	718	718	723	725	721	-4.00	22	11651	726	718	714	721	720	-6.25
23	11505	725	718	720	721	721	-5.20	24	11805	712	693	716	708	707	-6.65
25	11884	708	710	702	695	704	-6.20	26	11757	698	719	710	716	711	-5.60
27	11524	727	718	714	730	722	-5.10	28	11618	729	709	722	709	717	-5.70
29	11604	720	725	711	724	720	-5.30	30	11614	719	715	699	720	713	-6.40
31	11579	698	725	722	718	716	-4.90	32	11847	703	716	703	708	708	-6.80
33	11871	704	711	706	713	708	-7.30	34	11741	707	717	684	724	708	-5.90
35	11721	720	718	710	722	718	-5.85	36	11670	717	719	713	715	716	-5.10
37	11710	717	709	713	716	714	-7.20	38	11493	718	714	717	722	718	-5.70
39	11761	711	715	695	716	709	-6.70	40	11771	720	712	720	719	718	-6.45
41	11916	704	694	704	715	705	-6.50	42	11751	719	707	719	716	715	-6.25
43	11646	719	725	702	717	716	-4.90	44	11687	707	716	716	711	712	-6.10
45	11661	718	713	721	699	713	-6.75	46	11705	248	716	704	714	595	-6.25
47	11639	722	719	709	720	718	-5.50	48	11891	698	707	702	704	703	-7.80
49	11931	700	695	689	707	698	-6.90	50	11717	699	710	703	707	705	-5.70
51	11740	711	707	711	698	707	-7.05	52	11549	717	707	715	718	714	-5.20
53	11765	697	707	699	708	703	-6.30	54	11753	716	706	711	719	713	-5.90
55	11802	699	704	699	704	701	-6.35	56	11802	713	714	697	704	707	-7.05
57	11904	695	704	681	702	695	-7.90	58	11780	707	704	696	704	703	-6.45
59	11806	705	691	701	714	703	-6.30	60	11765	688	713	706	700	702	-7.20
61	11806	710	704	712	705	708	-6.20	62	-3	706	680	695	699	695	******
63	11870	712	705	698	712	707	-7.75	64	11885	700	698	656	707	690	-8.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	699 DEG C	10	TE-5-7	699 DEG C	11	TE-5-8	693 DEG C
12	TE-28-5	711 DEG C	13	TE-28-6	713 DEG C	14	TE-28-7	707 DEG C
15	TE-28-8	706 DEG C	17	TE-39-6	710 DEG C	19	PE-301	191 KPA
23	TE-44-8	709 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C
26	TE-322	348 DEG C	27	TE-323	639 DEG C	28	TE-324	620 DEG C
29	TE-325	630 DEG C	30	TE-326	587 DEG C	31	TE-327	576 DEG C
41	TE-91-2	513 DEG C	44	TE-92-1	571 DEG C	45	TE-92-2	497 DEG C
46	TE-92-3	615 DEG C	47	TE-92-4	453 DEG C	49	TE-93-2	477 DEG C
50	TE-93-3	639 DEG C	52	TE-94-1	595 DEG C	53	TE-94-2	460 DEG C
54	TE-94-3	500 DEG C	472	EIE-10	2390 A	473	EEE-10	81 V
488	TAV-10	721 DEG C						

TABLE B- 88. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 41 S AFTER POWER-ON

TIME FROM POWER-ON 41.00 SEC. TIME FROM POWER-OFF -7.45 SEC. RECORD NUMBER 505-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11910	695	712	716	686	702	-8.60	2	11477	725	717	720	719	720	-4.65
3	11691	723	714	714	719	717	-5.90	4	11441	727	720	724	710	720	-3.85
5	11623	714	703	724	726	717	-6.50	6	11858	727	720	729	721	724	-5.40
7	11569	724	725	720	736	726	-4.75	8	11719	715	717	711	707	712	-6.35
9	11635	707	718	722	724	718	-7.15	10	11481	733	724	725	717	725	-5.30
11	11283	728	714	727	728	724	-4.50	12	11255	732	742	733	738	736	-4.60
13	11436	708	720	726	730	721	-4.55	14	11221	739	738	742	734	738	-4.05
15	11535	725	726	717	730	724	-4.80	16	11364	729	734	737	728	732	-3.55
17	11750	726	716	709	717	717	-7.45	18	11417	732	729	736	734	733	-4.25
19	11442	727	729	731	701	722	-5.50	20	11365	723	719	724	725	723	-5.20
21	11008	725	726	731	734	729	-3.00	22	11411	735	727	722	729	728	-5.25
23	11247	734	727	725	730	729	-4.20	24	11651	721	701	725	716	716	-5.65
25	11753	718	719	710	703	713	-5.20	26	11554	708	729	718	723	719	-4.50
27	11245	735	725	723	740	731	-4.10	28	11381	739	717	733	717	726	-4.70
29	11345	728	736	720	734	729	-4.30	30	11410	726	723	707	727	721	-5.40
31	11338	708	734	728	727	724	-3.90	32	11703	710	726	707	717	715	-5.80
33	11739	712	720	714	722	717	-6.30	34	11569	715	723	694	733	716	-4.90
35	11510	730	729	717	733	727	-4.85	36	11409	720	731	722	724	724	-4.10
37	11509	727	717	721	725	723	-6.20	38	11215	728	722	726	732	727	-4.70
39	11585	720	725	704	725	718	-5.70	40	11606	730	722	729	728	727	-5.45
41	11780	713	698	712	725	712	-5.50	42	11568	729	716	728	725	725	-5.25
43	11444	727	736	711	725	725	-3.90	44	11479	715	723	723	718	720	-5.10
45	11460	729	720	732	708	722	-5.75	46	11485	249	725	711	723	602	-5.25
47	11437	732	730	718	729	727	-4.50	48	11758	704	715	713	712	711	-6.80
49	11812	706	706	697	715	706	-5.90	50	11519	707	720	711	716	714	-4.70
51	11580	721	717	721	707	717	-6.05	52	11287	724	715	724	727	722	-4.20
53	11601	706	719	707	716	712	-5.30	54	11559	725	713	721	729	722	-4.90
55	11631	707	711	707	712	709	-5.35	56	11660	724	723	704	713	716	-6.05
57	11788	699	712	689	711	703	-6.90	58	11615	713	713	703	713	710	-5.45
59	11662	714	699	710	724	712	-5.30	60	11619	696	722	714	709	710	-6.20
61	11664	716	715	721	712	716	-5.20	62	-3	714	689	704	708	704	******
63	11732	721	712	702	721	714	-6.75	64	11775	708	707	665	715	699	-7.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	706 DEG C	10	TE-5-7	707 DEG C	11	TE-5-8	701 DEG C
12	TE-28-5	719 DEG C	13	TE-28-6	723 DEG C	14	TE-28-7	716 DEG C
15	TE-28-8	715 DEG C	17	TE-39-6	718 DEG C	19	PE-301	191 KPA
23	TE-44-8	717 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C
26	TE-322	348 DEG C	27	TE-323	648 DEG C	28	TE-324	628 DEG C
29	TE-325	639 DEG C	30	TE-326	594 DEG C	31	TE-327	583 DEG C
41	TE-91-2	518 DEG C	44	TE-92-1	574 DEG C	45	TE-92-2	501 DEG C
46	TE-92-3	625 DEG C	47	TE-92-4	458 DEG C	49	TE-93-2	482 DEG C
50	TE-93-3	649 DEG C	52	TE-94-1	603 DEG C	53	TE-94-2	465 DEG C
54	TE-94-3	507 DEG C	472	EIE-10	2385 A	473	EEE-10	81 V
488	TAV-10	730 DEG C						

[redacted] N 6 [redacted]

TABLE B- 89. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 42 S AFTER POWER-ON

TIME FROM POWER-ON 42.00 SEC. TIME FROM POWER-OFF -6.45 SEC. RECORD NUMBER 515-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11783	706	717	721	694	710	-7.60	2	11221	735	723	727	729	728	-3.65
3	11515	731	723	721	730	726	-4.90	4	11165	738	725	731	721	729	-2.85
5	11405	724	710	734	737	726	-5.50	6	11638	733	730	739	729	733	-4.40
7	11330	734	734	727	746	735	-3.75	8	11532	721	723	718	712	719	-5.35
9	11466	715	728	732	734	727	-6.15	10	11204	742	730	733	724	732	-4.30
11	10991	738	723	735	736	733	-3.50	12	10923	741	753	740	744	744	-3.60
13	11131	717	729	734	737	729	-3.55	14	10864	745	748	752	743	747	-3.05
15	11280	733	736	726	740	734	-3.80	16	11049	739	744	748	739	742	-2.55
17	11586	735	725	716	725	725	-6.45	18	11083	740	741	744	744	742	-3.25
19	11148	736	741	741	708	732	-4.50	20	11061	731	727	732	734	731	-4.20
21	10591	732	734	741	745	738	-2.00	22	11097	745	737	731	738	738	-4.25
23	10912	744	736	731	733	736	-3.20	24	11427	731	710	734	726	725	-4.65
25	11563	727	728	718	711	721	-4.20	26	11270	717	740	725	731	728	-3.60
27	10890	744	731	731	748	739	-3.10	28	11070	748	725	743	725	735	-3.70
29	11026	738	739	728	742	737	-3.30	30	11118	736	730	718	732	729	-4.40
31	11032	718	744	739	738	735	-2.90	32	11483	717	736	712	727	723	-4.80
33	11563	721	728	722	728	725	-5.30	34	11294	724	729	704	742	725	-3.90
35	11234	740	740	725	744	737	-3.85	36	11073	731	742	731	732	734	-3.10
37	11256	738	724	730	733	731	-5.20	38	10849	736	731	734	743	736	-3.70
39	11330	729	736	714	735	728	-4.70	40	11402	740	733	739	738	737	-4.45
41	11600	723	702	719	735	720	-4.50	42	11333	738	726	738	737	735	-4.25
43	11160	738	746	720	733	734	-2.90	44	11220	723	730	731	725	727	-4.10
45	11223	737	727	741	71	731	-4.75	46	11207	252	736	719	731	609	-4.25
47	11175	741	740	729	739	737	-3.50	48	11558	711	722	724	721	720	-5.80
49	11656	714	718	705	723	715	-4.90	50	11255	715	729	717	725	722	-3.70
51	11352	732	726	731	715	726	-5.05	52	10948	732	721	733	735	730	-3.20
53	11369	714	730	714	725	721	-4.30	54	11298	734	721	731	739	731	-3.90
55	11390	716	719	716	720	718	-4.35	56	11466	734	733	712	724	726	-5.05
57	11644	703	722	696	720	710	-5.90	58	11406	720	721	707	722	717	-4.45
59	11472	721	707	721	734	721	-4.30	60	11414	704	733	723	717	719	-5.20
61	11465	724	726	730	719	725	-4.20	62	-4	723	697	713	716	712	******
63	11543	728	719	707	731	721	-5.75	64	11620	711	715	673	724	706	-6.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	715 DEG C	10	TE-5-7	714 DEG C	11	TE-5-8	709 DEG C	
12	TE-28-5	726 DEG C	13	TE-28-6	732 DEG C	14	TE-28-7	725 DEG C	
15	TE-28-8	722 DEG C	17	TE-39-6	730 DEG C	19	PE-301	191 KPA	
23	TE-44-8	725 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C	
26	TE-322	348 DEG C	27	TE-323	658 DEG C	28	TE-324	636 DEG C	
29	TE-325	648 DEG C	30	TE-326	601 DEG C	31	TE-327	590 DEG C	
41	TE-91-2	521 DEG C	44	TE-92-1	577 DEG C	45	TE-92-2	506 DEG C	
46	TE-92-3	637 DEG C	47	TE-92-4	463 DEG C	49	TE-93-2	487 DEG C	
50	TE-93-3	655 DEG C	52	TE-94-1	610 DEG C	53	TE-94-2	470 DEG C	
54	TE-94-3	515 DEG C	472	EIE-10	2387 A	473	EEE-10	82 V	
488	TAV-10	739 DEG C							

TABLE B- 90. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 43 S AFTER POWER-ON

TIME FROM POWER-ON 43.00 SEC. TIME FROM POWER-OFF -5.45 SEC. RECORD NUMBER 525-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11629	720	722	726	703	718	-6.60	2	10889	745	730	734	736	736	-2.65
3	11276	738	731	727	739	734	-3.90	4	10796	748	733	738	731	738	-1.85
5	11118	733	716	745	748	736	-4.50	6	11353	742	740	748	736	742	-3.40
7	11027	747	742	734	756	745	-2.75	8	11288	727	730	725	717	725	-4.35
9	11249	725	737	741	744	737	-5.15	10	10840	751	736	739	730	739	-3.30
11	10592	745	734	742	744	741	-2.50	12	10507	751	763	750	751	754	-2.60
13	10754	725	736	742	743	737	-2.55	14	10387	750	758	762	753	756	-2.05
15	10945	741	746	735	748	742	-2.80	16	10652	748	754	758	750	753	-1.55
17	11356	742	732	721	735	733	-5.45	18	10663	748	752	754	753	752	-2.25
19	10762	744	749	751	716	740	-3.50	20	10663	739	735	739	742	739	-3.20
21	10019	738	743	752	755	747	-1.00	22	10678	755	747	739	748	747	-3.25
23	10460	754	748	738	739	744	-2.20	24	11134	735	720	744	736	734	-3.65
25	11301	738	736	725	718	729	-3.20	26	10910	725	750	732	738	736	-2.60
27	10416	753	739	738	759	747	-2.10	28	10664	759	733	754	733	744	-2.70
29	10589	748	740	736	751	744	-2.30	30	10769	744	738	726	737	736	-3.40
31	10609	730	754	751	748	746	-1.90	32	11211	724	746	729	738	732	-3.80
33	11307	732	736	728	734	733	-4.30	34	10959	733	735	713	752	733	-2.90
35	10872	750	750	732	754	746	-2.85	36	10640	741	753	740	740	743	-2.10
37	10922	748	732	738	743	740	-4.20	38	10378	745	743	744	753	746	-2.70
39	10980	738	735	723	742	735	-3.70	40	11102	749	742	749	747	747	-3.45
41	11361	733	710	725	744	728	-3.50	42	11026	748	736	748	746	745	-3.25
43	10802	748	756	729	741	743	-1.90	44	10848	731	738	738	731	734	-3.10
45	10897	743	735	751	726	739	-3.75	46	10841	254	746	730	739	617	-3.25
47	10823	750	751	740	749	748	-2.50	48	11307	718	729	736	729	728	-4.80
49	11441	720	725	711	731	722	-3.90	50	10905	723	739	724	734	730	-2.70
51	11049	743	735	741	724	736	-4.05	52	10502	739	728	741	746	738	-2.20
53	11064	720	740	720	732	728	-3.30	54	10948	743	728	741	748	740	-2.90
55	11080	725	726	723	727	725	-3.35	56	11205	744	743	719	733	735	-4.05
57	11451	704	731	705	726	717	-4.90	58	11123	728	728	711	731	724	-3.45
59	11222	728	714	731	744	729	-3.30	60	11151	711	737	731	724	726	-4.20
61	11182	733	736	740	725	734	-3.20	62	-3	732	706	722	725	721	******
63	11283	732	726	712	740	727	-4.75	64	11423	716	724	682	730	713	-5.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	723 DEG C	10	TE-5-7	721 DEG C	11	TE-5-8	717 DEG C
12	TE-28-5	735 DEG C	13	TE-28-6	741 DEG C	14	TE-28-7	734 DEG C
15	TE-28-8	730 DEG C	17	TE-39-6	736 DEG C	19	PE-301	191 KPA
23	TE-44-8	733 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C
26	TE-322	349 DEG C	27	TE-323	667 DEG C	28	TE-324	644 DEG C
29	TE-325	657 DEG C	30	TE-326	607 DEG C	31	TE-327	596 DEG C
41	TE-91-2	524 DEG C	44	TE-92-1	580 DEG C	45	TE-92-2	511 DEG C
46	TE-92-3	651 DEG C	47	TE-92-4	469 DEG C	49	TE-93-2	493 DEG C
50	TE-93-3	661 DEG C	52	TE-94-1	619 DEG C	53	TE-94-2	478 DEG C
54	TE-94-3	523 DEG C	472	EIE-10	2385 A	473	EEE-10	81 V
488	TAV-10	749 DEG C						

TABLE B- 91. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 44 S AFTER POWER-ON

TIME FROM POWER-ON 44.00 SEC. TIME FROM POWER-OFF -4.45 SEC. RECORD NUMBER 535-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11425	727	725	733	711	724	-5.60	2	10456	754	736	741	740	743	-1.65
3	10938	746	738	735	748	742	-2.90	4	10295	759	742	750	739	747	-0.85
5	10745	743	721	756	759	745	-3.50	6	10955	752	749	757	743	750	-2.40
7	10614	759	749	742	766	754	-1.75	8	10978	732	737	731	720	730	-3.35
9	10960	734	744	750	754	746	-4.15	10	10366	759	742	745	735	745	-2.30
11	10042	752	744	750	753	750	-1.50	12	9942	765	773	760	757	764	-1.60
13	10209	737	745	751	749	746	-1.55	14	9731	757	768	764	759	762	-1.05
15	10501	749	752	742	753	749	-1.80	16	10097	758	764	770	760	763	-0.55
17	11050	748	736	724	746	738	-4.45	18	10083	756	762	764	761	760	-1.25
19	10246	754	752	762	723	748	-2.50	20	10130	746	743	747	748	746	-2.20
21	9110	745	752	763	766	757	0.00	22	10108	764	757	747	759	757	-2.25
23	9874	763	759	746	747	754	-1.20	24	10764	737	731	753	745	741	-2.65
25	10966	748	744	732	725	737	-2.20	26	10416	734	759	739	745	745	-1.60
27	9737	760	746	747	749	751	-1.10	28	10139	769	740	764	741	753	-1.70
29	10004	759	758	740	761	755	-1.30	30	10287	752	746	736	745	745	-2.40
31	10025	742	762	760	761	756	-0.90	32	10848	731	755	725	748	740	-2.80
33	10985	742	746	732	740	740	-3.30	34	10490	741	740	723	763	742	-1.90
35	10393	760	760	739	764	756	-1.85	36	10013	747	765	748	747	751	-1.10
37	10490	758	739	746	751	748	-3.20	38	9741	756	754	755	763	757	-1.70
39	10543	745	744	732	755	744	-2.70	40	10703	759	752	759	756	756	-2.45
41	11017	744	721	732	754	738	-2.50	42	10586	758	746	758	752	753	-2.25
43	10264	759	766	738	746	752	-0.90	44	10361	738	744	746	735	741	-2.10
45	10444	746	742	760	736	746	-2.75	46	10335	256	756	741	745	625	-2.25
47	10329	762	762	751	758	758	-1.50	48	10975	725	737	746	737	736	-3.80
49	11159	727	725	719	736	727	-2.90	50	10429	731	750	731	743	739	-1.70
51	10653	751	744	750	733	745	-3.05	52	9894	746	735	749	752	746	-1.20
53	10654	726	749	727	740	736	-2.30	54	10486	753	736	750	758	749	-1.90
55	10653	732	735	731	734	733	-2.35	56	10861	754	751	740	742	747	-3.05
57	11185	709	740	713	731	723	-3.90	58	10749	735	735	714	740	731	-2.45
59	10873	734	721	737	751	736	-2.30	60	10800	718	742	738	729	731	-3.20
61	10819	741	747	748	733	742	-2.20	62	-4	740	715	731	733	730	******
63	10942	740	732	718	746	734	-3.75	64	11165	722	733	691	741	722	-4.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	731 DEG C	10	TE-5-7	728 DEG C	11	TE-5-8	726 DEG C
12	TE-28-5	742 DEG C	13	TE-28-6	751 DEG C	14	TE-28-7	741 DEG C
15	TE-28-8	738 DEG C	17	TE-39-6	745 DEG C	19	PE-301	191 KPA
23	TE-44-8	741 DEG C	24	TE-320	369 DEG C	25	TE-321	358 DEG C
26	TE-322	349 DEG C	27	TE-323	676 DEG C	28	TE-324	652 DEG C
29	TE-325	666 DEG C	30	TE-326	613 DEG C	31	TE-327	602 DEG C
41	TE-91-2	525 DEG C	44	TE-92-1	586 DEG C	45	TE-92-2	514 DEG C
46	TE-92-3	652 DEG C	47	TE-92-4	475 DEG C	49	TE-93-2	496 DEG C
50	TE-93-3	662 DEG C	52	TE-94-1	630 DEG C	53	TE-94-2	486 DEG C
54	TE-94-3	532 DEG C	472	EIE-10	2385 A	473	EEE-10	81 V
488	TAV-10	755 DEG C						

TABLE B- 92. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 45 S AFTER POWER-ON

TIME FROM POWER-ON 45.00 SEC. TIME FROM POWER-OFF -3.45 SEC. RECORD NUMBER 545-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	11134	725	721	740	720	727	-4.60	2	9823	763	743	750	739	749	-0.65
3	10519	748	744	743	756	748	-1.90	4	5127	763	741	750	747	750	0.15
5	10271	748	726	751	756	746	-2.50	6	10411	756	760	766	742	756	-1.40
7	10082	760	754	750	772	759	-0.75	8	10572	737	746	736	717	734	-2.35
9	10541	739	754	760	764	754	-3.15	10	9693	769	749	753	737	752	-1.30
11	9233	760	748	759	761	757	-0.50	12	9141	771	782	768	762	771	-0.60
13	9408	754	753	763	754	756	-0.55	14	8730	762	777	773	763	769	-0.05
15	9872	753	756	744	762	755	-0.80	16	401	762	764	769	652	737	0.45
17	10624	756	739	722	754	743	-3.45	18	9167	763	772	768	766	767	-0.25
19	9513	759	754	769	730	753	-1.50	20	937	755	751	753	754	753	-1.20
21	2	745	753	764	772	758	1.00	22	930	773	767	755	765	765	-1.25
23	8991	771	768	754	764	764	-0.20	24	10243	745	739	762	748	748	-1.65
25	10483	758	748	739	732	744	-1.20	26	9679	747	765	746	753	753	-0.60
27	8619	767	752	755	756	757	-0.10	28	9376	779	747	772	748	761	-0.70
29	9075	767	767	744	769	762	-0.30	30	9599	762	755	741	754	753	-1.40
31	5946	711	764	745	752	743	0.10	32	10355	735	763	731	753	745	-1.80
33	10507	753	749	730	742	744	-2.30	34	9796	748	750	733	772	751	-0.90
35	9658	769	771	744	772	764	-0.85	36	9004	753	770	755	753	758	-0.10
37	9886	766	746	755	755	755	-2.20	38	8774	767	765	768	772	768	-0.70
39	9920	751	752	740	765	752	-1.70	40	10145	769	760	767	766	766	-1.45
41	10551	750	728	738	763	745	-1.50	42	9939	770	756	768	756	762	-1.25
43	4471	765	768	723	749	751	0.10	44	9655	744	718	755	737	738	-1.10
45	9819	753	750	766	748	754	1.75	46	9621	258	766	750	752	632	-1.25
47	9556	772	769	762	769	768	-0.50	48	10522	732	744	756	739	743	-2.80
49	10778	734	737	725	750	737	-1.90	50	9717	736	762	738	750	747	-0.70
51	10090	760	751	749	740	750	-2.05	52	8954	754	741	756	761	753	-0.20
53	10085	728	752	733	748	740	-1.30	54	9806	764	744	758	766	758	-0.90
55	10062	738	742	738	742	740	-1.35	56	10373	763	761	752	751	757	-2.05
57	10830	721	748	722	734	731	-2.90	58	10225	743	741	717	745	736	-1.45
59	10387	742	728	742	760	743	-1.30	60	10316	724	750	743	733	737	-2.20
61	10298	749	751	756	738	748	-1.20	62	-21	749	723	741	741	738	******
63	10483	747	737	728	750	741	-2.75	64	10825	729	742	698	749	730	-3.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	740 DEG C	10	TE-5-7	737 DEG C	11	TE-5-8	726 DEG C
12	TE-28-5	748 DEG C	13	TE-28-6	769 DEG C	14	TE-28-7	749 DEG C
15	TE-28-8	745 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	216 KPA
23	TE-44-8	742 DEG C	24	TE-320	370 DEG C	25	TE-321	359 DEG C
26	TE-322	346 DEG C	27	TE-323	690 DEG C	28	TE-324	659 DEG C
29	TE-325	678 DEG C	30	TE-326	642 DEG C	31	TE-327	629 DEG C
41	TE-91-2	541 DEG C	44	TE-92-1	609 DEG C	45	TE-92-2	537 DEG C
46	TE-92-3	653 DEG C	47	TE-92-4	510 DEG C	49	TE-93-2	524 DEG C
50	TE-93-3	646 DEG C	52	TE-94-1	632 DEG C	53	TE-94-2	501 DEG C
54	TE-94-3	547 DEG C	472	EIE-10	2382 A	473	EEE-10	81 V
488	TAV-10	781 DEG C						

TABLE B- 93. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 46 S AFTER POWER-ON

TIME FROM POWER-ON 46.00 SEC. TIME FROM POWER-OFF -2.45 SEC. RECORD NUMBER 555-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10775	719	655	746	729	712	-3.60	2	689	748	738	764	704	738	0.35
3	9927	734	748	751	755	747	-0.90	4	9	754	751	748	758	753	1.15
5	9687	754	726	756	764	750	-1.50	6	9685	764	760	775	731	757	-0.40
7	4256	732	745	755	747	745	0.25	8	10048	739	753	736	711	735	-1.35
9	9999	739	700	768	762	742	-2.15	10	8703	757	756	770	738	755	-0.30
11	362	760	748	758	757	756	0.50	12	310	756	770	765	756	762	0.40
13	296	759	759	761	752	758	0.45	14	9	765	776	767	765	768	0.95
15	2910	750	751	732	753	746	0.20	16	1	767	778	783	657	746	1.45
17	10093	759	728	725	765	744	-2.45	18	25	760	774	772	772	769	0.75
19	8425	760	760	771	739	758	-0.50	20	8254	760	763	758	759	760	-0.20
21	8	758	764	761	775	764	2.00	22	8065	773	777	763	762	769	-0.25
23	55	776	765	757	772	768	0.80	24	9535	754	747	767	749	754	-0.65
25	9859	762	751	754	736	751	-0.20	26	1036	753	764	745	758	755	0.40
27	21	769	747	764	759	760	0.90	28	1362	765	743	771	746	756	0.30
29	77	764	773	736	765	759	0.70	30	8631	780	766	751	762	765	-0.40
31	2	755	765	761	761	760	1.10	32	9687	742	759	735	747	746	-0.80
33	9924	761	692	718	750	730	-1.30	34	5133	732	749	720	757	739	0.10
35	3013	761	771	735	776	761	0.15	36	111	765	765	754	757	760	0.90
37	9049	772	751	762	762	762	-1.20	38	738	763	764	759	762	762	0.30
39	9026	759	757	749	768	759	-0.70	40	9391	778	770	762	768	770	-0.45
41	9875	748	724	745	768	746	-0.50	42	8879	774	761	773	763	768	-0.25
43	7	773	762	747	760	761	1.10	44	8514	750	706	763	737	739	-0.10
45	8844	768	758	769	759	764	-0.75	46	8481	260	762	758	763	636	-0.25
47	393	775	763	757	759	764	0.50	48	9957	737	754	755	723	742	-1.80
49	10263	739	750	730	756	744	-0.90	50	1169	736	767	745	755	751	0.30
51	9307	768	757	753	748	757	-1.05	52	-24	756	743	757	766	756	0.80
53	9262	728	766	739	756	747	-0.30	54	5127	770	747	758	756	758	0.10
55	9193	742	760	742	750	749	-0.35	56	9736	771	767	760	758	764	-1.05
57	10357	739	751	737	736	741	-1.90	58	9520	752	744	672	748	729	-0.45
59	9703	753	731	744	768	749	-0.30	60	9691	740	745	736	735	739	-1.20
61	9503	766	744	753	744	752	-0.20	62	-128	756	727	734	747	741	******
63	9876	762	739	711	749	740	-1.75	64	10380	734	738	701	755	732	-2.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	229 DEG C	10	TE-5-7	742 DEG C	11	TE-5-8	723 DEG C
12	TE-28-5	753 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	753 DEG C
15	TE-28-8	746 DEG C	17	TE-39-6	1061 DEG C	19	PE-301	315 KPA
23	TE-44-8	722 DEG C	24	TE-320	398 DEG C	25	TE-321	389 DEG C
26	TE-322	355 DEG C	27	TE-323	714 DEG C	28	TE-324	694 DEG C
29	TE-325	704 DEG C	30	TE-326	668 DEG C	31	TE-327	652 DEG C
41	TE-91-2	647 DEG C	44	TE-92-1	616 DEG C	45	TE-92-2	607 DEG C
46	TE-92-3	604 DEG C	47	TE-92-4	597 DEG C	49	TE-93-2	663 DEG C
50	TE-93-3	684 DEG C	52	TE-94-1	648 DEG C	53	TE-94-2	525 DEG C
54	TE-94-3	538 DEG C	472	EIE-10	2380 A	473	SPE-10	81 V
488	TAV-10	765 DEG C						

TABLE B- 94. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 47 S AFTER POWER-ON

TIME FROM POWER-ON 47.00 SEC. TIME FROM POWER-OFF -1.45 SEC. RECORD NUMBER 565-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10434	718	651	755	736	715	-2.60	2	8	747	732	781	697	739	1.35
3	4702	724	721	749	740	733	0.10	4	8	719	765	754	760	749	2.15
5	9085	746	728	757	774	751	-0.50	6	97	746	761	778	705	747	0.60
7	30	734	744	761	753	748	1.25	8	9556	740	764	733	699	734	-0.35
9	9424	733	684	776	732	731	-1.15	10	71	758	754	767	737	754	0.70
11	1	767	764	766	774	768	1.50	12	8	768	769	778	764	770	1.40
13	3	769	778	769	768	771	1.45	14	8	774	783	768	768	773	1.95
15	2	760	764	745	762	758	1.20	16	0	753	787	792	643	744	2.45
17	9572	766	716	718	773	744	-1.45	18	17	765	785	781	781	778	1.75
19	210	773	758	780	739	763	0.50	20	23	764	767	760	763	763	0.80
21	9	766	773	772	776	772	3.00	22	21	776	777	768	760	770	0.75
23	13	783	767	765	773	772	1.80	24	683	776	745	750	720	748	0.35
25	25	765	747	762	725	750	0.80	26	3	750	774	757	767	762	1.40
27	16	773	755	783	767	769	1.90	28	15	773	756	779	765	768	1.30
29	25	780	788	739	775	771	1.70	30	157	785	773	756	764	769	0.60
31	9	766	769	776	765	769	2.10	32	2104	740	755	729	749	743	0.20
33	9249	769	678	718	758	731	-0.30	34	23	755	756	743	775	757	1.10
35	29	771	784	744	785	771	1.15	36	113	773	770	760	765	767	1.90
37	8030	782	759	771	769	770	-0.20	38	19	776	767	769	782	774	1.30
39	593	746	755	740	766	752	0.30	40	146	755	763	721	758	749	0.55
41	314	748	749	731	772	750	0.50	42	31	772	743	770	764	762	0.75
43	-6	781	788	748	770	772	2.10	44	15	757	744	774	741	754	0.90
45	1606	748	757	761	762	757	0.25	46	27	262	759	751	762	633	0.75
47	11	787	763	762	773	771	1.50	48	9344	743	758	757	703	740	-0.80
49	5823	741	740	725	754	740	0.10	50	-21	744	777	767	761	762	1.30
51	8216	772	760	758	755	761	-0.05	52	-20	745	749	765	772	758	1.80
53	28	733	763	742	754	748	0.70	54	-25	778	761	762	780	770	1.10
55	-7	721	762	746	754	746	0.65	56	9019	781	777	747	749	764	-0.05
57	9916	745	731	746	740	740	-0.90	58	549	756	742	721	746	741	0.55
59	50	753	727	741	755	744	0.70	60	8988	747	752	712	741	738	-0.20
61	-38	771	725	748	749	749	0.80	62	-217	764	731	739	754	747	******
63	9250	771	738	690	751	737	-0.75	64	9976	736	729	696	696	714	-1.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	243 DEG C	10	TE-5-7	747 DEG C	11	TE-5-8	742 DEG C
12	TE-28-5	759 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	762 DEG C
15	TE-28-8	757 DEG C	17	TE-39-6	754 DEG C	19	PE-301	412 KPA
23	TE-44-8	728 DEG C	24	TE-320	381 DEG C	25	TE-321	396 DEG C
26	TE-322	371 DEG C	27	TE-323	725 DEG C	28	TE-324	708 DEG C
29	TE-325	714 DEG C	30	TE-326	683 DEG C	31	TE-327	669 DEG C
41	TE-91-2	650 DEG C	44	TE-92-1	636 DEG C	45	TE-92-2	610 DEG C
46	TE-92-3	608 DEG C	47	TE-92-4	635 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	648 DEG C	52	TE-94-1	667 DEG C	53	TE-94-2	543 DEG C
54	TE-94-3	534 DEG C	472	EIE-10	2382 A	473	EEE-10	82 V
488	TAV-10	770 DEG C						

TABLE B- 95. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 48 S AFTER POWER-ON

TIME FROM POWER-ON 48.00 SEC. TIME FROM POWER-OFF -0.45 SEC. RECORD NUMBER 575-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	10150	714	658	768	744	721	-1.60	2	12	753	745	776	693	742	2.35
3	13	719	734	759	752	741	1.10	4	5	702	770	759	764	749	3.15
5	294	724	718	753	780	744	0.50	6	2	767	771	791	691	755	1.60
7	13	734	746	774	757	753	2.25	8	7	733	778	718	694	731	0.65
9	8752	733	667	786	711	724	-0.15	10	10	764	765	773	747	762	1.70
11	-1	774	774	773	786	777	2.50	12	5	774	772	786	770	776	2.40
13	0	779	787	773	779	780	2.45	14	5	780	795	771	774	780	2.95
15	0	769	772	748	765	764	2.20	16	6	743	796	802	641	746	3.45
17	8996	772	729	723	783	752	-0.45	18	14	773	794	788	788	786	2.75
19	13	788	771	801	749	777	1.50	20	13	770	774	765	770	770	1.80
21	0	773	783	777	777	777	4.00	22	12	786	786	776	769	779	1.75
23	12	789	773	770	776	777	2.80	24	5	787	761	757	726	758	1.35
25	22	777	739	771	737	756	1.80	26	9	757	783	766	774	770	2.40
27	14	779	760	793	773	776	2.90	28	5	778	764	787	774	776	2.30
29	23	792	796	746	779	778	2.70	30	15	791	780	765	772	777	1.60
31	6	777	774	785	758	776	3.10	32	12	749	746	737	758	748	1.20
33	36	768	708	717	770	741	0.70	34	28	767	758	755	782	765	2.10
35	26.	790	794	752	793	782	2.15	36	111	780	773	767	771	773	2.90
37	18	760	756	769	767	763	0.80	38	25	784	774	776	792	781	2.30
39	21	768	762	753	773	764	1.30	40	31	754	775	693	769	748	1.55
41	43	754	750	746	780	757	1.50	42	22	770	753	781	769	768	1.75
43	14	788	792	769	780	782	3.10	44	20	765	758	783	748	763	1.90
45	0	764	770	764	773	768	1.25	46	17	263	762	765	771	640	1.75
47	9	798	778	767	782	781	2.50	48	1921	716	760	761	717	738	0.20
49	-1	743	766	730	761	750	1.10	50	-24	751	785	780	768	771	2.30
51	-26	770	758	777	757	766	0.95	52	-29	756	755	767	772	762	2.80
53	-25	742	783	750	767	760	1.70	54	-20	782	768	766	790	776	2.10
55	-24	741	765	754	764	756	1.65	56	-22	777	782	748	722	757	0.95
57	8116	704	714	734	734	722	0.10	58	-10	763	747	682	749	735	1.55
59	-34	760	731	747	776	753	1.70	60	-10	750	738	709	744	735	0.80
61	-48	768	718	741	756	746	1.80	62	-241	770	740	747	761	755	*****
63	1925	763	724	694	740	730	0.25	64	9621	741	726	702	701	717	-0.65

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	214 DEG C	10	TE-5-7	751 DEG C	11	TE-5-8	749 DEG C
12	TE-28-5	767 DEG C	13	TE-28-6	769 DEG C	14	TE-28-7	771 DEG C
15	TE-28-8	767 DEG C	17	TE-39-6	762 DEG C	19	PE-301	436 KPA
23	TE-44-8	721 DEG C	24	TE-320	401 DEG C	25	TE-321	382 DEG C
26	TE-322	364 DEG C	27	TE-323	716 DEG C	28	TE-324	700 DEG C
29	TE-325	702 DEG C	30	TE-326	666 DEG C	31	TE-327	656 DEG C
41	TE-91-2	653 DEG C	44	TE-92-1	652 DEG C	45	TE-92-2	613 DEG C
46	TE-92-3	612 DEG C	47	TE-92-4	655 DEG C	49	TE-93-2	660 DEG C
50	TE-93-3	681 DEG C	52	TE-94-1	674 DEG C	53	TE-94-2	552 DEG C
54	TE-94-3	535 DEG C	472	EIE-10	2377 A	473	EEE-10	81 V
488	TAV-10	776 DEG C						

TABLE B- 96. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 49 S AFTER POWER-ON

TIME FROM POWER-ON 49.00 SEC. TIME FROM POWER-OFF 0.55 SEC. RECORD NUMBER 585-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	9862	712	666	777	748	726	-0.60	2	12	761	760	795	683	750	3.35
3	21	732	746	773	756	752	2.10	4	12	700	775	765	772	753	4.15
5	12	732	732	756	790	752	1.50	6	9	775	778	798	690	760	2.60
7	13	743	749	783	764	760	3.25	8	22	736	782	739	702	740	1.65
9	10	726	659	780	683	712	0.85	10	10	773	778	782	751	771	2.70
11	-1	783	781	781	797	785	3.50	12	12	781	778	795	777	783	3.40
13	0	786	794	780	787	787	3.45	14	12	786	806	776	781	787	3.95
15	14	779	780	752	771	771	3.20	16	5	746	803	810	635	749	4.45
17	185	783	731	723	789	756	0.55	18	14	780	800	793	796	792	3.75
19	20	795	781	809	757	785	2.50	20	20	777	782	773	777	777	2.80
21	14	780	791	783	782	784	5.00	22	26	793	795	784	777	787	2.75
23	19	796	782	776	784	784	3.80	24	12	794	769	763	738	766	2.35
25	29	780	730	776	747	758	2.80	26	15	766	787	774	781	777	3.40
27	21	786	772	801	781	785	3.90	28	12	784	772	795	782	783	3.30
29	30	801	803	751	783	784	3.70	30	8	799	786	773	780	785	2.60
31	13	785	782	792	773	783	4.10	32	26	758	748	745	765	754	2.20
33	6	772	692	723	779	741	1.70	34	20	776	762	762	789	772	3.10
35	40	801	802	763	802	792	3.15	36	117	789	779	775	777	780	3.90
37	18	770	766	778	776	772	1.80	38	24	789	781	783	800	788	3.30
39	21	778	769	764	780	773	2.30	40	23	754	783	685	771	748	2.55
41	50	757	785	755	785	766	2.50	42	36	775	764	789	775	776	2.75
43	6	796	799	776	787	790	4.10	44	27	773	768	792	753	772	2.90
45	15	772	779	770	781	775	2.25	46	24	265	769	777	776	647	2.75
47	8	807	796	772	791	791	3.50	48	16	740	766	781	779	766	1.20
49	13	747	773	736	776	758	2.10	50	-9	758	796	786	775	779	3.30
51	-27	779	764	784	767	773	1.95	52	-15	766	760	772	778	769	3.80
53	-18	749	791	758	777	769	2.70	54	-20	785	774	774	792	781	3.10
55	-17	755	769	761	769	764	2.65	56	-23	790	786	748	715	760	1.95
57	-7	707	772	741	747	742	1.10	58	-10	770	751	674	758	738	2.55
59	-20	761	734	752	786	758	2.70	60	-18	759	745	706	752	741	1.60
61	-41	782	718	746	762	752	2.80	62	-227	777	746	756	767	761	*****
63	-22	772	740	732	753	749	1.25	64	801	732	731	677	691	708	0.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	59 DEG C	10	TE-5-7	755 DEG C	11	TE-5-8	755 DEG C
12	TE-28-5	775 DEG C	13	TE-28-6	777 DEG C	14	TE-28-7	780 DEG C
15	TE-28-8	775 DEG C	17	TE-39-6	769 DEG C	19	PE-301	422 KPA
23	TE-44-8	716 DEG C	24	TE-320	380 DEG C	25	TE-321	371 DEG C
26	TE-322	356 DEG C	27	TE-323	677 DEG C	28	TE-324	655 DEG C
29	TE-325	657 DEG C	30	TE-326	630 DEG C	31	TE-327	641 DEG C
41	TE-91-2	657 DEG C	44	TE-92-1	650 DEG C	45	TE-92-2	619 DEG C
46	TE-92-3	619 DEG C	47	TE-92-4	645 DEG C	49	TE-93-2	661 DEG C
50	TE-93-3	662 DEG C	52	TE-94-1	677 DEG C	53	TE-94-2	562 DEG C
54	TE-94-3	540 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	785 DEG C						

TABLE B- 97. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 50 S AFTER POWER-ON

TIME FROM POWER-ON 50.00 SEC. TIME FROM POWER-OFF 1.55 SEC. RECORD NUMBER 595-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	719	701	674	770	737	720	0.40	2	29	764	763	796	696	755	4.35
3	31	740	743	779	759	755	3.10	4	18	702	780	769	778	757	5.15
5	22	736	730	756	790	753	2.50	6	18	776	782	798	694	763	3.60
7	77	749	752	784	770	764	4.25	8	22	744	778	737	706	741	2.65
9	27	732	659	784	681	714	1.85	10	30	779	782	787	744	773	3.70
11	14	790	783	788	802	791	4.50	12	22	788	785	802	783	789	4.40
13	6	786	798	787	795	792	4.45	14	21	793	811	782	788	793	4.95
15	19	786	786	746	776	774	4.20	16	13	750	802	809	631	748	5.45
17	22	788	733	723	793	759	1.55	18	20	785	800	798	801	796	4.75
19	35	797	789	810	760	789	3.50	20	24	784	789	781	784	785	3.80
21	16	787	797	793	787	791	6.00	22	35	798	801	789	784	793	3.75
23	30	800	790	780	790	790	4.80	24	23	794	768	768	746	769	3.35
25	35	782	726	777	754	760	3.80	26	24	771	792	781	786	782	4.40
27	29	792	780	805	787	791	4.90	28	23	794	767	801	787	788	4.30
29	40	803	805	745	793	787	4.70	30	28	802	792	777	787	790	3.60
31	18	785	790	795	778	787	5.10	32	27	764	750	748	770	758	3.20
33	32	773	692	717	781	741	2.70	34	38	781	767	766	795	777	4.10
35	47	804	807	773	805	797	4.15	36	127	797	786	782	784	787	4.90
37	34	778	775	785	783	780	2.80	38	26	795	788	786	804	794	4.30
39	26	782	777	768	785	778	3.30	40	23	753	786	685	771	749	3.55
41	60	760	771	764	787	770	3.50	42	33	786	774	792	782	783	3.75
43	7	799	804	779	792	793	5.10	44	34	781	776	797	745	775	3.90
45	17	779	785	779	781	781	3.25	46	36	260	775	784	784	651	3.75
47	17	807	801	778	793	795	4.50	48	4	748	773	785	784	773	2.20
49	23	752	773	740	781	761	3.10	50	-5	764	799	786	782	783	4.30
51	-12	783	771	788	773	779	2.95	52	-10	775	766	781	783	776	4.80
53	-9	747	794	765	783	772	3.70	54	-3	788	780	779	796	786	4.10
55	-14	764	777	762	774	769	3.65	56	-13	794	791	757	714	764	2.95
57	-6	725	771	746	754	749	2.10	58	-2	776	755	675	765	743	3.55
59	-12	763	736	756	788	761	3.70	60	-5	758	747	711	757	744	2.80
61	-24	789	724	758	767	760	3.80	62	-75	777	748	759	768	763	******
63	-16	780	744	740	757	755	2.25	64	-13	744	0	695	696	534	1.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	761 DEG C	11	TE-5-8	724 DEG C
12	TE-28-5	782 DEG C	13	TE-28-6	785 DEG C	14	TE-28-7	786 DEG C
15	TE-28-8	785 DEG C	17	TE-39-6	775 DEG C	19	PE-301	270 KPA
23	TE-44-8	711 DEG C	24	TE-320	378 DEG C	25	TE-321	382 DEG C
26	TE-322	387 DEG C	27	TE-323	650 DEG C	28	TE-324	622 DEG C
29	TE-325	629 DEG C	30	TE-326	586 DEG C	31	TE-327	598 DEG C
41	TE-91-2	659 DEG C	44	TE-92-1	655 DEG C	45	TE-92-2	619 DEG C
46	TE-92-3	590 DEG C	47	TE-92-4	629 DEG C	49	TE-93-2	662 DEG C
50	TE-93-3	650 DEG C	52	TE-94-1	675 DEG C	53	TE-94-2	550 DEG C
54	TE-94-3	551 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	791 DEG C						

TABLE 8- 98. ENGINEERING UNITS PRINTOUT OF 8-5 TEST CONDITIONS 52 S AFTER POWER-ON

TIME FROM POWER-ON 52.00 SEC. TIME FROM POWER-OFF 3.55 SEC. RECORD NUMBER 615-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	12	707	684	769	739	725	2.40	2	16	765	756	794	718	758	6.35
3	28	743	746	782	760	758	5.10	4	14	712	778	774	781	761	7.15
5	25	748	735	758	787	757	4.50	6	4	778	784	795	708	766	5.60
7	67	755	762	783	770	767	6.25	8	21	750	777	734	715	744	4.65
9	16	738	669	782	686	719	3.85	10	18	787	788	793	751	780	5.70
11	0	797	783	799	799	794	6.50	12	17	795	793	810	792	797	6.40
13	3	785	804	781	801	793	6.45	14	14	802	813	790	797	800	6.95
15	15	780	792	750	783	776	6.20	16	1	742	798	807	636	746	7.45
17	20	785	737	729	792	761	3.55	18	24	792	797	803	806	800	6.75
19	27	798	798	811	769	794	5.50	20	26	795	799	775	793	791	5.80
21	14	797	803	802	796	799	8.00	22	25	803	805	797	796	800	5.75
23	18	802	795	789	797	796	6.80	24	13	791	765	773	752	770	5.35
25	31	783	734	777	735	757	5.80	26	20	774	797	786	794	788	6.40
27	25	800	773	811	799	795	6.90	28	15	776	776	807	795	789	6.30
29	31	802	806	750	803	791	6.70	30	16	803	802	775	801	795	5.60
31	19	783	802	793	788	791	7.10	32	38	759	755	757	776	762	5.20
33	3	770	700	722	781	743	4.70	34	22	771	776	764	804	779	6.10
35	37	805	809	766	807	797	6.15	36	110	803	797	791	793	796	6.90
37	25	788	768	794	794	786	4.80	38	24	805	798	795	804	801	6.30
39	23	779	787	771	792	782	5.30	40	28	756	788	692	772	752	5.55
41	58	765	771	765	785	771	5.50	42	35	799	768	795	791	788	5.75
43	-1	800	809	777	795	795	7.10	44	24	789	768	804	752	778	5.90
45	31	790	794	745	781	777	5.25	46	38	271	787	781	796	659	5.75
47	6	805	803	788	792	797	6.50	48	11	751	777	783	787	775	4.20
49	14	754	772	739	782	761	5.10	50	-10	761	797	786	789	783	6.30
51	-17	789	778	793	761	780	4.95	52	-18	784	768	786	792	783	6.80
53	-10	747	794	756	790	772	5.70	54	-12	787	788	782	798	789	6.10
55	-24	756	785	767	782	773	5.65	56	-15	791	789	765	715	765	4.95
57	-15	739	765	747	758	752	4.10	58	-12	778	758	708	764	752	5.55
59	-17	765	744	748	787	761	5.70	60	-9	756	748	728	763	749	4.80
61	-37	792	737	768	755	763	5.80	62	132	775	745	760	758	759	.....
63	-18	783	747	745	748	755	4.25	64	-19	748	0	701	700	537	3.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	765 DEG C	11	TE-5-8	736 DEG C
12	TE-28-5	792 DEG C	13	TE-28-6	791 DEG C	14	TE-28-7	794 DEG C
15	TE-28-8	792 DEG C	17	TE-39-6	785 DEG C	19	PE-301	62 KPA
23	TE-44-8	702 DEG C	24	TE-320	370 DEG C	25	TE-321	366 DEG C
26	TE-322	360 DEG C	27	TE-323	741 DEG C	28	TE-324	729 DEG C
29	TE-325	745 DEG C	30	TE-326	690 DEG C	31	TE-327	686 DEG C
41	TE-91-2	660 DEG C	44	TE-92-1	661 DEG C	45	TE-92-2	618 DEG C
46	TE-92-3	604 DEG C	47	TE-92-4	620 DEG C	49	TE-93-2	669 DEG C
50	TE-93-3	643 DEG C	52	TE-94-1	671 DEG C	53	TE-94-2	554 DEG C
54	TE-94-3	572 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	799 DEG C						

TABLE 8- 99. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 54 S AFTER POWER-ON

TIME FROM POWER-ON 54.00 SEC. TIME FROM POWER-OFF 5.55 SEC. RECORD NUMBER 635-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	3	716	684	765	735	725	4.40	2	0	766	745	791	729	758	8.35
3	19	751	747	781	763	761	7.10	4	4	722	764	779	781	761	9.15
5	3	756	736	761	783	759	6.50	6	-4	777	783	792	720	768	7.60
7	13	760	765	781	752	765	8.25	8	4	749	776	732	725	746	6.65
9	1	742	682	773	697	724	5.85	10	0	788	788	798	753	782	7.70
11	-8	798	782	805	787	793	8.50	12	1	799	797	813	797	801	8.40
13	-6	784	807	759	803	788	8.45	14	12	806	813	795	799	803	8.95
15	6	768	795	752	786	775	8.20	16	-9	739	795	803	639	744	9.45
17	17	782	744	732	791	762	5.55	18	0	795	790	803	811	800	8.75
19	18	799	795	812	777	796	7.50	20	15	802	806	748	796	788	7.80
21	11	803	806	788	803	800	10.00	22	0	806	808	802	803	805	7.75
23	6	798	796	794	801	797	8.80	24	12	788	763	773	740	766	7.35
25	14	781	745	779	706	753	7.80	26	9	778	800	779	795	788	8.40
27	14	802	754	818	805	795	8.90	28	4	757	782	810	798	787	8.30
29	28	792	807	753	811	791	8.70	30	6	801	807	775	811	798	7.60
31	9	783	810	782	795	792	9.10	32	4	741	760	756	775	758	7.20
33	8	765	708	722	778	743	6.70	34	19	754	779	756	808	774	8.10
35	21	804	813	750	809	794	8.15	36	100	806	806	793	791	799	8.90
37	15	789	745	799	802	784	6.80	38	13	813	803	796	801	803	8.30
39	5	767	792	769	797	781	7.30	40	17	760	785	706	772	756	7.55
41	48	768	770	752	783	768	7.50	42	24	804	755	792	795	787	7.75
43	2	795	813	772	793	793	9.10	44	14	792	745	810	755	776	7.90
45	13	795	802	687	781	766	7.25	46	13	275	791	770	802	659	7.75
47	3	805	803	794	783	797	8.50	48	8	741	775	782	786	771	6.20
49	3	751	773	730	779	758	7.10	50	-20	747	796	784	793	780	8.30
51	-36	791	778	798	745	778	6.95	52	-29	783	758	787	797	781	8.80
53	-28	748	795	739	794	769	7.70	54	-22	779	795	778	799	788	8.10
55	-36	738	792	771	783	771	7.65	56	-26	788	784	765	726	766	6.95
57	-24	743	762	745	757	752	6.10	58	-23	773	756	726	749	751	7.55
59	-28	765	748	733	783	757	7.70	60	-19	756	750	730	762	750	6.80
61	-45	794	742	771	736	761	7.80	62	144	772	738	760	748	755	*****
63	-28	785	741	747	730	751	6.25	64	-29	748	0	701	703	538	5.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	767 DEG C	11	TE-5-8	744 DEG C
12	TE-28-5	795 DEG C	13	TE-28-6	790 DEG C	14	TE-28-7	796 DEG C
15	TE-28-8	795 DEG C	17	TE-39-6	789 DEG C	19	PE-301	35 KPA
23	TE-44-8	677 DEG C	24	TE-320	347 DEG C	25	TE-321	357 DEG C
26	TE-322	352 DEG C	27	TE-323	754 DEG C	28	TE-324	748 DEG C
29	TE-325	767 DEG C	30	TE-326	720 DEG C	31	TE-327	719 DEG C
41	TE-91-2	662 DEG C	44	TE-92-1	662 DEG C	45	TE-92-2	618 DEG C
46	TE-92-3	614 DEG C	47	TE-92-4	658 DEG C	49	TE-93-2	677 DEG C
50	TE-93-3	636 DEG C	52	TE-94-1	668 DEG C	53	TE-94-2	567 DEG C
54	TE-94-3	589 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	803 DEG C						

TABLE B-100. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 56 S AFTER POWER-ON

TIME FROM POWER-ON 56.00 SEC. TIME FROM POWER-OFF 7.55 SEC. RECORD NUMBER 655-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	0	720	682	761	731	723	6.40	2	3	765	727	788	736	754	10.35
3	15	759	746	780	758	761	9.10	4	8	730	746	780	780	759	11.15
5	6	758	734	764	778	759	8.50	6	0	773	782	790	727	768	9.60
7	2	763	760	778	728	757	10.25	8	1	738	774	728	730	742	8.65
9	11	744	689	768	706	727	7.85	10	-2	785	782	801	752	780	9.70
11	-5	796	779	809	769	788	10.50	12	-2	800	797	810	798	801	10.40
13	-2	784	808	734	800	781	10.45	14	8	804	812	795	801	803	10.95
15	10	751	792	752	784	770	10.20	16	2	738	791	800	634	741	11.45
17	14	779	748	732	789	762	7.55	18	3	797	781	800	816	798	10.75
19	14	802	782	813	782	795	9.50	20	20	808	813	711	795	782	9.80
21	15	807	804	760	807	795	12.00	22	-3	807	810	805	803	806	9.75
23	4	787	786	793	802	792	10.80	24	8	786	758	773	718	759	9.35
25	18	781	746	782	675	746	9.80	26	6	780	801	762	787	782	10.40
27	19	796	728	823	810	789	10.90	28	9	709	785	812	797	776	10.30
29	18	776	807	754	816	788	10.70	30	3	792	812	771	812	797	9.60
31	13	784	811	765	798	789	11.10	32	9	720	765	743	764	748	9.20
33	5	754	717	722	775	742	8.70	34	16	735	772	743	808	764	10.10
35	24	803	816	727	810	789	10.15	36	97	804	813	790	776	796	10.90
37	12	779	718	799	808	776	8.80	38	10	818	805	788	790	800	10.30
39	9	751	791	763	801	777	9.30	40	21	759	780	714	771	756	9.55
41	37	770	773	730	778	763	9.50	42	21	804	741	785	799	782	9.75
43	0	784	817	764	786	788	11.10	44	18	786	721	813	756	769	9.90
45	10	795	806	587	782	742	9.25	46	18	280	788	753	809	658	9.75
47	8	807	803	798	770	795	10.50	48	5	718	770	778	784	762	8.20
49	0	737	775	718	776	752	9.10	50	-23	725	792	783	795	774	10.30
51	-39	791	771	799	726	772	8.95	52	-24	789	735	781	797	770	10.80
53	-31	749	794	718	793	764	9.70	54	-25	761	799	768	800	782	10.10
55	-31	715	791	772	782	765	9.65	56	-14	784	780	764	733	765	8.95
57	-20	741	761	743	750	749	8.10	58	-19	760	739	731	731	740	9.55
59	158	763	747	714	770	748	9.70	60	-22	756	753	718	754	745	8.80
61	-42	790	738	770	708	752	9.80	62	141	766	728	758	737	747	******
63	-31	785	730	747	702	741	8.25	64	-24	746	0	695	701	535	7.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	764 DEG C	11	TE-5-8	745 DEG C
12	TE-28-5	791 DEG C	13	TE-28-6	782 DEG C	14	TE-28-7	791 DEG C
15	TE-28-8	794 DEG C	17	TE-39-6	780 DEG C	19	PE-301	53 KPA
23	TE-44-8	654 DEG C	24	TE-320	141 DEG C	25	TE-321	278 DEG C
26	TE-322	296 DEG C	27	TE-323	762 DEG C	28	TE-324	757 DEG C
29	TE-325	779 DEG C	30	TE-326	733 DEG C	31	TE-327	740 DEG C
41	TE-91-2	663 DEG C	44	TE-92-1	671 DEG C	45	TE-92-2	625 DEG C
46	TE-92-3	616 DEG C	47	TE-92-4	685 DEG C	49	TE-93-2	685 DEG C
50	TE-93-3	635 DEG C	52	TE-94-1	666 DEG C	53	TE-94-2	585 DEG C
54	TE-94-3	606 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	804 DEG C						

TABLE B-101. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 58 S AFTER POWER-ON

TIME FROM POWER-ON 58.00 SEC. TIME FROM POWER-OFF 9.55 SEC. RECORD NUMBER 675-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	-4	720	676	757	726	720	8.40	2	13	764	707	784	740	749	12.35
3	18	758	744	776	749	757	11.10	4	3	735	726	779	779	755	13.15
5	1	757	733	765	772	757	10.50	6	1	761	780	788	733	765	11.60
7	12	764	757	775	717	753	12.25	8	3	725	771	724	731	738	10.65
9	6	743	693	758	711	727	9.85	10	14	782	772	802	750	776	11.70
11	-2	791	774	810	756	783	12.50	12	7	799	797	801	796	798	12.40
13	0	783	807	715	797	776	12.45	14	11	796	809	794	800	800	12.95
15	5	728	788	751	782	762	12.20	16	-2	738	788	796	631	738	13.45
17	8	773	749	731	787	760	9.55	18	-1	797	770	794	817	794	12.75
19	10	803	768	813	784	792	11.50	20	22	809	816	686	792	776	11.80
21	3	808	801	766	809	796	14.00	22	5	808	808	807	800	805	11.75
23	13	779	776	792	800	787	12.80	24	17	783	753	772	703	753	11.35
25	20	780	743	782	653	740	11.80	26	8	781	800	741	777	775	12.40
27	13	789	700	825	809	781	12.90	28	3	673	786	813	793	767	12.30
29	27	765	806	755	818	786	12.70	30	12	788	813	768	811	795	11.60
31	8	783	812	750	799	786	13.10	32	11	708	768	729	758	741	11.20
33	7	743	721	720	771	739	10.70	34	18	719	766	733	813	758	12.10
35	19	800	818	696	810	781	12.15	36	99	800	815	783	760	790	12.90
37	21	770	683	795	812	765	10.80	38	12	820	807	778	783	797	12.30
39	19	735	787	756	803	771	11.30	40	23	756	764	720	770	752	11.55
41	32	768	773	711	774	757	11.50	42	31	804	725	779	798	776	11.75
43	16	774	820	755	779	782	13.10	44	21	780	697	814	756	762	11.90
45	12	792	810	593	782	744	11.25	46	20	285	774	740	810	652	11.75
47	10	804	801	799	759	791	12.50	48	0	702	759	776	784	755	10.20
49	2	731	775	706	772	746	11.10	50	-13	709	790	781	795	769	12.30
51	-37	789	759	798	711	764	10.95	52	-22	757	722	768	796	761	12.80
53	-29	747	794	710	789	760	11.70	54	-23	753	798	756	797	776	12.10
55	-29	698	785	772	777	758	11.65	56	-19	781	775	762	735	763	10.95
57	-11	734	758	741	744	744	10.10	58	-17	751	730	729	720	733	11.55
59	-21	761	745	709	770	746	11.70	60	-20	755	755	699	747	739	10.80
61	-47	784	732	769	703	747	11.80	62	143	761	718	757	731	742	******
63	-22	784	719	744	686	733	10.25	64	-22	744	0	687	698	532	9.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	764 DEG C	11	TE-5-8	746 DEG C
12	TE-28-5	787 DEG C	13	TE-28-6	775 DEG C	14	TE-28-7	788 DEG C
15	TE-28-8	790 DEG C	17	TE-39-6	794 DEG C	19	PE-301	43 KPA
23	TE-44-8	645 DEG C	24	TE-320	112 DEG C	25	TE-321	235 DEG C
26	TE-322	224 DEG C	27	TE-323	765 DEG C	28	TE-324	760 DEG C
29	TE-325	782 DEG C	30	TE-326	737 DEG C	31	TE-327	745 DEG C
41	TE-91-2	659 DEG C	44	TE-92-1	676 DEG C	45	TE-92-2	629 DEG C
46	TE-92-3	615 DEG C	47	TE-92-4	693 DEG C	49	TE-93-2	692 DEG C
50	TE-93-3	633 DEG C	52	TE-94-1	664 DEG C	53	TE-94-2	598 DEG C
54	TE-94-3	622 DEG C	472	EIE-10	2 A	473	EEE-10	0 V
488	TAV-10	803 DEG C						

TABLE B-102. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 60 S AFTER POWER-ON

TIME FROM POWER-ON 60.00 SEC. TIME FROM POWER-OFF 11.55 SEC. RECORD NUMBER 695-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	5	718	669	753	721	716	10.40	2	1	781	689	780	741	743	14.35
3	14	756	741	770	740	752	13.10	4	6	738	716	777	777	752	15.15
5	4	756	731	765	766	754	12.50	6	-2	749	778	786	735	762	13.60
7	8	763	755	772	714	751	14.25	8	13	710	768	720	729	732	12.65
9	2	740	696	745	714	724	11.85	10	2	777	759	800	748	771	13.70
11	-6	784	769	808	746	777	14.50	12	3	798	795	792	792	794	14.40
13	-4	783	806	704	795	772	14.45	14	6	787	806	792	799	796	14.95
15	7	715	785	749	780	757	14.20	16	-7	738	785	792	628	736	15.45
17	4	767	748	730	785	757	11.55	18	1	796	757	788	815	789	14.75
19	13	802	755	813	785	789	13.50	20	10	809	816	674	785	771	13.80
21	-1	807	797	764	810	795	16.00	22	16	808	804	808	796	804	13.75
23	8	774	771	791	799	783	14.80	24	0	781	749	772	696	749	13.35
25	15	778	739	782	633	733	13.80	26	11	782	799	722	768	768	14.40
27	9	781	675	826	807	772	14.90	28	6	662	787	813	789	763	14.30
29	23	757	804	755	818	784	14.70	30	1	786	815	765	809	794	13.60
31	3	783	809	741	798	783	15.10	32	14	701	768	718	754	735	13.20
33	2	733	726	718	769	736	12.70	34	14	706	761	722	813	750	14.10
35	22	797	819	673	808	774	14.15	36	94	795	816	776	748	784	14.90
37	9	760	659	792	813	756	12.80	38	15	824	807	770	778	795	14.30
39	7	725	783	750	802	765	13.30	40	11	751	761	724	768	751	13.55
41	57	766	772	697	769	751	13.50	42	34	802	710	773	795	770	13.75
43	-2	763	821	745	774	776	15.10	44	16	773	678	813	756	755	13.90
45	15	788	810	588	782	742	13.25	46	15	291	760	732	809	648	13.75
47	-1	802	799	798	751	788	14.50	48	10	692	751	773	782	750	12.20
49	-1	723	773	696	769	740	13.10	50	-18	695	784	780	793	763	14.30
51	-42	787	749	797	699	758	12.95	52	-27	744	710	757	795	752	14.80
53	-19	747	793	703	783	757	13.70	54	-28	745	796	745	794	770	14.10
55	-34	687	780	771	772	752	13.65	56	-24	777	771	760	733	760	12.95
57	-22	727	755	738	740	740	12.10	58	-21	745	724	727	709	726	13.55
59	-34	758	744	703	766	743	13.70	60	-25	754	752	688	740	733	12.80
61	-51	776	723	768	697	741	13.80	62	146	754	711	755	724	736	******
63	-33	778	711	741	672	726	12.25	64	-27	743	0	678	696	529	11.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	760 DEG C	11	TE-5-8	744 DEG C
12	TE-28-5	780 DEG C	13	TE-28-6	766 DEG C	14	TE-28-7	783 DEG C
15	TE-28-8	785 DEG C	17	TE-39-6	767 DEG C	19	PE-301	40 KPA
23	TE-44-8	636 DEG C	24	TE-320	111 DEG C	25	TE-321	111 DEG C
26	TE-322	112 DEG C	27	TE-323	765 DEG C	28	TE-324	761 DEG C
29	TE-325	783 DEG C	30	TE-326	738 DEG C	31	TE-327	746 DEG C
41	TE-91-2	651 DEG C	44	TE-92-1	681 DEG C	45	TE-92-2	633 DEG C
46	TE-92-3	610 DEG C	47	TE-92-4	698 DEG C	49	TE-93-2	698 DEG C
50	TE-93-3	628 DEG C	52	TE-94-1	663 DEG C	53	TE-94-2	606 DEG C
54	TE-94-3	633 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	801 DEG C						

TABLE B-103. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 62 S AFTER POWER-ON

TIME FROM POWER-ON 62.00 SEC. TIME FROM POWER-OFF 13.55 SEC. RECORD NUMBER 715-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	-1	718	664	750	717	712	12.40	2	9	759	677	775	741	738	16.35
3	7	757	739	766	733	749	15.10	4	6	740	710	774	776	750	17.15
5	11	754	729	765	764	753	14.50	6	4	738	776	784	736	759	15.60
7	8	762	753	770	712	749	16.25	8	6	697	765	717	728	727	14.65
9	2	736	698	736	716	722	13.85	10	2	773	747	799	747	766	15.70
11	-6	780	765	807	739	773	16.50	12	3	796	793	786	789	791	16.40
13	-4	783	805	694	793	769	16.45	14	0	781	803	791	798	793	16.95
15	0	708	783	748	779	754	16.20	16	0	737	782	789	628	734	17.45
17	-3	762	746	728	784	755	13.55	18	1	795	746	783	813	784	16.75
19	5	801	746	814	785	786	15.50	20	10	808	816	666	779	767	15.80
21	-1	806	794	758	810	792	18.00	22	8	808	803	808	794	803	15.75
23	1	770	768	790	798	781	16.80	24	0	779	745	772	689	746	15.35
25	8	777	735	783	618	728	15.80	26	3	782	798	711	762	763	16.40
27	9	775	660	827	805	767	16.90	28	-8	654	787	814	786	760	16.30
29	23	749	803	754	819	781	16.70	30	8	783	815	762	808	792	15.60
31	3	783	808	733	798	781	17.10	32	14	694	768	713	751	732	15.20
33	2	725	730	717	765	734	14.70	34	14	696	758	711	812	744	16.10
35	22	793	820	660	807	770	16.15	36	94	791	816	772	741	780	16.90
37	9	754	648	789	812	751	14.80	38	15	826	806	765	773	792	16.30
39	22	717	780	745	802	761	15.30	40	-3	747	756	726	766	749	15.55
41	50	765	771	687	765	747	15.50	42	19	800	696	768	792	764	15.75
43	4	754	821	736	770	770	17.10	44	16	767	666	812	754	750	15.90
45	8	784	809	582	782	739	15.25	46	15	295	757	725	808	646	15.75
47	-1	799	797	796	745	784	16.50	48	3	684	746	771	780	745	14.20
49	-1	717	772	688	765	736	15.10	50	-25	684	781	779	790	758	16.30
51	-42	783	741	797	690	753	14.95	52	-35	736	701	751	794	746	16.80
53	-26	745	792	697	782	754	15.70	54	-28	737	794	737	791	765	16.10
55	-34	680	777	770	767	749	15.65	56	-24	773	766	758	729	757	14.95
57	-29	719	751	736	737	736	14.10	58	-29	741	718	726	702	722	15.55
59	-34	757	742	699	763	740	15.70	60	-25	753	749	682	735	730	14.80
61	-51	770	717	766	692	736	15.80	62	146	749	704	753	797	751	******
63	-33	773	704	740	663	720	14.25	64	-27	741	0	672	695	527	13.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	759 DEG C	11	TE-5-8	744 DEG C
12	TE-28-5	776 DEG C	13	TE-28-6	762 DEG C	14	TE-28-7	780 DEG C
15	TE-28-8	781 DEG C	17	TE-39-6	762 DEG C	19	PE-301	40 KPA
23	TE-44-8	633 DEG C	24	TE-320	121 DEG C	25	TE-321	111 DEG C
26	TE-322	112 DEG C	27	TE-323	765 DEG C	28	TE-324	761 DEG C
29	TE-325	784 DEG C	30	TE-326	738 DEG C	31	TE-327	746 DEG C
41	TE-91-2	644 DEG C	44	TE-92-1	684 DEG C	45	TE-92-2	637 DEG C
46	TE-92-3	608 DEG C	47	TE-92-4	701 DEG C	49	TE-93-2	702 DEG C
50	TE-93-3	624 DEG C	52	TE-94-1	661 DEG C	53	TE-94-2	612 DEG C
54	TE-94-3	648 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	799 DEG C						

TABLE B-104. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 64 S AFTER POWER-ON

TIME FROM POWER-ON 64.00 SEC. TIME FROM POWER-OFF 15.55 SEC. RECORD NUMBER 735-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	2	719	661	747	713	710	14.40	2	0	757	677	772	740	736	18.35
3	11	757	737	764	733	748	17.10	4	3	741	709	773	775	750	19.15
5	9	754	727	765	764	753	16.50	6	-5	732	775	782	736	756	17.60
7	-2	761	754	768	715	750	18.25	8	11	692	763	713	728	724	16.65
9	0	733	700	729	717	720	15.85	10	0	770	740	798	745	763	17.70
11	-9	779	761	807	735	770	18.50	12	0	795	793	785	787	790	18.40
13	-15	782	805	694	793	768	18.45	14	4	777	802	791	797	791	18.95
15	5	708	783	746	779	754	18.20	16	-10	736	780	786	630	733	19.45
17	-6	757	745	726	782	753	15.55	18	-1	795	736	780	813	781	18.75
19	10	799	742	814	786	785	17.50	20	7	807	814	664	777	766	17.80
21	-4	806	792	759	810	792	20.00	22	13	808	803	808	795	804	17.75
23	-2	769	769	791	798	782	18.80	24	-3	777	741	771	687	744	17.35
25	13	775	733	783	614	726	17.80	26	8	781	798	709	760	762	18.40
27	6	773	653	828	805	765	18.90	28	-3	661	786	814	786	762	18.30
29	13	744	802	753	819	780	18.70	30	-1	782	813	759	909	791	17.60
31	0	783	808	727	797	779	19.10	32	3	691	768	715	753	732	17.20
33	0	721	732	715	763	733	16.70	34	3	690	758	705	814	742	18.10
35	12	791	821	655	807	768	18.15	36	91	790	816	773	741	780	18.90
37	6	752	653	788	811	751	16.80	38	12	828	805	763	769	791	18.30
39	-2	713	780	742	802	759	17.30	40	16	746	755	727	765	748	17.55
41	39	763	771	684	762	745	17.50	42	31	800	689	766	790	761	17.75
43	-5	749	821	730	767	767	19.10	44	13	766	662	811	753	748	17.90
45	12	783	809	595	782	742	17.25	46	20	299	759	720	806	646	17.75
47	2	797	795	796	741	782	18.50	48	119	681	746	770	778	744	16.20
49	-5	716	768	682	764	732	17.10	50	-28	682	778	777	789	757	18.30
51	-45	780	737	798	685	750	16.95	52	-30	733	698	751	793	744	18.80
53	-37	744	791	694	783	753	17.70	54	-31	733	794	733	788	762	18.10
55	-37	677	777	769	765	747	17.65	56	-35	770	761	756	725	753	16.95
57	-25	714	747	733	738	733	16.10	58	-24	741	718	726	703	722	17.55
59	-29	756	741	698	761	739	17.70	60	-35	752	749	680	735	729	16.80
61	-54	766	715	765	691	734	17.80	62	151	747	699	752	712	727	******
63	-29	772	698	739	662	718	16.25	64	-30	739	0	669	694	525	15.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	759 DEG C	11	TE-5-8	744 DEG C
12	TE-28-5	776 DEG C	13	TE-28-6	763 DEG C	14	TE-28-7	780 DEG C
15	TE-28-8	780 DEG C	[illegible]	TE-39-6	763 DEG C	19	PE-301	36 KPA
23	TE-44-8	625 DEG C	[illegible]	TE-320	244 DEG C	25	TE-321	178 DEG C
26	TE-322	206 DEG C	27	[illegible]323	765 DEG C	28	TE-324	761 DEG C
29	TE-325	784 DEG C	30	TE-326	737 DEG C	31	TE-327	744 DEG C
41	TE-91-2	641 DEG C	44	TE-92-1	689 DEG C	45	TE-92-2	641 DEG C
46	TE-92-3	608 DEG C	47	TE-92-4	702 DEG C	49	TE-93-2	705 DEG C
50	TE-93-3	618 DEG C	52	TE-94-1	660 DEG C	53	TE-94-2	616 DEG C
54	TE-94-3	660 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	798 DEG C						

TABLE B-105. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 66 S AFTER POWER-ON

TIME FROM POWER-ON 66.00 SEC. TIME FROM POWER-OFF 17.55 SEC. RECORD NUMBER 755-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	-4	719	659	745	709	708	16.40	2	0	756	675	768	740	735	20.35
3	11	757	735	762	730	746	19.10	4	3	742	708	771	774	749	21.15
5	2	753	726	765	764	752	18.50	6	-5	726	773	780	736	754	19.60
7	5	760	753	766	716	749	20.25	8	-3	687	761	710	727	721	18.65
9	0	732	702	723	718	718	17.85	10	-7	769	736	797	743	761	19.70
11	-9	777	758	807	731	768	20.50	12	-6	794	793	784	785	789	20.40
13	-7	782	805	691	793	768	20.45	14	11	775	800	790	796	790	20.95
15	-2	705	783	745	780	753	20.20	16	-2	736	777	783	630	732	21.45
17	0	753	744	725	781	751	17.55	18	6	795	727	777	811	778	20.75
19	3	797	739	814	786	784	19.50	20	7	807	814	660	775	764	19.80
21	2	806	791	756	810	791	22.00	22	-9	808	802	808	796	804	19.75
23	-2	767	769	792	797	781	20.80	24	3	775	739	771	685	743	19.35
25	13	773	732	785	610	725	19.80	26	0	782	797	706	759	761	20.40
27	13	772	648	829	804	763	20.90	28	3	659	786	814	785	761	20.30
29	19	738	802	752	819	778	20.70	30	5	779	813	756	809	790	19.60
31	0	784	807	722	797	777	21.10	32	3	686	768	715	754	731	19.20
33	0	717	734	713	761	731	18.70	34	11	684	757	701	814	739	20.10
35	5	789	822	651	806	767	20.15	36	91	789	818	771	740	779	20.90
37	6	751	652	787	811	750	18.80	38	4	830	804	763	765	790	20.30
39	4	707	780	739	803	757	19.30	40	8	745	753	728	764	747	19.55
41	39	762	770	682	759	743	19.50	42	16	800	683	763	789	759	19.75
43	1	743	822	724	765	764	21.10	44	13	765	658	810	752	746	19.90
45	5	783	809	598	782	743	19.25	46	-82	301	761	714	806	646	19.75
47	2	795	793	795	736	780	20.50	48	0	676	745	768	776	741	18.20
49	-5	713	765	678	760	729	19.10	50	-28	680	775	776	788	755	20.30
51	-37	778	736	796	681	748	18.95	52	-38	730	696	750	793	742	20.80
53	-37	743	790	689	783	751	19.70	54	-31	728	794	730	786	760	20.10
55	-37	672	777	768	764	745	19.65	56	-27	766	757	755	722	750	18.95
57	-32	709	744	731	737	730	18.10	58	-24	740	716	725	701	721	19.55
59	-37	756	741	695	756	737	19.70	60	-35	752	747	677	733	727	18.80
61	-54	764	712	764	688	732	19.80	62	151	743	694	750	706	723	******
63	-29	769	692	739	660	715	18.25	64	-30	737	0	666	693	524	17.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	759 DEG C	11	TE-5-8	744 DEG C
12	TE-28-5	775 DEG C	13	TE-28-6	763 DEG C	14	TE-28-7	778 DEG C
15	TE-28-8	780 DEG C	17	TE-39-6	763 DEG C	19	PE-301	36 KPA
23	TE-44-8	620 DEG C	24	TE-320	272 DEG C	25	TE-321	235 DEG C
26	TE-322	261 DEG C	27	TE-323	765 DEG C	28	TE-324	761 DEG C
29	TE-325	785 DEG C	30	TE-326	736 DEG C	31	TE-327	743 DEG C
41	TE-91-2	639 DEG C	44	TE-92-1	691 DEG C	45	TE-92-2	643 DEG C
46	TE-92-3	608 DEG C	47	TE-92-4	703 DEG C	49	TE-93-2	707 DEG C
50	TE-93-3	612 DEG C	52	TE-94-1	659 DEG C	53	TE-94-2	618 DEG C
54	TE-94-3	667 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	797 DEG C						

TABLE B-106. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 68 S AFTER POWER-ON

TIME FROM POWER-ON 68.00 SEC. TIME FROM POWER-OFF 19.55 SEC. RECORD NUMBER 775-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	-11	717	655	742	705	705	18.40	2	6	753	672	765	740	732	22.35
3	11	757	733	760	727	744	21.10	4	-3	742	704	770	773	747	23.15
5	-4	752	724	765	763	751	20.50	6	-5	720	772	779	735	752	21.60
7	-2	759	751	765	713	747	22.25	8	-3	681	759	706	726	718	20.65
9	[illegible]	729	703	716	718	716	19.85	10	7	766	731	797	742	759	21.70
11	-9	775	755	807	725	765	22.50	12	0	793	792	782	784	788	22.40
13	-7	782	805	687	791	766	22.45	14	4	773	798	789	796	789	22.95
15	-2	700	782	743	779	751	22.20	16	4	735	776	780	630	730	23.45
17	8	748	743	724	779	749	19.55	18	-8	794	718	774	810	774	22.75
19	3	795	734	815	787	783	21.50	20	7	807	813	656	773	762	21.80
21	-4	805	789	754	810	789	24.00	22	5	808	801	808	796	803	21.75
23	-2	765	767	791	797	780	22.80	24	3	773	735	770	681	740	21.35
25	5	771	729	787	603	723	21.80	26	8	781	796	702	756	759	22.40
27	6	769	641	829	805	761	22.90	28	-3	654	785	815	783	759	22.30
29	19	732	801	752	818	776	22.70	30	5	776	813	754	808	788	21.60
31	8	783	807	718	797	776	23.10	32	11	681	768	712	751	728	21.20
33	0	711	734	711	758	729	20.70	34	3	676	755	694	814	735	22.10
35	12	786	822	645	805	764	22.15	36	99	787	817	770	737	778	22.90
37	6	749	648	736	810	748	20.80	38	4	831	804	760	761	789	22.30
39	12	702	778	735	803	755	21.30	40	16	743	750	728	763	746	21.55
41	32	760	769	675	756	740	21.50	42	23	799	675	760	787	755	21.75
43	16	738	821	719	762	760	23.10	44	13	762	653	809	751	744	21.90
45	5	781	810	595	782	742	21.25	46	12	306	760	707	804	644	21.75
47	2	794	792	794	731	778	22.50	48	-7	672	742	766	773	739	20.20
49	-12	710	762	671	758	725	21.10	50	-21	674	773	775	787	752	22.30
51	-45	775	731	795	674	744	20.95	52	-30	727	692	748	793	740	22.80
53	-37	742	789	684	784	750	21.70	54	-31	722	794	726	784	757	22.10
55	-45	667	775	767	762	743	21.65	56	-27	764	753	752	720	747	20.95
57	-25	703	741	729	735	727	20.10	58	-32	737	712	725	697	718	21.55
59	-29	754	739	690	753	734	21.70	60	-27	750	747	672	731	725	20.80
61	-54	762	715	763	682	730	21.80	62	151	740	688	749	699	719	******
63	-29	766	687	737	656	711	20.25	64	-30	733	0	663	691	522	19.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	757 DEG C	11	TE-5-8	743 DEG C	
12	TE-28-5	774 DEG C	13	TE-28-6	759 DEG C	14	TE-28-7	777 DEG C	
15	TE-28-8	777 DEG C	17	TE-39-6	761 DEG C	19	PE-301	36 KPA	
23	TE-44-8	616 DEG C	24	TE-320	277 DEG C	25	TE-321	252 DEG C	
26	TE-322	282 DEG C	27	TE-323	765 DEG C	28	TE-324	761 DEG C	
29	TE-325	785 DEG C	30	TE-326	736 DEG C	31	TE-327	743 DEG C	
41	TE-91-2	635 DEG C	44	TE-92-1	696 DEG C	45	TE-92-2	645 DEG C	
46	TE-92-3	609 DEG C	47	TE-92-4	705 DEG C	49	TE-93-2	709 DEG C	
50	TE-93-3	608 DEG C	52	TE-94-1	657 DEG C	53	TE-94-2	620 DEG C	
54	TE-94-3	678 DEG C	472	EIE-10	2 A	473	EEE-10	0 V	
488	TAV-10	796 DEG C							

TABLE B-107. ENGINEERING UNITS PRINTOUT OF B-5 TEST CONDITIONS 70 S AFTER POWER-ON

TIME FROM POWER-ON 69.98 SEC. TIME FROM POWER-OFF 21.55 SEC. RECORD NUMBER 795-A

ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)	ROD NO.	DIFFERENTIAL PRESSURE (KPA)	TEMPERATURE (DEG C) TE-1	TE-2	TE-3	TE-4	AVG	TIME FROM BURST (SEC)
1	-5	715	652	740	702	702	20.40	2	-1	751	667	762	739	730	24.35
3	3	757	731	757	723	742	23.10	4	3	743	701	768	773	746	25.15
5	-5	751	723	765	762	750	22.50	6	-5	714	771	777	735	749	23.60
7	4	757	749	763	710	745	24.25	8	-4	675	757	704	723	715	22.65
9	6	726	703	710	718	714	21.85	10	0	764	726	797	740	757	23.70
11	-10	773	751	806	720	763	24.50	12	-7	792	791	780	782	786	24.40
13	-1	782	805	681	790	764	24.45	14	-3	771	796	788	795	788	24.95
15	-2	695	781	742	778	749	24.20	16	-3	733	773	777	629	728	25.45
17	-7	744	741	722	778	746	21.55	18	-1	793	709	771	808	770	24.75
19	2	794	730	815	787	781	23.50	20	6	806	813	650	771	760	23.80
21	-5	805	787	750	809	788	26.00	22	-2	808	800	808	795	803	23.75
23	-3	762	766	790	796	778	24.80	24	-3	772	733	769	677	738	23.35
25	12	770	727	790	597	721	23.80	26	0	781	796	697	753	757	24.40
27	5	765	634	830	803	758	24.90	28	-4	649	784	815	782	758	24.30
29	19	725	800	751	818	774	24.70	30	4	773	813	751	807	786	23.60
31	0	783	806	710	796	774	25.10	32	10	676	767	709	749	725	23.20
33	0	704	735	711	756	727	22.70	34	10	668	752	689	813	731	24.10
35	4	783	823	638	804	762	24.15	36	90	785	817	767	728	774	24.90
37	5	746	643	784	810	746	22.80	38	11	831	803	758	758	787	24.30
39	18	696	777	732	805	752	23.30	40	7	740	748	728	762	744	23.55
41	38	758	767	671	753	737	23.50	42	8	798	668	757	785	752	23.75
43	0	732	821	712	759	756	25.10	44	13	759	647	807	750	741	23.90
45	4	780	809	592	782	741	23.25	46	12	309	758	700	804	643	23.75
47	-5	792	791	793	725	775	24.50	48	0	666	740	764	771	735	22.20
49	-13	705	759	665	756	721	23.10	50	-29	669	770	774	786	750	24.30
51	-46	774	728	792	667	740	22.95	52	-39	723	688	745	793	737	24.80
53	-30	741	789	678	782	747	23.70	54	-32	717	793	723	782	753	24.10
55	-46	661	774	766	760	740	23.65	56	-28	760	749	750	718	744	22.95
57	-33	696	739	727	733	724	22.10	58	-25	735	709	724	691	715	23.55
59	-37	753	738	684	748	731	23.70	60	-28	750	744	666	727	722	22.80
61	-54	758	705	761	678	725	23.80	62	150	736	683	747	694	715	******
63	-30	763	681	735	651	707	22.25	64	-30	731	0	659	690	520	21.35

MISCELLANEOUS INSTRUMENTS

9	TE-5-6	0 DEG C	10	TE-5-7	756 DEG C	11	TE-5-8	742 DEG C
12	TE-28-5	773 DEG C	13	TE-28-6	757 DEG C	14	TE-28-7	775 DEG C
15	TE-28-8	776 DEG C	17	TE-39-6	759 DEG C	19	PE-301	37 KPA
23	TE-44-8	613 DEG C	24	TE-320	276 DEG C	25	TE-321	268 DEG C
26	TE-322	290 DEG C	27	TE-323	765 DEG C	28	TE-324	761 DEG C
29	TE-325	785 DEG C	30	TE-326	736 DEG C	31	TE-327	743 DEG C
41	TE-91-2	632 DEG C	44	TE-92-1	687 DEG C	45	TE-92-2	646 DEG C
46	TE-92-3	607 DEG C	47	TE-92-4	705 DEG C	49	TE-93-2	711 DEG C
50	TE-93-3	602 DEG C	52	TE-94-1	656 DEG C	53	TE-94-2	623 DEG C
54	TE-94-3	690 DEG C	472	EIE-10	0 A	473	EEE-10	0 V
488	TAV-10	795 DEG C						

IHC0021 STOP 0

TABLE C- 1. GEOMETRIC PARAMETERS OF B-5 SECTION AT-13.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	94.16389	73.06252	21.10138	34.41986	30.31827	16.07765	137.43115	16.05966	137.42384	0.3	-0.0
2	93.70868	73.22195	20.48672	34.33095	30.35320	30.25075	137.12740	30.26208	137.10806	0.1	0.1
3	94.04105	72.63680	21.40425	34.40077	30.22855	44.38385	136.81459	44.37660	136.81213	0.3	-0.3
4	94.34329	73.34250	21.00079	34.45776	30.38527	58.66626	136.54659	58.68884	136.53252	0.4	0.2
5	94.42401	73.37288	21.05113	34.47523	30.39473	72.76978	136.23358	72.76198	136.25095	0.5	0.2
6	94.78851	73.18361	21.60490	34.53058	30.34518	87.13220	135.93900	87.10269	135.94398	0.6	0.1
7	95.15984	73.59814	21.56169	34.59969	30.43372	101.37956	135.55745	101.36200	135.57225	0.8	0.4
8	95.59187	73.58276	22.00911	34.67766	30.42400	115.32021	135.33748	115.33315	135.35780	1.1	0.3
9	93.82611	72.69147	21.13464	34.35991	30.23709	15.86448	123.10548	15.85316	123.11963	0.1	-0.3
10	94.06116	73.69887	20.36229	34.40251	30.46257	29.97935	123.09465	30.01234	123.08295	0.3	0.5
11	93.71341	72.51120	21.20221	34.33580	30.20155	44.28534	122.81497	44.26588	122.82622	0.1	-0.4
12	93.89888	72.96730	20.93158	34.37923	30.30084	58.44667	122.48726	58.44186	122.49683	0.2	-0.1
13	94.18213	73.14384	21.03828	34.41908	30.34767	72.69910	122.20789	72.71211	122.19778	0.3	0.1
14	94.56264	73.24925	21.31339	34.49866	30.36008	86.90140	121.85042	86.90291	121.86493	0.5	0.1
15	95.06827	73.89214	21.17613	34.57423	30.48723	101.38770	121.48485	101.39722	121.47363	0.8	0.5
16	94.92049	73.59027	21.33022	34.54909	30.43004	115.65424	121.14301	115.65802	121.13852	0.7	0.4
17	94.04689	72.75938	21.28751	34.39926	30.26187	15.78510	109.00632	15.77839	108.99680	0.3	-0.2
18	93.89168	73.02829	20.86339	34.36572	30.30913	29.86940	108.89655	29.89618	108.90063	0.2	-0.0
19	94.42928	72.90942	21.51985	34.46687	30.28599	44.00542	108.58914	43.99768	108.57487	0.5	-0.1
20	94.25731	72.74985	21.50746	34.43047	30.25095	58.25221	108.29094	58.26755	108.29282	0.3	-0.2
21	94.27504	72.77396	21.50108	34.43880	30.26074	72.39272	107.93492	72.40433	107.94205	0.4	-0.2
22	94.38290	73.17157	21.21133	34.45612	30.34404	86.64117	107.48476	86.66151	107.45242	0.4	0.1
23	94.70949	73.50517	21.20432	34.51231	30.40990	100.84999	107.16910	100.85445	107.16570	0.6	0.3
24	94.92746	73.55620	21.37126	34.56737	30.43713	115.15456	106.79555	115.16808	106.78732	0.7	0.4
25	93.11263	72.27162	20.84100	34.23009	30.16476	15.43699	94.81497	15.43354	94.82965	-0.2	-0.5
26	93.90349	72.55876	21.34473	34.37720	30.21461	29.55112	94.66229	29.56880	94.68085	0.2	-0.4
27	93.72844	72.72847	20.99997	34.33167	30.26091	43.69232	94.36069	43.69528	94.36885	0.1	-0.2
28	94.11433	72.21352	21.90082	34.41133	30.14804	57.87799	94.02202	57.88768	94.02420	0.3	-0.6
29	93.97308	72.61418	21.35890	34.40009	30.23891	72.28304	93.44334	72.25755	93.45723	0.3	-0.3
30	94.24765	72.91982	21.32784	34.43649	30.28806	86.37186	93.25252	86.36148	93.27121	0.4	-0.1
31	94.20697	73.13712	21.06985	34.43925	30.33047	100.49817	92.90935	100.50568	92.93155	0.4	0.0
32	94.83047	73.47667	21.35381	34.53596	30.40584	114.74240	92.54005	114.73088	92.54280	0.7	0.3
33	93.28076	72.12045	21.16031	34.25485	30.12354	15.23231	80.55322	15.25153	80.54857	-0.2	-0.7
34	93.36523	72.32965	21.03558	34.27170	30.15965	29.38770	80.38467	29.37050	80.39839	-0.1	-0.5
35	92.81992	71.48550	21.33441	34.16527	29.90868	43.51266	80.05405	43.51266	80.06142	-0.4	-1.1
36	93.45296	71.99622	21.45674	34.28752	30.09546	57.60063	79.62717	57.61943	79.62411	-0.1	-0.7
37	93.59839	72.32489	21.27350	34.31416	30.16254	71.94655	79.33022	71.93718	79.36569	0.0	-0.5
38	94.11879	72.66121	21.45758	34.40660	30.23787	86.06291	78.94145	86.09370	78.94687	0.3	-0.3
39	94.10684	72.22556	21.86129	34.39772	30.13647	100.23531	78.61215	100.24780	78.62248	0.2	-0.6
40	94.28438	72.73143	21.55295	34.42679	30.25291	114.24886	78.21674	114.22989	78.19910	0.3	-0.2
41	93.30272	72.48428	20.81844	34.27028	30.19507	14.98658	66.50844	14.97655	66.51001	-0.1	-0.4
42	93.31152	72.61090	20.70062	34.26175	30.22462	29.13020	66.15253	29.11916	66.15129	-0.1	-0.3
43	93.21465	72.63075	20.58389	34.25156	30.22440	43.33656	65.84750	43.35097	65.86464	-0.2	-0.3
44	93.83177	73.10828	20.72350	34.34962	30.32314	57.56659	65.54483	57.56451	65.54070	0.1	0.0
45	93.85431	72.46658	21.38773	34.36290	30.19632	71.64098	65.13200	71.63647	65.12064	0.1	-0.4
46	93.82001	72.42191	21.39810	34.36215	30.18710	85.81032	64.79366	85.80251	64.80196	0.1	-0.4
47	94.48730	72.62918	21.85812	34.47322	30.23079	100.00018	64.36841	99.98137	64.36755	0.5	-0.3
48	94.62428	72.98865	21.63564	34.49492	30.30594	114.24251	63.94682	114.24590	63.93040	0.5	-0.1
49	92.88991	72.48274	20.40717	34.18477	30.20653	14.66624	52.18738	14.65871	52.18063	-0.4	-0.4
50	93.22453	72.56772	20.65681	34.24925	30.22142	28.85997	51.91150	28.82104	51.90515	-0.2	-0.3
51	93.17953	72.09169	21.08784	34.23726	30.11322	42.99176	51.58023	43.00676	51.57462	-0.2	-0.7
52	93.33948	72.68603	20.65340	34.26286	30.23618	57.16655	51.18826	57.14087	51.18559	-0.1	-0.3
53	93.27426	71.78979	21.48447	34.26773	30.06683	71.35269	50.89433	71.35643	50.88869	-0.1	-0.8
54	93.62738	73.03413	20.59325	34.31870	30.31538	85.56703	50.59517	85.57874	50.58505	0.0	-0.0
55	93.93513	73.19757	20.73756	34.38486	30.34895	99.78845	50.06694	99.77815	50.07388	0.2	0.1
56	94.15891	72.89966	21.25925	34.41084	30.28239	113.84425	49.76315	113.86037	49.77071	0.3	-0.1
57	93.00008	72.38264	20.61743	34.19945	30.17598	14.76104	38.21773	14.74608	38.23622	-0.3	-0.5
58	93.33917	72.80060	20.53857	34.26640	30.26376	28.75026	37.75812	28.73370	37.75337	-0.1	-0.2

59	92.99062	72.39360	20.59702	34.21429	30.18494	42.94347	37 51822	42.92761	37.52589	-0.3	-0.5
60	93.33905	72.83098	20.50807	34.27028	30.28017	57.04439	37.08878	57.02538	37.09222	-0.1	-0.1
61	92.69075	72.50281	20.18794	34.15335	30.19882	71.18257	36.77866	71.18902	36.76685	-0.5	-0.4
62	93.44881	72.02167	21.42714	34.28038	30.10048	85.33073	36.33255	85.32895	36.32202	-0.1	-0.7
63	93.36559	72.29373	21.07286	34.26003	30.14540	99.38460	35.88936	99.38249	35.87839	-0.2	-0.6
64	94.15613	72.06978	22.08635	34.40605	30.11324	113.49428	35.91336	113 48776	35.90443	0.3	-0.7

[redacted] C 1 [redacted]

TABLE C- 2. GEOMETRIC PARAMETERS OF B-5 SECTION AT -6.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	95.84314	73.28755	22.55559	34.71953	30.38869	16.50166	137.25497	16.46501	137.24997	1.2	0.2
2	94.87520	72.96211	21.91309	34.53925	30.29915	30.62428	136.83521	30.62813	136.82892	0.7	-0.1
3	94.82751	72.39214	22.43538	34.53770	30.17406	44.80159	136.57741	44.81740	136.56819	0.7	-0.5
4	95.42664	73.63353	21.79311	34.65097	30.44296	59.14870	136.41068	59.12900	136.39908	1.0	0.4
5	95.33104	73.26003	22.07101	34.62521	30.35840	73.27963	136.18091	73.27435	136.17639	0.9	0.1
6	96.05232	73.51309	22.53923	34.76175	30.42052	87.68541	135.78194	87.67465	135.78171	1.3	0.3
7	95.70523	73.82935	21.87589	34.71153	30.48335	101.97021	135.41177	101.97543	135.38422	1.2	0.5
8	96.27005	73.90643	22.36362	34.81461	30.50385	116.08879	135.35924	116.08609	135.33424	1.5	0.6
9	95.28978	73.12978	22.16000	34.63849	30.33534	16.22971	122.83224	16.22603	122.83929	1.0	0.0
10	95.63268	73.06744	22.56523	34.68202	30.32771	30.31078	122.88771	30.31877	122.89275	1.1	0.0
11	95.17325	72.78104	22.39221	34.60165	30.25980	44.73605	122.65182	44.74428	122.66168	0.8	-0.2
12	95.29504	73.03094	22.26410	34.61873	30.32892	58.91417	122.34819	58.91118	122.34938	0.9	0.0
13	95.83295	73.35413	22.47882	34.72003	30.39001	73.22409	122.12489	73.24913	122.10753	1.2	0.2
14	95.67201	73.32039	22.35162	34.69847	30.37880	87.41010	121.72581	87.41843	121.71716	1.1	0.2
15	95.95708	74.12236	21.83472	34.73314	30.54207	101.76862	121.43959	101.78183	121.44904	1.2	0.7
16	95.98195	73.76677	22.21518	34.75360	30.46603	116.23810	120.93416	116.23166	120.96098	1.3	0.5
17	95.10320	73.07314	22.03006	34.58604	30.32391	16.19633	108.71942	16.20094	108.71567	0.8	0.0
18	95.58099	73.26694	22.31406	34.67279	30.36812	30.33418	108.63396	30.29843	108.63184	1.1	0.1
19	95.45590	73.04875	22.40715	34.64542	30.31221	44.45490	108.38167	44.44949	108.35396	1.0	-0.0
20	95.40511	72.60257	22.80254	34.66090	30.22473	58.69701	108.11868	58.69128	108.10994	1.0	-0.3
21	95.25409	72.64444	22.60965	34.61682	30.22801	72.90831	107.69249	72.89676	107.69363	0.9	-0.3
22	95.63759	73.40076	22.23683	34.69060	30.39963	87.25986	107.23358	87.22328	107.21695	1.1	0.3
23	95.68901	72.63490	23.05411	34.69629	30.23355	101.43457	107.00432	101.42513	107.00182	1.1	0.3
24	95.47040	73.76939	21.70100	34.66878	30.46156	115.88953	106.67436	115.90651	106.66461	1.0	0.5
25	95.34465	72.98895	22.35570	34.62682	30.30595	15.76679	94.53168	15.76727	94.53027	0.9	-0.1
26	95.26201	72.86690	22.39511	34.62657	30.28387	29.99118	94.34749	30.01620	94.35022	0.9	-0.1
27	94.37666	72.65021	21.72646	34.47389	30.23901	44.25665	94.08841	44.26697	94.07747	0.5	-0.3
28	94.82301	72.51305	22.30997	34.53830	30.19710	58.39949	93.73349	58.40862	93.73975	0.7	-0.4
29	95.43456	72.87628	22.55827	34.64825	30.28529	72.91943	93.46924	72.92764	93.44960	1.0	-0.1
30	95.26482	73.04013	22.22469	34.61800	30.30281	87.08572	92.99956	87.06247	92.98235	0.9	-0.1
31	95.47597	73.56209	21.91388	34.65547	30.42201	101.13647	92.70226	101.15208	92.71175	1.0	0.3
32	95.79218	73.30032	22.49185	34.71526	30.36494	115.53584	92.38596	115.53441	92.40385	1.2	0.1
33	95.06689	73.06049	22.00641	34.57706	30.31477	15.61730	80.14177	15.63827	80.13374	0.8	-0.0
34	94.62424	73.21718	21.40706	34.50963	30.34471	29.87921	80.04991	29.86729	80.03847	0.6	0.1
35	95.06459	72.73495	22.32964	34.57584	30.25412	44.09770	79.73962	44.12474	79.70419	0.8	-0.2
36	95.21893	72.89378	22.32515	34.60085	30.28072	58.24957	79.34717	58.24594	79.32755	0.8	-0.1
37	95.18533	73.02171	22.16362	34.60301	30.30582	72.51880	79.14505	72.50255	79.13455	0.8	-0.1
38	95.18045	73.02083	22.15962	34.59850	30.31134	86.66840	78.67291	86.67203	78.68950	0.8	-0.0
39	95.57275	73.38208	22.19067	34.66866	30.40453	100.95938	78.38829	100.96820	78.37866	1.0	0.3
40	95.58437	73.34720	22.23717	34.67538	30.38573	115.01357	78.02859	115.03679	78.03046	1.1	0.2
41	94.99710	73.28194	21.71516	34.57724	30.36124	15.44853	66.02274	15.43324	66.03477	0.8	0.1
42	94.55882	73.28336	21.27547	34.51140	30.36288	29.64226	65.76675	29.62778	65.77368	0.6	0.1
43	95.22105	72.89624	22.32481	34.62816	30.28471	43.97536	65.41910	43.99220	65.41914	0.9	-0.1
44	95.08658	73.42992	21.65666	34.58365	30.39081	58.11443	65.16789	58.12790	65.14809	0.8	0.2
45	95.09662	72.76411	22.33250	34.58545	30.25557	72.29469	64.83914	72.29147	64.81326	0.8	-0.2
46	95.16560	72.54169	22.62392	34.59380	30.21317	86.54253	64.47673	86.55031	64.46959	0.8	-0.4
47	95.40706	73.01938	22.38768	34.65811	30.30199	100.72610	64.09460	100.73991	64.09590	1.0	-0.1
48	95.61682	73.10529	22.51154	34.67030	30.34061	115.10675	63.59412	115.14217	63.57108	1.0	0.1
49	94.78990	72.25771	22.53220	34.54102	30.15633	15.12646	51.67023	15.12269	51.64874	0.7	-0.5
50	94.13490	72.74988	21.38503	34.42160	30.25070	29.39110	51.36615	29.38429	51.36380	0.3	-0.2
51	95.01944	72.78526	22.23418	34.57619	30.26093	43.70271	51.00957	43.67715	51.01332	0.8	-0.2
52	94.61789	72.73373	21.88416	34.50316	30.24788	57.79611	50.69725	57.79291	50.69354	0.6	-0.2
53	94.94560	72.20306	22.74254	34.55330	30.15475	71.98180	50.45786	71.97855	50.43300	0.7	-0.6
54	94.99110	73.15874	21.83237	34.56001	30.34154	86.26671	50.22021	86.28036	50.20859	0.7	0.1
55	94.83928	72.93066	21.90862	34.53358	30.29106	100.49733	49.69446	100.52463	49.70450	0.6	-0.1
56	94.71707	73.31232	21.40475	34.52750	30.36841	114.67860	49.39426	114.68748	49.38943	0.6	0.2
57	94.16566	72.21179	21.95387	34.42062	30.14276	15.24959	37.62680	15.22740	37.64861	0.3	-0.6
58	93.84743	72.10577	21.74165	34.38795	30.12303	29.29350	37.20265	29.30035	37.20769	0.2	-0.7

59	94.34625	72.99037	21.35598	34.45045	30.31441	43.63777	36.88986	43.66383	36.87355	0.4	-0.0
60	94.42932	72.63078	21.79854	34.46820	30.22939	57.83131	36.57156	57.82262	36.55449	0.5	-0.3
61	95.02774	72.79665	22.23109	34.57600	30.26541	71.93719	36.22774	71.96387	36.22443	0.8	-0.2
62	94.86154	72.73688	22.12466	34.55569	30.25540	86.21980	35.87933	86.23434	35.86708	0.7	-0.2
63	94.91527	72.90173	22.01353	34.55798	30.28438	100.30501	35.43454	100.29428	35.42059	0.7	-0.1
64	94.53606	72.25670	22.27936	34.49614	30.14839	114.46762	35.56702	114.47057	35.56343	0.5	-0.6

[redacted] E 1 [redacted]

TABLE C- 3. GEOMETRIC PARAMETERS OF B-5 SECTION AT -3.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	93.84561	70.46492	23.38069	34.35645	29.79059	16.47298	137.29311	16.48570	137.29079	0.1	-1.8
2	92.54051	71.08580	21.45471	34.12976	29.91743	30.31348	136.79828	30.30470	136.79858	-0.5	-1.3
3	93.17065	70.83496	22.33569	34.23318	29.85884	44.28787	136.59779	44.30336	136.58440	-0.2	-1.5
4	93.29395	71.64073	21.65321	34.26038	30.02173	58.38922	136.32068	58.40581	136.34888	-0.2	-1.0
5	93.34616	70.92628	22.41988	34.27548	29.86550	72.32477	136.17297	72.32625	136.19186	-0.1	-1.5
6	94.25984	71.60091	22.65894	34.44077	30.01489	86.51534	135.75081	86.53871	135.75081	0.4	-1.0
7	94.11729	72.00424	22.11305	34.40532	30.09180	100.60628	135.41035	100.62335	135.41264	0.3	-0.8
8	94.63405	71.84485	22.78920	34.51840	30.06741	114.57042	135.44165	114.58278	135.43266	0.6	-0.8
9	93.29594	70.07710	23.21884	34.26587	29.70146	16.24089	123.09683	16.25333	123.06232	-0.1	-2.0
10	93.39316	70.22638	23.16678	34.27405	29.73201	29.97293	123.12733	29.98900	123.11934	-0.1	-1.9
11	92.95216	70.78743	22.16473	34.20926	29.85710	44.21101	122.89462	44.20940	122.90709	-0.3	-1.5
12	93.72601	70.41115	23.31487	34.35130	29.75960	58.15970	122.60033	58.18143	122.59381	0.1	-1.9
13	92.95058	70.59212	22.35846	34.19981	29.81001	72.08640	122.49268	72.07416	122.46790	-0.3	-1.7
14	92.32716	71.03177	21.29539	34.07445	29.88823	86.22409	121.95490	86.23872	121.97287	-0.7	-1.4
15	92.26666	72.21756	20.04910	34.07550	30.14429	100.32495	121.71753	100.33786	121.72379	-0.7	-0.6
16	91.69412	71.78633	19.90779	33.96323	30.04857	114.68672	121.23322	114.66649	121.23494	-1.0	-0.9
17	91.52234	70.31067	21.21167	33.93028	29.73334	16.33896	109.21304	16.33315	109.19582	-1.1	-1.9
18	91.36626	70.37186	20.99440	33.90746	29.75604	30.16360	109.15271	30.16595	109.14728	-1.2	-1.9
19	93.56985	70.36948	23.20038	34.31880	29.76413	43.83987	108.99709	43.83359	108.97519	0.0	-1.8
20	91.41245	70.43907	20.97337	33.91296	29.76128	58.02821	108.61151	58.05963	108.62517	-1.2	-1.9
21	91.22037	70.19193	21.02844	33.86584	29.71292	71.98245	108.17010	71.97966	108.19261	-1.3	-2.0
22	93.43692	71.71776	21.71916	34.27399	30.04346	86.61212	107.49324	86.63290	107.47392	-0.1	-0.9
23	94.76671	71.86893	22.89778	34.53940	30.07201	100.65570	107.44673	100.69017	107.42398	0.7	-0.8
24	93.20030	72.86432	20.33598	34.23425	30.27155	115.05130	107.00021	115.08049	106.98273	-0.2	-0.2
25	92.28940	71.32187	20.96753	34.08189	29.95222	15.96563	94.96866	15.98636	94.99095	-0.7	-1.2
26	92.84607	71.62086	21.22520	34.19836	30.01727	30.05518	94.76839	30.06128	94.76941	-0.3	-1.0
27	93.59816	72.26070	21.33746	34.31708	30.16321	44.13728	94.51268	44.16974	94.52298	0.0	-0.5
28	92.63718	71.49930	21.13788	34.13889	29.98839	58.11160	94.16104	58.12543	94.18237	-0.5	-1.1
29	94.34125	71.17343	23.16782	34.45731	29.93396	72.46413	94.00607	72.46095	93.99469	0.4	-1.3
30	94.83786	71.13133	23.70653	34.56088	29.94431	86.46208	93.44684	86.46925	93.40321	0.7	-1.2
31	94.77921	71.63974	23.13947	34.52997	30.03748	100.39166	93.12257	100.41776	93.11002	0.6	-0.9
32	95.12141	72.26701	22.85440	34.59744	30.15904	114.64481	92.81944	114.64902	92.82962	0.8	-0.5
33	94.21742	70.17131	24.04611	34.43039	29.73637	15.82141	80.75108	15.83315	80.73766	0.3	-1.9
34	94.35521	71.02112	23.33409	34.46208	29.88620	29.94167	80.65886	29.92947	80.63914	0.4	-1.4
35	94.62097	70.41876	24.20221	34.50313	29.79741	43.95219	80.29018	43.96002	80.29219	0.6	-1.7
36	94.76010	71.06007	23.70003	34.53008	29.89671	57.92912	79.92126	57.96599	79.89967	0.6	-1.4
37	94.14163	70.46437	23.67726	34.44023	29.77592	71.85782	80.15099	71.81873	80.16385	0.4	-1.8
38	95.30104	71.02567	24.27538	34.62546	29.89351	86.06313	79.27556	86.05330	79.28041	0.9	-1.4
39	95.18979	70.81682	24.37297	34.59906	29.85924	100.19620	78.90741	100.21774	78.91623	0.8	-1.5
40	94.25165	71.56468	22.68697	34.43484	30.01486	113.88492	78.89430	113.88022	78.88300	0.4	-1.0
41	94.44031	70.76001	23.68030	34.47223	29.84395	15.60830	66.78188	15.61358	66.79677	0.5	-1.6
42	94.59486	70.78378	23.81108	34.49573	29.84831	29.59239	66.53833	29.59413	66.52162	0.5	-1.6
43	94.49680	70.77612	23.72067	34.48940	29.86522	43.76620	66.14568	43.76744	66.16016	0.5	-1.5
44	95.30858	71.01697	24.29161	34.63649	29.88457	57.75056	65.89771	57.77084	65.89928	0.9	-1.4
45	94.66585	71.49753	23.16832	34.51265	29.99544	71.82837	65.54251	71.83331	65.53743	0.6	-1.1
46	94.76848	71.12706	23.64142	34.53116	29.91335	85.95300	65.21967	85.94626	65.23096	0.6	-1.4
47	93.15054	71.69669	21.45386	34.23854	30.02640	100.03111	64.80135	100.04808	64.80336	-0.2	-1.0
48	93.98006	72.38156	21.59850	34.37727	30.17845	114.29855	64.29085	114.31244	64.29131	0.2	-0.5
49	92.41841	70.73944	21.67897	34.09778	29.85158	15.31244	52.61047	15.34096	52.60263	-0.6	-1.6
50	92.29790	70.87427	21.42363	34.08499	29.85359	29.40224	52.24481	29.38759	52.26140	-0.7	-1.5
51	92.54877	70.97424	21.57452	34.12302	29.87999	43.58437	51.93484	43.58797	51.92264	-0.6	-1.5
52	92.40050	71.08569	21.31480	34.09044	29.90265	57.50992	51.63002	57.50468	51.61716	-0.6	-1.4
53	94.40405	70.67088	23.73317	34.46596	29.82436	71.52443	51.56694	71.54459	51.54625	0.4	-1.6
54	94.77029	71.10307	23.66722	34.52145	29.91721	85.61897	51.12627	85.63115	51.14693	0.6	-1.3
55	94.41566	71.31769	23.09798	34.47116	29.95540	99.75250	50.55804	99.77452	50.58388	0.5	-1.2
56	94.60278	71.46892	23.13387	34.50337	30.01540	113.82022	50.21542	113.81267	50.21896	0.6	-1.0
57	94.24812	70.88403	23.36409	34.44272	29.87083	15.32732	38.66872	15.32732	38.66269	0.4	-1.5
58	93.76152	71.22858	22.53294	34.35468	29.94005	29.21901	38.25659	29.20511	38.27359	0.1	-1.3

[redacted] F 1 [redacted]

59	94.60628	71.46931	23.13696	34.50435	29.99745	43.48549	37.94357	43.53552	37.92499	0.6	-1.1
60	95.22629	71.29591	23.93037	34.63283	29 95642	57.55730	37.69327	57.55908	37.65903	0.9	-1.2
61	92.13947	71.31245	20.82701	34.04132	29.94304	71.58932	37.32552	71.60931	37.31784	-0.8	-1.3
62	93.33278	70.50494	22.82784	34.26842	29.78986	85.26694	37.64095	85.25259	37.62918	-0.1	-1.3
63	93.09787	71.84709	21.25078	34.21439	30.05756	99.60864	36.40811	99.62642	36.40527	-0.3	-0.9
64	93.11591	71.88466	21.23125	34.21185	30.06787	113.67180	36.52385	113.64543	36.53911	-0.3	-0.8

[redacted] G 1 [redacted]

TABLE C- 4. GEOMETRIC PARAMETERS OF B-5 SECTION AT -1.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	92.72639	71.06827	21.65813	34.14761	29.90155	16.38177	137.12822	16.35693	137.12514	-0.5	-1.4
2	92.46478	71.19182	21.27296	34.11397	29.93355	30.11983	136.71439	30.12663	136.70712	-0.6	-1.3
3	92.77066	71.27158	21.49908	34.17319	29.93231	44.17967	136.38104	44.16116	136.37695	-0.4	-1.3
4	94.28954	71.32629	22.96324	34.44147	29.95409	58.26997	136.14110	58.26816	136.16272	0.4	-1.2
5	94.44781	70.52295	23.92487	34.47694	29.80333	72.17134	136.01750	72.19066	136.04227	0.5	-1.7
6	94.81001	70.67818	24.13184	34.53845	29.82539	86.43639	135.54605	86.46027	135.54665	0.7	-1.6
7	94.99478	71.64766	23.34712	34.57506	30.02296	100.56290	135.14912	100.57771	135.13638	0.8	-1.0
8	94.95937	71.79471	23.16466	34.56719	30.04857	114.60585	135.16862	114.61050	135.17209	0.7	-0.9
9	94.05008	69.52951	24.52057	34.39241	29.57570	15.99099	122.91315	15.98879	122.92163	0.2	-2.5
10	95.23036	71.49269	23.73767	34.62334	29.93559	29.91211	122.71413	29.93726	122.73094	0.9	-1.1
11	93.74445	71.33160	22.41284	34.34776	29.96336	44.27167	122.67392	44.24864	122.69308	0.1	-1.2
12	95.10965	70.64349	24.46616	34.58125	29.81302	58.27562	122.14644	58.29732	122.15630	0.8	-1.7
13	95.17046	71.85881	23.31165	34.61597	30.06339	72.45491	121.88870	72.47179	121.87697	0.9	-0.9
14	95.45013	71.33629	24.11385	34.64874	29.96315	86.53407	121.47212	86.53546	121.46103	1.0	-1.2
15	95.62463	72.52200	23.10263	34.68735	30.21762	100.71388	121.18208	100.71324	121.18404	1.1	-0.3
16	95.39603	72.29358	23.10245	34.63362	30.17310	115.22621	120.62746	115.21309	120.64803	0.9	-0.5
17	94.64690	70.11159	24.53531	34.51590	29.71173	16.03612	108.69884	16.06403	108.74214	0.6	-2.0
18	95.44974	71.77502	23.67471	34.66783	30.06512	29.96451	108.65608	29.94365	108.64615	1.0	-0.8
19	95.47931	70.74028	24.73903	34.65926	29.84351	43.88611	108.41878	43.86256	108.38360	1.0	-1.6
20	95.80894	71.30714	24.50180	34.71689	29.95996	57.97348	108.12195	58.00681	108.13879	1.2	-1.2
21	95.35095	71.07907	24.27188	34.64888	29.90337	72.06137	107.65425	72.04868	107.65808	1.0	-1.4
22	95.30746	71.53119	23.77628	34.63551	30.00681	86.28275	107.17085	86.29446	107.18477	0.9	-1.0
23	95.42648	71.69572	23.73076	34.65840	30.03401	100.40912	107.00557	100.42693	107.00668	1.0	-1.0
24	96.77827	71.84247	24.93581	34.89423	30.07913	114.77956	106.65167	114.80226	106.64499	1.7	-0.8
25	92.54123	71.34721	21.19402	34.12796	29.95877	15.57970	94.71626	15.59661	94.74530	-0.5	-1.2
26	93.15373	71.63866	21.51508	34.22989	30.03139	29.71420	94.49353	29.71457	94.50534	-0.2	-1.0
27	93.29356	72.64217	20.65140	34.26216	30.25313	43.81099	94.23015	43.82207	94.25771	-0.1	-0.2
28	93.31393	71.36778	21.94615	34.26759	29.96831	57.79408	93.87157	57.79085	93.85793	-0.1	-1.2
29	93.34193	71.32495	22.01698	34.26495	29.95329	72.19203	93.73880	72.20775	93.74974	-0.1	-1.2
30	93.89130	71.71796	22.17334	34.36957	30.03151	86.23749	93.07646	86.24786	93.08763	0.2	-1.0
31	94.04280	72.15907	21.88373	34.38487	30.12622	100.16217	92.75720	100.16113	92.74152	0.2	-0.6
32	94.07895	72.46339	21.61555	34.41154	30.18567	114.48590	92.44942	114.46989	92.45935	0.3	-0.5
33	94.41028	70.94075	23.46953	34.46947	29.87891	15.43703	80.49698	15.43624	80.48837	0.5	-1.5
34	94.33775	70.96640	23.37135	34.44733	29.87665	29.60321	80.40355	29.56189	80.38409	0.4	-1.5
35	94.10591	70.52983	23.57608	34.41634	29.79071	43.59737	79.97743	43.61980	79.97186	0.3	-1.8
36	94.13680	71.12556	23.01123	34.41241	29.92628	57.57961	79.60788	57.59024	79.61009	0.3	-1.3
37	94.23351	70.82762	23.40588	34.43356	29.85454	71.74562	79.40610	71.72597	79.42226	0.4	-1.5
38	91.99603	70.77367	21.22237	34.01366	29.83051	85.17459	79.46523	85.17104	79.47697	-0.9	-1.6
39	95.37695	71.43785	23.93910	34.63486	29.97902	99.94298	78.49706	99.94327	78.49666	0.9	-1.1
40	95.61656	71.45930	24.15726	34.69510	29.99036	113.93394	78.20689	113.96825	78.20804	1.1	-1.1
41	93.62196	70.85538	22.76659	34.32220	29.86441	15.24653	66.52426	15.23786	66.52419	0.0	-1.5
42	94.58318	70.69894	23.88423	34.49046	29.82977	29.18335	66.19026	29.16994	66.20930	0.5	-1.6
43	94.53722	71.25111	23.28610	34.51346	29.96562	43.39491	65.78804	43.39954	65.82384	0.6	-1.2
44	95.13702	71.09045	24.04657	34.59685	29.91376	57.35416	65.56564	57.37709	65.56816	0.8	-1.3
45	94.86528	71.09703	23.76825	34.54442	29.91010	71.46666	65.21283	71.46313	65.19255	0.7	-1.4
46	95.45897	71.51364	23.94533	34.65729	30.00999	85.61606	64.80017	85.62445	64.82166	1.0	-1.0
47	95.30370	72.15707	23.14662	34.61940	30.13513	99.73547	64.37984	99.74545	64.36499	0.9	-0.6
48	95.49585	72.41528	23.08057	34.66054	30.19128	114.05519	63.81345	114.06032	63.83818	1.0	-0.4
49	94.17079	70.12674	24.04405	34.41710	29.70810	14.90746	52.36064	14.89604	52.33000	0.3	-2.0
50	94.08911	70.56305	23.52606	34.41216	29.80458	28.92644	51.90660	28.89894	51.92096	0.3	-1.7
51	92.43787	70.61400	21.82387	34.09654	29.80968	43.17915	51.56178	43.17589	51.58159	-0.6	-1.7
52	92.64941	70.75606	21.89336	34.13446	29.83632	57.14467	51.24406	57.14824	51.24673	-0.5	-1.6
53	93.24757	71.08080	22.16678	34.24023	29.90172	71.12570	50.96162	71.18121	50.96112	-0.2	-1.4
54	93.36108	72.15445	21.20663	34.26323	30.12227	85.32872	50.70105	85.33900	50.71346	-0.1	-0.7
55	93.36716	72.17334	21.19382	34.26038	30.13228	99.47534	50.10571	99.48029	50.09654	-0.2	-0.6
56	93.59940	72.35323	21.24617	34.30330	30.16580	113.61101	49.68726	113.63002	49.69417	-0.0	-0.5
57	91.72108	70.83765	20.88344	33.96320	29.86412	15.02703	38.40634	15.01977	38.40520	-1.0	-1.5
58	92.13896	70.53545	21.60352	34.04228	29.78358	28.92828	37.97235	28.91608	37.96121	-0.8	-1.8

[redacted] H 1 [redacted]

59	92.20906	71.02316	21.18590	34.05325	29.90147	43.21040	37.58145	43.23016	37.57323	-0.8	-1.4
60	94.36613	70.87068	23.49545	34.47446	29.87788	57.20416	37.32407	57.19038	37.31422	0.5	-1.5
61	94.36037	70.93791	23.42245	34.44495	29.88588	71.19072	36.89383	71.19176	36.88293	0.4	-1.4
62	94.94914	71.49649	23.45265	34.56496	29.99384	85.36005	36.49167	85.36478	36.47656	0.7	-1.1
63	94.81793	71.43694	23.38100	34.55440	29.98212	99.32748	35.92461	99.32089	35.90320	0.7	-1.1
64	93.02330	71.94276	21.08054	34.21793	30.08087	113.38440	36.00624	113.40004	36.00401	-0.3	-0.8

[redacted] 1 1 [redacted]

TABLE C- 5. GEOMETRIC PARAMETERS OF B-5 SECTION AT 0.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	93.75986	72.57791	21.18195	34.36487	30.23871	16.96164	137.18715	16.94481	137.18661	0.2	-0.3
2	93.00642	71.95673	21.04970	34.21977	30.10213	30.80574	136.66945	30.80937	136.68202	-0.3	-0.7
3	94.65755	73.09247	21.56508	34.51205	30.32236	45.20483	136.25836	45.19417	136.25432	0.6	-0.0
4	94.58017	73.60115	20.97902	34.48898	30.44078	59.46800	135.95850	59.51085	135.95166	0.5	0.4
5	94.89815	73.59181	21.30634	34.54991	30.43025	73.55890	135.79022	73.57494	135.80438	0.7	0.4
6	95.16444	73.35127	21.81317	34.60022	30.37817	87.96231	135.23991	87.96880	135.24854	0.8	0.2
7	94.84293	73.48775	21.35518	34.54117	30.40639	102.21638	134.85905	102.22319	134.84939	0.7	0.3
8	94.69777	73.28737	21.41040	34.51033	30.37604	116.40051	134.87115	116.40756	134.88541	0.6	0.2
9	93.83792	72.31096	21.52696	34.36830	30.15398	16.81389	122.62918	16.82578	122.64070	0.2	-0.6
10	94.00589	72.70674	21.29915	34.38815	30.24706	30.68341	122.60585	30.71194	122.61838	0.2	-0.2
11	94.38716	73.07997	21.30719	34.46049	30.31599	45.07747	122.36002	45.06866	122.38972	0.4	-0.0
12	93.86729	72.64183	21.22546	34.36467	30.23647	59.16197	121.99951	59.16800	122.01805	0.2	-0.3
13	94.92296	72.71269	22.21027	34.54897	30.26476	73.37958	121.70358	73.40604	121.71048	0.7	-0.2
14	94.54602	73.05594	21.49008	34.49573	30.33032	87.50072	121.26677	87.53717	121.27289	0.5	0.0
15	95.08270	73.93759	21.14511	34.59131	30.49838	101.69189	120.95718	101.71594	120.98196	0.8	0.6
16	95.21156	73.54597	21.66559	34.63014	30.41722	116.33746	120.40060	116.33809	120.44637	0.9	0.3
17	93.59323	72.27643	21.31680	34.30496	30.15948	16.80138	108.55582	16.81252	108.52484	-0.0	-0.5
18	94.06693	72.64348	21.42345	34.39801	30.23569	30.78616	108.45599	30.80898	108.48029	0.2	-0.3
19	93.89679	72.57065	21.32614	34.36595	30.22116	44.69460	108.15347	44.71779	108.15642	0.2	-0.3
20	94.45457	72.78011	21.67447	34.46721	30.25320	58.87015	107.80479	58.89320	107.83917	0.5	-0.2
21	94.81290	72.96161	21.85129	34.53264	30.29526	72.99736	107.32251	73.03703	107.33542	0.6	-0.1
22	94.57903	72.50073	22.07829	34.49062	30.21805	87.30377	106.76053	87.30780	106.75481	0.5	-0.3
23	95.27324	73.35381	21.91043	34.62660	30.37047	101.46901	106.57306	101.51228	106.59901	0.9	0.2
24	94.95099	73.23749	21.71350	34.55768	30.37592	115.91959	106.16757	115.94386	106.18898	0.7	0.2
25	93.43968	72.52081	20.91887	34.28302	30.21815	16.26942	94.45746	16.30711	94.49767	-0.1	-0.3
26	93.65450	72.58342	21.07108	34.33856	30.22034	30.43509	94.21530	30.45370	94.22269	0.1	-0.3
27	94.31784	73.12720	21.19064	34.44539	30.34271	44.57214	93.92116	44.59595	93.94339	0.4	0.1
28	94.06172	73.18791	20.87381	34.40173	30.35101	58.56119	93.47665	58.60573	93.51117	0.3	0.1
29	94.70442	73.14850	21.55592	34.51445	30.33641	73.04738	93.32053	73.08028	93.34769	0.6	0.0
30	94.26242	72.49454	21.76788	34.44337	30.21004	87.15695	92.61633	87.13806	92.63678	0.4	-0.4
31	95.23256	74.14444	21.08812	34.60878	30.54141	101.12265	92.19234	101.15828	92.23613	0.9	0.7
32	93.52721	72.21622	21.31099	34.30496	30.13933	114.88692	92.26573	114.86340	92.27773	-0.0	-0.6
33	91.91046	71.05850	20.85196	34.02245	29.90805	16.06683	80.65312	16.07321	80.62914	-0.8	-1.4
34	92.72643	72.04697	20.67946	34.16684	30.10617	30.22615	80.48915	30.20880	80.49216	-0.4	-0.7
35	92.57115	71.07788	21.49327	34.11975	29.90187	44.17238	80.04298	44.18536	80.04875	-0.6	-1.4
36	92.37839	70.95763	21.42076	34.09154	29.88344	58.18039	79.61539	58.16092	79.61554	-0.6	-1.4
37	92.75462	71.48138	21.27324	34.16429	29.98834	72.27066	79.36993	72.25983	79.39484	-0.4	-1.1
38	93.04234	71.81963	21.22272	34.21730	30.05728	86.16747	78.80482	86.20442	78.81133	-0.3	-0.9
39	93.47345	72.13672	21.33673	34.31461	30.11743	100.39871	78.39857	100.35649	78.37906	0.0	-0.7
40	94.01001	72.42960	21.58041	34.38387	30.18799	114.31854	78.05103	114.35594	78.03859	0.2	-0.4
41	91.74411	71.48192	20.26219	33.99304	29.99023	15.78936	66.67790	15.80946	66.67030	-0.9	-1.1
42	92.00102	71.18124	20.81978	34.03378	29.93024	29.77225	66.32121	29.77675	66.31473	-0.8	-1.3
43	92.63806	71.41905	21.21901	34.16800	30.01564	43.95825	65.86510	43.93468	65.88284	-0.4	-1.0
44	92.69475	71.79567	20.89908	34.14586	30.05038	57.88463	65.59305	57.92256	65.59088	-0.5	-0.9
45	92.46397	70.75879	21.70518	34.10231	29.84036	71.96133	65.17633	71.96579	65.16570	-0.6	-1.6
46	93.12775	71.97740	21.15034	34.22855	30.08235	86.08173	64.74101	86.09805	64.75433	-0.2	-0.8
47	92.99811	72.46362	20.53448	34.20213	30.19862	100.15013	64.31494	100.12631	64.29832	-0.3	-0.4
48	93.35974	72.39206	20.96768	34.25819	30.18880	114.43011	63.70538	114.41333	63.69641	-0.2	-0.4
49	92.05721	71.06900	20.98820	34.06215	29.91074	15.43648	52.50504	15.42503	52.50066	-0.7	-1.4
50	91.65562	71.18402	20.47160	33.95346	29.93108	29.48506	52.01091	29.47209	52.03798	-1.0	-1.3
51	92.82391	70.85123	21.97269	34.20027	29.85500	43.62038	51.67671	43.66057	51.68523	-0.3	-1.5
52	92.35120	71.02931	21.32188	34.09636	29.89862	57.59882	51 28139	57.60933	51.28249	-0.6	-1.4
53	92.68509	71.14568	21.53941	34.14383	29.92262	71.55859	50.99007	71.59529	50.97533	-0.5	-1.3
54	92.37885	71.38412	20.99472	34.09526	29.97176	85.76613	50.51860	85.76169	50.53343	-0.6	-1.2
55	93.36859	72.58823	20.78036	34.27609	30.23050	99.95036	49.93909	99.95114	49.95253	-0.1	-0.3
56	93.78082	72.46890	21.31192	34.34999	30.19244	114.08760	49.49751	114.09457	49.50636	0.1	-0.4
57	91.95784	71.96568	19.99216	34.02916	30.08817	15.39916	38.44556	15.39655	38.45872	-0.8	-0.8
58	92.15654	71.23419	20.92235	34.05020	29.94283	29.33321	37.94803	29.32695	37.95053	-0.8	-1.3

59	92.45537	71.91165	20.54372	34.11035	30.07613	43.61949	37.51102	43.63673	37.51064	-0.6	-0.8
60	92.56635	71.59732	20.96902	34.12981	30.00841	57.69208	37.23122	57.70049	37.23419	-0.5	-1.0
61	92.55830	70.65768	21.90062	34.12779	29.81767	71.66881	36.78352	71.68880	36.75113	-0.5	-1.7
62	92.14726	71.58067	20.56659	34.05403	30.01794	85.84009	36.30363	85.83275	36.28789	-0.8	-1.0
63	92.65294	72.34169	20.31125	34.14085	30.17590	99.80338	35.71101	99.80580	35.68980	-0.5	-0.5
64	93.89322	72.50462	21.38860	34.37250	30.20541	113.86295	35.79254	113.87482	35.80620	0.2	-0.4

[redacted] K 1 [redacted]

TABLE C- 6. GEOMETRIC PARAMETERS OF B-5 SECTION AT 1.8 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	102.98271	79.80917	23.17354	35.99767	31.70949	15.91215	137.20210	15.93116	137.19255	4.9	4.6
2	100.21776	75.48923	24.72853	35.50925	30.82281	29.85739	136.54749	29.86154	136.55359	3.5	1.6
3	101.16220	79.71985	21.44235	35.66946	31.67412	44.05272	136.19775	44.05499	136.18312	4.0	4.5
4	98.84155	77.66125	21.18030	35.26367	31.25740	58.43504	136.01443	58.40686	136.02657	2.8	3.1
5	98.95964	77.42584	21.53380	35.29619	31.22185	72.43500	135.78426	72.43254	135.77917	2.9	3.0
6	97.81874	75.68297	22.13577	35.09433	30.86311	86.82275	135.23863	86.82300	135.23100	2.3	1.8
7	97.09840	76.08481	21.01360	34.97699	30.95006	101.05969	134.81812	101.06935	134.81821	1.9	2.1
8	98.64120	76.76007	21.88113	35.24573	31.10208	115.32825	134.97464	115.30598	134.97583	2.7	2.6
9	97.94360	76.51520	21.42841	35.12703	31.04140	15.67333	122.67924	15.68579	122.68382	2.4	2.4
10	98.79893	77.68918	21.10976	35.31648	31.26903	29.54300	122.63966	29.54564	122.62254	2.9	3.1
11	99.08781	77.47017	21.61765	35.31587	31.24454	43.92267	122.40933	43.90688	122.41527	2.9	3.0
12	99.26982	77.38892	21.88091	35.37634	31.21126	58.01042	122.05334	58.01617	122.06102	3.1	2.9
13	100.97701	76.34627	24.63074	35.68356	31.00012	72.20012	121.73381	72.21274	121.74275	4.0	2.2
14	100.24834	75.75899	24.48935	35.52936	30.87720	86.31287	121.24789	86.35107	121.27469	3.5	1.8
15	99.61891	78.08110	21.53781	35.42772	31.35164	100.55783	120.85382	100.56808	120.84705	3.3	3.4
16	102.39525	77.85353	24.54172	35.90990	31.31046	115.19356	120.45799	115.19128	120.51373	4.7	3.3
17	99.91058	75.13391	24.77667	35.47688	30.77042	15.62486	108.54373	15.63946	108.54586	3.4	1.5
18	101.72083	75.49365	26.22717	35.78014	30.82608	29.60724	108.49748	29.63931	108.46338	4.3	1.7
19	100.02161	75.94830	24.07330	35.49126	30.91838	43.29939	108.51747	43.28833	108.47372	3.4	2.0
20	102.08049	76.24650	25.83389	35.83925	30.97089	57.68932	107.82938	57.72861	107.85304	4.5	2.1
21	103.77249	79.17441	24.59808	36.15463	31.60651	71.87958	107.35742	71.87108	107.34470	5.4	4.2
22	99.33803	74.32060	25.01743	35.36720	30.59003	86.16769	106.76472	86.18318	106.75055	3.1	0.9
23	102.00758	77.50778	24.49980	35.83044	31.23975	100.37331	106.58641	100.37294	106.56187	4.4	3.0
24	100.65794	76.03836	24.61958	35.59026	30.93993	114.85182	106.24303	114.84627	106.19925	3.7	2.0
25	100.13013	74.98686	25.14326	35.50871	30.72173	15.11576	94.46184	15.09306	94.49907	3.5	1.3
26	100.32094	75.69066	24.63028	35.53044	30.88148	29.16248	94.62314	29.15311	94.59135	3.6	1.8
27	102.22354	77.77470	24.44884	35.89763	31.32574	43.42110	93.92336	43.41754	93.92873	4.6	3.3
28	99.92657	77.25629	22.67029	35.45412	31.17412	57.50323	93.51740	57.50279	93.51443	3.3	2.8
29	103.50354	81.45587	22.04767	36.08607	32.03134	71.87941	93.34534	71.88057	93.34154	5.2	5.6
30	98.73238	76.39461	22.33777	35.24638	30.99330	86.10011	92.57121	86.09607	92.56845	2.7	2.2
31	101.28691	79.30135	21.98557	35.69737	31.58250	100.06334	92.20844	100.07109	92.22029	4.0	4.2
32	98.92419	77.29375	21.63045	35.26495	31.17531	114.47910	91.89264	114.47670	91.91037	2.8	2.8
33	98.48738	73.87718	24.61020	35.21552	30.49751	14.91054	80.64549	14.91427	80.61276	2.6	0.6
34	103.14764	79.78725	23.36040	36.02327	31.68819	29.09622	80.44814	29.08018	80.42516	5.0	4.5
35	99.40883	75.33687	24.07196	35.36778	30.79951	43.09161	80.01962	43.11104	80.03000	3.1	1.6
36	99.28905	74.81897	24.47008	35.37999	30.68607	57.12561	79.66066	57.14268	79.66856	3.1	1.2
37	98.65588	76.26459	22.39130	35.23570	30.96956	71.63979	78.88741	71.62955	78.91086	2.7	2.1
38	98.14464	76.23674	21.90790	35.17441	30.96362	85.60437	78.33131	85.62775	78.33916	2.5	2.1
39	103.20468	78.15613	25.04855	36.06203	31.38348	100.30232	77.52771	100.34132	77.53394	5.1	3.5
40	101.65184	76.80219	24.84966	35.81398	31.12718	114.53046	77.29005	114.51616	77.27155	4.4	2.7
41	98.22551	75.10245	23.12306	35.19037	30.79416	14.61020	66.31299	14.60249	66.31194	2.6	1.6
42	100.16524	75.97122	24.19402	35.53983	30.93613	28.64812	65.92905	28.66287	65.89896	3.6	2.0
43	100.08685	78.38701	21.69984	35.48145	31.42426	43.05634	65.63771	43.04706	65.64072	3.4	3.6
44	100.03195	75.67688	24.35507	35.52950	30.90309	56.92427	65.21089	56.91962	65.18536	3.5	1.9
45	98.21651	76.14822	22.06828	35.15973	30.94897	71.27455	64.90552	71.26553	64.89008	2.5	2.1
46	101.68907	76.71974	24.96933	35.79790	31.09865	85.31877	64.33670	85.30637	64.30536	4.3	2.6
47	101.53514	77.08759	24.44756	35.73354	31.13759	99.20215	64.33987	99.20421	64.31032	4.1	2.7
48	101.04814	76.87802	24.17012	35.65195	31.11981	113.55219	63.76321	113.55740	63.77678	3.9	2.6
49	98.83505	74.10106	24.73399	35.26837	30.54323	14.35203	52.50806	14.34635	52.48103	2.8	0.7
50	99.21490	75.73091	23.48399	35.33559	30.89808	28.24071	52.09525	28.23560	52.08263	3.0	1.9
51	99.77568	76.53926	23.23642	35.43275	31.03419	42.53340	51.68248	42.55190	51.65898	3.3	2.3
52	100.86241	77.03595	23.82646	35.62451	31.13512	56.54907	51.32260	56.50529	51.32063	3.8	2.7
53	99.83479	75.45682	24.37798	35.44370	30.81433	70.54192	50.99429	70.55667	51.00040	3.3	1.6
54	98.98172	75.14133	23.84039	35.32138	30.76254	84.74390	50.70200	84.74928	50.70195	2.9	1.5
55	102.94977	79.09227	23.85750	36.03833	31.58354	99.13210	49.60497	99.14000	49.64397	5.0	4.2
56	100.13327	77.11012	23.02315	35.49646	31.15659	113.06743	49.65819	113.05963	49.65703	3.5	2.7
57	99.66597	75.82640	23.83957	35.42801	30.90721	14.28329	38.60722	14.27282	38.62381	3.3	1.9
58	99.85999	79.62605	20.23393	35.44481	31.65640	28.36514	37.85880	28.36028	37.85423	3.3	4.4

59	97.85896	76.81287	21.04610	35.10678	31.11308	42.74962	37.13475	42.75067	37.11940	2.3	2.6
60	98.58887	77.19608	21.39279	35.24997	31.16293	56.84264	36.90327	56.84294	36.92731	2.7	2.8
61	96.03137	75.10065	20.93073	34.78212	30.77480	70.81599	36.43509	70.83197	36.44836	1.4	1.5
62	93.13524	71.33260	21.80264	34.22728	29.96303	85.05061	35.86720	85.03334	35.90169	-0.2	-1.2
63	101.10895	80.15672	20.95222	35.68608	31.75478	98.98450	35.33475	99.00270	35.32501	4.0	4.7
64	103.12831	82.02985	21.09846	36.02858	32.11986	113.12703	35.44270	113.13194	35.45213	5.0	5.9

[redacted] M 1 [redacted]

TABLE C- 7. GEOMETRIC PARAMETERS OF B-5 SECTION AT 3.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	109.77782	88.80630	20.97151	37.16014	33.42159	17.46526	136.82765	17.48732	136.82294	8.3	10.2
2	109.42351	88.31897	21.10454	37.09293	33.33080	31.18590	136.46965	31.19142	136.46184	8.1	9.9
3	109.55125	88.09052	21.46074	37.11848	33.28398	45.29068	136.12096	45.28029	136.09477	8.2	9.8
4	104.44879	82.96632	21.48247	36.25290	32.30453	59.57442	135.83551	59.61996	135.81699	5.7	6.5
5	106.69469	85.20619	21.48849	36.63795	32.76671	73.69208	135.68213	73.70166	135.69858	6.8	8.1
6	102.89711	81.32309	21.57402	35.98199	31.98767	88.10756	135.12508	88.10040	135.11362	4.9	5.5
7	102.69170	80.98711	21.70459	35.94113	31.93442	102.42877	134.71248	102.43785	134.67101	4.7	5.3
8	107.58157	85.40976	22.17181	36.79633	32.78851	116.59331	134.82141	116.60358	134.82683	7.2	8.1
9	106.08369	85.06810	21.01559	36.52826	32.71410	16.97688	122.61859	16.99940	122.61917	6.5	7.9
10	110.62859	89.31467	21.31392	37.30861	33.52667	30.75954	122.59262	30.77037	122.59636	8.7	10.6
11	107.99280	86.36214	21.63066	36.87119	32.95601	45.11668	122.35191	45.10201	122.32965	7.5	8.7
12	110.79918	88.83542	21.96376	37.33458	33.45766	59.21550	122.00749	59.22935	122.00836	8.8	10.3
13	110.91789	88.93773	21.92017	37.35338	33.46092	73.43999	121.65036	73.43120	121.65375	8.9	10.3
14	112.47887	90.76595	21.71292	37.61014	33.78694	87.65305	121.17134	87.67671	121.17699	9.6	11.4
15	111.76315	90.15218	21.61098	37.49731	33.67984	101.85963	120.80003	101.88341	120.82433	9.3	11.1
16	108.56985	86.82120	21.74866	36.97665	33.05243	116.53632	120.42178	116.55153	120.43726	7.8	9.0
17	109.46922	88.20918	21.26004	37.10588	33.33325	15.87679	108.51154	16.89648	108.51369	8.1	9.9
18	113.79909	92.78784	21.01125	37.82730	34.16583	30.83852	108.47559	30.85712	108.46878	10.2	12.7
19	112.84811	91.16837	21.67975	37.68044	33.88300	44.71280	108.09721	44.70067	108.07179	9.8	11.7
20	111.10069	88.99023	22.11046	37.38857	33.49535	58.95326	107.82620	58.94217	107.82442	9.0	10.5
21	112.53763	90.49869	22.03894	37.61752	33.73833	73.15469	107.26776	73.15247	107.28380	9.6	11.3
22	107.88136	86.38666	21.49471	36.85193	32.96535	87.41971	106.67552	87.40646	106.66882	7.4	8.7
23	108.65118	87.24336	21.40782	36.96152	33.13623	101.68710	106.46941	101.70085	106.46358	7.7	9.3
24	112.18907	90.43243	21.75664	37.56017	33.74223	116.13181	106.12605	116.12950	106.12540	9.5	11.3
25	112.90880	91.95258	20.95622	37.68547	34.00932	16.47304	94.52373	16.48160	94.53148	9.8	12.2
26	110.07843	88.75443	21.32401	37.20987	33.42056	30.54790	94.18729	30.54805	94.20609	8.4	10.2
27	114.36595	92.86798	21.49797	37.93965	34.18439	44.67369	93.87059	44.67625	93.85751	10.6	12.7
28	113.02428	91.09065	21.93362	37.70625	33.85158	58.73256	93.46088	58.75203	93.47122	9.9	11.6
29	112.74693	90.38113	22.36580	37.66631	33.73444	73.17400	93.21130	73.17644	93.20940	9.8	11.3
30	111.48013	90.05269	21.42744	37.43980	33.66451	87.30174	92.43709	87.28381	92.41945	9.1	11.0
31	114.43301	92.49994	21.93307	37.94270	34.13422	101.36284	92.17911	101.35292	92.18492	10.6	12.6
32	110.44440	89.05945	21.38495	37.27022	33.46950	115.69876	91.79790	115.69138	91.82394	8.6	10.4
33	112.10028	90.80124	21.29904	37.56271	33.80132	16.25604	80.13513	16.24583	80.16400	9.5	11.5
34	119.45821	97.54109	21.91711	38.76077	35.03091	30.40787	79.88235	30.41290	79.87898	13.0	15.5
35	112.85045	90.49284	22.35760	37.70122	33.74632	44.51756	79.46967	44.50986	79.47701	9.9	11.3
36	112.06732	90.28607	21.78125	37.54721	33.70718	58.63600	79.10619	58.64053	79.11375	9.4	11.2
37	109.55528	87.85825	21.69704	37.13205	33.24788	72.83661	78.78755	72.83490	78.80428	8.2	9.6
38	111.75996	90.79291	20.96706	37.51216	33.78978	86.82610	78.21155	86.81052	78.22536	9.3	11.4
39	111.64421	90.11644	21.52777	37.47156	33.66147	101.11063	77.72159	101.11691	77.71558	9.2	11.0
40	107.16636	85.34917	21.81740	36.72543	32.76526	115.22815	77.45653	115.17290	77.43086	7.0	8.1
41	106.43082	86.05330	20.37752	36.60489	32.89946	15.99426	66.09213	15.97695	66.08470	6.7	8.5
42	116.05502	93.58374	22.47128	38.22011	34.32710	29.95177	65.60431	29.93423	65.64236	11.4	13.2
43	113.50079	92.07954	21.42125	37.79230	34.04991	44.17979	65.28741	44.21223	65.33075	10.1	12.3
44	111.63698	89.74847	21.88850	37.51863	33.60313	58.31650	64.91234	58.35150	64.89877	9.3	10.8
45	110.45131	88.98361	21.46770	37.28203	33.46091	72.47113	64.42795	72.48552	64.41789	8.7	10.3
46	116.02599	94.67184	21.35414	38.20007	34.50742	86.73915	64.04507	86.71306	64.00610	11.3	13.8
47	113.38759	92.31259	21.07500	37.77539	34.08966	100.85997	63.64114	100.82158	63.62505	10.1	12.4
48	110.12918	87.88992	22.23926	37.21474	33.25452	115.29886	63.00465	115.25726	63.00943	8.5	9.7
49	106.57991	85.43080	21.14911	36.63748	32.79822	15.64736	51.88756	15.63969	51.88058	6.8	8.2
50	113.30479	93.10013	20.20467	37.76318	34.24147	29.62875	51.31218	29.61855	51.30711	10.1	12.9
51	119.14104	97.53148	21.60956	38.71674	35.03905	43.88574	50.99483	43.90038	50.97119	12.8	15.6
52	114.97168	94.18309	20.78859	38.03481	34.42973	57.99667	50.63335	57.96863	50.60379	10.8	13.5
53	108.91248	87.32938	21.58310	37.02420	33.16553	72.15599	50.26630	72.18402	50.25798	7.9	9.4
54	112.37097	91.79976	20.57121	37.59180	33.97952	86.39017	49.93622	86.39343	49.95834	9.6	12.1
55	116.18350	94.45277	21.73073	38.22498	34.47186	100.60504	49.36432	100.62364	49.37248	11.4	13.7
56	110.18779	88.66656	21.52122	37.22195	33.39609	114.91982	48.85013	114.9083'	48.84039	8.5	10.1
57	109.15540	88.79611	20.35928	37.05293	33.43477	15.66022	37.84157	15.69631	37.87480	8.0	10.3
58	116.14789	94.95972	21.18817	38.21991	34.56059	29.53955	37.39354	29.52519	37.41367	11.4	14.0

[redacted] N I [redacted]

59	108.45319	87.85271	20.60048	36.94772	33.26503	43.98915	36.85004	44.03108	36.84406	7.7	9.7
60	108.74651	88.32188	20.42462	36.98700	33.32684	58.16106	36.61200	58.16563	36.59695	7.8	9.9
61	105.13148	83.50104	21.63045	36.38115	32.42586	72.23912	36.13199	72.24745	36.11736	6.0	6.9
62	93.46645	72.48654	20.97990	34.29266	30.19902	86.45436	35.41042	86.45465	35.39742	-0.1	-0.4
63	113.97864	92.80522	21.17342	37.87456	34.18675	100.53181	34.98297	100.52567	34.96854	10.4	12.7
64	115.29947	93.16624	22.13322	38.08449	34.24155	114.66629	35.14052	114.66240	35.18796	11.0	12.9

TABLE C- 8. GEOMETRIC PARAMETERS OF B-5 SECTION AT 5.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	113.85443	90.82051	23.03392	37.85225	33.81477	15.94315	136.96471	15.91815	136.96153	10.3	11.5
2	111.34750	88.16707	23.18044	37.42311	33.32655	29.68439	136.54514	29.66876	136.55597	9.1	9.9
3	109.27557	86.21069	23.06488	37.07414	32.94722	43.81732	136.18491	43.81332	136.14020	8.0	8.7
4	108.33951	85.75662	22.58289	36.93840	32.86748	58.05978	135.94786	58.07191	135.92587	7.7	8.4
5	111.56308	87.95107	23.61201	37.46046	33.27068	72.11122	135.75194	72.16721	135.75134	9.2	9.7
6	106.48088	83.99995	22.48093	36.61827	32.51479	86.48384	135.20418	86.53522	135.17480	6.7	7.2
7	108.76320	86.06053	22.70267	36.99962	32.94073	100.84689	134.83910	100.82764	134.81920	7.8	8.6
8	111.68944	87.84502	23.84442	37.50421	33.26337	114.92868	134.87729	114.88867	134.88930	9.3	9.7
9	116.76335	92.34024	24.42311	38.33238	34.12495	15.48707	122.74747	15.50955	122.76933	11.7	12.5
10	115.31432	91.61340	23.70091	38.09390	33.95096	29.19762	122.84029	29.21312	122.86792	11.0	12.0
11	113.26846	90.41670	22.85176	37.75739	33.74854	43.58681	122.37437	43.56294	122.39471	10.0	11.3
12	116.50044	93.00696	23.49348	38.28514	34.21265	57.67436	122.17996	57.69333	122.17104	11.6	12.8
13	114.76015	91.23143	23.52872	37.99910	33.88362	71.67813	121.93152	71.68233	121.92958	10.7	11.7
14	117.83708	94.39075	23.44633	38.50282	34.47037	85.65349	121.53780	85.66772	121.53276	12.2	13.7
15	113.90465	90.63815	23.26649	37.84976	33.81035	99.92381	121.12149	99.90456	121.12836	10.3	11.5
16	108.80312	86.21651	22.58661	36.99364	32.94890	114.45473	120.79794	114.44533	120.80948	7.8	8.7
17	118.18237	93.27795	24.90442	38.56958	34.29988	15.50186	108.56905	15.46787	108.58134	12.4	13.1
18	121.46039	96.92963	24.53076	39.08554	34.92264	29.33775	108.77188	29.31383	108.79451	13.9	15.2
19	120.75652	95.72081	25.03571	38.98788	34.69769	43.17331	108.39369	43.15842	108.36682	13.6	14.4
20	115.14703	91.90919	23.23784	38.06726	34.00728	57.32230	108.16313	57.33759	108.19121	10.9	12.2
21	114.45598	90.08315	24.37283	37.95183	33.67133	71.63660	107.48068	71.65005	107.50063	10.6	11.0
22	115.45428	91.16826	24.28603	38.10660	33.86807	85.79037	106.91699	85.78889	106.92294	11.1	11.7
23	112.02856	87.90331	24.12526	37.53729	33.24721	99.99329	106.72664	100.01894	106.73500	9.4	9.6
24	118.17545	94.05562	24.11983	38.56345	34.40862	114.27661	106.38231	114.26770	106.38718	12.4	13.5
25	121.17320	96.91483	24.25838	39.04680	34.92647	15.15023	94.70715	15.15908	94.70007	13.8	15.2
26	118.28174	93.65396	24.62778	38.58716	34.33881	29.08220	94.39088	29.08733	94.42274	12.5	13.2
27	120.90240	96.72693	24.17548	38.99113	34.89766	43.12521	94.36275	43.10612	94.37286	13.6	15.1
28	117.59547	93.55190	24.04358	38.46230	34.31804	57.28270	93.78358	57.28699	93.80667	12.1	13.2
29	117.07419	92.81830	24.25589	38.37439	34.17664	71.52136	93.36334	71.53514	93.39386	11.8	12.7
30	120.04076	95.20190	24.83885	38.87404	34.62030	85.61482	92.69908	85.60983	92.68394	13.3	14.2
31	119.29001	94.53134	24.75867	38.73714	34.48616	99.71701	92.47720	99.70685	92.48607	12.9	13.7
32	117.92542	93.74571	24.17970	38.52089	34.35779	113.91118	92.15820	113.89864	92.17169	12.3	13.3
33	122.81934	97.84361	24.97572	39.31776	35.09183	14.98102	80.37508	15.00415	80.36629	14.6	15.7
34	126.34073	102.19075	24.14998	39.86861	35.85999	28.98961	80.13643	28.95744	80.12932	16.2	18.3
35	120.11856	96.05760	24.06096	38.87531	34.76225	43.09219	79.74414	43.10515	79.73546	13.3	14.6
36	118.62195	94.21074	24.41121	38.62682	34.43332	57.16623	79.46327	57.17142	79.47073	12.6	13.6
37	117.09103	93.07503	24.01601	38.37765	34.22295	71.61314	78.87479	71.60210	78.88416	11.8	12.9
38	121.81151	97.58498	24.22653	39.14880	35.05014	85.16254	78.85503	85.13959	78.83372	14.1	15.6
39	117.92480	96.25771	21.66710	38.51006	34.78629	99.59087	78.14850	99.59062	78.14886	12.2	14.7
40	112.64053	89.09894	23.54160	37.63243	33.47481	114.11281	77.93269	114.12790	77.92165	9.7	10.4
41	117.25473	92.70070	24.55403	38.41600	34.16054	14.81740	65.96805	14.86573	65.99876	12.0	12.7
42	124.80389	101.72871	23.07518	39.63153	35.78130	28.60895	65.78528	28.59773	65.74014	15.5	18.0
43	115.60664	93.70145	21.90520	38.14305	34.32524	42.77962	65.64149	42.78630	65.65413	11.2	13.2
44	117.54060	95.86935	21.67125	38.45056	34.72853	56.89774	65.30420	56.92798	65.27876	12.1	14.5
45	115.93808	93.87119	22.06689	38.18045	34.36613	71.00815	64.81082	71.01056	64.78801	11.3	13.3
46	125.59113	100.61011	24.98102	39.74922	35.57384	85.52971	64.27023	85.53351	64.27524	15.8	17.3
47	117.73402	95.75346	21.98056	38.47682	34.69382	99.35127	64.05110	99.34131	64.05336	12.1	14.4
48	116.49748	91.74004	24.75745	38.29932	34.00980	114.26775	63.21469	114.27625	63.24428	11.6	12.2
49	115.41064	90.73914	24.67151	38.10013	33.80908	14.34362	52.25337	14.34268	52.23106	11.0	11.5
50	125.49434	101.38220	24.11214	39.73941	35.72607	28.35991	51.44427	28.34184	51.47218	15.8	17.8
51	131.54678	106.73822	24.80856	40.67340	36.65068	42.43102	51.40036	42.43983	51.39590	18.5	20.9
52	121.05142	97.24750	23.80392	39.03571	34.97827	56.48268	51.09341	56.47551	51.08432	13.8	15.4
53	112.85014	89.19612	23.65402	37.67813	33.49951	70.46169	51.19830	70.50464	51.16552	9.8	10.5
54	124.92302	99.03912	25.88390	39.67018	35.33965	85.33914	49.98416	85.36809	50.04295	15.6	16.5
55	123.63950	97.72256	25.91693	39.45209	35.12027	99.53900	49.54884	99.59123	49.56950	15.0	15.8
56	118.79883	94.03511	24.76372	38.70525	34.43430	113.87517	49.04045	113.89076	49.05418	12.8	13.6
57	115.81976	91.90889	23.91087	38.18341	34.00797	14.55603	38.73006	14.57831	38.77228	11.3	12.2
58	121.70338	98.03481	23.66858	39.13013	35.14229	28.03633	38.41782	28.04251	38.46161	14.0	15.9

[redacted] P 1 [redacted]

59	115.00829	92.47279	22.53549	38.04797	34.11772	42.47292	37.85521	42.48317	37.88057	10.9	12.5
60	115.84203	92.87572	22.96631	38.17517	34.18867	56.38774	37.78705	56.38943	37.77144	11.3	12.7
61	113.35336	89.90855	23.44481	37.76682	33.63708	70.89081	36.62125	70.88397	36.63416	10.1	10.9
62	94.30495	70.44792	23.85703	34.44305	29.77785	84.92090	35.85138	84.92670	35.84883	0.4	-1.8
63	118.98283	94.15855	24.82428	38.68333	34.43105	98.92586	35.59377	98.91588	35.59793	12.7	13.5
64	119.81741	96.09428	23.72313	38.82768	34.76468	113.28375	35.48357	113.27242	35.52342	13.2	14.6

TABLE C- 9. GEOMETRIC PARAMETERS OF B-5 SECTION AT 6.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	110.10834	86.91423	23.19411	37.22768	33.08060	16.52310	137.01402	16.54982	136.98877	8.5	9.1
2	112.57198	89.67198	22.89999	37.64333	33.59789	30.28450	136.74474	30.28636	136.74733	9.7	10.8
3	109.59839	85.93344	23.66495	37.16093	32.88789	44.36394	136.26018	44.38759	136.20753	8.3	8.5
4	108.60201	86.10745	22.49455	36.97125	32.93893	58.53769	135.99457	58.54050	135.98604	7.7	8.6
5	111.44009	87.80922	23.63087	37.44241	33.24193	72.68021	135.67978	72.70816	135.65793	9.1	9.6
6	107.91481	84.56215	23.35266	36.84442	32.63972	87.22653	135.01367	87.21759	135.01335	7.4	7.6
7	109.79375	86.99236	22.80139	37.15807	33.09372	101.27748	134.68021	101.28194	134.67137	8.3	9.1
8	111.49551	88.26936	23.22615	37.46339	33.32259	115.33514	134.64442	115.29738	134.59795	9.2	9.9
9	116.10205	92.12093	23.98112	38.21759	34.03770	16.12743	122.79204	16.13393	122.81253	11.4	12.3
10	113.95094	90.26892	23.68202	37.86063	33.70323	29.84734	122.74541	29.86284	122.75539	10.3	11.1
11	112.90799	88.28297	24.62502	37.68864	33.32361	44.17172	122.53142	44.18141	122.52339	9.8	9.9
12	114.00047	90.16516	23.83531	37.86380	33.67317	58.23596	121.96977	58.23729	121.98309	10.4	11.0
13	112.80089	88.75624	24.04465	37.66856	33.41972	72.41583	121.51566	72.42915	121.50688	9.8	10.2
14	116.39662	92.00909	24.38753	38.27492	34.02866	86.79729	120.98579	86.85463	120.90724	11.5	12.2
15	111.84415	87.99341	23.85074	37.51218	33.27394	100.93353	120.70427	100.91646	120.67899	9.3	9.7
16	107.98657	84.53442	23.45215	36.85849	32.63251	115.27654	120.25064	115.27148	120.22482	7.4	7.6
17	116.50591	92.80537	23.70053	38.28384	34.17244	15.90345	108.77603	15.92431	108.74329	11.6	12.7
18	118.16211	93.49091	24.67120	38.54576	34.29341	29.83899	108.65567	29.82959	108.64734	12.3	13.1
19	116.58958	93.43369	23.15590	38.29388	34.28096	43.78883	108.14319	43.76147	108.12457	11.6	13.1
20	114.31342	90.98967	23.32375	37.92523	33.85005	58.16158	107.68527	58.16539	107.70930	10.5	11.6
21	109.97040	85.90053	24.06987	37.20074	32.87600	72.15547	107.22649	72.15681	107.25160	8.4	8.4
22	114.41101	90.85851	23.55251	37.95590	33.81076	86.29736	106.63840	86.29579	106.64261	10.6	11.5
23	110.17552	86.42705	23.74847	37.23254	32.97404	100.93852	106.28311	100.96190	106.27650	8.5	8.7
24	115.92017	91.92738	23.99278	38.20029	34.00685	114.74640	105.99684	114.72128	105.94771	11.3	12.1
25	117.62047	94.05823	23.56224	38.46912	34.40530	15.65289	94.82318	15.67591	94.83725	12.1	13.5
26	115.90620	92.45798	23.44823	38.18549	34.10672	29.61812	94.46806	29.62665	94.45671	11.3	12.5
27	117.19424	93.30417	23.89008	38.40657	34.25790	43.77322	94.08044	43.75230	94.07690	11.9	13.0
28	115.17827	91.40175	23.77652	38.08672	33.91698	58.11520	93.18643	58.14403	93.20940	11.0	11.9
29	113.13075	89.44099	23.68976	37.74554	33.55769	71.93025	93.12285	71.95200	93.12975	10.0	10.7
30	117.00232	92.69402	24.30830	38.37210	34.14998	86.05870	92.39574	86.05237	92.38976	11.8	12.6
31	115.71931	91.46815	24.25116	38.15480	33.93018	100.47488	92.18083	100.47673	92.22563	11.2	11.9
32	116.86595	91.82648	25.03947	38.35440	34.00140	114.32750	91.72536	114.31549	91.73141	11.8	12.1
33	121.79367	97.37454	24.41913	39.14655	35.01314	15.44604	80.31905	15.47526	80.30872	14.1	15.5
34	120.06372	96.54211	23.52161	38.87358	34.88727	29.40163	80.17575	29.39865	80.13373	13.3	15.1
35	116.31494	91.60695	24.70799	38.25710	33.95689	43.61743	79.57133	43.63530	79.56464	11.5	12.0
36	115.69559	91.42490	24.27069	38.16017	33.92090	57.78284	79.28229	57.80580	79.26907	11.2	11.9
37	115.44057	91.06905	24.37152	38.10866	33.85298	71.97549	78.80536	71.97849	78.82312	11.1	11.6
38	120.13667	95.81911	24.31757	38.88014	34.72093	86.02098	78.28691	86.02769	78.28242	13.3	14.5
39	117.80437	93.97710	23.82727	38.50012	34.39542	100.27722	77.80278	100.29366	77.79625	12.2	13.4
40	115.27332	90.96571	24.30760	38.08717	33.83188	114.37865	77.48865	114.42537	77.46574	11.0	11.6
41	116.96063	94.58672	22.37392	38.37105	34.50476	14.98708	66.27362	15.03791	66.26443	11.8	13.8
42	118.84998	95.52438	23.32559	38.67023	34.67352	28.95982	65.83792	28.97746	65.84238	12.7	14.3
43	112.92194	89.72824	23.19370	37.71211	33.60886	43.09621	65.55229	43.10168	65.55200	9.9	10.8
44	115.62579	91.94699	23.67880	38.13988	34.01337	57.29070	65.16243	57.29669	65.16100	11.2	12.2
45	117.76598	93.75763	24.00835	38.48914	34.35779	71.39487	64.59361	71.40807	64.56439	12.2	13.3
46	119.43402	95.17099	24.26303	38.77008	34.59709	85.67497	64.16843	85.68454	64.16382	13.0	14.1
47	117.79863	93.85864	23.93999	38.50163	34.37361	99.85272	63.77744	99.83946	63.77113	12.2	13.4
48	116.70044	93.44614	24.25430	38.31895	34.14223	114.17282	63.25745	114.17888	63.24382	11.7	12.6
49	114.56276	91.36646	23.19630	37.96469	33.90131	14.73202	52.31062	14.74214	52.30635	10.6	11.8
50	120.77078	97.28429	23.48650	38.97926	34.99092	28.70732	51.62793	28.72427	51.63667	13.6	15.4
51	125.26262	101.20123	24.06139	39.70328	35.68509	42.89906	51.41504	42.91354	51.41942	15.7	17.7
52	116.92360	94.09845	22.82515	38.35725	34.42276	57.02377	51.00658	57.04724	51.01564	11.8	13.5
53	112.27740	87.67343	24.60397	37.58717	33.21063	71.29858	50.60387	71.32977	50.59868	9.5	9.5
54	118.96181	96.00218	22.95963	38.68892	34.76657	85.44829	50.18042	85.47797	50.18904	12.8	14.7
55	116.73982	93.54314	23.19669	38.32314	34.30702	99.63887	49.69528	99.66823	49.71812	11.7	13.1
56	117.11383	92.79646	24.31737	38.38985	34.18447	113.91426	49.21098	113.90067	49.20407	11.9	12.7
57	114.10423	93.56493	20.53931	37.88531	34.31197	14.80552	38.15338	14.80255	38.20544	10.4	13.2
58	118.09431	96.52374	21.57057	38.54007	34.84435	28.65588	37.75262	28.65137	37.77307	12.3	14.9

59	112.77455	91.60599	21.16856	37.65604	33.94492	43.10255	37.16422	43.12221	37.15131	9.7	11.9
60	116.50317	95.01183	21.49135	38.27280	34.56076	57.15654	36.94402	57.19859	36.94722	11.5	14.0
61	111.29997	90.30899	20.99098	37.41745	33.70137	71.26331	36.52156	71.29541	36.54042	9.0	11.1
62	92.28775	70.80501	21.48274	34.07806	29.83658	85.35089	35.49573	85.35719	35.47951	-0.7	-1.6
63	115.58145	94.23120	21.35025	38.12576	34.42021	99.42340	35.39137	99.42632	35.39413	11.1	13.5
64	114.57361	92.81754	21.75607	37.96143	34.16580	113.45738	35.55612	113.46118	35.57385	10.6	12.7

TABLE C-10. GEOMETRIC PARAMETERS OF B-5 SECTION AT 8.4 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	101.93948	79.98856	21.95093	35.95765	31.75485	15.65364	137.07286	15.65172	137.07832	4.5	4.7
2	104.44484	82.32179	22.12305	36.26807	32.20778	29.56667	136.97382	29.56691	136.97269	5.7	6.2
3	103.81767	81.10352	22.71416	36.16664	31.97696	43.70538	136.47591	43.70569	136.49400	5.4	5.5
4	102.13234	80.35649	21.77585	35.84227	31.80292	57.99699	136.31262	57.98997	136.31390	4.5	4.9
5	105.54794	83.80571	21.74223	36.44710	32.46968	72.18506	135.96683	72.18988	136.00146	6.2	7.1
6	103.59825	80.68248	22.91577	36.12923	31.89182	86.38556	135.50005	86.39264	135.45073	5.3	5.2
7	103.70654	81.56224	22.14430	36.11662	32.03317	100.91754	135.21399	100.92183	135.16949	5.3	5.6
8	105.82674	84.01190	21.81483	36.50406	32.50032	115.08656	135.00684	115.06219	134.98351	6.4	7.2
9	102.72150	81.79074	20.93076	35.99078	32.10912	15.07118	122.86424	15.07741	122.85155	4.9	5.9
10	102.96230	81.73431	21.22798	36.00793	32.08972	29.33508	122.75172	29.34302	122.75732	4.9	5.8
11	102.58517	81.30063	21.28455	35.94655	32.01744	43.66641	122.45033	43.66466	122.46642	4.8	5.6
12	102.48412	80.95293	21.53119	35.93781	31.93478	57.87949	122.13834	57.88786	122.14720	4.7	5.3
13	103.23383	80.07431	23.15952	36.05200	31.77399	71.94580	121.70718	71.98880	121.68495	5.1	4.8
14	102.67273	80.87952	21.79321	35.94791	31.91945	86.10481	121.32698	86.10332	121.33107	4.8	5.3
15	102.62128	81.52386	21.09741	35.94357	32.04515	100.69118	121.01642	100.73125	121.02957	4.8	5.7
16	101.66415	80.45305	21.21111	35.75993	31.82353	115.34193	120.76210	115.34512	120.80269	4.2	4.9
17	106.92845	81.47803	25.45042	36.71671	32.06964	14.91539	108.50664	14.95531	108.49648	7.0	5.9
18	103.49190	82.32460	21.16730	36.09869	32.19618	29.21411	108.55173	29.23331	108.54944	5.2	6.2
19	105.37332	81.47707	23.89626	36.40939	32.02620	43.25652	108.08932	43.24191	108.08434	6.1	5.6
20	102.31026	80.70558	21.60468	35.88142	31.88309	57.55148	107.84648	57.55850	107.83646	4.6	5.1
21	102.67670	81.19446	21.48224	35.94290	31.96324	71.97000	107.41405	71.97127	107.40320	4.8	5.4
22	105.28918	83.59010	21.69908	36.38762	32.45062	86.13383	106.79187	86.14636	106.76091	6.0	7.0
23	101.95018	80.68079	21.26939	35.82594	31.89619	100.56180	106.74576	100.60020	106.72903	4.4	5.2
24	106.19237	85.00150	21.19087	36.54836	32.71410	114.97734	106.37228	114.99107	106.37732	6.5	7.9
25	102.33411	81.67210	20.66200	35.89978	32.08153	14.96060	94.48427	14.98181	94.49301	4.6	5.8
26	103.40556	81.71136	21.69420	36.08421	32.08498	29.15266	93.87910	29.17822	93.88081	5.2	5.8
27	104.84880	82.64566	22.20314	36.36530	32.30862	43.30161	93.56564	43.31360	93.54956	6.0	6.5
28	101.74110	80.31647	21.42464	35.80887	31.83087	57.43298	93.76886	57.46796	93.75996	4.4	5.0
29	104.05260	80.22672	23.82588	36.20934	31.78383	71.84721	92.86156	71.85634	92.84421	5.5	5.8
30	106.69365	82.64999	24.04366	36.65463	32.26785	86.09532	92.28288	86.11496	92.26656	6.8	6.4
31	105.86638	81.73816	24.12822	36.50436	32.08424	100.44849	92.00131	100.43851	92.00877	6.4	5.8
32	107.32947	83.76791	23.56155	36.79822	32.49413	114.79175	91.68240	114.76346	91.69489	7.2	7.2
33	104.57423	82.39862	22.17561	36.27428	32.20032	14.61045	80.03198	14.61673	80.02312	5.7	6.2
34	103.75635	82.46358	21.29277	36.16890	32.26402	29.06361	79.76863	29.08559	79.76563	5.4	6.4
35	102.68365	80.63014	22.05351	35.94966	31.86188	43.23186	79.41046	43.20941	79.39896	4.8	5.1
36	102.38510	80.51566	21.86945	35.90392	31.84923	57.51253	79.16032	57.49048	79.16447	4.6	5.0
37	103.93608	82.47585	21.46024	36.15736	32.21371	71.68135	78.66359	71.67606	78.68608	5.4	6.2
38	106.80014	85.08890	21.71124	36.67616	32.75412	85.84195	78.26527	85.85664	78.27190	6.9	8.0
39	106.09741	83.96118	22.13623	36.52505	32.49475	100.14592	77.88890	100.13579	77.87608	6.4	7.2
40	106.70354	85.21465	21.48889	36.63127	32.74782	114.52515	77.51755	114.49603	77.52017	6.8	8.0
41	105.00543	81.68690	23.31853	36.36697	32.08569	14.30391	65.76387	14.30703	65.76582	6.0	5.8
42	104.56804	82.72560	21.84244	36.31143	32.29437	28.65120	65.41837	28.64404	65.40005	5.8	6.5
43	102.74234	80.98196	21.76038	35.97066	31.94208	42.97835	65.13297	42.98000	65.17291	4.8	5.3
44	104.99170	81.90152	23.09018	36.37100	32.13223	57.08739	64.88643	57.11954	64.87221	6.0	6.0
45	105.49280	83.84105	21.65175	36.45837	32.51091	71.28920	64.47482	71.28157	64.44618	6.3	7.2
46	107.26517	83.65332	23.61185	36.75031	32.47102	85.65434	63.86147	85.67924	63.84708	7.1	7.1
47	105.53290	84.46748	21.06541	36.44824	32.60938	100.17430	63.65164	100.14359	63.63626	6.2	7.5
48	108.04076	85.60608	22.43468	36.85725	32.81636	114.60550	63.19391	114.59070	63.18878	7.4	8.2
49	102.20482	80.61871	21.58611	35.89336	31.87067	14.20704	51.62248	14.21391	51.61803	4.6	5.1
50	102.50630	81.45645	21.04985	35.92581	32.02278	28.16245	51.59593	28.15845	51.57137	4.7	5.6
51	107.20653	83.15126	24.05527	36.74635	32.36186	42.51009	50.87381	42.49718	50.84193	7.1	6.7
52	102.64693	81.68579	20.96114	35.95671	32.07434	57.04410	50.50690	57.05539	50.48199	4.8	5.8
53	101.46710	80.32854	21.13857	35.72600	31.80492	71.34300	50.18086	71.35294	50.18956	4.1	4.9
54	106.65082	83.41417	23.23665	36.64574	32.41969	85.40652	49.65259	85.37509	49.68213	6.8	6.9
55	105.70299	82.09033	23.61266	36.49165	32.18317	99.69189	49.33943	99.69252	49.34624	6.4	6.1
56	107.21906	85.39134	21.82771	36.72816	32.78389	114.32600	49.01428	114.33107	48.97134	7.0	8.1
57	102.88277	81.74167	21.14110	36.02623	32.08124	14.28817	37.51228	14.28600	37.51662	5.0	5.8
58	102.92142	82.11153	20.80989	35.99364	32.15884	28.55287	37.04291	28.53819	37.04507	4.9	6.1

59	103.98589	81.40680	22.57909	36.19048	32.05403	42.76753	36.42354	42.76050	36.42206	5.5	5.7
60	104.91068	81.98705	22.92363	36.35036	32.15208	56.89656	36.33321	56.91414	36.32924	5.9	6.0
61	103.53589	80.13016	23.40573	36.12375	31.79552	71.15993	35.98633	71.15359	35.99461	5.3	4.9
62	93.45203	7[illegible] 75436	21.69766	34.27943	30.04433	85.50989	34.85295	85.51205	34.83565	-0.1	-0.9
63	107.82852	84.31146	23.51706	36.84448	32.57860	99.57[illegible]6	34.98936	99.57771	35.00522	7.4	7.4
64	104.70074	8[illegible].93053	21.77022	36.30302	32.32169	113.93929	35.15578	113.93826	35.13902	5.8	6.6

[illegible] F 2 [illegible]

TABLE C-11. GEOMETRIC PARAMETERS OF B-5 SECTION AT 10.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	100.68124	78.56798	22.11327	35.60666	31.46756	15.72506	137.08147	15.72244	137.07416	3.8	3.8
2	100.23103	77.11986	23.11118	35.55476	31.21220	29.62904	136.92941	29.63458	136.90987	3.6	2.9
3	100.66791	77.80962	22.85829	35.63269	31.31801	43.96065	136.44565	43.95180	136.45030	3.8	3.3
4	100.83092	78.09509	22.73582	35.65240	31.37120	58.18570	136.17252	58.18027	136.15352	3.9	3.5
5	102.66273	78.67172	23.99101	35.97021	31.49571	72.50584	135.72101	72.47702	135.72842	4.8	3.9
6	100.91229	77.25229	23.66000	35.66658	31.21349	86.82993	135.30028	86.85039	135.27922	3.9	2.9
7	100.47141	76.76534	23.70607	35.59644	31.10538	101.26959	134.96106	101.25188	134.95403	3.7	2.6
8	101.48622	77.11224	24.37398	35.78564	31.17488	115.42551	134.67282	115.44020	134.67258	4.3	2.8
9	102.43678	78.59039	23.84639	35.92580	31.45930	15.16254	122.90300	15.20348	122.88243	4.7	3.7
10	103.64886	80.02837	23.62050	36.18358	31.81059	29.33870	122.70461	29.33664	122.71953	5.5	4.9
11	103.87056	80.19833	23.67223	36.20717	31.82118	43.70540	122.34720	43.69942	122.33858	5.5	4.9
12	102.49785	78.50980	23.98805	35.94456	31.46759	57.77811	122.02342	57.76353	122.04272	4.8	3.8
13	103.74835	79.62486	24.12349	36.20180	31.72615	72.33543	121.46953	72.33514	121.48169	5.5	4.6
14	104.19438	80.44247	23.75191	36.27577	31.88770	86.72774	121.03116	86.74120	121.04485	5.7	5.2
15	103.50809	79.64551	23.86258	36.13109	31.71324	100.46814	120.64626	100.47112	120.63715	5.3	4.6
16	101.36717	78.33401	23.03316	35.73387	31.43411	115.30136	120.26677	115.31119	120.25883	4.1	3.7
17	102.39055	79.19225	23.19830	35.90332	31.59129	14.68808	108.61545	14.68184	108.61635	4.6	4.2
18	103.30496	80.12442	23.18054	36.12042	31.84436	29.14165	108.46527	29.12701	108.47017	5.3	5.0
19	104.49640	80.40544	24.09096	36.33040	31.90482	43.43752	107.90346	43.45462	107.89670	5.9	5.2
20	104.02191	80.11865	23.90326	36.20303	31.78322	57.83043	107.64792	57.86267	107.64664	5.5	4.8
21	105.09006	81.18657	23.90349	36.44821	32.03296	71.96213	107.05904	71.96484	107.06650	6.2	5.6
22	104.71071	80.81433	23.89638	36.34515	31.95448	86.22516	106.63635	86.26181	106.63510	5.9	5.4
23	101.85846	78.36267	23.49579	35.83963	31.44812	100.70209	106.29556	100.68951	106.31314	4.5	3.7
24	102.87166	79.92880	22.94286	35.98650	31.75580	115.08226	105.94069	115.09749	105.92088	4.9	4.7
25	101.05879	78.16351	22.89528	35.67635	31.37813	14.75951	94.43867	14.74522	94.43721	4.0	3.5
26	102.19948	78.42769	23.77179	35.94983	31.45592	28.97235	94.63852	28.94250	94.63365	4.8	3.7
27	102.46362	81.12016	21.34346	35.93599	31.98891	43.42546	93.60591	43.40662	93.61279	4.7	5.5
28	102.00259	79.62102	22.38158	35.83401	31.67421	57.68367	93.42186	57.70198	93.42264	4.4	4.5
29	101.79239	79.55588	22.23651	35.79674	31.64728	71.92291	92.85373	71.96777	92.89389	4.3	4.4
30	103.31900	80.29309	23.02591	36.08218	31.82074	86.08316	92.34242	86.10414	92.32635	5.2	4.9
31	103.91689	79.75365	24.16324	36.22748	31.73000	100.42886	92.06746	100.42563	92.07706	5.6	4.6
32	101.61197	79.43243	22.17953	35.76157	31.62669	114.55235	91.62776	114.54907	91.62195	4.2	4.3
33	100.12335	79.17691	20.94644	35.52141	31.57207	14.32706	79.98573	14.34973	79.97678	3.5	4.1
34	103.09393	79.63174	23.46219	36.07704	31.68167	29.04150	80.39964	29.03772	80.37552	5.1	4.5
35	103.07393	78.76675	24.30717	36.05482	31.55612	43.20026	79.28636	43.21231	79.28616	5.1	4.1
36	103.64178	77.91432	25.72746	36.15500	31.35886	57.28926	79.22220	57.29900	79.22331	5.4	3.4
37	103.20483	79.03558	24.16925	36.07501	31.62015	71.50554	78.78676	71.49515	78.77554	5.1	4.3
38	106.39905	81.44545	24.95360	36.63812	32.10123	86.01929	77.92931	86.02742	77.90030	6.8	5.9
39	105.35255	80.85533	24.49722	36.45534	31.94786	100.23581	77.56046	100.23442	77.55280	6.2	5.4
40	103.37457	79.65778	23.71680	36.09930	31.67844	114.54279	77.02548	114.54567	77.05415	5.2	4.5
41	100.39919	78.23116	22.16803	35.58200	31.41180	14.10689	65.63574	14.09312	65.65103	3.7	3.6
42	104.28383	81.12573	23.15810	36.29820	32.01218	28.87117	65.42223	28.84886	65.41205	5.8	5.6
43	102.99825	79.39386	23.60439	36.05019	31.68797	42.77351	65.04036	42.79266	65.06493	5.1	4.5
44	103.70808	79.36418	24.34390	36.16357	31.64563	56.85880	65.26787	56.83620	65.24887	5.4	4.4
45	106.55110	80.64375	25.90735	36.68866	31.92476	71.21002	64.31947	71.20425	64.27765	6.9	5.3
46	106.75504	81.99208	24.76295	36.73257	32.18288	85.72086	63.39374	85.73685	63.39981	7.1	6.1
47	105.10368	80.89244	24.21124	36.41113	31.94373	100.10471	63.17657	100.11443	63.17665	6.1	5.3
48	104.44237	80.21014	24.23222	36.26331	31.78525	114.37161	62.73239	114.39523	62.72002	5.7	4.8
49	98.97499	76.27789	22.69710	35.31319	31.00035	13.73904	52.13762	13.77988	52.13362	2.9	2.2
50	103.90294	80.62564	23.27730	36.21965	31.88370	28.29213	50.84763	28.28412	50.85088	5.6	5.1
51	103.42307	79.74454	23.67853	36.13187	31.75060	42.50923	50.86313	42.51714	50.88329	5.3	4.7
52	103.30157	79.51669	23.78488	36.09329	31.67601	57.01500	50.11450	56.98659	50.10603	5.2	4.5
53	103.65552	78.82466	24.83086	36.13538	31.55872	71.19725	49.82300	71.22232	49.81242	5.3	4.1
54	105.05472	81.02441	24.03030	36.38989	31.96770	85.35179	49.13434	85.35123	49.15520	6.1	5.4
55	103.09323	79.78076	23.31247	36.05003	31.71861	99.34769	49.38033	99.36368	49.42136	5.1	4.6
56	102.91957	79.12445	23.79512	36.01642	31.57912	114.03310	48.50380	114.05304	48.53120	5.0	4.1
57	100.73647	79.11449	21.62198	35.65622	31.58563	13.98903	37.47658	13.95628	37.45799	3.9	4.2
58	100.63049	77.85657	22.77393	35.61629	31.31024	28.19783	37.77399	28.19121	37.77420	3.8	3.3

59	100.90613	77.72482	23.18130	35.64447	31.35187	42.48804	36.56345	42.53117	36.58076	3.9	3.4
60	101.68781	77.95886	23.72894	35.79604	31.33528	56.59241	36.41315	56.58931	36.45209	4.3	3.3
61	101.79370	78.20631	23.58739	35.84479	31.41098	70.98077	35.71082	70.96478	35.72234	4.5	3.6
62	93.84534	70.33958	23.50575	34.36504	29.77150	84.79434	34.68675	84.77084	34.70552	0.2	-1.8
63	104.83669	80.38026	24.45642	36.34721	31.83278	99.45332	34.61481	99.44295	34.65398	5.9	5.0
64	102.23332	78.52783	23.70549	35.87878	31.44991	113.07509	35.11356	113.08008	35.14774	4.6	3.7

[redacted] H 2 [redacted]

TABLE C-12. GEOMETRIC PARAMETERS OF B-5 SECTION AT 11.6 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	116.83572	93.96982	22.86591	38.36644	34.39525	15.64742	137.09554	15.64922	137.07776	11.8	13.4
2	112.68053	90.50345	22.17708	37.68344	33.73808	29.87827	137.04938	29.86374	137.04111	9.8	11.3
3	110.69243	88.67444	22.01799	37.31056	33.40558	44.75571	136.68277	44.74495	136.67026	8.7	10.2
4	111.38503	89.48471	21.90031	37.44740	33.55978	59.14577	136.33530	59.14124	136.34004	9.1	10.7
5	109.66304	88.40968	21.25336	37.15234	33.35486	73.68703	135.87769	73.68506	135.87033	8.3	10.0
6	107.83553	85.69452	22.14101	36.83768	32.83398	88.21489	135.57941	88.22133	135.54507	7.4	8.3
7	108.21730	86.29515	21.92215	36.89250	32.96585	102.75676	135.38098	102.75932	135.36971	7.5	8.7
8	110.06262	88.06560	21.99702	37.21440	33.29672	117.18169	135.00664	117.18039	134.98486	8.5	9.8
9	113.53691	91.31412	22.22279	37.79562	33.91003	15.15800	122.62404	15.17514	122.61113	10.2	11.8
10	112.33113	89.97050	22.36063	37.61665	33.67860	29.80878	122.38216	29.81320	122.38818	9.6	11.1
11	109.74937	88.26228	21.48709	37.20493	33.36137	44.51413	122.14415	44.52042	122.15016	8.4	10.0
12	109.32594	87.58487	21.74107	37.11359	33.22214	59.09654	121.84068	59.08290	121.82802	8.2	9.6
13	110.43317	87.90884	22.52432	37.28877	33.27170	73.53877	121.27486	73.52252	121.27011	8.7	9.7
14	111.51920	89.74213	21.77707	37.51065	33.64406	87.88405	121.01060	87.91365	121.02930	9.3	11.0
15	108.28917	86.33348	21.95569	36.93221	32.98495	102.40639	120.66461	102.42337	120.70670	7.6	8.8
16	112.06567	90.77141	21.29427	37.56371	33.79913	117.07375	120.38542	117.07802	120.42883	9.5	11.5
17	113.81993	91.48389	22.33604	37.88943	33.94753	14.68955	108.12335	14.69908	108.11259	10.4	12.0
18	111.84552	89.65796	22.18756	37.53778	33.61414	29.52534	107.86894	29.52815	107.86960	9.4	10.9
19	111.54823	89.39566	22.15257	37.47972	33.54305	44.36281	107.32724	44.36182	107.32013	9.2	10.6
20	110.13257	98.00687	22.12570	37.24907	33.29860	59.11781	107.17848	59.11154	107.18488	8.6	9.8
21	113.85562	91.76561	22.09001	37.87051	34.00079	73.33887	106.79665	73.34436	106.79602	10.4	12.1
22	108.66972	87.38606	21.28366	36.98184	33.16199	87.77322	106.55550	87.76886	106.57176	7.8	9.4
23	106.59967	85.86868	20.73099	36.62386	32.88525	102.37376	106.12640	102.38440	106.13094	6.7	8.5
24	113.36867	91.97211	21.39656	37.76796	34.02509	117.04565	105.86761	116.99699	105.83328	10.1	12.2
25	112.61835	90.10748	22.51086	37.68126	33.71877	14.91351	93.53294	14.94837	93.54227	9.8	11.2
26	110.33719	88.08963	22.24756	37.32147	33.33746	29.75578	93.44519	29.75517	93.46568	8.8	9.9
27	111.48535	89.71364	21.77171	37.49019	33.62082	44.35275	92.80252	44.35283	92.81770	9.3	10.9
28	109.37317	87.58902	21.78415	37.12872	33.22972	59.00073	92.83035	59.00935	92.82974	8.2	9.6
29	108.88680	85.76198	23.12482	37.03175	32.87349	73.42461	92.35295	73.42307	92.29846	7.9	8.4
30	110.37622	88.75200	21.62422	37.28000	33.43523	87.74980	92.02524	87.74782	92.03690	8.6	10.3
31	108.92874	87.66786	21.26088	37.04549	33.22688	102.25227	91.59496	102.25446	91.62698	8.0	9.6
32	110.80809	89.36374	21.44435	37.33322	33.52359	116.79846	91.34357	116.79306	91.34381	8.8	10.6
33	113.94968	91.47777	22.47191	37.86908	33.93890	14.32524	78.76634	14.34220	78.74927	10.4	11.9
34	113.16544	90.81525	22.35019	37.77144	33.83463	29.72289	79.34032	29.73610	79.34525	10.1	11.6
35	111.69290	89.47699	22.21591	37.50412	33.57928	44.30913	78.24367	44.31920	78.25475	9.3	10.7
36	110.29750	88.40642	21.89108	37.26886	33.37259	58.81229	78.22444	58.81938	78.23796	8.6	10.1
37	110.66328	89.29202	21.37126	37.32219	33.51579	73.11995	77.70184	73.11948	77.69043	8.8	10.5
38	110.70485	89.12086	21.58398	37.32251	33.48158	87.62497	77.37326	87.61276	77.37859	8.8	10.4
39	110.22417	89.06044	21.16373	37.25529	33.48862	102.24654	77.00735	102.23140	77.01785	8.6	10.4
40	110.87836	89.74933	21.12903	37.34712	33.62422	116.84473	76.59763	116.84758	76.57428	8.8	10.9
41	113.41835	91.25601	22.16234	37.77489	33.89941	14.42480	63.90555	14.46264	63.89627	10.1	11.8
42	113.36055	91.60591	21.75464	37.77156	33.95924	30.02525	64.00722	30.03040	64.00409	10.1	12.0
43	113.32076	91.45193	21.86882	37.77643	33.94089	44.12239	63.31183	44.10698	63.31442	10.1	11.9
44	110.58141	88.86595	21.71545	37.31755	33.47818	58.82156	63.52643	58.85039	63.50882	8.8	10.4
45	110.92085	89.73044	21.19041	37.37094	33.61882	73.22525	63.01334	73.22305	62.99524	8.9	10.9
46	112.81070	91.35687	21.45383	37.69609	33.92354	87.71463	62.19342	87.70586	62.19305	9.9	11.9
47	110.31934	88.96527	21.35406	37.27081	33.46434	102.19985	62.33473	102.17111	62.32710	8.6	10.4
48	111.20564	89.53801	21.66763	37.41017	33.56160	116.75430	62.18163	116.74962	62.17993	9.0	10.7
49	113.86058	90.61816	23.24242	37.85159	33.77872	14.42403	49.33559	14.45971	49.32162	10.3	11.4
50	113.51642	91.30704	22.20938	37.79884	33.89372	29.31458	48.88123	29.28517	48.89313	10.2	11.8
51	112.44737	90.49103	21.95634	37.61014	33.74792	43.96068	48.64711	43.95335	48.65004	9.6	11.3
52	110.97856	89.76866	21.20990	37.40329	33.65359	58.65173	48.57095	58.65199	48.56604	9.0	11.0
53	107.99150	86.40565	21.58585	36.86444	32.97365	72.99896	48.46802	73.03546	48.45630	7.4	8.7
54	110.65517	89.45261	21.20256	37.31596	33.54565	87.38556	47.73245	87.40193	47.73244	8.8	10.6
55	108.75528	87.69316	21.06212	37.00790	33.21596	101.82957	48.0 817	101.84094	48.03247	7.9	9.5
56	110.10757	88.45244	21.65514	37.20995	33.34492	116.50812	47.75249	116.51147	47.75430	8.4	10.0
57	114.65175	91.35199	23.29976	37.96956	33.90575	14.71509	34.86157	14.70620	34.87036	10.7	11.8
58	113.65442	90.55882	23.09560	37.82117	33.75650	29.50285	34.61482	29.51195	34.62982	10.2	11.3

59	108.08890	85.98155	22.10735	36.87828	32.88492	44.15785	34.02058	44.17659	34.02924	7.5	8.4
60	111.71431	88.80530	22.90901	37.49297	33.43256	58.53235	34.34503	58.54008	34.36990	9.3	10.3
61	108.29129	86.57779	21.71350	36.93494	33.01418	73.01802	34.15269	73.00717	34.19991	7.6	8.9
62	95.25516	73.71794	21.53722	34.62657	30.45447	87.38222	32.88116	87.42215	32.87878	0.9	0.4
63	111.48805	89.16127	22.32678	37.45981	33.49055	101.90724	33.45851	101.89755	33.48016	9.2	10.4
64	115.52316	93.28003	22.24313	38.11778	34.26318	116.28416	33.27423	116.27368	33.29955	11.1	13.0

TABLE C-13. GEOMETRIC PARAMETERS OF B-5 SECTION AT 13.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	126.16257	103.91792	22.24464	39.83813	36.15781	15.40454	137.18715	15.45467	137.14757	16.1	19.2
2	125.59721	103.79756	21.79965	39.75020	36.12694	29.08469	137.32338	29.09383	137.28804	15.8	19.1
3	119.81612	97.70711	22.10901	38.81750	35.06071	44.33124	136.66647	44.33157	136.61682	13.1	15.6
4	118.17052	93.21922	24.95129	38.56413	34.27045	58.23976	136.60173	58.25441	136.56625	12.4	13.0
5	119.93689	97.23938	22.69751	38.93878	34.97513	73.09511	135.81689	73.12453	135.80846	13.2	15.3
6	119.55812	94.82362	24.734[illegible]	38.62605	34.56950	87.11438	135.81967	87.12759	135.76532	13.2	14.0
7	119.34697	97.83162	21.51535	38.74362	35.07664	101.50719	135.62572	101.52122	135.58350	12.9	15.7
8	120.93134	96.52890	24.40244	39.00462	34.85089	115.52417	135.27196	115.51421	135.23405	13.7	14.9
9	130.36296	108.77393	21.58904	40.49120	36.99126	14.63734	123.17790	14.70221	123.19244	18.0	22.0
10	132.88287	110.34010	22.54277	40.88011	37.24834	29.82840	123.05383	29.05450	123.07671	19.1	22.8
11	132.42650	109.96936	22.45714	40.81236	37.19000	43.59366	122.78709	43.57448	122.80243	18.9	22.6
12	127.93944	105.56009	22.37935	40.11313	36.44037	58.01427	122.45120	58.02087	122.49515	16.9	20.2
13	130.81253	109.20747	21.60506	40.55257	37.06342	72.42256	121.58925	72.40508	121.57597	18.2	22.2
14	138.01703	114.31981	23.69722	41.67322	37.92204	86.41891	121.70061	86.43796	121.72325	21.5	25.1
15	125.16060	100.58377	24.57683	39.67517	35.59967	100.76105	121.15591	100.77808	121.15126	15.6	17.4
16	124.83073	100.17154	24.65919	39.63536	35.50606	115.27852	121.00484	115.26990	121.02394	15.5	17.1
17	134.00618	110.36995	23.63623	41.09029	37.28424	13.96833	109.20244	13.98988	109.18208	19.8	23.0
18	139.38927	117.29515	22.09412	41.88185	38.42078	28.92296	108.32669	28.91385	108.34052	22.1	26.7
19	142.43541	116.99089	25.44452	42.32896	38.38570	43.38943	108.00793	43.37161	108.00035	23.4	26.6
20	131.17346	109.09779	22.07567	40.61421	37.04341	58.21301	107.88527	58.23521	107.90431	18.4	22.2
21	124.66618	99.61310	25.05309	39.61772	35.40485	72.01314	107.61797	72.02983	107.65103	15.5	16.8
22	123.75389	102.24205	21.51184	39.45770	35.85063	85.90732	107.48595	85.91624	107.51909	15.0	18.2
23	124.74194	102.99290	21.74904	39.60275	35.98683	100.96135	106.56938	100.99794	106.54114	15.4	18.7
24	134.86102	112.17639	22.68463	41.19499	37.55884	116.20834	106.06752	116.20013	106.07761	20.1	23.9
25	143.33832	121.60017	21.73814	42.47658	39.12756	14.35227	94.19832	14.40932	94.22794	23.8	29.0
26	132.09583	110.07727	22.01855	40.75433	37.21011	29.17717	94.11400	29.19864	94.10544	18.8	22.7
27	133.82198	111.53558	22.28639	41.04024	37.46344	43.78600	93.21507	43.77869	93.23381	19.6	23.5
28	129.16591	107.48021	21.68570	40.30850	36.76845	58.41461	93.41154	58.41696	93.41708	17.5	21.3
29	131.17270	107.80342	23.36928	40.65344	36.83817	72.12685	93.44016	72.14601	93.44867	18.5	21.5
30	136.59659	110.95595	25.64064	41.47932	37.38484	86.22809	93.34097	86.21254	93.35728	20.9	23.3
31	128.65492	103.91420	24.74072	40.25775	36.18210	100.59651	92.57365	100.57338	92.59402	17.3	19.3
32	127.32893	105.13390	22.19504	40.01360	36.36723	115.67464	91.79385	115.60814	91.69820	16.6	19.9
33	158.22191	135.93924	22.28267	44.62378	41.35468	13.76170	79.46494	13.85478	79.45367	30.1	36.4
34	141.83409	119.92017	21.91393	42.24527	38.86360	28.84846	80.79945	28.83737	80.78651	23.1	28.2
35	143.41515	118.48973	24.92542	42.48618	38.64435	43.14209	79.48933	43.11571	79.51070	23.8	27.4
36	137.08754	115.17903	21.90851	41.54886	38.06367	57.49690	79.59535	57.52774	79.59901	21.1	25.5
37	134.83214	112.25638	22.57576	41.18179	37.57635	72.01601	77.97479	72.02306	77.97964	20.0	23.9
38	133.30626	111.25455	22.05171	40.94588	37.40584	86.12312	78.06931	86.11737	78.08810	19.3	23.4
39	137.51019	115.50690	22.00330	41.59026	38.11360	100.61642	77.84457	100.60974	77.83806	21.2	25.7
40	116.65738	94.55591	22.10147	38.30064	34.48869	114.97383	77.38655	114.96979	77.39789	11.6	13.7
41	144.16028	121.67812	22.48216	42.60472	39.13087	13.59861	65.17769	13.70104	65.18591	24.2	29.0
42	155.75290	133.29672	22.45618	44.32637	41.01389	29.23788	65.44128	29.25435	65.46092	29.2	35.3
43	150.19084	127.92209	22.26875	43.47978	40.12923	43.58760	63.74599	43.57637	63.81219	26.7	32.3
44	138.55731	116.41476	22.14255	41.75069	38.27051	57.85207	64.50290	57.87091	64.50604	21.7	26.2
45	134.94485	112.94525	21.99960	41.19737	37.68732	72.03049	63.85107	72.04225	63.83929	20.1	24.3
46	141.97069	119.91559	22.05510	42.25867	38.84778	86.88152	61.95461	86.90016	61.97893	23.2	28.1
47	135.52885	113.10057	22.42828	41.28140	37.71516	101.30930	62.32990	101.27797	62.32030	20.3	24.4
48	117.52975	94.82625	22.70351	38.43831	34.52867	114.59198	63.10884	114.55208	63.12228	12.0	13.9
49	130.19330	108.63927	21.55403	40.46407	36.96999	13.61836	50.56378	13.69131	50.56596	17.9	21.9
50	140.42746	116.15785	24.26961	42.08566	38.27574	28.30991	50.48747	28.30215	50.48358	22.7	26.2
51	142.36427	119.85791	22.50636	42.31317	38.82394	43.15111	48.73468	43.15817	48.75674	23.3	28.0
52	136.86227	115.46010	21.40218	41.50229	38.11543	57.99760	48.82829	57.99738	48.84544	21.0	25.7
53	124.35817	102.04254	22.31563	39.54401	35.82391	71.37585	49.56619	71.40732	49.56715	15.2	18.1
54	136.63666	112.69249	23.94417	41.47395	37.68529	85.98981	47.96907	86.00450	48.03607	20.9	24.3
55	131.17377	107.12761	24.04616	40.64153	36.74626	99.82573	49.22110	99.83171	49.25858	18.4	21.2
56	118.99187	94.68504	24.30682	38.70549	34.53586	114.30692	48.89380	114.26465	48.90068	12.8	13.9
57	131.85480	111.50066	20.35414	40.73698	37.45773	14.12087	36.54611	14.14790	36.59741	18.7	23.5
58	145.02736	123.74266	21.28470	42.71468	39.46730	28.85007	35.33401	28.85167	35.39577	24.5	30.2

59	127.99139	103.85887	24.13252	40.15822	36.17426	42.99286	35.74586	43.03015	35.79051	17.0	19.3
60	140.04381	118.24117	21.80264	41.96523	38.56660	57.68071	35.02559	57.70322	35.04848	22.3	27.2
61	131.76958	109.85732	21.91226	40.72203	37.18158	72.02576	34.76146	72.05466	34.80098	18.7	22.6
62	93.85239	72.32269	21.52969	34.36264	30.17152	86.28349	33.30716	86.27786	33.30600	0.1	-0.5
63	140.77556	118.89948	21.87608	42.07677	38.67340	100.70338	33.79184	100.68829	33.81802	22.6	27.5
64	129.32037	108.10443	21.21594	40.32870	36.87660	115.13780	33.22061	115.12206	33.27303	17.5	21.6

[redacted] L 2 [redacted]

TABLE C-14. GEOMETRIC PARAMETERS OF B-5 SECTION AT 15.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	132.43922	111.26532	21.17390	40.82869	37.41432	15.58949	137.36960	15.64398	137.30927	19.0	23.4
2	146.66745	125.11307	21.55438	42.95316	39.67084	29.29517	137.45898	29.33313	137.43820	25.2	30.8
3	128.49057	107.59645	20.89412	40.20004	36.78667	44.59512	136.94463	44.56540	136.93077	17.2	21.3
4	131.59784	110.42986	21.16798	40.68636	37.28172	58.94572	136.87865	58.92598	136.87367	18.6	22.9
5	136.07368	114.70920	21.36449	41.37093	37.99088	73.37772	136.04713	73.42575	136.04808	20.6	25.3
6	130.64783	109.38670	21.26112	40.54097	37.08919	87.78418	136.01584	87.79243	135.95908	18.2	22.3
7	130.86386	109.44469	21.41917	40.57828	37.09834	102.29953	135.96646	102.31151	135.91982	18.3	22.3
8	124.98355	103.66174	21.32181	39.64699	36.11398	116.68340	135.61600	116.68880	135.61537	15.5	19.1
9	147.83008	125.42766	22.40242	43.13438	39.72791	14.97051	123.30188	15.06834	123.33362	25.7	31.0
10	149.18056	127.36101	21.81955	43.31671	40.02687	29.44496	123.25545	29.43803	123.26634	26.2	32.0
11	151.81738	130.10876	21.70862	43.71657	40.48193	44.22054	123.01341	44.21324	123.05835	27.4	33.5
12	146.75336	125.74376	21.00960	42.96208	39.76546	59.01857	122.59384	59.03749	122.61467	25.2	31.1
13	143.67433	121.62962	22.04471	42.50996	39.11758	73.30540	121.70848	73.30376	121.71230	23.9	29.0
14	152.60709	131.31416	21.29292	43.81003	40.65077	87.30229	122.13824	87.28905	122.13914	27.7	34.1
15	133.47701	111.46172	22.01529	40.99542	37.46356	101.73138	121.50212	101.76286	121.53220	19.5	23.5
16	129.78307	107.48151	22.30156	40.39960	36.77603	116.54366	121.41220	116.52882	121.43376	17.7	21.3
17	164.83495	142.20776	22.62718	45.56775	42.31763	14.37144	109.52702	14.45447	109.51712	32.8	39.6
18	160.79921	137.81683	22.98238	45.07628	41.79070	29.14499	108.71666	29.12944	108.77159	31.4	37.8
19	207.45074	183.55388	23.89687	51.13188	48.09702	44.26053	108.15863	44.22957	108.17064	49.0	58.6
20	146.55089	124.71045	21.84044	42.95308	39.61417	59.06937	108.42157	59.09534	108.45003	25.2	30.6
21	129.45070	107.79626	21.65443	40.34633	36.82835	73.04922	107.81464	73.05014	107.82529	17.6	21.5
22	141.06369	119.14323	21.92046	42.12483	38.74718	87.04478	107.92404	87.02138	107.92015	22.8	27.8
23	140.18039	118.27620	21.90419	42.02022	38.58665	101.77872	106.89803	101.80057	106.90323	22.5	27.3
24	152.76352	131.24818	21.51534	43.83658	40.64348	116.35355	106.90056	116.27060	106.92009	27.8	34.0
25	203.64813	180.90172	23.24641	48.92365	47.21504	15.46882	95.59920	15.58717	95.70471	42.6	55.7
26	147.74913	125.11595	22.63318	43.20367	39.74869	29.43181	94.71655	29.45436	94.73840	25.9	31.1
27	154.14262	131.61169	22.53093	44.21330	40.85655	44.35548	93.68698	44.34241	93.72189	28.9	34.7
28	141.23894	118.90932	22.32962	42.16362	38.70956	59.13872	93.97420	59.14532	94.02107	22.9	27.7
29	145.00771	122.53300	22.47470	42.69839	39.26801	73.60103	93.31058	73.59706	93.33093	24.4	29.5
30	163.06339	140.35936	22.70403	45.28682	42.01634	87.91440	93.80382	87.86142	93.78532	32.0	38.6
31	137.55942	115.44664	22.11278	41.61281	38.11572	102.23343	92.53868	102.19400	92.55630	21.3	25.7
32	145.84874	123.21356	22.63518	42.83351	39.38736	116.60303	92.03522	116.52425	92.06944	24.8	29.9
33	240.90718	217.32852	23.57866	53.07527	51.13191	15.09871	79.02318	15.28594	78.98854	54.7	68.6
34	164.51007	141.45105	23.05902	46.52997	43.32323	29.48927	81.13252	29.49147	81.12816	35.6	42.9
35	182.07265	159.70987	22.36278	47.94833	44.88315	44.12340	79.52769	44.13040	79.55696	39.7	48.0
36	166.59477	144.56906	22.02571	45.89851	42.76205	58.36507	79.73105	58.39224	79.74995	33.8	41.0
37	159.93614	137.17825	22.75789	44.87920	41.56818	72.15575	78.48264	72.16763	78.52609	30.8	37.1
38	217.28481	194.53964	22.74516	52.51283	49.77226	86.86081	78.59879	86.83397	78.65031	53.0	64.1
39	178.28734	156.29776	21.98958	47.38873	44.36633	102.28525	77.73360	102.31621	77.79770	38.1	46.3
40	124.42389	103.08243	21.34146	39.57312	36.02409	116.59392	77.31178	116.58922	77.29712	15.3	18.8
41	199.97122	178.79428	21.17694	49.75871	47.94691	15.14275	65.42603	15.34076	65.48726	45.0	58.1
42	179.72372	155.26945	24.45427	59.24443	56.84346	31.77086	65.12698	31.82648	65.17255	72.7	87.5
43	181.87714	159.01196	22.86517	48.49457	45.44319	44.38855	64.33226	44.42001	64.43083	41.3	49.9
44	174.89549	152.34906	22.54643	47.09761	43.92374	59.03131	64.41765	59.06645	64.44424	37.3	44.9
45	165.98022	144.21246	21.76776	45.72542	42.60840	73.22087	63.65619	73.19928	63.60715	33.3	40.5
46	167.46323	145.65401	21.80922	45.34057	42.85265	87.70036	62.18657	87.70099	62.17754	33.9	41.3
47	151.92049	130.24452	21.67596	43.71838	40.49324	101.93980	62.92157	101.92212	62.92496	27.4	33.5
48	131.91106	109.65465	22.25641	40.74100	37.14357	116.22144	62.91496	116.19316	62.92796	18.7	22.5
49	180.18875	157.69109	22.49767	47.66499	44.58742	14.29318	50.38974	14.43363	50.45226	38.9	47.0
50	154.87225	134.37015	20.50211	44.94716	41.92093	29.15703	49.58443	29.17665	49.60953	31.0	38.2
51	207.02602	183.72142	23.30460	51.10709	48.14557	43.94592	48.84479	43.96786	48.87636	48.9	58.8
52	156.43221	135.03134	21.40086	44.41653	41.25406	58.79649	49.09955	58.77527	49.11818	29.4	36.0
53	137.72665	115.28310	22.44356	41.63477	38.09172	72.53012	49.11951	72.55429	49.09966	21.3	25.6
54	153.77618	132.01700	21.75919	44.01033	40.76860	86.77077	47.51251	86.77225	47.56953	28.3	34.4
55	156.47296	134.43382	22.03914	44.39587	41.13309	101.31146	48.84094	101.28844	48.87538	29.4	35.7
56	137.75964	115.93770	21.82195	41.64287	38.20041	115.86116	48.47266	115.83766	48.48389	21.4	26.0
57	144.06668	123.51213	20.55455	42.58144	39.42427	14.59933	35.69037	14.67363	35.77795	24.1	30.0
58	157.76495	136.02704	21.73792	44.56410	41.38857	29.48961	35.59004	29.51715	35.72867	29.9	36.5

59	127.98816	106.17052	21.81764	40.14009	36.57127	44.14677	34.79520	44.15680	34.84888	17.0	20.6
60	134.65552	112.68541	21.97011	41.17136	37.65982	58.35425	35.33640	58.39149	35.38699	20.0	24.2
61	134.64444	112.96825	21.67619	41.15137	37.69185	72.64532	35.33165	72.68346	35.39467	19.9	24.3
62	92.99838	71.31372	21.68466	34.19989	29.94992	86.79881	33.87538	86.80962	33.86948	-0.3	-1.2
63	154.73224	133.22520	21.50703	44.11105	40.92732	101.13887	34.51640	101.15489	34.59717	28.6	35.0
64	151.36217	129.24777	22.11440	43.70143	40.34541	115.55992	34.00058	115.51846	34.13776	27.4	33.1

[redacted] N 2 [redacted]

TABLE C-15. GEOMETRIC PARAMETERS OF B-5 SECTION AT 17.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	134.03014	111.33742	22.69272	41.05592	37.42410	14.70337	137.45111	14.77097	137.39319	19.7	23.4
2	147.75471	125.49899	22.25572	43.10762	39.73065	28.27505	137.66435	28.32985	137.62325	25.6	31.0
3	128.06522	106.63301	21.43221	40.13997	36.61398	43.75713	137.07315	43.75482	137.04878	17.0	20.7
4	126.89470	104.63211	22.26259	39.94684	36.28079	58.21390	136.94836	58.17490	136.93269	16.4	19.6
5	132.59912	110.90289	21.69623	40.82869	37.35027	72.56067	136.13934	72.57188	136.10342	19.0	23.2
6	125.73514	104.35661	21.37852	39.76720	36.22638	86.86450	136.13315	86.86029	136.08182	15.9	19.5
7	125.45938	104.35486	21.10452	39.72469	36.22926	101.27388	136.05283	101.30309	136.02283	15.8	19.5
8	124.95486	103.13560	21.81926	39.65953	36.01450	115.62987	135.84399	115.62111	135.76682	15.6	18.8
9	152.23035	129.43390	22.79645	43.77122	40.37192	14.15999	123.44409	14.24994	123.47780	27.6	33.1
10	171.87578	148.62509	23.25069	46.51109	43.24484	28.69458	123.38681	28.76485	123.43694	35.6	42.6
11	154.85472	131.86519	22.98953	44.19212	40.77988	43.70567	123.18295	43.71735	123.21579	28.8	34.5
12	165.98427	142.57047	23.41380	45.69649	42.35680	58.25459	122.79610	58.27625	122.83629	33.2	39.7
13	143.11555	121.48776	21.62779	42.43361	39.08420	72.55516	121.68999	72.56496	121.68781	23.7	28.9
14	160.52527	138.91966	21.60561	44.95592	41.80983	86.60667	122.25336	86.65451	122.23651	31.0	37.9
15	138.65944	117.35182	21.30762	41.75087	38.42891	101.02176	121.47421	101.06630	121.49808	21.7	26.7
16	129.25377	107.33261	21.92116	40.32698	36.74370	115.67677	121.62994	115.62852	121.66664	17.5	21.2
17	160.27054	137.05539	23.21515	44.93102	41.54315	13.39406	109.50005	13.48280	109.49619	30.9	37.0
18	176.29027	152.66946	23.62080	47.20894	43.92911	28.19391	108.93486	28.18141	108.97688	37.6	44.9
19	230.16530	203.94681	26.21849	54.00923	50.82895	43.66960	108.21191	43.66171	108.19382	57.4	67.6
20	153.00841	128.35405	24.65436	43.88820	40.20767	58.69342	108.36545	58.72052	108.39647	27.9	32.6
21	133.90070	109.48660	24.41409	41.03897	37.11676	72.24826	108.01009	72.24620	108.03972	19.6	22.4
22	152.25058	12[illegible]06[illegible]5	24.14413	43.77718	40.14722	86.12390	108.25806	86.08954	108.26851	27.6	32.4
23	153.39861	[illegible]996	23.67865	43.92477	40.39807	100.76172	107.04932	100.81206	107.07437	28.0	33.2
24	161.77838	13[illegible]386	24.54453	45.11685	41.54124	115.35704	107.20895	115.25885	107.17206	31.5	37.0
25	178.45607	152.78056	25.67551	47.61646	44.11823	13.79630	95.31976	13.88180	95.41585	38.8	45.5
26	165.69958	140.91808	24.78151	45.90218	42.38126	28.48068	95.00374	28.52664	95.02852	33.8	39.8
27	166.91260	142.24286	24.66974	46.48888	42.94499	43.63052	93.81171	43.62186	93.86378	35.5	41.6
28	150.74866	125.85631	24.89235	43.57249	39.80865	58.41383	94.55507	58.44554	94.60815	27.0	31.3
29	149.63763	125.20[illegible]	24.43593	43.37796	39.67888	72.83290	93.68929	72.83960	93.73328	26.4	30.9
30	167.95445	143.31[illegible]	24.63982	45.98193	42.48445	87.17929	94.49928	87.17822	94.48489	34.0	40.1
31	138.25336	114.71588	23.53748	41.74942	38.05655	101.24716	92.99661	101.24037	93.02559	21.7	25.5
32	163.22647	138.44978	24.77669	45.32430	41.73576	115.25879	92.43820	115.15916	92.49759	32.1	37.6
33	193.55228	167.53613	26.01614	49.61617	46.21417	13.39360	80.04797	13.53510	80.05544	44.6	52.4
34	171.94199	145.39067	26.55132	48.11652	44.44618	28.47426	81.69664	28.50774	81.68147	40.2	46.6
35	192.49916	166.13655	26.36261	49.66969	46.19032	43.33116	79.66771	43.35381	79.71095	44.8	52.3
36	176.12177	149.58757	26.53419	47.46332	43.77907	57.40565	80.05861	57.42694	80.08987	38.3	44.4
37	185.60684	159.36790	26.23894	48.36459	44.79102	71.27690	78.68541	71.31934	78.74193	41.0	47.7
38	295.44922	268.65430	26.79492	64.42938	62.33578	86.62122	79.29886	86.64165	79.40585	87.8	105.6
39	201.86957	178.87430	22.99527	50.48270	47.48042	101.75800	77.74950	101.79828	77.82233	47.1	56.6
40	140.18678	117.16020	23.02658	42.01103	38.39774	116.55341	76.84090	116.55855	76.84238	22.4	26.6
41	206.26938	181.08282	25.18655	50.37234	47.07817	14.31960	65.88596	14.54050	65.94479	46.8	55.3
42	170.64084	145.42024	25.22060	65.68880	62.95493	31.69070	65.04002	31.74359	65.10349	91.4	107.6
43	173.38461	149.83022	23.55440	47.98579	44.82169	43.69392	64.55176	43.69579	64.65628	39.8	47.8
44	177.28062	153.11215	24.16847	48.16888	44.86905	58.27106	64.56458	58.33588	64.59616	40.4	48.0
45	192.68102	167.87057	24.81044	49.29065	46.00195	72.53722	63.50114	72.56477	63.47333	43.7	51.7
46	166.56793	143.74918	22.81876	45.80481	42.55405	87.15015	61.97594	87.18198	61.96870	33.5	40.3
47	156.42686	134.44087	21.98599	44.37292	41.12793	101.64333	62.61609	101.67062	62.64981	29.3	35.6
48	152.73387	129.89731	22.83656	43.84508	40.42772	115.07092	62.94672	115.04285	62.98717	27.8	33.3
49	226.61867	200.00980	26.60887	49.63629	46.51537	14.31865	50.86168	14.49878	51.02356	44.7	53.4
50	166.93013	141.06993	25.86020	48.41548	45.02715	28.15787	49.52211	28.13647	49.55188	41.1	48.5
51	256.78320	229.68169	27.10152	57.39864	54.31145	43.34460	49.16882	43.39334	49.22191	67.3	79.1
52	161.55016	136.53532	25.01483	45.44670	41.81160	58.14183	48.97217	58.12180	48.97061	32.5	37.9
53	145.55388	120.76625	24.78763	42.79660	38.97649	71.55910	49.03880	71.61380	49.06203	24.7	28.5
54	178.68103	152.60106	26.07997	47.44098	43.82916	85.82469	47.11360	85.79742	47.19545	38.3	44.5
55	163.67230	138.58138	25.09093	45.39516	41.77275	100.43192	48.91100	100.41563	48.99818	32.3	37.8
56	160.56921	135.56270	25.00652	44.97263	41.32887	114.68365	48.55124	114.62199	48.60286	31.1	36.3
57	151.45053	126.07997	25.37056	43.64539	39.84401	13.66026	35.45074	13.69700	35.58035	27.2	31.4
58	166.31229	140.57387	25.73842	45.77878	42.10719	28.60381	35.48334	28.62520	35.61084	33.4	38.9

59	123.11938	98.75941	24.35997	39.38077	35.28485	43.27939	34.64355	43.29539	34.71071	14.8	16.4
60	124.68553	100.20734	24.47820	39.61998	35.52214	57.53186	35.21092	57.54758	35.25224	15.5	17.1
61	125.38422	100.76323	[illegible].62099	39.71992	35.61183	71.78920	35.30209	71.82614	35.35660	15.8	17.4
62	92.16727	71.12157	[illegible].04570	34.04185	29.91499	85.[illegible]807	33.[illegible]9754	85.79886	33.98064	-0.8	-1.3
63	145.23936	119.70985	25.52951	42.75888	38.81816	100.23407	34.4[illegible]	100.25264	34.53801	24.6	28.0
64	188.86578	162.95032	25.91547	45.15050	42.07584	113.61101	34.93686	113.44682	35.19200	31.6	38.8

[redacted] P 2 [redacted]

TABLE C-16. GEOMETRIC PARAMETERS OF B-5 SECTION AT 18.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	131.38962	105.36720	[illegible]5.02242	40.70470	36.51302	13.80564	137.42386	13.86185	137.35558	18.6	20.4
2	140.65988	112.77078	27.88910	42.16621	37.83527	27.21448	137.73874	27.22980	137.67767	22.9	24.8
3	127.30508	100.59258	26.71251	40.06377	35.63945	42.81334	137.16547	42.82530	137.08951	16.8	17.5
4	120.95840	96.43007	24.52834	39.04251	34.87411	57.48741	136.86154	57.49104	136.85965	13.8	15.0
5	127.52440	101.36525	26.15915	40.09892	35.73549	71.79918	136.04846	71.79886	136.03938	16.9	17.9
6	122.88501	98.04219	24.84282	39.37050	35.14967	86.06589	136.10533	86.09189	136.09737	14.7	15.9
7	124.38036	99.39456	24.98579	39.60660	35.40794	100.41858	135.96170	100.44559	135.92824	15.4	16.8
8	125.95668	99.26935	26.68733	39.82921	35.38011	114.79424	135.82858	114.77888	135.78697	16.1	16.7
9	142.47409	115.46321	27.01088	42.37650	38.17757	13.29085	123.40871	13.33816	123.42053	23.5	25.9
10	209.26695	181.18611	28.08084	51.53738	47.98312	27.97928	123.69955	28.02536	123.73917	50.2	58.2
11	158.69864	131.28052	27.41812	44.82333	40.84088	42.93161	123.21767	42.94434	123.26294	30.6	34.7
12	178.73294	151.59459	27.13835	47.46370	43.70123	57.50098	122.91112	57.51738	122.96246	38.3	44.1
13	144.42682	117.87515	26.55167	42.71349	38.57135	71.82379	121.61560	71.83868	121.61012	24.5	27.2
14	166.95970	139.74663	27.21307	45.89822	41.99785	85.74234	122.35237	85.77153	122.34497	33.8	38.5
15	148.39925	120.99577	27.40347	43.31683	39.06580	100.19742	121.53061	100.27118	121.55968	26.2	28.8
16	126.02882	99.37349	26.65533	[illegible]96284	35.41246	114.71288	121.67117	114.69882	121.74634	16.2	16.8
17	139.64946	116.72464	22.92482	[illegible].534	38.33766	12.48893	109.48376	12.55339	109.47679	22.2	26.4
18	183.01028	159.08891	23.921[illegible]	[illegible]3965	45.06342	27.32506	109.01880	27.34369	109.06155	40.9	48.6
19	217.83620	192.49190	25.344[illegible]	[illegible].56726	49.38193	42.98540	108.22131	42.98817	108.22350	53.2	62.3
20	158.70859	134.59395	24.11464	44.73802	41.18658	58.02631	108.51643	58.02815	108.58539	30.4	35.8
21	130.31346	107.21606	23.09740	40.51607	36.74982	71.49770	108.05528	71.53612	108.10599	18.1	21.2
22	162.58377	138.47601	24.10776	45.31938	41.79469	85.26970	108.28130	85.23586	108.32794	32.1	37.8
23	172.53276	146.50629	26.02647	46.70404	43.00612	99.89005	106.95451	99.96390	106.95926	36.1	41.8
24	167.92430	141.36414	26.56017	46.02791	42.21584	114.41197	107.24214	114.31847	107.26825	34.1	39.2
25	136.79367	111.96411	24.82956	41.53217	37.55692	12.82646	95.10851	12.87876	95.16339	21.0	23.9
26	187.38078	159.98282	27.39796	50.04198	46.50865	27.55078	95.24588	27.62056	95.29643	45.8	53.4
27	171.82967	143.65526	28.17441	47.66301	43.64046	42.86984	93.85631	42.89020	93.93501	38.9	43.9
28	159.05180	131.24710	27.80470	44.93700	40.73260	57.75299	94.78943	57.78221	94.86194	31.0	34.3
29	154.19534	126.91678	27.27856	44.21027	40.04979	72.20856	93.61339	72.23982	93.66512	28.8	32.1
30	164.59752	138.31219	26.28532	45.60747	41.80904	86.62625	94.45576	86.61516	94.46263	32.9	37.9
31	140.57336	114.86163	25.71173	42.19624	38.09270	100.53812	92.96983	100.50534	92.97571	23.0	25.6
32	179.18063	153.08344	26.09720	47.61578	43.99257	114.30481	92.38568	114.17473	92.40472	38.8	45.1
33	146.50143	120.43250	26.06894	43.10588	39.05811	12.45800	80.40855	12.54888	80.40144	25.6	28.8
34	163.31448	136.60489	26.70959	48.03413	44.36171	27.46863	81.94260	27.53178	81.92484	40.0	46.3
35	175.11823	146.72032	28.39790	50.15790	46.52086	43.12634	79.76744	43.18916	79.87292	46.2	53.4
36	173.58043	145.47232	28.10811	47.55914	43.63203	56.35913	80.22939	56.40201	80.27620	38.6	43.9
37	217.45523	187.84978	29.60545	52.47478	48.72076	70.48416	78.81532	70.50523	78.91173	52.9	60.7
38	266.51831	241.50916	25.00916	61.84293	59.64343	85.56311	79.38007	85.59792	79.49246	80.2	96.7
39	221.73306	194.63777	27.09529	53.07721	49.74210	100.31708	77.83844	100.36327	77.91934	54.7	64.0
40	156.03754	129.46324	26.57430	44.47719	40.47670	114.91644	77.14226	114.93004	77.18002	29.6	33.5
41	173.10893	149.65532	23.45361	46.86044	43.567[illegible]2	12.77486	65.05710	12.88995	65.09651	36.6	43.7
42	260.00269	236.00777	23.99492	64.20071	62.41422	28.68956	66.98796	28.65060	67.17979	87.1	105.8
43	157.52412	133.17859	24.34554	46.44395	43.04488	42.63066	64.69203	42.64310	64.82330	35.4	42.0
44	177.31108	152.33064	24.98044	50.23541	46.96941	57.38231	64.83086	57.40129	64.91695	46.4	54.9
45	208.49551	180.94170	27.55382	51.43825	47.93591	71.53778	63.28993	71.55432	63.29292	49.9	58.1
46	167.49219	141.02354	26.46864	45.99495	42.18347	86.45644	62.07178	86.50591	62.07823	34.0	39.1
47	152.52618	126.65244	25.87375	43.90869	40.01424	100.47037	62.71516	100.48517	62.72002	28.0	32.0
48	163.89223	137.24078	26.65144	45.45764	41.62041	114.07362	62.78531	113.99591	62.79091	32.5	37.3
49	163.79240	136.10060	27.69180	45.64877	41.63986	12.20357	50.49782	12.26324	50.57672	33.0	37.3
50	159.86458	130.65114	29.21344	53.25012	49.70630	26.89143	49.51808	26.84517	49.49715	55.2	63.9
51	297.56274	267.21411	30.34863	60.21486	57.29817	42.86076	49.84138	42.90465	49.91056	75.5	89.0
52	153.08569	126.14572	26.93997	44.82777	40.85013	57.24884	48.72342	57.25713	48.72252	30.6	34.7
53	150.85634	123.44072	27.41562	43.63786	39.46747	70.47797	48.82990	70.54282	48.82271	27.2	30.2
54	207.21944	179.28581	27.93362	51.25594	47.69652	84.87558	46.91313	84.88535	47.02008	49.4	57.3
55	161.58577	135.23511	26.35066	45.14253	41.31578	99.56491	48.60039	99.56981	48.68883	31.6	36.3
56	167.99974	141.28685	26.71289	46.02864	42.24672	113.63583	48.29182	113.59592	48.38892	34.1	39.3
57	175.38028	149.19530	26.18498	44.45435	41.26369	12.96936	36.18271	13.04222	36.35274	29.6	36.1
58	190.78305	165.36096	25.42209	46.61523	43.51077	28.01894	36.03427	28.09245	36.20213	35.9	43.5

59	129.44713	105.16867	24.27846	40.40016	36.41310	42.09856	34.53267	42.11037	34.62834	17.7	20.1
60	137.58067	110.67647	26.90421	41.62852	37.33620	56.55960	35.03384	56.57851	35.09721	21.3	23.1
61	131.92125	106.64381	25.27744	40.78299	36.69756	70.81956	35.09999	70.81903	35.18158	18.9	21.0
62	95.08066	70.11472	24.96594	34.62706	29.73463	84.67819	33.56654	84.65170	33.56703	0.9	-1.9
63	158.18365	131.54582	26.63783	44.65588	40.74927	99.20108	34.192[illegible]3	99.19287	34.26360	30.1	34.4
64	157.14091	130.41856	26.72235	44.50351	40.56110	113.42403	33.8300[illegible]2	113.36705	33.96162	29.7	33.8

[illegible] C 3 [illegible]

TABLE C-17. GEOMETRIC PARAMETERS OF B-5 SECTION AT 20.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	130.43982	106.30096	24.13885	40.50882	36.56596	14.03195	137.47441	14.09824	137.40950	18.1	20.6
2	139.44365	113.89346	25.55019	42.16034	38.12961	27.47975	138.10718	27.50923	138.03474	22.9	25.7
3	134.47467	109.50537	24.96930	41.12675	37.12665	43.20879	137.46623	43.22021	137.38637	19.9	22.4
4	123.42226	99.00449	24.41777	39.41223	35.29010	58.22566	136.92900	58.20813	136.88600	14.9	16.4
5	129.09781	104.30925	24.78856	40.29688	36.23065	72.49063	136.04941	72.53635	136.04376	17.4	19.5
6	127.37923	103.22690	24.15233	40.03816	36.03909	86.84215	136.23517	86.83879	136.20618	16.7	18.9
7	132.50633	109.28464	23.22169	40.81985	37.08147	101.11990	135.84148	101.15688	135.80956	19.0	22.3
8	123.19054	98.44858	24.74196	39.36807	35.20050	115.46738	135.91302	115.46216	135.84586	14.7	16.1
9	145.91438	121.01616	24.89822	42.88860	39.05933	13.59393	123.34529	13.67892	123.35704	25.0	28.8
10	266.84570	240.54286	26.30284	55.17374	52.62910	29.38158	124.52542	29.51724	124.67041	60.8	73.6
11	158.47818	133.71130	24.76688	45.16489	41.57831	43.59059	123.14026	43.59171	123.19293	31.6	37.1
12	175.74995	149.85156	25.89839	47.06020	43.44193	58.14819	123.03320	58.17067	123.02216	37.2	43.3
13	144.07050	118.93930	25.13120	42.58183	38.68037	72.53397	121.57643	72.54877	121.56020	24.1	27.6
14	167.30411	141.42937	25.87474	45.88870	42.19885	86.51799	122.49947	86.57773	122.50513	33.7	39.2
15	153.50217	128.21350	25.28867	44.24530	40.50766	100.98486	121.60648	101.04356	121.66170	28.9	33.6
16	128.63654	104.18520	24.45134	40.24725	36.20869	115.56912	121.86871	115.52739	121.89073	17.3	19.4
17	142.90440	121.50795	21.39645	42.40639	39.10222	12.59500	109.47351	12.66970	109.45174	23.6	29.0
18	166.84015	144.54655	22.29359	46.30878	43.18376	27.51105	109.01134	27.49382	109.06509	35.0	42.4
19	200.09059	177.45114	22.63945	50.23518	47.30214	43.27637	108.30801	43.28154	108.32906	46.4	56.0
20	167.48103	144.39224	23.02879	45.96350	42.65106	58.43837	108.76906	58.49101	108.81076	34.0	40.7
21	129.72861	107.24106	22.48755	40.41818	36.73587	72.03111	108.17873	72.02545	108.21494	17.8	21.1
22	175.10619	152.12680	22.97939	46.99786	43.79874	85.87424	108.38490	85.85326	108.41109	37.0	44.4
23	180.85875	158.04541	22.81334	47.96817	44.89090	100.61218	107.01332	100.68466	107.02647	39.8	48.0
24	196.75508	173.69321	23.06187	50.36844	47.36058	114.52322	107.67899	114.35878	107.70834	46.8	56.2
25	136.04492	111.82161	24.22331	41.37875	37.51480	13.14454	95.06262	13.14994	95.10378	20.6	23.7
26	183.46092	156.40613	27.05479	52.84363	50.13728	27.18741	95.18370	27.23105	95.19072	54.0	65.3
27	167.40808	141.59575	25.81233	47.56468	44.01086	43.34196	93.96161	43.36188	93.99362	38.6	45.1
28	166.62265	140.93288	25.68977	45.93230	42.25970	58.36577	95.01054	58.41789	95.05380	33.9	39.4
29	172.97314	147.08376	25.88939	46.77852	43.13132	73.02922	93.58624	73.04771	93.62766	36.3	42.2
30	167.08841	140.96091	26.12750	45.88562	42.14177	87.50699	94.26476	87.50398	94.24272	33.7	39.0
31	143.75229	119.05348	24.69881	42.70142	38.84859	101.25522	92.93468	101.23761	92.94696	24.4	28.1
32	180.51762	154.32332	26.19431	47.71550	44.10120	115.07765	92.28278	114.98410	92.29733	39.1	45.4
33	151.97224	125.87985	26.09239	43.78339	39.85893	12.72341	80.35294	12.80634	80.35606	27.6	31.4
34	156.03574	129.48546	26.55028	48.02798	44.33485	27.82730	81.85226	27.88167	81.87724	40.0	46.2
35	172.79556	144.85793	27.93764	51.96788	48.31474	44.05223	79.67679	44.16536	79.68375	51.5	59.3
36	173.25945	147.48607	25.77338	47.78575	44.21838	56.75478	80.29527	56.80025	80.31717	39.3	45.8
37	232.29710	205.36444	26.93266	54.30519	51.06088	71.10861	78.53355	71.12996	78.61977	58.3	68.4
38	189.11855	162.59032	26.52823	50.46046	47.01758	85.59169	78.78404	85.61107	78.79829	47.1	55.1
39	279.83423	251.98912	27.84511	57.22769	54.97923	101.14188	78.54472	101.23541	78.69539	66.8	81.3
40	163.40085	137.37390	26.02695	45.58888	41.86397	115.68019	76.95737	115.68343	76.97113	32.9	38.1
41	192.21194	165.19276	27.01918	49.19412	45.64310	12.97946	64.69910	13.10626	64.75818	43.4	50.5
42	277.13062	248.00101	29.12961	57.03773	54.62857	28.76447	66.70520	28.79997	66.88328	66.2	80.2
43	155.22623	128.96759	26.25864	45.67789	41.79935	42.92149	63.96312	43.00813	64.03349	33.1	37.8
44	215.97865	187.31972	28.65894	54.32831	50.86710	57.25095	64.34131	57.29305	64.41620	58.3	67.8
45	206.26770	178.45134	27.81636	51.13464	47.58354	71.97672	62.82167	72.00575	62.80518	49.0	56.9
46	186.74232	159.05869	27.68364	48.54985	44.84717	87.39468	61.93854	87.43924	61.96402	41.5	47.9
47	150.74777	125.46970	25.27808	43.82442	40.01477	101.39679	62.36655	101.39862	62.36732	27.7	32.0
48	166.10944	139.93132	26.17812	45.74011	42.00682	114.64922	62.38464	114.62192	62.41347	33.3	38.5
49	151.55305	124.71640	26.83665	43.77136	39.76410	12.33063	49.98935	12.38214	50.01442	27.6	31.1
50	143.42799	121.87996	21.54803	55.61147	53.64183	26.79353	49.27118	26.76773	49.22797	62.1	76.9
51	258.67090	230.78906	27.88184	57.51035	54.31880	42.43954	48.76878	42.50853	48.77550	67.6	79.1
52	155.23181	129.58017	25.65164	44.43991	40.65523	57.44066	48.34061	57.43929	48.31084	29.5	34.1
53	150.69463	125.48753	25.20709	43.59311	39.74751	70.96391	48.30484	71.00441	48.32234	27.0	31.1
54	227.60542	200.79884	26.80658	53.53450	50.63490	85.50386	46.60522	85.51396	46.71907	56.0	67.0
55	168.67101	142.15146	26.51955	46.08727	42.32344	100.27489	48.01660	100.25705	48.08043	34.3	39.6
56	161.78030	135.94371	25.83659	45.13039	41.37619	114.29587	47.77527	114.25957	47.80997	31.5	36.5
57	192.14761	165.62195	26.52567	45.47649	42.25896	13.40481	36.15332	13.52042	36.35939	32.5	39.4
58	210.94980	185.50490	25.44490	47.51338	44.76355	28.66469	36.10919	28.82253	36.32343	38.5	47.6

59	138.68605	114.31516	24.37090	41.85146	38.00735	42.42755	34.17838	42.43951	34.23457	22.0	25.3
60	161.60730	135.87433	25.73297	45.13754	41.40550	57.21155	34.50313	57.22415	34.54385	31.5	36.5
61	139.96089	114.39810	25.56279	41.95610	37.94493	71.41820	34.59979	71.45598	34.64377	22.3	25.1
62	95.11954	71.01701	24.10252	34.60567	29.91412	85.16289	32.91064	85.17586	32.91068	0.9	-1.3
63	165.01129	139.42331	25.58798	45.59740	41.91118	99.84644	33.65222	99.83351	33.73988	32.9	38.2
64	149.09273	123.02960	26.06313	43.31595	39.33665	114.09404	33.31540	114.06682	33.43065	26.2	29.7

[redacted] E 3 [redacted]

TABLE C-18. GEOMETRIC PARAMETERS OF B-5 SECTION AT 21.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	125.95215	104.50136	21.45079	39.81650	36.27197	14.21438	137.30318	14.28517	137.27162	16.0	19.6
2	145.24698	122.59929	22.64769	43.07896	39.64934	27.66904	137.91789	27.67056	137.90044	25.5	30.8
3	155.15120	132.28592	22.86528	44.19431	40.80646	43.57729	137.60524	43.58809	137.53885	28.8	34.6
4	135.60300	113.72691	21.87608	41.31679	37.84940	58.84602	136.85957	58.87863	136.87527	20.4	24.8
5	144.89195	122.68198	22.20998	42.69231	39.28391	73.11821	136.01147	73.12741	136.02371	24.4	29.3
6	141.08165	118.41768	22.66397	42.17612	38.61177	87.49818	136.50481	87.51593	136.49550	22.9	27.3
7	144.27780	122.17422	22.10358	42.62019	39.23320	101.73862	135.90720	101.75746	135.90622	24.2	29.4
8	128.58794	106.58530	22.00264	40.23222	36.65109	115.89662	136.19521	115.89047	136.09970	17.3	20.9
9	147.28580	125.32123	21.96457	43.12477	39.76208	14.19013	123.21129	14.26298	123.23787	25.7	31.1
10	262.89648	241.24681	21.64967	54.58025	52.50169	29.86635	124.30164	29.98701	124.45775	59.1	73.1
11	153.04512	130.58568	22.45944	44.38925	41.07364	44.04860	122.97441	44.04584	123.02492	29.4	35.5
12	174.00284	150.71114	23.29170	46.90884	43.64433	58.69096	123.13336	58.73164	123.16820	36.7	43.9
13	141.14388	118.39868	22.74519	42.14075	38.59329	73.09598	121.58191	73.09380	121.57359	22.8	27.3
14	163.46231	140.72180	22.74051	45.39467	42.09380	87.01074	122.62988	87.09250	122.64835	32.3	38.8
15	159.05649	136.47585	22.58064	45.50319	42.26563	101.37627	121.83545	101.40237	121.86710	32.6	39.4
16	130.01221	107.39861	22.61360	40.46481	36.77460	115.82613	122.14450	115.77902	122.18451	17.9	21.3
17	153.68871	132.42351	21.26520	43.97056	40.82979	12.98231	109.26137	13.05002	109.26404	28.1	34.7
18	154.57297	132.36836	22.20461	44.44615	41.16438	27.80359	108.82014	27.82498	108.87215	29.5	35.8
19	188.85133	165.59979	23.25154	48.78725	45.69312	43.58807	108.37943	43.58453	108.36111	42.2	50.7
20	171.63420	149.14088	22.49332	46.53290	43.38057	58.76216	109.02924	58.81085	109.05775	35.6	43.1
21	129.44023	107.94043	21.49980	40.38458	36.88330	72.37617	108.32611	72.40331	108.36389	17.7	21.6
22	180.74899	158.50679	22.24220	47.77116	44.73412	86.34679	108.49496	86.34325	108.52110	39.2	47.5
23	165.86102	143.03648	22.82454	46.25496	43.02367	100.85594	107.05995	100.90265	107.02757	34.8	41.9
24	224.37677	202.19963	22.17714	51.19017	48.60931	114.42058	108.32901	114.24011	108.35466	49.2	60.3
25	149.38211	127.97739	21.40472	43.35773	40.14346	13.67103	94.91518	13.69783	94.97063	26.4	32.4
26	185.78966	163.26781	22.52185	50.90356	48.19943	28.14909	95.39429	28.18790	95.44495	48.4	59.0
27	163.38924	138.95081	24.43843	48.21204	44.78151	43.70911	94.18533	43.69342	94.25737	40.5	47.7
28	172.69266	146.33792	26.35474	47.13100	43.37524	59.01404	95.26056	59.07065	95.32695	37.4	43.0
29	204.40988	176.61244	27.79744	51.60144	47.94205	73.87303	93.92549	73.88811	94.05005	50.4	58.1
30	169.92593	143.33659	26.58934	46.38887	42.49405	88.17114	94.18221	88.15193	94.16440	35.2	40.1
31	141.61914	119.39653	22.22261	42.47113	39.04745	101.82372	93.11572	101.79768	93.14552	23.8	28.8
32	169.33662	146.59261	22.74402	46.18405	42.97337	115.51791	92.46550	115.42606	92.47984	34.6	41.7
33	181.52020	159.82198	21.69823	47.86971	44.94739	13.49858	80.17683	13.55939	80.19530	39.5	48.2
34	182.20589	160.19189	22.01399	48.25487	45.28850	28.31262	80.56039	28.34029	80.57437	40.6	49.4
35	206.11987	179.10085	27.01903	54.55597	51.56215	44.08839	79.28932	44.13765	79.34135	59.0	70.0
36	167.42455	143.93863	23.48592	47.61452	44.42607	57.56366	80.45593	57.59273	80.47391	38.8	46.5
37	211.22894	188.35120	22.87775	51.66594	48.80052	71.69376	78.26056	71.74492	78.34892	50.6	60.9
38	177.31113	154.81142	22.49971	48.20021	45.14369	86.09760	78.85536	86.11676	78.90970	40.5	48.9
39	277.74756	254.39764	23.34991	56.91994	54.76282	101.83174	78.76721	101.93738	78.90176	65.9	80.6
40	151.75932	128.83319	22.92613	43.88676	40.47763	116.13374	77.23807	116.11293	77.24736	27.9	33.5
41	232.35451	210.67235	21.68216	54.35660	51.78406	14.21780	64.61732	14.35459	64.68021	58.4	70.8
42	225.99637	200.36815	25.62822	56.26057	53.36331	29.07753	64.83189	29.07004	64.86809	64.0	76.0
43	159.53886	134.91432	24.62454	45.21808	41.60640	43.25435	63.56198	43.27484	63.66719	31.8	37.2
44	225.06084	201.14828	23.91255	55.52290	52.87495	57.72108	64.48024	57.77055	64.52402	61.8	74.4
45	196.18561	174.07457	22.11104	49.76855	46.92419	72.13780	62.83458	72.13174	62.81523	45.0	54.7
46	228.13556	204.71132	23.42424	58.99046	56.42509	87.51834	62.05319	87.50085	62.00194	71.9	86.1
47	147.83665	126.51189	21.32477	43.53546	40.32013	102.09665	62.52802	102.12537	62.55460	26.9	33.0
48	152.02873	130.18091	21.84782	43.75269	40.49661	115.11154	62.66951	115.09496	62.69244	27.5	33.6
49	147.01915	121.87938	25.13977	43.06033	39.20721	13.07403	49.59634	13.11011	49.61105	25.5	29.3
50	193.19443	167.64485	25.54958	54.63484	52.17943	27.68233	49.34358	27.68884	49.36993	59.2	72.1
51	223.01086	198.17621	24.83466	53.08937	50.08914	43.04448	48.52238	43.10049	48.55064	54.7	65.2
52	155.22404	130.65878	24.56526	44.36459	40.73003	57.85214	48.30779	57.83751	48.28555	29.3	34.3
53	149.79384	125.13994	24.65390	43.42645	39.69441	71.57858	48.24551	71.61830	48.26593	26.6	30.9
54	209.12244	183.49049	25.63194	51.94197	49.30174	86.08403	46.01987	86.10452	46.09338	51.4	62.6
55	180.54808	158.69867	21.84941	47.91849	44.91899	100.74020	48.19476	100.76889	48.33884	39.7	48.1
56	144.03746	122.29100	21.74646	42.65791	39.26042	114.79794	47.99727	114.75948	48.03896	24.3	29.5
57	164.02473	142.49228	21.53246	45.46707	42.37997	13.45458	35.19374	13.49918	35.33060	32.5	39.8
58	174.63658	153.39476	21.24182	47.01099	44.06010	28.29298	35.25026	28.37788	35.35710	37.0	45.3

59	141.62210	120.66360	20.95850	42.32770	39.09152	43.08308	34.17282	43.13397	34.21263	23.4	28.9
60	177.33585	154.94012	22.39572	47.38065	44.27837	58.03081	34.53337	58.05975	34.58421	38.1	46.0
61	136.28860	115.64606	20.64255	41.42430	38.16209	72.21793	34.58099	72.21919	34.62677	20.7	25.9
62	93.11140	71.65800	21.45340	34.23811	30.03212	85.76787	32.89799	85.77002	32.90851	-0.2	-1.0
63	155.68265	133.13130	22.55135	44.26344	40.95692	100.48311	33.81166	100.51639	33.89388	29.0	35.1
64	141.37367	119.13231	22.24136	42.16998	38.73543	114.75084	33.66637	114.69432	33.76685	22.9	27.7

TABLE C-19. GEOMETRIC PARAMETERS OF B-5 SECTION AT 23.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	125.82870	101.62373	24.20497	39.79520	35.76260	14.11986	137.39067	14.18779	137.35719	16.0	17.9
2	144.20436	119.93686	24.26750	42.72305	38.99658	27.48523	137.89668	27.51538	137.83662	24.5	28.6
3	189.00522	163.50203	25.50319	48.81479	45.41994	43.43521	137.44974	43.47388	137.34816	42.3	49.8
4	156.39548	131.18239	25.21309	44.36562	40.64528	58.82103	136.74860	58.78040	136.75368	29.3	34.0
5	170.19131	145.04620	25.14511	46.30745	42.72194	73.08066	135.72186	73.10123	135.71127	35.0	40.9
6	158.82884	133.19217	25.63667	44.70174	40.93581	87.29094	136.43819	87.28975	136.41472	30.3	35.0
7	152.84543	128.45796	24.38747	43.85164	40.22841	101.39882	135.53983	101.43185	135.49905	27.8	32.7
8	136.80963	112.63907	24.17056	41.50194	37.65742	115.32457	135.85356	115.32227	135.76166	21.0	24.2
9	145.35580	120.31033	25.04547	42.79031	38.93317	14.31828	123.40593	14.41529	123.41847	24.7	28.4
10	207.04974	180.83545	26.21429	51.25450	47.94684	28.83774	123.59782	28.90733	123.63535	49.4	58.1
11	149.19176	124.95236	24.23940	43.48001	39.77214	43.88927	122.99260	43.85350	123.01004	26.7	31.2
12	171.87001	147.34639	24.52362	46.78372	43.34009	58.80731	123.27219	58.83800	123.27762	36.3	42.9
13	142.28743	117.57440	24.71303	42.33398	38.46536	73.13000	121.62093	73.12439	121.60548	23.4	26.9
14	160.59702	135.98421	24.61281	45.06337	41.46155	87.10779	122.68344	87.14821	122.68324	31.3	36.7
15	169.56126	145.50078	24.06049	46.34331	42.96117	101.58499	121.43707	101.62634	121.45563	35.1	41.7
16	128.41362	104.59419	23.81943	40.19405	36.29399	115.54739	122.06848	115.53102	122.10547	17.1	19.7
17	158.11966	136.03658	22.08308	44.62671	41.39227	12.93392	109.49347	13.00467	109.46928	30.1	36.5
18	161.05804	138.28313	22.77492	45.13062	41.81691	27.73868	108.97354	27.78467	109.01865	31.5	37.9
19	195.55838	173.01944	22.53894	49.63280	46.70125	43.41516	108.69464	43.42929	108.68010	44.7	54.0
20	176.17383	154.00403	22.16980	47.14873	44.08253	58.64276	109.32735	58.69380	109.36746	37.4	45.4
21	131.04687	109.20247	21.84441	40.66417	37.13504	72.24246	108.47116	72.25043	108.50800	18.5	22.5
22	180.97023	158.72285	22.24738	47.78992	44.75142	86.44893	108.55801	86.43506	108.60670	39.3	47.6
23	156.59752	134.38245	22.21507	44.44339	41.14456	100.91449	107.04561	100.97002	107.05322	29.5	35.7
24	166.47003	143.82942	22.64061	45.76564	42.55405	114.94875	107.53275	114.81863	107.56313	33.4	40.3
25	152.39917	129.61391	22.78526	43.78926	40.41695	13.66119	95.13983	13.67055	95.20796	27.6	33.3
26	178.99767	155.60912	23.38855	47.85320	44.68068	28.32040	95.29755	28.37978	95.33240	39.5	47.4
27	181.30797	158.52505	22.78291	50.63553	47.63019	43.64409	94.55263	43.64163	94.65289	47.6	57.1
28	173.59561	149.71074	23.88487	47.47455	44.19574	59.04417	95.46933	59.10776	95.52408	38.4	45.8
29	211.12561	185.34236	25.78325	54.33450	51.57677	73.91254	93.92442	73.93517	94.04512	58.4	70.1
30	176.70186	150.73528	25.96658	47.20670	43.58836	88.07446	94.03951	88.04597	94.04024	37.6	43.7
31	142.92416	118.08005	24.84412	42.49492	38.63971	101.82001	92.91479	101.78017	92.95335	23.8	27.4
32	149.21817	123.88647	25.33170	43.34833	39.48669	115.29366	92.37163	115.21156	92.43103	26.3	30.2
33	193.94513	168.00912	25.93600	49.50485	46.08583	13.61776	80.22986	13.72316	80.22528	44.3	52.0
34	195.93735	169.88771	26.04964	50.17857	46.80527	28.27968	80.32463	28.31352	80.27884	46.2	54.4
35	225.70992	197.16248	28.54744	55.97614	53.34721	43.85143	79.18393	43.87428	79.20938	63.1	75.9
36	165.51009	139.69875	25.81134	47.88878	44.32567	57.53479	80.78259	57.56506	80.82219	39.6	46.2
37	199.10823	172.48866	26.61957	50.15845	46.66417	71.44904	78.18776	71.46323	78.23802	46.2	53.9
38	189.86565	162.78136	27.08429	50.81935	47.41068	85.85754	78.99733	85.89168	79.02219	48.1	56.4
39	235.28629	207.85268	27.43361	54.68719	51.43855	101.21086	78.16226	101.23312	78.22963	59.4	69.6
40	133.84831	107.41191	26.43640	41.10667	36.80585	115.77829	77.33534	115.79524	77.31567	19.8	21.4
41	187.51622	163.11740	24.39882	48.63045	45.36143	13.61305	64.68675	13.72538	64.74036	41.7	49.6
42	222.97484	199.23801	23.73683	53.85066	51.02138	28.32874	64.24875	28.32259	64.28645	56.9	68.3
43	169.17169	146.19411	22.97758	46.74817	43.54802	42.91647	63.51871	42.93642	63.61722	36.2	43.6
44	226.71231	203.61006	23.10225	55.74074	53.13799	57.46147	64.63542	57.49492	64.71725	62.5	75.2
45	194.16913	171.16518	23.00395	49.48076	46.49716	71.74686	63.01529	71.76520	63.01515	44.2	53.3
46	195.64313	171.73618	23.90695	66.74731	65.52144	85.52638	61.14870	85.48019	61.07858	94.5	116.1
47	148.81821	125.75876	23.05945	43.76822	40.32216	102.02266	62.63058	102.03081	62.64552	27.6	33.0
48	133.12964	109.69456	23.43507	40.93152	37.15070	114.87268	62.68011	114.86037	62.67702	19.3	22.5
49	137.50565	112.72697	24.77867	41.65471	37.76711	13.06698	49.82257	13.10166	49.84476	21.4	24.6
50	181.67876	155.40816	26.27060	49.79726	46.39342	27.38046	49.24376	27.37239	49.25717	45.1	53.0
51	200.17789	174.19354	25.98434	50.25967	46.88420	42.73764	48.56111	42.79620	48.56134	46.5	54.6
52	159.60251	134.53896	25.06355	44.95695	41.27769	57.45010	48.44838	57.42296	48.42076	31.0	36.1
53	154.43073	129.23351	25.19722	44.10178	40.34451	71.39607	48.23529	71.43396	48.24030	28.5	33.1
54	171.82828	145.88235	25.94592	50.46049	46.94498	85.23730	45.10341	85.23714	45.17078	47.1	54.8
55	239.65900	215.23625	24.42274	50.58101	48.19913	99.22285	49.00462	99.14111	49.19174	47.4	59.0
56	130.55843	106.51027	24.04816	40.55998	36.63707	114.47667	48.05931	114.44286	48.08534	18.2	20.8
57	159.85307	134.58345	25.26962	44.85204	41.17160	13.09264	35.66333	13.13624	35.80626	30.7	35.8
58	172.61421	146.64886	25.96535	46.68434	43.07219	27.70917	35.60074	27.79266	35.70171	36.1	42.0

59	148.02089	123.21568	24.80521	43.25992	39.47272	42.78952	34.32137	42.84196	34.34030	26.1	30.2
60	180.11205	154.13101	25.98103	47.71043	44.16570	57.83606	34.56847	57.84172	34.60735	39.0	45.7
61	135.18312	110.79576	24.38736	41.25764	37.33954	72.10228	34.47272	72.12660	34.50102	20.2	23.1
62	94.05795	70.35625	23.70171	34.40588	29.76393	85.48077	32.68788	85.47484	32.66396	0.3	-1.8
63	148.69385	123.37730	25.31654	43.28389	39.43178	100.24663	*33.77023	100.26228	33.83080	26.1	30.0
64	131.70636	107.71912	23.98724	40.70876	36.82201	114.17381	33.51942	114.14760	33.59166	18.6	21.4

TABLE C-20. GEOMETRIC PARAMETERS OF B-5 SECTION AT 24.7 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	123.70747	102.24954	21.45793	39.46400	35.88481	13.37463	137.52351	13.42839	137.47061	15.0	18.3
2	139.48509	117.68050	21.80460	41.97459	38.56090	26.74666	138.01648	26.76953	137.99265	22.3	27.2
3	272.82373	249.17491	23.64882	55.40891	55.02887	41.89987	136.06355	41.85394	135.87520	61.5	81.5
4	170.90276	147.77463	23.12813	46.67297	43.45094	58.12962	136.91119	58.10629	136.96970	36.0	43.3
5	183.85817	160.80161	23.05656	48.23283	45.08299	72.49356	135.89911	72.48192	135.89911	40.6	48.7
6	166.54214	145.76115	22.78099	46.12709	42.91258	86.69257	136.73303	86.69829	136.73672	34.4	41.5
7	155.83119	133.78195	22.04924	44.28032	41.03690	100.73309	135.67337	100.76448	135.65469	29.1	35.3
8	141.41898	119.01382	22.40515	42.18248	38.69566	114.38788	136.02495	114.40678	135.95370	22.9	27.6
9	150.33504	129.06169	21.27335	43.51753	40.33029	13.72776	123.76614	13.79920	123.78041	26.8	33.0
10	163.52364	141.16318	22.36046	47.64760	44.60901	27.57808	123.59998	27.59949	123.63254	38.9	47.1
11	137.98891	116.11798	21.87093	43.57739	40.23346	43.33282	122.81175	43.31853	122.82140	27.0	32.7
12	154.39450	132.77425	21.62025	44.49065	41.26842	58.27238	123.63982	58.31258	123.67043	29.7	36.1
13	141.72504	119.89629	21.82875	42.28506	38.92157	72.52478	122.00751	72.53120	122.01790	23.2	28.4
14	150.09689	128.59189	21.50500	43.58719	40.36687	86.63596	123.08220	86.70348	123.10480	27.0	33.1
15	147.52267	126.36230	21.16037	43.12627	39.95404	101.01707	121.77570	101.05986	121.78923	25.7	31.8
16	126.33089	104.58939	21.74150	39.89513	36.31097	114.80240	122.52789	114.77467	122.58463	16.3	19.7
17	163.26711	141.07024	22.19687	45.38992	42.17880	12.13236	109.74077	12.20815	109.73312	32.3	39.1
18	193.22957	170.77144	22.45813	49.98877	47.17796	27.06801	109.34201	27.07343	109.40930	45.7	55.6
19	219.06659	196.12927	22.93732	52.71841	49.90105	42.57875	108.93567	42.59993	108.90895	53.6	64.6
20	183.29695	160.91188	22.38507	48.14212	45.13470	57.87082	109.85915	57.95209	109.91739	40.3	48.8
21	136.83946	114.74176	22.09770	41.59436	38.11337	71.55328	108.76161	71.57361	108.78177	21.2	25.7
22	190.27704	168.27605	22.00099	49.02887	46.11528	85.73599	109.00458	85.73338	109.05711	42.9	52.1
23	151.85899	130.20964	21.64935	43.75198	40.52609	100.30516	107.44597	100.35991	107.44452	27.5	33.6
24	146.69009	124.60570	22.08440	43.01482	39.70616	114.16808	107.81517	114.08711	107.82495	25.4	30.9
25	152.63243	131.19170	21.44073	43.90395	40.69554	12.91471	95.23335	12.94074	95.28810	28.0	34.2
26	171.48181	148.80814	22.67368	47.06746	43.96667	27.46828	95.18774	27.52776	95.23151	37.2	45.0
27	189.43822	166.84819	22.59003	52.00122	49.09966	43.06516	94.34779	43.04248	94.42506	51.6	61.9
28	172.08311	149.43420	22.64891	47.88396	44.78020	58.31064	95.74648	58.36816	95.82333	39.6	47.7
29	205.04272	181.04575	23.99698	53.69913	50.77579	73.58560	94.46498	73.59108	94.58652	56.5	67.5
30	180.95842	157.77742	23.18100	47.75426	44.61153	87.40234	94.01460	87.38855	94.01047	39.2	47.1
31	146.58739	125.44220	21.14519	43.06889	39.84186	101.21547	93.18001	101.16928	93.19534	25.5	31.4
32	140.29634	118.64655	21.64980	42.04295	38.66940	114.57982	92.82919	114.51619	92.84540	22.5	27.5
33	202.55540	180.19948	22.35593	50.58411	47.73381	13.29298	80.13748	13.40319	80.14818	47.4	57.4
34	234.61990	211.13545	23.48445	56.52916	53.82281	28.36844	79.99573	28.42349	79.96823	64.7	77.5
35	210.73195	188.05948	22.67247	54.17944	51.50142	44.04735	78.95741	44.05034	78.99712	57.9	69.8
36	158.09894	134.95462	23.14432	48.56049	45.47238	56.70782	81.50636	56.71294	81.53539	41.5	50.0
37	201.54163	178.46181	23.07982	50.40002	47.42979	70.74236	78.69670	70.73050	78.75031	46.9	56.4
38	195.48174	173.75739	21.72435	51.85461	49.14006	85.42239	78.93506	85.41765	78.95032	51.1	62.1
39	192.72012	170.27052	22.44960	49.27684	46.33029	100.88058	78.36497	100.88908	78.40173	43.6	52.8
40	122.42355	101.57104	20.85251	39.26195	35.74884	114.95462	77.77432	114.97440	77.77087	14.4	17.9
41	149.59941	128.64276	20.95665	43.39746	40.23190	12.73870	64.58734	12.80665	64.62021	26.5	32.7
42	205.77121	184.20375	21.56746	51.32124	48.60643	27.04929	63.73892	27.04039	63.78540	49.6	60.3
43	178.12001	156.20082	21.91919	51.93497	49.40259	41.79118	62.85167	41.78014	62.97212	51.4	62.9
44	266.73608	244.22139	22.51469	58.68802	56.79726	57.34608	64.85951	57.40474	64.99835	71.0	87.3
45	195.41647	172.91939	22.49709	49.66713	46.70750	71.91405	62.93620	71.93442	62.89514	44.8	54.0
46	183.48419	160.17987	23.30432	59.46231	56.90610	86.15659	61.58263	86.11684	61.56447	73.3	87.7
47	158.75343	136.49368	22.25975	45.14948	41.93834	102.01807	62.66510	102.02455	62.67580	31.6	38.3
48	124.54724	102.46196	22.08528	39.59332	35.90988	115.07710	62.73898	115.03407	62.73462	15.9	18.4
49	129.06812	107.50705	21.56107	40.37439	36.83875	12.75638	49.29733	12.77170	49.31018	17.7	21.5
50	167.50752	145.09404	22.41348	46.68504	43.60432	26.85976	48.51587	26.82967	48.54527	36.1	43.8
51	192.94597	170.75421	22.19176	49.34789	46.44080	42.12129	47.96811	42.18036	47.97581	43.8	53.2
52	163.90361	141.99849	21.90512	45.54767	42.40985	57.02615	48.01321	57.00842	47.98174	32.7	39.9
53	168.35753	145.98434	22.37318	46.05362	42.89261	71.40170	47.84146	71.44171	47.84616	34.2	41.5
54	187.15752	165.18130	21.97621	50.80342	48.01591	85.41005	45.11855	85.40747	45.21956	48.1	58.3
55	238.55861	216.08798	22.47063	51.54236	50.81265	99.63879	48.71156	99.56778	48.88014	50.2	67.6
56	123.29233	101.44688	21.84544	39.40146	35.73427	114.79225	48.03835	114.75719	48.03557	14.6	17.8
57	144.61343	123.52777	21.08566	42.65919	39.42542	12.61170	35.12476	12.64880	35.21687	24.3	30.0
58	173.75159	151.48529	22.26630	46.81079	43.72179	27.14693	34.79854	27.21402	34.87782	36.4	44.2

59	156.20001	133.82597	22.37404	44.45840	41.16949	42.44965	33.80032	42.49025	33.83583	29.6	35.8
60	168.70169	145.89731	22.80438	46.14360	42.95209	57.44812	34.16316	57.45773	34.17319	34.5	41.6
61	133.23193	111.65668	21.57526	40.95746	37.50009	71.98489	34.09100	71.98865	34.13182	19.4	23.7
62	93.88684	72.50197	21.38487	34.40190	30.20720	85.28627	32.18126	85.29543	32.18065	0.3	-0.4
63	139.59573	117.87473	21.72101	41.94873	38.54163	100.15657	33.46974	100.17682	33.53496	22.3	27.1
64	133.53056	111.68790	21.84267	41.00128	37.50659	114.09943	33.33795	114.09399	33.43622	19.5	23.7

[redacted] K 3 [redacted]

TABLE C-21. GEOMETRIC PARAMETERS OF B-5 SECTION AT 26.4 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	127.60165	102.63539	24.96626	40.07600	35.93793	13.78276	137.52313	13.80605	137.50272	16.8	18.5
2	148.50169	123.44191	25.05978	43.27103	39.45906	27.21007	137.98921	27.24942	137.95091	26.1	30.1
3	228.01077	199.28062	28.73015	53.83301	50.28720	43.17108	136.33025	43.20941	136.18608	56.9	65.8
4	166.99812	142.09889	24.89923	45.95691	42.37494	58.60428	136.89635	58.61179	136.87508	33.9	39.7
5	178.12094	152.60805	25.51289	47.46959	43.88751	73.08165	135.93904	73.10808	135.93111	38.3	44.7
6	166.51167	140.19382	26.31786	45.78188	42.01599	87.45207	136.69571	87.44742	136.65762	33.4	38.6
7	150.39946	124.64252	25.75693	43.50520	39.60437	101.63507	135.71841	101.65924	135.67746	26.8	30.6
8	144.65707	119.37189	25.28519	42.65634	38.74706	115.13347	135.99692	115.13785	135.91684	24.3	27.8
9	166.44633	138.97092	27.47542	45.84698	41.87279	14.08378	123.83157	14.17598	123.82370	33.6	38.1
10	177.85844	150.53477	27.32367	47.65141	43.88957	28.42558	123.80621	28.48018	123.82744	38.9	44.7
11	157.25743	131.15466	26.10277	45.67815	41.88716	43.87601	122.92519	43.86652	122.90295	33.1	38.1
12	150.20511	123.70763	26.49748	43.88298	39.90569	59.01576	123.90052	59.05066	123.89127	27.9	31.6
13	145.66635	119.89752	25.76883	42.87140	38.92363	73.20232	122.15741	73.23938	122.11066	24.9	28.4
14	156.16794	130.54819	25.61975	44.47873	40.68391	87.51842	123.09328	87.57333	123.06229	29.6	34.2
15	145.70808	121.58621	24.12187	42.82617	39.11491	101.93057	121.73256	101.97926	121.70367	24.8	29.0
16	130.08528	105.92311	24.16217	40.47809	36.52159	115.51968	122.45192	115.51935	122.50060	18.0	20.4
17	164.91501	141.26173	23.65327	45.55779	42.17343	12.32292	109.60103	12.38223	109.57422	32.8	39.1
18	217.76129	194.08542	23.67587	53.49117	51.33662	27.59718	109.53139	27.59421	109.68140	55.9	69.3
19	219.84511	196.07962	23.76549	52.82681	49.94705	42.75156	108.65555	42.77582	108.61540	54.0	64.7
20	203.06348	179.25647	23.80701	50.73032	47.65492	58.41710	109.93425	58.49947	109.98889	47.8	57.2
21	147.13094	124.55867	22.57227	43.27121	39.82391	72.30743	108.49414	72.34421	108.50427	26.1	31.3
22	205.67426	182.90369	22.77057	51.07162	48.17616	86.49176	108.84294	86.51802	108.87421	48.8	58.9
23	151.52644	128.59785	22.92859	43.69577	40.25957	101.17274	107.31290	101.20218	107.28741	27.3	32.8
24	151.17194	129.38528	21.78665	43.60429	40.33919	114.71065	107.54430	114.67119	107.54639	27.1	33.0
25	152.68912	129.56410	23.12502	43.87041	40.44821	13.09908	94.90154	13.08846	94.94587	27.9	33.4
26	172.52319	149.52243	23.00076	47.69963	44.63416	27.80672	94.94701	27.90822	94.99400	39.0	47.2
27	226.07350	200.23283	25.84067	52.22911	49.28072	44.58963	94.64456	44.55959	94.77586	52.2	62.5
28	178.97955	152.92412	26.05544	49.18649	45.76207	59.29895	95.24449	59.33797	95.31007	43.3	50.9
29	180.75877	154.48190	26.27687	48.58952	45.05356	74.27655	93.60748	74.29912	93.67206	41.6	48.6
30	199.29401	172.05405	27.23996	50.14258	46.59676	88.51366	93.30913	88.49348	93.27219	46.1	53.7
31	160.17667	134.75600	25.42067	45.12585	41.40683	102.51813	92.74315	102.45905	92.74596	31.5	36.6
32	166.36497	141.37537	24.98961	45.82901	42.25388	115.92145	92.59262	115.87498	92.58549	33.6	39.3
33	216.34904	186.77045	29.57860	52.27357	48.58476	13.83984	79.31415	13.97177	79.31177	52.3	60.2
34	328.44507	298.50781	29.93726	64.15239	61.49121	30.46890	78.92636	30.64891	78.84993	87.0	102.8
35	172.27182	148.82089	23.45093	49.30141	46.25256	45.76465	78.11226	45.80133	78.16342	43.7	52.5
36	162.68121	137.80672	24.87450	47.85600	44.46768	57.71959	80.75948	57.74680	80.77844	39.5	46.6
37	198.01097	174.42700	23.58397	49.97501	46.89787	72.03633	78.40657	72.08051	78.46292	45.6	54.7
38	203.27759	180.25548	23.02211	51.41946	48.53064	87.13458	77.80249	87.18185	77.83218	49.9	60.0
39	171.54587	148.46889	23.07698	46.46173	43.22922	102.43149	77.79242	102.46156	77.83800	35.4	42.6
40	138.85991	115.00034	23.85957	41.80501	38.04533	116.39151	77.30727	116.40233	77.27907	21.8	25.5
41	171.32687	144.18802	27.13885	46.47592	42.64304	13.35977	63.71140	13.45124	63.75633	35.4	40.6
42	192.52612	164.67371	27.85242	49.55846	45.88289	27.50615	62.41826	27.52042	62.41632	44.4	51.3
43	185.81847	156.74611	29.07236	53.90776	50.95651	42.52403	62.42357	42.49448	62.48715	57.1	68.0
44	267.20166	239.33748	27.86418	57.33446	54.43317	57.95000	64.80682	58.02345	64.91914	67.1	79.5
45	217.87247	189.93013	27.94234	52.49973	49.01852	72.84071	62.96774	72.88760	62.95056	53.0	61.7
46	191.77596	165.44540	26.33055	49.33977	45.85406	88.59456	61.67914	88.63443	61.65070	43.8	51.2
47	174.96329	147.86995	27.09334	47.13612	43.37697	102.53355	62.58012	102.53845	62.56781	37.4	43.1
48	141.01221	116.76302	24.24919	42.12668	38.34503	115.82336	62.79144	115.79741	62.78813	22.8	26.5
49	143.14920	116.05029	27.09891	42.46416	38.25288	13.16856	49.03746	13.17558	49.07722	23.8	26.2
50	163.91719	137.11638	26.80081	45.77733	41.87587	27.03520	48.06883	27.04042	48.07539	33.4	38.1
51	204.21323	176.01367	28.19955	50.82573	47.20418	42.36070	47.58665	42.45427	47.57121	48.1	55.7
52	164.49147	138.20164	26.28983	45.58960	41.75526	57.37250	47.91280	57.36142	47.87209	32.9	37.7
53	183.98022	156.32652	27.65370	48.18022	44.39827	71.97417	47.59521	72.05582	47.61513	40.4	46.4
54	197.41988	169.99042	27.42946	50.32320	46.70558	86.50896	45.12350	86.50150	45.18018	46.7	54.0
55	196.97116	169.63249	27.33867	50.08575	46.50539	101.04074	47.72313	101.03619	47.83597	46.0	53.4
56	144.25739	118.28912	25.96826	42.61763	38.59467	115.46762	48.06686	115.45746	48.07062	24.2	27.3
57	139.07098	113.71548	25.35550	41.82285	37.82878	13.15369	35.04179	13.18126	35.11240	21.9	24.8
58	158.91052	134.00494	24.90558	44.73682	41.07838	27.49571	34.44345	27.54056	34.51595	30.4	35.5

59	145.33461	122.55881	22.77580	42.83591	39.34613	42.95734	33.62065	42.99139	33.65215	24.8	29.8
60	149.18314	125.32657	23.85657	43.33513	39.71887	57.75656	33.95276	57.76349	33.94633	26.3	31.0
61	129.37079	106.90166	22.46913	40.34950	36.69183	72.68738	33.86703	72.73190	33.89688	17.6	21.0
62	92.93109	70.97905	21.95204	34.18404	29.89290	85.95889	31.81918	85.96635	31.82709	-0.4	-1.4
63	133.05969	110.54538	22.52431	40.91370	37.30875	100.87033	33.37924	100.90968	33.42207	19.2	23.0
64	149.68132	126.41771	23.26361	43.40808	39.87436	114.61043	33.30754	114.60072	33.42633	26.5	31.5

[redacted] M 3 [redacted]

TABLE C-22. GEOMETRIC PARAMETERS OF B-5 SECTION AT 28.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	126.80565	104.88037	21.92528	39.96555	36.33229	13.90162	137.53960	13.93080	137.51044	16.5	19.8
2	157.66386	134.05116	23.61270	44.60947	41.16142	27.45856	137.98427	27.48961	137.92723	30.0	35.7
3	154.32904	131.32175	23.00729	44.08246	40.67041	43.69508	136.96194	43.71156	136.89581	28.5	34.1
4	144.09248	121.59105	22.51143	42.60312	39.12650	58.41708	136.88596	58.38156	136.89255	24.2	29.0
5	151.09425	127.81084	23.28342	43.60176	40.10121	72.98639	135.99977	72.96030	135.99948	27.1	32.2
6	143.41595	120.64053	22.77542	42.47583	38.96132	87.30269	136.67747	87.28946	136.65451	23.8	28.5
7	134.09431	111.49751	22.59680	41.06656	37.44463	101.64577	135.84634	101.66072	135.84903	19.7	23.5
8	137.63379	113.97940	23.65439	41.61670	37.86580	114.86494	135.95001	114.86650	135.92130	21.3	24.9
9	162.85991	139.32539	23.53452	45.29175	41.91211	14.17900	123.75047	14.25949	123.73076	32.0	38.2
10	181.29190	158.22418	23.06772	47.82138	44.68166	28.67142	123.75204	28.70998	123.78230	39.4	47.4
11	168.13757	145.03381	23.10376	46.14499	42.89185	44.10582	123.13234	44.04485	123.14842	34.5	41.5
12	144.51169	121.46758	23.04411	43.22639	39.83333	59.04582	124.40295	59.02995	124.42616	26.0	31.4
13	144.26407	121.28377	22.98030	42.74495	39.12633	73.16328	122.46516	73.18848	122.47456	24.6	29.0
14	161.21156	137.87527	23.33629	45.15466	41.78796	87.55017	123.20832	87.60982	123.24370	31.6	37.8
15	146.23579	123.07635	23.15944	42.88026	39.34215	101.90572	121.95333	101.94415	121.96381	25.0	29.7
16	128.32440	105.50972	22.81468	40.17838	36.44305	115.24135	122.66832	115.23969	122.71992	17.1	20.2
17	154.24860	131.14839	23.10020	44.06096	40.63054	12.19652	109.53600	12.26739	109.49072	28.4	34.0
18	194.11333	171.23434	22.87898	49.70602	46.70909	27.36951	108.98186	27.38260	109.04936	44.9	54.0
19	184.13866	161.12358	23.01508	48.29800	45.20699	42.35001	108.62643	42.33124	108.61478	40.8	49.1
20	257.63818	234.33527	23.30292	54.36938	52.09908	58.87148	110.46898	58.96585	110.60069	58.5	71.8
21	146.10112	123.45284	22.64828	43.79733	40.42119	72.15805	108.43777	72.18542	108.44148	27.6	33.3
22	220.36612	195.61156	24.75456	52.89966	49.89856	86.14687	108.73856	86.18100	108.79677	54.2	64.6
23	148.43239	125.91696	22.51543	43.27502	39.86388	100.87074	107.46477	100.91226	107.46835	26.1	31.5
24	149.34984	126.80537	22.54446	43.34644	39.95091	114.16603	107.66548	114.16618	107.70044	26.3	31.8
25	141.84828	119.08824	22.76004	42.27347	38.75282	13.17181	94.83069	13.17385	94.86998	23.2	27.8
26	183.96645	160.37483	23.59161	48.97551	45.93864	27.82251	94.68930	27.90991	94.74287	42.7	51.5
27	236.82120	213.71695	23.10425	53.39047	50.60271	44.55499	94.82805	44.53175	94.99936	55.6	66.9
28	180.59764	156.64851	23.94913	48.61676	45.49045	59.11919	95.10211	59.15926	95.15967	41.7	50.0
29	158.78200	135.67398	23.10802	44.91170	41.55905	73.55733	93.83220	73.58012	93.88080	30.9	37.1
30	193.78786	169.56242	24.22543	49.43802	46.26164	87.67880	93.05287	87.68594	93.03322	44.1	52.6
31	152.53926	129.36282	23.17644	44.04802	40.59531	101.54185	92.89595	101.48686	92.90469	28.4	33.9
32	170.53859	147.41565	23.12294	46.41812	43.16832	114.85620	92.80923	114.78978	92.83243	35.3	42.4
33	183.14639	159.50479	23.64220	48.05426	44.85635	13.55004	79.80106	13.61706	79.81841	40.0	47.9
34	340.09033	314.28369	25.80664	60.32413	57.85292	30.79805	78.86880	30.91811	78.85022	75.8	90.8
35	154.13235	130.27025	23.86211	45.97087	42.60869	45.38333	78.33926	45.38176	78.38565	34.0	40.5
36	157.65982	133.84482	23.81500	44.73253	41.23390	57.53925	80.77740	57.52142	80.76944	30.4	36.0
37	179.66759	155.59717	24.07042	47.57703	44.29413	71.71413	79.43100	71.69925	79.49382	38.7	46.1
38	188.30908	163.75044	24.55864	48.96547	45.70914	86.49992	77.97076	86.51390	77.97433	42.7	50.7
39	163.61232	139.95178	23.66054	45.38959	41.97116	101.55211	78.25607	101.56169	78.28403	32.3	38.4
40	140.70503	117.27795	23.42708	42.07089	38.41765	115.24146	77.53975	115.25887	77.49272	22.6	26.7
41	183.71899	158.97096	24.74803	48.16306	44.79295	13.75468	63.95461	13.81591	63.99910	40.4	47.7
42	174.08083	149.89766	24.18317	46.94930	43.59735	27.68614	62.91397	27.68526	62.94135	36.8	43.8
43	162.80666	139.00233	23.80432	45.58920	42.17386	42.31409	62.95279	42.33592	63.05603	32.9	39.1
44	194.28850	170.53548	23.75302	50.21651	47.16188	56.51299	64.84068	56.52126	64.89565	46.4	55.5
45	260.47778	234.24516	26.23262	57.81207	54.90660	72.18004	63.74792	72.25021	63.75003	68.5	81.1
46	176.44791	152.13902	24.30888	47.34300	44.00565	87.57108	62.28789	87.58691	62.26091	38.0	45.1
47	171.04065	147.70317	23.33748	46.58066	43.29184	101.42037	63.17999	101.44623	63.22124	35.8	42.8
48	152.25124	129.13022	23.12102	43.78384	40.31709	114.84581	63.26779	114.81541	63.26392	27.6	33.0
49	144.41724	120.25160	24.16563	42.68362	38.91701	13.40042	49.84996	13.42036	49.86940	24.4	28.3
50	151.33125	128.27654	23.05472	43.70323	40.24506	26.80392	48.30680	26.79836	48.89247	27.4	32.7
51	208.71494	184.41290	24.30203	51.37189	48.31253	41.88507	48.29492	41.94374	48.24878	49.7	59.3
52	160.36064	137.30515	23.05550	44.93755	41.59007	56.89738	48.91772	56.86685	48.87978	31.0	37.2
53	169.28082	145.00375	24.27707	46.24458	42.84003	71.52809	48.37766	71.56038	48.42384	34.8	41.3
54	177.16866	153.34146	23.82719	47.30154	44.01997	85.74825	45.86090	85.75648	45.92375	37.9	45.2
55	166.40308	142.08290	24.32018	45.77747	42.30708	99.97339	48.51929	99.97955	48.59933	33.4	39.5
56	168.27612	144.26558	24.01054	46.01941	42.60612	114.38200	48.77377	114.39870	48.78777	34.1	40.5
57	132.06296	109.27911	22.78384	40.76016	37.08057	13.21749	36.24362	13.23341	36.27470	18.8	22.3
58	129.69215	106.41629	23.27586	40.40524	36.61342	27.19760	35.33025	27.20256	35.37411	17.8	20.7

59	127.55278	104.17950	23.37328	40.07130	36.22963	42.28072	34.36795	42.32434	34.37601	16.8	19.5
60	133.80391	110.91562	22.88829	41.05029	37.37779	56.89198	34.60497	56.90903	34.62921	19.6	23.3
61	126.64175	103.36368	23.27808	39.91167	36.06026	72.06694	34.90800	72.07338	34.93106	16.3	18.9
62	92.61311	70.75832	21.85480	34.13278	29.83409	85.11215	32.50929	85.13013	32.50299	-0.5	-1.6
63	141.49178	117.83731	23.65446	42.19617	38.50418	99.90509	34.30153	99.95189	34.33357	23.0	27.0
64	156.22578	132.14240	24.08339	44.32938	40.77113	113.73112	34.05859	113.72636	34.18913	29.2	34.5

TABLE C-23. GEOMETRIC PARAMETERS OF B-5 SECTION AT 29.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	125.33461	101.52675	23.80786	39.70471	35.74548	14.38051	137.48466	14.40542	137.45697	15.7	17.9
2	140.48792	115.44171	25.04620	42.08417	38.16312	27.96541	137.78152	27.97473	137.74194	22.7	25.9
3	129.13275	104.35117	24.78159	40.29599	36.23660	44.28470	136.93803	44.29842	136.89102	17.4	19.5
4	128.65796	103.95174	24.70622	40.23566	36.19029	58.73535	136.75041	58.75548	136.76845	17.3	19.4
5	133.78340	108.89461	24.88879	41.02792	37.00795	73.53052	135.85274	73.53831	135.84721	19.6	22.0
6	130.73808	106.01997	24.71811	40.56506	36.52370	87.87372	136.28830	87.87437	136.26068	18.2	20.4
7	127.94394	103.07666	24.86728	40.11348	36.01578	102.49309	135.77814	102.50272	135.76326	16.9	18.8
8	132.46677	107.52269	24.94408	40.83482	36.76903	115.58138	135.54782	115.58476	135.48358	19.0	21.3
9	147.45792	121.46442	25.99350	43.08408	39.10234	14.39112	123.52617	14.44704	123.51546	25.6	29.0
10	199.24532	171.65727	27.58804	50.08110	46.50009	29.09874	123.50633	29.16252	123.53886	46.0	53.4
11	177.67952	150.47252	27.20700	47.29292	43.52771	44.74956	122.77840	44.69324	122.81659	37.8	43.5
12	146.14604	119.23425	26.91179	43.55653	39.47255	59.58047	124.36006	59.61441	124.35417	26.9	30.2
13	149.91463	123.12955	26.78508	43.48895	39.40492	73.73680	122.33356	73.78674	122.31732	26.7	30.0
14	170.32362	143.64223	26.68140	46.39346	42.62860	88.26321	122.90927	88.34328	122.89905	35.2	40.6
15	151.11856	124.59778	26.52078	43.60767	39.59183	102.65465	121.68452	102.71378	121.67723	27.1	30.6
16	132.41039	107.16853	25.24185	40.81149	36.72485	115.97011	122.37212	115.96854	122.41289	18.9	21.1
17	136.48338	110.70242	25.78096	41.43474	37.32944	12.46442	109.03162	12.52256	108.99341	20.8	23.1
18	186.42773	159.97456	26.45317	48.44295	44.89507	27.74854	108.28609	27.75819	108.37563	41.2	48.1
19	168.82648	140.85942	27.96706	46.16942	42.18796	42.50269	108.05081	42.49327	108.02113	34.6	39.1
20	280.67041	251.27856	29.39185	58.51833	55.64594	59.07213	110.13368	59.18297	110.21666	70.5	83.5
21	145.97757	118.43855	27.53902	43.93010	39.80228	72.67818	107.98213	72.72894	107.98395	28.0	31.3
22	227.62318	198.30765	29.31554	53.75821	50.22379	86.77414	108.17163	86.75812	108.16408	56.7	65.6
23	148.61290	122.28416	26.32874	43.34666	39.33009	101.45444	107.12543	101.49472	107.09367	26.3	29.7
24	159.89365	135.01508	24.87857	44.86748	41.23659	114.86668	107.42657	114.86041	107.40790	30.8	36.0
25	134.39172	108.97028	25.42145	41.14038	37.06012	13.48386	94.28571	13.47252	94.31953	19.9	22.2
26	202.64859	174.79347	27.85512	50.88132	47.32330	28.09702	93.63100	28.19737	93.66039	48.3	56.1
27	211.58618	182.53679	29.04939	52.57323	48.88432	43.99115	93.14511	43.97505	93.20998	53.2	61.2
28	182.86273	154.78569	28.07704	48.75699	45.00665	59.54404	94.54558	59.61446	94.58475	42.1	48.4
29	155.99721	129.03905	26.95816	44.35881	40.34236	73.99086	93.54121	74.00703	93.57454	29.3	33.0
30	187.73492	160.56160	27.17332	48.66925	45.00177	88.19488	92.38074	88.18355	92.32466	41.8	48.4
31	154.59566	128.60574	25.98991	44.23561	40.36018	102.03654	92.41161	101.98479	92.42078	28.9	33.1
32	163.94148	138.06047	25.88101	45.46651	41.72601	115.51624	92.30437	115.47055	92.31702	32.5	37.6
33	171.97929	144.97130	27.00800	46.55336	42.75616	13.90058	79.19339	13.98202	79.19009	35.7	41.0
34	193.24730	165.25452	27.99278	49.42361	45.71619	28.56685	78.41994	28.59940	78.39914	44.0	50.8
35	161.73138	134.42264	27.30875	45.46591	41.50018	44.93118	77.54088	44.94380	77.56381	32.5	36.9
36	154.50424	127.19304	27.31120	44.14478	40.05505	57.97350	80.24544	57.96846	80.23552	28.7	32.1
37	174.31613	145.82410	28.49203	46.86560	42.86760	72.40755	79.45772	72.42998	79.49692	36.6	41.4
38	180.20598	152.47696	27.72902	47.66061	43.84088	87.17091	77.30617	87.17297	77.39458	38.9	44.6
39	169.23206	142.25328	26.97878	46.16397	42.30241	102.17517	77.82252	102.14931	77.86371	34.5	39.5
40	136.59962	111.11781	25.48181	41.45284	37.41721	115.84335	76.90955	115.89735	76.91115	20.8	23.4
41	175.60291	149.56531	26.03760	47.06912	43.45894	13.91153	64.03055	13.95447	64.06540	37.2	43.3
42	168.12869	141.51611	26.61258	46.03908	42.23332	27.87607	62.69734	27.87491	62.70041	34.2	39.3
43	158.35390	131.00249	27.35141	44.66000	40.63602	42.39688	62.59155	42.41493	62.64635	30.2	34.0
44	171.29187	143.39839	27.89348	46.80609	42.91931	56.52449	64.46864	56.54842	64.47408	36.4	41.5
45	291.23511	259.85937	31.37573	61.52295	58.21519	72.50476	63.58983	72.56926	63.57626	79.3	92.0
46	185.99843	157.90752	28.09091	48.84068	45.10132	87.82927	61.70410	87.84871	61.60721	42.3	48.7
47	179.12938	152.10168	27.02769	47.61002	43.87885	101.95937	62.73236	101.98318	62.73276	38.8	44.7
48	153.83778	128.23981	25.59798	43.99556	40.17603	115.73375	62.63138	115.71613	62.59683	28.2	32.5
49	137.08362	110.76819	26.31543	41.55815	37.35214	13.51058	49.58347	13.50003	49.56750	21.1	23.2
50	150.24318	124.57005	25.67313	43.49774	39.61644	26.90213	48.59985	26.89391	48.57141	26.8	30.6
51	208.46164	179.70865	28.75299	51.29454	47.62729	41.92722	47.93138	42.00113	47.89110	49.5	57.1
52	178.53294	151.57494	26.95801	47.42128	43.70131	57.28546	48.71132	57.26707	48.62967	38.2	44.1
53	159.96266	132.91565	27.04721	45.01358	41.03027	72.20041	48.10818	72.23991	48.14174	31.2	35.3
54	172.55241	145.93922	26.61319	46.62436	42.89235	86.27142	45.34618	86.26811	45.37814	35.9	41.5
55	152.01601	126.04939	25.96661	43.76178	39.82533	100.57272	48.16718	100.57613	48.19872	27.5	31.3
56	188.88075	162.77863	26.10213	48.76822	45.28606	115.06161	48.05809	115.07446	48.05969	42.1	49.3
57	130.32722	105.62566	24.70157	40.51221	36.47487	13.61628	35.94554	13.63468	35.99640	18.1	20.3
58	125.93523	101.26253	24.67270	39.80933	35.70447	27.48119	34.82875	27.47949	34.85837	16.0	17.7

59	130.41745	106.41005	24.00740	40.54234	36.62228	42.45233	33.85896	42.47925	33.85620	18.2	20.8
60	143.23361	117.80516	25.42845	42.46038	38.49921	56.99734	33.75510	57.01878	33.72348	23.7	27.0
61	144.14786	119.73724	24.41061	42.60254	38.82329	72.54596	34.44511	72.56172	34.43155	24.2	28.0
62	95.17036	71.07953	24.09084	34.61012	29.90489	85.61403	31.62059	85.60899	31.59207	0.9	-1.4
63	157.59283	131.77589	25.81694	44.53348	40.74271	100.64746	33.65852	100.67096	33.69972	29.8	34.4
64	156.92554	133.30338	23.62216	44.44385	40.96913	114.69221	33.25435	114.68587	33.34410	29.5	35.1

[redacted] B 4 [redacted]

TABLE C-24. GEOMETRIC PARAMETERS OF B-5 SECTION AT 31.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	127.51952	105.15213	22.36739	40.04161	36.37358	14.34857	137.83034	14.36049	137.78270	16.7	20.0
2	133.31126	110.85201	22.45926	40.95569	37.37614	27.99806	138.10428	27.99802	138.08211	19.4	23.3
3	122.58533	99.70573	22.87959	39.26711	35.42171	44.08641	137.36171	44.07111	137.31970	14.4	16.8
4	122.44055	100.41922	22.02133	39.24989	35.53929	58.01747	137.06245	58.01340	137.07727	14.4	17.2
5	131.10382	108.23572	22.86810	40.59924	36.88884	73.02454	136.20921	73.03261	136.21521	18.3	21.7
6	127.09836	104.37682	22.72154	39.98756	36.23923	87.23289	136.55713	87.24739	136.55362	16.5	19.5
7	132.18823	109.14436	23.04387	40.76413	37.04680	102.09468	136.48024	102.10034	136.45937	18.8	22.2
8	125.32561	101.91940	23.40620	39.70023	35.79898	115.00014	135.73206	114.98761	135.69646	15.7	18.1
9	147.86534	122.56418	25.30116	43.14435	39.28589	14.09871	123.74194	14.13138	123.74054	25.7	29.6
10	198.29184	172.06966	26.22218	49.96722	46.56233	28.68375	123.83948	28.74377	123.87737	45.6	53.6
11	216.29276	188.16679	28.12596	52.64618	49.10629	43.91331	123.11263	43.84207	123.13040	53.4	61.9
12	149.14388	122.66820	26.47568	43.42818	39.40189	59.31696	124.40781	59.34512	124.40700	26.6	29.9
13	153.36072	126.89963	26.46109	43.96577	39.97092	73.22850	122.74579	73.27620	122.75349	28.1	31.8
14	173.53867	146.67821	26.86046	46.79964	43.01955	87.75562	123.14548	87.82010	123.14801	36.4	41.9
15	155.81897	129.58148	26.23749	44.30898	40.41299	102.14099	122.23170	102.20088	122.22136	29.1	33.3
16	130.32843	106.24731	24.08112	40.50822	36.58363	115.28915	122.91577	115.29239	122.95453	18.1	20.6
17	138.26921	113.50006	24.76915	41.70892	37.79398	12.38636	109.23073	12.43565	109.20451	21.6	24.6
18	180.69731	155.55682	25.14049	47.69966	44.26048	27.35342	108.37421	27.35136	108.42172	39.0	46.0
19	164.21893	137.53819	26.68074	45.51511	41.61908	42.01965	108.13869	42.00031	108.07614	32.6	37.3
20	221.85866	192.66614	29.19252	53.05151	49.46896	57.25764	110.30861	57.31857	110.35951	54.6	63.1
21	153.23433	126.77783	26.45650	44.26521	40.30498	71.68826	108.73703	71.72992	108.74742	29.0	32.9
22	217.59351	189.36182	28.23169	52.48656	48.95470	85.96463	108.40752	85.98671	108.42874	53.0	61.4
23	142.42026	117.01019	25.41006	42.52994	38.60085	100.23048	107.91153	100.24542	107.87395	23.9	27.3
24	187.29416	161.42537	25.86879	48.57195	45.10564	113.76942	108.31250	113.74568	108.28888	41.6	48.8
25	136.86597	111.30463	25.56134	41.50673	37.46507	13.40792	94.58409	13.40456	94.61665	21.0	23.6
26	179.80756	153.62814	26.17941	47.64413	44.04417	27.53194	93.58832	27.59793	93.60275	38.9	45.3
27	194.96786	167.40886	27.55901	49.56648	45.91949	43.35715	93.18353	43.32297	93.23268	44.5	51.4
28	173.14458	145.49243	27.65215	46.83905	42.96289	58.54063	95.39436	58.57217	95.43832	36.5	41.7
29	158.56277	132.20639	26.35638	44.71097	40.80782	72.98224	94.45952	73.01195	94.49052	30.3	34.6
30	163.94395	137.10573	26.83823	45.44765	41.55992	87.06470	93.01125	87.07399	92.97310	32.5	37.1
31	153.02974	127.19603	25.83371	43.95410	40.05919	100.59676	93.21178	100.55069	93.19583	28.1	32.1
32	159.90303	134.60419	25.29884	44.87874	41.18030	114.28381	93.11052	114.23941	93.09848	30.8	35.8
33	157.31573	130.90343	26.41231	44.49435	40.60735	13.72907	79.66103	13.78616	79.68738	29.7	33.9
34	160.59010	135.20435	25.38576	44.97992	41.27826	27.89407	79.07599	27.91483	79.05261	31.1	36.1
35	155.71237	129.41090	26.30147	44.29868	40.36441	43.34874	78.22572	43.33414	78.22894	29.1	33.1
36	161.19156	134.43668	26.75488	45.14386	41.21906	57.23418	8 .04239	57.22328	80.98817	31.6	35.9
37	172.91600	145.87405	27.04195	46.68010	42.87149	71.88786	80.50681	71.86998	80.55360	36.0	41.4
38	169.01706	142.72316	26.29390	46.11505	42.38507	86.34630	78.32806	86.38823	78.30733	34.4	39.8
39	164.08830	138.15935	25.92896	45.45222	41.69748	100.98656	78.84679	100.97345	78.84988	32.5	37.5
40	126.34258	101.87485	24.46773	39.85876	35.80174	114.65936	77.82126	114.67416	77.79816	16.2	18.1
41	141.72453	116.67929	25.04524	42.24152	38.33621	13.77936	65.11839	13.79983	65.10870	23.1	26.4
42	161.25497	136.52068	24.73430	45.03560	41.44249	27.44109	63.96974	27.43848	63.92067	31.3	36.7
43	156.82428	133.47046	23.35382	44.46677	40.97389	41.74060	63.79488	41.76108	63.83116	29.6	35.1
44	160.48808	136.18759	24.30049	44.99023	41.44411	55.71428	65.65399	55.74342	65.67734	31.1	36.7
45	239.23099	213.53099	25.70000	55.23734	52.25403	71.17284	65.20053	71.27971	65.17023	61.0	72.3
46	204.87076	180.59499	24.27577	51.07915	47.99519	86.40318	62.42439	86.44319	62.34172	48.9	58.3
47	168.12149	145.08423	23.03726	46.02708	42.74590	100.84154	63.97856	100.85980	63.97485	34.1	41.0
48	128.70630	106.34572	22.36058	40.22073	36.56512	114.76491	63.48961	114.75105	63.47542	17.2	20.6
49	117.78510	95.74654	22.03856	38.48923	34.70515	13.23837	50.85835	13.22419	50.84961	12.2	14.5
50	147.25407	125.24562	22.00845	43.05801	39.69121	26.41545	49.90257	26.38094	49.87779	25.5	30.9
51	189.07286	162.97475	26.09811	48.82857	45.32982	40.85223	49.33519	40.88345	49.24516	42.3	49.5
52	231.14977	203.30534	27.84442	55.99123	52.76314	56.58221	50.02837	56.55067	49.93864	63.2	74.0
53	150.24417	125.04057	25.20360	43.54936	39.70795	71.80278	50.27641	71.84442	50.27940	26.9	31.0
54	160.02240	134.73459	25.28781	44.88593	41.17397	85.36070	46.83472	85.35959	46.85327	30.8	35.8
55	149.86136	124.44135	25.42001	43.52438	39.66489	99.63066	49.97145	99.67119	50.02448	26.8	30.8
56	171.08041	145.22113	25.85928	46.42244	42.74350	114.20918	49.18303	114.19051	49.17970	35.3	41.0
57	128.09402	104.21822	23.87581	40.14606	36.21924	13.43032	37.36143	13.44391	37.38683	17.0	19.4
58	135.78078	111.54008	24.24069	41.35722	37.46883	27.06879	35.80359	27.07671	35.82899	20.5	23.6

59	147.15205	122.40703	24.74503	43.04671	39.26071	41.66354	35.04439	41.71190	35.03140	25.5	29.5
60	187.88297	160.85931	27.02365	48.62286	45.00516	56.41785	35.27600	56.44748	35.31874	41.7	48.4
61	193.01938	166.34985	26.66953	49.37682	45.85193	71.88007	35.87885	71.89662	35.84747	43.9	51.2
62	92.92659	70.18504	22.74155	34.20398	29.72501	84.82973	32.90379	84.82079	32.89963	-0.3	-2.0
63	200.86476	174.39612	26.46864	50.38518	46.96765	99.92189	35.29076	99.91853	35.30745	46.8	54.9
64	152.66431	127.98227	24.68204	43.86307	40.13591	114.14789	34.93051	114.11926	34.98038	27.8	32.4

[redacted] D 4 [redacted]

TABLE C-25. GEOMETRIC PARAMETERS OF B-5 SECTION AT 33.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	134.90105	111.16580	23.73524	41.22276	37.43973	14.15150	138.00186	14.16242	137.98360	20.1	23.5
2	148.80205	126.88202	21.92003	43.35001	40.03841	27.94435	138.10063	27.91853	138.08511	26.3	32.0
3	141.16348	117.62750	23.53598	42.16016	38.48036	43.85983	137.40456	43.86929	137.34047	22.9	26.9
4	138.24129	113.42377	24.81752	41.71100	37.81213	57.65671	137.00172	57.64644	136.98296	21.6	24.7
5	152.59602	126.64932	25.94670	43.84132	39.94250	72.91823	136.18433	72.89011	136.19196	27.8	31.7
6	143.55070	117.78848	25.76222	42.53258	38.51779	87.23387	136.49388	87.24167	136.45293	24.0	27.0
7	143.13863	120.09967	23.03896	42.42568	38.85573	102.33365	136.58014	102.34557	136.55722	23.6	28.1
8	125.83025	102.90427	22.92598	39.78438	35.97223	115.24211	135.46381	115.21968	135.44136	15.9	18.6
9	210.11914	184.03937	26.07977	51.67014	48.40266	14.26228	123.83751	14.32744	123.84698	50.6	59.6
10	183.64981	158.00003	25.64978	48.57079	45.10655	28.66483	123.82162	28.71359	123.81241	41.6	48.8
11	247.73094	220.90218	26.82877	52.83731	50.17622	42.89717	123.10912	42.70770	123.16217	54.0	65.5
12	153.96153	128.66919	25.29234	44.05991	40.28754	59.09543	124.10181	59.11848	124.09886	28.4	32.9
13	155.08864	129.34518	25.74345	44.20869	40.36400	72.99387	122.65294	73.02960	122.61716	28.8	33.1
14	174.72037	150.37589	24.34448	46.93597	43.54858	87.59679	122.85669	87.66313	122.88647	36.8	43.6
15	157.67548	134.06358	23.61189	44.57838	41.12209	102.04958	122.20549	102.06702	122.20880	29.9	35.6
16	128.73167	104.90736	23.82431	40.25627	36.34401	115.15585	122.92986	115.18105	122.94963	17.3	19.9
17	180.41594	155.77202	24.64392	47.69707	44.33017	12.68524	108.54073	12.77311	108.50710	39.0	46.2
18	189.48268	167.07076	22.41193	49.23500	46.26749	27.32751	107.80272	27.39444	107.87596	43.5	52.6
19	179.86774	155.38023	24.48750	47.61353	44.25641	42.21114	107.47502	42.22252	107.42628	38.8	46.0
20	189.02138	164.47104	24.55034	48.83658	45.51036	57.17796	109.76044	57.22935	109.82408	42.3	50.1
21	161.58537	137.49831	24.08707	45.22232	41.70641	71.71367	108.54123	71.77985	108.55553	31.8	37.5
22	208.88618	184.01302	24.87317	51.40500	48.23274	86.20384	107.86780	86.23758	107.87567	49.8	59.1
23	149.14919	124.98871	24.16048	43.73389	40.06415	100.30879	107.65495	100.33675	107.63947	27.5	32.1
24	216.70021	193.07382	23.62639	52.37505	49.42358	114.07370	108.31519	114.05673	108.28406	52.6	63.0
25	147.52060	126.49458	21.02602	43.09001	39.90085	13.35397	93.94937	13.38163	93.98837	25.6	31.6
26	159.39331	136.80731	22.58600	44.82787	41.54723	27.49414	92.76398	27.55627	92.76567	30.6	37.0
27	195.37921	171.61829	23.76093	49.65126	46.53566	43.27573	92.43333	43.21864	92.47028	44.7	53.5
28	162.11232	136.88281	25.22951	45.20813	41.54604	58.22862	95.28323	58.26825	95.32687	31.8	37.0
29	174.25127	148.19778	26.05348	46.96500	43.28265	72.82237	94.18831	72.84727	94.22632	36.9	42.7
30	155.51114	131.32135	24.18979	44.31017	40.66969	87.19000	92.74889	87.18060	92.73903	29.1	34.1
31	149.64102	125.33084	24.31018	43.49219	39.78026	100.56767	92.92456	100.51157	92.92325	26.8	31.2
32	174.73956	151.53340	23.20616	46.89937	43.66629	114.55923	92.79128	114.53726	92.77284	36.7	44.0
33	153.79034	130.31262	23.47772	44.00249	40.51450	13.49679	78.99423	13.52967	79.03413	28.2	33.6
34	162.16747	138.42426	23.74321	45.17923	41.74364	27.64110	78.55606	27.66118	78.58049	31.7	37.7
35	161.44151	137.87947	23.56204	45.08490	41.65134	42.26790	77.70015	42.25269	77.75449	31.4	37.4
36	207.18776	180.68536	26.50240	51.47987	48.09126	57.03593	80.36978	56.99815	80.32904	50.0	58.6
37	172.56142	146.31059	26.25082	46.70961	42.95874	72.17633	79.86165	72.15611	79.91209	36.1	41.7
38	179.41220	156.05269	23.35951	47.58141	44.38174	86.54997	77.80072	86.57170	77.79750	38.7	46.4
39	155.42943	130.03510	25.39433	44.26064	40.51689	100.99971	78.32993	101.02103	78.35194	29.0	33.6
40	145.28958	121.66109	23.62849	42.76683	39.14995	114.97321	77.40973	115.01704	77.43674	24.6	29.1
41	137.06654	113.58636	23.48018	41.57951	37.85393	13.66165	64.67740	13.66910	64.71216	21.2	24.8
42	159.92352	135.85991	24.06361	44.87335	41.36655	27.25198	63.80098	27.27759	63.78725	30.8	36.4
43	160.12065	135.74870	24.37195	44.94031	41.37738	41.42551	63.39268	41.48720	63.44269	31.0	36.5
44	168.37395	143.15520	25.21875	46.07147	42.48343	55.57945	65.12584	55.66286	65.11763	34.3	40.1
45	195.69554	170.41370	25.28185	49.68408	46.36273	70.69992	65.05414	70.77777	65.03799	44.8	52.9
46	222.61391	197.00546	25.60844	53.24995	50.10529	85.91037	61.42944	85.98849	61.38608	55.2	65.2
47	173.50194	148.62398	24.87796	46.81033	43.29068	100.86728	63.61111	100.92503	63.63441	36.4	42.8
48	137.21394	113.49545	23.71849	41.56982	37.86127	115.14035	62.68254	115.12453	62.66161	21.2	24.9
49	130.14630	106.89265	23.25365	40.51373	36.72992	12.92016	50.50859	12.92588	50.51970	18.1	21.1
50	159.35590	137.07869	22.27721	44.82045	41.56017	26.14218	49.54854	26.10760	49.55304	30.6	37.1
51	179.04570	154.69371	24.35199	47.54836	44.21240	40.68610	49.17358	40.76503	49.11774	38.6	45.8
52	193.67964	169.78777	23.89188	57.45195	55.68626	56.62367	50.95782	56.57205	50.91640	67.4	83.6
53	152.01009	127.81496	24.19513	43.75421	40.13031	72.05641	50.72546	72.12985	50.71205	27.5	32.3
54	152.55014	129.29796	23.25218	44.20898	40.74706	85.43694	46.27165	85.42957	46.29272	28.8	34.4
55	165.03236	141.59438	23.43799	47.10413	43.83292	100.17430	49.86159	100.22267	49.92973	37.3	44.6
56	141.23962	119.13585	22.10378	42.18924	38.74136	114.95390	48.11728	114.94690	48.14005	23.0	27.8
57	144.73918	121.93718	22.80200	42.78526	39.22986	13.29507	36.72845	13.30182	36.74547	24.7	29.4
58	169.90425	145.23520	24.66905	46.33688	42.85500	27.05354	34.89015	27.06818	34.94025	35.0	41.3

59	183.26054	159.66342	23.59712	48.68974	45.54855	41.33009	34.18452	41.35619	34.20007	41.9	50.2
60	296.16333	270.25122	25.91211	61.14729	58.65994	56.97920	35.36282	57.08414	35.46942	78.2	93.5
61	197.76140	173.49339	24.26801	64.02632	60.89954	72.85762	35.30849	72.94334	35.32068	86.6	100.8
62	93.95479	71.60643	22.34836	34.37900	30.02475	85.09618	31.89059	85.10364	31.86629	0.2	-1.0
63	354.08447	329.72925	24.35522	60.50854	58.25209	98.66962	34.64671	98.55052	34.69600	76.3	92.1
64	139.61127	116.21634	23.39493	41.91823	38.25615	115.20512	34.24768	115.17494	34.30312	22.2	26.2

[redacted] F 4 [redacted]

TABLE C-26. GEOMETRIC PARAMETERS OF B-5 SECTION AT 35.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	128.24915	106.26854	21.98061	40.18515	36.57774	14.43243	138.09085	14.46050	138.04228	17.1	20.6
2	148.47580	125.91730	22.55850	43.42345	40.00386	28.48894	138.00105	28.48059	137.98917	26.6	31.9
3	148.52841	126.46866	22.05975	43.26299	39.92058	44.04451	137.22325	44.06047	137.18466	26.1	31.7
4	142.20099	119.83591	22.36508	42.33449	38.86646	57.76038	136.92561	57.76114	136.92978	23.4	28.2
5	164.75822	141.50116	23.25706	45.57465	42.25932	72.97049	136.06932	72.90855	136.07007	32.8	39.4
6	150.51074	127.77254	22.73820	43.56189	40.13022	87.34396	136.49132	87.36874	136.45451	27.0	32.3
7	139.82097	117.86931	21.95166	41.94400	38.50679	102.45534	136.79718	102.46629	136.77177	22.2	27.0
8	124.83711	101.98656	22.85056	39.64346	35.83636	115.35927	135.48915	115.35374	135.50450	15.5	18.2
9	223.71828	200.44899	23.26929	53.55647	50.82817	14.88257	123.85817	14.99060	123.86571	56.1	67.6
10	191.02217	167.92906	23.09311	50.05672	47.05605	29.42963	123.71068	29.51427	123.74001	45.9	55.2
11	200.18629	176.32034	23.86595	50.49304	47.43813	44.12520	122.97684	44.02147	123.01152	47.2	56.4
12	159.58267	136.59901	22.98366	44.86975	41.53662	59.36980	123.75450	59.38161	123.76390	30.8	37.0
13	149.47243	127.19949	22.27293	43.39532	40.02509	73.31592	122.40230	73.35954	122.37941	26.5	32.0
14	184.16110	160.91861	23.24249	48.22812	45.08099	87.96275	122.62807	88.02246	122.63560	40.6	48.7
15	147.74194	125.31815	22.42380	43.12416	39.71581	102.39917	122.17928	102.42198	122.12299	25.7	31.0
16	127.41737	104.72002	22.69736	40.02777	36.30106	115.48682	122.93611	115.49783	122.95152	16.7	19.7
17	197.16281	173.87268	23.29013	49.90005	46.88847	13.37915	108.24735	13.48476	108.19171	45.4	54.6
18	207.28146	183.23647	24.04500	53.18808	50.24500	27.99765	107.59698	28.00711	107.61745	55.0	65.7
19	204.78896	182.57651	22.21245	50.96146	48.14137	42.65860	107.26692	42.61679	107.20338	48.5	58.8
20	180.17691	158.43887	21.73804	47.71878	44.71094	57.68050	109.54488	57.72136	109.61810	39.1	47.5
21	154.23296	133.38567	20.84729	44.07619	40.98210	71.99921	108.57974	72.03259	108.58704	28.5	35.2
22	181.82234	158.99532	22.82703	47.85249	44.74504	86.43571	107.84436	86.47794	107.83774	39.5	47.6
23	157.96370	134.65233	23.31137	44.77898	41.38525	100.57143	107.77200	100.61848	107.77103	30.5	36.5
24	203.70009	180.57300	23.12709	50.79955	47.83922	114.74504	108.75060	114.71271	108.72508	48.1	57.8
25	149.10439	126.19472	22.90967	43.32733	39.85663	13.90265	93.63153	13.93326	93.67313	26.3	31.4
26	159.67638	137.17299	22.50339	44.93037	41.68732	28.09352	92.43845	28.15602	92.46068	30.9	37.5
27	185.61043	162.28613	23.32430	48.50385	45.36775	43.63077	92.02328	43.57547	92.08270	41.4	49.6
28	157.19910	134.08994	23.10916	44.56914	41.13586	58.26685	95.24561	58.27438	95.30418	29.9	35.7
29	179.54095	156.70885	22.83211	47.61497	44.49500	72.83232	94.33450	72.86345	94.32341	38.8	46.7
30	161.81537	138.83372	22.98164	45.15668	41.83466	87.34425	93.07971	87.32018	93.04323	31.6	38.0
31	147.23204	124.86595	22.36609	43.25243	39.83842	100.58882	93.09642	100.53139	93.07860	26.1	31.4
32	216.85573	193.87445	22.98128	52.44740	49.60591	114.64163	92.90404	114.52602	92.82640	52.9	63.6
33	153.21448	130.15111	23.06337	43.91875	40.49315	13.80524	78.82314	13.85820	78.86008	28.0	33.5
34	159.83881	137.63597	22.20284	44.86679	41.64474	27.79138	78.54288	27.81001	78.51987	30.8	37.3
35	166.77182	144.58994	22.18188	45.86752	42.68309	41.93491	77.64520	41.91162	77.67215	33.7	40.8
36	221.80513	196.70421	25.10092	57.11160	55.01990	57.19240	80.69325	57.17291	80.66414	66.4	81.4
37	170.63937	147.92375	22.71562	46.40096	43.16791	72.43852	79.67236	72.41444	79.76212	35.2	42.4
38	192.51990	169.20377	23.31613	49.44553	46.33347	86.82021	77.64102	86.84038	77.63770	44.1	52.8
39	151.54248	128.68376	22.85872	43.73944	40.32451	100.95273	78.24910	100.95959	78.24387	27.5	33.0
40	193.07321	168.74719	24.32602	49.43541	46.26115	115.34796	77.45973	115.33740	77.45157	44.1	52.6
41	143.14120	119.48097	23.66023	42.44720	38.78131	14.20591	64.77803	14.21975	64.79353	23.7	27.9
42	152.30595	129.20229	23.10367	43.78662	40.33647	27.69090	63.99680	27.70229	63.99472	27.6	33.0
43	150.67844	127.99001	22.68843	43.62508	40.21010	41.69020	63.49951	41.70148	63.56039	27.1	32.6
44	182.06126	159.38393	22.67734	47.90784	44.82478	55.81270	64.92102	55.86229	64.96982	39.6	47.8
45	177.22810	154.25125	22.97685	47.27977	44.07193	70.80049	65.02948	70.84955	65.03160	37.8	45.3
46	221.14497	197.45238	23.69260	53.01111	50.10583	85.94705	61.17805	85.98413	61.09039	54.5	65.2
47	166.24303	143.11102	23.13200	45.84573	42.53455	100.95454	63.60373	100.97873	63.60638	33.6	40.3
48	188.10823	164.63863	23.46960	48.69221	45.55367	115.14857	62.28581	115.08994	62.27794	41.9	50.2
49	138.28535	115.04486	23.24049	41.74265	38.06493	13.42187	50.75076	13.42077	50.76492	21.7	25.5
50	166.13797	143.63399	22.48398	45.78493	42.58740	26.67328	49.65283	26.67133	49.64516	33.4	40.4
51	174.97606	151.17963	23.79643	47.01387	43.66142	41.24599	49.36708	41.26009	49.33311	37.0	44.0
52	211.05589	187.31876	23.73714	52.52301	49.61600	56.87073	49.60492	56.79552	49.51834	53.1	63.6
53	153.38307	129.67358	23.70949	44.00348	40.40927	72.38657	50.89117	72.45203	50.89828	28.2	33.3
54	160.62383	137.78922	22.83461	45.17841	41.87889	85.76913	46.42789	85.74655	46.46252	31.7	38.1
55	171.61163	148.39790	23.21373	48.00993	44.88406	100.54013	50.17018	100.55911	50.20277	39.9	48.0
56	138.01425	114.75185	23.26241	41.68576	38.03062	115.29634	48.11186	115.30116	48.14236	21.5	25.4
57	153.12773	129.61382	23.51392	43.90912	40.40343	14.12291	37.13371	14.10187	37.16220	28.0	33.2
58	163.14160	138.31586	24.82574	45.34512	41.74348	27.84172	35.21838	27.83781	35.26201	32.2	37.7

59	176.17833	151.42703	24.75130	47.13158	43.68011	42.10059	34.68098	42.12970	34.69017	37.4	44.1
60	200.53728	175.07396	25.46332	50.41478	47.09520	56.90436	34.87538	56.95276	34.92648	46.9	55.3
61	237.45370	211.29909	26.15462	60.39137	57.66029	72.21681	35.98055	72.24712	36.02385	76.0	90.2
62	94.22878	71.15771	23.07106	34.45476	29.93193	85.47252	32.28297	85.48836	32.29930	0.4	-1.3
63	349.57764	324.00635	25.57129	59.49318	57.16144	99.36089	34.92430	99.24048	34.95671	73.4	88.5
64	121.50522	98.30479	23.20042	39.14427	35.17569	115.84351	34.75867	115.78146	34.80806	14.1	16.0

[redacted] H 4 [redacted]

TABLE C-27. GEOMETRIC PARAMETERS OF B-5 SECTION AT 37.1 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	117.98332	96.75612	21.22720	38.53264	34.88812	14.43203	137.82875	14.45326	137.82185	12.3	15.1
2	144.24831	123.46544	20.78287	42.70500	39.50891	28.58125	137.76321	28.57304	137.75514	24.5	30.3
3	145.15068	124.12375	21.02693	42.78625	39.55760	43.80499	136.94952	43.81767	136.87296	24.7	30.5
4	138.80110	117.64497	21.15613	41.82574	38.50873	57.57272	136.70689	57.58450	136.71834	21.9	27.0
5	163.25476	141.47154	21.78322	45.35574	42.23224	72.72574	135.84016	72.69762	135.82294	32.2	39.3
6	148.37236	126.00740	22.36496	43.22710	39.83823	87.05547	136.32237	87.07172	136.27844	26.0	31.4
7	135.38062	113.43274	21.94788	41.27357	37.77576	102.22884	136.71925	102.22279	136.69653	20.3	24.6
8	125.04185	103.42352	21.61833	39.66173	36.08051	115.09050	135.41704	115.04980	135.38322	15.6	19.0
9	171.38417	148.51260	22.87157	46.48924	43.30025	14.39770	123.58719	14.46871	123.56819	35.5	42.8
10	196.45479	174.07925	22.37553	49.95856	47.02063	29.13518	123.50969	29.18907	123.53680	45.6	55.1
11	189.99532	167.29507	22.70024	49.07732	46.04482	44.00218	122.89534	43.93272	122.91170	43.0	51.8
12	160.43405	137.96269	22.47136	44.99988	41.70468	59.05202	123.47697	59.07472	123.47240	31.1	37.5
13	145.29854	124.17351	21.12503	42.76445	39.55997	73.11717	122.14418	73.14217	122.15324	24.6	30.5
14	180.29193	158.43973	21.85220	47.70000	44.70958	87.67125	122.35817	87.74025	122.39230	39.0	47.4
15	142.03702	119.91951	22.11751	42.26717	38.84979	102.07877	121.96939	102.08356	121.95543	23.2	28.1
16	122.07085	99.67262	22.39822	39.18826	35.41005	115.19286	122.75891	115.16672	122.74153	14.2	16.8
17	176.79587	153.02794	23.76793	47.21754	43.93488	13.34923	108.32616	13.39793	108.27953	37.6	44.9
18	186.03369	164.21117	21.82253	48.95677	46.09668	27.66959	107.56541	27.69493	107.60086	42.7	52.0
19	225.30927	202.61870	22.69057	53.63354	50.89694	42.38008	106.97038	42.33609	106.88867	56.3	67.9
20	175.67528	154.59503	21.08025	47.06198	44.14491	57.66013	109.23775	57.67448	109.30165	37.2	45.6
21	145.54903	123.05698	22.49205	42.81660	39.34988	71.75035	108.53658	71.80579	108.53616	24.8	29.8
22	167.84843	146.31728	21.53116	45.98138	42.91510	86.14520	107.81601	86.18030	107.78610	34.0	41.5
23	155.15640	132.18954	22.96686	44.21994	40.81400	100.53708	107.74806	100.55511	107.71149	28.9	34.6
24	175.79805	152.87154	22.92651	47.09637	43.91205	114.69469	108.89461	114.69365	108.86984	37.3	44.8
25	140.78214	118.63475	22.14738	42.08372	38.64787	14.03202	93.47562	14.04413	93.51616	22.6	27.5
26	156.04570	133.73138	22.31432	44.35828	41.07216	28.23930	92.51080	28.26079	92.54231	29.3	35.4
27	181.03860	159.00362	22.03499	47.94214	44.95531	43.50385	91.74960	43.42548	91.77811	39.7	48.3
28	149.94724	128.32733	21.61990	43.45407	40.21945	57.90332	95.03165	57.89392	95.05911	26.6	32.6
29	176.31900	154.07536	22.24364	47.13521	44.10318	72.30450	94.43294	72.31409	94.41371	37.4	45.4
30	169.30074	147.83220	21.46854	46.19098	43.15956	86.87685	93.13258	86.87566	93.10666	34.6	42.3
31	145.17871	123.04549	22.13322	43.32074	40.02310	100.12685	93.25006	100.05225	93.24040	26.3	32.0
32	260.50244	237.68143	22.82101	55.28654	53.13678	113.60028	92.51019	113.47133	92.41519	61.1	75.2
33	140.58609	118.13515	22.45094	42.07672	38.56003	13.92213	78.82864	13.96132	78.85248	22.6	27.2
34	153.41841	130.76222	22.65619	43.95575	40.58633	27.71758	78.71082	27.75943	78.68677	28.1	33.8
35	157.93889	136.42055	21.51834	44.61243	41.45132	41.50266	77.69594	41.47386	77.69025	30.0	36.7
36	209.51215	186.71703	22.79512	51.67754	48.78525	56.37721	80.19162	56.32607	80.16693	50.6	60.9
37	182.75079	160.62325	22.12755	48.03059	45.05666	71.89072	79.73082	71.88681	79.80971	40.0	48.6
38	187.47070	164.93434	22.53636	48.84027	45.85081	86.29929	77.41325	86.33864	77.42686	42.3	51.2
39	157.16960	134.90681	22.26279	44.62497	41.36115	100.35345	78.10133	100.33539	78.08029	30.1	36.4
40	202.52718	178.28053	24.24664	51.98225	48.88724	115.08616	77.33629	115.08923	77.30420	51.5	61.2
41	131.70360	108.87222	22.83138	40.72150	37.03467	14.25566	64.88179	14.29525	64.87691	18.7	22.1
42	144.94902	122.14319	22.80583	42.73148	39.21741	27.63618	64.26451	27.65297	64.24637	24.5	29.3
43	143.80489	121.18782	22.61707	42.57883	39.10204	41.52599	63.73274	41.53563	63.77489	24.1	29.0
44	174.22961	149.75427	24.47534	46.84023	43.42555	55.56943	64.74110	55.62120	64.74432	36.5	43.2
45	176.60176	152.18668	24.41508	47.15570	43.78720	70.35614	64.88783	70.42209	64.87387	37.4	44.4
46	213.17636	188.72435	24.45201	51.91394	48.86713	85.47591	61.16878	85.50836	61.09317	51.3	61.2
47	157.08751	133.86020	23.22731	44.53629	41.11162	100.39546	63.51459	100.42206	63.50160	29.8	35.6
48	196.13681	172.05225	24.08456	49.70984	46.55780	114.57541	62.15590	114.52510	62.15521	44.9	53.5
49	129.98984	106.03773	23.95210	40.44704	36.53107	13.50845	51.01485	13.51300	51.00665	17.9	20.5
50	160.02835	136.90588	23.12247	44.88327	41.52521	26.69199	49.80910	26.64136	49.78584	30.8	36.9
51	177.68452	153.45570	24.22882	47.27330	43.92342	41.29356	49.46237	41.29552	49.40210	37.8	44.9
52	179.03250	155.25607	23.77643	47.47731	44.20976	56.69400	49.43153	56.64272	49.38075	38.4	45.8
53	149.26820	126.56506	22.70314	43.33209	39.89423	71.95886	50.78313	72.04025	50.78421	26.3	31.6
54	171.00789	147.39220	23.61569	46.39136	43.05995	85.48575	46.25905	85.46217	46.27254	35.2	42.0
55	173.65218	150.39046	23.26172	47.07727	43.86952	100.30392	49.83398	100.33502	49.87315	37.2	44.7
56	126.78665	104.01891	22.76775	39.92596	36.17651	114.85219	47.94603	114.87115	47.95644	16.4	19.3
57	155.65454	132.51045	23.14409	44.27010	40.84019	14.21066	37.34436	14.21470	37.35379	29.0	34.7
58	147.39247	123.93924	23.45323	43.06947	39.50586	27.89255	35.19519	27.83852	35.25256	25.5	30.3

59	140.05257	117.88492	22.16765	41.99899	38.51604	41.98824	34.76480	42.02716	34.78360	22.4	27.0
60	145.53564	122.23145	23.30420	42.81573	39.21954	56.66608	34.80176	56.68613	34.81889	24.8	29.3
61	157.23514	134.83852	22.39662	44.49417	41.18770	72.14415	35.15701	72.15897	35.17671	29.7	35.8
62	92.39111	70.98894	21.40218	34.09236	29.88683	85.21495	32.59909	85.22154	32.60994	-0.6	-1.4
63	201.59763	175.66666	25.93097	50.37891	47.01280	100.99541	34.93169	101.01471	34.99194	46.8	55.0
64	119.83264	96.30516	23.52748	38.83231	34.81223	115.37650	34.99910	115.36578	35.00569	13.2	14.8

TABLE C-28. GEOMETRIC PARAMETERS OF B-5 SECTION AT 39.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	118.09500	93.27303	24.82198	38.55426	34.25449	12.06107	137.61617	12.11242	137.59174	12.4	13.0
2	135.78381	110.23332	25.55049	41.34564	37.24875	26.34882	137.59854	26.32852	137.58247	20.5	22.8
3	131.36511	107.06171	24.30341	40.65816	36.69273	41.22472	136.88751	41.24582	136.82019	18.5	21.0
4	128.57770	103.92793	24.64977	40.24138	36.16074	55.20160	136.76540	55.20416	136.77763	17.3	19.3
5	140.91815	116.14159	24.77657	42.12338	38.24226	70.32138	136.06544	70.29968	136.04680	22.8	26.1
6	129.71315	104.94012	24.77303	40.39418	36.33530	84.62320	136.55846	84.66368	136.53458	17.7	19.8
7	125.86920	100.89818	24.97102	39.78876	35.63490	99.87686	136.99722	99.87997	136.96294	16.0	17.5
8	121.64465	97.26723	24.37743	39.13663	34.98479	112.78203	135.94786	112.76048	135.93214	14.1	15.4
9	151.42377	130.26820	21.15556	43.65143	40.48944	12.23550	123.55826	12.27229	123.57668	27.2	33.5
10	171.71849	149.16341	22.55508	46.49324	43.34445	26.82532	123.47198	26.87242	123.48650	35.5	42.9
11	173.62784	150.21452	23.41331	46.78981	43.49605	41.66730	123.02307	41.64687	123.03139	36.4	43.4
12	162.43361	140.08699	22.34662	45.23845	41.99667	56.50797	123.48470	56.56020	123.52620	31.8	38.5
13	144.68031	122.88225	21.79807	42.66595	39.33096	70.82843	122.28848	70.88501	122.27838	24.3	29.7
14	165.69032	143.72209	21.96823	45.66229	42.52505	85.38354	122.66496	85.43153	122.66048	33.1	40.2
15	144.76764	123.79568	20.97195	42.67451	39.47458	99.80186	122.23642	99.81868	122.23613	24.4	30.2
16	111.55261	90.55194	21.00067	37.46941	33.75832	112.91487	123.01213	112.89166	123.04245	9.2	11.3
17	167.09233	141.24855	25.84378	45.86436	42.19244	11.38486	108.32054	11.41623	108.25644	33.7	39.1
18	153.43736	128.15578	25.28159	44.23415	40.49969	25.26306	107.85085	25.28035	107.85254	28.9	33.6
19	264.72070	235.73279	28.98792	60.34279	57.01172	39.19353	106.44412	39.13393	106.33524	75.9	88.0
20	178.83488	152.19437	26.64052	47.45999	43.77977	55.38470	109.14362	55.40199	109.19275	38.3	44.4
21	141.92680	116.55685	25.36995	42.26877	38.28337	69.39235	108.73933	69.42831	108.75282	23.2	26.3
22	179.90361	153.22029	26.68332	47.59094	43.92029	83.86743	108.20126	83.88982	108.15236	38.7	44.8
23	152.31845	127.19519	25.12326	43.77188	39.99504	98.60567	108.19186	98.63597	108.17946	27.6	31.9
24	140.78671	115.63110	25.15561	42.08920	38.16725	112.73640	109.31413	112.72124	109.24348	22.7	25.9
25	133.54991	108.98628	24.56363	40.99222	37.02902	12.01231	93.31796	12.03635	93.32913	19.5	22.1
26	148.08307	122.39729	25.68578	43.16930	39.24834	26.23726	92.74335	26.26723	92.74477	25.8	29.4
27	176.53941	149.19687	27.34254	47.30426	43.51469	41.32916	91.67650	41.24579	91.68309	37.9	43.5
28	148.58586	121.25101	27.33485	43.24557	39.06296	55.50279	94.86082	55.51694	94.88635	26.0	28.8
29	171.67731	145.12076	26.55655	46.52975	42.76378	69.75453	94.83412	69.77263	94.79901	35.6	41.0
30	172.54242	146.11450	26.42792	46.60551	42.87946	84.39189	93.45509	84.36072	93.39827	35.8	41.4
31	157.89662	131.82191	26.07471	44.65495	40.83400	98.24690	93.80626	98.19772	93.75481	30.1	34.7
32	191.97719	165.91228	26.06491	49.19693	45.72769	112.58954	94.08029	112.50577	94.01662	43.4	50.8
33	122.86044	101.52925	21.33119	39.32054	35.75345	11.99822	78.81711	12.02520	78.84076	14.6	17.9
34	147.55920	125.78033	21.77887	43.10049	39.80157	25.71086	78.91272	25.77484	78.89380	25.6	31.3
35	145.41910	122.67894	22.74016	42.77216	39.28801	39.36447	77.78015	39.34543	77.81268	24.7	29.6
36	169.93327	147.46844	22.46483	46.27966	43.10803	54.15553	80.45428	54.11391	80.42422	34.9	42.2
37	199.90965	176.74681	23.16284	50.26334	47.27754	69.17464	80.19279	69.19403	80.25179	46.5	55.9
38	195.51469	174.35466	21.16003	50.07672	47.30458	83.90663	77.41635	83.91614	77.37524	45.9	56.0
39	182.33247	159.61566	22.71681	48.01004	44.92633	98.46539	78.41753	98.46547	78.41278	39.9	48.2
40	199.38437	177.82776	21.55661	50.17424	47.39394	113.27589	78.46098	113.31386	78.45604	46.2	56.3
41	120.54521	100.09424	20.45097	38.94537	35.49960	12.33070	64.78209	12.33284	64.78728	13.5	17.1
42	139.63538	117.49069	22.14468	41.90222	38.46301	25.70370	64.44754	25.71205	64.40947	22.1	26.8
43	136.17712	114.35634	21.82079	41.40053	37.91925	39.57031	64.05962	39.59001	64.06310	20.7	25.1
44	159.70172	137.37476	22.32697	44.82924	41.58524	53.48550	64.75322	53.54347	64.74597	30.7	37.1
45	182.99159	159.20766	23.78394	48.04102	44.79456	68.19998	64.91765	68.29643	64.88338	40.0	47.7
46	200.61403	178.50603	22.10800	50.26733	47.42790	83.27817	61.19984	83.29964	61.13263	46.5	56.4
47	156.09792	134.17615	21.92177	44.34813	41.08539	98.25592	63.67102	98.30083	63.64543	29.2	35.5
48	172.65894	150.24295	22.41599	46.60127	43.47293	112.65561	62.73256	112.60988	62.70695	35.8	43.4
49	122.43286	99.05817	23.37469	39.24709	35.30734	11.69970	50.98318	11.70610	50.97981	14.4	16.4
50	148.40616	126.77596	21.63020	43.19647	39.92935	25.02869	49.84970	25.00082	49.79842	25.9	31.7
51	177.27951	154.14377	23.13574	47.21025	44.02719	39.65495	49.52451	39.66316	49.45702	37.6	45.2
52	165.63576	142.07790	23.55786	45.63908	42.26770	54.53749	49.32137	54.46359	49.25919	33.0	39.4
53	146.35954	124.19524	22.16431	42.89915	39.51927	69.81410	50.79617	69.88161	50.78516	25.0	30.3
54	176.17984	153.32346	22.85638	47.10007	43.92070	83.72160	46.26427	83.72415	46.22441	37.3	44.8
55	157.84898	135.37682	22.47217	44.62183	41.33252	98.24741	49.97780	98.27806	49.98227	30.0	36.3
56	119.63637	97.95699	21.67938	38.78325	35.09700	113.02977	48.03123	113.03064	48.03107	13.0	15.7
57	148.87401	126.33292	22.54109	43.28181	39.85625	12.44883	37.27480	12.44681	37.29500	26.1	31.4
58	150.52443	127.73074	22.79369	43.51685	40.07925	26.20723	35.17400	26.15251	35.17218	26.8	32.2

59	128.08325	107.93135	20.15190	40.13051	36.85185	39.78018	35.68860	39.80405	35.68100	17.0	21.5
60	122.72581	102.30937	20.41644	39.29175	35.88382	54.36584	35.80836	54.37524	35.82095	14.5	18.3
61	125.85228	104.16765	21.68463	39.79259	36.21861	69.86470	35.67896	69.88127	35.68184	16.0	19.4
62	90.94550	70.64319	20.30231	33.83443	29.83034	82.73390	33.61095	82.73164	33.61113	-1.4	-1.6
63	151.08925	128.78117	22.30807	43.61575	40.24979	98.39554	35.79419	98.39723	35.82961	27.1	32.7
64	118.78664	98.03128	20.75536	38.66013	35.14027	112.57191	35.85303	112.53026	35.90703	12.7	15.9

[redacted] L 4 [redacted]

TABLE C-29. GEOMETRIC PARAMETERS OF B-5 SECTION AT 40.8 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	112.80478	92.58426	20.22052	37.68716	34.12680	14.66001	137.41650	14.70733	137.40364	9.8	12.5
2	128.91940	108.02573	20.89368	40.29866	36.87288	28.83383	137.26442	28.83052	137.29549	17.4	21.6
3	125.41258	104.61772	20.79486	39.71623	36.28146	43.46555	136.52016	43.50699	136.47508	15.7	19.7
4	124.14259	102.19348	21.94911	39.53922	35.86996	57.58440	136.51541	57.62558	136.51939	15.2	18.3
5	138.05405	117.05215	21.00189	41.68687	38.38150	72.58496	135.87236	72.56801	135.88930	21.5	26.6
6	127.92110	107.75496	20.16614	40.13158	36.81973	86.83772	136.34991	86.85165	136.33188	17.0	21.4
7	122.20287	102.36095	19.84192	39.21155	35.88771	102.05486	136.78183	102.04245	136.75282	14.3	18.4
8	119.06363	98.20866	20.85497	38.70631	35.15523	114.83322	135.86816	114.85013	135.86127	12.8	15.9
9	142.50204	118.33722	24.16483	42.34015	38.59308	14.77678	123.53090	14.78985	123.51900	23.4	27.3
10	160.11922	135.35243	24.76678	44.88832	41.27126	29.21223	123.32584	29.24741	123.31409	30.8	36.1
11	161.26559	136.37209	24.89351	45.05275	41.44716	43.81148	122.81828	43.78545	122.77951	31.3	36.7
12	171.79382	146.52544	25.26839	46.51994	42.96722	58.49536	123.21306	58.51808	123.21851	35.6	41.7
13	156.75638	131.26733	25.48904	44.41350	40.65019	72.98108	122.10094	73.00264	122.05942	29.4	34.1
14	160.97719	136.10141	24.87578	45.00433	41.39162	87.48119	122.53468	87.52832	122.53374	31.2	36.5
15	148.59236	124.43788	24.15448	43.22760	39.56407	101.69839	122.09058	101.71910	122.08766	26.0	30.5
16	118.50304	94.66853	23.83450	38.63023	34.51541	114.87311	122.79564	114.89218	122.76157	12.6	13.8
17	146.60454	121.94510	24.65944	42.94710	39.16605	13.96378	108.40704	13.97703	108.37419	25.2	29.2
18	141.97150	117.36447	24.60703	42.36569	38.54196	27.71216	108.18878	27.71133	108.17920	23.5	27.1
19	267.24536	242.96100	24.28436	54.32848	52.42871	41.20549	106.21767	41.08202	106.03267	58.3	72.9
20	179.45685	152.80409	26.65276	47.56863	43.87663	57.56331	108.84180	57.59125	108.89061	38.6	44.7
21	139.24902	114.20393	25.04509	41.85564	37.90143	71.47560	108.71230	71.52039	108.69704	22.0	25.0
22	191.53403	165.56465	25.96938	49.13335	45.68288	86.05777	108.16846	86.08406	108.11917	43.2	50.7
23	152.89642	127.63707	25.25935	43.86235	40.06607	101.19667	108.32114	101.20331	108.26630	27.8	32.1
24	134.42429	109.86372	24.56056	41.13385	37.19006	115.12036	109.19144	115.12477	109.16492	19.9	22.6
25	124.25803	99.77879	24.47923	39.53835	35.43396	14.46790	93.31560	14.44742	93.32645	15.2	16.9
26	137.82068	112.28618	25.53450	41.66498	37.58861	28.83246	93.06532	28.85831	93.03511	21.4	24.0
27	150.82643	133.92845	25.89798	44.89467	41.10588	43.75359	91.72816	43.69574	91.69496	30.8	35.6
28	145.64455	119.60150	26.04305	42.81747	38.81857	57.69571	94.67551	57.69154	94.67076	24.8	28.0
29	162.65434	136.80724	25.84711	45.24005	41.49425	71.67278	94.96399	71.68884	94.92749	31.8	36.8
30	171.16356	145.22536	25.93820	46.42365	42.75861	86.24304	93.36983	86.24359	93.29520	35.3	41.0
31	170.74240	144.80275	25.93965	46.35687	42.68434	100.70911	94.01628	100.67114	93.93176	35.1	40.8
32	137.27605	113.10445	24.17160	41.56894	37.74213	115.15723	94.39641	115.07056	94.29341	21.1	24.5
33	120.27917	98.48119	21.79799	38.89481	35.20508	14.49041	79.03069	14.51927	79.07426	13.4	16.1
34	134.60349	114.05489	20.54860	41.14847	37.88200	28.23090	79.25705	28.26035	79.22304	19.9	24.9
35	133.36795	111.67352	21.69443	40.97234	37.48058	41.78842	77.92198	41.77403	77.94206	19.4	23.6
36	151.41454	130.30493	21.10960	43.64386	40.48837	56.25290	80.39163	56.25156	80.37343	27.2	33.5
37	174.44803	152.73715	21.71088	46.85689	43.82735	71.04262	80.17348	71.04448	80.26180	36.6	44.5
38	201.57562	179.07634	22.49928	50.49126	47.59882	85.91313	77.12593	85.95386	77.08664	47.2	57.0
39	185.16124	164.32069	20.84055	48.29146	45.49519	101.17926	78.44182	101.20352	78.44086	40.7	50.0
40	159.11426	138.45590	20.65836	44.75316	41.76418	115.77310	78.99333	115.76988	78.98653	30.4	37.7
41	125.20912	101.04622	24.16290	39.68184	35.67036	14.71600	64.80443	14.74305	64.78575	15.6	17.6
42	136.43358	111.49167	24.94191	41.44467	37.45850	28.08601	64.70569	28.07576	64.65344	20.8	23.5
43	129.93092	104.93074	25.00018	40.42924	36.34433	41.94934	64.33910	41.95834	64.32750	17.8	19.9
44	159.44403	133.41182	26.03221	44.78873	40.99171	55.80098	64.89468	55.87503	64.89711	30.5	35.2
45	183.33292	156.76352	26.56940	48.03323	44.43024	70.42403	65.16660	70.49413	65.11028	40.0	46.5
46	198.94780	172.67912	26.26868	50.04691	46.62929	85.29164	61.10904	85.32039	61.04022	45.9	53.8
47	158.69791	133.97826	24.71965	44.70282	41.08952	100.25008	63.67145	100.29866	63.63515	30.3	35.5
48	152.89296	127.88429	25.00867	43.85966	40.13031	114.80380	63.25735	114.75812	63.19382	27.8	32.3
49	120.29668	100.00253	20.29414	38.90521	35.46320	14.30177	51.31548	14.28966	51.29222	13.4	17.0
50	147.58392	126.94534	20.63858	43.10544	39.96513	27.71303	50.20750	27.67416	50.17387	25.6	31.8
51	171.27704	148.91254	22.36450	46.41930	43.29320	42.22411	49.83890	42.25595	49.78790	35.3	42.8
52	159.60670	138.20448	21.40222	44.81467	41.69405	56.57724	49.57806	56.52278	49.50130	30.6	37.5
53	141.81491	120.81166	21.00325	42.24222	38.98251	71.79597	50.96085	71.84079	50.95850	23.1	28.6
54	175.78056	153.27913	22.50143	47.04898	43.93529	86.03810	46.36699	86.01132	46.33739	37.1	44.9
55	144.02132	122.74345	21.27786	42.56683	39.30049	100.28355	50.20326	100.29338	50.22719	24.1	29.6
56	123.36142	102.36790	20.99352	39.39346	35.89781	114.97543	48.27010	114.95302	48.29538	14.8	18.4
57	141.13591	117.89999	23.23592	42.14964	38.51389	14.89985	37.72527	14.90966	37.70514	22.8	27.0
58	164.38864	139.23834	25.15030	45.48294	41.84711	28.69360	35.71330	28.64684	35.73305	32.6	38.0

59	138.27490	113.94887	24.32603	41.69685	37.85970	42.65717	35.66254	42.69707	35.67619	21.5	24.9
60	137.63428	113.16617	24.46811	41.62939	37.74562	57.30930	35.65462	57.31985	35.65323	21.3	24.5
61	129.66570	105.40477	24.26093	40.39507	36.42235	72.81396	35.26828	72.83813	35.26195	17.7	20.1
62	93.98447	70.75487	23.22960	34.38841	29.84233	85.56100	33.52786	85.56413	33.50029	0.2	-1.6
63	154.73062	129.37729	25.35333	44.11238	40.34200	101.16864	35.65779	101.15097	35.66937	28.6	33.0
64	117.61301	93.20477	24.40823	38.46266	34.24390	115.11600	35.48149	115.10704	35.48648	12.1	12.9

[redacted] N 4 [redacted]

TABLE C-30. GEOMETRIC PARAMETERS OF B-5 SECTION AT 42.6 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	110.03667	88.60126	21.43541	37.20082	33.38550	14.49931	137.04300	14.53423	137.03975	8.4	10.1
2	134.02510	112.99751	21.02759	41.07402	37.71207	28.62656	136.76155	28.62830	136.76279	19.7	24.4
3	136.72783	115.44006	21.28777	41.48566	38.11131	43.20459	135.94464	43.21483	135.90886	20.9	25.7
4	132.08057	111.88290	20.19766	40.79320	37.52591	57.53734	135.98285	57.55426	135.99287	18.9	23.8
5	161.92116	139.70653	22.21463	45.15742	41.97356	72.43869	135.38026	72.44075	135.36195	31.6	38.4
6	142.31601	121.70969	20.60632	42.31157	39.13222	86.79063	135.85617	86.80821	135.84444	23.3	29.1
7	127.35646	106.44858	20.90788	40.03453	36.62013	102.02753	136.21733	102.02806	136.23174	16.7	20.8
8	118.06935	97.58113	20.48822	38.54089	35.04414	114.81966	135.45758	114.82396	135.44670	12.3	15.6
9	120.00972	98.50104	21.50868	38.86438	35.22281	14.69269	122.99792	14.71455	122.98657	13.3	16.2
10	150.82323	128.31860	22.50462	43.56210	40.34402	29.15485	122.79027	29.17703	122.81381	27.0	33.0
11	149.81537	128.42928	21.38609	43.42155	40.21463	43.61508	122.17313	43.58334	122.17891	26.5	32.6
12	169.72827	147.92560	21.80267	46.23476	43.16138	58.22583	122.45482	58.25536	122.44711	34.7	42.3
13	166.54855	143.79312	22.75543	45.79932	42.58023	72.97481	121.39001	73.01608	121.35547	33.5	40.4
14	159.14363	137.27274	21.87090	44.75258	41.57147	87.51846	121.98833	87.54608	122.01187	30.4	37.1
15	144.25473	122.10461	22.15012	42.61292	39.23390	101.59013	121.45517	101.61664	121.47215	24.2	29.4
16	123.47272	101.91580	21.55692	39.40131	35.81056	114.89342	121.99048	114.89590	122.00940	14.8	18.1
17	121.42570	98.93758	22.48813	39.07990	35.27435	13.83196	107.82368	13.85495	107.80637	13.9	16.3
18	137.00967	114.30522	22.70445	41.51709	37.92412	27.68335	107.81374	27.68625	107.79691	21.0	25.1
19	195.25270	172.36011	22.89259	49.58891	46.59627	42.32512	107.03616	42.26703	106.93971	44.5	53.7
20	170.29117	148.21132	22.07985	46.30609	43.18930	57.28596	107.97531	57.30984	108.04858	35.0	42.4
21	138.52061	115.79700	22.72362	41.77000	38.16345	71.19025	107.95195	71.21402	107.96259	21.7	25.9
22	195.10912	172.16656	22.94255	49.57857	46.57771	86.01038	107.49507	86.00945	107.42220	44.5	53.6
23	148.39214	126.61644	21.77570	43.20418	39.89827	101.55611	107.76866	101.54086	107.72797	25.9	31.6
24	155.30763	132.82835	22.47928	44.19403	40.86971	115.29280	108.20122	115.27353	108.18671	28.8	34.8
25	112.66679	90.50757	22.15923	37.64352	33.73811	14.32258	92.60974	14.33252	92.64134	9.7	11.3
26	127.19696	104.51782	22.67914	40.01161	36.26950	28.81897	92.68510	28.83827	92.70088	16.6	19.6
27	152.75648	129.90631	22.85017	43.82611	40.42125	43.60289	91.16869	43.55653	91.17294	27.7	33.3
28	141.58626	117.05453	24.53172	42.20416	38.37997	57.44073	93.78247	57.44945	93.78436	23.0	26.6
29	163.61166	137.39021	26.22145	45.36015	41.59636	71.33533	94.28111	71.38438	94.21895	32.2	37.2
30	173.12547	147.45415	25.67133	46.66704	43.06453	85.85869	92.56154	85.85944	92.48190	36.0	42.0
31	180.61487	155.00215	25.61272	47.67030	44.16826	100.98877	93.41052	100.92986	93.30743	38.9	45.7
32	134.78387	110.79321	23.99066	41.17526	37.34238	115.19528	93.47733	115.16188	93.45752	20.0	23.1
33	115.74423	93.48567	22.25856	38.16747	34.30896	14.23904	78.52283	14.25281	78.52396	11.2	13.1
34	128.18927	105.81128	22.37799	40.21031	36.50183	28.06978	78.74117	28.09592	78.68163	17.2	20.4
35	132.19144	110.41925	21.77219	40.78503	37.27605	41.66418	77.23341	41.65594	77.27649	18.9	22.9
36	147.45734	125.35764	22.09970	43.08832	39.71809	55.91107	79.48822	55.90695	79.49544	25.6	31.0
37	176.12450	152.10214	24.02235	47.08586	43.76221	70.53717	79.50967	70.55521	79.56816	37.2	44.3
38	195.64905	173.97070	21.67834	49.62112	46.80538	85.66022	75.96799	85.71645	75.93225	44.6	54.4
39	165.38857	143.37335	22.01521	45.60626	42.48276	101.33606	77.54340	101.33647	77.54298	32.9	40.1
40	140.99420	119.08989	21.90431	42.11534	38.72221	115.87328	78.52148	115.87729	78.50037	22.7	27.7
41	120.23030	95.43539	24.79491	38.89961	34.66049	14.39970	63.91449	14.42930	63.91498	13.4	14.3
42	135.07645	110.69704	24.37941	41.23280	37.31636	27.86646	63.99052	27.86642	63.93976	20.2	23.1
43	124.77951	99.22083	25.55869	39.61427	35.32843	41.78583	63.59454	41.81229	63.55710	15.5	16.5
44	152.11891	125.49196	26.62695	43.73854	39.73036	55.69350	64.16096	55.72536	64.13155	27.5	31.0
45	176.30493	150.08817	26.21677	47.10500	43.45915	70.28.88	64.56842	70.33037	64.50232	37.3	43.3
46	204.42253	177.58676	26.83577	50.74602	47.28674	85.12560	60.14543	85.15767	60.07558	47.9	55.9
47	160.94615	135.44765	25.49850	45.00264	41.27855	100.02499	62.78975	100.05724	62.71393	31.2	36.1
48	149.45947	124.74405	24.71542	43.35625	39.63063	114.94995	62.80101	114.90434	62.73517	26.4	30.7
49	118.70473	92.93428	25.77045	38.65102	34.20296	14.10165	50.17816	14.11397	50.15820	12.6	12.8
50	171.65370	145.06242	26.59128	46.49332	42.73805	27.76016	49.23915	27.71510	49.18349	35.5	40.9
51	163.60994	136.82439	26.78555	45.38382	41.49057	42.37181	48.75476	42.35161	48.69330	32.3	36.8
52	150.23271	125.02600	25.20671	43.47771	39.66789	56.37563	48.63792	56.33435	48.56685	26.7	30.8
53	151.98593	129.36140	22.62453	43.72110	40.34975	71.60205	[illegible].82516	71.65929	49.80298	27.4	33.1
54	174.41074	151.98820	22.42253	46.87917	43.76601	86.34122	45.18135	86.27751	45.16655	36.6	44.3
55	142.03444	120.10091	21.93353	42.26550	38.86925	100.47462	48.88696	100.46225	48.91153	23.2	28.2
56	138.76985	115.95947	22.81038	41.80385	38.19629	115.19301	47.11346	115.18411	47.14705	21.8	26.0
57	128.34970	106.59625	21.75345	40.19624	36.66461	14.69086	36.55762	14.74141	36.55940	17.1	20.9
58	178.18378	151.29256	26.89122	47.36560	43.63986	28.50151	34.67863	28.44513	34.69576	38.0	43.9

59	147.65596	122.55026	25.10570	43.11665	39.26059	42.63229	34.74565	42.68332	34.76950	25.7	29.5
60	166.96121	139.94571	27.01550	45.84280	41.96754	57.36520	34.63731	57.35510	34.64313	33.6	38.4
61	142.48605	116.59282	25.89323	42.33774	38.30739	72.99312	34.04379	73.02190	34.04814	23.4	26.3
62	96.21399	71.72453	24.48946	34.80299	30.05022	85.75616	32.48320	85.75957	32.50337	1.4	-0.9
63	168.43594	141.47078	26.96516	46.03528	42.17802	101.24124	34.45071	101.20917	34.45963	34.2	39.1
64	119.09370	94.00017	25.09354	38.75052	34.39893	115.15207	33.94154	115.13376	33.94257	12.9	13.4

TABLE C-31. GEOMETRIC PARAMETERS OF B-5 SECTION AT 44.4 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	117.89265	95.17107	22.72159	38.51614	34.60631	13.05272	136.91489	13.06149	136.89594	12.3	14.1
2	131.13197	108.00603	23.12595	40.61247	36.84979	27.23100	136.64261	27.22763	136.63004	18.4	21.5
3	134.48762	111.01833	23.46950	41.12375	37.36798	41.97392	135.85886	42.00427	135.81995	19.9	23.2
4	130.55400	108.02060	22.53340	40.52696	36.87596	56.65004	135.82869	56.64909	135.83205	18.1	21.6
5	151.44785	128.53079	22.91705	43.65643	40.21008	71.40582	135.29941	71.35231	135.27966	27.2	32.6
6	135.57765	112.27856	23.29909	41.29361	37.58783	85.89926	135.98996	85.90694	135.95442	20.3	24.0
7	130.61452	107.78008	22.83444	40.53133	36.82080	101.15285	136.34879	101.14386	136.34842	18.1	21.4
8	123.38808	100.92102	22.46706	39.41908	35.62860	114.00543	135.83578	114.02127	135.83270	14.9	17.5
9	126.17076	104.32716	21.84360	39.83983	36.23677	13.39830	122.63945	13.43481	122.63313	16.1	19.5
10	146.99330	126.53111	20.46219	42.99820	39.89368	28.06004	122.40010	28.11203	122.38353	25.3	31.6
11	147.29210	125.64404	21.64806	43.04617	39.77563	42.46190	121.73703	42.46057	121.71344	25.5	31.2
12	158.67957	136.92921	21.75035	44.68197	41.51398	57.17409	121.98119	57.18227	122.00194	30.2	36.9
13	164.14406	142.81422	21.32983	45.47264	42.41742	72.00667	121.21928	72.05898	121.19913	32.5	39.9
14	142.21387	121.65062	20.56325	42.32729	39.14166	86.61525	121.86703	86.67845	121.86644	23.4	29.1
15	154.27710	133.40617	20.87093	44.08492	40.96150	100.57341	121.68495	100.59778	121.66144	28.5	35.1
16	131.05257	109.93407	21.11850	40.60608	37.18272	114.09886	121.84340	114.11453	121.84534	18.3	22.6
17	124.18701	101.18732	22.99969	39.52531	35.67442	12.80308	107.30052	12.80316	107.26997	15.2	17.6
18	139.14435	116.20638	22.93797	41.83647	38.22548	26.91035	107.63182	26.90115	107.62167	21.9	26.1
19	171.67950	148.12445	23.55505	46.47670	43.16304	41.73866	106.97905	41.69228	106.91031	35.5	42.3
20	163.47787	140.50230	22.97557	45.36122	42.04671	56.27469	107.58334	56.29881	107.63336	32.2	38.7
21	143.68880	120.51956	23.16924	42.51282	38.93745	70.13571	107.65779	70.18559	107.68980	23.9	28.4
22	210.83040	188.08574	22.74466	51.59000	48.74866	85.33507	107.41425	85.34758	107.35785	50.4	60.8
23	149.86121	127.41730	22.44391	43.42831	40.03445	101.27538	107.94588	101.28726	107.90045	26.6	32.0
24	147.60577	125.21658	22.38919	43.10843	39.69614	114.96336	107.98470	114.95239	107.95940	25.6	30.9
25	116.37216	94.96318	21.40898	38.26172	34.57478	13.40873	91.96677	13.41176	91.98199	11.5	14.0
26	126.16330	104.61162	21.55168	39.83646	36.28500	28.14236	92.34758	28.15970	92.35150	16.1	19.7
27	160.60306	139.49229	21.11076	44.94884	41.90648	42.80077	90.84129	42.75389	90.84314	31.0	38.2
28	139.32248	118.55272	20.76976	41.87460	38.61131	56.72597	93.23228	56.73595	93.23827	22.0	27.3
29	162.05644	141.27101	20.78543	45.17096	42.17572	70.52893	93.87663	70.56079	93.86559	31.6	39.1
30	175.49358	153.75250	21.74107	47.03789	43.99582	85.05156	92.20645	85.05202	92.15041	37.1	45.1
31	223.03841	201.28767	21.75073	50.47270	48.50874	100.08572	92.37891	100.04115	92.25558	47.1	60.0
32	129.59206	108.23334	21.35872	40.39262	36.90245	114.78247	93.13567	114.74124	93.12091	17.7	21.7
33	126.18829	103.33769	22.85060	39.85492	36.06299	13.35150	77.90576	13.36767	77.87794	16.2	18.9
34	135.90375	113.41600	22.48775	41.34709	37.78702	27.40454	78.21925	27.43057	78.14124	20.5	24.6
35	136.71272	114.84132	21.87140	41.46484	38.01196	41.09433	76.73224	41.07097	76.72484	20.8	25.4
36	147.03111	125.02086	22.01025	43.01010	39.66432	55.21819	78.86290	55.18651	78.86218	25.3	30.8
37	194.70126	171.58017	23.12109	49.57031	46.51970	69.76669	79.26619	69.79686	79.31885	44.5	53.4
38	206.93181	184.60591	22.32590	51.06946	48.23207	84.98495	75.00896	85.01862	74.96484	48.8	59.1
39	155.42447	133.22058	22.20389	44.21529	40.92966	100.97885	77.29228	100.98474	77.29913	28.9	35.0
40	139.17973	116.94786	22.23187	41.85657	38.35056	115.47467	78.59776	115.46307	78.59854	22.0	26.5
41	126.05855	103.29062	22.76793	39.82664	36.04190	13.75339	62.98705	13.73796	62.98308	16.1	18.9
42	142.58939	119.40134	23.18805	42.35136	38.75046	27.36781	63.34059	27.35576	63.29376	23.4	27.8
43	122.59496	100.45076	22.14420	39.26660	35.54640	41.32077	62.96309	41.33356	62.94672	14.4	17.2
44	145.71107	123.50874	22.20233	42.81595	39.41425	55.28992	63.72406	55.33742	63.70830	24.8	30.0
45	168.82526	146.20129	22.62396	46.10071	42.89957	69.97272	64.29181	70.02422	64.24512	34.4	41.5
46	189.45172	166.48734	22.96439	48.83154	45.76875	84.62785	59.60640	84.66399	59.55908	42.3	50.9
47	163.79797	141.24374	22.55423	45.41179	42.18454	99.47740	62.50345	99.47443	62.42705	32.3	39.1
48	176.12022	153.68124	22.43898	47.07118	43.97293	114.64655	62.98189	114.58600	62.95221	37.2	45.0
49	122.41725	98.67589	23.74136	39.24484	35.23094	13.62526	49.09563	13.62990	49.09143	14.4	16.2
50	186.09883	162.83134	23.26749	48.44005	45.30478	27.45270	48.34914	27.39334	48.32494	41.2	49.4
51	153.65517	131.04533	22.60983	43.96983	40.62526	42.13216	47.98589	42.11243	47.96265	28.1	34.0
52	141.51320	121.12592	20.38728	42.18655	39.04402	55.99637	48.18098	55.95892	48.14064	22.9	28.8
53	193.19008	170.71576	22.47432	49.32471	46.35564	71.29347	49.16975	71.40150	49.18398	43.8	52.9
54	161.89548	140.08041	21.81506	45.14030	42.02327	86.19865	44.77385	86.19250	44.78845	31.6	38.6
55	150.46422	129.54053	20.92369	43.50784	40.37460	100.23619	48.28865	100.22827	48.34669	26.8	33.1
56	160.04904	137.56180	22.48724	44.92397	41.65694	114.95300	46.94762	114.97328	46.97604	30.9	37.4
57	131.42322	108.05998	23.36324	40.69345	36.91309	14.04493	35.39168	14.07058	35.39850	18.6	21.7
58	165.83376	143.37428	22.45947	45.71616	42.49167	27.96996	33.67607	27.95242	33.68060	33.2	40.1

59	148.17479	124.72740	23.44739	43.21503	39.67123	42.20872	33.94368	42.28014	33.95084	25.9	30.8
60	162.10283	138.57204	23.53079	45.17532	41.78912	57.14317	33.94966	57.18379	33.98836	31.7	37.8
61	139.15973	117.00490	22.15483	41.85973	38.37535	72.87161	33.41776	72.89427	33.45630	22.0	26.6
62	94.39621	72.76038	21.63583	34.46120	30.27806	85.69914	32.19453	85.72147	32.18616	0.4	-0.1
63	152.00713	129.66266	22.34447	43.73589	40.39548	101.02267	33.93396	101.03014	33.94888	27.5	33.2
64	132.46257	110.42102	22.04155	40.81963	37.27859	114.83064	33.28703	114.84334	33.33859	19.0	22.9

TABLE C-32. GEOMETRIC PARAMETERS OF B-5 SECTION AT 46.4 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	120.37889	98.17128	22.20761	38.91718	35.13799	14.84806	136.81755	14.87094	136.78069	13.4	15.9
2	126.76295	104.58220	22.18076	39.94266	36.27400	28.71672	136.54489	28.71265	136.55333	16.4	19.6
3	131.08902	108.69518	22.39384	40.62289	36.96828	43.47070	135.73080	43.47986	135.69308	18.4	21.9
4	128.27783	105.12029	23.15755	40.18990	36.37349	58.19293	135.54922	58.15457	135.57042	17.1	20.0
5	131.53551	108.92778	22.60773	40.67377	37.01637	72.70450	135.12393	72.69106	135.11734	18.5	22.
6	127.78081	105.29214	22.48866	40.09148	36.39807	87.10561	135.79845	87.13130	135.78694	16.8	20.0
7	119.43556	97.73083	21.70473	38.75806	35.06506	102.24060	136.26558	102.26430	136.29404	13.0	15.6
8	127.47890	105.14120	22.33769	40.04384	36.38557	115.16078	135.62597	115.15649	135.76801	16.7	20.0
9	142.19241	120.90169	21.29073	42.30840	39.00092	15.16809	122.40518	15.19636	122.41817	23.3	28.6
10	142.36499	120.93198	21.43301	42.33099	39.01413	29.64278	122.23451	29.66777	122.22639	23.4	28.7
11	139.11943	117.46811	21.65132	41.84615	38.44894	43.93509	121.36957	43.93652	121.35886	22.0	26.8
12	141.76649	119.73340	22.03310	42.25331	38.82159	58.54932	121.53784	58.56227	121.55923	23.1	28.0
13	155.87465	133.93134	21.94331	44.28488	41.06400	73.19646	121.05641	73.25185	121.02850	29.1	35.4
14	132.28368	109.90910	22.37457	40.80811	37.20471	87.97896	121.79066	88.00223	121.79388	18.9	22.7
15	145.15392	123.13431	22.01961	42.74017	39.36935	101.90741	121.72238	101.95717	121.73505	24.6	29.8
16	140.14398	119.13570	21.00829	41.97615	38.71632	115.56006	121.41275	115.56253	121.38635	22.3	27.7
17	142.91171	120.13086	22.78085	42.39902	38.88077	14.75521	106.93634	14.77753	106.91820	23.6	28.2
18	143.83734	120.40765	23.42969	42.53658	38.93350	28.92964	107.67200	28.89847	107.65652	24.0	28.4
19	164.05377	140.14252	23.91125	45.42676	41.99248	43.64580	106.87160	43.60370	106.81595	32.4	38.5
20	162.51221	138.31989	24.19232	45.23668	41.73743	57.84534	107.29982	57.87801	107.35640	31.8	37.6
21	143.83885	120.64980	23.18906	42.53343	38.96327	71.48380	107.32758	71.51756	107.35257	24.0	28.5
22	232.95494	208.69032	24.26462	54.63591	51.76057	86.93703	107.20561	86.97701	107.15465	59.2	70.7
23	162.05441	139.14755	22.90686	45.16106	41.87584	103.16293	107.90683	103.18483	107.85712	31.6	38.1
24	125.49223	103.99396	21.49828	39.73045	36.17421	116.84196	107.43176	116.85202	107.43251	15.8	19.3
25	130.68367	108.62715	22.05652	40.54002	36.96216	15.30486	91.65312	15.30863	91.67911	18.2	21.9
26	124.53378	102.64435	21.88943	39.59061	35.93985	30.05563	92.32329	30.05063	92.30141	15.4	18.5
27	153.96593	130.72481	23.24112	44.00861	40.56805	44.59532	90.84181	44.51295	90.82362	28.3	33.8
28	132.43385	109.41605	23.01781	40.81372	37.09698	58.53773	92.82655	58.52243	92.81926	18.9	22.3
29	154.02333	130.57565	23.44768	44.05281	40.54575	72.02405	93.56712	72.04170	93.54774	28.4	33.7
30	207.18346	183.84282	23.34064	51.17534	48.18941	86.58977	91.59193	86.53018	91.49448	49.1	58.9
31	209.06914	185.92575	23.14339	51.59016	48.66069	102.37906	92.33011	102.33571	92.21143	50.4	60.5
32	132.82967	110.44870	22.38097	40.87965	37.28976	116.51703	92.82146	116.48866	92.79749	19.1	23.0
33	148.58994	125.40532	23.18462	43.24661	39.72842	15.22354	77.71812	15.25121	77.70010	26.0	31.0
34	145.54346	123.46968	22.07378	42.78198	39.40877	29.27356	77.99837	29.29326	77.92174	24.7	30.0
35	133.78395	111.21625	22.56770	41.03987	37.40729	43.13631	76.71092	43.12901	76.69771	19.6	23.4
36	143.68098	122.40056	21.28043	42.51541	39.24719	57.08942	78.64011	57.08208	78.64238	23.9	29.4
37	183.91815	162.12216	21.79599	48.11716	45.16930	71.40826	79.18298	71.45721	79.19850	40.2	49.0
38	211.05779	188.10661	22.95117	51.90842	49.06656	86.70175	74.20663	86.76050	74.11638	51.3	61.8
39	160.10907	139.09201	21.01706	44.89091	41.83522	102.80728	77.21326	102.84401	77.19902	30.8	38.0
40	149.27367	128.42235	20.85132	43.33736	40.20148	117.31419	78.71077	117.31473	78.68739	26.3	32.6
41	139.75748	118.34157	21.41591	41.93982	38.59891	15.68822	63.08844	15.74227	63.08955	22.2	27.3
42	147.67595	126.87375	20.80220	43.11917	39.97327	29.26903	63.58876	29.27933	63.54790	25.7	31.8
43	121.84528	100.28383	21.56145	39.16336	35.52599	43.06296	63.07671	43.08226	63.05829	14.1	17.2
44	137.47220	116.37323	21.09897	41.60939	38.27512	56.94832	64.06697	56.99551	64.01668	21.3	26.2
45	161.10120	140.70161	20.39958	45.07430	42.10884	71.66748	64.75215	71.71863	64.70911	31.4	38.9
46	164.28877	143.51898	20.76979	45.47627	42.49802	85.96716	59.86934	86.01480	59.80164	32.5	40.2
47	160.69807	139.82130	20.87677	46.57086	43.65372	100.46307	63.06081	100.49210	63.00984	35.7	44.0
48	272.16431	250.94640	21.21791	55.39832	53.56073	114.79591	62.48076	114.70331	62.38635	61.5	76.6
49	128.09395	103.20833	24.88562	40.13538	36.03482	15.64186	49.16254	15.66790	49.13635	17.0	18.8
50	173.86317	149.37349	24.48969	46.76115	43.36284	29.44173	48.63858	29.38744	48.58304	36.3	43.0
51	141.88251	117.55487	24.32764	42.25323	38.45097	43.81099	48.26906	43.77499	48.21550	23.1	26.8
52	151.98697	128.42877	23.55820	43.73137	40.22340	57.62621	48.75700	57.59087	48.67499	27.5	32.7
53	253.79961	227.17422	26.62538	56.73433	53.70087	73.07767	49.27016	73.14355	49.21507	65.3	77.1
54	158.25537	134.01210	24.24327	44.63948	41.10020	87.74098	45.37244	87.70474	45.34189	30.1	35.5
55	168.46739	143.59697	24.87042	46.21135	42.71729	101.56168	48.18626	101.51753	48.22264	34.7	40.9
56	178.32886	153.80872	24.52014	48.39671	45.05525	116.59087	47.34500	116.57875	47.33183	41.0	48.6
57	134.42337	111.75362	22.66975	41.16151	37.51915	16.01752	35.64911	16.00992	35.62410	20.0	23.7
58	154.13069	131.50813	22.62256	44.07140	40.72836	29.64958	34.18510	29.61838	34.18831	28.4	34.3

59	136.04070	114.05170	21.98900	41.39999	37.90477	43.66176	34.14708	43.69437	34.18028	20.7	25.0
60	130.87498	108.37247	22.50252	40.60765	36.93559	58.77171	34.20810	58.76080	34.20587	18.3	21.8
61	124.33487	102.82574	21.50912	39.59418	35.97504	74.42413	33.80107	74.43782	33.81580	15.4	18.6
62	93.43750	72.46767	20.96983	34.32220	30.21466	87.28285	32.77673	87.31349	32.76981	0.0	-0.4
63	140.38655	118.43074	21.95581	42.08194	38.63020	102.37106	34.06818	102.36272	34.11150	22.6	27.4
64	150.18765	127.96805	22.21960	43.52995	40.18396	116.12953	33.57170	116.15819	33.63928	26.9	32.5

TABLE C-33. GEOMETRIC PARAMETERS OF B-5 SECTION AT 46.9 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	119.94473	97.58105	22.36368	38.84378	35.05525	14.77793	136.68762	14.79293	136.64835	13.2	15.6
2	126.55299	103.70340	22.84959	39.90450	36.12895	28.49387	136.49507	28.47243	136.49083	16.3	19.1
3	129.31007	106.44690	22.86317	40.34706	36.61856	43.22369	135.54968	43.24521	135.53253	17.6	20.8
4	126.67758	103.85629	22.82129	39.92404	36.15401	57.84122	135.37079	57.84358	135.38620	16.4	19.2
5	129.20409	106.11929	23.08479	40.33786	36.54053	72.27119	134.92087	72.24910	134.92770	17.6	20.5
6	127.03003	104.18303	22.84700	39.98933	36.21710	86.59673	135.62399	86.60168	135.62733	16.5	19.4
7	119.92963	97.69514	22.23448	38.85081	35.07997	101.64459	136.04771	101.66840	136.04953	13.2	15.7
8	126.49185	104.82968	21.66217	39.89174	36.31627	114.48541	135.53769	114.48668	135.47890	16.3	19.8
9	146.24248	123.33905	22.90343	42.88419	39.41849	14.98285	122.41318	14.99629	122.42319	25.0	30.0
10	140.68161	118.00793	22.67368	42.08170	38.52728	29.38029	122.30124	29.39070	122.30176	22.6	27.1
11	137.18478	113.49734	23.68744	41.54582	37.80647	43.58086	121.27887	43.57385	121.28421	21.1	24.7
12	137.59436	115.15543	22.43893	41.61491	38.07489	58.12592	121.46565	58.09610	121.44684	21.3	25.6
13	153.10950	129.96068	23.14882	43.88693	40.43535	72.66237	121.02266	72.69699	120.96336	27.9	33.3
14	130.78764	107.74500	23.04265	40.58794	36.85318	87.10286	121.86951	87.12325	121.84233	18.3	21.5
15	141.41283	119.25833	22.15450	42.19650	38.75063	100.93770	121.90500	100.95502	121.87689	23.0	27.8
16	140.52991	117.78490	22.74501	42.04588	38.50427	114.51500	121.32866	114.52852	121.34674	22.5	27.0
17	146.47644	123.36008	23.11636	42.94681	39.42526	14.39213	107.19737	14.39330	107.17143	25.2	30.0
18	146.14716	123.08771	23.05945	42.89143	39.35095	28.58467	107.96767	28.55095	107.94325	25.0	29.8
19	157.52058	133.79506	23.72552	44.51509	41.03979	43.12915	107.14020	43.08383	107.08144	29.7	35.3
20	157.86755	134.39876	23.46880	44.58214	41.13568	57.17480	107.49342	57.19864	107.54140	29.9	35.7
21	140.96594	118.49954	22.46640	42.12117	38.61557	70.67769	107.45520	70.70584	107.47531	22.8	27.3
22	234.32950	210.97522	23.35428	55.02669	52.24358	86.08702	107.39107	86.11746	107.28532	60.4	72.3
23	164.20818	142.14799	22.06018	45.45869	42.31062	102.25627	108.05708	102.24361	107.99425	32.5	39.5
24	121.34418	99.85582	21.48836	39.06783	35.45349	115.84204	107.48526	115.83804	107.43512	13.9	16.9
25	131.07332	108.51302	22.56030	40.62442	36.94785	14.86594	92.00078	14.83129	92.01564	18.4	21.8
26	123.21179	100.43930	22.77249	39.36740	35.55545	29.57648	92.72273	29.55711	92.73659	14.7	17.3
27	147.52602	124.17455	23.35147	43.08646	39.53778	44.04094	91.17827	43.97012	91.13959	25.6	30.4
28	128.59143	105.41592	23.17551	40.21797	36.41855	57.82462	93.06526	57.80350	93.07779	17.2	20.1
29	148.75061	125.01793	23.73268	43.26404	39.67665	71.20314	93.77974	71.22148	93.67516	26.1	30.8
30	221.22597	198.18990	23.03607	52.88988	50.07263	85.69258	91.57001	85.65526	91.48755	54.1	65.1
31	191.29785	169.07732	22.22054	49.17941	46.28308	101.67090	92.78101	101.64534	92.68172	43.3	52.6
32	130.02943	107.68871	22.34073	40.46518	36.81288	115.40927	93.02847	115.34958	92.99677	17.9	21.4
33	150.01321	127.49420	22.51901	43.44690	40.04971	14.73151	78.14194	14.77572	78.11101	26.6	32.1
34	145.72005	123.12067	22.59938	42.81410	39.36456	28.69934	78.44055	28.74896	78.36707	24.8	29.8
35	132.96341	110.45528	22.50813	40.89478	37.28247	42.39546	77.05174	42.36821	77.04869	19.2	23.0
36	140.50230	118.41824	22.08406	42.05141	38.59972	56.22644	78.89384	56.24832	78.90245	22.6	27.3
37	177.21156	153.83017	23.38139	47.21458	44.00420	70.38470	79.39256	70.41888	79.40755	37.6	45.1
38	204.85068	182.26884	22.58183	51.41335	48.55768	85.57338	74.33705	85.61078	74.27191	49.8	60.1
39	161.22133	138.70697	22.51436	45.03844	41.78583	101.63148	77.43459	101.65916	77.40733	31.3	37.8
40	152.94153	130.66045	22.28108	43.88145	40.56477	116.07845	78.92955	116.05730	78.89380	27.9	33.8
41	140.32360	118.02074	22.90286	42.11369	38.53717	15.10120	63.27882	15.11685	63.28006	22.7	27.1
42	150.76611	128.04662	22.71950	43.55696	40.14305	28.69717	63.75877	28.67113	63.72644	26.9	32.4
43	122.07919	99.86928	22.20992	39.18085	35.49266	42.45924	63.17564	42.44449	63.16296	14.2	17.0
44	135.89987	113.15352	22.74635	41.34448	37.73976	56.26636	64.16823	56.33369	64.12778	20.5	24.5
45	163.22523	140.59239	22.63284	45.36133	42.08624	70.98750	64.76768	71.02757	64.70457	32.2	38.8
46	162.20230	140.28177	21.92053	45.17688	42.02777	85.20816	59.86328	85.24637	59.82649	31.7	38.6
47	163.68254	140.96559	22.71695	47.34285	44.24435	99.69957	63.08586	99.74226	63.04030	38.0	45.9
48	267.08276	244.13422	22.94855	56.22029	54.37071	114.12303	62.53058	113.97804	62.44783	63.8	79.3
49	125.58778	101.75201	23.83577	39.75247	35.79550	15.09805	49.32607	15.11740	49.35876	15.9	18.0
50	169.18849	146.82477	22.36372	46.14682	42.97705	28.89801	48.87323	28.81709	48.85381	34.5	41.7
51	139.32332	115.87898	23.44434	41.87125	38.17786	43.12299	48.43111	43.09456	48.40900	22.0	25.9
52	153.19649	130.39130	22.80519	43.91225	40.51497	56.97466	48.87772	56.94572	48.83966	28.0	33.6
53	244.60217	221.73564	22.86653	55.78893	53.38203	72.37628	49.27383	72.44931	49.25291	62.6	76.0
54	158.65895	135.35254	23.30641	44.69878	41.27353	86.98892	45.35439	86.96724	45.37431	30.3	36.1
55	169.21149	145.69977	23.51172	46.47331	43.19868	100.82385	48.02135	100.76984	48.06221	35.4	42.5
56	177.64868	153.96385	23.68483	48.47971	45.27924	115.92619	47.17964	115.92595	47.18535	41.3	49.3
57	133.12791	109.35098	23.77693	40.93404	37.11017	15.31666	35.90089	15.32320	35.89166	19.3	22.4
58	149.44209	126.53865	22.90344	43.35376	39.90178	28.89630	34.52162	28.85995	34.54776	26.4	31.6

59	132.54359	110.15857	22.38503	40.83395	37.22632	42.81633	34.29918	42.84947	34.36971	19.0	22.8
60	127.07693	104.71098	22.36595	39.97923	36.30174	57.92662	34.29985	57.92944	34.29779	16.5	19.7
61	125.19171	102.58095	22.61076	39.69492	35.92992	73.54904	33.81732	73.58162	33.82700	15.7	18.5
62	94.51875	72.35580	22.16295	34.51276	30.18390	86.46165	32.73190	86.47073	32.76028	0.6	-0.5
63	141.48528	118.50154	22.98373	42.18265	38.62926	101.48775	33.89690	101.50970	33.92955	22.9	27.4
64	153.52570	129.63986	23.88583	43.95586	40.40327	115.33626	33.35858	115.32211	33.43738	28.1	33.2

TABLE C-34. GEOMETRIC PARAMETERS OF B-5 SECTION AT 48.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	128.35928	107.15569	21.20360	40.19382	36.71904	15.11641	136.76790	15.12889	136.74214	17.1	21.1
2	129.68262	108.49022	21.19240	40.39064	36.94907	28.81964	136.55974	28.82178	136.59897	17.7	21.9
3	131.43295	109.92876	21.50420	40.66107	37.20052	43.67084	135.70702	43.65398	135.68388	18.5	22.7
4	126.40048	105.50372	20.89676	39.87683	36.43781	58.33363	135.44402	58.30092	135.46414	16.2	20.2
5	128.23672	107.60057	20.63615	40.16747	36.80081	72.70714	135.02122	72.68643	135.02155	17.1	21.4
6	129.14502	107.32497	21.82005	40.32030	36.75314	87.06017	135.82347	87.07651	135.84973	17.5	21.2
7	126.76384	105.56548	21.19836	39.93735	36.46367	102.13048	136.23364	102.10471	136.25737	16.4	20.3
8	130.80707	110.32530	20.48177	40.56754	37.26445	115.04149	135.84630	115.04602	135.82300	18.2	22.9
9	164.15764	142.70398	21.45366	45.45578	42.37787	15.23107	122.40688	15.25229	122.42064	32.5	39.8
10	142.11713	120.82500	21.29213	42.31548	38.99147	29.75114	122.24998	29.77007	122.26494	23.3	28.6
11	136.69499	115.50616	21.18883	41.47260	38.13765	43.99579	121.27980	43.99548	121.26761	20.9	25.8
12	133.64297	112.49718	21.14580	41.01514	37.63297	58.57196	121.40128	58.58189	121.41249	19.5	24.1
13	147.79213	128.02818	19.76395	43.13351	40.13034	73.13953	121.09349	73.17230	121.07753	25.7	32.3
14	133.63033	112.60596	21.02437	41.05276	37.70003	87.54105	122.03151	87.57869	122.03784	19.6	24.3
15	138.43448	116.46242	21.97206	41.78055	38.28941	101.38205	122.37129	101.41170	122.35838	21.8	26.3
16	142.52777	121.92291	20.60486	42.35248	39.20546	115.05362	121.52179	115.08693	121.56752	23.4	29.3
17	155.60732	134.39238	21.21494	44.25079	41.13062	14.78591	107.13264	14.80348	107.11061	29.0	35.6
18	156.26624	135.22299	21.04324	44.33356	41.25107	29.24774	107.98451	29.24254	107.93686	29.2	36.0
19	152.09435	130.90775	21.18660	43.76030	40.61151	43.82945	107.24931	43.77783	107.19662	27.5	33.9
20	152.64285	130.36134	22.28151	43.83546	40.50839	57.76775	107.50929	57.77516	107.53882	27.8	33.6
21	141.10449	116.78024	24.32425	42.14606	38.35110	71.14938	107.55573	71.19272	107.56689	22.8	26.5
22	248.65108	221.88312	26.76796	57.24849	54.24928	86.63104	107.45383	86.66360	107.35468	66.8	78.9
23	183.85048	158.53702	25.31346	48.12495	44.68599	102.98816	108.27315	102.97626	108.15993	40.3	47.4
24	121.16647	97.17082	23.99565	39.03723	34.97749	116.65759	107.56750	116.63387	107.53076	13.8	15.4
25	136.83408	111.87997	24.95410	41.49304	37.51915	15.33466	91.84410	15.33014	91.86461	20.9	23.7
26	126.75549	101.59677	25.15872	39.94319	35.75967	30.12334	92.75560	30.13013	92.69814	16.4	17.9
27	144.55672	119.50024	25.05647	42.64944	38.79344	44.70702	91.36394	44.63036	91.31378	24.3	27.9
28	131.09221	106.48677	24.60544	40.61516	36.60347	58.53052	93.06149	58.50826	93.05240	18.4	20.7
29	142.79250	118.77454	24.01796	42.39502	38.67587	71.82623	93.79146	71.85245	93.73288	23.6	27.5
30	325.70605	299.58569	26.12036	56.37866	53.61441	86.84755	89.78094	86.86491	89.55618	64.3	76.8
31	177.42896	153.42871	24.00024	47.56096	44.29239	102.65204	92.98605	102.64862	92.86375	38.6	46.1
32	126.87440	102.97672	23.89769	39.95982	36.01074	116.11955	93.26613	116.07535	93.20561	16.5	18.8
33	157.34996	132.03400	25.31596	44.48782	40.76973	15.31085	77.98044	15.34037	77.93192	29.7	34.5
34	150.99115	126.01794	24.97321	43.57135	39.81757	29.35016	78.30338	29.37677	78.21071	27.0	31.3
35	139.32390	113.62955	25.69435	41.88541	37.81291	43.15053	78.98962	43.12404	78.92256	22.1	24.7
36	139.47717	114.57971	24.89746	41.88815	37.97252	57.00125	78.81013	56.99115	78.80745	22.1	25.2
37	169.10527	143.34259	25.76268	46.12802	42.47040	71.05167	79.45879	71.11562	79.47574	34.4	40.1
38	183.20924	161.08359	22.12566	50.63725	47.82664	86.14801	74.07741	86.15506	74.02411	47.6	57.7
39	167.18463	144.83878	22.34586	45.88783	42.72102	103.07780	77.03008	103.09100	77.07431	33.7	40.9
40	165.47060	142.96965	22.50095	45.62865	42.42793	117.69608	78.54976	117.67781	78.51819	33.0	39.9
41	145.29823	121.56871	23.72952	42.76767	39.10617	15.89746	62.55345	15.90470	62.55975	24.6	29.0
42	157.14203	133.83614	23.30589	44.45943	41.03699	29.67143	63.04315	29.64455	63.01883	29.6	35.3
43	129.17833	106.19217	22.98616	40.30838	36.56616	43.52158	62.51433	43.51091	62.53223	17.5	20.6
44	145.78630	122.55087	23.23543	42.81093	39.25696	57.44817	63.66963	57.50633	63.63684	24.8	29.5
45	171.66827	148.79364	22.87463	46.46313	43.26216	72.39522	64.10582	72.43983	64.04033	35.4	42.7
46	158.92877	136.43689	22.39188	44.72681	41.46327	86.57999	59.33791	86.60338	59.30045	30.4	36.7
47	178.09198	154.54727	23.54471	49.59117	46.49716	101.18973	62.49982	101.24001	62.42638	44.5	53.3
48	249.43436	225.81540	23.61896	55.09386	52.46091	116.10780	62.37163	116.00975	62.31117	60.6	73.0
49	128.45142	104.40334	24.04808	40.19736	36.25520	16.06938	48.44112	16.06665	48.43230	17.2	19.6
50	165.16438	142.23605	22.92833	45.57932	42.30067	29.95317	48.04985	29.91606	48.03496	32.8	39.5
51	143.86203	120.70079	23.16124	42.53563	38.96805	44.21158	47.64966	44.19914	47.62920	24.0	28.5
52	163.65431	140.58905	23.06526	45.36812	42.05318	58.36086	48.30226	58.32631	48.26643	32.2	38.7
53	194.74649	171.38509	23.36140	49.50526	46.44041	73.44901	48.55521	73.50171	48.53505	44.3	53.2
54	163.31261	141.13358	22.17903	45.34589	42.14005	88.39578	44.89935	88.38486	44.90189	32.2	39.0
55	174.53841	151.88911	22.64929	47.02553	43.90338	102.51982	47.32623	102.50217	47.37740	37.1	44.8
56	179.19647	155.73964	23.45683	47.82530	44.60361	117.53024	47.02248	117.50815	47.03374	39.4	47.1
57	134.76784	111.54619	23.22165	41.19296	37.45415	16.26773	34.92157	16.26945	34.88571	20.1	23.5
58	143.49225	119.93681	23.55544	42.47978	38.84584	29.81764	33.66861	29.77814	33.67673	23.8	28.1

59	130.48859	107.95773	22.53085	40.50664	36.85098	43.88144	33.26004	43.91992	33.32390	18.1	21.5
60	129.86505	107.36137	22.50368	40.42174	36.74321	59.26659	33.44821	59.25990	33.44228	17.8	21.2
61	130.49921	107.89821	22.60100	40.51599	36.83762	74.95052	33.03656	74.97052	33.01509	18.1	21.5
62	95.08493	73.47168	21.61325	34.58417	30.39256	88.00238	32.11505	87.99370	32.10223	0.8	0.2
63	143.88556	121.68277	22.20279	42.55351	39.12737	102.98000	33.16577	102.98907	33.15462	24.0	29.0
64	147.90268	125.41458	22.48810	43.16431	39.74327	117.08000	32.81378	117.09369	32.88223	25.8	31.1

TABLE C-35. GEOMETRIC PARAMETERS OF B-5 SECTION AT 49.6 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	135.54185	112.57808	22.96378	41.30025	37.63661	15.21115	136.54024	15.22446	136.46510	20.4	24.1
2	135.07941	111.78496	23.29445	41.23077	37.50043	28.88698	136.20164	28.88124	136.15250	20.2	23.7
3	127.82687	104.78181	23.04506	40.10500	36.30186	43.87402	135.30365	43.89572	135.25244	16.9	19.7
4	124.56854	101.56836	23.00018	39.58141	35.74831	58.61810	134.94371	58.55426	134.94054	15.4	17.9
5	131.54694	108.70345	22.84349	40.68185	36.97287	72.94002	134.51082	72.94031	134.51247	18.6	21.9
6	136.63216	113.75287	22.87929	41.45554	37.84149	87.43707	135.26767	87.44655	135.26511	20.8	24.8
7	132.18181	109.44853	22.73328	40.77686	37.10426	102.50865	135.69675	102.50958	135.70326	18.8	22.4
8	138.57449	116.02383	22.55066	41.75000	38.20181	115.60986	135.18512	115.62346	135.11110	21.7	26.0
9	170.54539	147.45103	23.09436	46.30902	43.06990	15.05640	122.11536	15.07570	122.13651	35.0	42.0
10	159.36447	136.25365	23.11082	44.78833	41.39923	29.75406	122.12523	29.76723	122.12349	30.5	36.5
11	146.27690	123.16650	23.11040	42.89131	39.36676	44.08302	120.84346	44.09947	120.83992	25.0	29.8
12	140.05438	116.75897	23.29541	42.00060	38.33382	58.74698	120.86119	58.76468	120.86919	22.4	26.4
13	148.49596	125.76872	22.72723	43.22365	39.78232	73.23470	120.48450	73.28368	120.46661	26.0	31.2
14	146.21356	123.66287	22.55069	42.94991	39.51439	87.63750	121.64005	87.66092	121.64352	25.2	30.3
15	139.28282	116.67372	22.60910	41.86165	38.32324	101.63589	121.95482	101.65787	121.94112	22.0	26.4
16	151.41965	128.43935	22.98030	43.64491	40.20363	115.49829	120.71687	115.50620	120.73273	27.2	32.6
17	144.79344	121.67854	23.11490	42.67569	39.13181	14.46029	106.87759	14.46647	106.84834	24.4	29.1
18	172.21571	148.87755	23.33817	46.55748	43.28336	29.50775	107.49971	29.47679	107.47321	35.7	42.7
19	166.65695	142.95692	23.70003	45.80046	42.41501	44.00626	106.45331	43.96854	106.42162	33.5	39.9
20	148.19055	124.92982	23.26073	43.18262	39.65355	57.96426	106.95325	57.96994	106.99097	25.9	30.8
21	140.89307	117.94214	22.95093	42.14470	38.56207	71.29150	106.88644	71.32973	106.89680	22.8	27.2
22	268.65356	244.62828	24.02528	58.50763	56.23390	86.89549	106.38701	86.96898	106.30634	70.5	85.5
23	220.93748	195.71201	25.22548	52.52805	49.31599	102.99969	107.08333	102.99249	105.92493	53.1	62.6
24	118.44566	96.52296	21.92270	38.59944	34.85440	117.18423	106.75603	117.21622	106.77286	12.5	14.9
25	130.23094	107.79065	22.44029	40.47665	36.82484	15.24891	91.27792	15.25387	91.29878	18.0	21.4
26	142.32066	119.92798	22.40068	42.32393	38.84119	30.26529	92.37013	30.27365	92.37115	23.3	28.1
27	154.30804	130.08377	24.22427	44.05132	40.46033	44.86922	91.22794	44.81071	91.22316	28.4	33.4
28	138.41876	115.23605	23.18271	41.73941	38.07111	58.78731	92.39981	58.75949	92.38815	21.6	25.6
29	142.87675	120.02699	22.84976	42.41902	38.88431	72.05865	93.12581	72.07082	93.09564	23.6	28.2
30	338.07300	315.39893	22.67407	56.65797	54.28627	87.03651	88.64626	87.03807	88.45322	65.1	79.0
31	162.21069	139.35451	22.85619	45.61519	42.35947	103.04271	92.05447	103.01456	91.96475	32.9	39.7
32	125.75806	103.18314	22.57492	39.78052	36.03082	116.41180	92.50670	116.39110	92.52058	15.9	18.8
33	150.33351	126.49863	23.83488	43.48389	39.90421	15.15235	77.41154	15.21181	77.36841	26.7	31.6
34	157.35715	134.74454	22.61261	44.49814	41.17960	29.30428	77.99870	29.36542	77.91856	29.7	35.8
35	146.34135	123.41110	22.93025	42.91982	39.44386	43.21275	76.72595	43.17661	76.70627	25.1	30.1
36	141.22586	119.18184	22.04402	42.18242	38.74078	57.04793	78.43484	57.04121	78.40744	22.9	27.8
37	164.97191	142.42886	22.54305	45.59608	42.35272	71.13187	79.08698	71.15883	79.11879	32.9	39.7
38	175.95618	153.51065	22.44553	50.73233	47.84125	85.87849	73.68832	85.90100	73.67036	47.9	57.8
39	167.39517	146.41365	20.98152	45.94449	42.95683	102.15471	77.35484	102.17393	77.34244	33.9	41.7
40	181.60408	159.16321	22.44087	47.82938	44.75580	116.80045	78.57585	116.78792	78.57384	39.4	47.6
41	140.11914	117.98218	22.13696	41.99323	38.53981	15.47738	62.92119	15.52404	62.91333	22.4	27.1
42	157.39603	134.40025	22.99577	44.55499	41.12402	29.36121	63.39832	29.35136	63.33356	29.9	35.6
43	133.96111	111.47270	22.48840	41.06131	37.45329	43.17053	62.76923	43.18773	62.78192	19.7	23.5
44	164.21397	141.80560	22.40837	45.45540	42.23874	57.11096	63.94043	57.17961	63.89764	32.5	39.3
45	193.63454	171.74611	21.88843	49.37703	46.49629	72.09637	64.10374	72.16086	64.04218	43.9	53.3
46	151.92564	130.69212	21.23352	43.79893	40.63664	85.92429	59.67006	85.96442	59.67177	27.6	34.0
47	223.46156	202.70007	20.76149	52.75131	50.49658	101.25580	61.91556	101.36336	61.80783	53.7	66.5
48	185.12294	163.78264	21.34030	48.30602	45.41710	116.55029	63.19832	116.48103	63.16652	40.8	49.8
49	130.19917	107.58768	22.61150	40.48618	36.81107	15.88555	48.76801	15.89118	48.79262	18.0	21.4
50	155.20908	133.28519	21.92389	44.19485	40.96335	29.75587	48.40018	29.71573	48.37419	28.8	35.1
51	152.06346	129.02400	23.03946	43.75201	40.29236	43.76027	48.11557	43.75305	48.09973	27.5	32.9
52	173.32365	151.00661	22.31705	46.71515	43.59892	58.15627	48.89558	58.09541	48.83319	35.1	43.8
53	155.08614	132.64862	22.43752	44.17831	40.85234	73.01906	48.87863	73.05431	48.85683	28.8	34.7
54	161.01541	139.21576	21.79965	45.02058	41.87604	87.75002	45.55740	87.69193	45.54694	31.2	38.1
55	171.37294	149.76541	21.60753	46.46355	43.43822	102.14334	47.64778	102.10284	47.68581	35.4	43.3
56	160.16948	137.93915	22.23033	44.94388	41.69191	116.75923	47.74052	116.70381	47.74387	31.0	37.5
57	138.32581	116.44373	21.88208	41.70905	38.28052	15.87686	35.35783	15.91129	35.35042	21.6	26.2
58	137.11584	115.35754	21.75830	41.53790	38.10091	29.21893	34.24535	29.22664	34.26154	21.1	25.7

59	136.39493	115.41310	20.98183	41.42822	38.13744	43.19421	33.53154	43.23428	33.55798	20.7	25.8
60	145.00143	123.06494	21.93649	42.73459	39.35315	58.71768	33.91235	58.74258	33.90659	24.5	29.8
61	139.78993	118.97926	20.81067	41.95624	38.69374	74.25182	33.54347	74.28468	33.57472	22.3	27.6
62	93.29607	72.24182	21.05424	34.27435	30.14804	87.39760	32.68292	87.44305	32.68437	-0.1	-0.6
63	148.96429	127.50040	21.46390	43.31700	40.07997	102.11215	33.54147	102.08017	33.55249	26.2	32.2
64	127.83481	106.43736	21.39745	40.13857	36.63130	116.45604	33.25978	116.48566	33.32886	17.0	20.8

[redacted] K 5 [redacted]

TABLE C-36. GEOMETRIC PARAMETERS OF B-5 SECTION AT 51.2 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	143.43250	120.67200	22.76050	42.49400	38.98358	14.81847	136.39030	14.81968	136.31351	23.8	28.6
2	139.45438	116.24138	23.21300	41.88681	38.24843	28.28075	136.15054	28.28500	136.11343	22.1	26.1
3	129.85504	106.80887	23.04617	40.44618	36.66321	43.35211	135.20598	43.35744	135.17657	17.9	20.9
4	125.79445	103.00778	22.78667	39.78351	36.00780	57.92624	134.84914	57.92685	134.84525	15.9	18.7
5	134.71127	112.20488	22.50639	41.16856	37.56747	72.12268	134.53127	72.11546	134.54121	20.0	23.9
6	131.73505	110.10919	21.62585	40.70622	37.22983	86.57835	135.41856	86.58211	135.39005	18.6	22.8
7	122.66579	100.82080	21.84499	39.28021	35.61360	101.51262	135.81183	101.51402	135.79778	14.5	17.4
8	136.77887	115.05759	21.72128	41.48485	38.04202	114.75830	135.20874	114.70670	135.09894	20.9	25.5
9	186.84993	161.01410	25.83583	48.47951	45.00447	14.26676	122.21449	14.31153	122.20880	41.3	48.4
10	165.08298	140.60785	24.47513	45.56920	42.06055	29.10664	122.30658	29.16957	122.28426	32.8	38.7
11	157.81276	132.46133	25.35143	44.56870	40.82880	43.44992	120.91788	43.45094	120.90593	29.9	34.6
12	149.38283	124.24734	25.13548	43.35368	39.54372	58.00603	120.93533	58.00941	120.92529	26.4	30.4
13	146.71448	121.15883	25.55565	42.95332	39.04947	72.28168	120.49498	72.33565	120.43602	25.2	28.8
14	151.85692	126.73235	25.12457	43.73895	39.97578	86.50049	121.72844	86.52338	121.72272	27.5	31.8
15	146.40652	121.69423	24.71230	42.91829	39.12872	100.58699	122.18401	100.61476	122.16681	25.1	29.0
16	164.69493	140.10852	24.58641	45.52513	41.99049	114.50974	120.92088	114.50337	120.90518	32.7	38.5
17	153.33119	127.92624	25.40495	43.92123	40.11723	13.63227	107.06868	13.68471	107.02832	28.0	32.3
18	183.29300	157.10193	26.19107	48.02431	44.46696	29.19374	107.58511	29.17303	107.50082	40.0	46.6
19	164.57652	139.23177	25.34476	45.53502	41.88858	43.52104	106.53157	43.48534	106.46547	32.7	38.1
20	159.80824	134.55550	25.25275	44.86507	41.16904	57.33347	106.87572	57.35994	106.90587	30.8	35.8
21	140.37793	118.74669	21.63124	42.07977	38.70401	70.67300	106.92633	70.70743	106.97440	22.6	27.6
22	276.22461	254.41399	21.81062	57.77281	55.56851	86.69095	106.13806	86.77682	106.08484	68.4	83.3
23	217.26277	196.57892	20.68385	52.13815	49.43942	103.25648	106.98178	103.30411	106.81711	52.0	63.0
24	119.00107	98.26627	20.73480	38.69566	35.15990	116.44443	106.73625	116.41750	106.72032	12.8	16.0
25	126.70308	105.41800	21.28508	39.92342	36.42816	14.64673	91.25070	14.68336	91.27008	16.4	20.1
26	166.45992	144.87154	21.58838	45.76547	42.69923	29.80258	92.43803	29.79964	92.43622	33.4	40.8
27	170.67096	148.61571	22.05525	46.34554	43.25531	44.25194	91.48615	44.19324	91.45415	35.1	42.6
28	146.68901	124.89883	21.79018	42.97893	39.65773	58.22845	92.40167	58.19176	92.40321	25.3	30.8
29	141.42801	119.81557	21.61244	42.19675	38.83429	71.53999	93.06085	71.55377	93.04201	23.0	28.1
30	205.78728	184.55499	21.23228	51.03915	48.38300	85.89420	90.82651	85.85617	90.72455	48.7	59.6
31	150.54843	129.09268	21.45575	44.09964	40.98062	102.05225	91.64302	102.04945	91.55574	28.5	35.1
32	127.84576	107.45618	20.38959	40.15096	36.77454	115.51631	92.63698	115.46069	92.58659	17.0	21.3
33	134.33026	112.11336	22.21692	41.10927	37.56302	14.53633	77.34795	14.57162	77.34242	19.8	23.9
34	161.10570	139.15770	21.94800	45.04430	41.84038	28.83040	77.85266	28.84908	77.81230	31.3	38.0
35	160.25577	137.99541	22.26036	44.89677	41.67372	42.91124	76.73715	42.88939	76.71721	30.8	37.4
36	147.81427	126.02986	21.78441	43.13438	39.81635	56.77283	78.19055	56.74722	78.21780	25.7	31.3
37	163.78386	141.14456	22.63930	45.40642	42.14627	70.77661	78.96565	70.82411	78.99220	32.3	39.0
38	193.12079	171.15460	21.96619	50.16702	47.30867	85.69081	73.67329	85.71606	73.62726	46.2	56.0
39	172.26970	150.13504	22.13466	46.57907	43.46501	101.30510	77.40630	101.30011	77.39146	35.8	43.3
40	195.47032	173.45995	22.01038	49.64696	46.74556	116.23328	78.34352	116.23320	78.29207	44.7	54.2
41	132.64334	110.61713	22.02621	40.86348	37.31372	14.73329	62.86462	14.76574	62.88585	19.4	23.1
42	162.38307	140.70346	21.67961	45.21648	42.09927	28.82233	63.26227	28.84306	63.21500	31.8	38.8
43	137.58514	116.17989	21.40526	41.63039	38.23784	42.72722	62.72588	42.72871	62.73305	21.3	26.1
44	180.23836	158.92813	21.31023	47.68631	44.80548	56.74236	63.73463	56.79791	63.67114	39.0	47.8
45	205.48660	183.89162	21.59499	50.97931	48.20593	71.83139	63.72974	71.88528	63.64209	48.6	59.0
46	151.39478	130.91339	20.48138	43.70657	40.63565	85.50798	59.73001	85.54855	59.68520	27.4	34.0
47	225.35890	203.12566	22.23325	54.28796	51.54051	100.68028	61.84148	100.76598	61.77510	58.2	70.0
48	166.80412	145.77237	21.03175	45.85214	42.83858	116.17015	63.06488	116.13634	63.02643	33.6	41.3
49	135.11313	109.61298	25.50015	41.22327	37.13560	15.38296	48.68037	15.39429	48.66052	20.1	22.5
50	155.40674	130.64786	24.75888	44.21394	40.54160	29.23669	48.29202	29.21080	48.27196	28.9	33.7
51	154.18980	128.38789	25.80191	44.04674	40.20049	43.13121	48.15135	43.13095	48.11342	28.4	32.6
52	184.16495	158.87076	25.29419	48.18597	44.75616	57.82556	48.97919	57.79491	48.92184	40.4	47.6
53	147.58354	123.28191	24.30164	43.08905	39.38197	72.74905	48.63400	72.76936	48.63113	25.6	29.9
54	154.33650	129.88747	24.44904	44.07336	40.42166	87.19698	45.77762	87.17953	45.76959	28.4	33.3
55	160.41829	135.43988	24.97841	44.93712	41.28355	101.79276	47.62701	101.79398	47.65106	31.0	36.1
56	166.47545	141.44209	25.03336	45.76489	42.18147	116.31125	47.98959	116.23221	47.95695	33.4	39.1
57	138.44409	115.75896	22.68513	41.74722	38.17888	15.25320	35.17305	15.29302	35.14873	21.7	25.9
58	141.92516	119.94543	21.97972	42.27296	38.88228	28.49902	34.25128	28.49944	34.27870	23.2	28.2

59	152.58424	130.35661	22.22763	43.82472	40.52895	42.51207	33.30885	42.59404	33.36212	27.7	33.7
60	185.85042	163.05504	22.79538	48.37337	45.31691	58.14558	33.92061	58.19078	33.96281	41.0	49.4
61	159.99091	137.66663	22.32428	44.85591	41.62714	73.69286	33.49480	73.71301	33.51065	30.7	37.3
62	94.05377	73.08698	20.96680	34.39600	30.32898	87.01079	32.65514	87.00137	32.67331	0.2	0.0
63	162.73497	141.44106	21.29391	45.26033	42.20619	101.52492	33.51407	101.56870	33.54094	31.9	39.2
64	133.55214	111.25629	22.29585	40.99680	37.42789	116.21423	33.33528	116.21822	33.39339	19.5	23.4

[redacted] M 5 [redacted]

TABLE C-37. GEOMETRIC PARAMETERS OF B-5 SECTION AT 53.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	137.18549	114.10568	23.07980	41.54488	37.89963	15.05696	136.26512	15.05510	136.16541	21.1	25.0
2	145.91335	120.15366	25.75969	42.86766	38.92821	28.48824	135.91924	28.51096	135.91096	24.9	28.4
3	143.95471	113.88684	30.06787	42.59157	37.86691	43.60149	134.93651	43.60478	134.89346	24.1	24.9
4	141.03535	110.23009	30.80527	42.14160	37.29327	57.99010	134.64714	57.97144	134.64259	22.8	23.0
5	163.37605	140.66615	22.70990	45.33510	42.07539	72.11604	134.32248	72.09703	134.33395	32.1	38.8
6	148.65662	126.41510	22.24152	43.25601	39.88412	86.57487	135.42464	86.58505	135.37535	26.1	31.5
7	133.14542	111.58299	21.56242	40.91684	37.46260	101.43863	135.78583	101.43341	135.73152	19.2	23.5
8	141.17226	119.08386	22.08839	42.13501	38.71576	114.84848	135.13507	114.82423	135.02634	22.8	27.7
9	179.68211	156.73688	22.94524	47.58383	44.41725	14.41714	122.25864	14.48302	122.25471	38.7	46.5
10	163.76099	141.80779	21.95320	45.41072	42.26196	29.26370	122.22203	29.29352	122.20103	32.3	39.4
11	169.77054	147.73909	22.03145	46.23766	43.12283	43.72754	120.86586	43.69888	120.87608	34.8	42.2
12	150.97501	129.18817	21.78683	43.58871	40.34604	58.16600	120.82181	58.18188	120.86819	27.0	33.1
13	146.37138	124.89468	21.47670	42.93188	39.64284	72.29735	120.25414	72.31850	120.23555	25.1	30.7
14	164.27016	142.45856	21.81160	45.49210	42.35197	86.40558	121.53838	86.48041	121.53531	32.6	39.7
15	153.87201	132.81108	21.06093	44.01892	40.88745	100.62195	122.02440	100.67171	122.05652	28.3	34.8
16	161.81104	140.80913	21.00191	45.15228	42.09279	114.66493	120.91425	114.67668	120.88307	31.6	38.8
17	216.95520	193.48572	23.46948	52.30382	49.39362	14.48875	106.61633	14.56800	106.52959	52.4	62.9
18	179.41716	158.03957	21.37759	47.63251	44.72540	29.72830	107.58362	29.71428	107.55513	38.8	47.5
19	158.91632	135.08778	23.82854	44.77547	41.24933	43.79433	106.40442	43.77322	106.34175	30.5	36.0
20	162.85861	139.15717	23.70145	45.30235	41.86891	57.61775	106.68141	57.62996	106.71176	32.0	38.1
21	138.78212	115.34784	23.43428	41.78862	38.08736	71.02106	106.81171	71.03662	106.83235	21.8	25.6
22	207.96530	185.09409	22.87122	51.17175	48.25455	85.83139	106.47285	85.84966	106.41444	49.1	59.1
23	199.71381	176.69463	23.01918	50.13873	47.15590	102.03453	107.22942	102.04912	107.09763	46.1	55.5
24	131.38892	110.35452	21.03439	40.64030	37.25645	116.21092	106.66896	116.20917	106.62628	18.4	22.9
25	155.33647	131.96344	23.37303	44.24486	40.79536	14.87106	91.25797	14.87712	91.28224	28.9	34.5
26	172.87352	150.18649	22.68703	46.66331	43.51523	30.03885	92.39735	30.06050	92.38345	36.0	43.5
27	173.29213	149.42717	23.86496	46.71761	43.37170	44.48970	91.67778	44.41708	91.67105	36.2	43.0
28	151.50233	126.69743	24.80490	43.66078	39.93359	58.42389	92.36119	58.39641	92.35352	27.2	31.7
29	140.51521	115.75920	24.75601	42.03801	38.16087	71.77559	92.92007	71.78532	92.89401	22.5	25.8
30	178.38063	153.42395	24.95668	47.38408	43.95332	86.12495	91.13286	86.09355	91.03482	38.1	45.0
31	154.96370	131.02692	23.93678	44.17754	40.62302	101.78624	91.82378	101.77290	91.76903	28.8	34.0
32	123.86229	100.67413	23.18816	39.47270	35.58740	115.28644	92.53650	115.25696	92.52513	15.0	17.4
33	155.45177	129.75003	25.70174	44.22606	40.40417	14.75539	77.32553	14.81693	77.29581	28.9	33.2
34	159.57448	133.86131	25.71317	44.80902	41.03120	29.07919	77.88133	29.07916	77.79285	30.6	35.3
35	159.96536	134.17749	25.78787	44.85931	41.08292	43.23279	77.00479	43.21350	76.95638	30.7	35.5
36	146.49147	124.14178	22.34969	42.92380	39.50838	57.12177	78.17514	57.11560	78.19772	25.1	30.3
37	161.64906	138.63522	23.01384	45.10449	41.76537	71.32564	78.60341	71.35867	78.63716	31.5	37.7
38	174.06744	151.47495	22.59250	46.86247	43.73360	86.09157	73.91899	86.10626	73.86177	36.6	44.2
39	170.53624	148.43332	22.10292	46.31606	43.21501	101.28015	77.23058	101.31743	77.20537	35.0	42.5
40	201.97348	179.49677	22.47672	50.42171	47.53560	116.34497	78.02303	116.32741	77.99931	46.9	56.8
41	153.95184	130.70128	23.25056	44.01622	40.56311	14.74344	62.83647	14.78343	62.83142	28.3	33.8
42	173.42491	151.35059	22.07433	46.70338	43.64362	29.09978	63.08275	29.06038	63.02959	36.1	43.9
43	141.47847	119.86034	21.61813	42.19545	38.83948	43.10472	62.64279	43.09476	62.63731	23.0	28.1
44	181.00003	158.58812	22.41191	47.77315	44.68323	57.25644	63.58118	57.32613	63.50655	39.2	47.4
45	171.87859	150.12524	21.75334	46.52077	43.47589	72.14972	63.63574	72.21179	63.59404	35.6	43.4
46	150.54720	128.76913	21.77806	43.52870	40.25377	85.93903	59.89433	85.97105	59.88518	26.9	32.8
47	175.87305	155.13013	20.74292	47.04657	44.19150	100.64487	62.33418	100.69789	62.24149	37.1	45.7
48	160.06488	139.50940	20.55548	44.86777	41.88326	116.29103	62.78423	116.29367	62.79128	30.8	38.1
49	136.78593	114.72772	22.05821	41.47827	37.99300	15.61608	48.56490	15.64899	48.57326	20.9	25.3
50	154.06628	133.22559	20.84070	44.04349	40.94424	29.60022	48.15526	29.56981	48.13757	28.4	35.0
51	148.91946	126.65117	22.26830	43.28929	39.92255	43.47466	48.10942	43.46523	48.12178	26.2	31.7
52	180.25624	158.81496	21.44128	47.80191	44.91263	58.30128	48.97972	58.26392	48.92026	39.3	48.1
53	142.28085	117.21942	25.06143	42.33272	38.39526	73.16876	48.44075	73.20229	48.38348	23.4	26.6
54	145.46501	121.33130	24.13371	42.76363	39.06131	87.45810	46.06308	87.41101	46.07452	24.6	28.8
55	145.86517	121.49173	24.37344	42.83754	39.09668	102.13850	47.76041	102.10634	47.77921	24.8	28.9
56	175.19267	150.98073	24.21194	46.93770	43.57964	116.47626	48.10596	116.43712	48.04494	36.8	43.7
57	142.19099	115.73308	26.45792	42.29263	38.16580	15.07724	34.86769	15.12519	34.84142	23.3	25.9
58	150.19446	125.31407	24.88039	43.46712	39.71005	28.45782	34.18152	28.47044	34.17235	26.7	31.0

59	190.48235	164.50496	25.97739	48.98851	45.53604	42.75372	33.34418	42.81641	33.42087	42.8	50.2
60	225.22931	198.95026	26.27905	53.32648	50.10909	58.43730	33.90160	58.45091	33.91574	55.4	65.3
61	176.84106	151.51941	25.32166	47.18680	43.67677	73.83580	33.39157	73.87512	33.39754	37.5	44.0
62	96.44702	72.80983	23.63719	34.82797	30.26309	87.29601	32.60252	87.29729	32.59023	1.5	-0.2
63	198.36671	172.49397	25.87274	49.98705	46.61821	101.62669	33.50974	101.62105	33.53456	45.7	53.7
64	146.90448	123.30051	23.60397	42.98985	39.41519	116.60152	33.40501	116.60367	33.44594	25.3	30.0

TABLE C-38. GEOMETRIC PARAMETERS OF B-5 SECTION AT 54.6 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	134.80406	111.79695	23.00711	41.18088	37.51498	14.63546	136.03119	14.64562	135.9564	20.0	23.7
2	139.74863	116.95744	22.79118	41.93051	38.35828	28.25064	135.83022	28.24792	135.7921.	22.2	26.5
3	137.86151	115.88629	21.97522	41.65282	38.17876	43.38571	134.90450	43.36903	134.84888	21.4	25.9
4	137.51561	115.53159	21.98402	41.58463	38.12840	57.79202	134.65073	57.80328	134.64961	21.2	25.7
5	172.42310	149.22295	23.20015	46.57321	43.33394	71.98216	134.35295	71.94992	134.33110	35.7	42.9
6	163.33356	139.64769	23.68587	45.33946	41.91986	86.52049	135.44025	86.55333	135.39000	32.1	38.2
7	138.78815	116.71875	22.06940	41.78842	38.32224	101.33276	135.79599	101.33009	135.76508	21.8	26.4
8	146.23367	123.77023	22.46344	42.89391	39.46295	115.00607	135.23410	114.97482	135.13782	25.0	30.1
9	169.32477	147.05019	22.27458	46.22815	43.07822	13.91566	122.25008	13.95607	122.22447	34.7	42.1
10	156.00078	133.99713	22.00365	44.30956	41.07513	28.84517	122.01151	28.86635	122.02350	29.1	35.5
11	164.72165	143.00938	21.71227	45.53555	42.41760	43.43222	120.73914	43.43326	120.73573	32.7	39.9
12	152.68292	130.31377	22.36916	43.83502	40.50305	57.92380	120.74644	57.93639	120.72862	27.8	33.6
13	149.16068	127.52098	21.63969	43.33174	40.06738	72.02846	120.12860	72.07362	120.12444	26.3	32.1
14	165.10277	143.25587	21.84689	45.59233	42.46268	86.21538	121.34837	86.28017	121.32764	32.9	40.0
15	159.14816	137.23317	21.91499	44.76610	41.55913	100.63452	121.86662	100.68478	121.89412	30.5	37.1
16	145.58044	124.95251	20.62793	42.80078	39.65817	114.82883	120.96019	114.85640	120.98267	24.7	30.8
17	283.69727	259.64111	24.05615	58.66048	56.24821	15.16512	105.89879	15.27421	105.74335	71.0	85.5
18	161.34503	138.27351	23.07152	45.53064	42.12849	29.71840	107.51579	29.70897	107.49612	32.7	38.9
19	154.81561	130.98503	23.83058	44.20370	40.60986	43.55490	106.25162	43.53494	106.22568	28.8	33.9
20	161.34784	138.83426	22.51358	45.10898	41.82076	57.49216	106.42503	57.51508	106.45502	31.5	37.9
21	135.23476	112.55316	22.68159	41.29921	37.64294	71.11230	106.67584	71.11076	106.67476	20.4	24.1
22	168.46997	145.61348	22.85649	46.02997	42.81740	85.87004	106.33783	85.88231	106.30443	34.1	41.2
23	178.92810	156.50099	22.42711	47.45995	44.37593	101.80977	107.18199	101.84367	107.10445	36.3	46.3
24	138.79710	116.53371	22.26340	41.80130	38.30670	116.07799	106.56892	116.06723	106.54233	21.8	26.3
25	176.15242	149.82607	26.32635	47.60849	43.96608	14.51151	90.96329	14.51648	90.95493	38.8	45.0
26	156.05038	131.03618	25.01421	44.58078	40.92697	29.82089	92.10634	29.84853	92.07913	29.9	35.0
27	166.42769	141.29431	25.13338	45.76115	42.15492	44.18652	91.58110	44.15463	91.57570	33.4	39.0
28	152.16751	126.42479	25.74272	43.74263	38.97706	58.27415	92.10406	58.24149	92.08371	27.5	31.5
29	139.88252	115.38699	24.49553	41.95917	38.10168	71.80310	92.56335	71.82275	92.52237	22.3	25.7
30	172.03709	146.70805	25.32904	46.52277	42.97192	86.15906	91.05742	86.12134	90.94701	35.6	41.7
31	156.82352	132.09706	24.72646	44.41745	40.76787	101.61494	91.65613	101.60956	91.59441	29.5	34.4
32	129.93910	106.22485	23.71425	40.43065	36.54782	115.11922	92.25752	115.07307	92.24657	17.8	20.5
33	167.02527	144.61682	22.40845	45.87550	42.67369	14.58187	76.92839	14.66244	76.89998	33.7	40.7
34	154.02007	131.77847	22.24159	44.01646	40.71382	28.94292	77.55090	28.94992	77.49252	28.3	34.3
35	148.33522	125.90530	22.42992	43.19020	39.79633	43.22220	76.87212	43.21754	76.86798	25.9	31.2
36	142.45537	120.19066	22.26471	42.33156	38.88823	57.12331	77.76279	57.10970	77.76613	23.4	28.2
37	153.28535	130.34637	22.93898	43.90878	40.50023	71.26845	78.36121	71.29463	78.38438	28.0	33.6
38	155.34840	133.93404	21.41437	44.20995	41.05406	85.95230	74.31511	85.98758	74.28436	28.8	35.4
39	161.22475	139.01541	22.20934	45.02948	41.81505	100.93192	77.26344	100.93872	77.23901	31.2	37.9
40	175.38225	153.03467	22.34758	46.96669	43.87778	115.96388	77.96278	115.96236	77.92355	36.9	44.7
41	160.89946	138.56769	22.33177	45.00436	41.76125	14.38712	62.76439	14.45035	62.76138	31.2	37.7
42	166.86737	144.77229	22.09508	45.81926	42.69148	28.81998	62.90347	28.81602	62.85345	33.5	40.8
43	139.73125	117.42358	22.30766	41.92256	38.44586	42.91902	62.62181	42.93610	62.61909	22.2	26.8
44	168.11011	146.99896	21.11115	45.99986	43.01270	57.10010	63.43103	57.17340	63.37672	34.1	41.8
45	150.04437	128.19908	21.84529	43.45413	40.17439	71.96974	63.43411	72.03548	63.44121	26.6	32.5
46	146.45172	125.30792	21.14380	42.93132	39.69751	85.87061	60.21535	85.91946	60.22166	25.1	30.9
47	151.98932	130.55704	21.43228	43.73161	40.54187	100.55650	62.36165	100.61880	62.28635	27.5	33.7
48	158.08621	136.94414	21.14207	44.59846	41.51761	115.85564	62.72003	115.84415	62.71950	30.0	36.9
49	132.43565	111.63148	20.80417	40.82997	37.48248	15.22334	48.50775	15.25075	48.54007	19.0	23.6
50	149.83083	127.87183	21.95900	43.44048	40.10294	29.29277	48.10916	29.28172	48.12042	26.6	32.3
51	142.13208	120.25526	21.87682	42.29878	38.90367	43.22249	48.16080	43.19221	48.18338	23.3	28.3
52	162.79443	141.45140	21.34303	45.30850	42.22363	58.23880	48.93253	58.18814	48.93198	32.0	39.2
53	137.18756	115.62265	21.56491	41.55711	38.14841	73.00461	48.38475	73.04379	48.37799	21.1	25.8
54	137.61424	115.47809	22.13615	41.60846	38.11360	87.21350	48.39720	87.18539	48.40831	21.3	25.7
55	137.68251	115.21922	22.46329	41.64713	38.08133	101.86475	48.06160	101.86223	48.10353	21.4	25.6
56	170.38777	147.56732	22.82045	46.31004	43.08350	116.20067	48.27087	116.14491	48.24197	35.0	42.1
57	133.39497	110.63528	22.75969	40.98120	37.31010	14.76900	34.53247	14.81140	34.51013	19.4	23.0
58	145.87659	123.30362	22.57297	42.84909	39.39760	28.25894	34.06297	28.26511	34.07855	24.9	29.9

59	192.12035	168.93697	23.18338	48.67284	45.79948	42.78786	33.40749	42.86026	33.49731	41.9	51.0
60	203.81464	180.80257	23.01207	50.63292	47.69756	58.25081	33.71985	58.25975	33.72179	47.6	57.3
61	162.22919	139.26971	22.95947	45.17735	41.85481	73.50557	33.27206	73.51563	33.24487	31.7	38.0
62	94.67673	72.82571	21.85101	34.50876	30.26520	87.16866	32.68025	87.16040	32.67737	0.6	-0.2
63	210.02132	187.17979	22.84152	51.43936	48.56592	101.50334	33.71729	101.54189	33.73613	49.9	60.2
64	148.31995	126.86313	21.45682	43.18617	39.93965	116.59322	33.59386	116.55339	33.63837	25.9	31.7

TABLE C-39. GEOMETRIC PARAMETERS OF B-5 SECTION AT 56.2 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	136.57843	114.37045	22.20798	41.45988	37.92880	15.15724	135.81506	15.16755	135.76080	20.8	25.1
2	123.79596	102.05357	21.74239	39.45627	35.82570	28.77873	135.74257	28.76270	135.70943	15.0	18.1
3	125.22227	102.86154	22.36073	39.68550	35.98019	43.76863	135.03285	43.74271	134.98250	15.7	18.7
4	122.06966	100.53001	21.53964	39.18570	35.58023	58.06339	134.77322	58.04688	134.74976	14.2	17.3
5	135.24538	113.63577	21.60960	41.24661	37.80681	72.32877	134.43517	72.32019	134.41380	20.2	24.7
6	140.01634	117.12711	22.88924	41.97516	38.38895	86.67288	135.31367	86.70926	135.25980	22.3	28.6
7	133.44232	111.94055	21.50177	40.97659	37.52933	101.37721	135.68666	101.35062	135.64992	19.4	23.8
8	144.53198	122.38887	22.14311	42.63416	39.24251	115.20321	135.21045	115.16312	135.12595	24.3	29.4
9	160.46228	137.30115	23.16113	44.93236	41.57480	14.35464	122.15254	14.35645	122.15222	31.0	37.1
10	143.16220	120.97966	22.18254	42.43637	39.03433	29.19864	121.96735	29.20502	121.97353	23.7	28.7
11	148.89108	125.75945	23.13164	43.28693	39.77531	43.73503	120.86223	43.74638	120.85365	26.2	31.2
12	145.58180	124.02464	21.55716	42.79240	39.50764	58.19524	120.83089	58.18642	120.83794	24.7	30.3
13	145.68620	123.40523	22.28098	42.80444	39.40521	72.19937	120.21341	72.25046	120.18245	24.7	30.0
14	149.90797	128.28638	21.62160	43.42415	40.17438	86.32585	121.32851	86.36455	121.33238	26.6	32.5
15	152.09953	129.25038	22.84915	43.74352	40.34990	100.85246	121.76196	100.87143	121.76160	27.5	3 .1
16	127.22710	104.84834	22.37875	40.00296	36.31947	115.12230	121.06557	115.11604	121.07838	16.6	19.8
17	202.32222	179.92741	22.39481	50.49098	47.61517	14.75011	106.73788	14.78822	106.68095	47.2	57.0
18	149.94276	127.76527	22.17749	43.46840	40.13568	30.02109	107.59254	29.97960	107.54364	26.7	32.4
19	148.28084	125.44524	22.83560	43.18579	39.74194	43.93405	106.43312	43.91068	106.38544	25.9	31.1
20	152.68585	130.82452	21.86133	43.82492	40.57524	57.87656	106.52437	57.86426	106.55432	27.7	33.8
21	130.87137	109.27011	21.60126	40.58372	37.07570	71.62003	106.71368	71.61722	106.71794	18.3	22.3
22	147.67964	125.45586	22.22379	43.09982	39.71809	86.25555	106.34180	86.26471	106.29948	25.6	31.0
23	157.03755	135.16177	21.87578	44.43262	41.22389	101.75439	107.12930	101.80255	107.07199	29.5	36.0
24	131.45360	109.85046	21.60313	40.66377	37.16599	115.90268	106.59114	115.88615	106.54370	18.5	22.6
25	150.82492	128.53075	22.29417	43.60313	40.26613	15.02374	91.46260	15.01951	91.45518	27.1	32.8
26	140.58694	119.62349	20.96346	42.09790	38.85355	30.10213	92.36945	30.09328	92.37071	22.7	28.1
27	146.13469	125.73457	20.40012	42.88963	39.77489	44.47044	91.91217	44.44243	91.93881	25.0	31.2
28	144.79668	121.93253	22.86415	42.68480	39.16122	58.50813	92.24727	58.47957	92.23470	24.4	29.1
29	133.04720	112.28355	20.76364	40.91771	37.60013	72.19118	92.60718	72.15588	92.58708	19.3	24.0
30	158.82065	137.94623	20.87442	44.74197	41.65636	86.44406	91.32487	86.42126	91.27795	30.4	37.4
31	144.28845	123.13208	21.15637	42.60275	39.36107	101.65916	91.83644	101.66656	91.81210	24.2	29.8
32	138.25479	116.45195	21.80284	41.70753	38.27762	115.05685	92.26546	115.01964	92.27245	21.6	26.2
33	151.44722	128.08340	23.36382	43.65253	40.17265	14.97289	77.29123	15.01414	77.28230	27.2	33.5
34	147.45726	125.21043	22.24683	43.07283	39.69075	29.28882	77.77466	29.28815	77.68387	25.5	30.9
35	138.51889	116.22719	22.29170	41.74904	38.23878	43.58562	77.30412	43.59724	77.30882	21.7	26.1
36	136.51991	114.98083	21.53908	41.45467	38.02467	57.50610	77.92191	57.50259	77.92038	20.8	25.4
37	143.12390	120.63277	22.49113	42.42639	38.96442	71.72574	78.33327	71.74683	78.33916	23.6	28.5
38	144.78345	123.51448	21.26897	42.67720	39.41396	86.29388	75.05191	86.30623	75.02246	24.4	30.0
39	149.23697	128.39359	20.84338	43.31674	40.18613	101.01602	77.40216	101.00439	77.40608	26.2	32.5
40	148.56210	127.36223	21.19987	43.23720	40.03288	115.85353	77.95805	115.83788	77.94580	26.0	32.0
41	152.39305	130.95993	21.43312	43.79045	40.59103	14.78398	63.20700	14.83083	63.20198	27.6	33.9
42	142.55846	120.56535	21.99310	42.34010	38.94586	29.14041	63.34007	29.12785	63.31784	23.4	28.4
43	131.48567	109.77321	21.71246	40.66826	37.15556	43.30647	63.02716	43.31473	63.05350	18.5	22.5
44	149.76250	129.09819	20.66431	43.40048	40.30002	57.53656	63.67755	57.56129	63.65742	26.5	32.9
45	136.47334	115.09682	21.37653	41.42538	38.05724	72.22902	63.56546	72.25124	63.56468	20.7	25.5
46	137.87975	117.01765	20.86209	41.64182	38.35626	86.17068	60.91522	86.15091	60.90787	21.4	26.5
47	139.37358	116.76724	22.60634	41.88176	38.35577	100.78442	62.59897	100.78793	62.55717	22.1	26.5
48	151.94371	130.76161	21.18210	43.75124	40.56035	115.77364	62.99940	115.71573	62.97340	27.5	33.8
49	139.17743	114.07085	25.10658	41.83548	37.88069	15.54564	49.09810	15.56575	49.10193	21.9	24.9
50	139.39319	115.65759	23.73560	41.86977	38.15158	29.69965	48.68442	29.65573	48.66327	22.0	25.8
51	136.45177	111.66624	24.78552	41.43115	37.47147	43.62852	48.66159	43.62140	48.63672	20.7	23.6
52	149.16277	125.82190	23.34087	43.30896	39.77864	58.41054	49.31812	58.38239	49.26755	26.2	31.2
53	136.52095	112.30283	24.21812	41.43962	37.58839	73.13783	48.77464	73.14682	48.75119	20.8	24.0
54	131.81496	108.54413	23.27083	40.71843	36.95447	87.23212	47.13863	87.21260	47.12489	18.7	21.9
55	134.07089	109.60670	24.46419	41.05954	37.13437	101.76375	48.59941	101.77666	48.61160	19.7	22.5
56	163.34744	139.74728	23.60016	45.33249	41.92804	115.98199	48.73918	115.91530	48.69054	32.1	38.3
57	138.83591	116.05090	22.78500	41.81194	38.22676	15.18229	35.04990	15.20718	35.04845	21.9	26.1
58	134.57957	111.75584	22.82373	41.15433	37.49425	28.72592	34.66483	28.75162	34.67493	19.9	23.7

59	141.63759	119.53809	22.09950	42.21913	38.78201	42.94479	33.75362	42.98053	33.80466	23.0	27.9
60	154.11209	131.73360	22.37849	44.02857	40.71060	58.39445	3..26984	58.41066	34.26953	28.3	34.3
61	138.24921	116.31117	21.93803	41.69150	38.24991	73.49799	33.70330	73.51956	33.81877	21.5	26.1
62	93.75278	72.35429	21.39848	34.34053	30.17924	87.28854	33.29834	87.32162	33.30374	0.1	-0.5
63	191.92174	169.37308	22.54866	49.15450	46.17448	101.51073	34.23837	101.52367	34.25800	43.3	52.3
64	148.27231	126.12146	22.15085	43.19621	39.83585	116.46478	34.25937	116.44154	34.31947	25.9	31.4

TABLE C-40. GEOMETRIC PARAMETERS OF B-5 SECTION AT 57.8 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	134.58846	111.99011	22.59834	41.14493	37.56564	15.38733	135.62523	15.37526	135.55693	19.9	23.9
2	128.95071	107.56131	21.38940	40.27998	36.78575	29.09297	135.69839	29.08694	135.67491	17.4	21.3
3	124.24115	102.02301	22.21814	39.54066	35.82651	44.05621	135.07919	44.05832	135.02014	15.2	18.2
4	118.72527	97.32190	21.40337	38.64377	35.00803	58.35526	134.91130	58.33539	134.87662	12.6	15.5
5	125.70012	103.70740	21.99272	39.78879	36.12578	72.71599	134.62645	72.68832	134.59087	16.0	19.1
6	122.79802	100.89297	21.90504	39.29974	35.62596	87.02344	135.29472	87.02681	135.21802	14.5	17.5
7	125.24942	103.23178	22.01764	39.69020	36.02934	101.68349	135.61310	101.68230	135.55252	15.7	18.8
8	138.61815	116.20100	22.41714	41.74823	38.27103	115.71078	135.29892	115.66457	135.21925	21.7	26.2
9	131.39938	108.76689	22.63249	40.66380	36.98494	14.56678	121.87143	14.58803	121.87643	18.5	22.0
10	138.79199	116.66576	22.12624	41.77881	38.32001	29.43637	121.72301	29.45229	121.72758	21.8	26.4
11	140.50557	117.77559	22.72998	42.03708	38.86813	44.03107	120.77539	43.99054	120.74524	22.5	28.2
12	138.15085	116.31689	21.83395	41.69426	38.25557	58.47192	120.76529	58.47986	120.80702	21.5	26.2
13	140.61412	116.99866	23.61546	42.05911	38.36661	72.51427	120.27026	72.52614	120.24358	22.6	26.5
14	143.02246	120.44615	22.57631	42.41302	38.91794	86.69211	121.20975	86.73610	121.18155	23.6	28.3
15	143.46014	120.44957	23.01057	42.47835	38.92256	101.25847	121.64159	101.26823	121.62360	23.8	28.4
16	119.87633	97.61559	22.26074	38.82654	35.04138	115.73820	121.16119	115.73418	121.16812	13.2	15.6
17	136.79147	113.63251	23.15897	41.47894	37.81393	14.67016	106.92946	14.70553	106.88976	20.9	24.7
18	141.90135	118.89169	23.00966	42.24736	38.67345	30.21280	107.35352	30.19371	107.32530	23.1	27.5
19	139.99648	117.26303	22.73344	41.96861	38.40405	44.22371	106.34042	44.19310	106.31041	22.3	26.7
20	143.11748	120.35109	22.76639	42.42755	38.92921	58.25529	106.44440	58.22990	106.43694	23.7	28.4
21	128.67169	105.90576	22.76593	40.22543	36.50604	72.19356	106.63200	72.19887	106.64183	17.2	20.4
22	136.51591	113.98628	22.52963	41.43944	37.85925	86.69931	106.20274	86.72469	106.16023	20.8	24.9
23	144.27707	121.41809	22.85898	42.60472	39.08600	101.93536	106.88052	101.97318	106.84512	24.2	28.9
24	130.75346	108.48494	22.26852	40.56783	36.94553	116.07762	106.56975	116.10184	106.53517	18.2	21.8
25	124.64050	103.28700	21.35350	39.59689	36.05428	15.31407	91.54845	15.31149	91.51648	15.4	18.9
26	133.21552	111.35249	21.86302	40.94125	37.42752	30.32104	92.17140	30.31212	92.14769	19.3	23.4
27	138.34435	117.44073	20.90361	41.71461	38.43451	44.67857	91.85779	44.62390	91.84694	21.6	26.8
28	138.96565	117.31757	21.64809	41.80937	38.42995	58.79181	92.10913	58.76761	92.08844	21.8	26.7
29	131.68898	109.31802	22.37096	40.70372	37.08510	72.68050	92.34676	72.70071	92.30655	18.6	22.3
30	151.93918	130.11400	21.82518	43.71466	40.45195	86.94267	91.36223	86.91870	91.32005	27.4	33.4
31	136.16467	114.38852	21.77615	41.38501	37.93854	101.98306	91.79132	102.00755	91.74796	20.6	25.1
32	130.26855	108.96689	21.30167	40.47691	37.02841	115.40837	92.07243	115.40556	92.09033	18.0	22.1
33	132.07076	109.67564	22.39511	40.76714	37.14970	15.25565	77.18336	15.34233	77.14706	18.8	22.5
34	142.33823	120.30098	22.03725	42.30971	38.90315	29.69765	77.51387	29.72095	77.46155	23.3	28.3
35	132.67845	111.20575	21.47270	40.85059	37.40247	44.06438	77.26781	44.03557	77.24661	19.1	23.3
36	132.32159	110.82613	21.49547	40.79756	37.34155	58.04779	77.63947	58.03467	77.64163	18.9	23.1
37	135.44975	113.87746	21.57230	41.27818	37.84738	72.35014	77.95232	72.35770	77.93570	20.3	24.8
38	138.01863	118.40926	19.60938	41.67159	38.59985	86.85320	75.35558	86.86572	75.35475	21.4	27.3
39	138.64606	118.08554	20.56052	41.76006	38.54794	101.43808	77.26280	101.45229	77.24583	21.7	27.1
40	125.54114	104.80969	20.73145	39.74506	36.30588	116.07384	77.64662	116.10468	77.65926	15.8	19.7
41	140.88474	118.48596	22.39877	42.09874	38.61403	15.05721	62.98363	15.13988	62.98003	22.7	27.3
42	134.26959	109.19273	25.07686	41.09750	37.05530	29.47665	63.07742	29.47505	63.04604	19.8	22.2
43	129.97580	105.94083	24.03497	40.42458	36.50084	43.73364	62.85716	43.74521	62.83531	17.8	20.4
44	141.65747	116.74306	24.91441	42.20804	38.32463	58.07578	63.32845	58.09863	63.26559	23.0	26.4
45	134.80438	110.15559	24.64879	41.16901	37.21707	72.68950	63.26733	72.71446	63.21617	20.0	22.7
46	134.42294	110.59129	23.83165	41.11264	37.29013	86.71486	61.13135	86.72496	61.13344	19.8	23.0
47	133.94565	109.11226	24.83339	41.04120	37.04625	101.29666	62.48868	101.29945	62.43216	19.6	22.2
48	137.77444	113.83301	23.94144	41.62320	37.85654	116.04022	62.83246	116.03738	62.78645	21.3	24.8
49	141.87843	115.54315	26.33528	42.24171	38.12477	15.74328	48.82312	15.77230	48.83179	23.1	25.7
50	133.80275	108.16774	25.63501	41.04941	36.88376	30.01575	48.52519	29.99484	48.49188	19.6	21.6
51	133.63071	108.29868	25.33203	41.01926	36.91301	44.05685	48.45840	44.06010	48.43942	19.5	21.7
52	138.23909	113.29903	24.94006	41.70238	37.75848	58.81699	49.00711	58.81284	48.96356	21.5	24.5
53	133.80048	108.35397	25.44650	41.01785	36.93344	73.48212	48.57265	73.48105	48.57062	19.5	21.8
54	128.49738	104.02292	24.47446	40.19426	36.17792	87.64763	47.27077	87.62253	47.25688	17.1	19.3
55	132.30302	107.09320	25.20982	40.78984	36.70944	102.07530	48.60103	102.08771	48.62094	18.9	21.1
56	156.52061	131.18224	25.33838	44.36687	40.63571	116.31047	48.69972	116.29097	48.65849	29.3	34.0
57	144.69208	118.45447	26.23761	42.67630	38.60529	15.44968	34.59315	15.49279	34.56241	24.4	27.3
58	133.59425	108.17607	25.41818	40.99983	36.89594	29.18619	34.31839	29.18265	34.31580	19.5	21.7

59	129.28799	106.76718	22.52081	40.34760	36.64607	43.61925	33.67537	43.64214	33.70390	17.6	20.9
60	125.31918	103.26201	22.05717	39.71198	36.04219	58.80194	33.98340	58.81754	33.96898	15.7	18.9
61	122.00836	100.60226	21.40610	39.18008	35.57007	73.78868	33.54878	73.82111	33.55220	14.2	17.3
62	94.80981	73.32089	21.48892	34.53426	30.37393	87.82080	33.15387	87.83659	33.13939	0.6	0.2
63	162.92909	140.38713	22.54196	45.27449	42.02031	102.01421	33.99535	102.05049	33.99222	31.9	38.6
64	148.12007	125.16110	22.95897	43.17131	39.67618	116.89825	34.23174	116.87442	34.27417	25.8	30.8

TABLE C-41. GEOMETRIC PARAMETERS OF B-5 SECTION AT 59.6 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	122.77065	100.70874	22.06190	39.30655	35.60188	14.81382	135.30592	14.83560	135.25661	14.6	17.4
2	129.76041	108.25372	21.50668	40.39940	36.90912	28.65025	135.45081	28.67174	135.39767	17.7	21.7
3	126.46921	104.78369	21.68552	39.89108	36.31151	43.41888	134.91002	43.40872	134.85370	16.3	19.7
4	125.92192	104.56454	21.35738	39.80446	36.27458	57.71504	134.82233	57.68694	134.80249	16.0	19.6
5	129.41771	107.22426	22.19345	40.36005	36.73566	72.05011	134.57234	72.06622	134.56764	17.6	21.1
6	124.08060	102.87758	21.20302	39.50777	35.97438	86.35660	134.99628	86.38034	134.96304	15.1	18.6
7	125.14998	104.55685	20.59312	39.67305	36.26137	100.88895	135.32626	100.90921	135.28540	15.6	19.6
8	130.17079	109.62251	20.54828	40.47244	37.13684	115.03230	135.02449	115.00760	134.97762	18.0	22.5
9	123.55185	99.67548	23.87637	39.42168	35.40753	14.07853	121.41460	14.09382	121.39513	14.9	16.8
10	132.85939	107.95239	24.90700	40.88464	36.84459	28.79321	121.34348	28.82785	121.30196	19.2	21.5
11	134.12650	109.09245	25.03404	41.07755	37.04996	43.33147	120.64131	43.33728	120.64378	19.7	22.2
12	132.47269	107.66083	24.81186	40.81772	36.80086	57.72984	120.64890	57.73999	120.64330	19.0	21.4
13	134.16115	109.14929	25.01186	41.08266	37.06065	71.84915	120.14207	71.87473	120.15056	19.7	22.2
14	132.83723	107.67867	25.15857	40.87465	36.80304	86.11536	120.88876	86.14009	120.85710	19.1	21.4
15	134.78998	109.79271	24.99721	41.18306	37.16792	100.59460	121.22658	100.61653	121.20979	20.0	22.6
16	123.97862	100.14258	23.83604	39.48714	35.49728	115.21609	120.96666	115.17900	120.92094	15.1	17.1
17	121.61267	99.82321	21.78946	39.12068	35.43457	14.09974	106.94521	14.12537	106.91847	14.0	16.9
18	128.54405	107.25490	21.28915	40.20027	36.73228	29.11516	107.25703	29.09206	107.22891	17.2	21.1
19	126.34703	103.81795	22.52908	39.88292	36.13969	43.24054	106.55029	43.24298	106.55257	16.2	19.2
20	127.83299	106.12038	21.71262	40.09320	36.54056	57.26910	106.55037	57.26501	106.54971	16.8	20.5
21	121.94583	100.07544	21.87039	39.16205	35.48862	71.29063	106.69508	71.29257	106.71217	14.1	17.0
22	127.60512	105.70561	21.89951	40.07031	36.46828	85.65823	106.29556	85.65245	106.28018	16.8	20.3
23	130.52112	108.57831	21.94281	40.51016	36.99838	100.48077	106.76584	100.51611	106.71423	18.1	22.0
24	121.31003	100.56766	20.74237	39.06226	35.57442	114.51707	106.57837	114.52400	106.55824	13.8	17.3
25	122.95338	101.46783	21.48555	39.33124	35.72481	14.51450	92.13803	14.50787	92.14381	14.6	17.8
26	122.86113	101.25906	21.60207	39.30531	35.70250	29.26068	92.36435	29.28699	92.34250	14.6	17.7
27	127.15565	105.55374	21.60191	39.98817	36.46530	43.53981	92.21588	43.52547	92.19850	16.5	20.3
28	127.19904	105.30437	21.89467	39.99734	36.40215	57.56654	92.28387	57.56798	92.30339	16.6	20.0
29	124.51167	103.13568	21.37599	39.58313	36.01836	71.58040	92.41972	71.59238	92.38258	15.4	18.8
30	135.55569	113.89018	21.66551	41.30392	37.88676	85.75006	91.76196	85.70215	91.71889	20.4	24.9
31	125.96065	103.81645	22.14420	39.80220	36.14363	100.51607	92.04259	100.51595	91.99785	16.0	19.2
32	115.31677	93.31302	22.00375	38.08054	34.28830	114.08382	92.25020	114.04671	92.25459	11.0	13.1
33	126.20064	104.41676	21.78387	39.83852	36.23965	14.53872	77.71429	14.55154	77.71878	16.1	19.5
34	130.30670	108.16504	22.14166	40.49013	36.88431	28.77895	77.77515	28.78670	77.75487	18.0	21.6
35	123.10336	101.06865	22.03471	39.36752	35.67825	43.12666	77.73999	43.09949	77.75792	14.7	17.7
36	122.28192	100.95909	21.32283	39.20834	35.67152	57.08095	77.84904	57.07634	77.88354	14.3	17.6
37	126.25513	104.87260	21.38252	39.85716	36.31836	71.35298	78.02708	71.36189	78.04126	16.2	19.8
38	127.54558	107.29205	20.25352	40.05435	36.77562	85.71002	76.27502	85.67931	76.30719	16.7	21.3
39	125.71788	103.78857	21.92931	39.77037	36.18622	100.12296	77.57014	100.10144	77.57828	15.9	19.3
40	115.06882	94.08595	20.98296	38.04846	34.54512	114.61226	77.92462	114.57979	77.92889	10.9	13.9
41	128.53360	106.12299	22.41061	40.20584	36.54434	14.39856	63.53773	14.42890	63.55009	17.2	20.5
42	122.13330	100.28133	21.85197	39.19638	35.52020	28.67674	63.49930	28.63567	63.47014	14.2	17.1
43	120.52705	98.56802	21.95903	33.94397	35.25508	42.91475	63.32494	42.89832	63.30261	13.5	16.3
44	125.81998	103.82376	21.99622	39.77519	36.13405	57.24654	63.56003	57.27216	63.54573	15.9	19.2
45	126.07755	104.16135	21.91620	39.81963	36.19698	71.59512	63.55933	71.62833	63.55893	16.1	19.4
46	121.96191	100.32031	21.64160	39.16913	35.54108	85.71034	62.02173	85.72383	62.00327	14.2	17.2
47	122.28217	100.75819	21.52397	39.24185	35.60164	100.09114	63.01587	100.12494	62.98157	14.4	17.4
48	123.20703	101.91869	21.28835	39.36565	35.80731	114.62448	63.31830	114.62119	63.28831	14.7	18.1
49	124.80478	102.27869	22.52609	39.62440	35.88695	14.86362	49.40404	14.87898	49.43199	15.5	18.3
50	121.44936	100.32582	21.12354	39.10094	35.52199	29.09573	49.14182	29.09796	49.12404	14.0	17.1
51	121.79721	100.87006	20.92715	39.14192	35.61598	43.22501	49.05016	43.21510	49.05963	14.1	17.5
52	121.26212	100.68663	20.57549	39.05714	35.58662	57.72003	49.39236	57.71930	49.35995	13.8	17.4
53	121.99374	99.96796	22.02579	39.17317	35.46414	72.26059	49.13712	72.27953	49.11632	14.2	17.0
54	118.88066	97.82854	21.05212	38.67776	35.08604	86.34247	48.18289	86.34296	48.20273	12.7	15.7
55	122.48636	101.54182	20.94453	39.28235	35.75597	100.65518	49.26015	100.65735	49.30624	14.5	17.9
56	132.22385	111.76892	20.45493	40.79826	37.51147	114.74030	49.26422	114.70879	49.23296	18.9	23.7
57	128.49387	105.84366	22.65021	40.20767	36.50584	14.76224	35.15530	14.78614	35.13606	17.2	20.4
58	124.94206	102.46788	22.47418	39.64606	35.90649	28.62912	34.95163	28.64879	34.96968	15.5	18.4

59	124.94344	102.91588	22.02756	39.65326	35.99745	42.97984	34.64636	43.00104	34.66490	15.6	18.7
60	116.22238	94.51450	21.70789	38.23346	34.47952	57.73022	34.70424	57.75749	34.68906	11.4	13.7
61	112.32352	90.78113	21.54239	37.58762	33.78940	72.41045	34.22209	72.39836	34.23212	9.5	11.4
62	93.49556	71.98772	21.50784	34.29758	30.10553	86.50092	33.97221	86.49440	33.96584	-0.0	-0.7
63	131.89922	110.16571	21.73351	40.72731	37.23386	100.62556	34.77461	100.64247	34.74362	18.7	22.8
64	135.80109	114.76549	21.03560	41.32471	37.99586	115.22234	35.06857	115.17969	35.07294	20.4	25.3

[redacted] H 6 [redacted]

TABLE C-42. GEOMETRIC PARAMETERS OF B-5 SECTION AT 61.2 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	120.33179	98.20189	22.12990	38.90608	35.15205	14.67855	135.00945	14.68521	134.97653	13.4	15.9
2	121.24596	99.34908	21.89688	39.09776	35.36096	28.68692	135.17546	28.68927	135.15584	13.9	16.6
3	120.60797	98.42136	22.18661	38.97113	35.24797	43.35884	134.67924	43.34804	134.64000	13.6	16.2
4	121.33052	98.63850	22.69202	39.08517	35.24327	57.67264	134.60846	57.66925	134.58459	13.9	16.2
5	122.61848	99.59076	23.02773	39.28465	35.40401	72.08607	134.36807	72.06310	134.34985	14.5	16.8
6	120.85664	98.29123	22.56541	39.00156	35.16734	86.42122	134.50827	86.43672	134.49570	13.7	16.0
7	120.48792	97.81470	22.67322	38.95076	35.08966	100.94533	134.76228	100.95975	134.75920	13.5	15.7
8	125.92572	103.16426	22.76146	39.85431	36.03833	115.09908	134.44073	115.09908	134.43471	16.2	18.8
9	122.69513	100.25041	22.44472	39.28543	35.51575	14.15428	120.96017	14.18948	120.94316	14.5	17.1
10	122.78929	100.85576	21.93353	39.29996	35.61606	28.78059	120.85039	28.79214	120.84544	14.5	17.5
11	122.64882	100.30605	22.34277	39.29456	35.53394	43.30461	120.34427	43.29311	120.32060	14.5	17.2
12	122.56546	100.04102	22.52444	39.27844	35.47762	57.74384	120.28271	57.74594	120.30006	14.5	17.0
13	123.53047	101.26341	22.26706	39.41586	35.69528	71.94395	119.84825	71.98105	119.84673	14.9	17.7
14	121.52765	99.43398	22.09367	39.09969	35.36588	86.31273	120.34625	86.34734	120.31854	14.0	16.6
15	122.52419	100.62733	21.89685	39.25789	35.59183	100.76601	120.52669	100.76114	120.53934	14.4	17.4
16	116.90845	95.64775	21.26070	38.34645	34.69456	115.39287	120.33800	115.35335	120.30989	11.8	14.4
17	124.07994	102.24701	21.83293	39.52693	35.86768	14.34698	106.30092	14.33787	106.26897	15.2	18.3
18	118.80649	97.51041	21.29608	38.66216	35.03146	29.15707	106.44156	29.14990	106.44110	12.7	15.5
19	118.42552	95.72031	22.70522	38.60637	34.71291	43.48296	105.90266	43.48679	105.89253	12.5	14.5
20	119.56824	96.87694	22.69130	38.78311	34.91144	57.67979	105.83031	57.67642	105.82710	13.0	15.1
21	116.34454	94.30537	22.03917	38.31281	34.46130	71.86795	105.92128	71.89496	105.95229	11.7	13.6
22	122.15875	99.60898	23.54977	39.19711	35.27637	86.28581	105.53349	86.29131	105.50259	14.2	16.3
23	121.81682	99.50262	22.31419	39.14925	35.40694	101.02225	105.79486	101.05969	105.76248	14.1	16.8
24	120.86853	98.79387	22.07466	38.99518	35.26765	115.24658	105.71945	115.22377	105.70480	13.6	16.3
25	121.23608	98.99695	22.23914	39.05724	35.28317	14.60813	91.63699	14.59934	91.64551	13.8	16.4
26	116.49852	94.06607	22.43245	38.28238	34.41316	29.28035	91.60042	29.28246	91.57990	11.6	13.5
27	118.97350	96.75404	22.21945	38.68446	34.89555	43.66476	91.48907	43.66803	91.47821	12.7	15.1
28	118.43851	96.53819	21.90031	38.59297	34.86234	57.84224	91.48560	57.85033	91.48244	12.5	15.0
29	118.46347	96.32170	22.14177	38.59499	34.80544	72.06651	91.48174	72.06464	91.46193	12.5	14.8
30	122.44910	101.16890	21.28020	39.24442	35.68729	86.29105	91.02370	86.25154	90.99368	14.4	17.7
31	117.61847	96.03291	21.58556	38.46791	34.75813	101.07611	91.12016	101.07857	91.09668	12.1	14.6
32	115.37708	93.53479	21.84229	38.09630	34.29408	114.92001	91.35025	114.87808	91.33202	11.0	13.1
33	119.51459	97.99898	21.51561	38.77489	35.11333	14.66358	77.06390	14.69080	77.06291	13.0	15.8
34	120.32898	98.41589	21.91309	38.89787	35.19135	28.90738	76.95885	28.92305	76.93079	13.4	16.1
35	115.81622	93.98454	21.83168	38.16570	34.38597	43.37323	76.97523	43.35521	76.98962	11.2	13.4
36	115.62721	93.65586	21.97133	38.14285	34.32909	57.45522	76.87646	57.45819	76.89400	11.2	13.2
37	119.11096	96.29160	22.81937	38.71170	34.80579	71.87166	76.93213	71.88936	76.94534	12.8	14.8
38	118.55061	97.44742	21.10320	38.63225	35.02704	86.26038	75.66728	86.26001	75.69319	12.6	15.5
39	118.95465	96.96259	21.99207	38.70671	34.94902	100.72379	76.57755	100.74551	76.58748	12.8	15.3
40	114.25536	93.95744	20.29791	37.92511	34.39958	115.24203	76.90584	115.25468	76.90793	10.5	13.4
41	117.06516	94.41270	22.65245	38.37262	34.46646	14.55538	62.73045	14.56607	62.76010	11.8	13.7
42	115.01094	93.11578	21.89516	38.05667	34.24481	28.83130	62.63130	28.83408	62.65138	10.9	12.9
43	114.00725	91.98483	22.02242	37.88173	34.02794	43.18100	62.37531	43.17442	62.42101	10.4	12.2
44	116.98378	95.26373	21.72005	38.36334	34.62016	57.64949	62.47557	57.65961	62.46584	11.8	14.2
45	116.90764	96.63649	20.27115	38.36058	34.86719	72.00967	62.51581	72.03539	62.48657	11.8	15.0
46	114.85721	93.96732	20.88989	38.04092	34.38791	86.29352	61.28609	86.30617	61.31519	10.9	13.4
47	115.24033	93.29094	21.94939	38.07819	34.26506	100.70313	62.02223	100.70184	62.00624	11.0	13.0
48	116.37935	95.72031	20.65904	38.26787	34.72664	115.21025	62.22075	115.22356	62.24026	11.5	14.5
49	118.43683	93.67281	24.76402	38.59784	34.33057	14.77772	48.45770	14.81432	48.44397	12.5	13.2
50	117.47392	94.95319	22.52074	38.44069	34.56798	29.13754	48.23642	29.11864	48.20808	12.0	14.0
51	117.95486	94.42136	23.53351	38.52997	34.46750	43.41942	48.10555	43.40840	48.06740	12.3	13.7
52	116.87338	93.64830	23.22508	38.33832	34.32730	57.93111	48.24960	57.94310	48.24326	11.7	13.2
53	117.64809	93.73163	23.91646	38.46184	34.35362	72.45769	48.03471	72.47726	48.01674	12.1	13.3
54	116.95532	93.65076	23.30457	38.35268	34.31889	86.72108	47.31664	86.71899	47.31795	11.8	13.2
55	118.33633	94.59993	23.73640	38.58234	34.49771	101.05659	48.13008	101.06676	48.14207	12.4	13.8
56	125.66597	102.19667	23.46930	39.77565	35.85776	115.29765	48.09450	115.26367	48.05148	15.9	18.3
57	119.24652	98.31660	20.92992	38.72203	35.16782	14.76332	34.13087	14.78810	34.13576	12.9	16.0
58	117.23181	95.39160	21.84021	38.41245	34.65228	28.91385	33.90688	28.94705	33.90683	11.9	14.3

59	118.65736	97.20784	21.44952	38.63382	34.97409	43.35294	33.71840	43.36407	33.73502	12.6	15.3
60	115.35484	94.47127	20.88358	38.08507	34.48201	57.95782	33.63010	57.96667	33.61511	11.0	13.7
61	111.78607	91.39026	20.39581	37.50491	33.90736	72.58670	33.13931	72.64493	33.12296	9.3	11.8
62	94.69765	73.13258	21.56506	34.51709	30.34547	86.87953	32.90800	86.88878	32.91225	0.6	0.1
63	121.65619	100.50571	21.15048	39.12534	35.56400	101.09760	33.51201	101.16846	33.48586	14.0	17.3
64	126.75696	105.65538	21.10158	39.92403	36.46353	115.58789	33.82935	115.59398	33.84787	16.4	20.3

TABLE C-43. GEOMETRIC PARAMETERS OF B-5 SECTION AT 62.8 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	111.03748	88.93135	22.10612	37.40494	33.45642	14.22282	135.01897	14.19398	134.99959	9.0	10.3
2	110.26604	88.25279	22.01324	37.24268	33.33571	28.49706	135.23912	28.46852	135.20491	8.5	9.9
3	110.60172	88.18764	22.41408	37.31590	33.31706	43.03001	134.89592	43.00475	134.87584	8.8	9.9
4	111.34435	88.88106	22.46329	37.42538	33.44075	57.40265	134.82373	57.36400	134.80649	9.1	10.3
5	112.22868	89.29175	22.93694	37.57600	33.54453	71.89334	134.69290	71.88141	134.67686	9.5	10.6
6	111.39319	89.50125	21.89194	37.44101	33.55840	86.23579	134.64995	86.24593	134.61095	9.1	10.7
7	110.14714	88.44821	21.69893	37.22775	33.37706	100.79735	134.85124	100.78807	134.81111	8.5	10.1
8	115.64471	93.22018	22.42453	38.13046	34.24916	114.99971	134.53535	114.99333	134.53944	11.1	12.9
9	109.69383	87.57233	22.12151	37.17410	33.22351	13.77001	120.70863	13.77336	120.70645	8.3	9.6
10	107.27501	85.73117	21.54384	36.78040	32.87065	28.33527	120.60704	28.33755	120.61452	7.2	8.4
11	107.68251	85.68352	21.99899	36.83032	32.87605	42.84998	120.39407	42.85272	120.38048	7.3	8.4
12	107.22014	85.15924	22.06090	36.74728	32.74522	57.38499	120.28073	57.37126	120.28717	7.1	8.0
13	108.29825	86.08221	22.21603	36.93283	32.93138	71.76137	119.95204	71.79703	119.96013	7.6	8.6
14	106.51892	84.71992	21.79900	36.65114	32.66774	86.22131	120.25331	86.25562	120.25432	6.8	7.7
15	107.59142	85.55190	22.03952	36.84030	32.82468	100.65225	120.35539	100.69241	120.37781	7.4	8.3
16	107.11069	85.87068	21.24001	36.77695	32.89015	115.28104	120.23209	115.31847	120.25055	7.2	8.5
17	110.26274	89.99046	20.27228	37.26573	33.65042	13.89135	106.14870	13.88086	106.10091	8.6	11.0
18	106.80325	85.56816	21.23509	36.66735	32.83122	28.59511	106.16502	28.58215	106.15613	6.9	8.3
19	105.99182	84.71655	21.27527	36.54060	32.65353	43.12547	105.88202	43.11472	105.89297	6.5	7.7
20	107.76581	86.15833	21.60748	36.82785	32.93576	57.50804	105.76033	57.49533	105.75827	7.3	8.6
21	105.49634	83.88428	21.61206	36.44131	32.49968	71.81514	105.74396	71.80879	105.76385	6.2	7.2
22	107.78860	86.96864	20.81996	36.82141	33.08032	86.29744	105.53494	86.29308	105.49345	7.3	9.1
23	107.16576	86.25385	20.91191	36.74876	32.96007	100.90919	105.69218	100.92441	105.65958	7.1	8.7
24	111.52512	90.99878	20.52634	37.45808	33.84065	115.33435	105.66086	115.33539	105.67558	9.2	11.6
25	107.44302	84.97934	22.46368	36.76952	32.70833	14.17520	91.59326	14.19024	91.59953	7.2	7.9
26	105.81343	84.47348	21.33995	36.48857	32.60466	28.74802	91.41643	28.76868	91.40450	6.3	7.5
27	106.04173	84.04916	21.99257	36.54459	32.54155	43.21725	91.34720	43.22916	91.30608	6.5	7.3
28	106.24220	84.46436	21.77785	36.56422	32.60384	57.56851	91.28670	57.56088	91.30934	6.6	7.5
29	106.10027	85.35031	20.74995	36.54514	32.78221	71.96217	91.25087	71.92519	91.23120	6.5	8.1
30	109.05461	87.31027	21.74434	37.04779	33.15288	86.26413	91.02586	86.25975	90.99653	8.0	9.3
31	105.82651	84.61299	21.21352	36.51425	32.67014	100.97076	91.04001	100.91766	91.01205	6.4	7.7
32	109.08618	86.88403	22.20215	37.04379	33.06856	115.04851	91.36462	115.01926	91.36353	8.0	9.1
33	106.71480	84.36549	22.34930	36.67868	32.59262	14.21281	76.99234	14.25889	76.98470	6.9	7.5
34	106.70189	84.55069	22.15120	36.65591	32.63942	28.57188	76.78412	28.55745	76.74519	6.8	7.6
35	105.01173	83.15764	21.85410	36.36426	32.36115	43.10361	76.82832	43.10936	76.81686	6.0	6.7
36	104.55835	83.11949	21.43886	36.28023	32.36009	57.38499	76.67180	57.39432	76.64926	5.7	6.7
37	106.55775	83.79399	22.76376	36.63684	32.49516	71.84862	76.66414	71.87778	76.68690	6.8	7.2
38	105.29594	83.31660	21.97934	36.45178	32.38536	86.23502	75.88309	86.28085	75.86923	6.2	6.8
39	107.14461	84.87006	22.27455	36.76462	32.70007	100.72083	76.50589	100.74503	76.54556	7.1	7.8
40	107.27893	85.95436	21.32457	36.77296	32.90186	115.28616	76.85516	115.31076	76.86609	7.2	8.5
41	106.51672	85.26233	21.25439	36.62851	32.77521	14.27386	62.54727	14.27230	62.56175	6.8	8.1
42	106.42867	85.11020	21.31847	36.60513	32.73030	28.62846	62.40399	28.62024	62.41248	6.7	7.9
43	104.88037	83.36006	21.52031	36.32825	32.38033	42.98305	62.50818	42.98962	62.49570	5.9	6.9
44	105.52191	84.03633	21.48558	36.44992	32.51833	57.39168	62.54414	57.44057	62.52805	6.2	7.2
45	105.31602	84.80646	20.50957	36.42354	32.69748	71.76001	62.64903	71.77167	62.62421	6.2	7.8
46	104.71759	83.41563	21.30196	36.29745	32.39682	86.13811	61.74548	86.13786	61.73958	5.8	6.8
47	105.11821	84.41364	20.70457	36.37555	32.60577	100.46713	62.32990	100.47319	62.30942	6.0	7.5
48	106.47466	86.00746	20.46719	36.62273	32.90979	114.97330	62.54579	114.99860	62.53082	6.7	8.5
49	106.73988	83.64705	23.09283	36.64842	32.45305	14.50478	48.53043	14.50147	48.54552	6.8	7.0
50	106.00060	84.28004	21.72055	36.51733	32.55939	28.93472	48.38998	28.93686	48.36563	6.4	7.4
51	106.11691	84.01501	22.10190	36.53607	32.50572	43.30086	48.31540	43.27634	48.31474	6.5	7.2
52	105.06584	83.72546	21.34038	36.35840	32.45171	57.74536	48.32938	57.73129	48.30650	6.0	7.0
53	104.48210	83.27231	21.20979	36.25165	32.36945	72.17488	48.21390	72.16066	48.18887	5.7	6.7
54	104.59062	84.01941	20.57121	36.28273	32.52448	86.52180	47.75574	86.46635	47.74948	5.7	7.3
55	104.29059	83.86609	20.42450	36.26096	32.48540	100.83861	48.33356	100.82167	48.34076	5.7	7.1
56	107.92009	87.11899	20.80110	36.85243	33.10518	115.07196	48.28577	115.09120	48.29538	7.4	9.2
57	107.45398	84.51170	22.94228	36.77208	32.67178	14.58486	34.25804	14.58785	34.26953	7.2	7.7
58	105.42354	83.27089	22.15265	36.43352	32.38507	28.85445	34.04532	28.85658	34.04863	6.2	6.8

59	104.40199	82.73572	21.66628	36.27916	32.27272	43.30492	33.92865	43.31209	33.99074	5.7	6.4
60	104.48979	82.79474	21.69505	36.27490	32.29161	57.75027	33.86824	57.73477	33.86313	5.7	6.5
61	102.55452	81.41322	21.14130	35.92505	32.02248	72.27480	33.51840	72.27504	33.49768	4.7	5.6
62	93.61673	72.65929	20.95744	34.32936	30.24986	86.60399	33.44450	86.59418	33.46146	0.0	-0.2
63	106.51169	84.31154	22.20015	36.62051	32.59239	100.85106	33.82611	100.87627	33.79221	6.7	7.5
64	108.54317	87.01193	21.53123	36.98090	33.12102	115.21362	34.16556	115.20752	34.14865	7.8	9.2

[redacted] L 6 [redacted]

TABLE C-4. GEOMETRIC PARAMETERS OF B-5 SECTION AT 64.4 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	104.81131	80.76465	24.04666	36.34508	31.88954	14.07183	135.01434	14.09332	134.99954	5.9	5.2
2	104.60373	80.94727	23.65646	36.31815	31.93156	28.56479	135.12080	28.55251	135.10608	5.8	5.3
3	104.51152	80.81149	23.70003	36.29140	31.90608	42.99213	134.89218	42.98082	134.86746	5.8	5.2
4	103.66998	79.82336	23.84662	36.13216	31.71176	57.34473	134.79535	57.33992	134.77132	5.3	4.6
5	104.23157	80.40468	23.82689	36.21466	31.81386	71.83345	134.70998	71.81580	134.68120	5.5	4.9
6	104.26598	80.59807	23.66791	36.23033	31.85199	86.16747	134.55415	86.17390	134.49120	5.6	5.0
7	103.71762	80.16734	23.55028	36.13100	31.76430	100.62602	134.65765	100.64569	134.61412	5.3	4.8
8	103.85991	80.78410	23.07581	36.17610	31.90352	114.75485	134.43178	114.77176	134.43442	5.4	5.2
9	104.36154	82.45573	21.90581	36.23956	32.22203	14.05686	120.65828	14.05807	120.65273	5.6	6.3
10	105.32686	84.23360	21.09326	36.47360	32.60289	28.50685	120.53587	28.51152	120.55034	6.3	7.5
11	105.74579	84.34938	21.39641	36.51257	32.60950	42.91403	120.56544	42.92973	120.57211	6.4	7.5
12	105.14543	83.68327	21.46216	36.39143	32.47649	57.45476	120.36464	57.47253	120.39470	6.1	7.1
13	104.86438	83.20894	21.65544	36.34763	32.40289	71.90497	120.16711	71.94313	120.16389	5.9	6.9
14	103.79169	82.81009	20.98160	36.14960	32.30574	86.45576	120.29582	86.47301	120.30270	5.4	6.5
15	103.88748	82.84631	21.04117	36.18494	32.32344	100.72604	120.25389	100.74707	120.29352	5.5	6.6
16	101.03711	80.68825	20.34886	35.66702	31.87839	115.11528	120.14125	115.11653	120.18620	3.9	5.1
17	108.11143	84.39180	23.71964	36.88823	32.60129	13.99899	106.16194	14.01849	106.10628	7.5	7.5
18	105.74055	82.37117	23.36938	36.54065	32.22578	28.53809	106.05858	28.53293	106.04825	6.5	6.3
19	105.35963	81.02829	24.33134	36.44255	31.98656	43.13953	105.97639	43.14435	105.94171	6.2	5.5
20	106.07945	81.79700	24.28246	36.60223	32.14804	57.56216	105.82692	57.57512	105.80923	6.7	6.0
21	106.36636	81.67714	24.68922	36.64670	32.11549	71.82445	105.80132	71.87088	105.80196	6.8	5.9
22	104.94490	80.49612	24.44878	36.41315	31.91232	86.37260	105.66135	86.39009	105.60188	6.1	5.2
23	105.44473	81.90456	23.54018	36.45897	32.12930	100.93959	105.69139	100.96692	105.65475	6.3	6.0
24	103.21548	81.05510	22.16039	36.03955	31.95578	115.12460	105.67145	115.17964	105.63373	5.0	5.4
25	103.90732	79.31853	24.58879	36.16321	31.59319	14.34447	91.68330	14.33684	91.66289	5.4	4.2
26	105.41701	81.80569	23.61131	36.44759	32.11397	28.63261	91.39940	28.66345	91.37213	6.2	5.9
27	105.72052	82.52756	23.19296	36.52077	32.27313	43.19809	91.39030	43.19020	91.35016	6.4	6.4
28	105.76367	81.45760	24.30608	36.51231	32.03712	57.61134	91.33916	57.59302	91.30673	6.4	5.7
29	105.69687	81.65776	24.03911	36.53169	32.08092	71.98526	91.31004	71.98880	91.26089	6.5	5.8
30	105.44769	81.49425	23.95345	36.50084	32.10902	86.34361	91.20836	86.34077	91.16475	6.4	5.9
31	104.40480	81.03230	23.37250	36.28471	31.96930	100.94727	91.11131	100.97903	91.09274	5.7	5.4
32	102.98645	80.46152	22.52493	36.00575	31.80952	114.95717	91.49603	114.94389	91.48959	4.9	4.9
33	104.74974	80.81180	23.93794	36.30635	31.89748	14.37906	77.13867	14.39711	77.11441	5.8	5.2
34	106.13583	82.57256	23.56328	36.63416	32.31070	28.66776	76.88176	28.70461	76.85669	6.8	6.6
35	104.85637	80.23071	24.62566	36.38293	31.82503	43.23074	76.89209	43.20616	76.89172	6.0	5.0
36	104.53581	81.80215	22.73366	36.34038	32.10788	57.54921	76.77324	57.55260	76.74294	5.9	5.9
37	103.43301	82.23169	21.20132	36.11472	32.18733	72.03062	76.75298	72.05200	76.75401	5.3	6.1
38	101.48384	80.88936	20.59448	35.87971	32.00757	86.46255	76.27795	86.48558	76.27167	4.6	5.6
39	102.55434	81.31720	21.23714	35.98141	32.04820	100.80740	76.70651	100.84129	76.69989	4.9	5.7
40	100.33147	80.42937	19.90210	35.57312	31.84749	115.16408	76.96822	115.20248	77.01176	3.7	5.0
41	102.54146	82.38489	20.15657	35.93867	32.20320	14.59499	62.67534	14.63445	62.68932	4.7	6.2
42	104.63361	83.36949	21.26411	36.33371	32.42812	28.99104	62.55600	28.98880	62.56372	5.9	6.9
43	103.18971	82.21120	20.97852	36.06808	32.19417	43.43854	62.26868	43.42470	62.27098	5.1	6.2
44	103.95996	82.51357	21.44640	36.20872	32.24199	57.75209	62.34195	57.77628	62.33934	5.5	6.3
45	103.87167	82.86873	21.00294	36.18571	32.30896	72.24622	62.42793	72.25995	62.42271	5.5	6.6
46	102.58798	82.28107	20.30692	36.00854	32.22691	86.62988	61.75725	86.63020	61.76875	4.9	6.3
47	102.17168	81.59538	20.57629	35.95380	32.14386	100.95229	62.22922	100.97578	62.22665	4.8	6.0
48	98.74695	78.89238	19.85457	35.25798	31.54453	115.22508	62.40201	115.23506	62.42130	2.8	4.0
49	104.99612	80.71231	24.28381	36.34756	31.87788	14.78455	48.24936	14.79299	48.22932	5.9	5.1
50	105.74556	82.56990	23.17566	36.51173	32.25562	29.20593	48.12965	29.20326	48.09219	6.4	6.4
51	105.74245	81.69583	24.04662	36.49942	32.08763	43.63142	48.07272	43.63681	48.06732	6.4	5.8
52	105.37428	82.17409	23.20020	36.44829	32.18080	58.10123	48.01488	58.10097	47.98898	6.2	6.1
53	104.45888	81.16119	23.29768	36.26945	31.97371	72.45386	47.95290	72.46042	47.93517	5.7	5.4
54	103.63568	80.77264	22.86304	36.19702	31.95465	86.85287	47.74767	86.82643	47.74547	5.5	5.4
55	103.78992	80.46306	23.32686	36.17532	31.84322	101.11902	48.14297	101.14751	48.14227	5.4	5.0
56	101.62482	78.69757	22.92725	35.80872	31.51219	115.30957	48.09613	115.33234	48.04959	4.4	3.9
57	105.07796	82.82762	22.25034	36.35794	32.31068	15.15290	33.28470	15.17012	33.27798	6.0	6.6
58	104.36485	82.50125	21.86360	36.24181	32.23132	29.57526	33.05713	29.56546	33.09244	5.6	6.3

59	104.30405	82.45854	21.84550	36.23434	32.21098	44.11752	33.00394	44.13072	33.04477	5.6	6.2
60	102.53256	81.05429	21.47827	35.93410	31.93272	58.58507	32.86166	58.57477	32.85757	4.7	5.3
61	103.16838	81.90598	21.26241	36.03168	32.10231	73.16281	32.74583	73.17790	32.76654	5.0	5.9
62	95.59979	73.98120	21.61859	34.68787	30.50529	87.45480	32.76521	87.47986	32.74895	1.1	0.6
63	103.08101	81.92072	21.16029	36.01573	32.11310	101.92165	32.93393	101.96298	32.93199	5.0	5.9
64	101.13544	79.71661	21.41882	35.67952	31.68378	116.16037	33.24199	116.17630	33.28024	4.0	4.5

[redacted] N 6 [redacted]

TABLE C-45. GEOMETRIC PARAMETERS OF B-5 SECTION AT 66.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	109.21497	88.35577	20.85919	37.10605	33.37157	13.38503	135.22566	13.38890	135.21504	8.1	10.1
2	107.73808	87.23952	20.49857	36.82358	33.15532	27.91943	135.12936	27.88959	135.12723	7.3	9.3
3	107.05455	85.49052	21.56403	36.69847	32.82010	42.04648	135.01208	42.06656	134.97200	7.0	8.2
4	106.58937	85.60965	20.97972	36.63440	32.85243	56.24611	134.86064	56.24104	134.83804	6.8	8.3
5	109.24016	88.57542	20.66473	37.07680	33.39273	70.60800	134.89622	70.61594	134.89536	8.1	10.1
6	107.25616	86.73557	20.52060	36.73604	33.05049	84.96094	134.45314	84.93849	134.43901	7.1	9.0
7	107.70894	86.85201	20.85693	36.81871	33.05978	99.41223	134.47021	99.40167	134.45311	7.3	9.0
8	110.97310	89.30586	21.66724	37.36172	33.54532	113.79694	134.36861	113.77527	134.38992	8.9	10.6
9	107.87309	86.57809	21.29500	36.87460	33.04099	13.31082	120.54025	13.33422	120.56564	7.5	9.0
10	110.12065	89.21257	20.90808	37.23761	33.51587	27.44055	120.25909	27.41313	120.24574	8.5	10.5
11	109.30952	88.17210	21.13742	37.15489	33.34875	41.64630	120.56392	41.61699	120.59529	8.3	10.0
12	109.32478	87.87469	21.45009	37.16072	33.30952	56.09450	120.25566	56.07278	120.28741	8.3	9.8
13	109.93903	89.08849	20.85054	37.27341	33.56244	70.56244	120.03265	70.56183	120.05289	8.6	10.7
14	108.00015	87.23102	20.76913	36.92903	33.22162	85.17360	120.05223	85.16498	120.04855	7.6	9.6
15	108.73267	87.80945	20.92322	37.02887	33.27553	99.35692	119.78761	99.34245	119.80757	7.9	9.7
16	112.21158	90.36667	21.84491	37.60353	33.77191	113.99006	119.58504	113.98288	119.62816	9.6	11.4
17	113.05135	91.63060	21.42075	37.71791	33.95367	13.09696	106.24416	13.14657	106.23396	9.9	12.0
18	109.06792	87.43628	21.63164	37.06053	33.18268	27.18623	105.84186	27.16109	105.82834	8.0	9.4
19	108.35132	87.57249	20.77882	36.93370	33.21352	41.72856	105.98517	41.71660	105.96712	7.6	9.5
20	109.14763	88.18852	20.95911	37.09375	33.36188	56.15048	105.68011	56.12613	105.69104	8.1	10.0
21	109.33080	88.10838	21.22241	37.13152	33.36737	70.32916	105.55663	70.35901	105.56111	8.2	10.0
22	109.10056	87.81813	21.28242	37.08672	33.29257	84.94872	105.44409	84.94308	105.42970	8.1	9.8
23	108.77774	86.95248	21.82526	37.09818	33.17505	99.50085	105.21262	99.52318	105.17972	8.1	9.4
24	109.87196	88.23679	21.63518	37.17757	33.32225	114.06599	105.26593	114.06650	105.27324	8.4	9.9
25	106.06427	84.23228	21.83199	36.55907	32.57332	13.34323	92.11058	13.37546	92.12482	6.5	7.4
26	107.03702	85.57620	21.46082	36.70457	32.82724	27.19954	91.55252	27.21976	91.55702	7.0	8.3
27	110.45181	89.24211	21.20970	37.30585	33.52783	41.56723	91.37373	41.57378	91.33218	8.7	10.6
28	108.77643	87.48378	21.29265	37.02243	33.19220	56.09329	91.26740	56.06795	91.27812	7.9	9.5
29	109.94325	88.77443	21.16882	37.22134	33.44768	70.37836	91.07820	70.40103	91.07149	8.5	10.3
30	111.21956	89.61397	21.60559	37.47342	33.63397	84.74599	90.99706	84.71255	90.98599	9.2	10.9
31	110.40691	88.80992	21.59698	37.34833	33.50269	99.36266	90.65579	99.37527	90.64528	8.8	10.5
32	113.97725	91.34761	22.62964	37.87566	33.92195	113.79172	91.28473	113.76543	91.29709	10.4	11.9
33	106.07962	84.74339	21.33623	36.54518	32.65245	13.37742	77.76289	13.40444	77.76584	6.5	7.7
34	108.07845	87.18448	20.89397	36.92305	33.19766	27.36885	77.25774	27.39926	77.24918	7.6	9.5
35	108.23703	87.07019	21.16684	36.92628	33.10666	41.66676	76.92621	41.66982	76.95197	7.6	9.2
36	108.22942	87.93530	20.29411	36.90825	33.26614	56.01031	76.78102	56.01427	76.80565	7.6	9.7
37	108.70967	88.46428	20.24539	36.98886	33.36943	70.38425	76.71729	70.39314	76.71964	7.8	10.0
38	109.10725	88.30078	20.80647	37.08983	33.37065	84.81773	76.17459	84.84193	76.17468	8.1	10.1
39	109.05788	88.99535	20.06253	37.06082	33.49931	99.17593	76.32599	99.18446	76.34044	8.0	10.5
40	111.76527	90.58690	21.17838	37.52199	33.78108	113.96231	76.52922	113.96675	76.57025	9.4	11.4
41	106.21362	84.70828	21.50534	36.56502	32.66136	13.50885	63.47913	13.53602	63.49530	6.6	7.7
42	109.72403	88.93213	20.79190	37.17163	33.46231	27.60046	62.98535	27.58708	62.97096	8.3	10.4
43	108.15623	87.59157	20.56467	36.89885	33.19379	41.94470	62.56067	41.96188	62.56113	7.5	9.5
44	110.67293	89.69322	20.97971	37.31068	33.60249	56.07335	62.40358	56.08493	62.39499	8.7	10.8
45	108.49367	87.59033	20.90334	36.97583	33.21587	70.55333	62.43156	70.58357	62.44486	7.8	9.5
46	108.86487	88.45345	20.43143	37.03789	33.37469	84.98265	61.71281	84.98764	61.75885	7.9	10.1
47	110.25354	89.04834	21.20520	37.26759	33.47960	99.23001	61.52514	99.22955	61.91907	8.6	10.4
48	108.71822	87.53427	21.18394	36.97707	33.17548	113.77791	62.16811	113.78378	62.16995	7.8	9.4
49	105.95924	82.67822	23.28102	36.50687	32.27400	13.73738	49.13947	13.74671	49.16238	6.4	6.4
50	108.98785	87.40479	21.58307	37.02740	33.17464	27.80217	48.74603	27.76823	48.72203	7.9	9.4
51	109.70284	87.21233	22.49051	37.16075	33.12846	42.04822	48.56186	42.04706	48.57596	8.3	9.3
52	111.77193	90.04776	21.72417	37.50719	33.68208	56.32684	48.14058	56.31999	48.15172	9.3	11.1
53	108.54013	87.28703	21.25310	36.96094	33.16695	70.66989	48.03665	70.62950	48.03239	7.7	9.4
54	108.05503	86.80989	21.24594	36.87704	33.08015	85.03165	47.85493	85.00169	47.86734	7.5	9.1
55	108.90898	86.63235	22.27663	37.01582	33.02362	99.30440	47.84648	99.30960	47.88097	7.9	8.9
56	110.91908	89.51244	21.40665	37.36020	33.56638	113.82320	47.74074	113.79153	47.77206	8.9	10.7
57	108.04263	85.11809	22.92455	36.88319	32.73209	13.80991	35.05978	13.80375	35.07684	7.5	7.9
58	108.91609	85.76643	23.14966	37.03636	32.88676	27.91628	34.52332	27.92641	34.55153	7.9	8.5

59	110.04851	87.78137	22.26714	37.20665	33.23354	42.25348	34.40685	42.25450	34.41699	8.4	9.6
60	107.62083	85.05783	22.56300	36.79826	32.72028	56.45343	34.03593	56.44312	34.05873	7.2	7.9
61	108.60281	86.40163	22.20119	36.97861	32.97710	70.85869	34.01450	70.86975	34.03664	7.8	8.8
62	94.88731	71.29526	23.59206	34.56743	29.95151	85.18402	34.23283	85.19754	34.23694	0.7	-1.2
63	109.69934	86.69803	23.00131	37.19582	33.04591	99.46516	33.63768	99.46294	33.67473	8.4	9.0
64	109.71844	87.59425	22.12419	37.15067	33.19650	113.78661	33.75594	113.78142	33.79930	8.3	9.5

TABLE C-46. GEOMETRIC PARAMETERS OF B-5 SECTION AT 67.8 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	132.52264	109.94164	22.58101	40.82886	37.18372	13.39322	134.93040	13.45926	134.92511	19.0	22.6
2	123.66272	101.00316	22.65956	39.43784	35.64238	28.49059	134.59247	28.48477	134.57812	14.9	17.5
3	121.19313	98.01204	23.18109	39.05154	35.12398	42.78102	134.76935	42.78709	134.73846	13.8	15.8
4	119.82060	97.07622	22.74438	38.81413	34.96275	57.15424	134.56248	57.14537	134.53557	13.1	15.3
5	127.19841	104.62984	22.56857	40.00018	36.27615	71.56772	134.91222	71.59439	134.89107	16.6	19.6
6	129.16872	107.06801	22.10071	40.31816	36.69620	86.26050	134.34622	86.27933	134.32039	17.5	21.0
7	131.19138	108.80028	22.39110	40.62730	37.00613	100.84953	134.43974	100.89047	134.41731	18.4	22.0
8	139.28282	116.83011	22.45271	41.84680	38.33415	115.37225	134.49461	115.37599	134.48007	22.0	26.4
9	141.95515	118.78064	23.17451	42.26044	38.65741	13.81762	119.92136	13.83681	119.95699	23.2	27.5
10	142.17223	119.71747	22.45476	42.28551	38.80489	27.83893	119.44124	27.84024	119.47652	23.2	28.0
11	140.95183	118.13295	22.81888	42.10570	38.55226	42.22165	120.26762	42.20518	120.28622	22.7	27.1
12	145.58884	122.76399	22.82484	42.80206	39.30605	56.93744	119.90298	56.91975	119.88615	24.7	29.6
13	149.84818	127.09254	22.75563	43.41631	39.99252	71.82471	119.80711	71.84325	119.82603	26.5	31.9
14	135.63922	113.37494	22.26428	41.30978	37.78435	86.70735	119.67183	86.72017	119.68486	20.4	24.6
15	135.16638	111.89790	23.26848	41.23404	37.51363	100.86842	119.22060	100.87704	119.25000	20.2	23.7
16	133.97614	111.56119	22.41495	41.04350	37.46986	115.56258	119.16388	115.54245	119.20720	19.6	23.6
17	149.13246	127.31097	21.82149	43.30553	40.01767	13.70660	105.13805	13.76925	105.14050	26.2	32.0
18	140.88638	118.17726	22.70912	42.10240	38.56548	27.56956	104.55029	27.53423	104.54526	22.7	27.2
19	147.31398	124.50095	22.81303	43.05101	39.58095	42.39032	105.16417	42.38397	105.14236	25.5	30.5
20	141.46759	118.93904	22.52855	42.18242	38.69261	57.29500	104.73843	57.27367	104.76979	22.9	27.6
21	144.79855	122.39990	22.39865	42.67680	39.25060	71.73601	104.76678	71.72995	104.80777	24.4	29.4
22	144.77225	122.24271	22.52954	42.67293	39.22781	86.66695	104.68840	86.65582	104.70184	24.4	29.4
23	141.46790	119.26817	22.19972	42.19307	38.73360	101.52020	104.39575	101.53818	104.38515	23.0	27.7
24	121.30727	99.19229	22.11497	39.08502	35.33565	115.69604	104.81775	115.70338	104.83322	13.9	16.5
25	128.24014	105.65907	22.58107	40.17534	36.45789	13.82469	90.87427	13.84101	90.89204	17.1	20.2
26	130.76257	108.14258	22.62000	40.54868	36.88298	27.59935	90.15994	27.63077	90.18114	18.2	21.6
27	144.09256	121.69873	22.39383	42.57503	39.14485	42.29329	90.06761	42.31772	90.05780	24.1	29.1
28	140.61154	117.28549	23.32605	42.06291	38.42094	57.40730	90.10634	57.39101	90.12224	22.6	26.7
29	140.02016	116.89967	23.12048	41.97429	38.34047	71.89809	89.97292	71.90123	89.94330	22.3	26.4
30	144.26442	121.26311	23.00131	42.60522	39.05843	86.41415	89.88034	86.40652	89.87993	24.2	28.8
31	139.40269	117.03438	22.36832	41.89191	38.36792	101.15878	89.82233	101.17657	89.83078	22.1	26.5
32	145.40526	123.22549	22.17976	42.76778	39.36530	115.44148	90.91772	115.34395	90.92850	24.6	29.8
33	126.88213	104.11455	22.76758	39.95573	36.19084	14.09509	76.34335	14.12789	76.36623	16.4	19.4
34	133.77042	110.97595	22.79446	41.01633	37.35747	28.11369	75.89127	28.16655	75.84915	19.5	23.2
35	138.72224	116.01196	22.71028	41.78236	38.20235	42.60506	75.38437	42.62608	75.38077	21.8	26.0
36	136.20328	114.28835	21.91493	41.40167	37.92497	57.33858	75.40913	57.34839	75.42371	20.7	25.1
37	136.10052	113.65381	22.44672	41.38774	37.81177	72.20313	75.17548	72.20448	75.18365	20.6	24.7
38	142.98657	119.97685	23.00972	42.41589	38.83867	86.88503	74.76590	86.92877	74.76816	23.6	28.1
39	139.20389	117.02562	22.17827	41.84352	38.37575	101.40340	75.09142	101.43214	75.10249	21.9	26.6
40	143.68953	121.70219	21.98734	42.51427	39.12605	116.24219	75.46422	116.25526	75.51614	23.9	29.0
41	121.89238	98.72980	23.16258	39.15965	35.26424	14.77865	61.49448	14.81577	61.50421	14.1	16.3
42	135.03802	111.67490	23.36313	41.20834	37.49576	28.90958	61.08240	28.90660	61.09070	20.1	23.7
43	130.40295	107.52574	22.87721	40.50362	36.78204	43.55278	60.75131	43.52513	60.76067	18.0	21.3
44	137.94411	115.45186	22.49225	41.65033	38.11420	57.76230	60.60339	57.77809	60.60635	21.4	25.7
45	131.38499	108.50517	22.87982	40.64656	36.94183	72.58105	60.77057	72.61272	60.79108	18.5	21.8
46	133.14980	110.56046	22.58934	40.91509	37.32019	87.30788	60.25217	87.32555	60.26958	19.2	23.1
47	132.63792	110.50949	22.12843	40.85645	37.29834	101.42668	60.66093	101.45087	60.66734	19.1	23.0
48	130.08969	108.63765	21.45204	40.44754	36.97617	115.98761	61.00018	115.93265	61.02023	17.9	21.9
49	118.27805	95.32985	22.94820	38.57394	34.63576	15.07345	46.82217	15.09040	46.86304	12.4	14.2
50	128.95362	106.52676	22.42676	40.28365	36.61354	29.12132	46.61325	29.10909	46.63779	17.4	20.7
51	131.33394	107.67844	23.65550	40.65407	36.81165	43.73582	46.69139	43.74213	46.69914	18.5	21.4
52	140.04047	118.13261	21.90785	41.96748	38.54884	58.10796	46.23822	58.13519	46.23538	22.3	27.1
53	135.08328	113.19008	21.89320	41.21692	37.74376	72.69794	46.17494	72.69061	46.18851	20.1	24.5
54	127.96027	105.61485	22.35442	40.11769	36.46465	87.28233	46.31319	87.29736	46.30544	16.9	20.3
55	130.27766	107.96931	22.30835	40.47414	36.85825	101.58911	46.49443	101.58287	46.53908	18.0	21.6
56	135.97897	114.72177	21.25720	41.36722	37.99123	116.26689	46.46973	116.24088	46.50885	20.6	25.3
57	125.25919	102.10442	23.15477	39.69128	35.83549	15.31405	32.64751	15.32720	32.65811	15.7	18.2
58	128.57089	105.97606	22.59483	40.21584	36.51668	29.60036	32.43715	29.59190	32.47183	17.2	20.4

59	139.13451	117.07907	22.05544	41.82779	38.38783	44.15659	32.67473	44.17456	32.74196	21.9	26.6
60	131.73920	108.39453	23.34467	40.70726	36.93530	58.55447	32.30060	58.54698	32.30901	18.6	21.8
61	131.51274	109.63757	21.87517	40.67511	37.13986	73.06804	32.47501	73.07761	32.52962	18.5	22.5
62	95.24782	73.67294	21.57487	34.63445	30.45412	87.61858	32.89136	87.63382	32.88863	0.9	0.4
63	131.14508	109.57967	21.56541	40.62660	37.13284	101.89108	32.78596	101.89799	32.80493	18.4	22.5
64	130.60138	108.82831	21.77307	40.52399	37.00655	116.32204	32.58809	116.31059	32.67303	18.1	22.0

TABLE C-47. GEOMETRIC PARAMETERS OF B-5 SECTION AT 69.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	145.10330	121.97517	23.12813	42.73158	39.18089	13.08805	134.93906	13.16860	134.88557	24.5	29.2
2	139.01419	116.17889	22.83530	41.82561	38.22754	28.33286	134.42860	28.35072	134.39510	21.9	26.1
3	133.19141	109.76144	23.42996	40.92941	37.15515	42.66167	134.72528	42.67511	134.68130	19.3	22.5
4	123.77739	101.84796	21.92943	39.46458	35.79208	56.86020	134.34520	56.88255	134.30900	15.0	18.0
5	132.71303	110.27258	22.44044	40.86406	37.24792	71.41277	135.02226	71.39424	135.01505	19.1	22.8
6	140.63982	118.18240	22.45741	42.06480	38.55502	86.07310	134.22266	86.10938	134.16243	22.6	27.1
7	140.06038	118.10600	21.95438	41.97577	38.54892	100.77243	134.27470	100.82005	134.25609	22.3	27.1
8	161.55595	138.18427	23.37169	45.09311	41.69095	115.21869	134.31944	115.21095	134.31551	31.4	37.5
9	140.38251	117.99887	22.38364	42.02608	38.53131	13.58109	119.86690	13.65114	119.90326	22.5	27.1
10	169.84033	146.98315	22.85718	46.24185	43.01341	27.42818	119.23878	27.46120	119.27548	34.8	41.9
11	166.11363	142.59619	23.51744	45.75009	42.37814	41.60968	120.37445	41.60617	120.37038	33.3	39.8
12	177.00349	153.42290	23.58060	47.23070	43.94684	56.41020	119.84714	56.40826	119.88394	37.6	44.9
13	211.24548	187.65535	23.59013	51.67723	48.69812	71.87199	119.92818	71.91635	119.90759	50.6	60.6
14	153.55284	130.30489	23.24796	43.96284	40.50977	86.46883	119.43199	86.49530	119.44379	28.1	33.6
15	150.37161	128.06233	22.30928	43.50273	40.14453	100.70078	118.69968	100.73628	118.74911	26.8	32.4
16	137.50435	115.80122	21.70313	41.59401	38.17207	115.24785	118.46240	115.21594	118.54317	21.2	25.9
17	151.23065	130.09282	21.13783	43.65608	40.46617	13.44170	104.98061	13.53038	104.97607	27.2	33.5
18	162.53975	140.06557	22.47418	45.28845	42.05388	26.99574	103.99742	27.00711	104.01045	32.0	38.7
19	218.31650	195.93404	22.38246	52.56180	49.81334	41.78203	104.88916	41.83311	104.88153	53.2	64.3
20	176.26982	154.50244	21.76738	47.16072	44.15939	56.83496	104.42528	56.81320	104.45303	37.4	45.6
21	166.52971	143.92274	22.60696	45.80423	42.57156	71.36592	104.24699	71.38489	104.29341	33.5	40.4
22	202.03650	180.52135	21.51515	50.46945	47.72787	86.61482	104.38403	86.61322	104.39752	47.1	57.4
23	170.35994	149.09946	21.26048	46.32703	43.33966	101.66888	103.74330	101.70943	103.73598	35.0	42.9
24	119.41695	99.07135	20.34560	38.76491	35.30493	115.46140	104.42761	115.47414	104.43080	13.0	16.4
25	133.25023	110.69481	22.55542	40.94586	37.32489	13.53513	90.71701	13.55358	90.72488	19.3	23.1
26	142.72324	119.34065	23.38258	42.37494	38.75687	26.94423	89.72778	26.98782	89.76778	23.5	27.8
27	180.10204	156.82828	23.27376	47.70029	44.53381	41.67326	89.56284	41.70642	89.56311	39.0	46.9
28	162.63338	139.64484	22.98854	45.28787	41.98235	57.14919	89.60603	57.15187	89.65395	32.0	38.5
29	165.82945	142.29790	23.53156	45.68771	42.33621	71.68721	89.43179	71.70609	89.44376	33.2	39.6
30	171.85886	148.92018	22.93867	46.50238	43.29572	86.32774	89.29796	86.32983	89.29559	35.5	42.8
31	157.15746	134.68251	22.47495	44.49184	41.19318	100.81902	89.32578	100.82922	89.32559	29.7	35.8
32	149.98384	127.92509	22.05875	43.43298	40.11699	114.91463	90.71021	114.82759	90.70798	26.6	32.3
33	143.21808	120.63177	22.58630	42.44325	38.95959	13.91990	76.28600	13.98983	76.29767	23.7	28.5
34	147.82962	125.25124	22.57838	43.12019	39.69124	27.67874	75.73265	27.71072	75.71004	25.7	30.9
35	167.27808	144.92038	22.35770	45.89269	42.71146	42.02901	74.83426	42.07390	74.84171	33.7	40.9
36	158.65857	135.60674	23.05183	44.67328	41.30293	56.91339	74.83441	56.92274	74.85793	30.2	36.2
37	158.43115	135.52597	22.90518	44.65820	41.29399	71.53723	74.98593	71.53764	75.03261	30.2	36.2
38	176.97823	154.61337	22.36485	47.19643	44.12558	86.37029	74.54204	86.40829	74.55074	37.5	45.5
39	160.95715	138.94835	22.00880	45.01579	41.81836	100.78954	74.89444	100.80983	74.96979	31.2	37.9
40	187.69051	164.92865	22.76186	48.66869	45.66370	115.26880	75.84875	115.23201	75.94177	41.8	50.6
41	134.84534	112.24492	22.60042	41.20526	37.58041	14.48011	61.72610	14.53863	61.76886	20.1	23.9
42	140.56883	118.49527	22.07356	42.06062	38.60426	28.48749	61.33919	28.49156	61.35928	22.6	27.3
43	134.82225	112.31244	22.50981	41.18900	37.59631	43.04881	60.79944	43.05186	60.81647	20.0	24.0
44	151.92990	128.85403	23.07587	43.73154	40.25441	56.99681	60.51337	57.03766	60.51395	27.5	32.8
45	145.28450	123.29967	21.98483	42.74718	39.39384	71.80249	60.60339	71.85100	60.63370	24.6	29.9
46	140.80190	118.91559	21.88631	42.35498	38.66824	86.68802	60.14861	86.67770	60.17738	23.4	27.5
47	139.72849	117.70219	22.02629	41.93010	38.49243	100.53339	60.72972	100.52364	60.72620	22.2	26.9
48	150.53712	129.17302	21.36411	43.55859	40.31664	114.78099	60.99858	114.75997	61.04865	26.9	33.0
49	127.25275	105.41592	21.83682	40.00192	36.44240	14.81873	47.15034	14.87321	47.15450	16.6	20.2
50	135.78081	114.36671	21.41409	41.33080	37.92638	28.57765	47.04636	28.57291	47.06029	20.5	25.1
51	138.21187	114.57695	23.63492	41.69553	37.97330	43.06729	47.10971	43.07826	47.12312	21.5	25.2
52	150.16246	126.34619	23.81627	43.45566	39.86676	57.32097	46.44397	57.32648	46.44785	26.6	31.5
53	146.20691	121.75626	24.45065	42.88435	39.12946	71.82626	46.23141	71.85715	46.23314	25.0	29.0
54	136.90761	113.28719	23.62042	41.49277	37.74380	86.42644	46.49117	86.40871	46.52524	20.9	24.5
55	140.51779	116.80370	23.71410	42.03932	38.33606	100.50444	46.68262	100.50909	46.74585	22.5	26.4
56	158.75475	134.73778	24.01697	44.68744	41.16682	115.05080	46.64580	114.96991	46.71707	30.2	35.8
57	133.08777	107.57230	25.51547	40.91280	36.78247	14.85383	33.11359	14.90824	33.14034	19.2	21.3
58	132.26204	107.50209	24.75995	40.78581	36.77480	29.06030	33.01904	29.08786	33.07651	18.9	21.3

59	135.41426	111.03279	24.38147	41.26570	37.38121	43.50687	33.31174	43.53322	33.38315	20.3	23.3
60	126.71754	101.79163	24.92592	39.91870	35.79131	57.81725	32.85803	57.81891	32.88318	16.3	18.0
61	134.29932	110.64485	23.65446	41.10033	37.32864	72.25319	33.04668	72.24525	33.07112	19.8	23.1
62	94.28210	72.62787	21.65424	34.43507	30.24046	86.85051	33.37265	86.85867	33.38765	0.4	-0.3
63	134.15996	112.46472	21.69524	41.08493	37.61823	100.94257	33.55310	100.94991	33.64519	19.7	24.1
64	136.92368	115.62457	21.29910	41.50204	38.14337	115.34453	33.05009	115.30466	33.16495	21.0	25.8

TABLE C-48. GEOMETRIC PARAMETERS OF B-5 SECTION AT 71.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	156.36211	133.60533	22.75677	44.35432	40.99283	12.76353	135.04790	12.90255	135.01884	29.3	35.2
2	163.64632	140.53011	23.11621	45.40744	42.08862	28.17603	134.47833	28.20393	134.43866	32.3	38.8
3	148.66446	125.65543	23.00903	43.25340	39.75710	42.65123	134.98280	42.66673	134.93762	26.1	31.1
4	144.24911	122.00629	22.24283	42.62489	39.22162	56.70313	134.43555	56.68810	134.41554	24.2	29.3
5	155.20943	132.80147	22.40796	44.20778	40.87370	71.35454	135.28380	71.34181	135.25467	28.8	34.8
6	179.06149	155.61278	23.44872	47.46298	44.24860	86.27347	134.20744	86.32396	134.15732	38.3	45.9
7	151.45357	128.10103	23.35254	43.67104	40.17937	100.89587	134.59955	100.95490	134.56781	27.3	32.5
8	183.07649	159.62943	23.44707	48.00473	44.81033	115.30363	134.57140	115.25771	134.53416	39.9	47.8
9	133.94019	113.02704	20.91315	41.05801	37.70480	13.17171	119.81107	13.21543	119.83865	19.7	24.3
10	194.52760	172.81425	21.71335	49.70850	46.89360	27.34720	119.22020	27.41321	119.28920	44.9	54.6
11	173.33258	151.58427	21.74831	47.02020	44.02084	41.29468	120.56639	41.30597	120.59258	37.0	45.2
12	211.25960	189.13954	22.12006	52.02577	49.29346	56.19635	120.03632	56.21234	120.08966	51.6	62.6
13	253.49863	231.51924	21.97939	58.28659	55.94809	72.20732	119.92612	72.26967	119.93976	69.9	84.5
14	162.36592	141.21828	21.14764	45.84386	42.84480	86.58475	119.44589	86.66022	119.51028	33.6	41.3
15	162.59338	141.76804	20.82535	45.28087	42.26257	100.98782	118.44632	100.97469	118.49014	32.0	39.4
16	151.75844	130.62660	21.13184	43.71231	40.56218	115.35126	118.12180	115.31142	118.20995	27.4	33.8
17	141.98599	121.45508	20.53091	42.27759	39.10646	13.21685	104.87038	13.31894	104.85178	23.2	29.0
18	164.19637	142.97266	21.22371	45.68272	42.64557	26.65495	103.70711	26.67674	103.71944	33.1	40.6
19	247.52040	224.57016	22.95024	56.25160	53.60521	41.48537	104.80414	41.54619	104.76399	63.9	76.8
20	201.44200	179.95149	21.49051	51.32269	48.57396	56.77847	104.26183	56.83147	104.31613	49.6	60.2
21	177.60968	156.51834	21.09134	48.06030	45.21007	71.21468	103.92717	71.25302	104.00893	40.1	49.1
22	256.05884	233.85220	22.20663	57.85851	55.43941	86.94365	104.56073	86.95828	104.60666	68.6	82.8
23	174.71483	153.60072	21.11411	47.11067	44.20351	102.20485	103.52322	102.27170	103.51216	37.3	45.8
24	119.47305	98.85812	20.61493	38.76392	35.27881	115.54652	104.25584	115.55876	104.27798	13.0	16.3
25	127.91052	104.32881	23.58171	40.11076	36.22525	13.21072	90.59477	13.24734	90.59233	16.9	19.5
26	151.23100	126.44525	24.78575	43.66156	39.92902	26.43248	89.45522	26.45601	89.47945	27.2	31.7
27	209.44962	183.27496	26.17465	52.64001	49.44301	41.29141	89.11754	41.34436	89.09938	53.4	63.1
28	189.31821	163.87158	25.44662	49.61263	46.26823	56.99420	89.25826	57.00839	89.28778	44.6	52.6
29	185.04672	160.29634	24.75038	48.71361	45.38651	71.73235	89.14749	71.75490	89.18842	42.0	49.7
30	180.31062	155.85712	24.45351	47.69769	44.35156	86.58829	88.91946	86.59409	88.88440	39.0	46.3
31	157.07271	133.07431	23.99840	45.00760	41.53107	100.68932	89.15810	100.68498	89.15749	31.2	37.0
32	139.02426	115.22952	23.79474	41.83200	38.07288	114.87767	90.58524	114.77397	90.56232	21.9	25.6
33	143.86111	121.32491	22.53621	42.54625	39.06778	13.80779	76.22993	13.86412	76.26158	24.0	28.8
34	149.02005	126.82222	22.19783	43.31514	39.96588	27.37984	75.61205	27.43457	75.61627	26.2	31.8
35	180.21518	158.05634	22.15884	47.76131	44.74492	41.72655	74.39245	41.75465	74.46185	39.2	47.6
36	182.32217	159.10326	23.21892	48.04980	44.86960	56.72757	74.41983	56.72626	74.43559	40.0	48.0
37	172.28708	149.94881	22.33827	46.61354	43.50186	71.51434	74.62228	71.53645	74.69278	35.9	43.5
38	205.15160	181.62877	23.52283	51.75500	48.76869	86.66321	74.16296	86.72620	74.19817	50 8	60.8
39	167.13748	145.67136	21.46613	45.97223	42.87750	101.07449	74.64348	101.06218	74.71162	34.0	41.4
40	225.51956	204.03464	21.48492	52.17436	49.69661	114.84833	76.41954	114.80132	76.58633	52.1	63.9
41	141.81633	119.31978	22.49655	42.26201	38.76590	14.46126	61.54155	14.50148	61.58614	23.2	27.8
42	138.28821	115.99730	22.29091	41.72360	38.21278	28.42534	61.24878	28.42155	61.27763	21.6	26.0
43	135.58412	113.88130	21.70282	41.31563	37.85826	43.00511	60.55032	42.97270	60.59180	20.4	24.9
44	154.12236	131.63692	22.48544	44.05672	40.71208	56.75969	60.15205	56.77847	60.17032	28.4	34.3
45	167.00136	144.81021	22.19115	45.89154	42.70862	71.77167	60.14163	71.81749	60.18126	33.7	40.8
46	143.96620	122.77641	21.18979	42.57788	39.32433	86.80215	59.74136	86.79550	59.78433	24.1	29.7
47	143.19235	121.59529	21.59706	42.46812	39.12794	100.49463	60.56641	100.46204	60.57568	23.8	29.0
48	161.39499	139.73643	21.65855	45.14201	41.99173	114.56293	60.83011	114.49399	60.88519	31.6	38.5
49	134.33261	112.30017	22.03244	41.11656	37.57870	14.86830	46.97231	14.87044	47.01147	19.8	23.9
50	138.55569	117.53448	21.02121	41.74988	38.44563	28.34883	47.03242	28.36516	47.02861	21.7	26.8
51	138.75996	117.09576	21.66420	41.77776	38.38455	42.98529	47.09628	43.00760	47.14105	21.8	26.6
52	149.91554	128.89099	21.02455	43.42596	40.27165	57.09352	46.32118	57.14680	46.33614	26.6	32.8
53	144.22604	123.25879	20.96725	42.59354	39.38988	71.71927	45.94885	71.77379	45.99104	24.1	29.9
54	138.19560	118.20370	19.99190	41.69244	38.56331	86.38828	46.31001	86.36865	46.35916	21.5	27.2
55	139.49329	119.07866	20.41463	41.90007	38.71877	100.35692	46.58493	100.38705	46.68318	22.1	27.7
56	198.20839	178.74409	19.46429	47.79395	45.82848	114.04613	47.24068	113.91739	47.38832	39.3	51.1
57	139.73621	113.54678	26.18942	41.92281	37.79709	14.76427	33.02754	14.83209	33.04979	22.2	24.6
58	139.87321	115.13039	24.74283	41.94539	38.07755	28.91345	32.98802	28.93909	33.06502	22.2	25.6

59	128.08611	103.95692	24.12918	40.14214	36.16420	43.29059	33.40260	43.31541	33.43619	17.0	19.3
60	119.97658	96.58076	23.39581	38.84608	34.86455	57.64624	32.84949	57.66713	32.89018	13.2	15.0
61	124.04687	100.29813	23.74875	39.50482	35.52441	72.12331	32.95473	72.14362	33.00951	15.1	17.2
62	95.98111	72.56638	23.41473	34.75876	30.22649	86.68092	33.35933	86.70047	33.37042	1.3	-0.3
63	137.06308	113.33649	23.72659	41.52678	37.77736	100.73633	33.50623	100.74406	33.58015	21.0	24.6
64	132.47995	109.32407	23.15588	40.86951	37.09665	115.21442	33.00098	115.18678	33.06741	19.1	22.3

TABLE C-49. GEOMETRIC PARAMETERS OF B-5 SECTION AT 72.8 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	207.11357	183.21635	23.89722	47.36943	44.53809	13.41559	134.20328	13.63904	134.10147	38.1	46.9
2	177.81392	153.80742	24.00650	47.61101	44.33524	28.00346	134.60391	28.04779	134.53491	38.8	46.2
3	144.65373	120.99878	23.65495	42.65956	39.00928	42.56541	135.35487	42.62125	135.30031	24.3	28.6
4	149.23209	125.33960	23.89249	43.46979	39.87921	56.53773	134.58823	56.55522	134.58961	26.7	31.5
5	184.06750	160.57417	23.49333	48.16121	44.97029	71.15140	135.30540	71.12306	135.27287	40.4	48.3
6	248.39040	225.03023	23.36017	54.17252	51.84711	87.05934	133.40059	87.17258	133.23686	57.9	71.0
7	170.71629	147.48038	23.23592	46.66162	43.39706	101.11804	134.98738	101.16161	134.96355	36.0	43.1
8	188.63460	164.26378	24.37082	48.71402	45.46399	115.51268	135.00464	115.49252	134.96152	42.0	49.9
9	157.26044	134.59142	22.66902	44.50755	41.14781	12.89055	119.73755	12.91717	119.79062	29.7	35.7
10	189.29167	166.01237	23.27930	50.34882	47.34978	27.61870	118.58606	27.66570	118.64137	46.7	56.2
11	173.29175	150.40053	22.89122	47.17030	44.02650	41.08730	120.63167	41.08878	120.65359	37.5	45.2
12	246.00537	222.49646	23.50891	55.76167	53.19862	56.49142	120.48553	56.53177	120.60107	62.5	75.4
13	238.03651	213.47142	24.56509	60.36111	58.60094	72.38875	119.87021	72.44069	119.83742	75.9	93.3
14	163.45619	140.29826	23.15793	50.81737	47.88354	86.19247	119.23804	86.21138	119.30460	48.1	57.9
15	177.37285	154.73347	22.63937	47.66684	44.59142	101.24747	118.27199	101.24347	118.35236	38.9	47.1
16	211.43237	188.54639	22.88599	45.70374	43.21106	115.68976	119.55350	115.69576	119.79152	33.2	42.5
17	165.43141	143.88310	21.54831	45.65712	42.57582	13.14440	104.54118	13.22006	104.54790	33.1	40.4
18	151.75414	130.89532	20.85881	43.93826	40.80054	26.56476	103.49002	26.56525	103.52721	28.1	34.6
19	239.36839	217.64374	21.72466	55.36130	52.74780	41.10214	104.68735	41.13936	104.70659	61.3	74.0
20	223.12866	200.21460	22.91406	54.11075	51.38675	56.53880	104.16469	56.58127	104.24493	57.7	69.5
21	174.27580	150.37495	23.90085	54.44559	52.63487	70.88615	104.00768	70.87680	104.08763	58.7	73.6
22	262.91821	240.10779	22.81042	58.92688	56.39307	87.08862	104.61427	87.07556	104.68370	71.7	86.0
23	168.86285	146.75673	22.10612	46.30701	43.14716	102.36821	103.32127	102.39212	103.31367	35.0	42.3
24	125.28008	103.68044	21.59964	39.79147	36.17302	115.60730	104.03792	115.57825	104.04503	16.0	19.3
25	129.27354	106.81456	22.45898	40.33647	36.65385	12.99638	90.38736	13.01911	90.41931	17.6	20.9
26	155.38947	131.54317	23.84630	44.28113	40.74493	26.17957	89.34207	26.23239	89.38226	29.1	34.4
27	197.61731	173.18788	24.42943	51.18898	48.03528	40.74265	88.99301	40.80542	89.00275	49.2	58.4
28	234.19348	210.67366	23.51982	55.01518	52.97356	57.21027	89.09346	57.29611	89.19891	60.3	74.7
29	186.75383	163.19897	23.55486	51.20123	48.19679	72.09315	89.28931	72.14697	89.36826	49.2	58.9
30	181.79692	158.99742	22.79950	47.94415	44.85713	86.85017	88.73111	86.87640	88.73549	39.7	47.9
31	155.37682	132.12132	23.25549	44.26395	40.80386	100.95447	88.97838	100.96219	89.00592	29.0	34.6
32	131.67805	108.46437	23.21368	40.69865	36.95209	114.77473	90.27463	114.71684	90.32561	18.6	21.9
33	130.86019	108.55870	22.30139	40.58138	36.97168	13.68492	76.23326	13.77378	76.26378	18.3	21.9
34	145.55278	122.65163	22.90114	42.80606	39.29315	27.11609	75.54585	27.18210	75.56210	24.8	29.6
35	176.46944	153.95703	22.51241	47.28586	44.15950	41.41478	74.24365	41.45033	74.33310	37.8	45.6
36	180.22841	158.47760	21.75081	48.12207	45.09491	56.48967	73.99037	56.47957	74.06322	40.2	48.7
37	189.27209	166.91963	22.35246	48.83823	45.87253	71.60800	74.69939	71.63318	74.78461	42.3	51.3
38	203.14165	180.67336	22.46829	51.94075	49.04994	86.95953	73.97816	86.99870	74.05301	51.4	61.8
39	168.08192	146.93820	21.14372	46.03606	43.03244	101.37944	74.64755	101.39449	74.72449	34.2	41.9
40	175.57501	153.34131	22.23370	47.09682	44.00337	115.56520	75.46831	115.56375	75.56276	37.3	45.1
41	143.51213	119.63995	23.87218	42.48502	38.80209	14.41450	61.39911	14.43667	61.44017	23.8	28.0
42	134.96188	111.80092	23.16096	41.19156	37.51563	28.34067	61.17677	28.33534	61.17172	20.0	23.7
43	136.98524	115.67393	21.31131	41.50946	38.16003	42.94385	60.35583	42.90923	60.38560	21.0	25.8
44	152.36674	129.09615	23.27060	43.78703	40.31320	56.52055	59.99426	56.53081	59.99774	27.6	32.9
45	210.36456	187.52457	22.84000	52.01064	49.19855	71.97556	59.80482	72.04532	59.85471	51.6	62.2
46	148.23070	125.03697	23.19373	43.19374	39.67343	86.93362	59.54063	86.93896	59.58612	25.9	30.8
47	144.35101	122.41275	21.93826	42.60840	39.24788	100.45619	60.47371	100.47496	60.49159	24.2	29.4
48	161.56100	138.85568	22.70532	45.10008	41.81560	114.59012	60.86607	114.57797	60.89217	31.4	37.9
49	136.97809	114.05440	22.92369	41.51060	37.88171	14.89626	46.78535	14.88871	46.86212	21.0	24.9
50	135.49710	113.93930	21.55780	41.28479	37.86804	28.11472	47.04190	28.10825	47.06219	20.3	24.9
51	139.84346	117.23346	22.61000	41.94336	38.42293	42.78403	47.03189	42.78424	47.08073	22.2	26.7
52	148.45854	127.39453	21.06401	43.21494	40.03329	56.88710	46.24846	56.90555	46.26775	25.9	32.0
53	138.88629	117.45816	21.42813	41.84113	38.46127	71.52121	45.65579	71.57236	45.66077	21.9	26.8
54	140.16040	117.99887	22.16153	42.02617	38.54158	86.28409	46.16029	86.28885	46.20767	22.5	27.1
55	134.86821	113.16028	21.70793	41.21860	37.74442	100.20950	46.53925	100.20715	46.59862	20.1	24.5
56	185.18054	163.22054	21.96001	48.46524	45.61609	114.64583	46.74925	114.55934	46.89195	41.2	50.4
57	140.40843	116.99104	23.41739	42.02126	38.35907	14.66368	32.79358	14.72861	32.84761	22.5	26.5
58	142.53442	120.40350	22.13092	42.34459	38.91728	28.82558	33.08913	28.80916	33.16170	23.4	28.3

59	133.75826	112.27556	21.48270	41.01790	37.62569	43.14160	33.55447	43.14534	33.60472	19.5	24.1
60	123.81303	101.01239	22.80064	39.47263	35.65012	57.54205	33.03140	57.56900	33.05766	15.0	17.6
61	119.87971	97.25929	22.62042	38.83775	35.00383	72.04765	33.00766	72.05556	33.03484	13.2	15.4
62	94.32791	72.54150	21.78641	34.45323	30.23634	86.65837	33.32695	86.66997	33.29620	0.4	-0.3
63	125.82051	104.75516	21.06535	39.78093	36.31139	100.67126	33.51439	100.67990	33.58485	15.9	19.7
64	125.41243	103.10608	22.30635	39.71997	36.01353	115.35341	32.95360	115.30286	33.02873	15.8	18.8

TABLE C-50. GEOMETRIC PARAMETERS OF B-5 SECTION AT 74.3 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	173.98174	150.51170	23.47003	46.80070	43.55130	12.37317	135.31134	12.49513	135.26024	36.4	43.6
2	211.30443	187.27451	24.02992	52.62321	49.64029	28.09204	134.63872	28.13814	134.56546	53.4	63.7
3	138.66202	115.40787	23.25415	41.75763	38.09857	42.60670	135.72295	42.64285	135.67308	21.7	25.6
4	139.85254	116.74443	23.10811	41.99313	38.37799	56.59978	134.85600	56.58032	134.83737	22.4	26.6
5	172.39626	149.14984	23.24641	46.58839	43.32358	71.45885	135.68253	71.41071	135.62822	35.8	42.9
6	229.79956	207.13431	22.66525	54.29565	51.58884	86.88040	134.02145	86.91882	133.91696	58.2	70.1
7	189.89687	167.22903	22.66783	49.27226	46.25685	101.36600	135.30276	101.41716	135.24301	43.6	52.5
8	183.43623	160.87613	22.56010	48.08398	45.00818	115.86540	135.32625	115.91609	135.32576	40.1	48.4
9	211.41579	187.91565	23.50014	51.79486	48.88782	13.60618	120.24965	13.69668	120.29138	51.0	61.2
10	176.14388	152.84439	23.29948	47.79701	44.62547	27.92320	118.61479	27.97185	118.68335	39.3	47.2
11	177.94981	154.88521	23.06461	47.82629	44.68973	41.16331	120.69441	41.16043	120.69725	39.4	47.3
12	249.85013	226.85417	22.99596	55.89075	53.78987	56.61421	120.56041	56.65091	120.71016	62.9	77.4
13	240.17313	216.63254	23.54059	59.56711	57.86311	72.25400	120.19893	72.29976	120.14215	73.6	90.8
14	173.88994	150.55197	23.33797	59.13377	56.50740	86.20467	119.15916	86.13965	119.19173	72.3	86.4
15	221.93411	200.17010	21.76401	48.50912	46.13634	101.73573	119.29407	101.78850	119.49080	41.4	52.2
16	209.67131	187.89255	21.77876	48.58972	46.54514	117.03481	119.45772	117.06395	119.65816	41.6	53.5
17	188.01271	166.16342	21.84929	48.71532	45.80547	13.35706	104.43060	13.45223	104.40775	42.0	51.1
18	143.68698	122.38191	21.30507	42.78358	39.51266	26.78413	103.60857	26.77347	103.61772	24.7	30.3
19	228.21600	205.71333	22.50267	53.92299	51.23813	40.90707	104.69885	40.97546	104.67691	57.2	69.0
20	228.98471	206.71811	22.26660	54.41133	51.70619	56.40981	104.08298	56.45755	104.15042	58.6	70.5
21	191.36426	169.81322	21.55104	52.59485	50.04160	71.59006	104.27594	71.61673	104.39645	53.3	65.0
22	240.57483	218.06892	22.50591	55.82568	53.27071	87.45953	104.16762	87.48656	104.21075	62.7	75.7
23	163.21162	141.71562	21.49600	45.45718	42.38953	102.34740	103.39128	102.37213	103.39594	32.5	39.8
24	141.91631	120.78186	21.13445	42.25121	38.98041	115.82764	103.96535	115.82782	103.98679	23.1	28.6
25	123.01195	100.75339	22.25856	39.33937	35.61882	13.14548	90.36560	13.18027	90.43321	14.7	17.5
26	150.24225	127.36584	22.87640	43.48575	40.02995	26.28796	89.49005	26.34065	89.54646	26.7	32.0
27	173.36253	150.78450	22.57803	46.98227	43.83580	40.76390	89.27090	40.80531	89.27313	36.9	44.6
28	223.93709	201.40581	22.53128	54.92267	52.71404	56.82352	88.93802	56.86899	89.02571	60.1	73.8
29	180.86263	157.61737	23.24525	52.97713	50.07375	72.26463	90.02428	72.36917	90.15358	54.4	65.1
30	173.28874	151.83762	21.45113	46.96518	43.97450	87.21216	88.86327	87.23688	88.86197	36.9	45.0
31	148.54994	127.59984	20.95010	43.26270	40.10677	101.09288	89.15970	101.11244	89.19438	26.1	32.3
32	126.22156	104.98070	21.24086	39.86121	36.34346	114.63516	90.17450	114.56276	90.18884	16.2	19.9
33	122.94304	100.88963	22.05341	39.33765	35.62886	13.84541	76.37799	13.90191	76.39276	14.6	17.5
34	142.71297	120.14343	22.56953	42.36623	38.89424	27.11588	75.68271	27.15596	75.66284	23.5	28.3
35	167.96063	145.69008	22.27055	45.98674	42.83693	41.48665	74.51880	41.51971	74.56442	34.0	41.3
36	169.84764	147.64357	22.20407	46.38014	43.25130	56.49321	74.14841	56.48526	74.20557	35.2	42.6
37	219.63315	198.14682	21.48633	52.62712	49.97903	71.93620	75.27403	71.98047	75.38930	53.4	64.8
38	181.75859	160.12830	21.63029	49.32303	46.51384	87.58273	74.27911	87.63551	74.32976	43.7	53.4
39	166.03607	143.41669	22.61938	45.72221	42.48477	101.66431	74.91193	101.66927	74.96590	33.3	40.1
40	147.48640	124.78981	22.69659	43.07988	39.63107	115.57391	75.48253	115.58537	75.55255	25.6	30.7
41	145.30473	122.15779	23.14694	42.75055	39.21837	14.52652	61.41461	14.52944	61.43068	24.6	29.3
42	134.60156	111.89520	22.70636	41.14719	37.52783	28.43669	61.22313	28.41577	61.21794	19.9	23.8
43	139.39577	117.27980	22.11597	41.87427	38.44725	42.98399	60.44731	42.95073	60.48448	22.0	26.8
44	149.56923	128.57086	20.99837	43.39034	40.24094	56.50070	60.05588	56.50191	60.07924	26.5	32.7
45	243.87756	221.40024	22.47733	55.18501	53.35744	72.71114	60.21147	72.85551	60.32498	60.8	76.0
46	146.58727	124.53778	22.04948	42.97221	39.61673	87.16699	59.59325	87.15776	59.65891	25.2	30.7
47	137.96664	115.11961	22.84703	41.65442	38.06335	100.63011	60.63126	100.65320	60.66283	21.4	25.5
48	147.04761	125.12453	21.92308	43.01221	39.66666	114.79811	60.97867	114.75403	61.01540	25.4	30.8
49	137.42416	114.00255	23.42162	41.57603	37.87125	15.02618	46.82309	15.02141	46.88448	21.2	24.9
50	133.30426	111.16772	22.13654	40.94547	37.38692	28.12234	47.19061	28.14684	47.19286	19.3	23.3
51	140.14310	118.75577	21.38733	41.98192	38.64050	42.79092	47.10413	42.82379	47.15796	22.4	27.4
52	147.39354	126.03159	21.36195	43.05698	39.82233	56.90353	46.35454	56.92841	46.39754	25.5	31.3
53	136.00847	114.63609	21.37238	41.42308	38.02283	71.63054	45.67236	71.68018	45.71413	20.7	25.4
54	140.94960	119.00798	21.94162	42.09930	38.69508	86.45152	46.20232	86.45280	46.26590	22.7	27.6
55	132.21823	110.05504	22.16319	40.78081	37.22008	100.33308	46.63768	100.38742	46.70734	18.9	22.7
56	167.68919	146.74423	20.94496	45.93782	42.97951	114.94469	46.44109	114.91180	46.53818	33.9	41.7
57	141.19055	116.76527	24.42528	42.15218	38.34756	14.67442	32.73680	14.70884	32.81046	22.8	26.5
58	136.75955	113.39209	23.36746	41.48013	37.76640	28.80377	33.15610	28.82848	33.25885	20.9	24.5

59	140.83594	117.37170	23.46423	42.10199	38.44287	43.07727	33.71275	43.07947	33.80528	22.7	26.8
60	134.92912	112.06064	22.86848	41.21992	37.56232	57.54678	33.15581	57.57396	33.21832	20.1	23.9
61	129.87636	107.63010	22.24626	40.46255	36.81813	72.13040	33.03578	72.12651	33.12888	17.9	21.4
62	94.16943	72.43486	21.73457	34.42799	30.19202	86.74789	33.28064	86.77266	33.28741	0.3	-0.4
63	133.05008	111.61653	21.43355	40.99498	37.47345	100.80421	33.55347	100.87346	33.63982	19.5	23.6
64	123.90244	102.76321	21.13922	39.49461	35.96881	115.52211	32.96535	115.47754	33.08319	15.1	18.6

[redacted] K 7 [redacted]

TABLE C-51. GEOMETRIC PARAMETERS OF B-5 SECTION AT 74.8 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	165.03760	141.78645	23.25114	45.58601	42.24326	11.61361	135.53860	11.71207	135.48944	32.9	39.3
2	224.71002	200.30528	24.40474	56.43045	53.61241	27.49467	134.90273	27.52136	134.84575	64.5	76.8
3	139.49594	116.27310	23.22284	41.90630	38.26131	41.97148	135.87851	41.99718	135.84749	22.1	26.2
4	140.75148	117.19058	23.56090	42.10953	38.43341	55.96915	135.01953	55.97415	134.99413	22.7	26.7
5	163.64116	140.34621	23.29495	45.37608	42.02579	70.88435	135.85817	70.86142	135.80293	32.2	38.6
6	214.37852	191.08597	23.29256	52.22392	49.31358	86.02060	134.45120	86.06003	134.31628	52.2	62.6
7	194.89107	171.61412	23.27695	49.90520	46.90968	100.55495	135.47647	100.62082	135.41391	45.4	54.7
8	179.39568	155.78101	23.61467	47.53252	44.32205	115.02509	135.74554	115.00417	135.67915	38.5	46.2
9	233.36674	209.71829	23.64845	55.56183	52.89513	13.45442	120.61400	13.55529	120.68428	61.9	74.4
10	165.96074	142.70432	23.25642	46.56679	43.28958	27.57809	118.57216	27.63058	118.62509	35.7	42.8
11	174.17943	150.38666	23.79277	47.94516	44.73036	40.82506	120.73244	40.82501	120.71928	39.7	47.5
12	233.09991	208.80254	24.29738	54.99821	52.10904	55.64825	120.28589	55.65196	120.40105	60.3	71.8
13	246.51469	222.32231	24.19238	59.25792	57.10558	71.45782	120.40332	71.51357	120.39090	72.7	88.3
14	170.41881	147.01457	23.40424	56.49931	54.35373	85.48680	119.11502	85.53561	119.16718	64.7	79.3
15	250.17015	227.11874	23.05141	49.10704	46.58873	100.55182	120.01419	100.56265	120.23088	43.1	53.6
16	208.38530	184.81944	23.56586	47.55424	45.02916	116.14975	119.71533	116.16302	119.96170	38.6	48.5
17	187.45232	163.75214	23.70018	48.66118	45.46745	12.88425	104.51973	12.98046	104.49797	41.8	49.9
18	140.69572	117.94196	22.75377	42.34726	38.74292	26.31526	103.79324	26.31589	103.82434	23.4	27.8
19	220.41800	196.56735	23.85065	52.99095	50.02147	40.31104	104.84735	40.34802	104.85638	54.4	65.0
20	220.07559	196.75412	23.32147	53.29601	50.42326	55.59198	104.19278	55.60252	104.22954	55.3	66.3
21	196.49564	172.34200	24.15364	51.99661	48.92226	70.78741	104.30763	70.76868	104.41608	51.5	61.3
22	230.34419	205.83911	24.50508	54.50041	51.57857	86.73097	104.17673	86.72063	104.20175	58.8	70.1
23	159.08011	136.46841	22.61169	44.86214	41.56833	101.39914	103.61177	101.42203	103.63789	30.7	37.1
24	149.62671	126.13649	23.49022	43.39653	39.85010	114.92172	104.07486	114.93120	104.07819	26.5	31.4
25	120.92621	98.27315	22.65306	39.00966	35.16957	12.77139	90.62531	12.77415	90.63756	13.7	16.0
26	147.18697	124.09210	23.09486	43.03790	39.52693	25.82433	89.79253	25.84427	89.83521	25.4	30.4
27	168.42328	145.03432	23.38896	46.20882	42.89883	40.23401	89.57152	40.25504	89.55057	34.7	41.5
28	221.84393	197.44560	24.39833	53.76508	51.68958	56.22148	89.44679	56.30586	89.53825	56.7	70.5
29	180.78441	156.45708	24.32733	53.25095	50.08745	71.40836	90.43202	71.45802	90.53729	55.2	65.2
30	169.63356	147.14052	22.49304	46.60632	43.43810	86.58980	89.17723	86.58035	89.15617	35.8	43.3
31	148.45477	126.18275	22.27202	43.23103	39.85930	100.25374	89.46420	100.27417	89.46086	26.0	31.5
32	128.99451	106.60240	22.39211	40.28741	36.62685	113.62990	90.33128	113.59061	90.35957	17.4	20.8
33	124.34856	100.58800	23.76056	39.56705	35.57407	13.38025	76.66409	13.41959	76.66541	15.3	17.3
34	142.46782	118.59476	23.87306	42.34349	38.63730	26.57918	76.00266	26.63535	75.98279	23.4	27.4
35	166.03595	141.75076	24.28519	45.72202	42.24823	40.93478	74.84370	40.95874	74.89478	33.3	39.3
36	166.11417	142.49513	23.61903	45.81390	42.44073	55.85434	74.55231	55.83359	74.58080	33.5	40.0
37	240.25223	215.85144	24.40079	53.75571	51.16565	71.40352	76.05432	71.44460	76.22699	56.7	68.7
38	172.89978	149.85460	23.04518	47.89642	44.70593	86.84108	74.68369	86.89549	74.70447	39.6	47.4
39	160.87036	137.61833	23.25203	44.99736	41.63124	100.79977	75.27348	100.80997	75.31718	31.1	37.3
40	140.55952	117.64111	22.91841	42.06186	38.47336	114.58263	75.90160	114.56848	75.96144	22.6	26.9
41	145.57941	121.27704	24.30237	42.80089	39.07846	13.92458	61.75159	13.93876	61.76247	24.7	28.9
42	133.68150	110.19594	23.48557	41.00290	37.24037	27.85294	61.56018	27.81203	61.55026	19.5	22.8
43	138.16595	115.48967	22.67628	41.69109	38.12418	42.37996	60.83040	42.34854	60.84927	21.5	25.7
44	148.02365	124.82347	23.20018	43.16203	39.63454	55.82724	60.44881	55.86661	60.45036	25.8	30.7
45	234.95189	210.92030	24.03159	56.17194	53.90727	71.74574	60.28552	71.85249	60.39566	63.7	77.8
46	145.12369	122.46185	22.66183	42.76285	39.29332	86.40744	59.97072	86.38484	60.03406	24.6	29.6
47	134.69427	111.50771	23.18657	41.15997	37.46783	99.83153	60.99619	99.83128	61.02943	20.0	23.6
48	141.81314	118.11580	23.69734	42.23340	38.55046	113.90140	61.40579	113.88425	61.43163	23.1	27.1
49	137.31445	113.04558	24.26888	41.57295	37.73235	14.40517	47.17036	14.38129	47.22714	21.2	24.4
50	131.52213	107.99672	23.52541	40.67882	36.86563	27.48154	47.62033	27.50407	47.61449	18.6	21.6
51	139.95512	116.45222	23.50290	41.95468	38.29366	42.16151	47.52992	42.17464	47.56612	22.3	26.3
52	146.93532	123.98189	22.95343	42.99658	39.49522	56.17984	46.80341	56.20062	46.83443	25.3	30.2
53	135.07663	111.37965	23.69698	41.25977	37.47519	70.85123	46.10504	70.87981	46.13771	20.2	23.6
54	140.47299	116.89534	23.57765	42.03322	38.34479	85.63065	46.60204	85.62604	46.67339	22.5	26.5
55	131.01784	108.02226	22.99557	40.59235	36.87312	99.49649	47.04457	99.53885	47.10333	18.3	21.6
56	163.29306	139.57008	23.72298	45.32834	41.90201	114.11609	46.76508	114.06963	46.86864	32.1	38.2
57	141.80753	117.27441	24.53311	42.23817	38.40350	13.97252	33.05591	14.01033	33.10477	23.1	26.6
58	133.91681	110.18944	23.72737	41.03596	37.24054	28.18228	33.58008	28.19376	33.63022	19.6	22.8

59	143.92340	120.56416	23.35924	42.55771	38.94595	42.39734	34.13744	42.41370	34.23366	24.0	28.4
60	139.34590	115.00206	24.34384	41.88091	38.04768	56.84631	33.54753	56.84389	33.57298	22.1	25.5
61	133.82552	110.00766	23.81786	41.05678	37.22639	71.36542	33.45445	71.37454	33.46674	19.7	22.8
62	95.95300	72.70862	23.24438	34.75035	30.25444	86.00128	33.59128	86.00565	33.59064	1.3	-0.2
63	135.74997	111.34831	24.40166	41.33456	37.42917	100.05093	33.87495	100.05901	33.92575	20.5	23.4
64	127.04721	102.54025	24.50696	39.97063	35.92374	114.73889	33.26466	114.72154	33.38019	16.5	18.5

[redacted] M 7 [redacted]

TABLE C-52. GEOMETRIC PARAMETERS OF B-5 SECTION AT 75.8 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	155.51379	132.72060	22.79320	44.24283	40.86261	11.97304	135.57454	12.05488	135.52609	28.9	34.8
2	236.72363	212.91359	23.91004	60.68704	58.34367	28.34067	134.84480	28.42558	134.76933	76.9	92.4
3	148.05542	125.14183	22.91359	43.24376	39.73160	42.31232	135.92589	42.31598	135.89903	26.0	31.0
4	170.31175	148.06477	22.24698	46.31458	43.18266	56.40410	134.85362	56.37851	134.85464	35.0	42.4
5	160.28670	137.89786	22.38884	44.91916	41.66440	71.71371	135.80487	71.67314	135.74500	30.9	37.4
6	196.79272	174.50491	22.28781	49.99477	47.07516	86.65393	134.93170	86.68715	134.83742	45.7	55.2
7	189.86823	167.73103	22.13719	49.39563	46.46706	101.00012	135.63892	101.06306	135.61018	44.0	53.2
8	175.37483	154.44672	20.92812	47.01218	44.08961	115.51353	136.22191	115.52658	136.18744	37.0	45.4
9	270.98022	247.88373	23.09650	60.98746	58.04169	14.64131	120.83463	14.76556	120.90765	77.7	91.4
10	152.40201	130.69043	21.71158	44.79237	41.62891	28.61057	118.22453	28.58049	118.26062	30.5	37.3
11	161.48074	138.88083	22.59991	47.99928	44.96606	42.11589	120.38527	42.14859	120.38959	39.9	48.3
12	205.46695	182.93607	22.53088	51.12038	48.24864	56.08543	119.38177	56.11855	119.47298	49.0	59.1
13	260.85742	238.05078	22.80664	60.20451	58.27538	72.04691	120.10147	72.15633	120.11272	75.5	92.2
14	174.52386	151.51871	23.00516	56.03966	53.89890	86.33710	119.09402	86.38199	119.13126	63.3	77.8
15	252.82355	231.24249	21.58105	48.51514	46.19225	100.65843	120.24991	100.66075	120.46367	41.4	52.3
16	172.42310	150.79315	21.62994	47.16365	44.15358	115.65047	118.86156	115.66829	119.00368	37.5	45.6
17	181.47833	158.41042	23.06792	47.82190	44.68867	13.60910	104.20163	13.67138	104.17697	39.4	47.4
18	136.71576	113.70538	23.01038	41.62384	37.95981	27.19949	103.80455	27.18977	103.80618	21.3	25.2
19	203.78044	179.12195	23.65849	50.70364	47.62288	40.99391	104.83434	41.04324	104.82114	47.8	57.1
20	205.92461	182.91006	23.01454	51.26422	48.27640	56.08733	103.99774	56.10226	104.06805	49.4	59.2
21	177.13812	153.56999	23.56813	47.79634	44.50172	71.19164	104.15999	71.18413	104.23203	39.3	46.8
22	209.05765	185.67944	23.37820	51.78625	48.81055	87.36763	103.97069	87.33716	103.96187	50.9	61.0
23	150.88010	128.16498	22.71512	43.71803	40.27855	101.87427	103.91438	101.91685	103.90128	27.4	32.8
24	169.74870	147.72849	22.02022	46.25031	43.16187	115.66446	104.21856	115.68994	104.21272	34.8	42.3
25	119.62288	97.44157	22.18130	38.80424	35.02225	13.71014	90.46899	13.71350	90.50763	13.1	15.5
26	138.73112	115.99307	22.73805	41.80109	38.22711	26.73871	89.84216	26.76497	89.86067	21.8	26.1
27	160.94780	138.41925	22.52855	45.03929	41.81329	41.15578	89.68651	41.17607	89.68808	31.3	37.9
28	189.71814	166.28548	23.43266	49.98555	46.94604	56.44258	89.21590	56.46385	89.27325	45.7	54.8
29	179.69739	156.09500	23.60239	52.14183	49.22720	71.87335	90.87129	71.92131	90.96010	52.0	62.3
30	157.49625	135.02765	22.46860	45.10840	41.81395	87.50352	89.51047	87.48981	89.47620	31.5	37.9
31	146.27602	124.05717	22.21884	42.91058	39.52443	101.04622	89.73199	101.04457	89.73228	25.1	30.3
32	136.96414	115.41772	21.54642	41.53284	38.13077	114.35248	90.43091	114.29243	90.41718	21.0	25.7
33	127.81273	105.25089	22.56184	40.12253	36.40503	14.42548	76.64310	14.45782	76.65828	16.9	20.1
34	137.64336	115.27751	22.36584	41.63315	38.08301	27.48161	75.98897	27.52214	75.97479	21.3	25.6
35	158.69141	135.67519	23.01622	44.70364	41.34267	41.73123	74.93555	41.75461	74.98775	30.3	36.3
36	155.11748	133.51614	21.60133	44.18587	41.03397	56.65146	74.68192	56.65195	74.72150	28.8	35.3
37	264.45850	241.13925	23.31924	54.78001	52.74225	72.35159	76.63077	72.43916	76.78276	59.7	73.9
38	159.33014	137.44116	21.88898	45.17776	42.01297	87.32732	74.85498	87.34212	74.87730	31.7	38.6
39	150.59592	129.09657	21.49934	43.53423	40.30501	101.45523	75.49225	101.46513	75.52940	26.9	32.9
40	135.51648	113.80159	21.71489	41.30251	37.85329	115.22351	76.16107	115.24875	76.22190	20.4	24.8
41	143.41919	119.45982	23.95937	42.48103	38.76395	14.77416	61.77208	14.78353	61.77592	23.8	27.8
42	132.19824	108.70378	23.49446	40.77142	36.97215	28.66064	61.57533	28.65038	61.58740	18.8	21.9
43	136.99217	112.63800	24.35417	41.50009	37.64049	43.13177	60.94446	43.11969	60.94730	20.9	24.1
44	147.26091	122.45206	24.80885	43.04329	39.25243	56.53899	60.57072	56.58243	60.56288	25.4	29.4
45	232.79182	210.31380	22.47803	54.29747	52.52403	72.57755	60.48001	72.68369	60.57472	58.2	73.2
46	140.20609	118.48927	21.71681	41.99294	38.61423	87.14157	60.19139	87.15221	60.20180	22.4	27.3
47	127.91275	106.68939	21.22336	40.11241	36.64430	100.57227	61.18475	100.58629	61.18840	16.9	20.8
48	130.22171	109.74956	20.47215	40.47150	37.15045	114.69611	61.61026	114.67879	61.61749	18.0	22.5
49	137.56926	112.55682	25.01244	41.59727	37.63266	15.29849	47.23531	15.30886	47.26625	21.2	24.1
50	130.14572	105.76137	24.38435	40.46609	36.47409	28.28476	47.73277	28.29063	47.70779	17.9	20.3
51	137.86002	112.41158	25.44844	41.64622	37.61047	42.92464	47.64066	42.94975	47.62651	21.4	24.0
52	146.89474	121.66830	25.22644	42.98752	39.12787	56.95042	46.99971	56.98228	47.00305	25.3	29.0
53	133.51599	108.79388	24.72211	41.03059	37.06073	71.58832	46.31000	71.62927	46.32088	19.6	22.2
54	136.73349	112.55774	24.17575	41.47745	37.62332	86.36134	46.82423	86.34114	46.82668	20.9	24.1
55	127.88103	102.73807	25.14296	40.10297	35.95264	100.23036	47.26851	100.24336	47.31259	16.9	18.6
56	151.56778	126.70163	24.86615	43.65385	39.91026	114.70975	46.95537	114.71414	46.99255	27.2	31.6
57	141.02579	115.04890	25.97688	42.11469	38.03563	14.77821	33.10637	14.81685	33.14954	22.7	25.4
58	129.03505	102.98590	26.04915	40.29912	35.99689	28.96445	33.70514	28.97998	33.71584	17.4	18.7

[redacted] N 7 [redacted]

59	150.04276	124.51840	25.52435	43.43616	39.57317	43.20587	34.28154	43.23836	34.32158	26.6	30.5
60	144.84370	118.91058	25.93312	42.68761	38.68222	57.65479	33.73010	57.66501	33.72528	24.4	27.6
61	140.15979	114.53065	25.62914	42.00146	37.97697	72.15283	33.60272	72.15933	33.58672	22.4	25.2
62	96.34538	72.18987	24.15552	34.82007	30.13901	86.73346	33.78235	86.73552	33.75316	1.5	-0.6
63	131.67052	107.53101	24.13951	40.69604	36.79163	100.73938	34.15179	100.76678	34.16617	18.6	21.3
64	124.48415	100.06259	24.42155	39.58008	35.48322	115.40894	33.59662	115.38968	33.64917	15.4	17.0

[redacted] 0 7 [redacted]

TABLE C-53. GEOMETRIC PARAMETERS OF B-5 SECTION AT 76.3 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	153.33815	127.71101	25.62714	43.91599	40.08864	11.73571	135.84106	11.84354	135.77332	28.0	32.2
2	237.92511	208.60777	29.31734	61.41893	58.31827	27.95944	135.12384	28.01434	135.03310	79.0	92.3
3	154.91978	129.66785	25.25194	44.22720	40.48143	41.86279	136.15207	41.90584	136.07356	28.9	33.5
4	215.21841	186.92400	28.29442	52.83006	49.34641	55.90842	134.89795	55.90524	134.85559	54.0	62.7
5	171.42619	145.38326	26.04294	46.44618	42.76384	71.40182	135.95920	71.39796	135.89433	35.4	41.0
6	198.53618	172.25996	26.27621	50.14352	46.71690	86.27884	135.39067	86.33434	135.26384	46.1	54.1
7	190.50822	163.94003	26.56819	49.61197	46.08295	100.50890	135.97298	100.54417	135.91516	44.6	52.0
8	180.62875	154.83211	25.79665	47.68205	44.14635	114.92648	136.47867	114.90411	136.37695	39.0	45.6
9	275.67480	250.47252	25.20229	60.74995	58.09929	14.47181	121.15871	14.58468	121.22995	77.0	91.6
10	148.96318	125.33725	23.62593	44.12202	40.62175	28.26579	118.51645	28.32529	118.52974	28.6	34.0
11	161.80150	137.86989	23.93161	47.80386	44.52156	41.83221	120.65683	41.82439	120.64255	39.3	46.8
12	196.67122	171.62762	25.04359	50.00148	46.74565	55.71826	119.37300	55.71339	119.42775	45.7	54.2
13	263.24976	238.62210	24.62766	59.17538	56.70284	71.63736	120.19101	71.73766	120.12529	72.5	87.0
14	196.79292	172.31718	24.47574	54.49055	51.51646	86.43578	120.11087	86.47238	120.17003	58.8	69.9
15	220.05876	194.82570	25.23306	54.11446	50.86275	100.52171	119.82072	100.47630	119.88196	57.7	67.7
16	171.24443	147.16985	24.07458	46.64488	43.29700	115.15112	119.21550	115.12189	119.29514	35.9	42.8
17	177.54704	153.37460	24.17244	47.28394	43.95195	13.32428	104.54768	13.38262	104.48494	37.8	44.9
18	134.59734	111.38211	23.21523	41.23029	37.52385	26.94258	104.26270	26.94130	104.26291	20.2	23.7
19	193.98094	169.02187	24.93907	49.50604	46.22415	40.64195	105.20822	40.69884	105.19823	44.3	52.4
20	201.17278	176.83730	24.33548	50.51875	47.36613	55.70792	104.33028	55.71535	104.38026	47.2	56.2
21	172.80138	146.51324	26.28813	46.89407	43.19824	70.78183	104.48325	70.81447	104.53595	36.7	42.5
22	201.02930	173.53362	27.49568	50.59081	47.02379	86.82037	104.26155	86.83910	104.20833	47.4	55.1
23	148.58778	124.25253	24.33525	43.32047	39.64122	101.25629	104.26131	101.27695	104.22501	26.3	30.7
24	180.03616	153.60548	26.43068	47.66147	44.00443	115.11205	104.51828	115.12263	104.47969	38.9	45.1
25	123.00110	98.19885	24.80225	39.33546	35.15215	13.48119	90.87236	13.50303	90.84866	14.6	15.9
26	137.90585	112.23756	25.66829	41.63969	37.57693	26.43515	90.32375	26.46974	90.33698	21.4	23.9
27	161.73174	135.59808	26.13365	45.12492	41.31796	40.87288	90.16193	40.88448	90.11189	31.5	36.3
28	182.66942	156.01740	26.65202	48.52190	44.95053	56.03006	89.64462	56.03339	89.67970	41.4	48.2
29	181.71356	154.19223	27.52133	50.95205	47.44272	71.43130	91.11485	71.48227	91.18593	48.6	56.5
30	155.38289	130.02344	25.35945	44.62219	40.95340	86.99832	89.97391	86.99924	89.95366	30.0	35.1
31	145.66916	121.22589	24.44327	42.81171	39.05591	100.46852	90.13116	100.49890	90.12998	24.8	28.8
32	140.42043	115.97301	24.44742	42.03487	38.18874	113.72943	90.69373	113.65642	90.69058	22.5	25.9
33	130.40253	107.14838	23.25415	40.50851	36.71228	14.20877	77.10365	14.23881	77.11043	18.1	21.1
34	135.91022	112.69937	23.21085	41.34869	37.65945	27.17372	76.48671	27.23380	76.45836	20.5	24.2
35	156.64639	132.77260	23.87379	44.40590	40.87560	41.40053	75.44827	41.45207	75.47169	29.4	34.8
36	153.53508	130.21341	23.32167	43.97021	40.50810	56.29517	75.23584	56.28935	75.21349	28.1	33.6
37	260.84351	236.11768	24.72583	54.35950	51.91840	72.09312	76.87383	72.20456	77.02873	58.4	71.2
38	157.35735	134.87914	22.47821	44.66940	41.37727	86.90225	75.41267	86.92659	75.42123	30.2	36.5
39	147.00954	125.00220	22.00734	43.00259	39.66003	101.01221	76.01297	101.02789	76.05136	25.3	30.8
40	134.28305	111.21622	23.06683	41.11208	37.41342	114.69316	76.78287	114.70190	76.82382	19.8	23.4
41	140.08960	117.62143	22.46817	41.97833	38.48366	14.58737	62.18535	14.59236	62.18611	22.3	26.9
42	130.82576	108.19066	22.63510	40.57120	36.89139	28.43607	62.05988	28.41618	62.02414	18.2	21.7
43	133.27170	110.44379	22.82791	40.96071	37.26924	42.90347	61.44702	42.89516	61.41336	15.4	22.9
44	144.25008	121.20070	23.04938	42.60733	39.07097	56.29047	61.04216	56.29802	61.01602	24.2	28.9
45	217.75117	194.15106	23.60011	53.31877	50.47527	71.97961	60.77493	72.07918	60.82025	55.4	66.5
46	139.60112	116.54529	23.05583	41.92371	38.29442	86.79822	60.70778	86.79291	60.74863	22.2	26.3
47	127.37546	104.03888	22.[illegible]59	40.03572	36.31383	100.23924	61.70615	100.24005	61.70932	16.7	19.8
48	128.77267	105.68877	23.[illegible]391	40.26447	36.46292	114.31767	62.17236	114.26874	62.20163	17.3	20.2
49	136.06165	112.07086	[illegible].99078	41.37772	37.54551	15.09475	47.64557	15.08650	47.68053	20.6	23.8
50	127.77620	105.21666	[illegible].55954	40.09155	36.39006	28.08524	48.24452	28.09174	48.24597	16.8	20.0
51	134.43422	110.95430	23.47992	41.12939	37.36720	42.66637	48.06995	42.67909	48.08823	19.9	23.2
52	144.23434	121.41524	22.81911	42.61708	39.08876	56.69400	47.44987	56.71623	47.43056	24.2	28.9
53	131.71805	108.96593	22.75212	40.73842	37.05705	71.35744	46.82219	71.36378	46.83022	18.7	22.2
54	134.11519	111.83853	22.27666	41.08400	37.50826	86.07904	47.29031	86.05690	47.31279	19.7	23.7
55	125.11137	102.48262	22.62875	39.69836	35.90515	99.99219	47.73759	99.98860	47.76041	15.7	18.4
56	147.63712	123.82384	23.81328	43.12238	39.47594	114.43256	47.43338	114.43002	47.50880	25.7	30.2
57	138.18741	115.16704	23.02037	41.68932	38.05798	14.51118	33.30750	14.51964	33.31511	21.5	25.5
58	123.73328	100.90417	22.82910	39.45145	35.62383	28.76047	33.98502	28.76407	34.02596	15.0	17.5

59	149.18741	125.73634	23.45107	43.31290	39.77171	42.96808	34.48494	42.98311	34.48940	26.2	31.2
60	144.15306	121.36713	22.78593	42.57890	39.09747	57.39713	33.88576	57.46100	33.87410	24.1	28.9
61	140.16252	117.22400	22.93852	41.99185	38.39647	71.95479	33.76244	71.94781	33.76282	22.4	26.6
62	95.55927	72.43678	23.12248	34.67418	30.19487	86.57001	33.90692	86.56537	33.90544	1.1	-0.4
63	129.40736	107.37556	22.03180	40.34149	36.75616	100.61320	34.25136	100.60483	34.31458	17.6	21.2
64	124.74117	100.56877	24.17239	39.60007	35.56143	115.28062	33.70336	115.25856	33.74426	15.4	17.3

TABLE C-54. GEOMETRIC PARAMETERS OF B-5 SECTION AT 77.4 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	143.01030	120.09109	22.91920	42.42479	38.88773	12.39363	135.52325	12.47284	135.48012	23.6	28.2
2	238.10497	212.49644	25.60852	59.88864	57.12791	27.53499	134.29309	27.53438	134.26448	74.5	88.4
3	175.46469	151.03731	24.42738	47.07686	43.66783	42.37032	135.28685	42.43094	135.20634	37.2	44.0
4	203.93411	178.98317	24.95094	64.80782	63.27136	56.70868	135.47279	56.73949	135.51007	88.9	108.7
5	226.00813	202.17578	23.83235	53.49272	50.54544	71.64024	134.63481	71.57114	134.56287	55.9	66.7
6	201.49490	179.27699	22.21791	50.73201	47.82278	87.14383	134.79924	87.17818	134.68594	47.9	57.7
7	177.41472	153.41075	24.00397	48.16826	44.90485	100.95905	135.48586	100.99884	135.41493	40.4	48.1
8	204.75139	181.15573	23.59566	50.92299	47.89236	115.20934	135.38986	115.20847	135.28996	48.4	57.9
9	255.46234	230.74135	24.72099	57.07507	54.33142	14.80640	120.33842	14.89110	120.38632	66.3	79.2
10	144.49557	121.66653	22.82904	42.94884	39.47046	28.78677	118.01340	28.83398	118.04910	25.2	30.2
11	170.83508	146.82738	24.00771	46.69206	43.37718	41.95503	120.24181	41.93030	120.26224	36.1	43.1
12	185.01199	162.29294	22.71906	48.47965	43.42551	56.32416	118.47379	56.30205	118.51460	41.3	49.8
13	232.50484	208.57912	23.92572	56.58788	53.93816	71.94308	119.21941	72.01083	119.16324	64.9	77.9
14	185.99466	163.50815	22.48651	48.97458	46.02345	86.67496	119.17743	86.71176	119.24393	42.7	51.8
15	190.35963	166.61607	23.74356	49.17566	46.05603	100.82559	118.48404	100.80409	118.57834	43.3	51.9
16	161.16776	137.84239	23.32536	45.08429	41.71825	115.48061	118.69098	115.49832	118.74936	31.4	37.6
17	167.96667	143.43050	24.53618	45.97806	42.48479	13.83162	104.22081	13.90283	104.17450	34.0	40.1
18	133.02101	109.43826	23.58275	40.91560	37.12489	27.62413	104.02505	27.62372	104.02603	19.2	22.4
19	172.29285	148.96449	23.32835	46.58510	43.30544	41.28503	104.81331	41.29027	104.80666	35.8	42.8
20	193.17743	169.22887	23.94856	49.38269	46.24928	56.26202	103.69659	56.28123	103.74138	43.9	52.5
21	160.50969	137.67247	22.83722	44.96959	41.65443	71.36221	104.19986	71.38971	104.26476	31.1	37.4
22	176.60561	152.75006	23.85555	47.16649	43.87782	87.18980	103.93010	87.16861	103.93059	37.5	44.7
23	141.42125	118.07643	23.34482	42.24725	38.59203	101.54271	103.93152	101.57109	103.90295	23.1	27.3
24	188.94296	165.42165	23.52132	48.86159	45.67198	115.48666	104.14136	115.51776	104.13460	42.4	50.6
25	125.67050	103.22406	22.44644	39.76202	36.03497	14.33962	90.52676	14.34397	90.52763	15.9	18.8
26	129.86559	107.14587	22.71971	40.42249	36.72812	27.20515	90.08934	27.26163	90.11325	17.8	21.1
27	154.47803	131.20068	23.27734	44.09334	40.62837	41.64540	89.93387	41.68687	89.92439	28.5	34.0
28	161.02206	138.06551	22.95656	45.11697	41.78334	56.49226	89.28493	56.52449	89.36050	31.5	37.8
29	176.47386	152.95319	23.52068	47.50493	44.28629	71.85728	90.30029	71.88556	90.35756	38.4	46.0
30	146.93063	123.92398	23.00665	43.07359	39.58580	87.33347	89.64870	87.33827	89.64607	25.5	30.5
31	140.10222	116.83408	23.26814	41.99281	38.33522	100.96280	89.81656	100.99724	89.82080	22.4	26.4
32	139.20653	116.60696	22.59956	41.84941	38.31908	114.18515	90.10773	114.17448	90.13527	22.0	26.4
33	134.77069	110.88504	23.88565	41.17697	37.38573	14.91758	76.78857	14.95450	76.81508	20.0	23.3
34	130.85645	108.18942	22.66702	40.57651	36.90186	27.80696	76.12396	27.82520	76.11766	18.3	21.7
35	149.84686	126.58791	23.25896	43.41154	39.90671	42.03725	75.23172	42.04068	75.25453	26.5	31.6
36	150.65622	123.03088	22.62534	43.52983	40.14343	56.80014	75.02528	56.79897	75.04578	26.9	32.4
37	213.78282	189.07640	24.70642	51.89473	48.79929	71.95076	75.35254	72.00336	75.43793	51.2	60.9
38	151.41501	127.94301	23.47200	43.66893	40.16098	87.38231	75.19351	87.41806	75.19618	27.3	32.4
39	140.75494	117.90422	22.85072	42.07086	38.51517	101.37878	75.75024	101.38382	75.77011	22.6	27.0
40	127.25848	103.95250	23.30598	40.00134	36.19336	115.00458	76.43851	115.01242	76.46817	16.6	19.4
41	134.75842	111.48044	23.27798	41.17004	37.46141	15.23048	61.95345	15.23528	61.99132	20.0	23.5
42	126.42206	103.33450	23.08755	39.87454	36.06310	29.06126	61.74704	29.01517	61.74648	16.2	18.9
43	128.83212	106.15425	22.67787	40.25577	36.54605	43.43536	61.20450	43.40985	61.19896	17.3	20.5
44	140.02888	116.45445	23.57443	41.96043	38.27853	56.79791	60.81020	56.82253	60.83189	22.3	26.2
45	179.29369	156.66977	22.62392	47.59814	44.53343	72.06786	60.36536	72.11110	60.40074	38.7	46.9
46	135.25990	112.04422	23.21568	41.24541	37.55327	87.19936	60.41373	87.17322	60.46545	20.2	23.8
47	123.41872	100.53932	22.87939	39.40475	35.60742	100.62726	61.39325	100.63109	61.39124	14.8	17.4
48	123.10812	101.17763	21.93050	39.36194	35.71246	114.69423	61.78415	114.67221	61.82132	14.7	17.8
49	133.10411	108.66380	24.44031	40.92006	36.97304	15.64761	47.48230	15.63695	47.52310	19.3	21.9
50	127.08197	104.39288	22.68909	39.98659	36.23817	28.65918	47.99155	28.65543	47.98503	16.5	19.5
51	130.05551	107.09032	22.96519	40.44878	36.70753	43.15663	47.78912	43.17625	47.80452	17.9	21.1
52	137.76761	114.19321	23.57440	41.64857	37.89838	57.13905	47.26674	57.16751	47.29922	21.4	25.0
53	130.02040	106.92430	23.09610	40.45419	36.67525	71.79070	46.59062	71.80397	46.62366	17.9	20.9
54	128.52953	105.61166	22.91786	40.21025	36.44398	86.42229	47.04399	86.42285	47.08902	17.2	20.2
55	122.00436	99.11092	22.89345	39.18114	35.32666	100.32500	47.47128	100.33913	47.51271	14.2	16.5
56	138.07312	114.89227	23.18085	41.67310	38.01762	114.56194	47.15929	114.58275	47.21083	21.5	25.4
57	131.08910	107.80711	23.28198	40.62071	36.83322	14.97526	33.41614	15.01983	33.45419	18.4	21.5
58	116.96448	93.67680	23.28767	38.35983	34.32301	29.31694	34.06557	29.32628	34.09097	11.8	13.2

59	141.34238	118.00037	23.34201	42.17390	38.55226	43.46019	34.48410	43.47920	34.51416	22.9	27.1
60	138.56030	114.63544	23.92487	41.74666	37.98027	57.81406	33.95020	57.84746	33.96407	21.7	25.3
61	140.12914	116.91748	23.21165	41.99371	38.34833	72.28836	33.73361	72.29214	33.73218	22.4	26.5
62	94.12733	71.60948	22.51785	34.41328	30.01691	86.80797	33.86903	86.80896	33.86572	0.3	-1.0
63	131.09624	107.77722	23.31902	40.61339	36.82840	100.75079	34.26495	100.78853	34.31889	18.4	21.5
64	125.07457	101.91548	23.15909	39.67482	35.81625	115.29901	33.74954	115.28120	33.81250	15.6	18.1

TABLE C-55. GEOMETRIC PARAMETERS OF B-5 SECTION AT 78.9 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	132.78224	109.70015	23.08209	40.86790	37.17604	12.38214	135.45493	12.45485	135.43494	19.1	22.6
2	196.64037	171.82643	24.81393	49.84430	46.59442	27.08228	134.05551	27.11177	134.02577	45.3	53.7
3	163.52318	139.18839	24.33479	45.37907	41.89415	41.73325	135.05237	41.75626	135.00522	32.3	38.2
4	228.58394	199.48820	26.09573	62.80244	61.02530	55.01601	134.69427	54.94576	134.70750	83.0	101.3
5	282.20166	255.67068	26.53098	58.20168	55.68546	70.84514	133.86952	70.74582	133.77164	69.6	83.6
6	210.77538	186.59532	24.18005	52.10542	48.99590	87.20311	134.65398	87.24023	134.56389	51.9	61.6
7	160.31357	136.38809	23.92548	46.32370	42.81781	100.58133	135.46938	100.61559	135.48682	35.0	41.2
8	290.30396	267.51270	22.79126	51.65575	48.93214	114.73792	133.45610	114.78271	133.19135	50.5	61.4
9	178.21700	154.11620	24.10080	47.33762	44.03310	13.64614	120.05618	13.66413	120.07820	38.0	45.2
10	142.36838	118.35449	24.01389	42.37685	38.63420	28.49602	118.22420	28.51697	118.28568	23.5	27.4
11	163.34587	139.15500	24.19087	45.37880	41.88364	41.74435	120.25244	41.70987	120.23369	32.3	38.1
12	172.87701	147.91852	24.95850	46.83600	43.30841	56.29732	118.36641	56.29781	118.39836	36.5	42.8
13	193.72224	168.53600	25.18625	51.31422	48.07478	71.54422	118.94856	71.62271	118.89578	49.6	58.5
14	170.34824	145.75491	24.59332	46.35106	42.85681	86.39508	119.08684	86.41316	119.13805	35.1	41.3
15	170.22137	146.05144	24.16994	46.69435	43.33122	100.48064	118.51373	100.44717	118.54424	36.1	42.9
16	146.90218	123.20757	23.69461	43.33183	39.73985	115.13965	118.78207	115.14275	118.83578	26.3	31.1
17	156.59744	133.75615	22.84129	44.37737	41.02890	13.62107	104.34346	13.64746	104.28362	29.3	35.3
18	131.29597	109.20859	22.08739	40.64992	37.08311	27.51456	104.25467	27.53827	104.25166	18.5	22.3
19	154.40146	131.27713	23.12433	44.09357	40.64670	41.26775	104.91200	41.28801	104.88158	28.5	34.0
20	198.57994	175.80948	22.77046	50.05511	47.10864	56.18427	103.68349	56.17848	103.69771	45.9	55.4
21	151.63016	128.94859	22.68156	43.67357	40.26839	71.29572	104.38594	71.31233	104.44902	27.3	32.8
22	156.11195	132.97052	23.14143	44.31685	40.90550	86.83127	104.06847	86.82440	104.06487	29.2	34.9
23	138.16138	114.96603	23.19534	41.69713	38.04008	101.11539	104.09418	101.16850	104.11205	21.5	25.5
24	178.83946	155.82021	23.01926	47.44612	44.28101	115.21646	104.29147	115.25145	104.28934	38.3	46.0
25	131.18092	109.19850	21.98242	40.61502	37.06587	14.32426	90.52454	14.31096	90.53700	18.4	22.2
26	126.06874	103.69205	22.37669	39.82681	36.11530	27.28993	90.25337	27.31215	90.29124	16.1	19.1
27	147.57800	125.16594	22.41206	43.11009	39.69479	41.78879	90.09956	41.82066	90.07895	25.6	30.9
28	150.49382	127.28394	23.20988	43.54025	40.03873	56.34027	89.38219	56.35928	89.40302	26.9	32.0
29	163.29065	140.68796	22.60269	45.36797	42.14079	71.72806	90.43364	71.73988	90.43306	32.2	39.0
30	141.21931	118.14630	23.07301	42.15642	38.56645	87.08849	89.82222	87.10657	89.81619	22.9	27.2
31	132.05876	109.90392	22.15485	40.75885	37.19353	100.80571	90.00034	100.83124	90.00288	18.8	22.7
32	131.78889	110.81621	20.97269	40.72688	37.33600	114.08043	90.14221	114.04077	90.16290	18.7	23.1
33	136.38463	113.55144	22.83319	41.42439	37.79626	14.70201	76.78206	14.69919	76.78221	20.7	24.6
34	127.57777	105.55920	22.01857	40.06801	36.48872	27.65021	76.15671	27.66751	76.17038	16.8	20.3
35	141.80098	118.04039	23.76059	42.23624	38.54187	41.94412	75.45927	41.96181	75.49353	23.1	27.1
36	148.37160	125.08823	23.28337	43.20013	39.67133	56.68518	75.25638	56.69318	75.27997	25.9	30.8
37	182.75479	158.81361	23.94118	47.94952	44.70554	71.54512	75.17178	71.57158	75.24718	39.7	47.4
38	146.26395	123.54132	22.72263	42.89308	39.42303	87.14342	75.46768	87.16652	75.47180	25.0	30.0
39	135.70355	113.25415	22.44940	41.30821	37.74377	101.05286	75.97418	101.04770	75.98386	20.4	24.5
40	118.55676	96.32742	22.22934	38.62497	34.82582	114.66489	76.68492	114.66893	76.74045	12.6	14.9
41	129.56238	106.70654	22.85583	40.36981	36.64465	14.93606	61.90036	14.93324	61.91498	17.7	20.8
42	123.88695	100.75804	23.12891	39.48958	35.59949	28.78749	61.69841	28.76456	61.70009	15.1	17.4
43	126.44002	104.03641	22.40361	39.89653	36.16968	43.21506	61.31970	43.19478	61.33359	16.3	19.3
44	136.55113	113.36586	23.18527	41.44501	37.76784	56.66518	60.96008	56.68063	60.97099	20.8	24.6
45	149.20663	126.51227	22.69437	43.32852	39.88800	71.76051	60.51552	71.79968	60.53824	26.3	31.5
46	130.85313	107.85910	22.99403	40.56812	36.83293	86.93961	60.62862	86.94432	60.65907	18.2	21.5
47	122.13861	99.37971	22.75890	39.20059	35.35318	100.47186	61.52959	100.47206	61.52345	14.2	16.6
48	128.04007	105.34109	22.69897	40.13081	36.39519	114.48700	61.94510	114.48334	61.94662	17.0	20.0
49	128.14943	104.79492	23.35451	40.15141	36.30652	15.18157	47.44461	15.18776	47.46155	17.0	19.7
50	126.02151	102.89397	23.12755	39.81705	35.97862	28.42947	47.92883	28.44196	47.91360	16.0	18.7
51	126.81410	103.51942	23.29468	39.95140	36.08948	42.97456	47.69722	42.98970	47.72047	16.4	19.0
52	131.10063	108.74754	22.35309	40.61592	36.98322	57.01929	47.29344	57.03903	47.32289	18.4	22.0
53	129.33429	106.25500	23.07928	40.33630	36.56430	71.65540	46.66620	71.67847	46.69975	17.6	20.6
54	124.41388	102.59729	21.81659	39.56577	35.92157	86.25098	47.10083	86.25636	47.13170	15.3	18.5
55	122.00110	99.68578	22.31532	39.18665	35.40744	100.25984	47.53403	100.26120	47.56299	14.2	16.8
56	133.31476	111.38034	21.93442	40.94479	37.41821	114.38908	47.24504	114.38799	47.28775	19.3	23.4
57	130.25237	106.52007	23.73230	40.48872	36.61032	14.51113	33.29182	14.55786	33.30576	18.0	20.7
58	116.62735	93.70203	22.92532	38.31627	34.36360	29.08246	33.99464	29.08487	34.02055	11.7	13.3

59	125.58672	102.98987	22.59685	39.75589	36.02994	43.27303	34.27948	43.29286	34.32492	15.9	18.8
60	124.21065	101.74567	22.46498	39.54475	35.78455	57.65714	33.80042	57.65608	33.81369	15.2	18.0
61	132.20042	109.35164	22.84879	40.77995	37.09811	72.10066	33.57294	72.11067	33.57063	18.8	22.3
62	94.64609	72.33684	22.30925	34.51178	30.19022	86.64500	33.68817	86.65668	33.67213	0.6	-0.4
63	133.21352	110.51538	22.69814	40.94405	37.28448	100.64775	34.13670	100.65106	34.17307	19.3	23.0
64	126.47586	103.83345	22.64241	39.89450	36.14317	115.19226	33.66331	115.18172	33.73280	16.3	19.2

TABLE C-56. GEOMETRIC PARAMETERS OF B-5 SECTION AT 80.4 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	128.08679	103.39990	24.68689	40.13673	36.06219	12.54868	135.45074	12.60179	135.39453	17.0	18.9
2	144.16232	119.50813	24.65419	42.58040	38.78329	26.92404	134.09013	26.93567	134.03152	24.1	27.9
3	132.23207	106.91173	25.32034	40.77686	36.67390	41.38765	134.89563	41.43651	134.84483	18.8	20.9
4	153.97792	128.37509	25.60283	44.05972	40.23401	55.81387	134.24599	55.81982	134.23392	28.4	32.7
5	202.14211	176.27519	25.86691	50.43254	47.08650	70.86743	134.63770	70.78989	134.58687	47.0	55.3
6	189.75616	163.74667	26.00949	48.91978	45.44659	86.23645	134.67207	86.28320	134.62317	42.6	49.9
7	153.72647	129.48308	24.24339	44.31148	40.70700	99.90581	135.16315	99.93483	135.14262	29.1	34.2
8	227.38992	199.28601	28.10391	52.73988	49.58051	113.87645	134.53412	113.87119	134.37398	53.7	63.5
9	152.98756	127.86795	25.11961	43.86368	40.10269	13.47749	120.22458	13.50251	120.22841	27.8	32.3
10	136.66315	111.28027	25.38287	41.45995	37.42133	28.23305	118.67906	28.25058	118.67329	20.8	23.4
11	152.15005	126.81206	25.33800	43.74077	39.93826	41.50987	120.42967	41.49934	120.40533	27.5	31.7
12	158.55566	132.29865	26.25702	44.68546	40.81244	56.05058	118.69527	56.05559	118.71489	30.2	34.6
13	163.02658	137.41452	25.61206	45.33321	41.62642	70.77396	119.48650	70.82114	119.47359	32.1	37.3
14	158.08336	132.86957	25.21379	44.58936	40.88075	85.71594	119.34723	85.75087	119.35353	30.0	34.8
15	149.06454	124.10652	24.95802	43.32016	39.53558	99.69118	118.99110	99.70149	119.01631	26.3	30.4
16	136.01196	111.83537	24.17659	41.38678	37.51422	114.24840	119.46651	114.23409	119.48843	20.6	23.7
17	148.99609	126.08339	22.91270	43.29945	39.83905	13.63322	104.81612	13.65566	104.77437	26.2	31.4
18	126.72031	104.25302	22.46729	39.93158	36.21985	27.47543	104.83214	27.46812	104.81177	16.4	19.4
19	139.75851	117.35318	22.40533	41.93307	38.44440	41.23344	105.35843	41.23985	105.33133	22.2	26.8
20	183.15099	159.51180	23.63919	48.02414	44.81430	55.93602	104.34311	55.94228	104.36940	40.0	47.8
21	142.91655	121.25670	21.65985	42.39667	39.07883	70.79391	105.01950	70.82864	105.05823	23.6	28.9
22	146.64502	124.42293	22.22209	42.95544	39.57423	85.96219	104.73450	85.92043	104.70569	25.2	30.5
23	134.44087	111.66106	22.77982	41.13412	37.51498	100.17152	104.73773	100.20274	104.73648	19.9	23.7
24	151.01242	129.04274	21.96968	43.60110	40.30188	114.27731	104.87656	114.28461	104.84514	27.1	32.9
25	131.67049	108.97002	22.70047	40.72267	37.04167	14.32743	91.05563	14.30624	91.07317	18.7	22.2
26	120.21396	98.61877	21.59518	38.89574	35.24004	27.34137	90.93117	27.32298	90.93738	13.4	16.2
27	137.01097	114.93558	22.07539	41.52701	38.04224	41.73700	90.74300	41.74225	90.72115	21.0	25.5
28	140.03561	117.05666	22.97896	41.98080	38.40352	56.01138	90.12341	55.98927	90.13705	22.3	26.6
29	149.53564	127.27940	22.25624	43.39644	40.02834	71.11797	91.14543	71.11729	91.16267	26.5	32.0
30	137.71019	115.65114	22.05905	41.63219	38.16396	86.25662	90.51208	86.22531	90.49081	21.3	25.9
31	125.14195	103.10243	22.03952	39.69867	36.03288	100.01373	90.72145	99.99580	90.69231	15.7	18.8
32	122.81552	100.77896	22.03656	39.33157	35.62601	113.36943	90.78195	113.35623	90.76212	14.6	17.5
33	128.66649	107.24963	21.41685	40.23479	36.73546	14.49894	77.31815	14.51928	77.32520	17.3	21.1
34	122.09766	100.68134	21.41632	39.21048	35.58284	27.55231	76.74911	27.61313	76.73521	14.3	17.3
35	129.52249	107.60518	21.91731	40.35687	36.78914	41.78351	76.24103	41.83342	76.25870	17.6	21.3
36	139.83134	118.76268	21.06866	41.93768	38.65074	56.33249	75.99115	56.34634	76.00386	22.2	27.5
37	152.79871	131.05687	21.74184	43.84264	40.60236	70.88087	75.79439	70.94070	75.84512	27.8	33.9
38	138.54358	117.82481	20.71877	41.74904	38.52519	86.37476	76.27686	86.40747	76.29900	21.7	27.1
39	127.85315	106.09326	21.75989	40.09630	36.55112	100.15855	76.66389	100.17614	76.68150	16.9	20.5
40	119.63522	98.42773	21.20749	38.80391	35.19449	113.75697	77.29184	113.75941	77.28635	13.1	16.1
41	123.75143	99.21559	24.53584	39.47514	35.33232	14.68318	62.68259	14.67222	62.67665	15.0	16.5
42	119.85918	95.82217	24.03700	38.82416	34.73332	28.45351	62.40860	28.42650	62.40172	13.1	14.5
43	122.54254	98.71799	23.82455	39.25325	35.22789	42.78439	62.16263	42.75539	62.15376	14.4	16.2
44	132.54124	108.08806	24.45319	40.82439	36.86769	56.24490	61.81096	56.25349	61.80440	19.0	21.6
45	132.32903	107.55370	24.77533	40.79108	36.79156	71.12242	61.45047	71.17804	61.43993	18.9	21.3
46	125.54111	101.52817	24.01294	39.73325	35.72966	86.08121	61.52277	86.09036	61.51996	15.8	17.8
47	118.91158	94.73521	24.17636	38.66599	34.52423	99.65202	62.26831	99.68076	62.25734	12.7	13.9
48	127.38858	102.76144	24.62714	40.02687	35.97310	113.58974	62.58862	113.59036	62.62260	16.7	18.6
49	115.64241	93.59801	22.04440	38.14537	34.32272	14.79220	48.28352	14.82008	48.32010	11.2	13.2
50	117.98817	97.66418	20.32399	38.53705	35.04984	28.27325	48.65244	28.27072	48.65982	12.3	15.6
51	119.00188	97.44830	21.55357	38.69580	35.01512	42.65656	48.42252	42.67485	48.42522	12.8	15.5
52	123.92032	102.90024	21.02008	39.49135	35.98056	56.64569	48.15651	56.65286	48.17377	15.1	18.7
53	122.09462	101.06357	21.03105	39.19798	35.65927	71.17450	47.54802	71.23119	47.55054	14.2	17.6
54	118.31561	97.25160	21.06401	38.59363	34.97847	85.55936	47.98172	85.58324	48.01686	12.5	15.4
55	118.90520	98.06046	20.84474	38.68141	35.12553	99.60234	48.33044	99.61084	48.35751	12.7	15.8
56	127.55562	106.91484	20.64078	40.06415	36.68016	113.52763	48.09312	113.54706	48.13113	16.8	21.0
57	122.48785	97.61078	24.87708	39.25159	35.03920	14.18799	34.28641	14.24651	34.27182	14.4	15.6
58	123.69194	97.89130	25.80064	39.43828	35.10803	28.81145	34.89362	28.79483	34.89246	14.9	15.8

59	124.10544	99.42825	24.67719	39.51012	35.36018	42.89172	34.92628	42.89325	34.94255	15.1	16.6
60	114.79321	92.78008	22.01314	38.00220	34.17575	57.19756	34.49132	57.21313	34.49413	10.8	12.7
61	117.30222	93.03433	24.26788	38.42070	34.20453	71.47807	34.27037	71.47308	34.25235	12.0	12.8
62	94.63362	70.96860	23.66502	34.50435	29.88081	85.91856	34.41489	85.91498	34.40494	0.6	-1.5
63	131.17477	106.50450	24.67027	40.62726	36.59613	99.83316	34.78926	99.84741	34.80737	18.4	20.7
64	125.59737	101.40854	24.18883	39.75627	35.71735	114.25784	34.50667	114.21649	34.52753	15.9	17.8

[redacted] H 8 [redacted]

TABLE C-57. GEOMETRIC PARAMETERS OF B-5 SECTION AT 81.9 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	133.83002	109.76782	24.06219	41.06078	37.17441	13.26942	135.58600	13.32101	135.56964	19.7	22.6
2	145.76050	122.76900	22.99150	42.84138	39.30727	27.52655	134.18762	27.54196	134.17825	24.9	29.6
3	125.73299	102.72157	23.01141	39.76456	35.94214	42.03111	134.85251	42.03915	134.80934	15.9	18.5
4	132.29913	108.62930	23.66983	40.90634	36.98271	56.34407	134.33963	56.33969	134.32141	18.9	22.0
5	143.22922	119.33870	23.89052	42.44450	38.74474	71.46463	134.94392	71.43767	134.89977	23.7	27.8
6	150.36461	126.38330	23.98131	43.51157	39.89026	86.57294	134.93523	86.57933	134.90280	26.8	31.6
7	146.25626	122.45909	23.79716	42.93939	39.31644	100.42654	135.16823	100.46613	135.15106	25.1	29.7
8	163.62836	139.74225	23.88611	45.37314	41.95369	114.66081	136.17693	114.65515	136.10548	32.2	38.4
9	146.69710	120.74356	25.95354	42.94809	38.96384	13.81000	120.45526	13.83488	120.45316	25.2	28.5
10	135.00195	109.35928	25.64267	41.20406	37.08040	28.61890	119.17187	28.64937	119.15068	20.1	22.3
11	144.63693	119.42256	25.21437	42.66577	38.75084	42.11230	120.59433	42.10771	120.59047	24.3	27.8
12	149.73834	123.17673	26.56161	43.40543	39.37105	56.65562	119.10660	56.63652	119.10924	26.5	29.8
13	144.63031	118.79472	25.83559	42.64798	38.66582	71.35109	119.67184	71.38460	119.63860	24.3	27.5
14	148.14755	123.09406	25.05350	43.16432	39.34145	86.27686	119.60999	86.31088	119.64641	25.8	29.7
15	138.67775	113.64288	25.03487	41.77008	37.80952	100.16641	119.45439	100.16229	119.48543	21.7	24.7
16	129.32234	104.58766	24.73468	40.34657	36.26630	114.72676	119.92467	114.70941	119.94109	17.6	19.6
17	143.81958	117.66319	26.15639	42.52234	38.46741	13.88493	105.14479	13.91236	105.07664	23.9	26.9
18	125.93915	100.44795	25.49120	39.79980	35.54910	27.91968	105.14801	27.92221	105.12383	16.0	17.2
19	135.21358	109.02380	26.18977	41.23169	37.02841	41.88275	105.57671	41.89117	105.53979	20.2	22.1
20	164.89551	137.77637	27.11914	45.53909	41.62869	56.54907	104.71233	56.57014	104.70622	32.7	37.3
21	142.25497	117.07776	25.17722	42.29416	38.37373	71.36865	105.36996	71.38765	105.36626	23.3	26.6
22	146.51974	120.78232	25.73743	42.91882	38.98866	86.30705	105.06651	86.31174	105.01566	25.1	28.6
23	133.33598	108.43546	24.90053	40.94676	36.93056	100.53584	105.06897	100.59712	105.03603	19.3	21.8
24	139.64322	114.11150	25.53172	41.92247	37.89711	114.71484	105.21770	114.75208	105.17450	22.2	25.0
25	128.17723	104.76982	23.40741	40.15715	36.30933	14.61800	91.26923	14.59651	91.27657	17.0	19.7
26	121.14456	97.71025	23.43431	39.04527	35.07504	27.92427	91.19418	27.93910	91.19830	13.8	15.7
27	130.50665	107.64998	22.85667	40.53537	36.80403	42.35684	90.98085	42.39098	90.95496	18.1	21.4
28	134.28951	110.72331	23.56520	41.10312	37.31578	56.61838	90.44089	56.62469	90.44583	19.8	23.1
29	141.24544	118.62544	22.62000	42.15535	38.63857	71.80974	91.31566	71.81151	91.30934	22.9	27.4
30	137.11186	113.55702	23.55486	41.52162	37.79213	86.82605	90.69458	86.80003	90.65900	21.0	24.6
31	124.40654	101.95982	22.44672	39.56747	35.81963	100.78679	90.92639	100.79832	90.91974	15.3	18.1
32	128.94841	105.81477	23.13364	40.28630	36.48766	114.28745	90.97566	114.21027	90.93282	17.4	20.3
33	125.43324	102.48207	22.95117	39.74051	35.89970	14.76137	77.13820	14.77326	77.14645	15.8	18.4
34	121.20901	97.70937	23.49965	39.05591	35.07195	28.15021	76.67078	28.21498	76.65297	13.8	15.7
35	124.70441	101.62973	23.07468	39.65163	35.77043	42.50456	76.31836	42.51248	76.31223	15.6	18.0
36	134.36081	111.83853	22.52228	41.10997	37.50266	57.04059	76.04848	57.03127	76.04291	19.8	23.7
37	139.54044	116.45081	23.08963	41.91019	38.26781	71.59706	75.93542	71.60413	75.98140	22.1	26.2
38	136.64182	113.93675	22.70506	41.44980	37.86734	86.99994	76.44446	87.01772	76.43230	20.8	24.9
39	126.38507	103.85582	22.52925	39.87178	36.14580	100.84267	76.75386	100.86285	76.77826	16.2	19.2
40	125.86124	102.65105	23.21019	39.80020	35.93697	114.50630	77.25829	114.51875	77.29608	16.0	18.5
41	122.55061	96.83153	25.71909	39.25848	34.89720	14.96321	62.44708	14.95337	62.46996	14.4	15.1
42	119.58742	95.04527	24.54214	38.78223	34.57040	28.87259	62.19131	28.85641	62.15372	13.0	14.0
43	121.67700	96.45509	25.22191	39.15009	34.82828	43.35014	62.07535	43.31689	62.04326	14.1	14.9
44	130.00552	104.67294	25.33258	40.43170	36.30905	56.96562	61.74573	56.96596	61.71815	17.8	19.7
45	128.78947	103.68782	25.10165	40.24481	36.11559	71.89656	61.48636	71.94414	61.48833	17.3	19.1
46	123.64507	98.25577	25.38930	39.43205	35.15782	86.77602	61.59680	86.78656	61.59198	14.9	15.9
47	118.55119	93.39050	25.16069	38.61856	34.27585	100.55008	62.21786	100.55803	62.22792	12.6	13.0
48	125.81482	100.92867	24.88615	39.78590	35.62943	114.49480	62.55806	114.50038	62.53572	16.0	17.5
49	112.53609	88.17165	24.36444	37.64330	33.31590	14.97414	47.98807	14.99927	48.00076	9.7	9.9
50	118.04848	94.84543	23.20305	38.54416	34.55231	28.81487	48.25600	28.82707	48.23514	12.3	13.9
51	118.33096	94.59082	23.74014	38.58598	34.51770	43.28474	48.08794	43.29431	48.10158	12.5	13.8
52	123.15419	99.90005	23.25414	39.35266	35.45615	57.39674	47.97781	57.39851	47.94812	14.7	16.9
53	121.11752	97.78308	23.33444	39.02617	35.07727	71.93158	47.38646	71.97203	47.39694	13.7	15.7
54	117.63235	95.32649	22.30586	38.46671	34.63185	86.34732	47.84970	86.35236	47.87492	12.1	14.2
55	120.18074	96.50108	23.67966	38.87900	34.86145	100.54677	48.20142	100.55614	48.22231	13.3	15.0
56	127.26453	104.36615	22.89838	40.03511	36.23698	114.50148	48.03511	114.49774	48.04814	16.7	19.5
57	124.05226	97.10294	26.94933	39.50058	34.96507	14.55484	33.86589	14.57852	33.87138	15.1	15.3
58	126.31012	99.97504	26.33508	39.85094	35.46695	29.32716	34.33798	29.32809	34.35028	16.1	17.0

59	127.80231	102.40555	25.39676	40.09439	35.88837	43.54701	34.32809	43.55237	34.33482	16.9	18.4
60	116.88725	91.61052	25.27673	38.35762	33.95430	57.83540	34.05907	57.86299	34.05345	11.8	12.0
61	113.72560	88.50459	25.22101	37.83595	33.38188	72.21983	33.76158	72.23668	33.79810	10.3	10.1
62	96.33873	71.67432	24.66441	34.81186	30.04616	86.71873	33.99142	86.73268	33.94978	1.5	-0.9
63	129.62332	103.84990	25.77342	40.37469	36.15034	100.76089	34.29276	100.77985	34.27759	17.7	19.2
64	126.46736	101.36548	25.10188	39.88095	35.71338	115.21776	34.16193	115.20760	34.18176	16.2	17.8

TABLE C-58. GEOMETRIC PARAMETERS OF B-5 SECTION AT 83.5 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	134.12173	111.41080	22.71094	41.08769	37.43961	13.17199	135.15990	13.17332	135.12897	19.7	23.5
2	145.98033	123.39442	22.58591	42.85669	39.40353	27.46962	133.87773	27.45859	133.85078	24.9	29.9
3	131.13896	109.36609	21.77287	40.62772	37.10394	41.89551	134.21796	41.89166	134.23276	18.4	22.4
4	139.37224	117.39517	21.97707	41.87695	38.43504	56.1[illegible]420	133.97729	56.13953	133.95384	22.0	26.8
5	142.42134	120.16212	22.25922	42.32259	38.89143	71.06606	134.24792	71.03084	134.27866	23.3	28.3
6	133.00482	110.32477	22.68005	40.90662	37.25151	86.09106	134.28157	86.10707	134.29951	19.2	22.8
7	137.74249	116.25092	21.49158	41.64011	38.24275	100.17986	134.53400	100.21211	134.50583	21.4	26.1
8	141.61929	119.56242	22.05687	42.21419	38.80513	114.54573	135.43782	114.53674	135.38777	23.0	28.0
9	125.89149	103.21217	22.67932	39.81465	36.04050	13.55040	120.16991	13.57266	120.18039	16.0	18.9
10	127.76328	105.81474	21.94853	40.10785	36.52328	28.29022	119.16266	28.29234	119.17805	16.9	20.4
11	133.60060	111.79156	21.80904	40.99135	37.50157	41.98286	120.23634	41.97665	120.21655	19.5	23.7
12	139.56593	117.06250	22.50343	41.91002	38.37766	56.50299	119.10716	56.49852	119.16711	22.1	26.6
13	133.36902	110.99925	22.36977	40.96405	37.36848	71.19235	119.33173	71.23514	119.29961	19.4	23.2
14	135.77147	113.59755	22.17392	41.33662	37.80013	86.00710	119.40794	86.04173	119.44148	20.5	24.7
15	128.77159	106.12218	22.64941	40.25829	36.58246	99.92847	119.39662	99.91949	119.41492	17.3	20.6
16	124.06207	102.80214	21.25993	39.52681	35.96060	114.54520	119.83199	114.50337	119.84265	15.2	18.6
17	123.44925	101.29298	22.15627	39.42233	35.70432	13.61000	105.03447	13.63240	104.98869	14.9	17.7
18	118.39352	96.73763	21.65590	38.58971	34.90604	27.78613	105.00656	27.78021	104.98659	12.5	15.1
19	124.42377	101.86708	22.55669	39.56166	35.79292	41.91385	105.29027	41.90865	105.27094	15.3	18.0
20	146.97658	124.26353	22.71304	42.99455	39.53889	56.44595	104.68962	56.41742	104.70702	25.3	30.4
21	130.99757	109.35179	21.64578	40.60951	37.09166	71.17157	105.18623	71.19406	105.22112	18.4	22.3
22	135.46802	113.13791	22.33011	41.28966	37.72450	85.90497	104.93375	85.91225	104.93039	20.3	24.4
23	125.87573	104.22491	21.65082	39.80170	36.20633	100.24652	104.86549	100.24588	104.87189	16.0	19.4
24	131.41046	109.01411	22.39635	40.66154	37.04222	114.42863	104.95555	114.41457	104.94685	18.5	22.2
25	115.06017	93.39392	21.66624	38.04950	34.28856	14.19784	91.01825	14.16180	91.04538	10.9	13.1
26	117.19809	95.25224	21.94585	38.42029	34.61514	27.81355	90.97542	27.79027	90.96922	12.0	14.2
27	121.99382	99.75243	22.24139	39.18788	35.42555	42.24854	90.70032	42.27022	90.69540	14.2	16.8
28	127.07332	104.39880	22.67451	39.98764	36.28021	56.43576	90.30013	56.40015	90.30977	16.5	19.6
29	130.94820	108.34596	22.60223	40.57607	36.92743	71.33925	91.15884	71.34407	91.16293	18.3	21.8
30	130.57834	108.33270	22.24564	40.52708	36.91341	86.18330	90.54520	86.15050	90.55222	18.1	21.7
31	119.97000	98.61098	21.35902	38.89618	35.21251	100.26172	90.74513	100.29056	90.73755	13.4	16.1
32	135.81619	113.05176	22.76443	41.36378	37.71581	113.77461	90.70885	113.72701	90.69487	20.6	24.4
33	115.75189	92.99681	22.75508	38.15913	34.20737	14.16824	76.98347	14.16379	76.99539	11.2	12.8
34	116.26549	94.28400	21.98149	38.25249	34.44345	27.93135	76.55812	27.93387	76.54649	11.5	13.6
35	117.75226	95.68535	22.06691	38.47998	34.69183	42.23979	76.27049	42.21042	76.29446	12.1	14.4
36	124.58789	103.13727	21.45062	39.59962	36.02727	56.67070	75.99008	56.65016	75.99210	15.4	18.8
37	127.84853	104.97324	22.87529	40.09814	36.34059	71.14485	75.96156	71.14352	76.00038	16.9	19.8
38	128.25719	106.16690	22.09029	40.16429	36.57549	86.34853	76.35399	86.33281	76.34215	17.1	20.6
39	119.51543	97.77409	21.74133	38.77698	35.07953	100.22784	76.52728	100.23636	76.52605	13.0	15.7
40	123.86067	100.12312	23.73755	39.48466	35.50400	114.00529	76.80612	113.98579	76.86830	15.1	17.1
41	114.42644	92.80054	21.62590	37.96210	34.17786	14.45786	62.45384	14.42016	62.47108	10.6	12.7
42	113.54614	91.74861	21.79753	37.79802	33.99730	28.43744	62.12872	28.43684	62.11244	10.2	12.1
43	114.25723	92.60338	21.65385	37.91029	34.12857	42.91264	62.05409	42.88356	62.06795	10.5	12.6
44	121.23827	98.26454	22.97372	39.06226	35.17332	56.59517	61.75784	56.59161	61.75204	13.8	16.0
45	121.37125	99.52962	21.84163	39.06795	35.38939	71.42039	61.54477	71.44452	61.55565	13.9	16.7
46	115.32343	93.44234	21.88109	38.09688	34.27934	86.13234	61.59818	86.11919	61.63046	11.0	13.0
47	113.99556	92.01759	21.97797	37.86745	34.03856	100.01181	62.06648	100.02896	62.05467	10.4	12.3
48	118.89320	97.89072	21.00249	38.68265	35.15790	114.02267	62.26929	114.00093	62.28864	12.7	15.9
49	111.74004	87.16490	24.57513	37.48500	33.12396	14.32893	48.02188	14.30760	48.00153	9.2	9.2
50	115.18861	91.22821	23.96040	38.06500	33.88065	28.37756	48.15651	28.36279	48.11005	10.9	11.7
51	115.09674	90.49007	24.60667	38.04578	33.75139	42.76012	47.97324	42.78238	47.97462	10.9	11.3
52	121.63116	97.10275	24.52841	39.10733	34.94743	56.88193	47.87148	56.90309	47.85588	14.0	15.3
53	116.95544	92.12578	24.82967	38.36169	34.03911	71.38217	47.39067	71.42802	47.36824	11.8	12.3
54	115.87891	91.43271	24.44620	38.18515	33.90869	85.68623	47.77562	85.68111	47.76447	11.3	11.8
55	115.76704	91.86409	23.90295	38.15802	33.98715	99.95401	47.97571	99.95758	47.99812	11.2	12.1
56	122.21533	98.20720	24.00813	39.21414	35.15015	113.92870	47.82529	113.94260	47.82899	14.3	15.9
57	125.89139	100.26086	25.63052	39.79362	35.52855	14.12036	33.94003	14.14225	33.92633	16.0	17.2
58	120.39465	95.36253	25.03212	38.91289	34.64758	28.80817	34.17929	28.79935	34.19513	13.4	14.3

[redacted] K 8 [redacted]

59	122.16322	97.44641	24.71681	39.21404	35.01797	43.02756	34.09357	43.02721	34.09761	14.3	15.5
60	121.82162	96.93582	24.88580	39.14749	34.92416	57.32715	33.87398	57.30360	33.84135	14.1	15.2
61	115.11523	90.93788	24.17735	38.06789	33.82001	71.56737	33.55167	71.57582	33.54433	10.9	11.5
62	95.31412	71.21585	24.09827	34.64453	29.94922	86.02724	33.76488	86.02089	33.73676	1.0	-1.2
63	121.22705	96.93228	24.29477	39.05562	34.91898	100.10669	33.90556	100.11751	33.91319	13.8	15.2
64	120.04726	95.63402	24.41324	38.85413	34.67703	114.47456	33.90688	114.46997	33.90680	13.2	14.4

[redacted] L 8 [redacted]

TABLE C-59. GEOMETRIC PARAMETERS OF B-5 SECTION AT 85.1 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	134.33511	110.89720	23.43791	41.11540	37.34877	13.18274	135.07561	13.22652	135.04262	19.8	23.2
2	139.17523	115.60738	23.56786	41.84793	38.14742	27.52094	134.05643	27.52765	134.05736	22.0	25.8
3	132.62874	108.85060	23.77814	40.85207	37.00288	41.83890	134.28397	41.84747	134.27893	19.1	22.0
4	141.28207	117.94022	23.34186	42.18234	38.51154	56.04980	134.25349	56.02940	134.24794	22.9	27.0
5	157.06712	133.68066	23.38646	44.45407	41.00696	70.62697	134.41673	70.60555	134.41328	29.6	35.2
6	132.24191	109.35579	22.88612	40.78510	37.09380	85.61488	134.42635	85.62672	134.41283	18.9	22.3
7	135.84850	113.11487	22.73363	41.33566	37.72105	99.71683	134.78105	99.75600	134.78815	20.5	24.4
8	134.22025	110.97441	23.24583	41.16896	37.37595	114.12509	135.37086	114.11440	135.30980	20.0	23.3
9	124.69130	101.38562	23.30568	39.61142	35.72118	13.42757	120.29286	13.43578	120.30052	15.4	17.8
10	123.23807	100.78708	22.45099	39.37122	35.60577	28.15286	119.60265	28.15793	119.62207	14.7	17.4
11	127.33374	104.21100	23.12274	40.02605	36.21667	41.97273	120.45110	41.98569	120.44521	16.7	19.4
12	131.95651	109.02115	22.93536	40.75285	37.02841	56.47267	119.67395	56.43301	119.68347	18.8	22.1
13	129.22412	106.34271	22.88141	40.33112	36.58913	71.05724	119.70625	71.08237	119.71005	17.5	20.7
14	126.42664	104.23402	22.19261	39.87315	36.21356	85.73331	119.87251	85.75375	119.89963	16.2	19.4
15	123.62483	101.20058	22.42426	39.43123	35.69647	99.62723	120.11998	99.61165	120.09834	14.9	17.7
16	122.64944	100.22421	22.42523	39.28238	35.51257	114.17509	120.40700	114.17955	120.42815	14.5	17.1
17	124.99097	100.50047	24.49049	39.65100	35.54704	13.53154	105.37669	13.56143	105.33273	15.6	17.2
18	116.86180	91.80563	25.05617	38.34425	33 98978	27.78813	105.35191	27.76387	105.34181	11.8	12.1
19	120.94844	96.00995	24.93849	38.99741	34.75681	41.99713	105.63177	41.99614	105.58708	13.7	14.6
20	137.32957	112.74539	24.58418	41.55836	37.65495	56.41946	105.26636	56.40622	105.26186	21.1	24.2
21	126.75076	100.99115	25.75961	39.92651	35.65193	71.01488	105.65714	71.01917	105.66595	16.4	17.6
22	128.03450	103.26271	24.77179	40.12578	36.04442	85.56708	105.44957	85.57230	105.43362	16.9	18.9
23	122.82233	97.58662	25.23570	39.30745	35.03310	99.87025	105.43124	99.92023	105.38515	14.6	15.5
24	132.17943	107.40430	24.77513	40.77200	36.74951	114.07779	105.53696	114.10822	105.50142	18.8	21.2
25	115.88310	90.39801	25.48509	38.17462	33.72241	13.99799	91.32187	13.97376	91.31461	11.3	11.2
26	115.62164	90.93114	24.69051	38.13609	33.82564	27.87486	91.28481	27.86565	91.28114	11.1	11.6
27	118.75572	93.88657	24.86916	38.64340	34.35707	42.30315	91.07976	42.31070	91.04784	12.6	13.3
28	125.62755	100.72786	24.89969	39.74940	35.58746	56.44351	90.83144	56.44682	90.80789	15.8	17.4
29	126.33315	101.08656	25.24658	39.86972	35.66608	71.13763	91.55557	71.18954	91.55269	16.2	17.6
30	126.27809	101.11075	25.16734	39.86157	35.65416	85.79878	91.08167	85.76877	91.02869	16.2	17.6
31	120.31329	95.95412	24.35918	38.90451	34.73820	99.98238	91.32555	100.02969	91.29718	13.4	14.6
32	132.98337	108.43626	24.54710	40.90204	36.93288	113.58824	91.22308	113.57848	91.17517	19.2	21.8
33	111.48674	88.84840	22.63834	37.46336	33.42384	14.18076	77.16515	14.21027	77.17407	9.2	10.2
34	113.45377	90.72507	22.72870	37.78775	33.80020	28.07700	76.89877	28.11031	76.86642	10.1	11.5
35	114.93376	92.18599	22.74777	38.02867	34.07703	42.34245	76.79393	42.35318	76.80110	10.8	12.4
36	120.66368	98.65376	22.10992	38.96078	35.21902	56.68971	76.51439	56.67615	76.48395	13.5	16.1
37	123.69943	101.33463	22.36481	39.44724	35.70554	71.08307	76.57582	71.11644	76.60117	15.0	17.8
38	121.62231	99.31892	22.30339	39.11368	35.35541	86.07309	76.93196	86.06296	76.90170	14.0	16.6
39	116.53520	94.55859	21.97661	38.29683	34.49149	99.98830	77.06697	99.97684	77.06947	11.6	13.7
40	119.27225	96.85611	22.41614	38.75537	34.90668	113.83713	77.24001	113.84314	77.28268	12.9	15.1
41	113.22511	90.48877	22.73634	37.73312	33.73557	14.38377	62.78580	14.37799	62.77878	10.0	11.3
42	111.65744	88.69844	22.95900	37.49275	33.40022	28.45651	62.47339	28.44431	62.47063	9.3	10.1
43	112.52121	89.81662	22.70459	37.62218	33.61220	42.89308	62.51988	42.87434	62.52014	9.6	10.8
44	116.59224	93.76808	22.82416	38.29900	34.35956	56.63673	62.27637	56.66762	62.24400	11.6	13.3
45	118.28931	96.09282	22.19649	38.57510	34.76683	71.40717	62.13901	71.42650	62.15305	12.4	14.7
46	112.62677	90.41724	22.20953	37.64453	33.71512	85.92352	62.25468	85.91587	62.28297	9.7	11.2
47	113.17278	90.79964	22.37314	37.73619	33.81406	99.91652	62.61902	99.94872	62.61057	10.0	11.5
48	116.41315	93.78308	22.63007	38.30182	34.37418	113.97649	62.77989	113.98639	62.77621	11.6	13.4
49	114.42255	88.24599	26.17656	37.94023	33.33104	14.23987	48.33359	14.25721	48.34737	10.6	9.9
50	113.31999	88.07051	25.24948	37.76863	33.29114	28.45186	48.35252	28.48500	48.33165	10.1	9.8
51	112.47598	87.95776	24.51822	37.62135	33.26205	42.83366	48.29970	42.82748	48.31070	9.6	9.7
52	116.95467	92.73093	24.22374	38.37140	34.15611	56.97000	48.27068	56.97334	48.26750	11.8	12.6
53	113.55898	88.94870	24.61028	37.79399	33.45581	71.40773	47.89383	71.43465	47.86975	10.1	10.3
54	113.71899	89.38258	24.33641	37.81725	33.53355	85.69571	48.29710	85.67130	48.29282	10.2	10.6
55	112.55313	87.76956	24.78357	37.66188	33.23131	99.93437	48.47946	99.96500	48.49615	9.8	9.6
56	118.07259	93.69087	24.38171	38.53528	34.32689	113.98465	48.38690	113.99718	48.36813	12.3	13.2
57	127.43195	100.43867	26.99327	40.04243	35.54958	14.28852	34.23846	14.33868	34.20802	16.7	17.2
58	117.43851	91.25255	26.18596	38.44792	33.89702	28.84004	34.34029	28.85297	34.30220	12.1	11.8

59	117.20570	91.86497	25.34073	38.40665	34.00893	43.07512	34.26945	43.06795	34.27898	11.9	12.2
60	121.61736	96.28401	25.33334	39.11726	34.80823	57.35495	34.14297	57.38017	34.14090	14.0	14.8
61	118.42760	93.42574	25.00186	38.60732	34.27693	71.59991	33.82973	71.61496	33.82137	12.5	13.0
62	94.43401	70.96506	23.46895	34.46423	29.89693	86.03893	34.12343	86.05096	34.14192	0.4	-1.4
63	117.34737	92.32616	25.02121	38.42029	34.09262	100.06508	34.25070	100.09019	34.20810	12.0	12.4
64	116.99969	90.88828	26.11142	38.37613	33.80850	114.40904	34.34804	114.36913	34.37448	11.8	11.5

[redacted] N 8 [redacted]

TABLE C-60. GEOMETRIC PARAMETERS OF B-5 SECTION AT 86.8 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	125.61404	102.95238	22.66167	39.75157	36.00792	13.16703	134.89671	13.17253	134.87930	15.9	18.7
2	124.01012	100.67856	23.33156	39.49684	35.58717	27.54724	134.26761	27.57375	134.25993	15.1	17.4
3	121.10645	98.31557	22.79088	39.02798	35.17049	41.83847	134.39508	41.83942	134.35933	13.7	16.0
4	121.74748	99.43202	22.31546	39.14372	35.36250	56.05710	134.48282	56.07103	134.46704	14.1	16.6
5	140.25650	117.66154	22.59496	42.00192	38.46173	70.51685	134.55205	70.50769	134.56728	22.4	26.8
6	122.78188	100.15831	22.62357	39.29674	35.50537	85.27536	134.44408	85.25400	134.46143	14.5	17.1
7	121.78737	100.45660	21.33076	39.14580	35.57954	99.37813	134.82693	99.38528	134.82739	14.1	17.3
8	120.38258	98.59367	21.78891	38.90698	35.20758	113.80043	135.15804	113.82114	135.15559	13.4	16.1
9	119.61749	96.78278	22.83472	38.80977	34.89458	13.40156	120.29378	13.39106	120.28870	13.1	15.1
10	115.00595	93.25934	21.74661	38.05396	34.26265	28.10004	119.91655	28.07352	119.92628	10.9	13.0
11	115.96162	93.56902	22.39261	38.19829	34.31087	42.07803	120.57541	42.03160	120.55299	11.3	13.2
12	120.28056	97.40527	22.87529	38.91881	35.04048	56.48627	120.08620	56.48170	120.07739	13.4	15.6
13	119.52824	97.36989	22.15836	38.78609	35.00182	70.99904	119.95650	70.99617	119.95401	13.0	15.4
14	115.67517	93.44160	22.23357	38.14029	34.28117	85.53543	120.16530	85.56232	120.18054	11.2	13.1
15	115.68678	93.65607	22.03072	38.14226	34.32808	99.47319	120.46138	99.46260	120.46590	11.2	13.2
16	111.18733	89.51114	21.67619	37.39091	33.55122	113.87935	120.69991	113.87102	120.71408	9.0	10.6
17	121.98840	99.38730	22.60110	39.17368	35.36551	13.60558	105.33945	13.60956	105.31538	14.2	16.6
18	111.33496	89.03661	22.29836	37.42955	33.46678	28.00632	105.34547	27.98616	105.33067	9.1	10.4
19	112.59811	89.92418	22.67393	37.62762	33.62881	42.37070	105.62021	42.36792	105.61203	9.7	10.9
20	122.26939	99.77995	22.48944	39.22676	35.42067	56.76723	105.41129	56.76854	105.42154	14.3	16.8
21	118.09503	95.32664	22.76839	38.54315	34.63477	71.31784	105.69380	71.28111	105.71341	12.3	14.2
22	118.39178	95.73715	22.65463	38.60005	34.70239	85.74219	105.59839	85.74568	105.56531	12.5	14.4
23	113.16283	90.36163	22.80119	37.73026	33.71349	100.12148	105.58054	100.13924	105.57497	10.0	11.2
24	117.61282	95.14207	22.47075	38.48515	34.60330	114.27785	105.72823	114.28647	105.68230	12.2	14.1
25	115.92755	93.39650	22.53105	38.18675	34.27280	13.95943	91.17081	13.94894	91.15869	11.3	13.0
26	108.52916	85.86011	22.66905	36.99393	32.86113	28.15239	91.14166	28.12634	91.14342	7.8	8.4
27	110.56337	88.38049	22.17488	37.30182	33.34470	42.62097	91.02933	42.62468	91.02736	8.7	10.0
28	116.52518	94.30983	22.21535	38.29190	34.46097	56.81749	90.86606	56.82619	90.85333	11.6	13.6
29	118.35384	95.42570	22.92813	38.59886	34.65984	71.42909	91.46255	71.43668	91.46623	12.5	14.3
30	116.88637	95.20403	21.68234	38.35812	34.60431	85.98927	91.11919	85.94647	91.10689	11.8	14.1
31	112.63615	90.94333	21.69283	37.64597	33.81757	100.29314	91.40063	100.29457	91.37498	9.7	11.5
32	116.63353	94.06187	22.57166	38.33957	34.40137	114.01476	91.31589	113.98744	91.30312	11.7	13.5
33	112.54651	89.62004	22.92647	37.64151	33.60847	14.06428	76.90250	14.09096	76.90836	9.7	10.8
34	108.92494	86.29172	22.63322	37.01120	32.94528	28.30972	76.67604	28.33772	76.66183	7.9	8.6
35	110.74899	88.09750	22.65149	37.32326	33.31540	42.65729	76.70517	42.67461	76.68343	8.8	9.9
36	115.83565	93.92725	21.90840	38.16745	34.37105	57.02641	76.41988	57.02480	76.42206	11.2	13.4
37	116.71806	93.83792	22.88014	38.31262	34.36012	71.46640	76.58498	71.46851	76.58109	11.7	13.3
38	112.50667	90.91072	21.59595	37.61133	33.81209	86.23036	76.88596	86.22366	76.87605	9.6	11.5
39	111.03651	88.21364	22.82288	37.42096	33.31657	100.26476	77.05968	100.26994	77.03815	9.1	9.9
40	111.55684	89.70549	21.85135	37.47311	33.58902	114.15320	77.07413	114.17119	77.09645	9.2	10.8
41	114.17403	90.91292	23.26111	37.90242	33.82866	14.36122	62.50838	14.32424	62.49675	10.5	11.6
42	108.73479	85.30824	23.42654	36.97784	32.76192	28.62854	62.19504	28.60796	62.18088	7.8	8.0
43	109.10518	86.48788	22.61729	37.05278	32.99141	43.09526	62.33704	43.07999	62.35300	8.0	8.8
44	111.20560	88.42117	22.78442	37.40349	33.34758	56.99178	62.16789	56.97964	62.17519	9.0	10.0
45	113.51498	90.90550	22.60948	37.79556	33.81476	71.71519	62.06631	71.72522	62.09743	10.2	11.5
46	109.80528	86.46184	23.34344	37.16508	32.99019	86.20100	62.27704	86.21555	62.27534	8.3	8.8
47	108.71468	87.11792	21.59676	36.97195	33.10205	100.30804	62.55963	100.33783	62.55090	7.8	9.2
48	110.25812	87.56737	22.69075	37.24120	33.17671	114.42581	62.71179	114.41530	62.71779	8.5	9.4
49	110.94673	87.43208	23.51465	37.36270	33.16441	14.40209	47.97520	14.37287	47.99059	8.9	9.4
50	107.47809	84.44302	23.03506	36.79739	32.61694	28.75870	47.93378	28.75578	47.91145	7.2	7.6
51	108.51567	85.21968	23.29599	36.96170	32.74272	43.14250	47.97714	43.14964	47.99071	7.7	8.0
52	109.75522	86.96075	22.79446	37.16142	33.09012	57.38994	48.02690	57.41069	48.03661	8.3	9.1
53	109.29176	87.20790	22.08386	37.07080	33.12314	71.86717	47.76010	71.88812	47.79495	8.0	9.2
54	109.38005	87.42543	21.95462	37.10368	33.15926	86.09009	48.12314	86.08519	48.11969	8.1	9.4
55	106.75337	84.41383	22.33954	36.64095	32.59474	100.44646	48.31850	100.42984	48.33620	6.8	7.5
56	111.40250	87.56577	23.83673	37.43156	33.18953	114.54842	48.29042	114.56064	48.28845	9.1	9.5
57	121.11429	97.22939	23.88490	39.03735	34.98524	14.62636	33.74504	14.65345	33.74554	13.8	15.4
58	111.70502	87.81699	23.88803	37.49791	33.23143	29.10854	33.73750	29.09886	33.75139	9.3	9.6

59	110.38776	86.53664	23.85112	37.26054	33.01756	43.40984	33.75362	43.39343	33.76938	8.6	8.9
60	114.42982	90.87685	23.55298	37.94415	33.80681	57.72565	33.75725	57.70886	33.72664	10.6	11.5
61	115.26297	91.58537	23.67760	38.09764	34.01642	72.02681	33.51506	72.00168	33.53851	11.0	12.2
62	95.03201	71.50127	23.53075	34.61044	29.99411	86.40286	33.84866	86.44174	33.84930	0.9	-1.1
63	111.60034	87.71338	23.88696	37.47180	33.24219	100.62656	33.91516	100.62556	33.92514	9.2	9.6
64	113.00705	89.65872	23.34833	37.70279	33.59879	114.88943	34.19846	114.87457	34.21005	9.9	10.9

TABLE C-61. GEOMETRIC PARAMETERS OF B-5 SECTION AT 88.6 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	109.49330	89.29256	20.20074	37.11874	33.51353	13.14583	134.61737	13.13679	134.60153	8.2	10.5
2	102.43150	82.10568	20.32582	35.89476	32.14276	27.56163	134.28175	27.53685	134.27580	4.6	6.0
3	103.70474	82.74702	20.95772	36.12201	32.27304	41.78186	134.28171	41.79004	134.27582	5.3	6.4
4	103.94016	82.58336	21.35680	36.16905	32.25027	56.00496	134.40794	56.02328	134.41925	5.4	6.4
5	109.34175	87.96207	21.37968	37.09033	33.26860	70.45427	134.44456	70.44316	134.45958	8.1	9.7
6	106.06480	85.81931	20.24550	36.53186	32.86475	84.90962	134.23878	84.93428	134.27922	6.5	8.4
7	104.71260	83.28642	21.42618	36.32561	32.37460	99.14900	134.59633	99.16882	134.58147	5.9	6.8
8	106.39922	84.88647	21.51274	36.59395	32.68684	113.77710	134.86880	113.74167	134.85583	6.6	7.8
9	105.20793	84.00237	21.20557	36.40421	32.51236	13.38530	120.11523	13.37714	120.11993	6.1	7.2
10	103.09073	82.80827	20.28246	36.01820	32.27083	27.91481	119.96193	27.90184	119.96800	5.0	6.4
11	102.98848	81.61577	21.37271	35.99057	32.04570	41.98560	120.32214	41.95804	120.32861	4.9	5.7
12	104.69328	83.56149	21.13179	36.29642	32.42775	56.34462	120.06987	56.33195	120.08476	5.8	6.9
13	106.05885	84.99646	21.06239	36.53978	32.70544	70.77458	119.91333	70.80154	119.91299	6.5	7.9
14	105.03349	82.07072	22.96277	36.37880	32.12918	85.27852	120.10710	85.27945	120.11717	6.0	6.0
15	105.06499	83.57738	21.48761	36.35374	32.43231	99.35681	120.37453	99.32976	120.38069	5.9	7.0
16	99.88928	78.24304	21.64624	35.45712	31.39592	113.85043	120.51579	113.83575	120.55423	3.3	3.5
17	105.06319	84.02348	21.03970	36.35597	32.52052	13.52930	105.67215	13.55558	105.63013	6.0	7.2
18	99.53781	79.52550	20.01231	35.38898	31.63049	27.89409	105.61055	27.87346	105.60547	3.1	4.3
19	99.23309	78.15089	21.08220	35.34752	31.35681	42.13593	105.76714	42.12755	105.76636	3.0	3.4
20	103.40056	82.67169	20.72887	36.08037	32.26553	56.43565	105.68216	56.41800	105.68901	5.2	6.4
21	104.79105	83.65446	21.13658	36.32707	32.45433	70.77695	105.86058	70.75529	105.88037	5.9	7.0
22	104.49690	83.39264	21.10426	36.27687	32.39246	85.14899	105.81023	85.15714	105.82350	5.7	6.8
23	102.82021	80.20879	22.61142	35.97879	31.76416	99.49739	105.74620	99.50562	105.75850	4.9	4.8
24	100.54239	79.53564	21.00674	35.57863	31.64192	113.67744	105.90526	113.70299	105.90135	3.7	4.4
25	102.76852	82.83696	19.93156	35.97032	32.28328	13.81298	91.47687	13.79929	91.49818	4.8	6.5
26	96.42010	76.01956	20.40054	34.83281	30.93983	27.97217	91.44315	27.94551	91.45657	1.5	2.0
27	97.76633	76.52554	21.24078	35.06781	31.03700	42.24127	91.35037	42.25677	91.30946	2.2	2.4
28	103.12614	82.12524	21.00090	36.02611	32.14758	56.41391	91.23868	56.41972	91.24767	5.0	6.0
29	103.66518	82.70673	20.95845	36.12454	32.26863	70.85927	91.62289	70.86537	91.60493	5.3	6.4
30	104.67010	83.31207	21.35803	36.29849	32.39091	85.25661	91.41357	85.24947	91.41750	5.8	6.8
31	103.02202	81.64360	21.37842	36.00735	32.06743	99.61055	91.55945	99.63232	91.53792	4.9	5.8
32	102.37886	81.33963	21.03923	35.91315	32.00171	113.55374	91.46782	113.52908	91.48151	4.7	5.5
33	102.19637	80.90694	21.28943	35.87999	31.91449	13.84907	77.29756	13.84707	77.30569	4.6	5.2
34	98.89999	77.87772	21.02228	35.28412	31.31322	28.08638	77.13708	28.10077	77.12860	2.8	3.3
35	100.52377	79.54845	20.97533	35.56676	31.64601	42.28069	77.13974	42.28294	77.13766	3.7	4.4
36	103.74677	83.11542	20.63135	36.13763	32.35374	56.55327	76.88393	56.53917	76.91992	5.3	6.7
37	102.73680	80.67920	22.05760	35.96956	31.87001	70.84967	76.96754	70.86261	76.98364	4.8	5.1
38	101.79840	80.89439	20.90401	35.79724	31.90872	85.45776	77.17664	85.45035	77.20631	4.3	5.2
39	101.73253	80.25798	21.47455	35.78169	31.79337	99.60597	77.15977	99.58856	77.17249	4.3	4.8
40	101.44554	80.61775	20.82779	35.72479	31.86024	113.69670	77.17293	113.68408	77.19415	4.1	5.1
41	102.13202	81.44257	20.68945	35.86357	32.02541	14.00853	62.99150	14.01575	63.01129	4.5	5.6
42	99.27193	79.20021	20.07172	35.34802	31.57925	28.23802	62.73219	28.22104	62.71591	3.0	4.1
43	100.81258	78.60382	22.20876	35.62082	31.45375	42.61502	62.82742	42.60719	62.83369	3.8	3.7
44	101.58632	79.59813	21.98819	35.81970	31.65268	56.46126	62.70007	56.46504	62.68503	4.4	4.4
45	104.51514	83.39818	21.11696	36.26526	32.38974	71.08229	62.57837	71.11115	62.59061	5.7	6.8
46	102.42278	80.75096	21.67181	35.89423	31.90865	85.47697	62.69009	85.45273	62.69025	4.6	5.2
47	100.87294	79.73131	21.14163	35.66634	31.67857	99.69221	62.78633	99.69275	62.78200	3.9	4.5
48	100.49301	78.96494	21.52808	35.56720	31.52483	113.91370	62.82710	113.92421	62.85590	3.7	4.0
49	101.06557	80.01091	21.05466	35.66934	31.73122	14.07137	48.59879	14.06632	48.62177	4.0	4.6
50	99.31300	78.49260	20.82040	35.34753	31.42171	28.32861	48.46536	28.31204	48.45732	3.0	3.6
51	99.00778	77.56039	21.44739	35.30791	31.24725	42.61543	48.49130	42.61359	48.49605	2.9	3.0
52	98.05681	77.36147	20.69534	35.13493	31.21913	56.83931	48.50082	56.84512	48.49019	2.4	3.0
53	101.37512	80.63356	20.74156	35.71684	31.85451	71.20309	48.28482	71.21684	48.30101	4.1	5.1
54	101.11945	79.83824	21.28120	35.68729	31.69049	85.41293	48.51085	85.41022	48.50751	4.0	4.5
55	98.52003	77.31378	21.20625	35.21201	31.20290	99.79541	48.48474	99.81522	48.51361	2.6	2.9
56	100.58830	78.85570	21.73260	35.56848	31.50630	114.01498	48.44037	114.02367	48.45717	3.7	3.9
57	105.66400	84.29102	21.37299	36.46561	32.57535	14.19400	34.31833	14.19532	34.32420	6.3	7.4
58	99.97430	78.53178	21.44252	35.46315	31.43910	28.52496	34.13644	28.50922	34.13072	3.4	3.7

59	98.28407	76.96988	21.31419	35.16879	31.13217	42.76416	34.10408	42.77216	34.13080	2.5	2.7
60	102.33437	80.61018	21.72418	35.89973	31.85284	57.02005	34.11586	57.01515	34.12442	4.6	5.0
61	105.07594	83.04150	22.03444	35.37242	32.31596	71.30771	33.92847	71.29883	33.97180	6.0	6.6
62	94.06242	72.13945	21.92297	34.40515	30.12877	85.62929	34.13583	85.64243	34.15759	0.3	-0.6
63	100.90160	79.07216	21.82944	35.64900	31.54893	99.90324	34.05510	99.91100	34.07455	3.9	4.0
64	104.24818	82.39670	21.85149	36.21899	32.20665	114.17836	34.23564	114.16344	34.27611	5.6	6.2

TABLE C-62. GEOMETRIC PARAMETERS OF B-5 SECTION AT 90.4 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	98.52411	76.03970	22.48441	35.20673	30.93388	13.40110	134.54967	13.40305	134.54865	2.6	2.0
2	96.79457	74.90999	21.88458	34.90005	30.71112	27.91640	134.47986	27.89598	134.49966	1.7	1.3
3	96.99916	74.97778	22.02138	34.93222	30.71991	42.24931	134.51900	42.24619	134.52039	1.8	1.3
4	96.84261	74.79919	22.04341	34.92123	30.69731	56.60457	134.65349	56.61920	134.64842	1.8	1.2
5	97.85699	75.48361	22.37338	35.09424	30.81549	71.05911	134.73207	71.03990	134.74255	2.3	1.6
6	97.58450	75.18321	22.40129	35.07227	30.76167	85.39972	134.48427	85.42560	134.47264	2.2	1.4
7	95.49831	73.12563	22.37268	34.67946	30.32985	99.69147	134.78166	99.68303	134.77026	1.1	0.0
8	96.16891	74.84135	21.32756	34.78955	30.69986	114.20038	135.03195	114.20750	135.03743	1.4	1.2
9	97.52525	76.50131	21.02394	35.03117	31.03569	13.62278	120.09038	13.61012	120.09900	2.1	2.4
10	96.37151	75.10391	21.26759	34.82892	30.74551	28.26251	120.04555	28.25858	120.05925	1.5	1.4
11	96.27437	74.35147	21.92290	34.81990	30.58479	42.52782	120.31532	42.51599	120.28168	1.5	0.9
12	96.92606	74.52748	22.39857	34.92818	30.62495	56.93883	120.16136	56.94366	120.14699	1.8	1.0
13	96.98070	74.99008	21.99062	34.95427	30.71904	71.35179	120.09453	71.36890	120.09869	1.9	1.3
14	96.22279	73.17677	23.04602	34.80815	30.37669	85.80144	120.26782	85.82298	120.28702	1.4	0.2
15	96.99261	74.18466	22.80795	34.97762	30.57202	99.94250	120.53006	99.95911	120.53630	1.9	0.8
16	93.65419	72.65613	20.99806	34.33737	30.24191	114.31181	120.66745	114.32683	120.68855	0.1	-0.3
17	97.27065	75.43350	21.83714	34.98997	30.81288	13.91760	105.61687	13.87826	105.60295	2.0	1.6
18	96.47202	74.38216	22.08986	34.85144	30.59364	28.36298	105.57220	28.37236	105.57039	1.6	0.9
19	95.35796	73.50705	21.85091	34.64334	30.42245	42.77831	105.74431	42.76585	105.74881	1.0	0.3
20	95.88493	73.91978	21.96515	34.73912	30.49681	57.14090	105.70522	57.13155	105.74451	1.2	0.6
21	96.29666	74.37343	21.92323	34.80666	30.59386	71.47415	105.87531	71.46342	105.91302	1.4	0.9
22	97.19812	74.66873	22.52939	34.97047	30.65591	85.79486	105.93904	85.81348	105.97255	1.9	1.1
23	95.11516	73.27725	21.83791	34.59509	30.35983	100.08853	105.97496	100.12392	105.98834	0.8	0.1
24	94.32584	72.89156	21.43428	34.45248	30.28381	114.27887	106.11032	114.30061	106.11774	0.4	-0.1
25	97.18581	74.77002	22.41579	34.99297	30.67216	14.21958	91.19957	14.20364	91.21916	2.0	1.2
26	94.40421	72.90044	21.50377	34.46831	30.29568	28.55205	91.25993	28.54167	91.24667	0.5	-0.1
27	94.28326	72.52380	21.75946	34.45059	30.21046	42.94475	91.29611	42.92307	91.28117	0.4	-0.4
28	95.85278	74.20647	21.64632	34.74976	30.56767	57.24445	91.25623	57.21439	91.24336	1.3	0.8
29	95.52177	73.69679	21.82498	34.67938	30.46080	71.61104	91.53702	71.60425	91.53470	1.1	0.5
30	96.29739	74.10802	22.18938	34.81351	30.53960	85.94562	91.53876	85.92499	91.53159	1.5	0.7
31	95.39330	73.92055	21.47275	34.65193	30.49522	100.25928	91.71077	100.29906	91.70953	1.0	0.6
32	96.03275	74.53233	21.50041	34.76527	30.63649	114.28679	91.68446	114.28308	91.70409	1.3	1.0
33	95.83495	74.26933	21.56561	34.72833	30.57271	14.40210	76.92303	14.38873	76.92529	1.2	0.8
34	94.31764	72.91508	21.40256	34.48390	30.32182	28.74777	76.86047	28.77318	76.84734	0.5	-0.0
35	95.00667	73.79057	21.21609	34.56421	30.47961	43.07201	77.00589	43.06322	76.98511	0.7	0.5
36	97.02834	74.81328	22.21506	34.96556	30.69463	57.38097	76.85686	57.40520	76.84387	1.9	1.2
37	94.85085	73.15770	21.69315	34.56398	30.34053	71.71318	76.98660	71.70772	76.99445	0.7	0.1
38	95.05943	73.69202	21.36742	34.58022	30.45528	86.16516	77.24167	86.16199	77.24071	0.8	0.4
39	95.14127	73.50259	21.63867	34.61876	30.41707	100.36848	77.30702	100.36215	77.31415	0.9	0.3
40	95.31012	73.28944	22.02068	34.62837	30.38834	114.41197	77.33533	114.38829	77.36140	0.9	0.2
41	96.40768	74.26184	22.14534	34.83449	30.59276	14.63135	62.56265	14.61491	62.58128	1.5	0.9
42	95.23740	73.46741	21.76999	34.62651	30.40968	29.00035	62.45215	28.97002	62.45065	0.9	0.3
43	95.08382	73.13197	21.95184	34.57794	30.35164	43.44707	62.64586	43.39833	62.65619	0.8	0.1
44	96.04741	73.59354	22.45387	34.76106	30.45973	57.31758	62.59335	57.32707	62.59958	1.3	0.5
45	96.87868	75.37933	21.49934	34.91740	30.78883	71.93396	62.61601	71.94786	62.61794	1.8	1.5
46	96.46986	74.78798	21.68188	34.85283	30.68617	86.31081	62.75591	86.30406	62.76399	1.6	1.2
47	94.68715	73.18811	21.49904	34.51927	30.34985	100.52840	62.92120	100.55856	62.91638	0.6	0.1
48	95.18263	73.57927	21.60336	34.61623	30.43585	114.76770	63.05424	114.75183	63.08382	0.9	0.4
49	97.03822	74.14171	22.89651	34.94080	30.54149	14.80399	48.15738	14.79903	48.16187	1.8	0.7
50	95.79176	73.64380	22.14796	34.71172	30.44757	29.18040	48.14287	29.19167	48.12303	1.2	0.4
51	95.16426	72.97588	22.18839	34.59528	30.29514	43.51317	48.29462	43.48274	48.26358	0.8	-0.1
52	94.28595	72.26682	22.01913	34.43918	30.15286	57.77635	48.35597	57.78729	48.36673	0.4	-0.6
53	95.92900	73.88680	22.04221	34.73553	30.48209	72.12029	48.29245	72.15100	48.27756	1.2	0.5
54	95.73946	73.95894	21.78052	34.71310	30.50983	86.38290	48.49721	86.37224	48.50671	1.2	0.6
55	94.70673	72.66521	22.04152	34.53177	30.23491	100.72243	48.61157	100.72060	48.64502	0.6	-0.3
56	95.34988	72.93066	22.41922	34.62999	30.28297	114.93100	48.67908	114.90628	48.66580	0.9	-0.1
57	96.93951	74.73782	22.20169	34.94783	30.66733	15.13665	33.95865	15.11942	33.91344	1.9	1.1
58	94.45930	72.77361	21.68570	34.47290	30.26071	29.51483	33.82487	29.46280	33.83080	0.5	-0.2

59	93.64777	72.91058	20.73718	34.32870	30.30630	43.77437	33.93282	43.77635	33.92395	0.0	-0.1
60	95.27182	73.44772	21.82410	34.63799	30.39345	57.99884	34.01140	58.00392	33.99965	0.9	0.2
61	96.32231	74.75720	21.56511	34.80525	30.66428	72.29359	33.98592	72.29448	33.99844	1.4	1.1
62	93.32040	71.74052	21.57988	34.25392	30.04129	86.62762	34.21585	86.64325	34.19672	-0.2	-0.9
63	93.84126	72.33807	21.50319	34.37839	30.19414	100.78262	34.28612	100.81947	34.27911	0.2	-0.4
64	96.03894	74.22739	21.81155	34.75058	30.57086	115.02356	34.54620	115.01213	34.54071	1.3	0.8

TABLE C-63. GEOMETRIC PARAMETERS OF B-5 SECTION AT 92.2 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	95.83917	73.40819	22.43098	34.72128	30.39732	13.00086	134.50554	12.99339	134.47726	1.2	0.2
2	96.16534	73.64711	22.51823	34.78786	30.44197	27.44226	134.58966	27.41830	134.61407	1.4	0.4
3	95.56561	73.83711	21.72850	34.68048	30.48277	41.78360	134.66849	41.80545	134.66681	1.1	0.5
4	95.55006	73.84784	21.70222	34.67616	30.49156	56.15430	134.82809	56.14207	134.81615	1.1	0.6
5	96.14288	73.69414	22.44875	34.77504	30.45532	70.56793	134.95178	70.57411	134.97108	1.3	0.4
6	95.25662	73.48994	21.76668	34.62682	30.44003	84.92847	134.80583	84.92542	134.78607	0.9	0.4
7	94.94307	73.52855	21.41452	34.58360	30.43243	99.22556	135.10716	99.24449	135.08839	0.8	0.4
8	95.08878	73.37808	21.71069	34.59279	30.38470	113.71855	135.42290	113.76471	135.44220	0.8	0.2
9	95.92007	73.89252	22.02756	34.74321	30.51399	13.21923	120.13655	13.19893	120.10440	1.3	0.6
10	95.34549	73.02657	22.31892	34.66100	30.34294	27.76106	120.17000	27.76474	120.18095	1.0	0.1
11	95.84448	72.15387	23.69061	34.72679	30.13759	42.00154	120.37527	42.02174	120.37355	1.2	-0.6
12	96.29144	72.33530	23.95615	34.81807	30.18271	56.42035	120.32678	56.40799	120.31364	1.5	-0.5
13	95.56473	72.22728	23.33745	34.68236	30.15240	70.84348	120.38213	70.85799	120.34482	1.1	-0.6
14	95.17387	72.07370	23.10017	34.59550	30.12627	85.28609	120.52415	85.26476	120.50348	0.8	-0.6
15	95.63283	72.80861	22.82422	34.68747	30.27353	99.51576	120.83592	99.50943	120.82106	1.1	-0.2
16	96.27333	72.43686	23.83647	34.79842	30.19112	113.85443	120.99742	113.84546	120.97391	1.4	-0.4
17	96.02145	73.34047	22.68098	34.76547	30.37694	13.44407	105.67958	13.44777	105.63545	1.3	0.2
18	95.84360	72.93843	22.90517	34.72845	30.29773	27.95523	105.59081	27.94629	105.57411	1.2	-0.1
19	95.29242	72.59799	22.69443	34.63321	30.22183	42.37915	105.78870	42.38078	105.75894	0.9	-0.3
20	96.27510	73.01541	23.25969	34.79677	30.31053	56.78806	105.78847	56.77817	105.77226	1.4	-0.0
21	95.61899	72.27901	23.33998	34.69421	30.16283	71.16840	105.94893	71.16768	105.93832	1.1	-0.5
22	95.79053	73.14243	22.64810	34.74771	30.33556	85.55798	106.06743	85.57808	106.01804	1.3	0.0
23	96.34908	72.81737	23.53171	34.81918	30.29431	99.95161	106.14676	99.95473	106.15863	1.5	-0.1
24	96.36827	72.72812	23.64015	34.83223	30.25722	114.19063	106.29680	114.17291	106.25836	1.5	-0.2
25	97.14417	72.63206	24.51210	34.95827	30.22801	13.74017	91.12801	13.66549	91.09436	1.9	-0.3
26	95.94124	72.97658	22.96466	34.75961	30.31187	28.06140	91.17232	28.11908	91.15271	1.3	-0.0
27	95.32985	72.62383	22.70602	34.63234	30.23602	42.53632	91.27252	42.52248	91.25862	0.9	-0.3
28	95.99295	72.90335	23.08960	34.76378	30.30020	56.89191	91.31279	56.88535	91.28612	1.3	-0.1
29	95.65613	72.78200	22.87413	34.68507	30.26224	71.31343	91.49661	71.30032	91.47018	1.1	-0.2
30	95.33203	72.72847	22.60356	34.64891	30.25751	85.72086	91.58502	85.70370	91.54352	1.0	-0.2
31	95.95558	72.69136	23.26422	34.75111	30.23782	100.12532	91.75685	100.12279	91.73480	1.3	-0.3
32	96.34143	73.00664	23.33479	34.83069	30.31044	114.23653	91.82391	114.19086	91.81734	1.5	-0.0
33	95.67155	72.28766	23.38390	34.69498	30.15575	13.90910	76.72882	13.89635	76.73788	1.1	-0.6
34	95.54903	72.91574	22.63329	34.67006	30.29927	28.27841	76.70886	28.28453	76.69002	1.0	-0.1
35	95.33289	72.49631	22.83658	34.63205	30.20308	42.66434	76.85896	42.67798	76.85100	0.9	-0.4
36	95.79218	72.42651	23.36566	34.71347	30.21503	57.08781	76.79669	57.10001	76.80362	1.2	-0.4
37	96.32085	72.39706	23.92378	34.82114	30.20253	71.47975	76.93956	71.46657	76.90681	1.5	-0.4
38	95.48846	72.50447	22.98399	34.65773	30.21713	85.93822	77.14207	85.92435	77.14418	1.0	-0.3
39	96.18118	72.39848	23.78270	34.77388	30.18610	100.26584	77.28171	100.24126	77.26703	1.3	-0.5
40	96.14711	72.49855	23.64856	34.79607	30.23038	114.37350	77.33075	114.38380	77.32387	1.4	-0.3
41	95.92154	73.34258	22.57896	34.74866	30.38890	14.20870	62.28136	14.18412	62.27654	1.3	0.2
42	95.28035	73.26544	22.01491	34.66107	30.39221	28.61331	62.23790	28.61131	62.23712	1.0	0.2
43	95.59207	73.06160	22.53047	34.68159	30.31807	43.08493	62.46263	43.05818	62.42444	1.1	-0.0
44	96.21533	73.39481	22.82053	34.79689	30.41521	57.15414	62.41533	57.19164	62.42416	1.4	0.3
45	95.47321	73.80650	21.66670	34.67204	30.47446	71.78644	62.46758	71.79109	62.46616	1.0	0.5
46	96.29289	73.31163	22.98126	34.81944	30.39999	86.21217	62.59612	86.22903	62.61539	1.5	0.3
47	96.16949	73.85295	22.31654	34.78554	30.47838	100.55902	62.77910	100.58240	62.77655	1.4	0.5
48	95.06427	73.35420	21.71007	34.60602	30.38528	114.88159	62.99713	114.88515	62.99332	0.9	0.2
49	96.12262	73.48456	22.63806	34.78214	30.42972	14.34950	47.78027	14.36042	47.77815	1.4	0.4
50	95.33327	72.87271	22.46056	34.62604	30.27725	28.78917	47.75957	28.78616	47.75462	0.9	-0.2
51	95.59261	72.76996	22.82265	34.70355	30.25827	43.18712	47.95343	43.17310	47.94713	1.1	-0.2
52	95.94572	73.89087	22.05486	34.74806	30.51326	57.55954	48.03987	57.57910	48.04315	1.3	0.6
53	95.12038	73.66698	21.45340	34.61388	30.46295	71.99326	48.01730	72.00137	48.00618	0.9	0.5
54	95.18761	73.57130	21.61630	34.61926	30.43761	86.35738	48.20735	86.35805	48.23071	0.9	0.4
55	95.11549	72.87671	22.23878	34.64404	30.31209	100.76587	48.34564	100.78212	48.37387	1.0	-0.0
56	95.24928	73.49413	21.75516	34.61676	30.40791	115.09975	48.43501	115.06960	48.44043	0.9	0.3
57	95.54019	73.55885	21.98134	34.68915	30.43355	14.71775	33.46095	14.73362	33.44495	1.1	0.4
58	94.91385	72.77029	22.14355	34.57248	30.28583	29.10330	33.34[illegible]	29.10191	33.35368	0.8	-0.1

59	95.29012	72.95341	22.33670	34.63638	30.33505	43.47256	33.49271	43.49493	33.47214	0.9	0.0
60	94.87900	72.77795	22.10104	34.56686	30.27769	57.80577	33.60466	57.80716	33.59413	0.7	-0.1
61	95.36699	73.11731	22.24968	34.68300	30.33360	72.20807	33.60609	72.19937	33.60527	1.1	0.0
62	95.75946	73.38754	22.37192	34.72762	30.39116	86.59789	33.79591	86.61101	33.77457	1.2	0.2
63	95.13980	73.17365	21.96616	34.61794	30.35031	100.95410	33.94397	100.94841	33.92415	0.9	0.1
64	95.33281	73.00661	22.32620	34.63341	30.31870	115.29361	34.20387	115.23848	34.21742	0.9	-0.0

TABLE C-64. GEOMETRIC PARAMETERS OF B-5 SECTION AT 94.0 CM ELEVATION

TUBE	OD AREA (MM**2)	ID AREA (MM**2)	WALL AREA (MM**2)	OD PERIMETER (MM)	ID PERIMETER (MM)	OD CX (MM)	OD CY (MM)	ID CX (MM)	ID CY (MM)	OD STR (%)	ID STR (%)
1	94.38202	72.68243	21.69958	34.46210	30.23465	12.99823	134.42482	12.97519	134.44206	0.4	-0.3
2	95.27628	72.22487	23.05141	34.63707	30.14819	27.37346	134.50418	27.37395	134.50670	0.9	-0.6
3	95.31096	72.30177	23.00919	34.62871	30.16985	41.75153	134.49374	41.74345	134.50415	0.9	-0.5
4	94.95491	71.70473	23.25018	34.57619	30.04825	56.11169	134.63057	56.12358	134.65121	0.8	-0.9
5	94.09650	70.97781	23.11868	34.41743	29.89273	70.48709	134.68788	70.46255	134.69423	0.3	-1.4
6	94.94133	71.85878	23.08255	34.56512	30.06947	84.80020	134.53896	84.79979	134.55252	0.7	-0.8
7	93.85110	70.80605	23.04506	34.35864	29.87418	99.03755	134.74799	99.04254	134.73105	0.1	-1.5
8	94.07780	71.92346	22.15434	34.42572	30.09946	113.40672	135.00836	113.41225	135.00073	0.3	-0.7
9	96.17557	73.07828	23.09729	34.80142	30.32587	13.04325	120.05974	13.02410	120.06816	1.4	0.0
10	96.37669	72.43802	23.93867	34.80995	30.18402	27.53285	120.07556	27.52507	120.03545	1.5	-0.5
11	96.64314	71.81917	24.82397	34.86998	30.06549	41.91460	120.20447	41.89728	120.19527	1.6	-0.8
12	96.90843	71.24547	25.66296	34.91878	29.94295	56.27617	120.16029	56.31352	120.17528	1.8	-1.3
13	96.05029	71.57414	24.47615	34.76518	30.01880	70.69208	120.23341	70.68932	120.22008	1.3	-1.0
14	95.86678	71.40059	24.46619	34.72598	29.97556	85.08923	120.33141	85.07869	120.30476	1.2	-1.1
15	96.28067	71.63329	24.64738	34.81055	30.03168	99.24590	120.50310	99.28378	120.48653	1.5	-1.0
16	95.45679	70.92598	24.53081	34.65303	29.87810	113.48187	120.64600	113.48955	120.65784	1.0	-1.5
17	94.63152	72.69136	21.94016	34.50648	30.25391	13.47351	105.59158	13.43553	105.58980	0.6	-0.2
18	94.52525	71.66554	22.85971	34.48592	30.03539	27.87975	105.63008	27.83014	105.59596	0.5	-0.9
19	94.72408	71.47668	23.24739	34.52802	29.99506	42.26556	105.73436	42.23685	105.72224	0.6	-1.1
20	94.59947	71.49007	23.10941	34.53279	30.01028	56.59756	105.74315	56.57848	105.75897	0.6	-1.0
21	94.10091	71.40193	22.69897	34.43352	29.97456	70.92276	105.89021	70.91890	105.89215	0.4	-1.1
22	94.76306	70.81331	23.94975	34.52168	29.88675	85.25836	106.00279	85.27621	105.93643	0.6	-1.4
23	94.04561	71.39755	22.64806	34.44229	29.97604	99.49707	106.08804	99.55019	106.08801	0.4	-1.1
24	92.89264	70.54671	22.34593	34.20906	29.82771	113.63962	106.21051	113.66658	106.21756	-0.3	-1.6
25	96.19211	71.98787	24.20424	34.79735	30.11208	13.58238	91.15947	13.54131	91.13193	1.4	-0.7
26	95.67421	71.56026	24.11395	34.69797	30.00273	27.89680	91.26378	27.91844	91.22292	1.1	-1.1
27	95.55661	71.37286	24.18375	34.67287	29.96001	42.24348	91.30586	42.25177	91.29440	1.1	-1.2
28	96.32170	71.30753	25.01418	34.81096	29.96410	56.61324	91.37398	56.60915	91.34459	1.5	-1.2
29	95.86263	71.17821	24.68442	34.72713	29.93161	70.94853	91.47221	70.96074	91.44812	1.2	-1.3
30	95.89685	70.83797	25.05888	34.74692	29.87665	85.29895	91.59520	85.27840	91.54756	1.3	-1.5
31	94.82863	70.66383	24.16479	34.54547	29.82532	99.56139	91.72870	99.58154	91.72203	0.7	-1.6
32	94.57837	70.53471	24.04366	34.50917	29.81847	113.64993	91.83347	113.62723	91.80890	0.6	-1.7
33	94.04507	72.39357	21.65150	34.41135	30.18567	13.86759	76.82114	13.89528	76.84424	0.3	-0.5
34	93.30159	71.21086	22.09073	34.26389	29.94910	28.23531	76.84126	28.24245	76.83644	-0.1	-1.2
35	93.25653	71.16444	22.09209	34.25996	29.92844	42.52602	76.97119	42.52609	76.98578	-0.2	-1.3
36	92.98958	70.85846	22.13112	34.21391	29.86787	56.89592	76.97490	56.90260	76.93588	-0.3	-1.5
37	93.44949	70.96136	22.48813	34.29214	29.88748	71.20387	77.08052	71.17522	77.09333	-0.1	-1.4
38	92.60703	70.83577	21.77126	34.14066	29.87257	85.47455	77.22620	85.49574	77.23293	-0.5	-1.5
39	92.40361	70.15401	22.24960	34.09413	29.71080	99.73625	77.37662	99.81454	77.33420	-0.6	-2.0
40	92.66641	70.44023	22.22618	34.17511	29.81464	113.77582	77.45268	113.78801	77.44142	-0.4	-1.7
41	95.47566	71.95387	23.52179	34.65291	30.09521	14.01378	62.50702	13.98899	62.48294	1.0	-0.8
42	94.79713	71.40216	23.39497	34.52658	29.98833	28.36075	62.47198	28.36473	62.43335	0.6	-1.1
43	94.74260	70.72626	24.01634	34.52879	29.83594	42.70743	62.66827	42.70364	62.61290	0.6	-1.6
44	95.05777	71.61713	23.44064	34.60512	30.01680	56.87988	62.64862	56.86887	62.60762	0.9	-1.0
45	95.10588	71.03566	24.07022	34.59044	29.92522	71.31879	62.73053	71.31015	62.71574	0.8	-1.3
46	94.41690	70.84273	23.57417	34.46915	29.86815	85.64578	62.86201	85.63132	62.86244	0.5	-1.5
47	94.45369	70.89111	23.56258	34.47128	29.86488	99.86934	63.03355	99.86716	62.99669	0.5	-1.5
48	94.57356	71.39297	23.18059	34.48787	29.97527	114.04172	63.20145	114.01578	63.18466	0.5	-1.1
49	93.00681	70.92213	22.08467	34.22414	29.89268	14.28865	48.13399	14.24641	48.13460	-0.3	-1.4
50	91.82129	71.77629	20.04500	33.98810	30.06363	28.63855	48.15436	28.64807	48.14908	-0.9	-0.9
51	93.00296	71.02666	21.97630	34.22278	29.91151	42.95679	48.32915	42.92781	48.33376	-0.3	-1.4
52	92.40430	71.15620	21.24809	34.10147	29.94106	57.24881	48.39151	57.25400	48.38242	-0.6	-1.3
53	91.97580	70.45372	21.52208	34.02417	29.78667	71.53847	48.46190	71.53342	48.47287	-0.8	-1.8
54	92.07939	70.35297	21.72643	34.04689	29.76636	85.82996	48.60490	85.80910	48.58308	-0.8	-1.8
55	92.15207	70.55540	21.59666	34.06607	29.79852	100.09007	48.74603	100.11360	48.75230	-0.7	-1.7
56	91.72435	70.80116	20.92319	33.98262	29.85100	114.21971	48.79422	114.24077	48.81357	-1.0	-1.6
57	94.48146	71.40390	23.07756	34.47742	29.99139	14.57558	33.97993	14.58785	33.97821	0.5	-1.1
58	94.14529	70.95959	23.18570	34.41112	29.88976	28.82813	33.88251	28.84624	33.85150	0.3	-1.4

59	94.52115	71.04642	23.47473	34.51120	29.91458	43.16464	34.02138	43.18596	33.99518	0.6	-1.3
60	93.43581	70.51498	22.92082	34.28285	29.78133	57.39746	34.14848	57.39148	34.10828	-0.1	-1.8
61	94.30095	70.28737	24.01358	34.44289	29.74759	71.68741	34.22551	71.68427	34.20287	0.4	-1.9
62	93.85284	70.24126	23.61159	34.36652	29.74937	85.93593	34.34319	85.95374	34.31250	0.2	-1.9
63	93.86496	70.39961	23.46535	34.36206	29.79242	100.10217	34.53091	100.10350	34.51791	0.1	-1.7
64	93.50294	70.04369	23.45926	34.30484	29.68802	114.26588	34.78860	114.25652	34.75961	-0.0	-2.1

PLOT 1 11.49.41 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 1. DEFORMATION PROFILE OF B-5 ROD NO. 1

HTR MNL-012 ZR TUBE 0738 HTD LGTH VOL EXP 34.5% AVG STR 16.0%

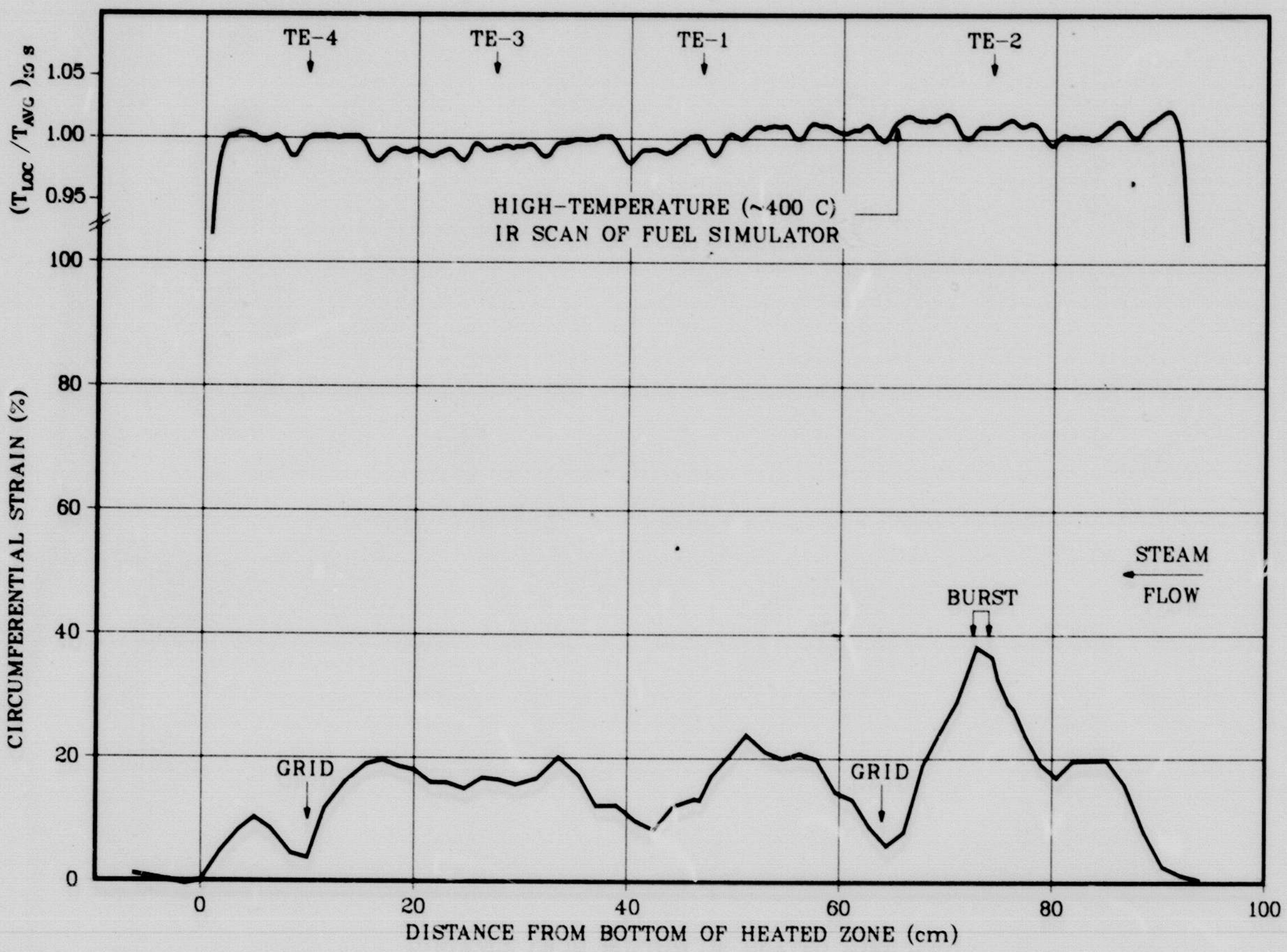
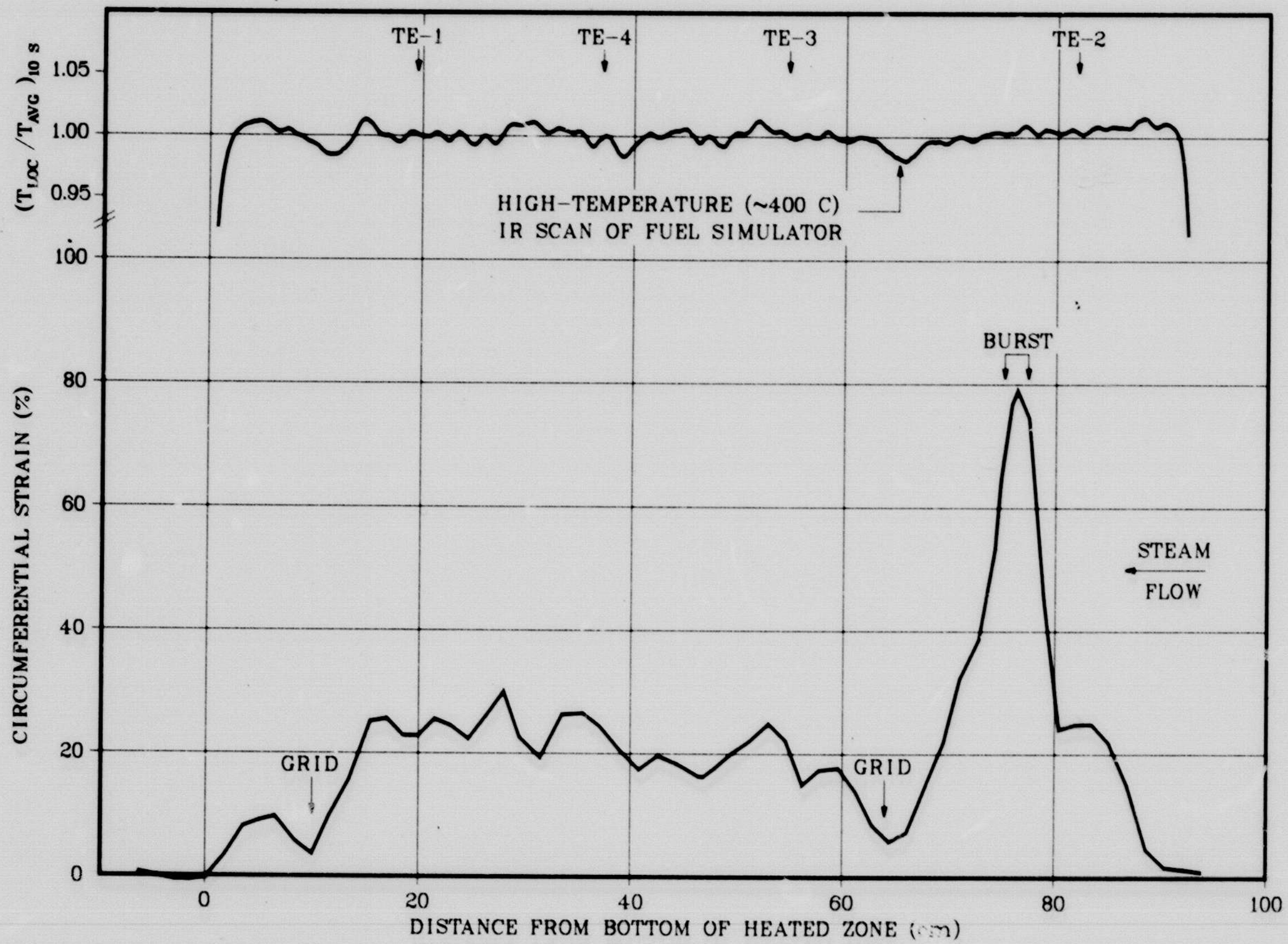


FIG. D. 2. DEFORMATION PROFILE OF B-5 ROD NO. 2

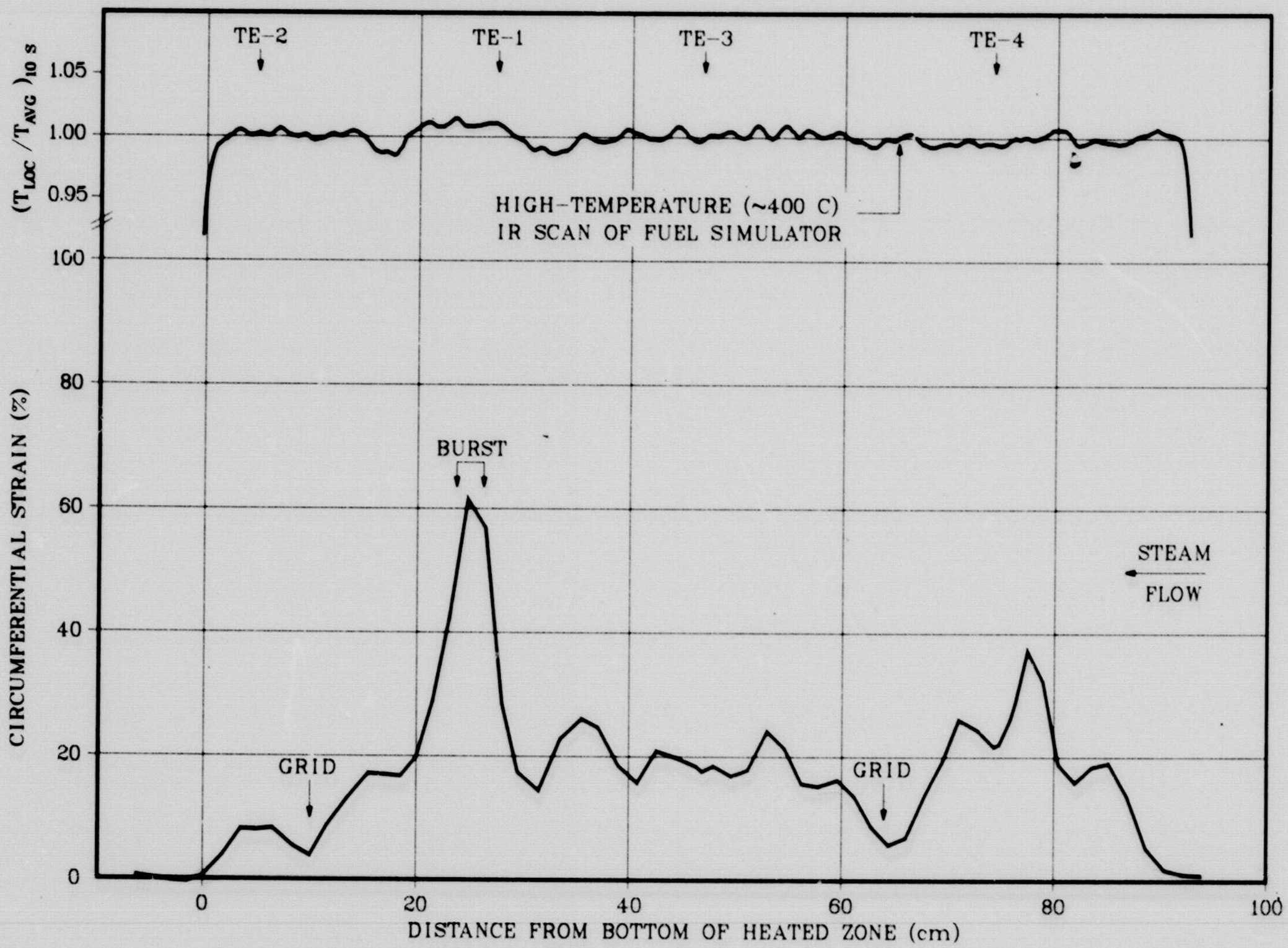
HTR MNL-053 ZR TUBE 0101 HTD LGTH VOL EXP 48.1% AVG STR 21.7%



PLOT 1 11.50.35 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 3. DEFORMATION PROFILE OF B-5 ROD NO. 3

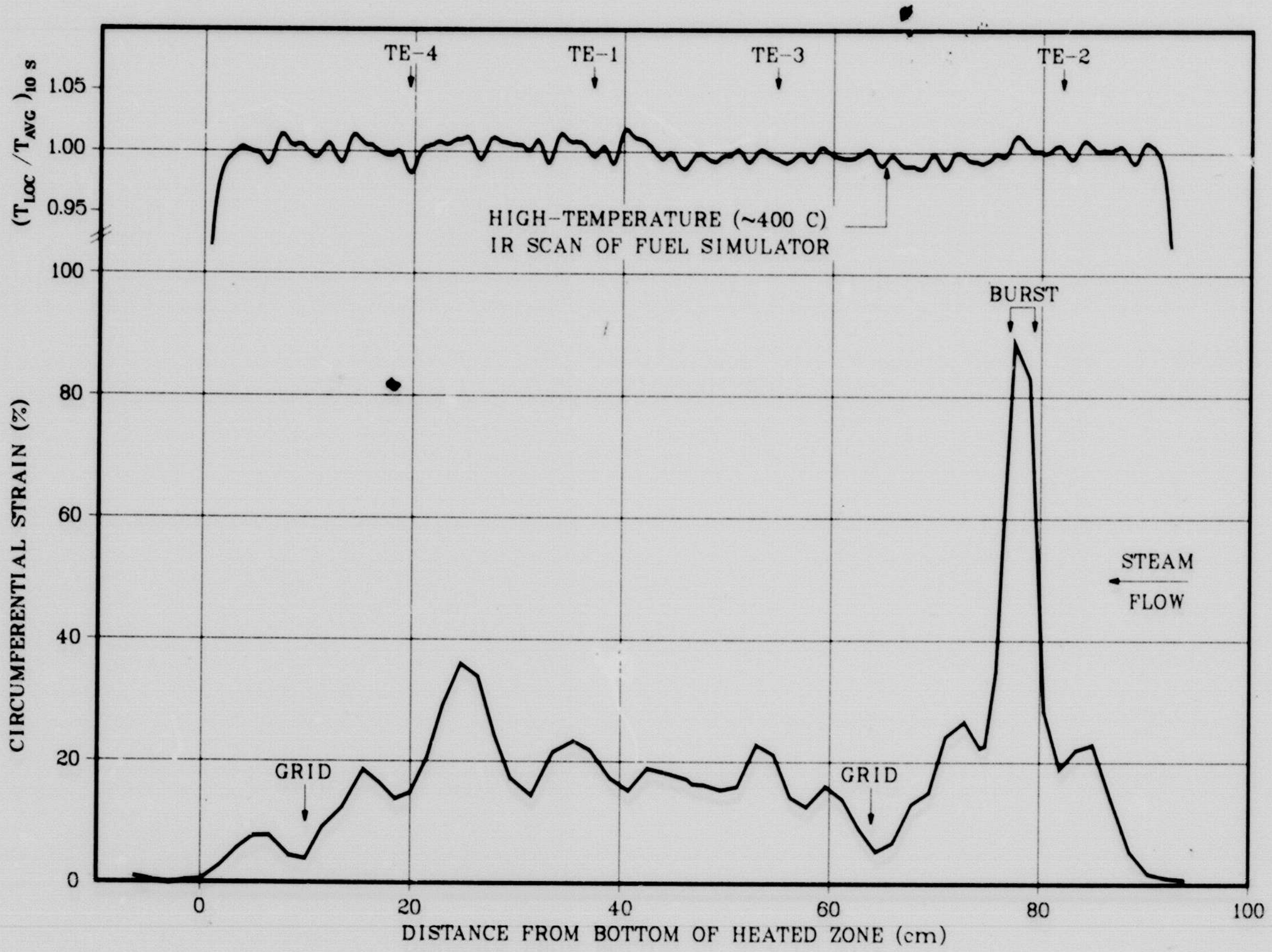
HTR MNL-078 ZR TUBE 0739 HTD LGTH VOL EXP 41.3% AVG STR 18.9%



PLOT 1 11.50.44 FRI 10 FEB, 1984 JOB-FRGSTRS , ISSCO DISSPLA VER 8.2

FIG. D. 4. DEFORMATION PROFILE OF B-5 ROD NO. 4

HTR MNL-052 ZR TUBE 0102 HTD LGTH VOL EXP 42.2% AVG STR 19.3%



PLOT 1 11.50.54 FRI 10 FEB, 1984 JOB-FRGSTRS , ISSCO DISSPLA VER 8.2

FIG. D. 5. DEFORMATION PROFILE OF B-5 ROD NO. 5

HTR MNL-026 ZR TUBE 0166 HTD LGTH VOL EXP 50.0% AVG STR 22.5%

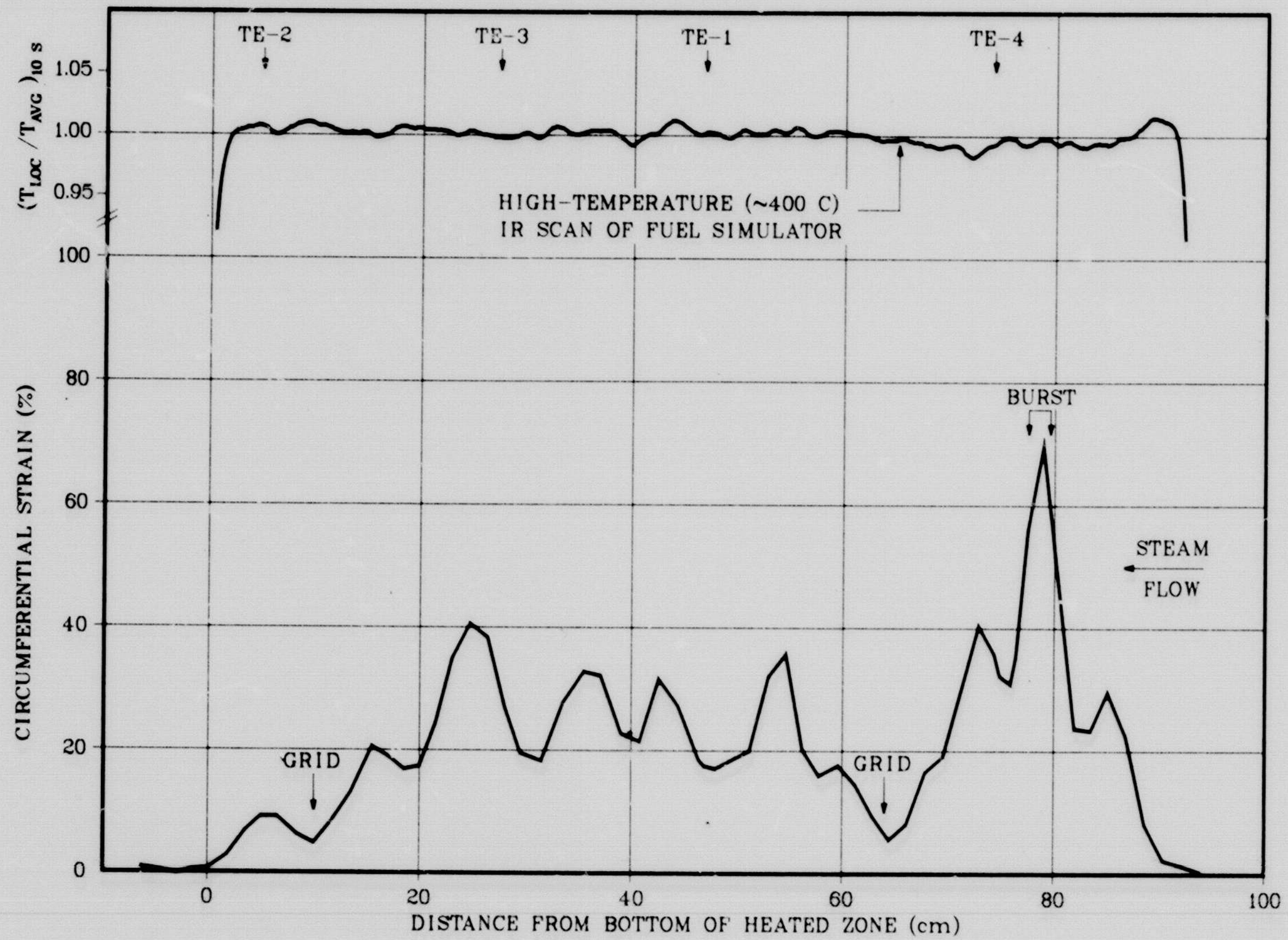
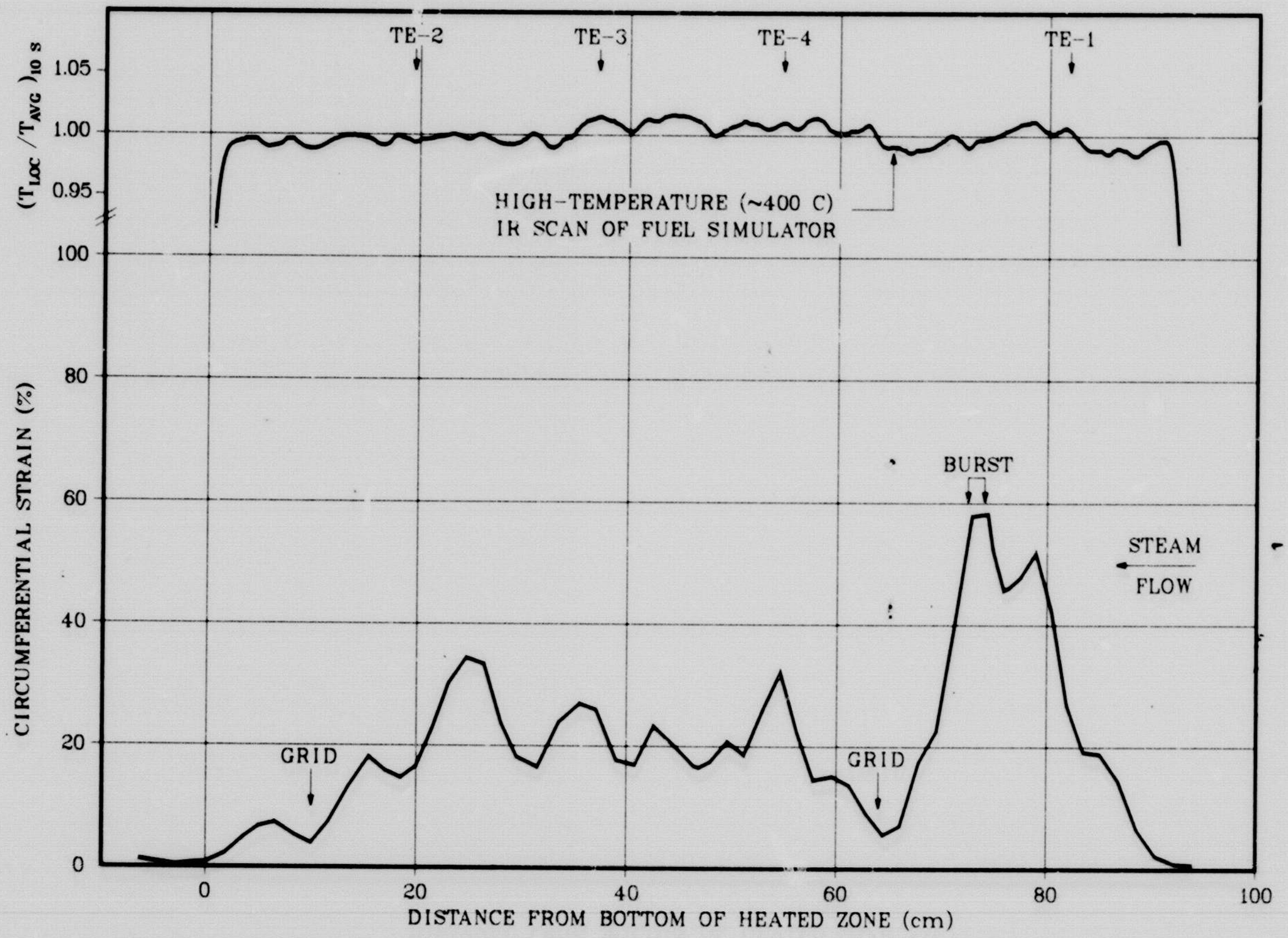


FIG. D. 6. DEFORMATION PROFILE OF B-5 ROD NO. 6

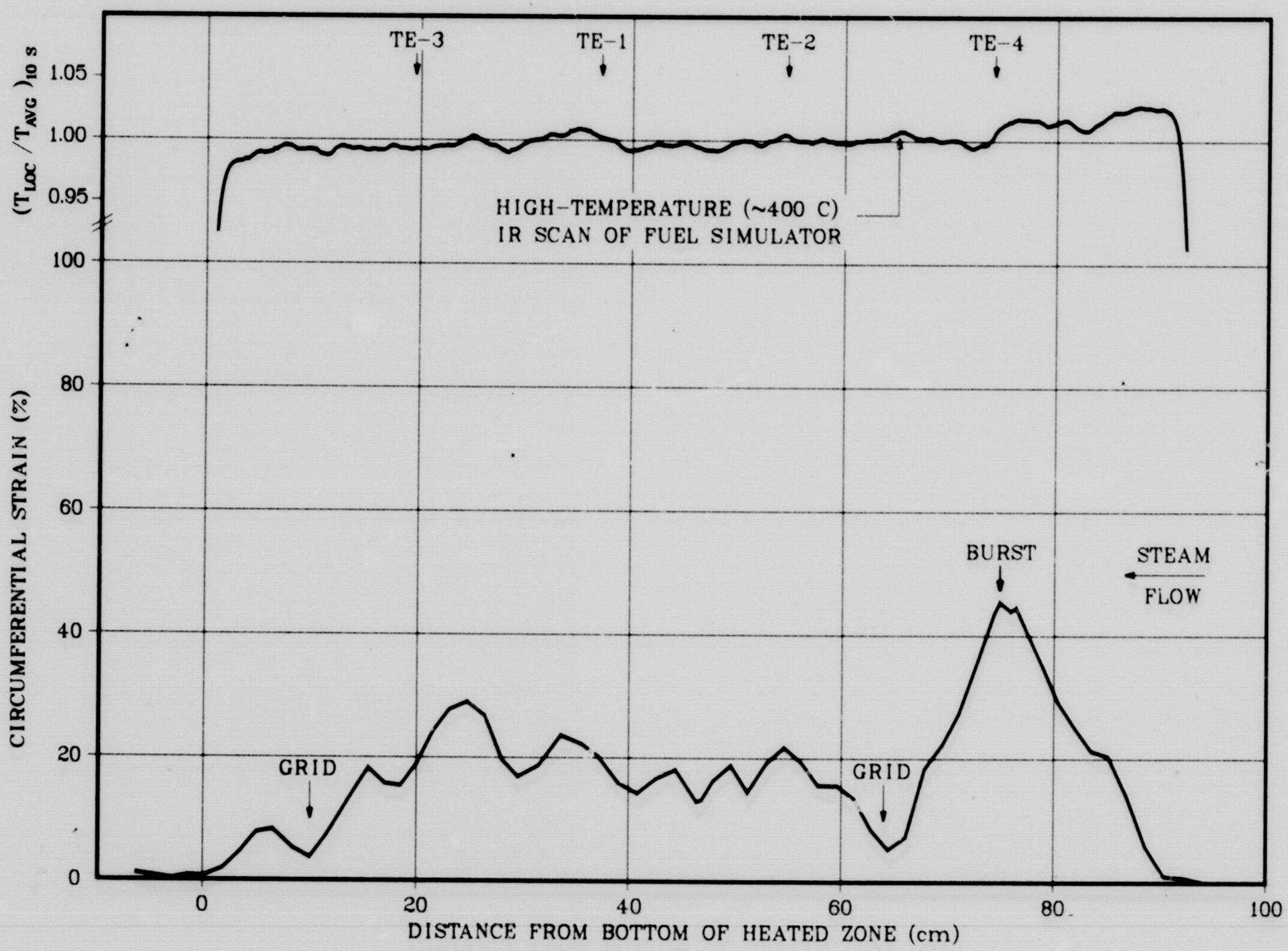
HTR MNL-015 ZR TUBE 0103 HTD LGTH VOL EXP 46.6% AVG STR 21.1 %



PLOT 1 11.51.20 FRI 10 FEB, 1984 JOB-FRGSTRS , ISSCO DISSPLA VER 8.2

FIG. D. 7. DEFORMATION PROFILE OF B-5 ROD NO. 7

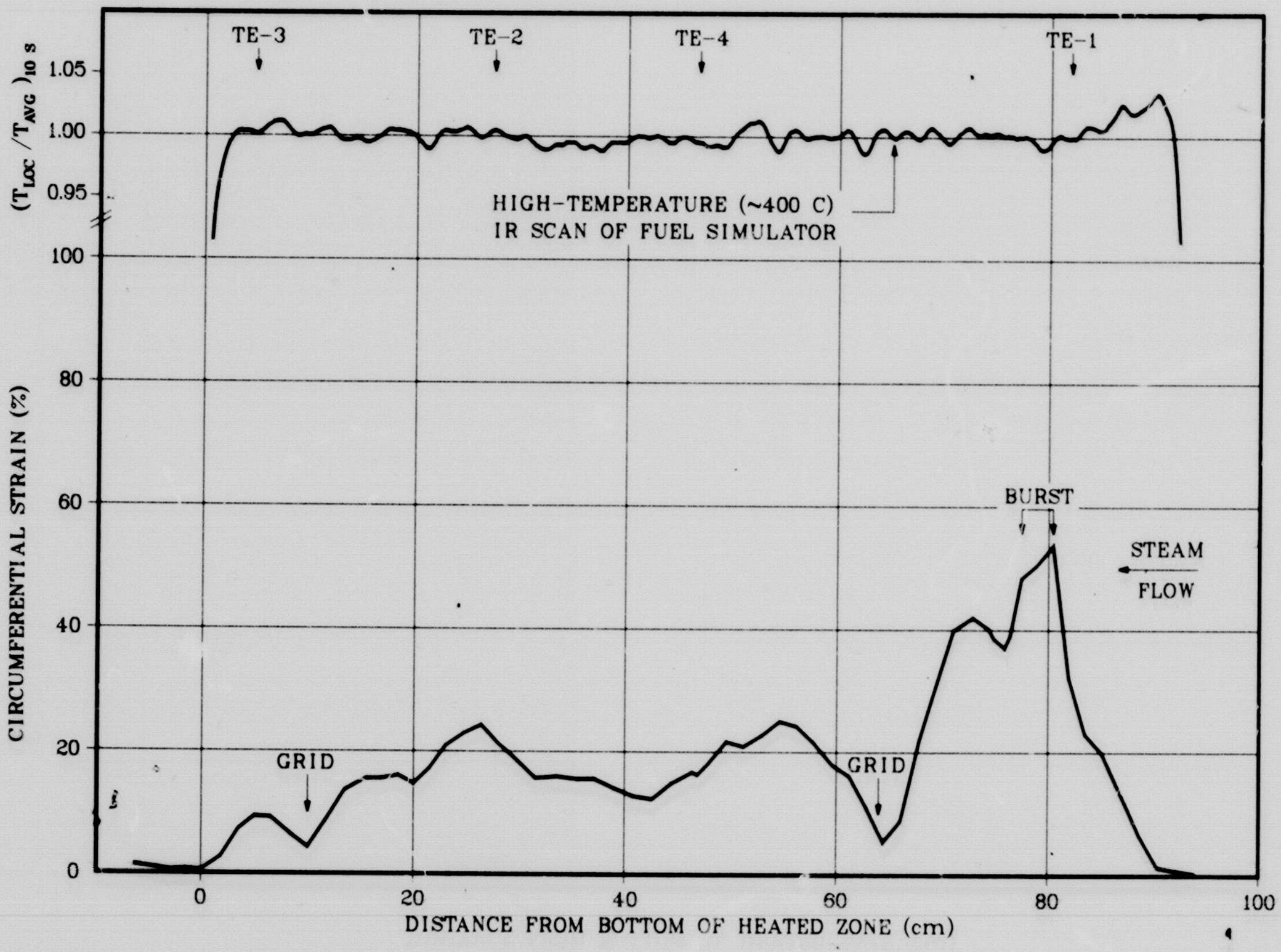
HTR MNL-024 ZR TUBE 0741 HTD LGTH VOL EXP 39.5% AVG STR 18.1%



PLOT 1 11.51.31 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 8. DEFORMATION PROFILE OF B-5 ROD NO. 3

HTR MNL-080 ZR TUBE 0104 HTD LGTH VOL EXP 42.4% AVG STR 19.3%



PLOT 1 11.52.15 FRI 10 FEB, 1984 JOB-FRGSTRS , ISSCO DISSPLA VER 8.2

FIG. D. 9. DEFORMATION PROFILE OF B-5 ROD NO. 9

HTR MNL-025 ZR TUBE 0115 HTD LGTH VOL EXP 55.7% AVG STR 24.8%

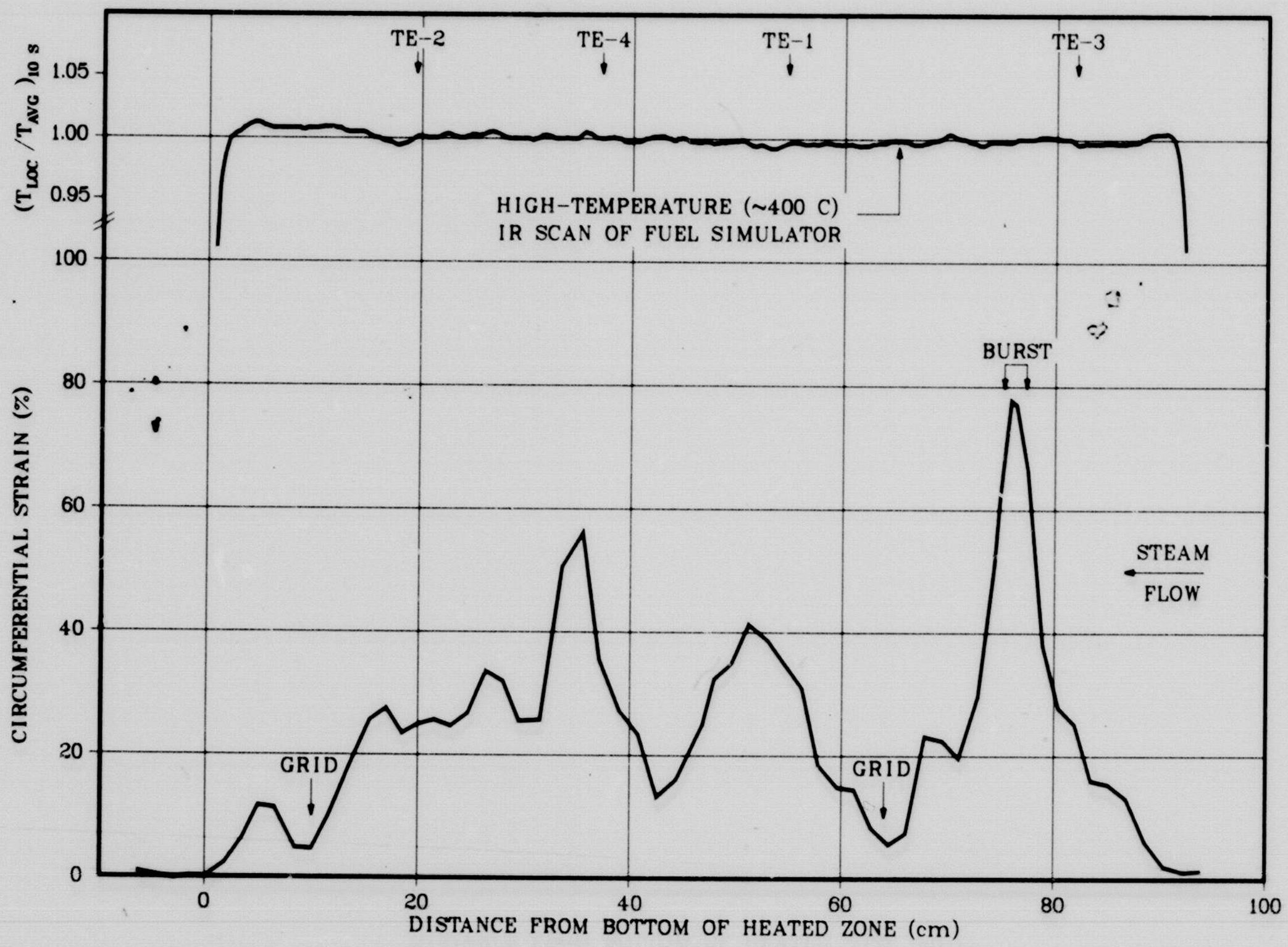


FIG. D. 10. DEFORMATION PROFILE OF B-5 ROD NO. 10

HTR MNL-014 ZR TUBE 0742 HTD LGTH VOL EXP 61.3 % AVG STR 27.0%

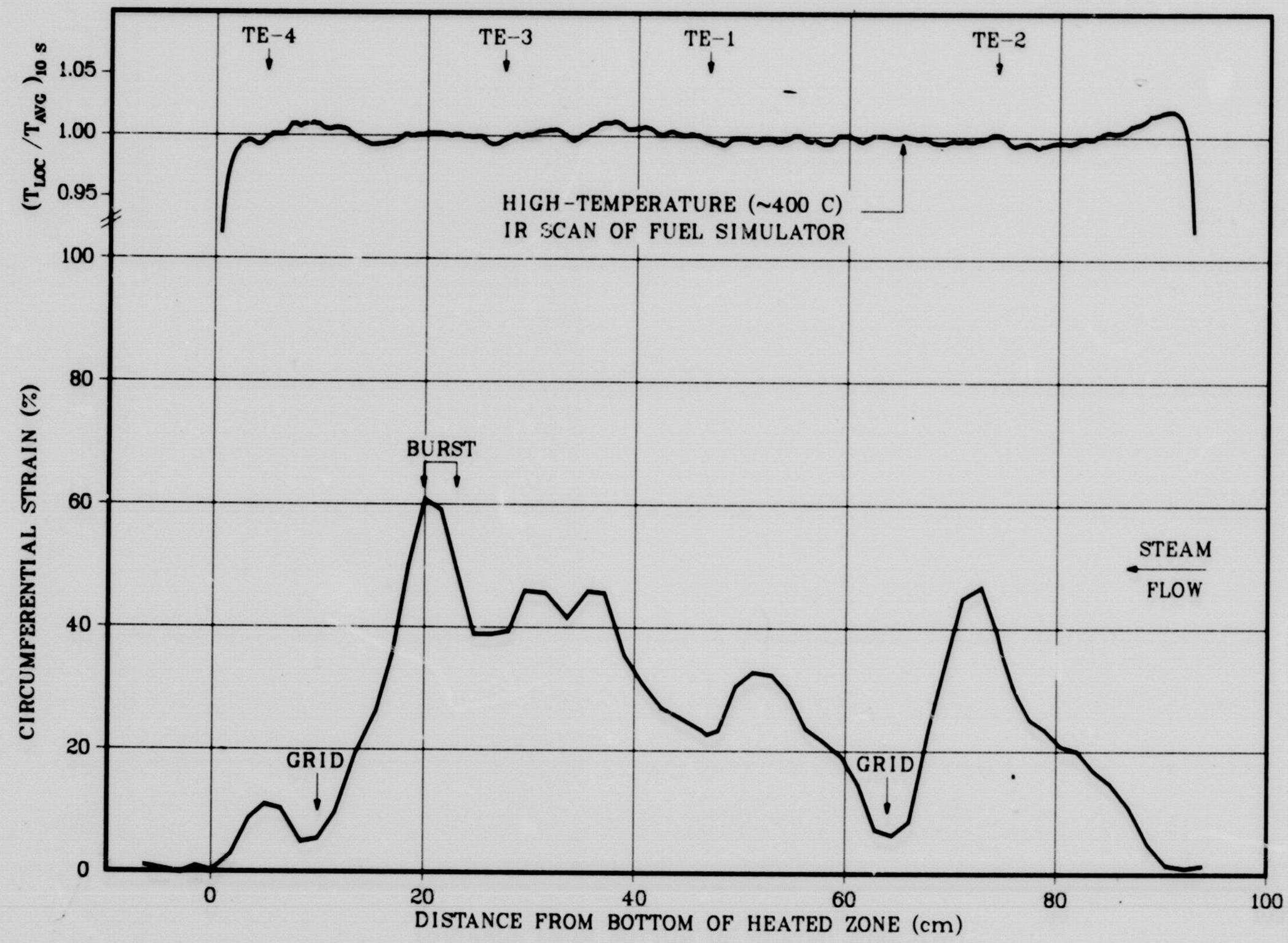
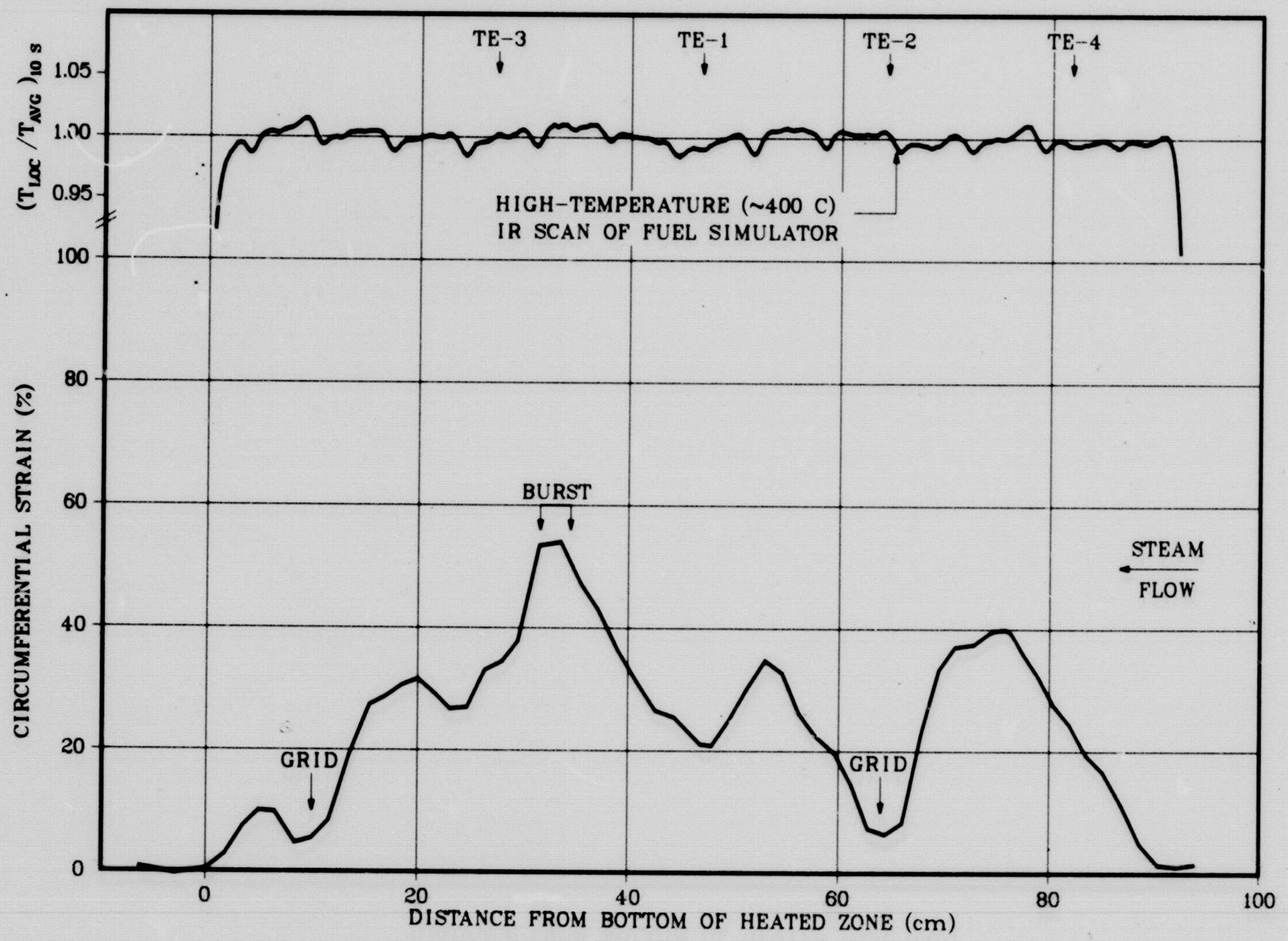


FIG. D. 11. DEFORMATION PROFILE OF B-5 ROD NO. 11

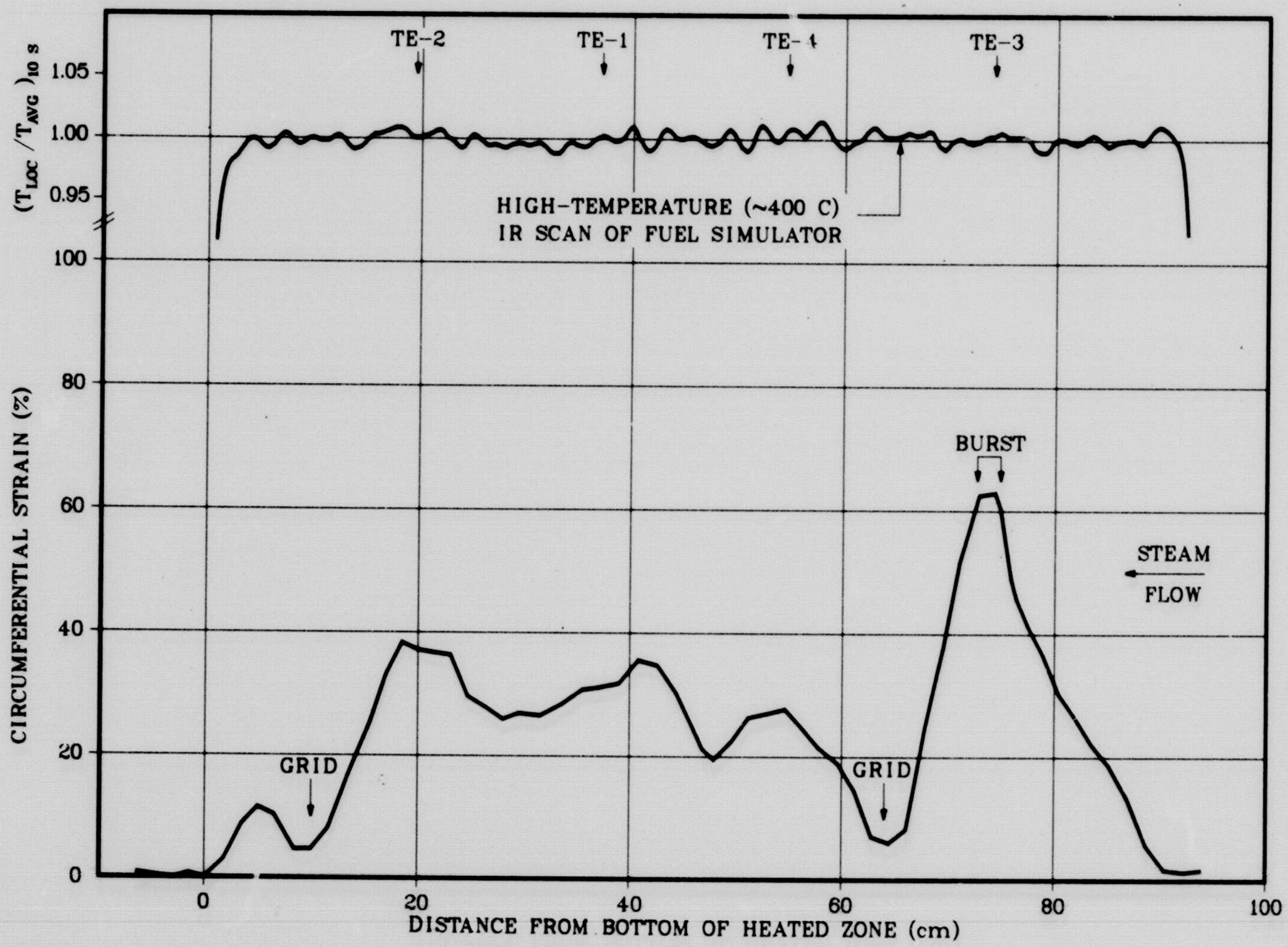
HTR MNL-020 ZR TUBE 0116 HTD LGTH VOL EXP 56.8% AVG STR 25.2%



PLOT 1 11.52.44 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 12. DEFORMATION PROFILE OF B-5 ROD NO. 12

HTR MNL-029 ZR TUBE 0791 HTD LGTH VOL EXP 57.0% AVG STR 25.3%



PLOT 1 11.52.49 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 13. DEFORMATION PROFILE OF B-5 ROD NO. 13

HTR MNL-073 ZR TUBE 0117 HTD LGTH VOL EXP 59.6% AVG STR 26.3%

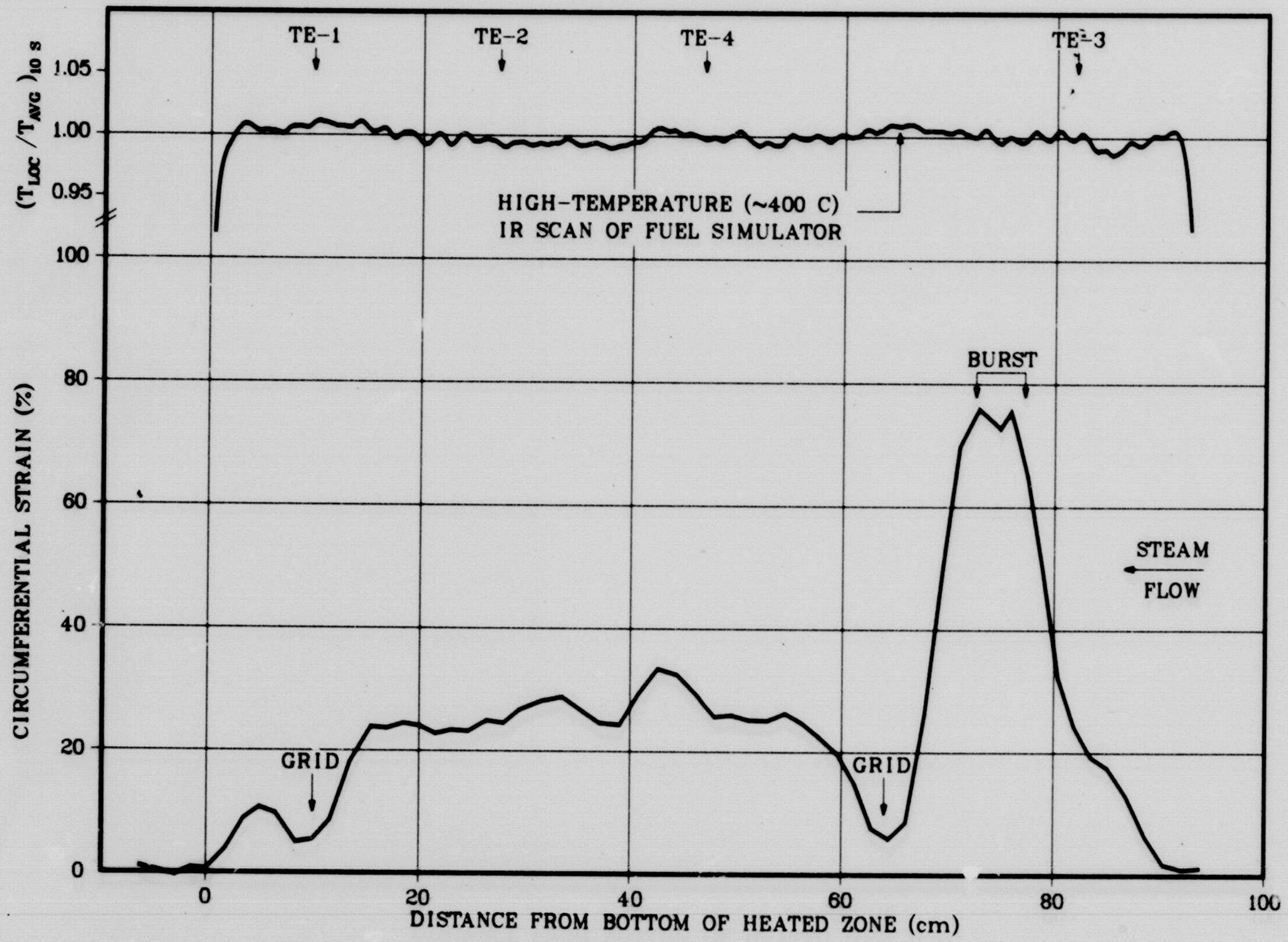
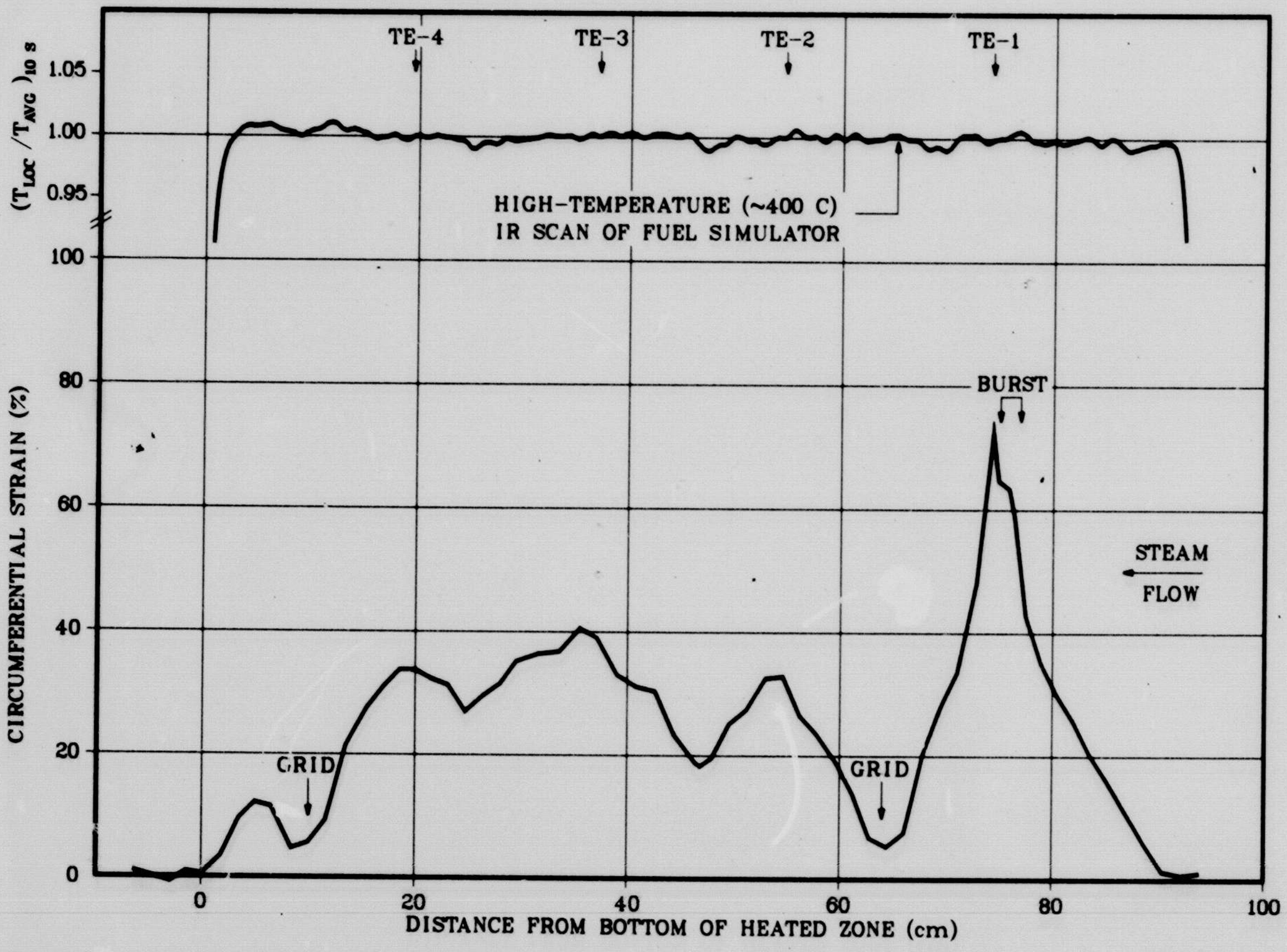


FIG. D. 14. DEFORMATION PROFILE OF B-5 ROD NO. 14

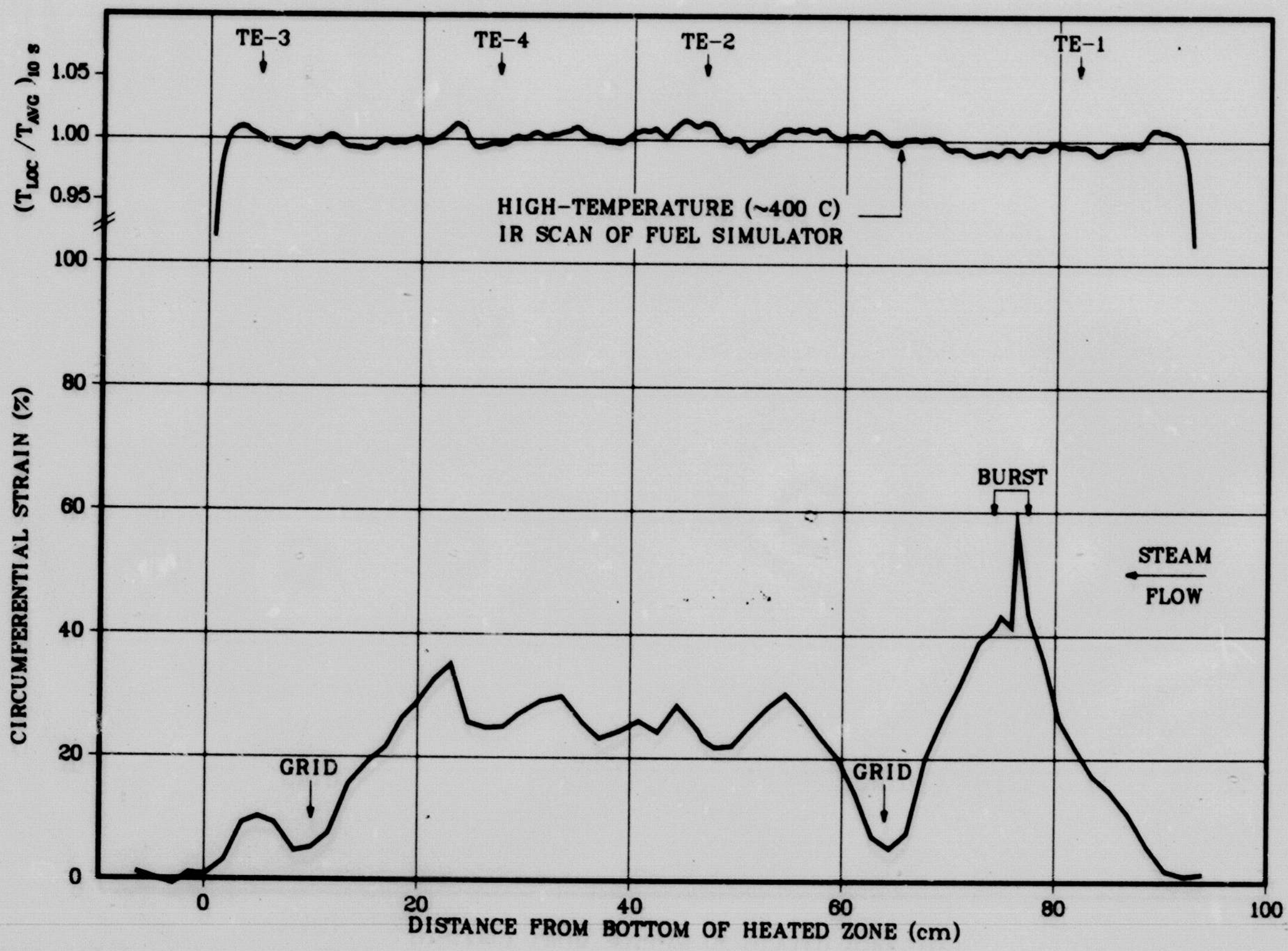
HTR MNL-050 ZR TUBE 0747 HTD LGTH VOL EXP 57.5% AVG STR 25.5%



PLOT 1 11.54.07 FRI 10 FEB, 1984 JOB-FRGSTR5, ISSCO DISSPLA VER 8.2

FIG. D. 15. DEFORMATION PROFILE OF B-5 ROD NO. 15

HTR MNL-083 ZR TUBE 0118 HTD LGTH VOL EXP 48.6% AVG STR 21.9%



PLOT 1 11.54.16 FRI 17 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 16. DEFORMATION PROFILE OF B-5 ROD NO. 16

HTR MNL-004 ZR TUBE 0748 HTD LGTH VOL EXP 36.3% AVG STR 16.7%

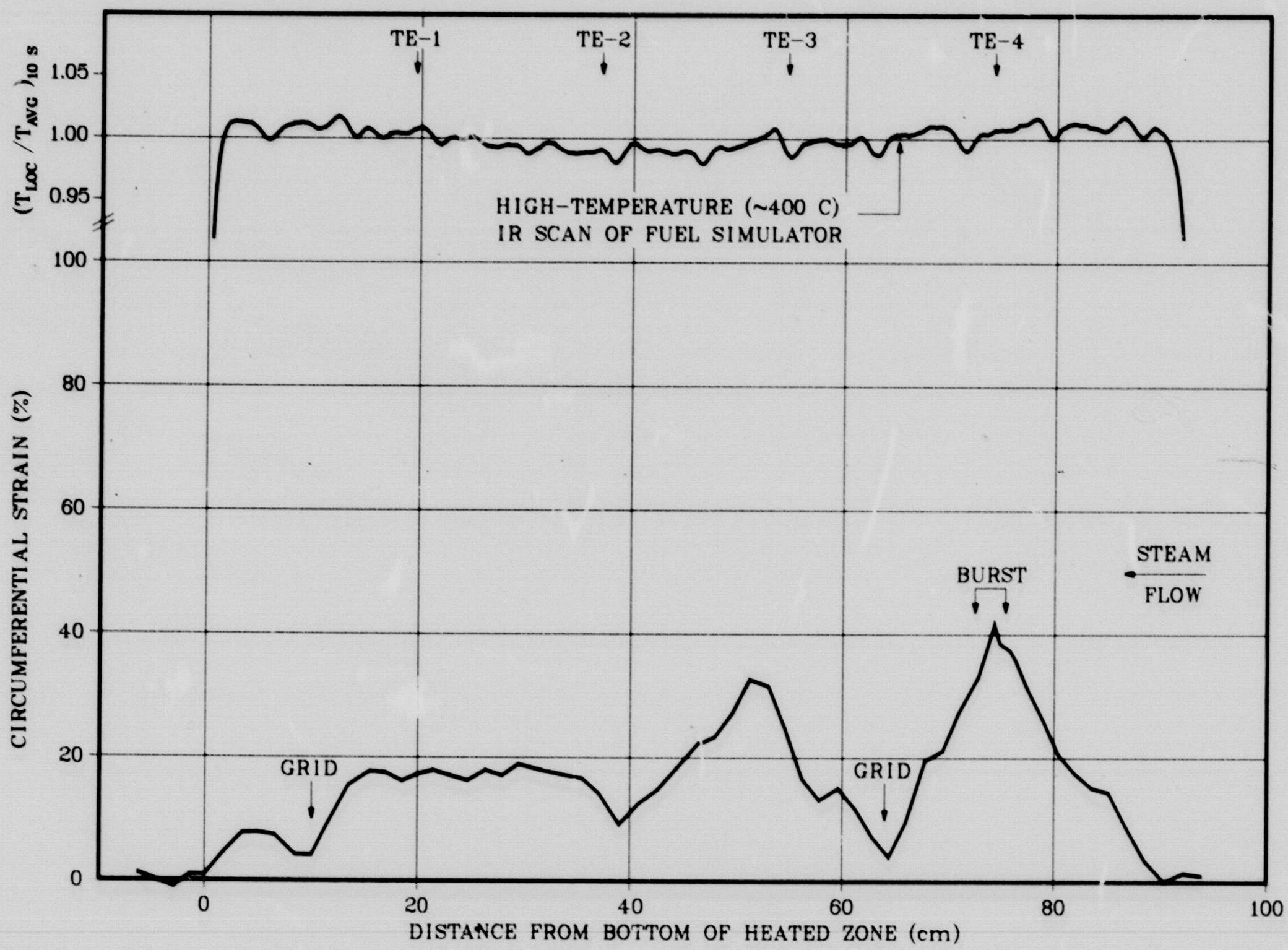


FIG. D. 17. DEFORMATION PROFILE OF B-5 ROD NO. 17

HTR MNL-088 ZR TUBE 0749 HTD LGTH VOL EXP 53.9% AVG STR 24.1%

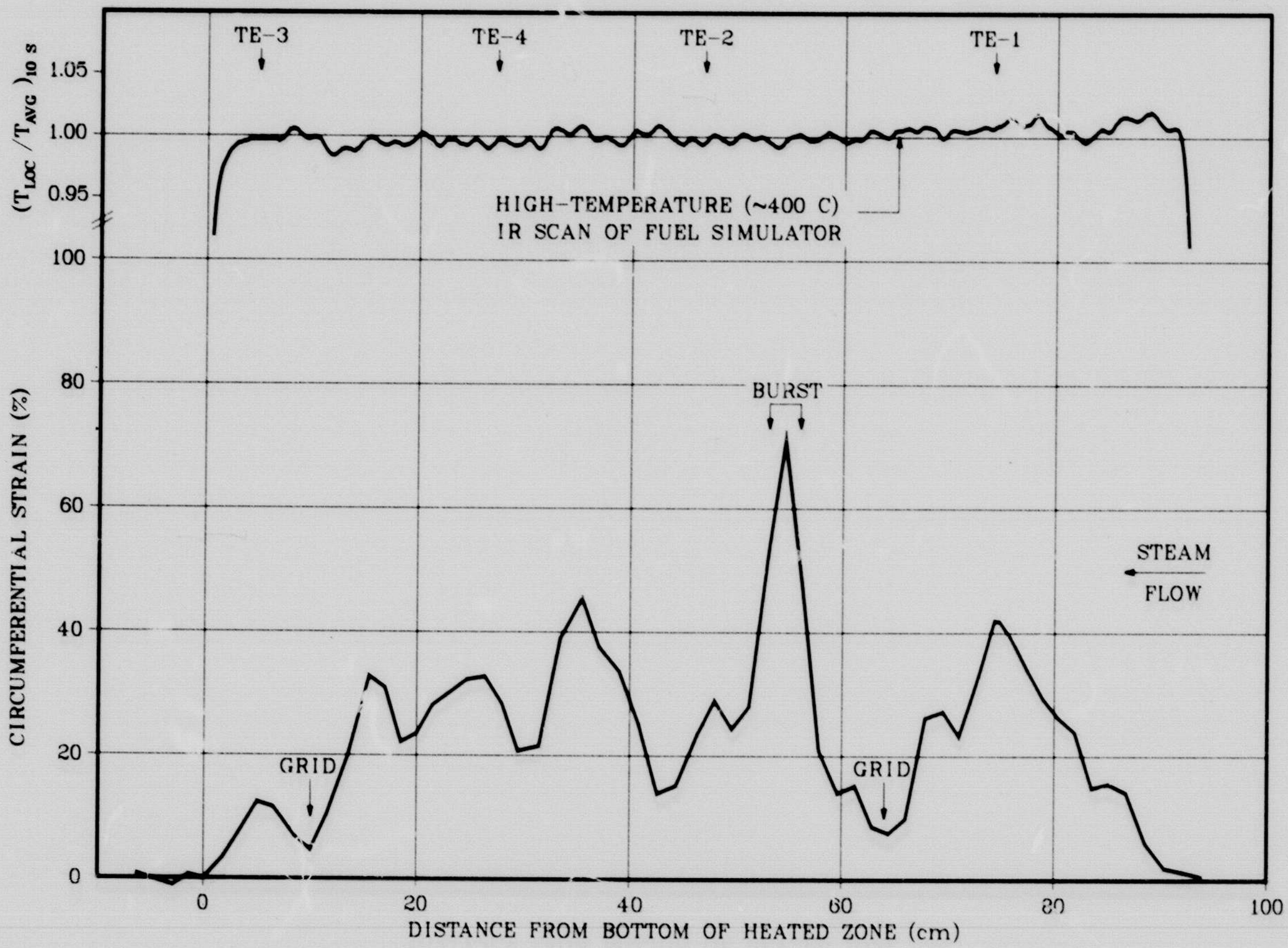


FIG. D. 18. DEFORMATION PROFILE OF B-5 ROD NO. 18

HTR MNL-037 ZR TUBE 0157 HTD LGTH VOL EXP 55.7% AVG STR 24.8%

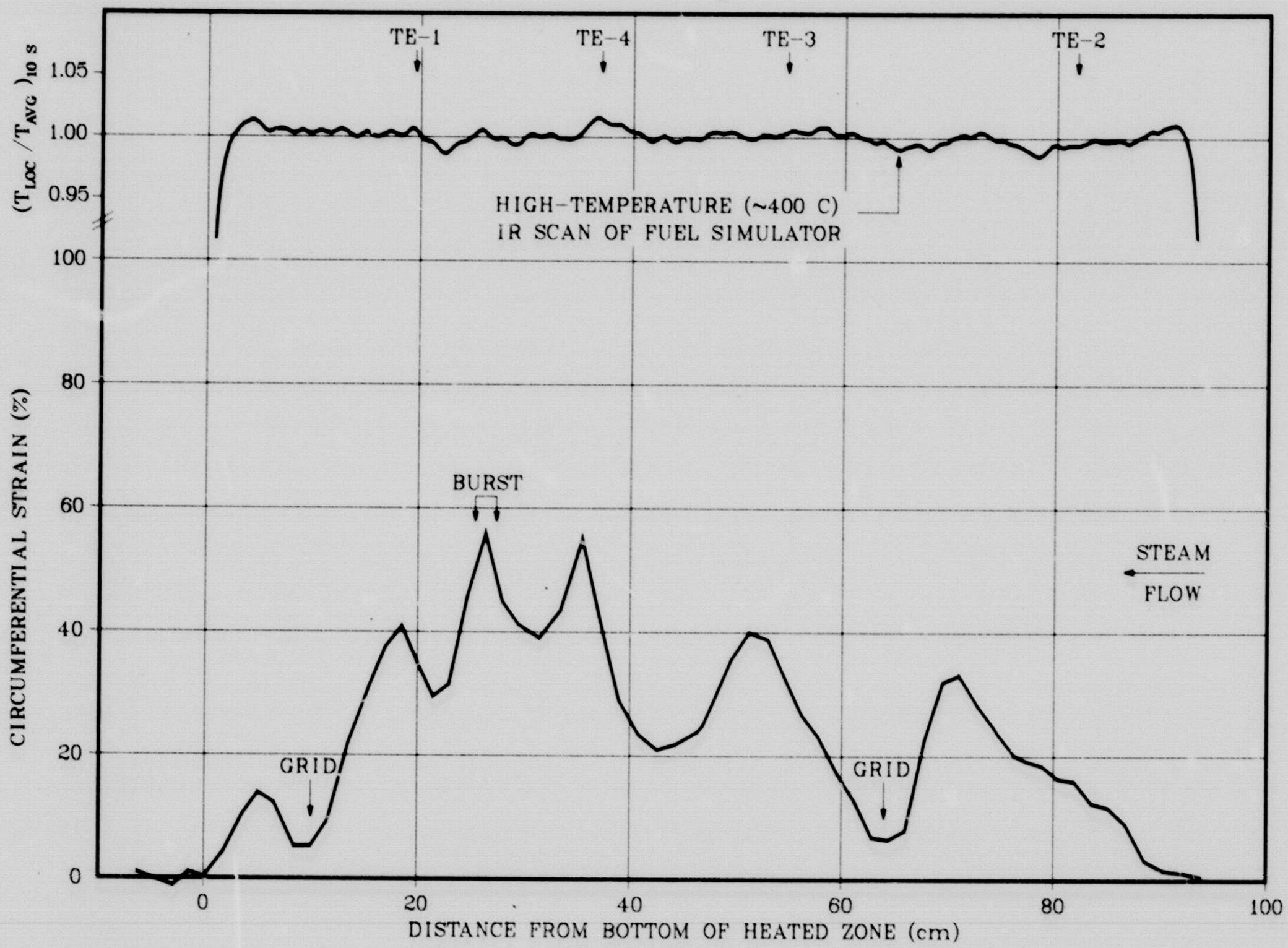
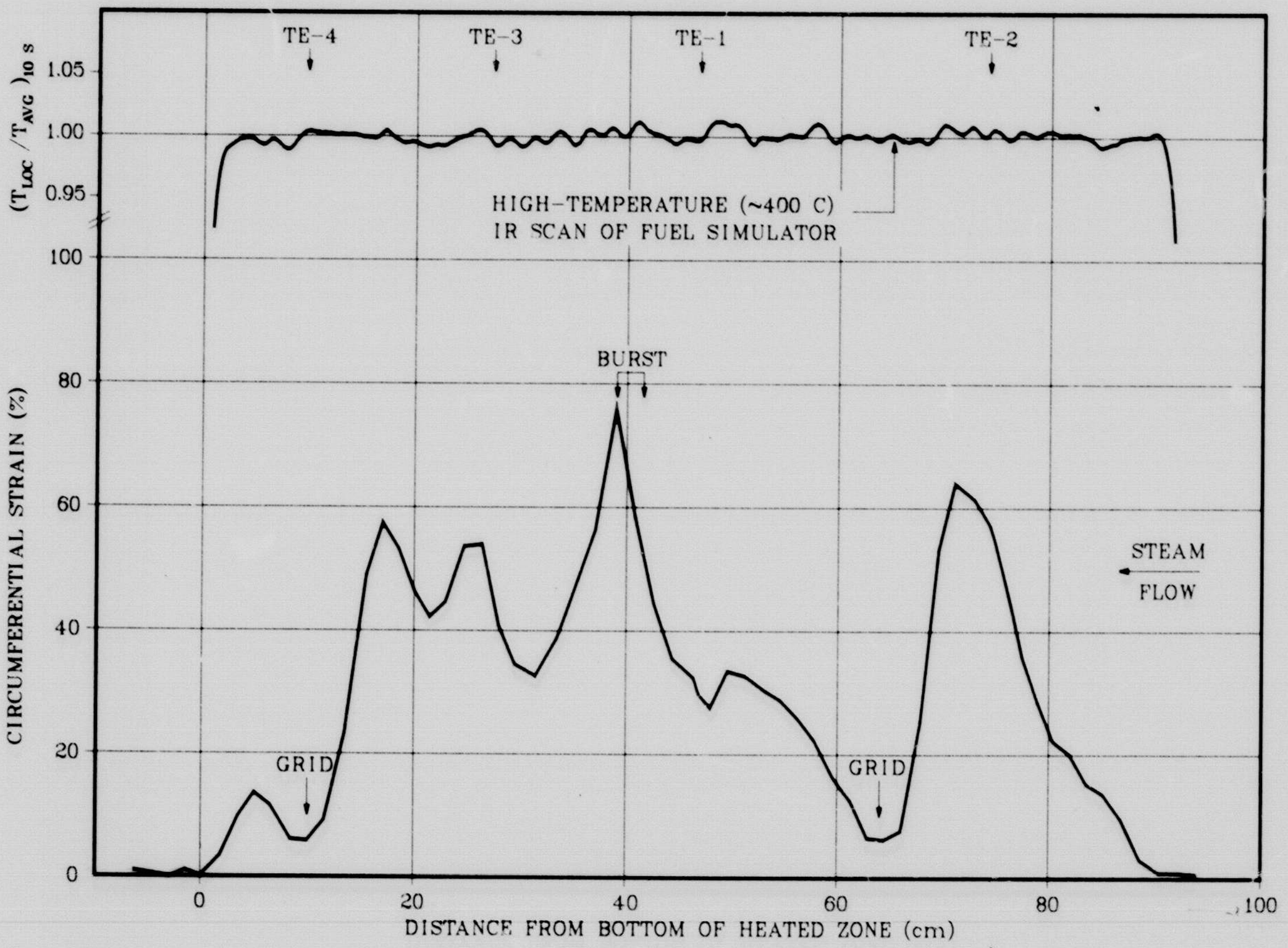


FIG. D. 19. DEFORMATION PROFILE OF B-5 ROD NO. 19

HTR MNL-092 ZR TUBE 0750 HTD LGTH VOL EXP 74.1 % AVG STR 31.9 %



PLOT 1 11.55.07 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 20. DEFORMATION PROFILE OF B-5 ROD NO. 20

HTR MNL-027 ZR TUBE 0153 HTD LGTH VOL EXP 68.3% AVG STR 29.7%

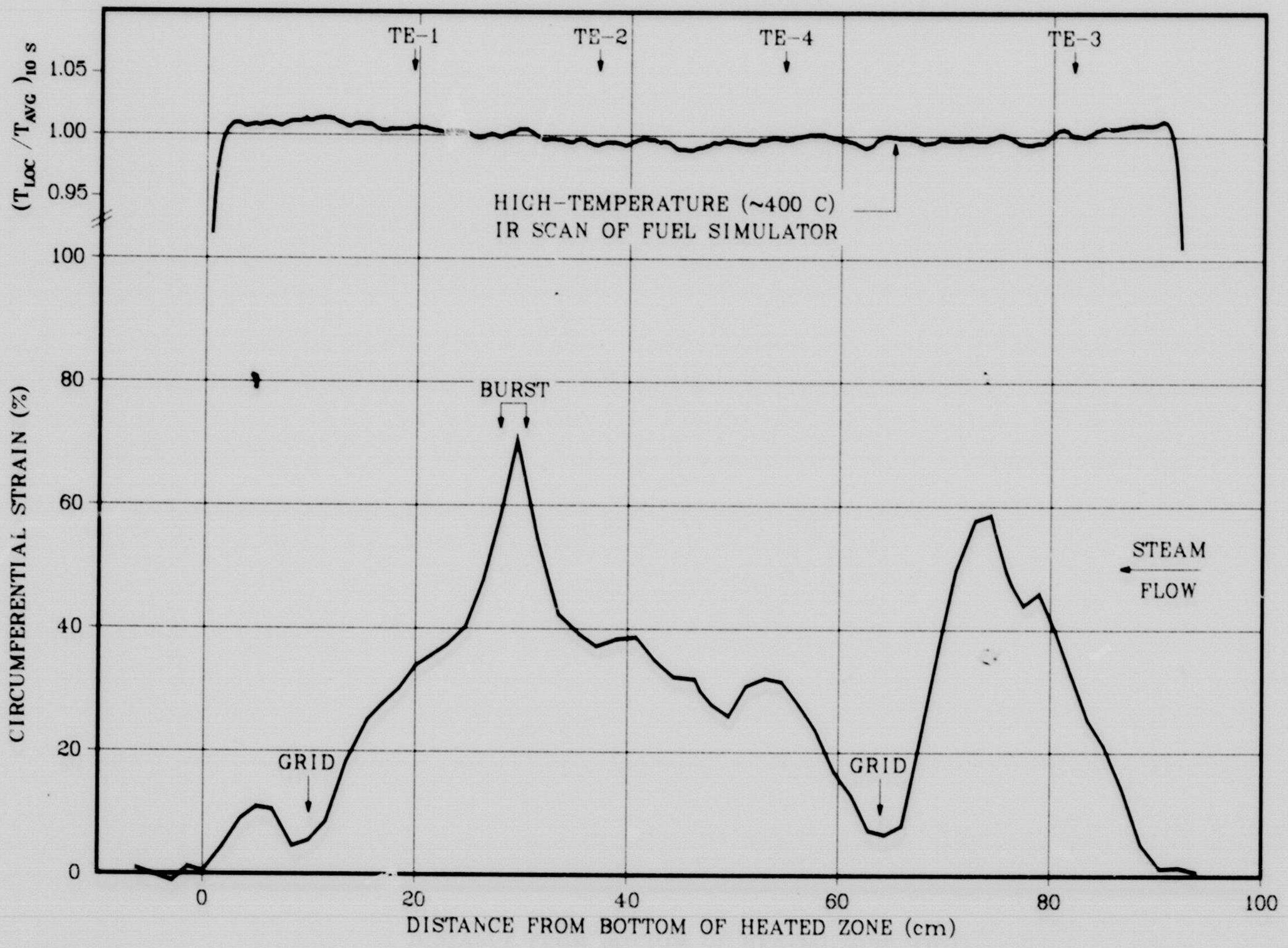


FIG. D. 21. DEFORMATION PROFILE OF B-5 ROD NO. 21

HTR MNL-034 ZR TUBE 0751 HTD LGTH VOL EXP 45.6% AVG STR 20.7%

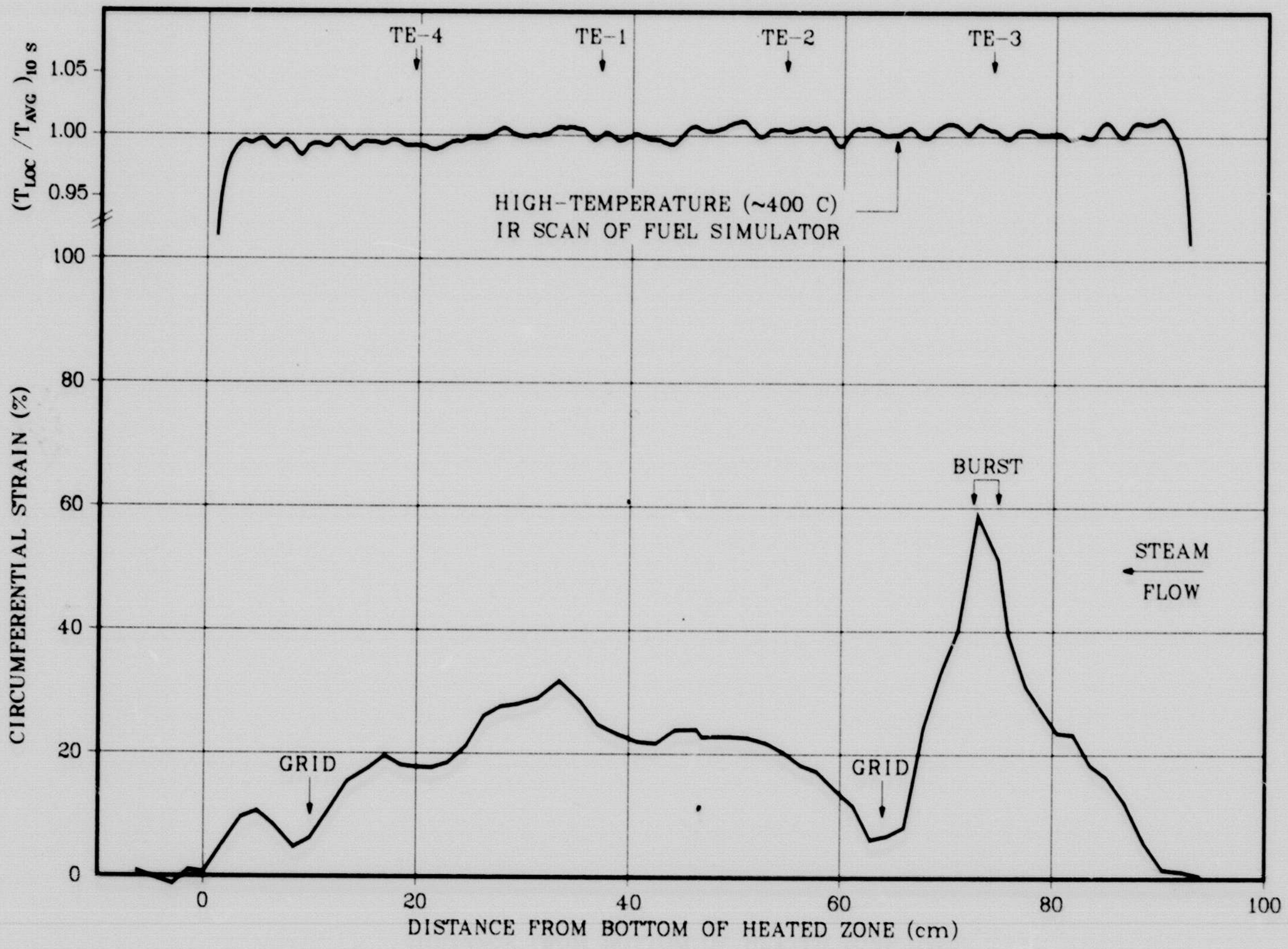


FIG. D. 22. DEFORMATION PROFILE OF B-5 ROD NO. 22

HTR MNL-041 ZR TUBE 0124 HTD LGTH VOL EXP 78.5% AVG STR 33.6%

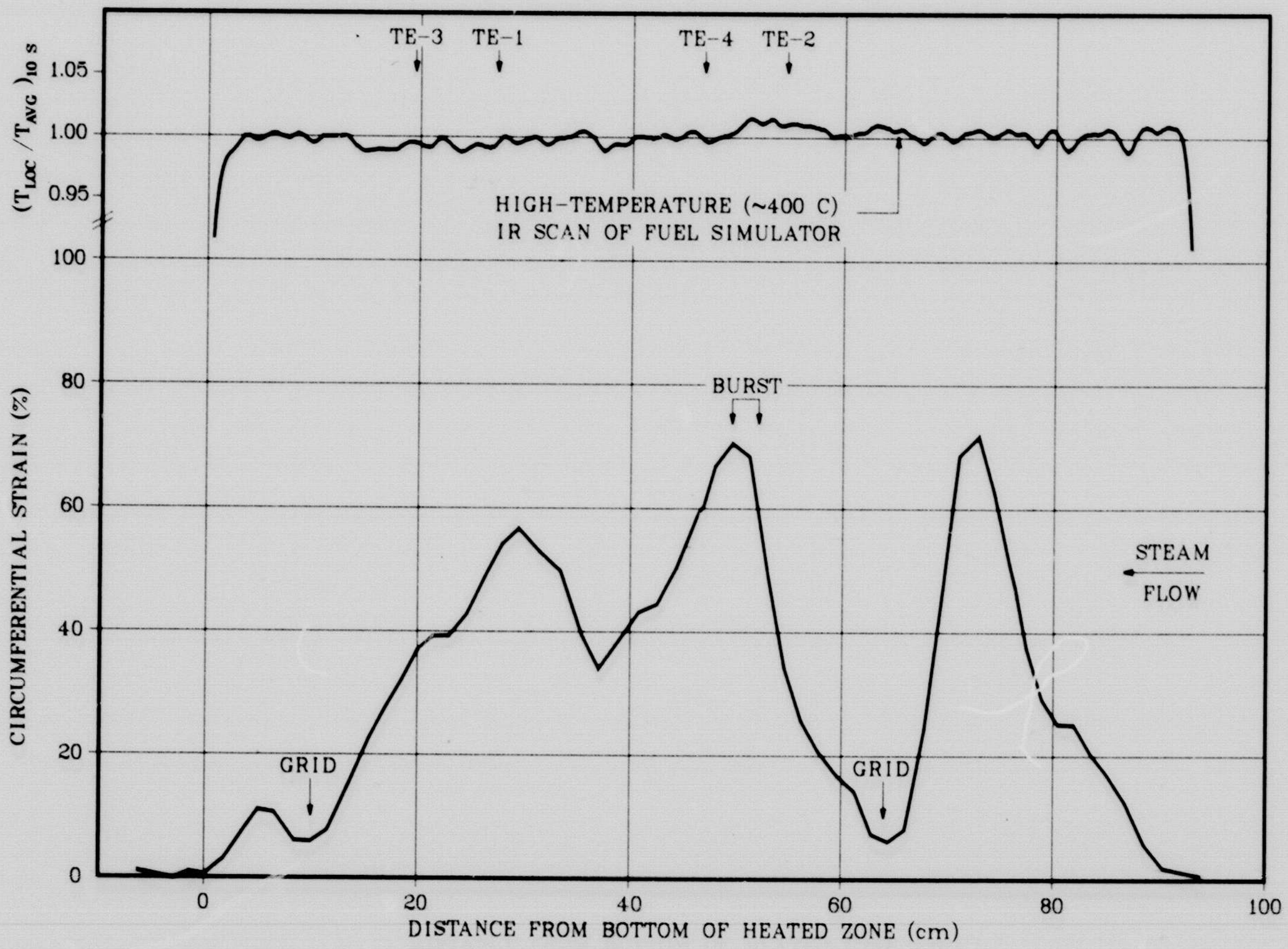
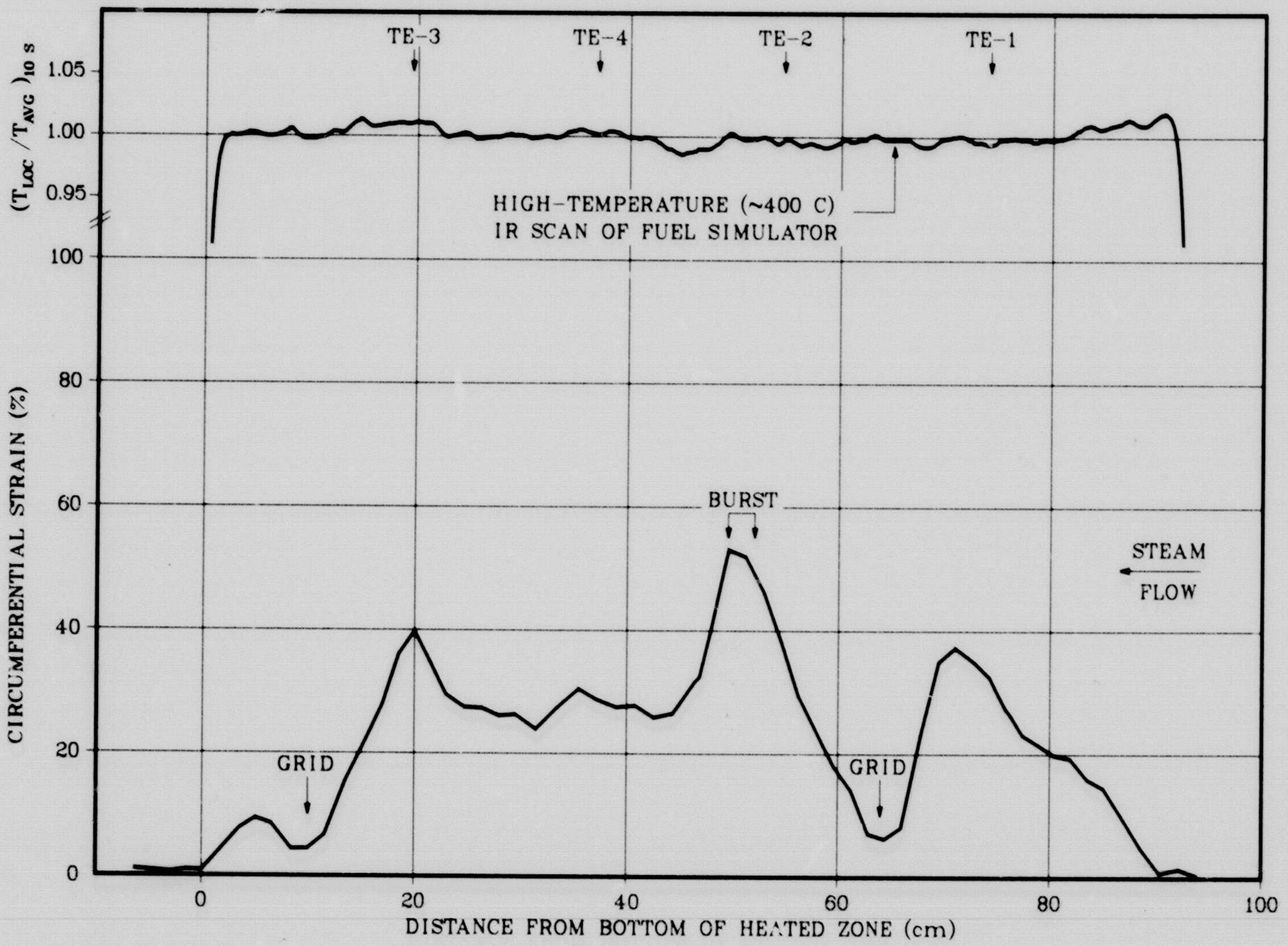


FIG. D. 23. DEFORMATION PROFILE OF B-5 ROD NO. 23

HTR MNL-018 ZR TUBE 0752 HTD LGTH VOL EXP 52.4% AVG STR 23.5%



PLOT 1 11.56.41 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 24. DEFORMATION PROFILE OF B--5 ROD NO. 24

HTR MNL-079 ZR TUBE 0125 HTD LGTH VOL EXP 48.3% AVG STR 21.8%

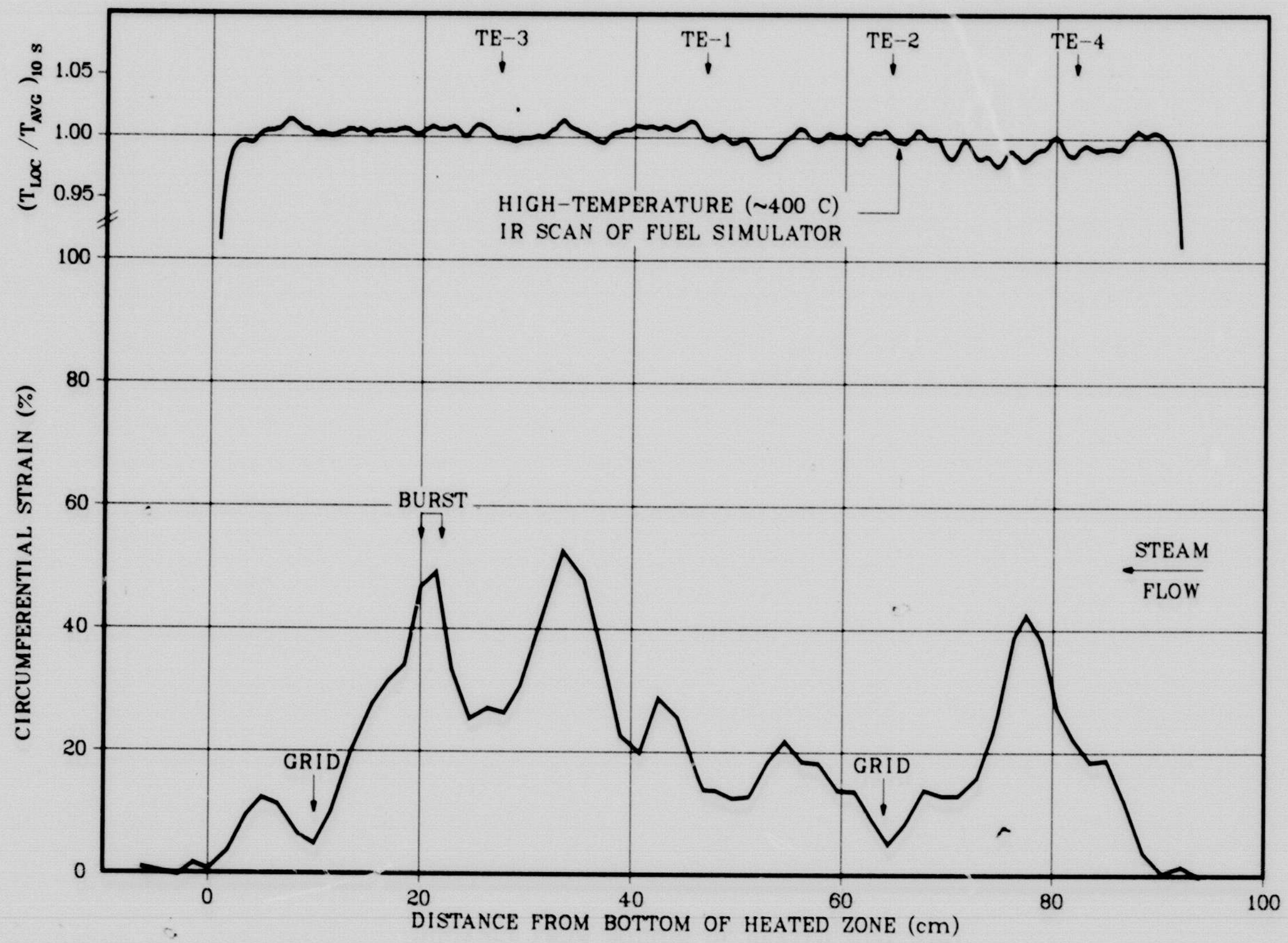
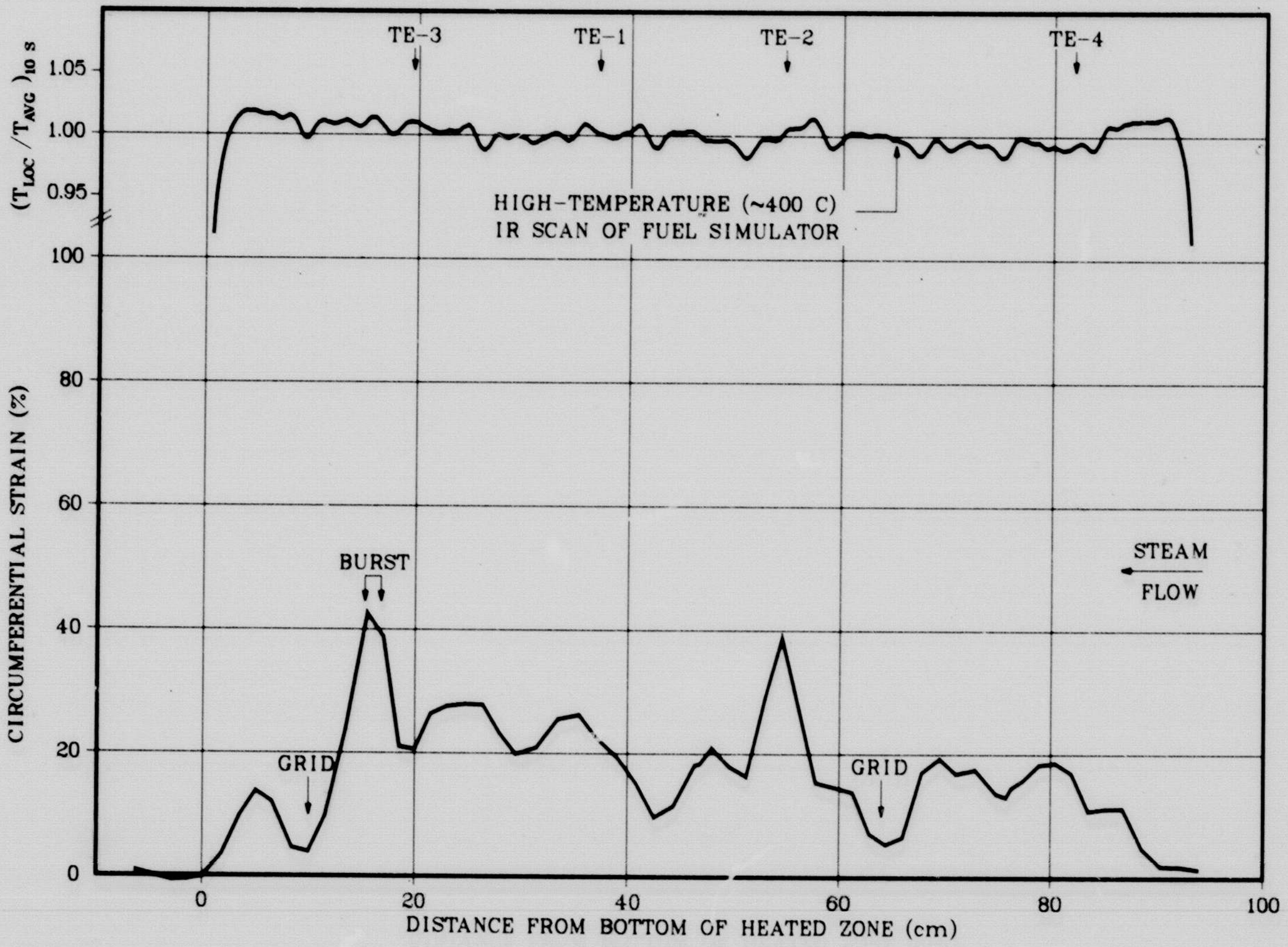


FIG. D. 25. DEFORMATION PROFILE OF B-5 ROD NO. 25

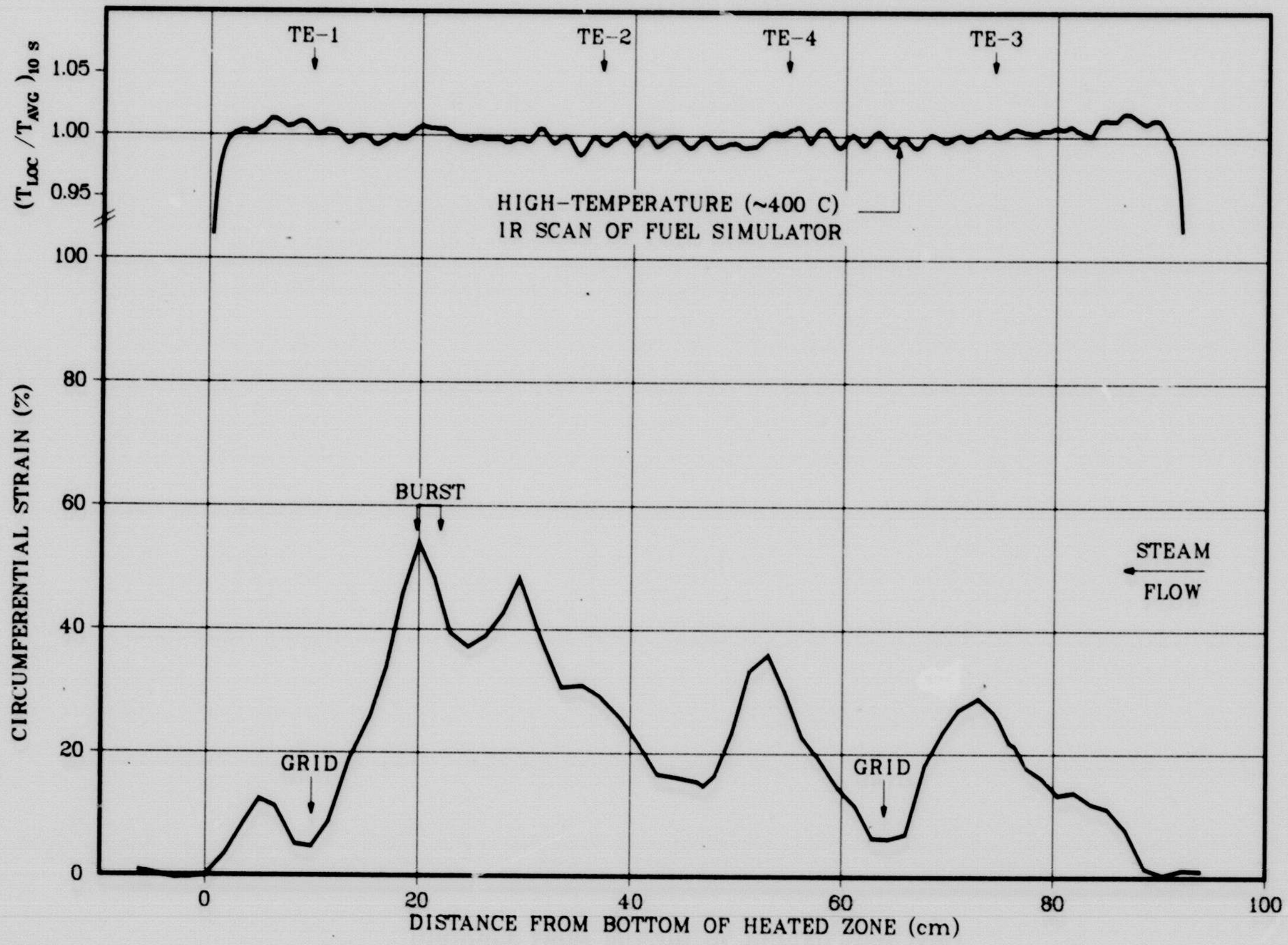
HTR MNL-062 ZR TUBE 0126 HTD LGTH VOL EXP 37.9% AVG STR 17.5%



PLOT 1 11.57.01 FRI 10 FEB, 1984 JOB-FRGSTRS , ISSCO DISSPLA VER 8.2

FIG. D. 26. DEFORMATION PROFILE OF B-5 ROD NO. 26

HTR MNL-086 ZR TUBE 0753 HTD LGTH VOL EXP 48.8% AVG STR 22.0%



PLOT 1 11.57.15 , FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 27. DEFORMATION PROFILE OF B-5 ROD NO. 27

HTR MNL-082 ZR TUBE 0127 HTD LGTH VOL EXP 62.7% AVG STR 27.6%

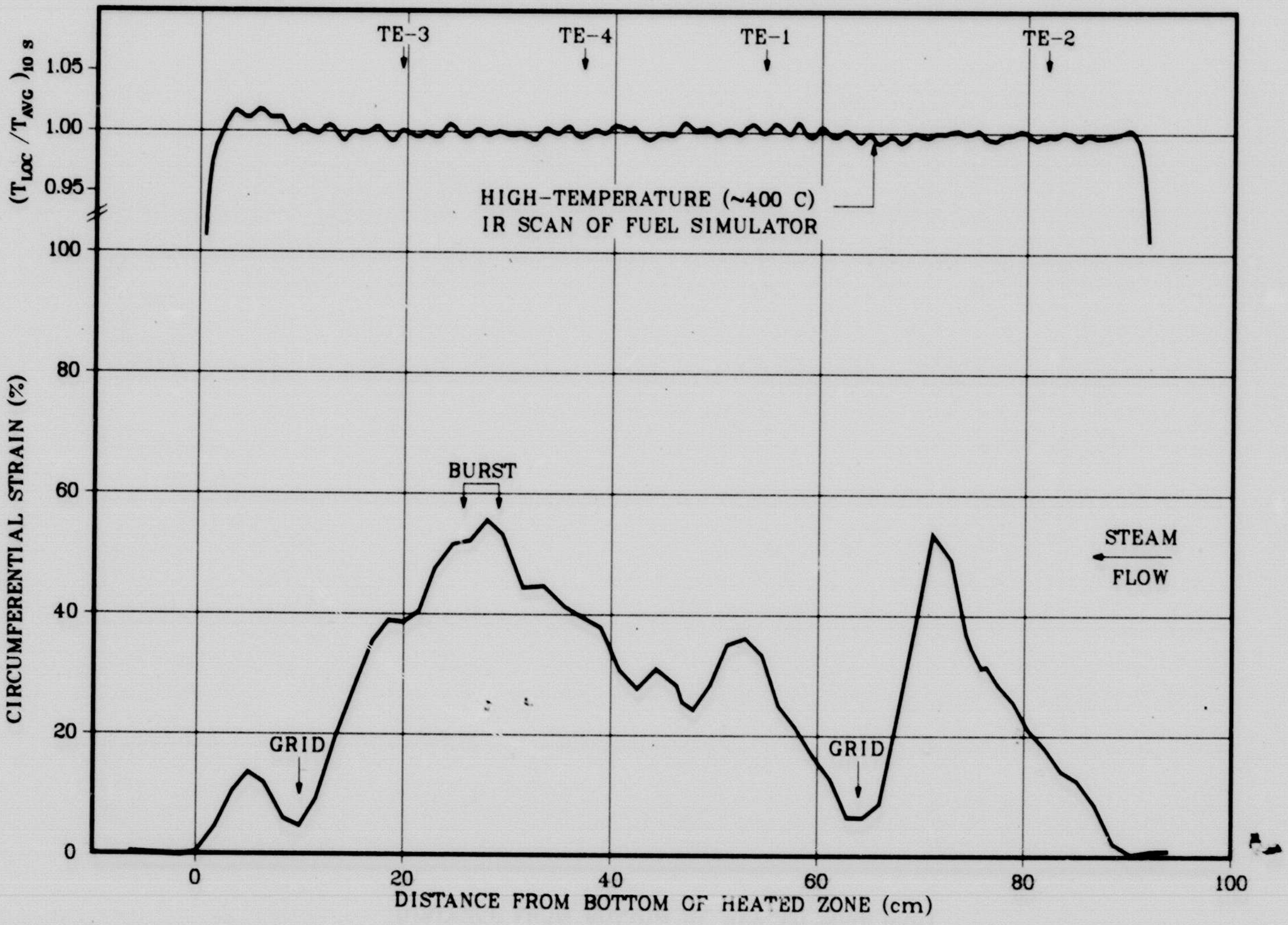
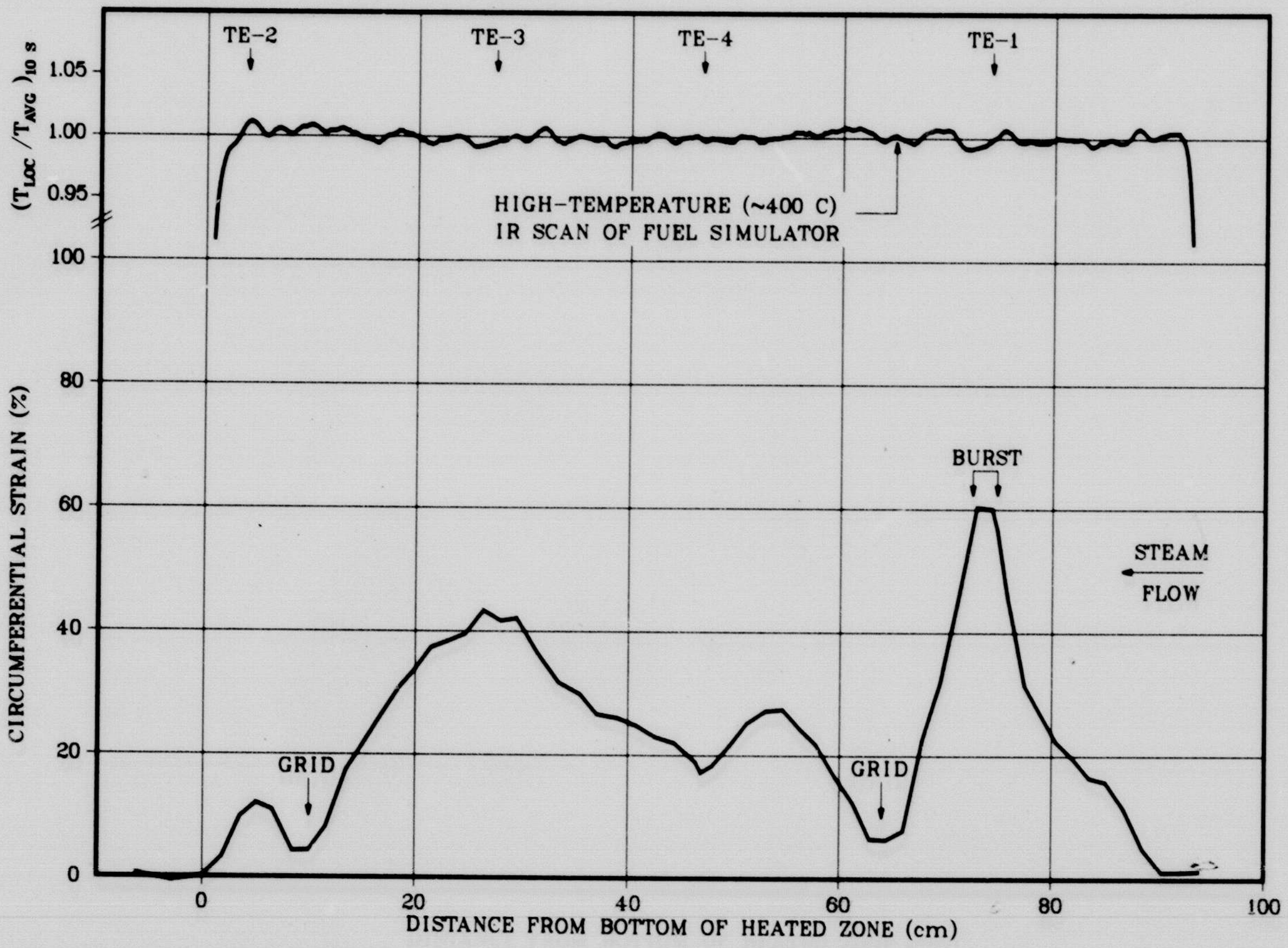


FIG. D. 28. DEFORMATION PROFILE OF B-5 ROD NO. 28

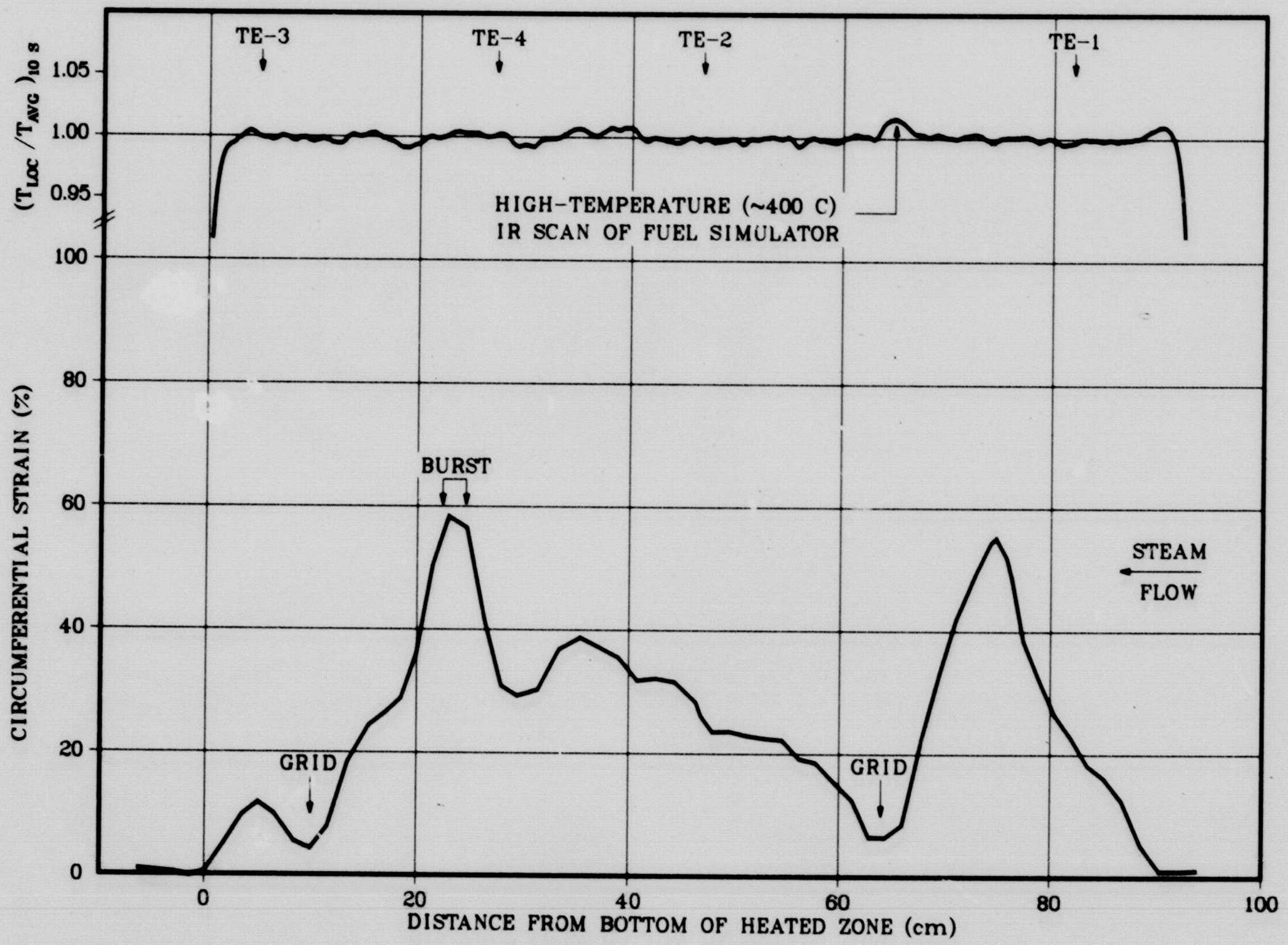
HTR MNL-061 ZR TUBE 0754 HTD LGTH VOL EXP 54.1% AVG STR 24.1%



PLOT 1 11.57.41 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 29. DEFORMATION PROFILE OF B-5 ROD NO. 29

HTR MNL-047 ZR TUBE 0128 HTD LGTH VOL EXP 58.5% AVG STR 25.9%



PLOT 1 11.57.51 FRI 10 FEB, 1984 JOB-FRGSTRS , ISSCO DISSPLA VER 8.2

FIG. D. 30. DEFORMATION PROFILE O. B-5 ROD NO. 30

HTR MNL-028 ZR TUBE 0755 HTD LGTH VOL EXP 63.7% AVG STR 27.9%

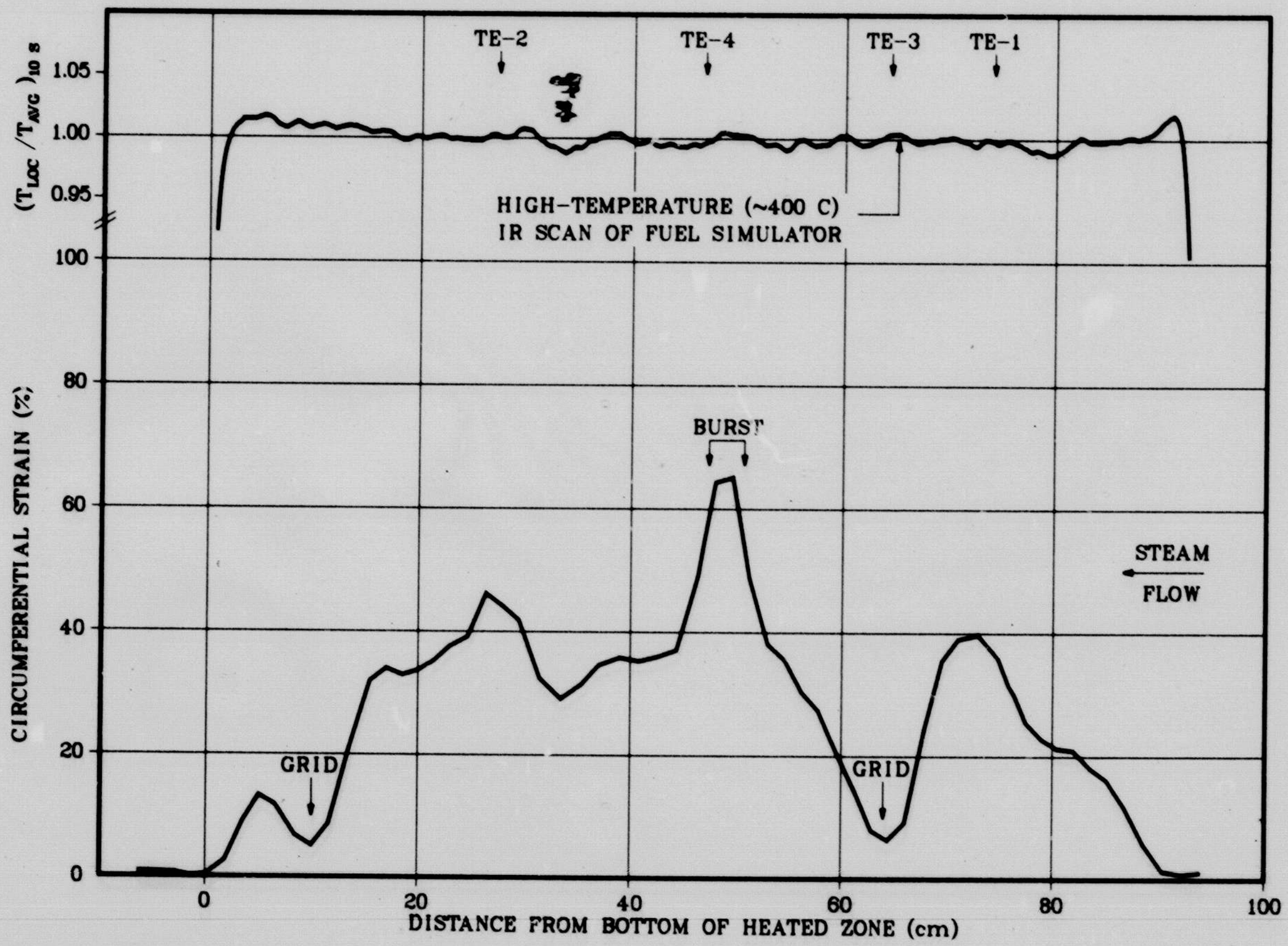
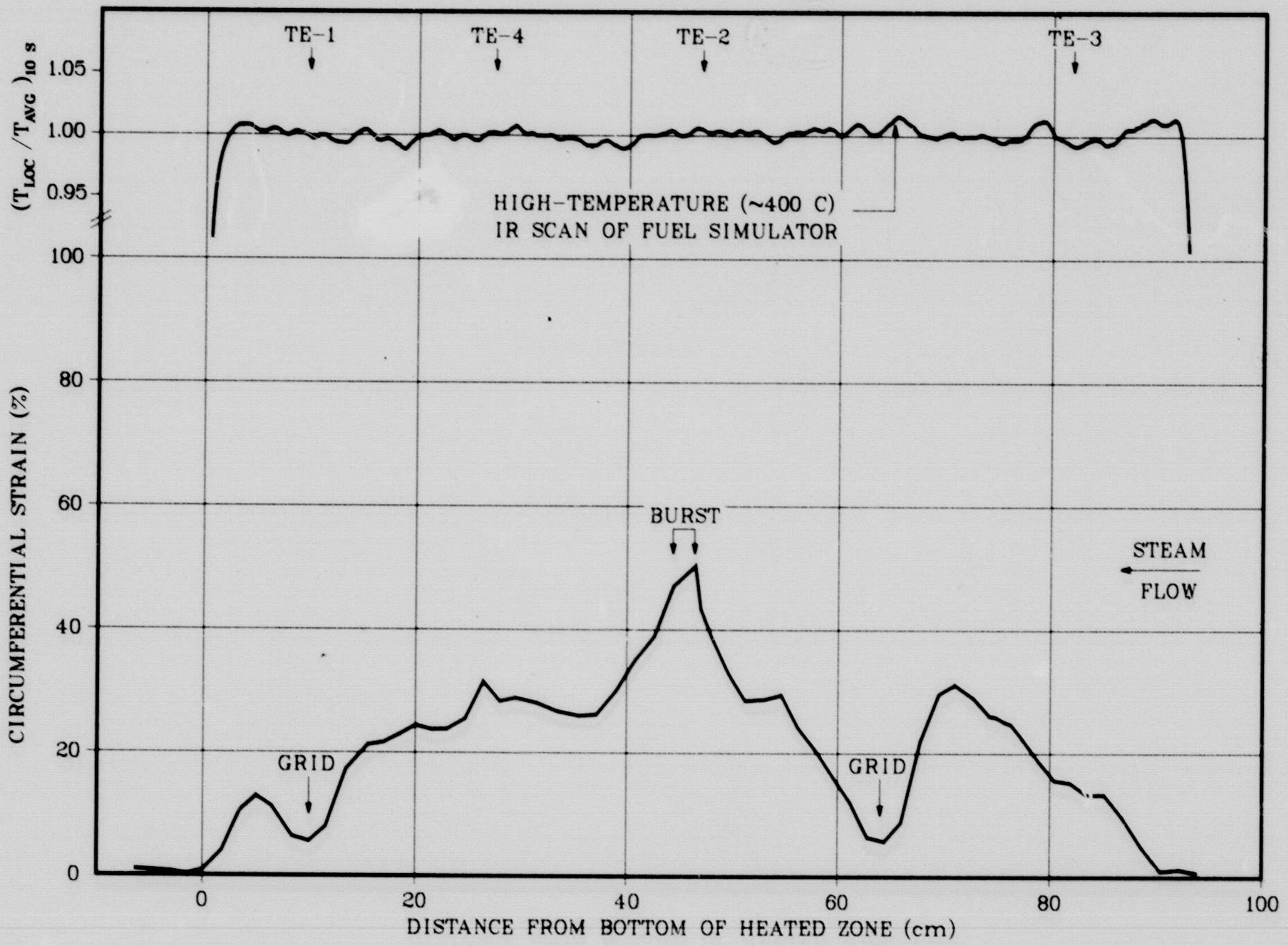


FIG. D. 31. DEFORMATION PROFILE OF B-5 ROD NO. 31

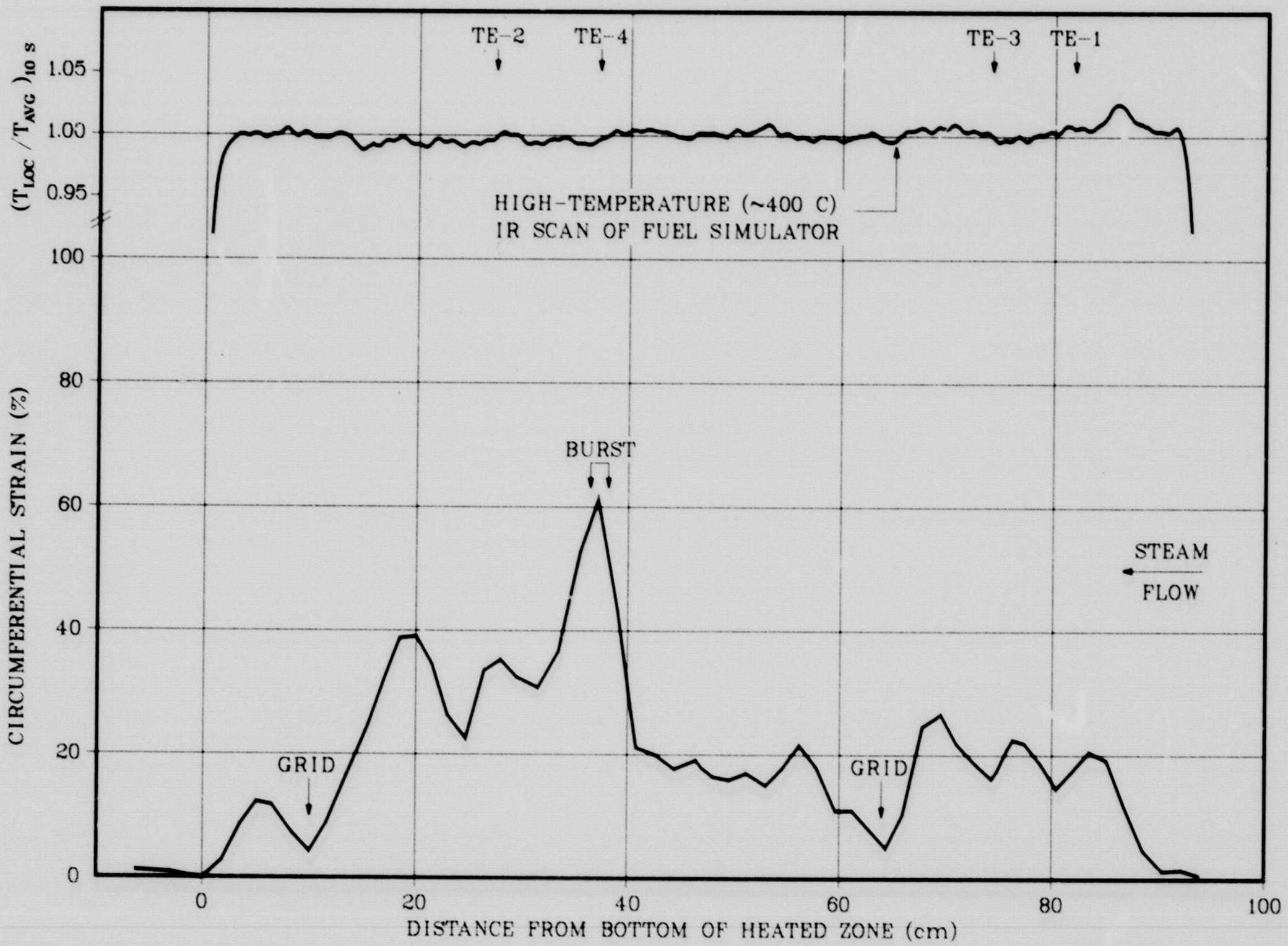
HTR MNL-057 ZR TUBE 0129 HTD LGTH VOL EXP 48.3% AVG STR 21.8%



PLOT 1 11.58.35 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 32. DEFORMATION PROFILE OF B-5 ROD NO. 32

HTR MNL-040 ZR TUBE 0756 HTD LGTH VOL EXP 46.4% AVG STR 21.0%



PLOT 1 11.58.42 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 33. DEFORMATION PROFILE OF B-5 ROD NO. 33

HTR MNL-070 ZR TUBE 0760 HTD LGTH VOL EXP 47.3% AVG STR 21.4%

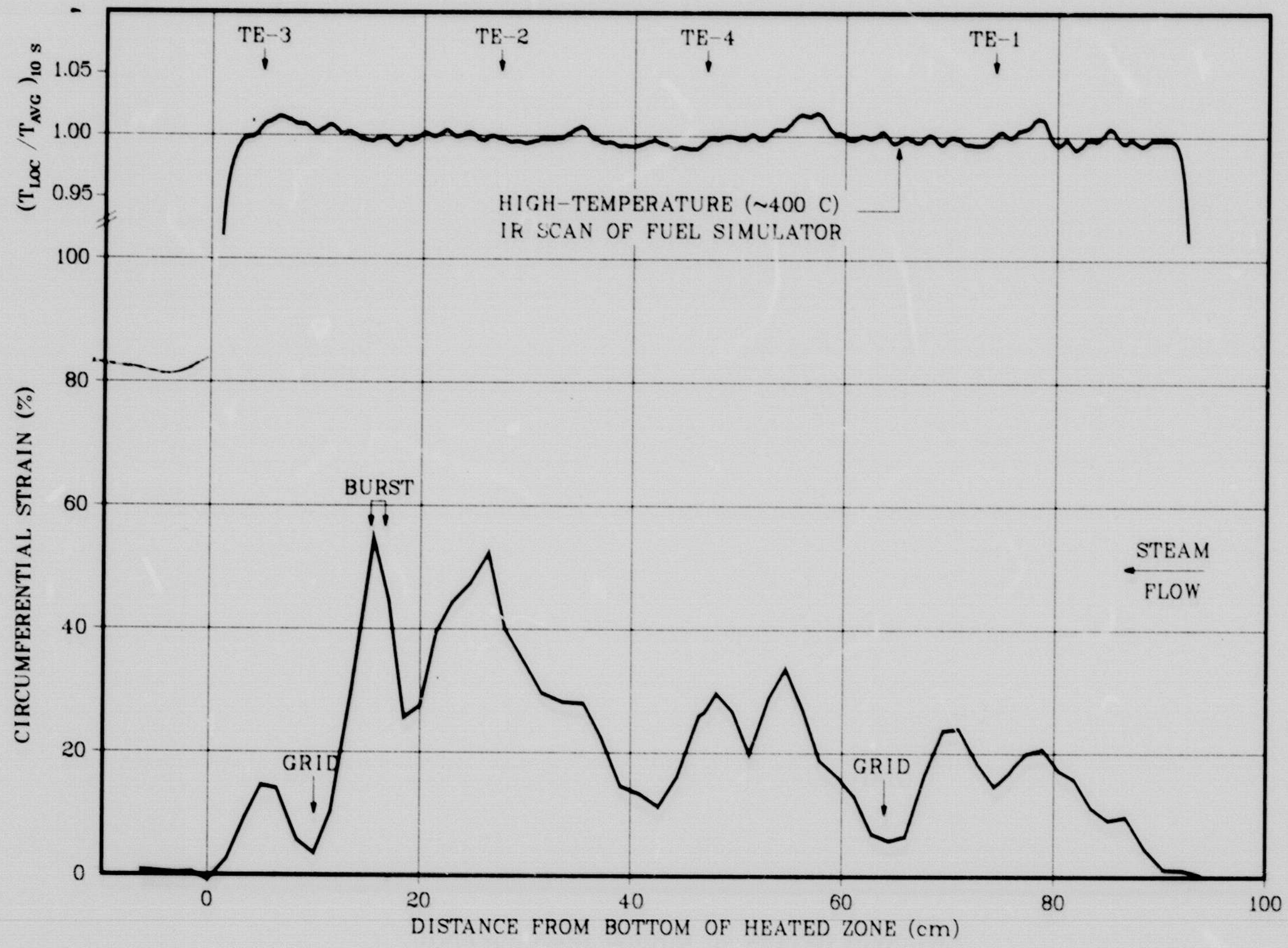


FIG. D. 34. DEFORMATION PROFILE OF B-5 ROD NO. 34

HTR MNL-065 ZR TUBE 0130 HTD LGTH VOL EXP 55.9% AVG STR 24.9%

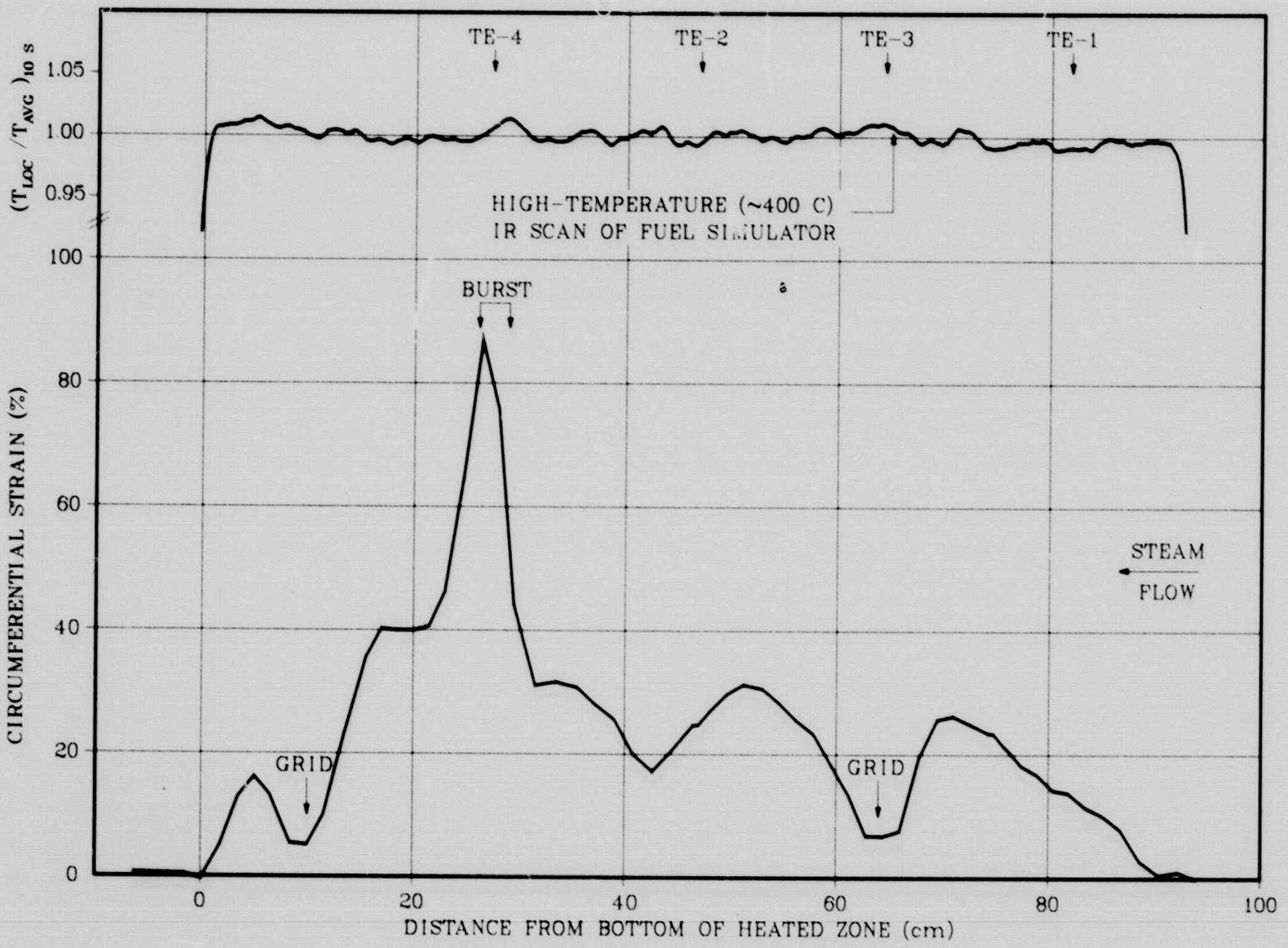


FIG. D. 35. DEFORMATION PROFILE OF B-5 ROD NO. 35

HTR MNL-058 ZR TUBE 0761 HTD LGTH VOL EXP 55.1 % AVG STR 24.5%

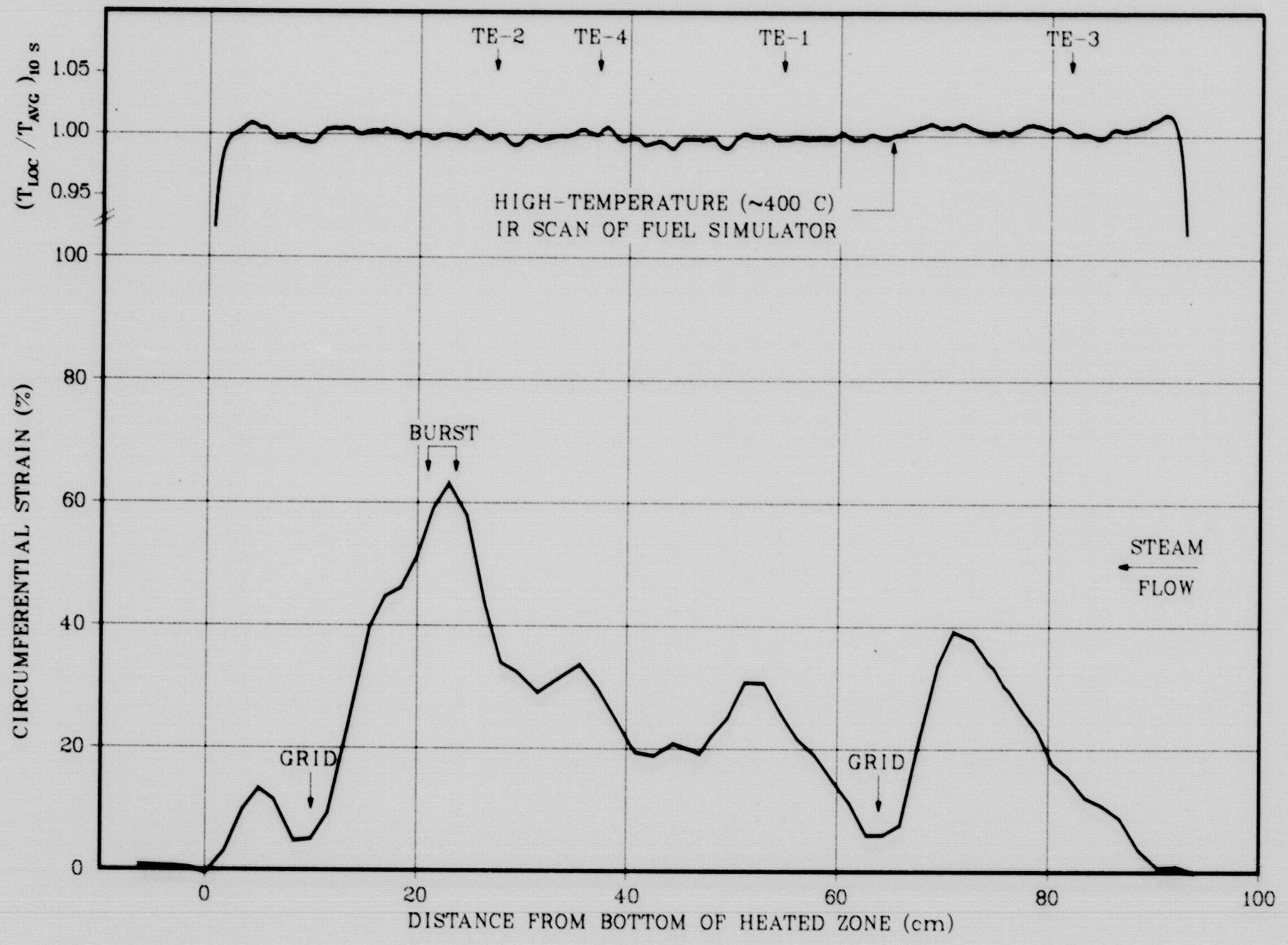


FIG. D. 36. DEFORMATION PROFILE OF B-5 ROD NO. 36

HTR MNL-039 ZR TUBE 0131 HTD LGTH VOL EXP 55.6% AVG STR 24.7%

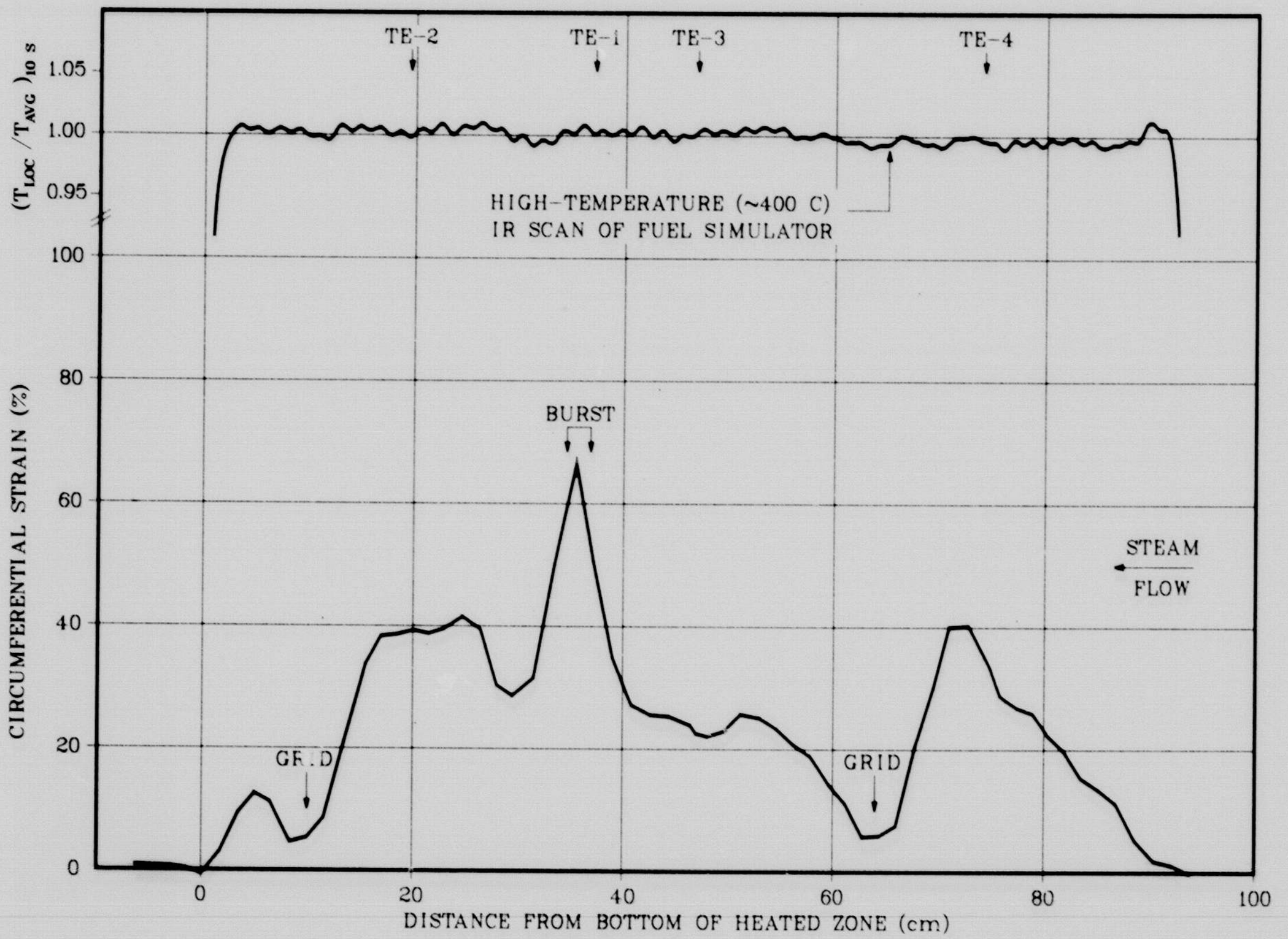
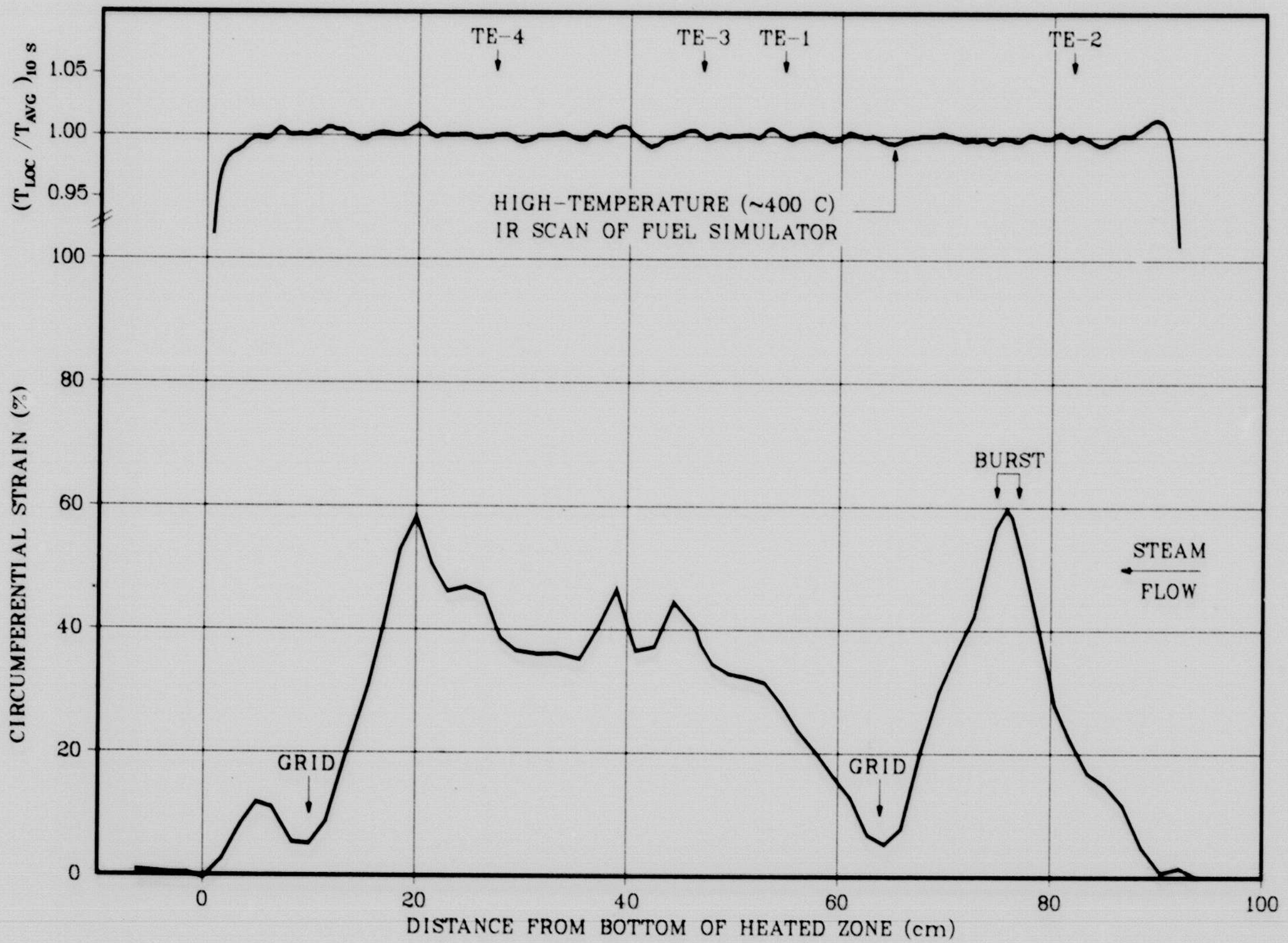


FIG. D. 37. DEFORMATION PROFILE OF B-5 ROD NO. 37

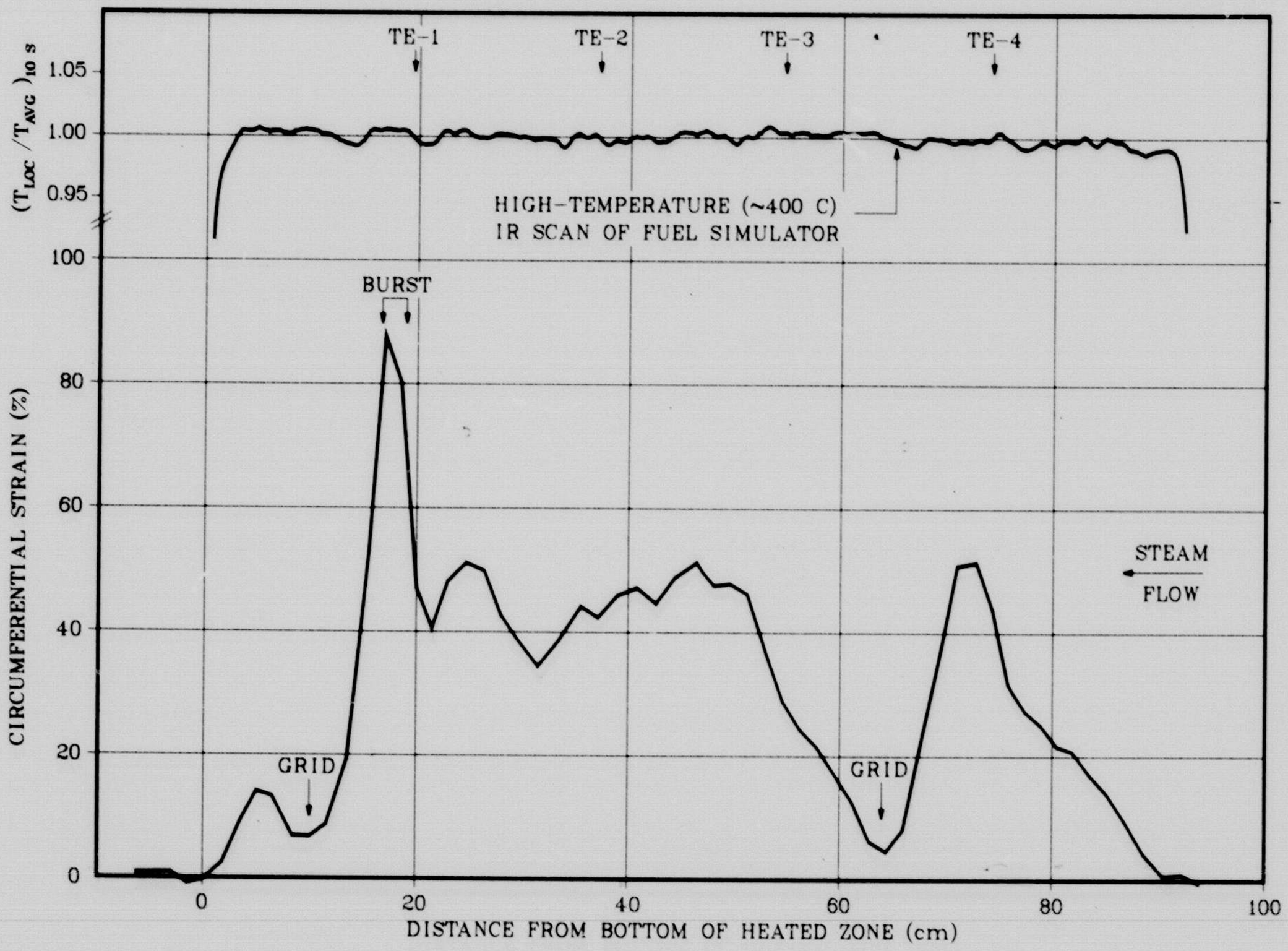
HTR MNL-017 ZR TUBE 0789 HTD LGTH VOL EXP 66.6% AVG STR 29.1%



PLOT 1 11.59.17 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 38. DEFORMATION PROFILE OF B-5 ROD NO. 38

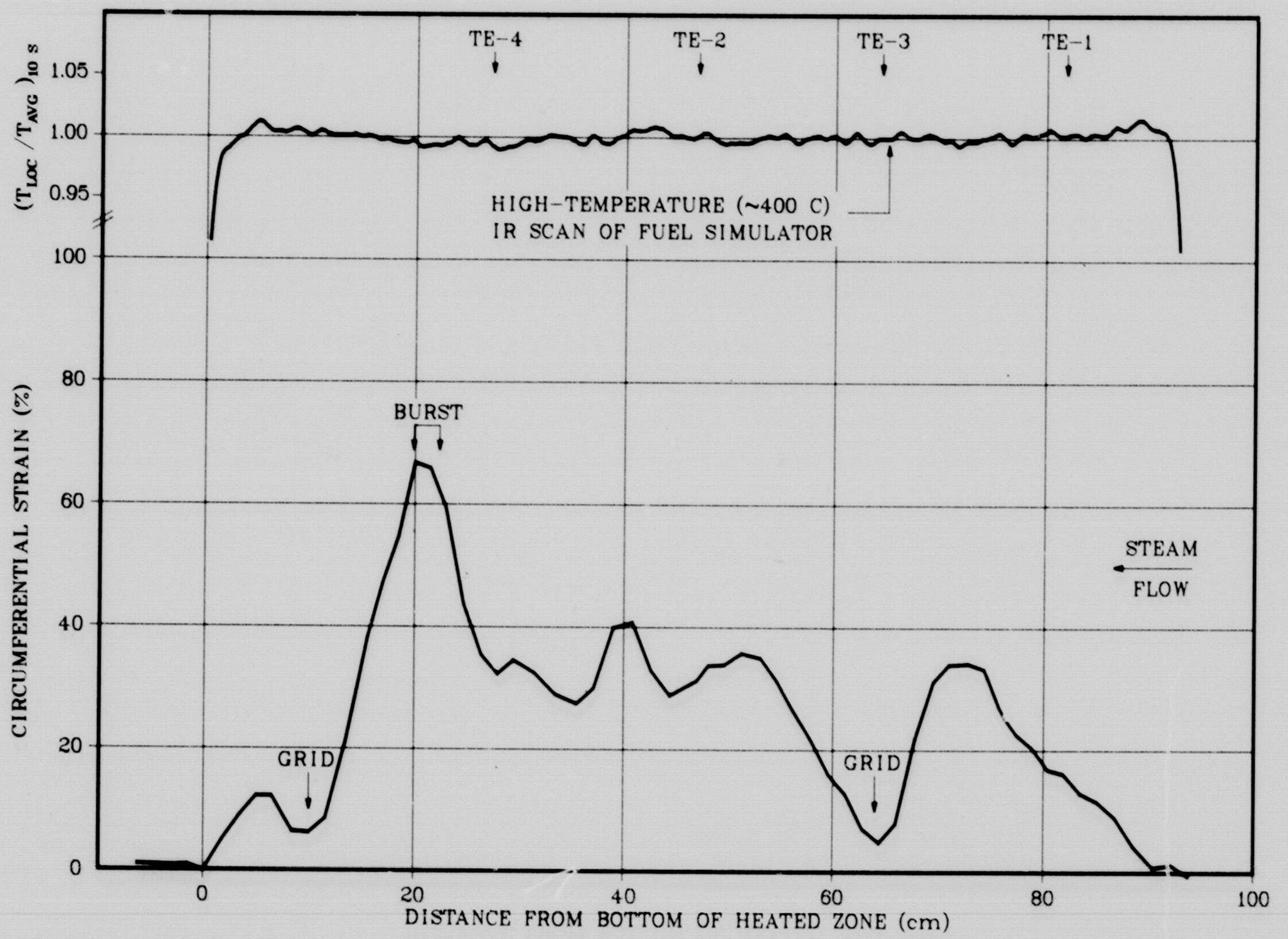
HTR MNL-071 ZR TUBE 0132 HTD LGTH VOL EXP 74.2 % AVG STR 32.0%



PLOT 1 11.59.24 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 39. DEFORMATION PROFILE OF B-5 ROD NO. 39

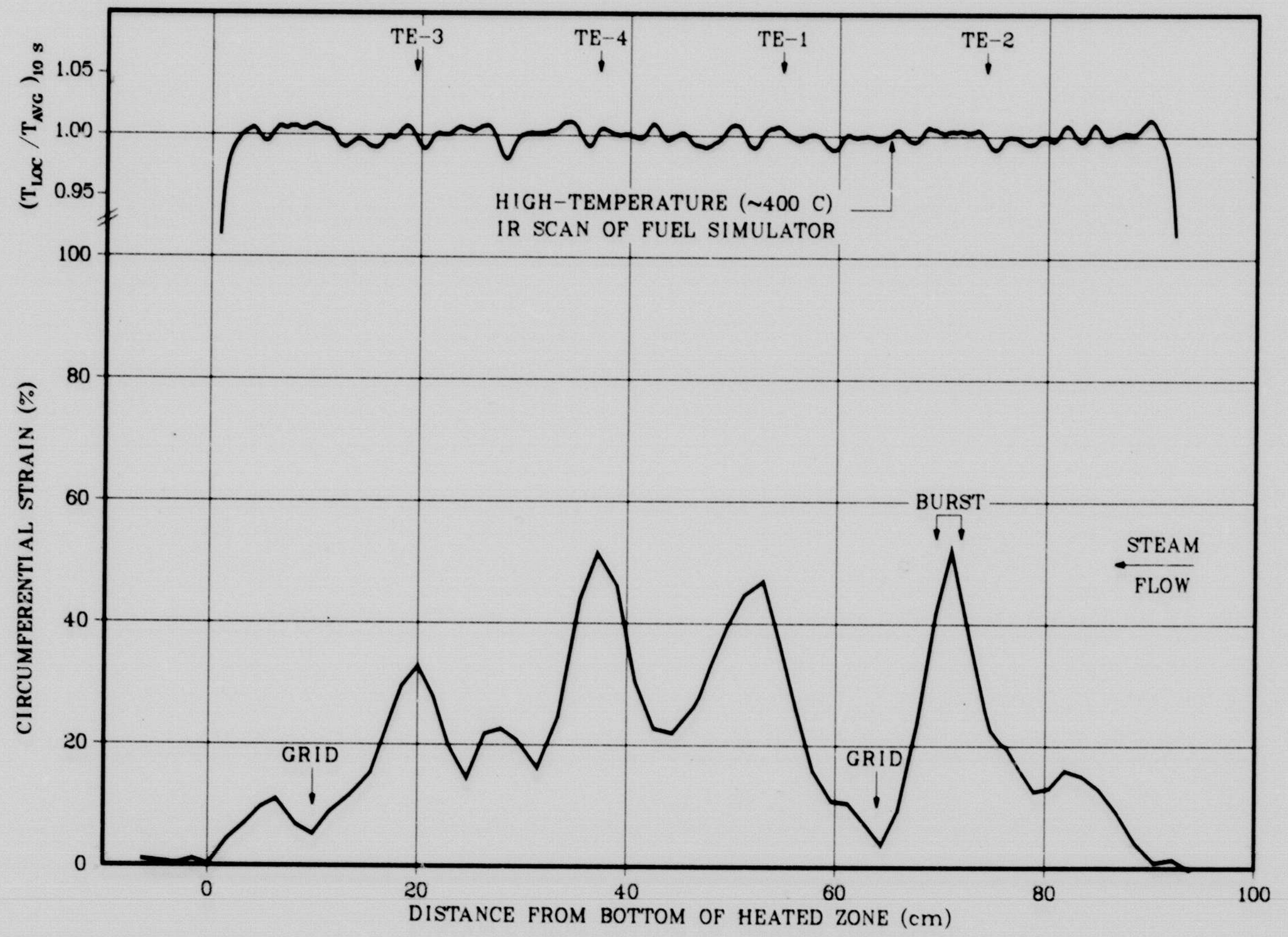
HTR MNL-068 ZR TUBE 0806 HTD LGTH VOL EXP 59.7% AVG STR 26.4%



PLOT 1 11.59.38 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 40. DEFORMATION PROFILE OF B-5 ROD NO. 40

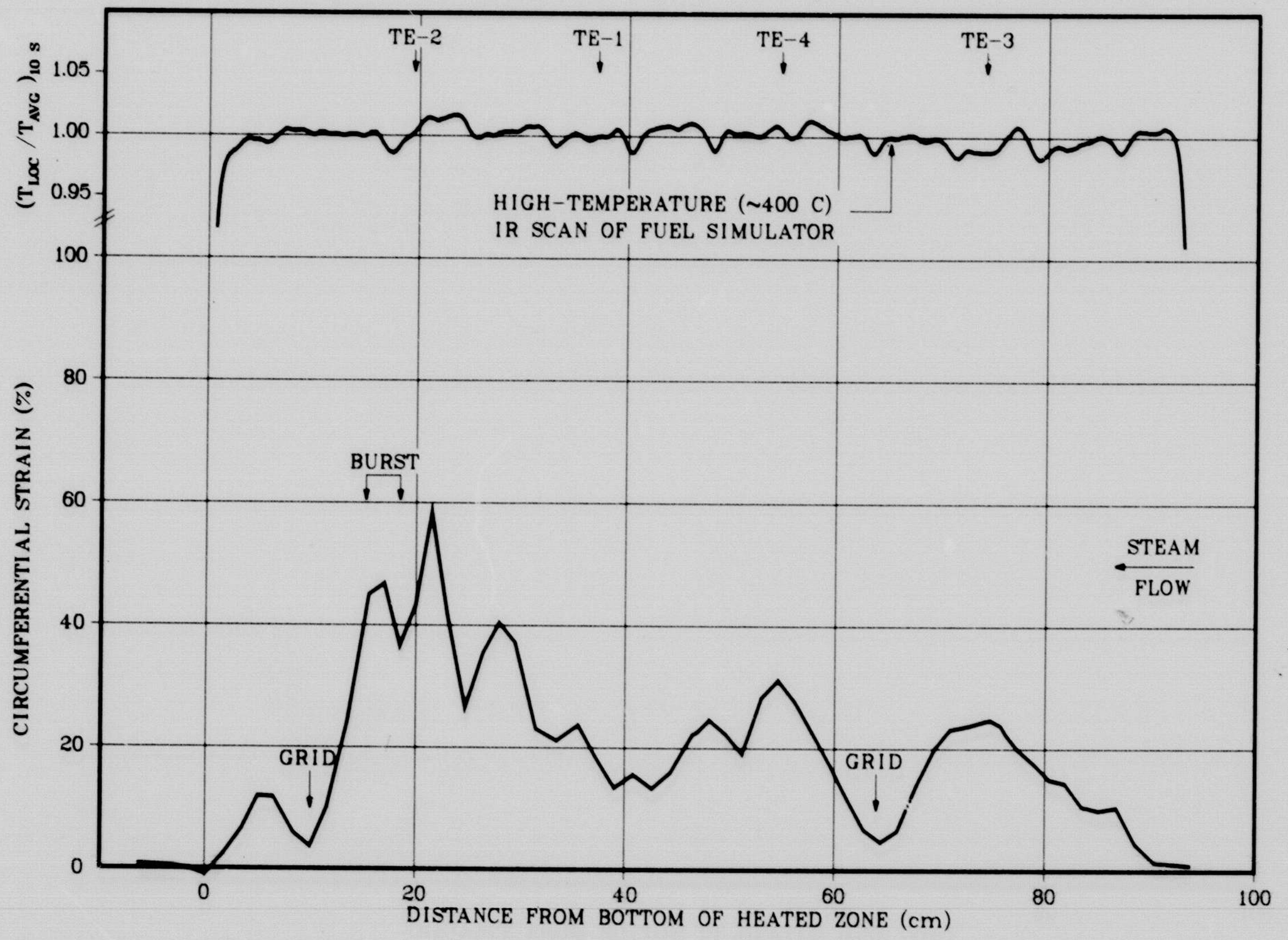
HTR MNL-031 ZR TUBE 0155 HTD LGTH VOL EXP 48.2% AVG STR 21.8%



PLOT 1 11.59.49 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 41. DEFORMATION PROFILE OF B-5 ROD NO. 41

HTR MNL-016 ZR TUBE 0134 HTD LGTH VOL EXP 45.2% AVG STR 20.5%



PLOT 1 11.59.57 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 42. DEFORMATION PROFILE OF B-5 ROD NO. 42

HTR MNL-060 ZR TUBE 0764 HTD LGTH VOL EXP 59.4% AVG STR 26.3%

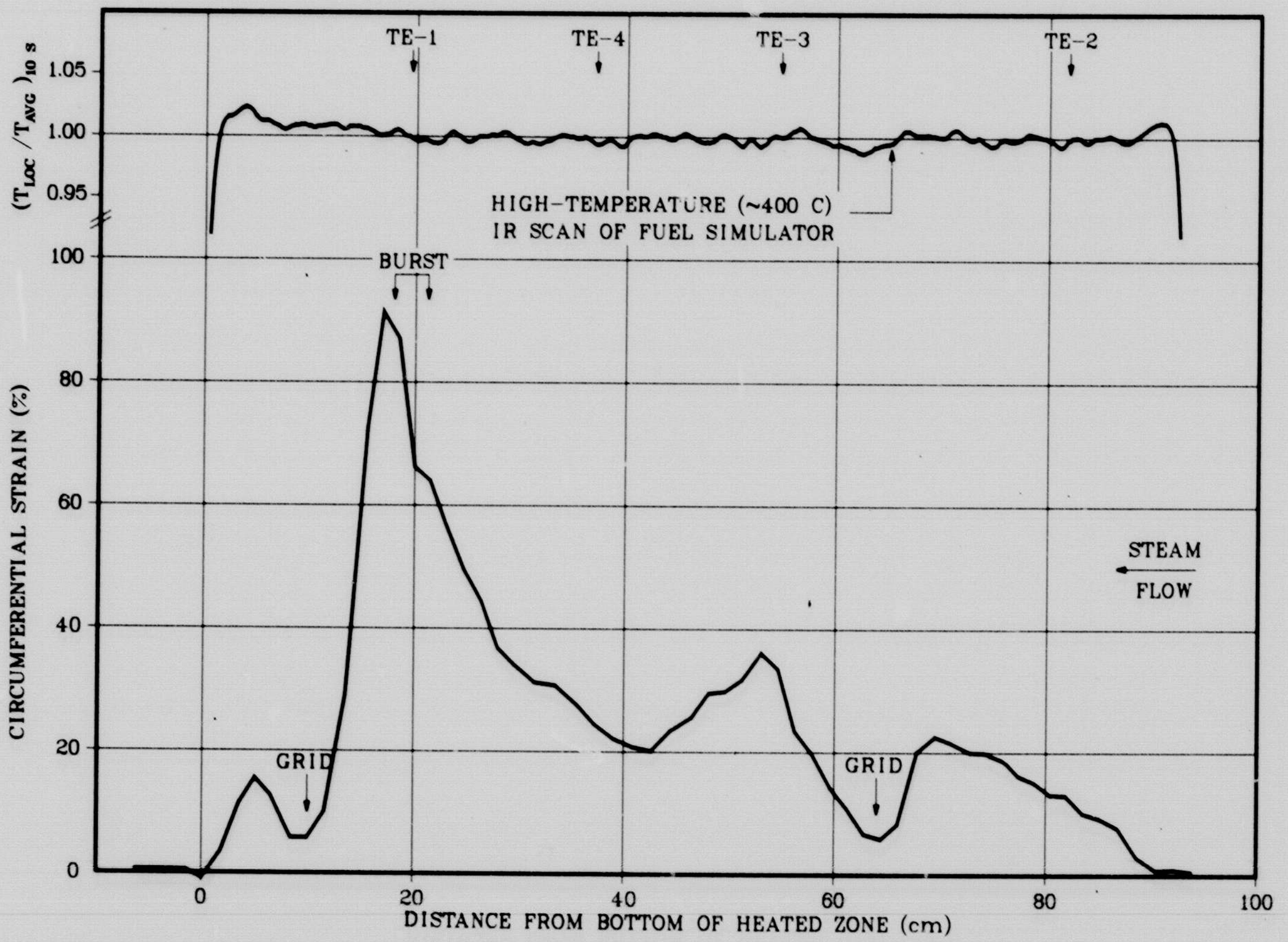
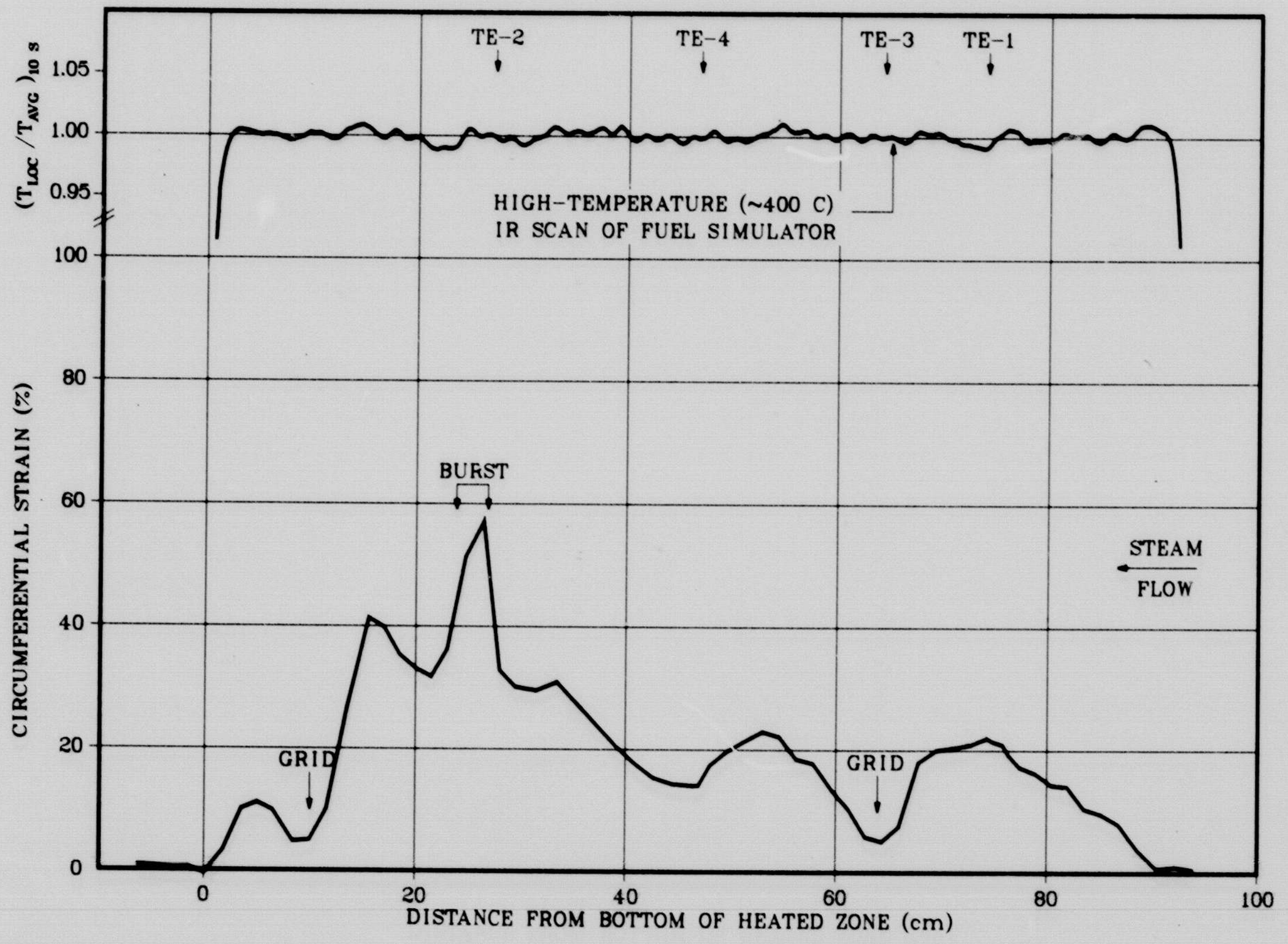


FIG. D. 43. DEFORMATION PROFILE OF B-5 ROD NO. 43

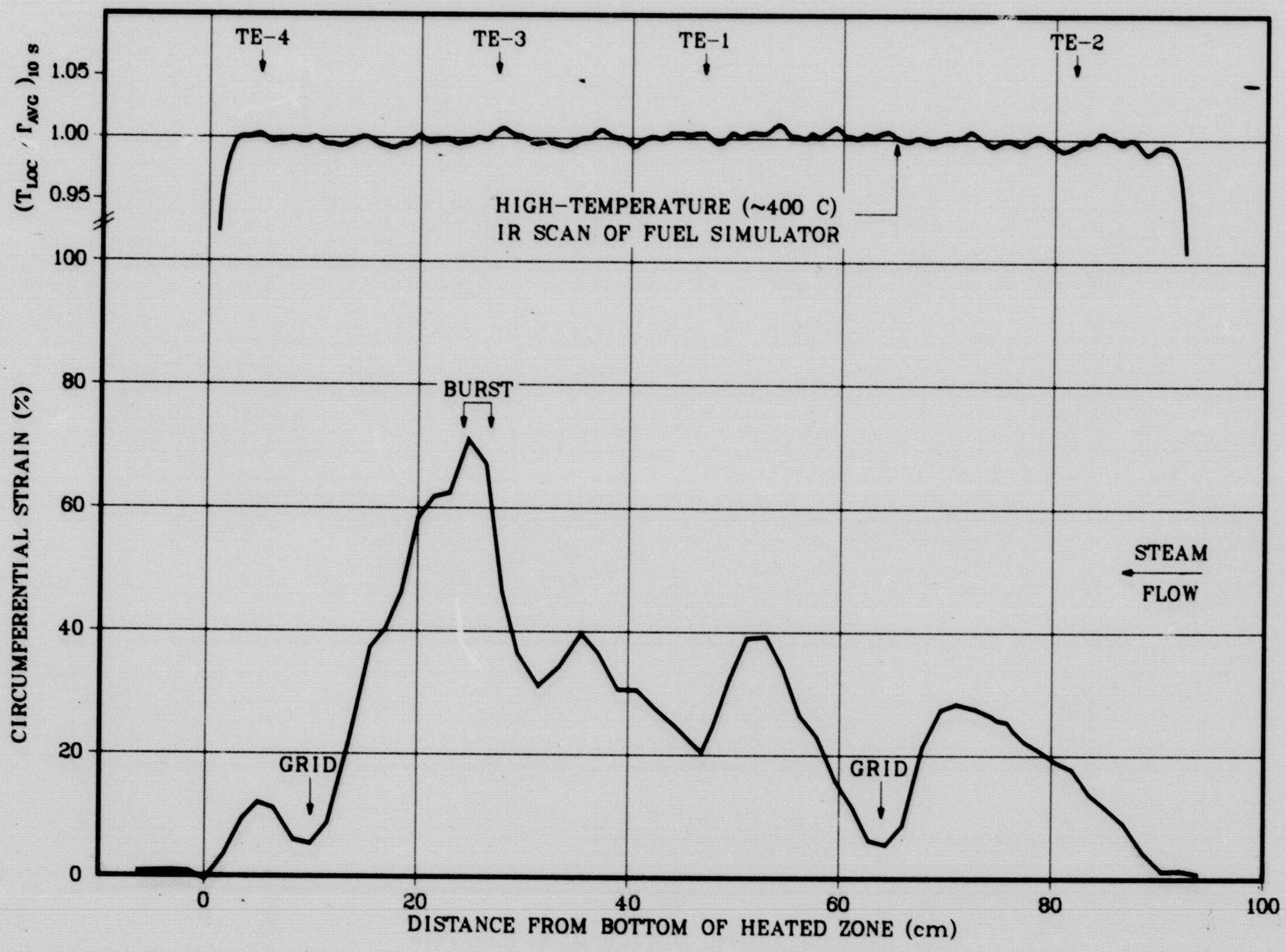
HTR MNL-036 ZR TUBE 0135 HTD LGTH VOL EXP 43.6% AVG STR 19.8%



PLOT 1 12.00.16 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 44. DEFORMATION PROFILE OF B-5 ROD NO. 44

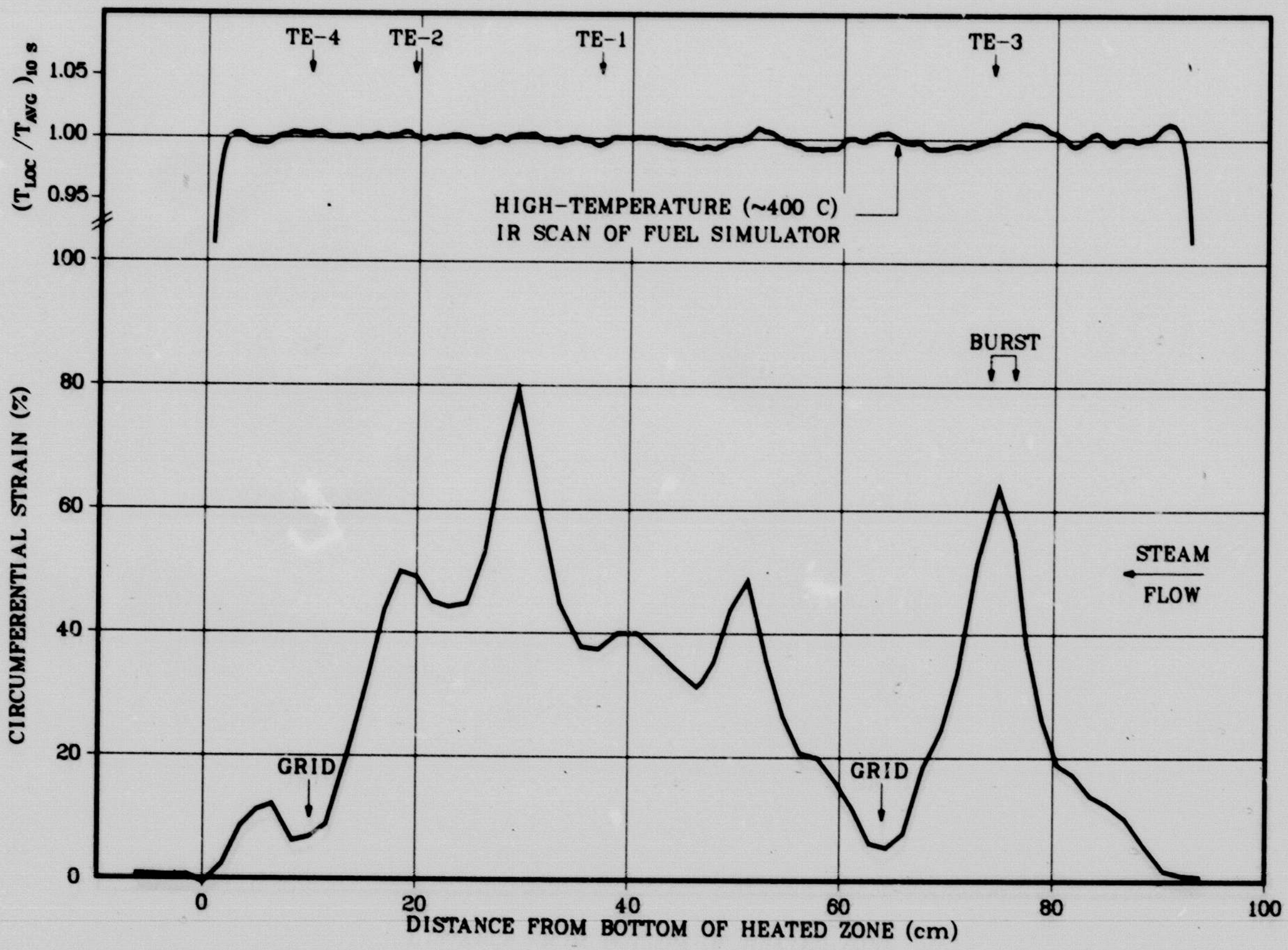
HTR MNL-077 ZR TUBE 0773 HTD LGTH VOL EXP 60.7% AVG STR 26.8%



PLOT 1 12.00.23 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 45. DEFORMATION PROFILE OF B-5 ROD NO. 45

HTR MNL-022 ZR TUBE 0136 HTD LGTH VOL EXP 71.0 % AVG STR 30.8%



PLOT 1 12.00.36 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 46. DEFORMATION PROFILE OF B-5 ROD NO. 46

HTR MNL-008 ZR TUBE 0774 HTD LGTH VOL EXP 65.5% AVG STR 28.7%

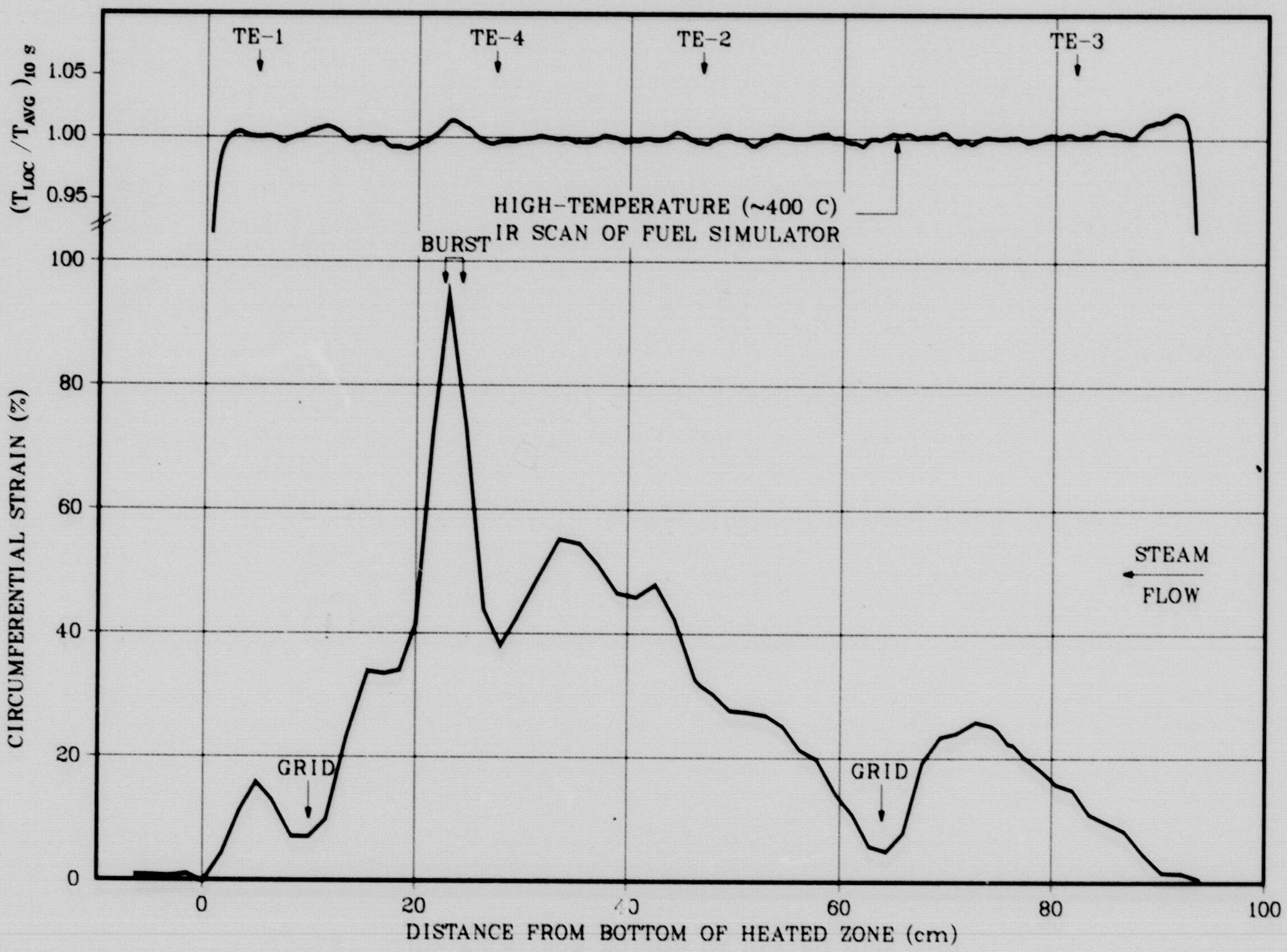


FIG. D. 47. DEFORMATION PROFILE OF B-5 ROD NO. 47

HTR MNL-064 ZR TUBE 0137 HTD LGTH VOL EXP 50.5% AVG STR 22.7%

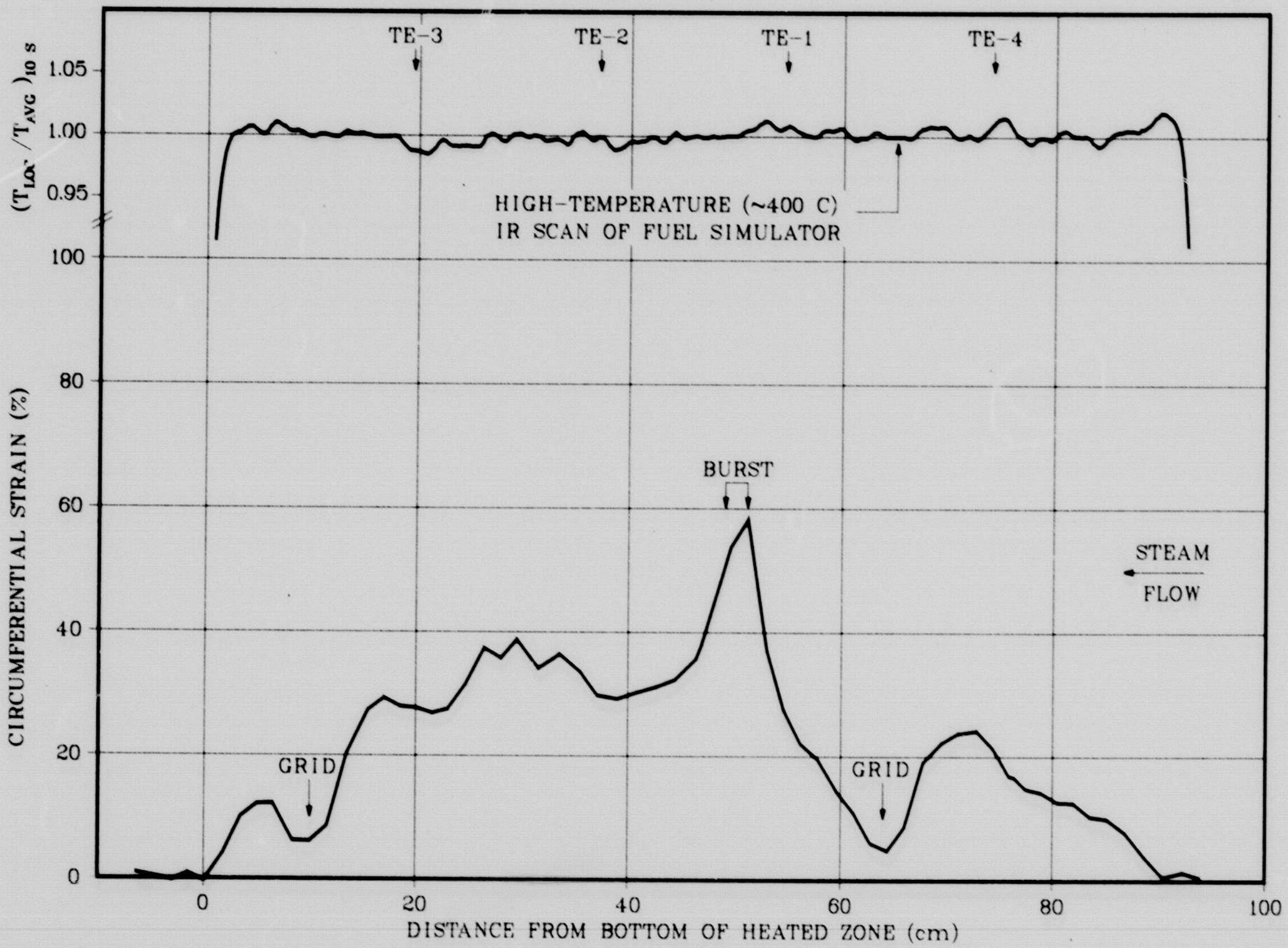


FIG. D. 48. DEFORMATION PROFILE OF B-5 ROD NO. 48

HTR MNL-081 ZR TUBE 0803 HTD LGTH VOL EXP 49.0% AVG STR 22.1%

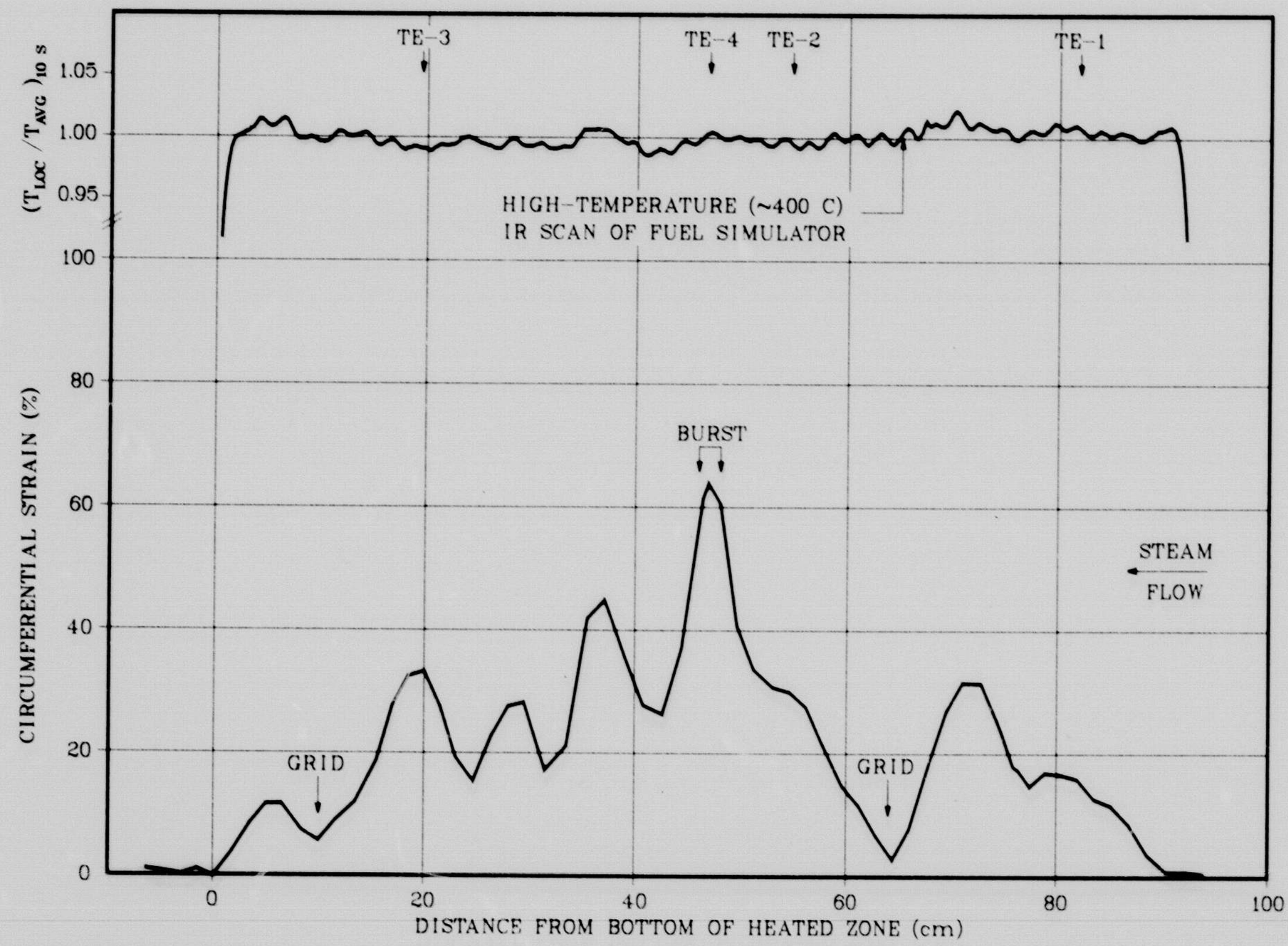


FIG. D. 49. DEFORMATION PROFILE OF B-5 ROD NO. 49

HTR MNL-063 ZR TUBE 0776 HTD LGTH VOL EXP 34.6% AVG STR 16.0%

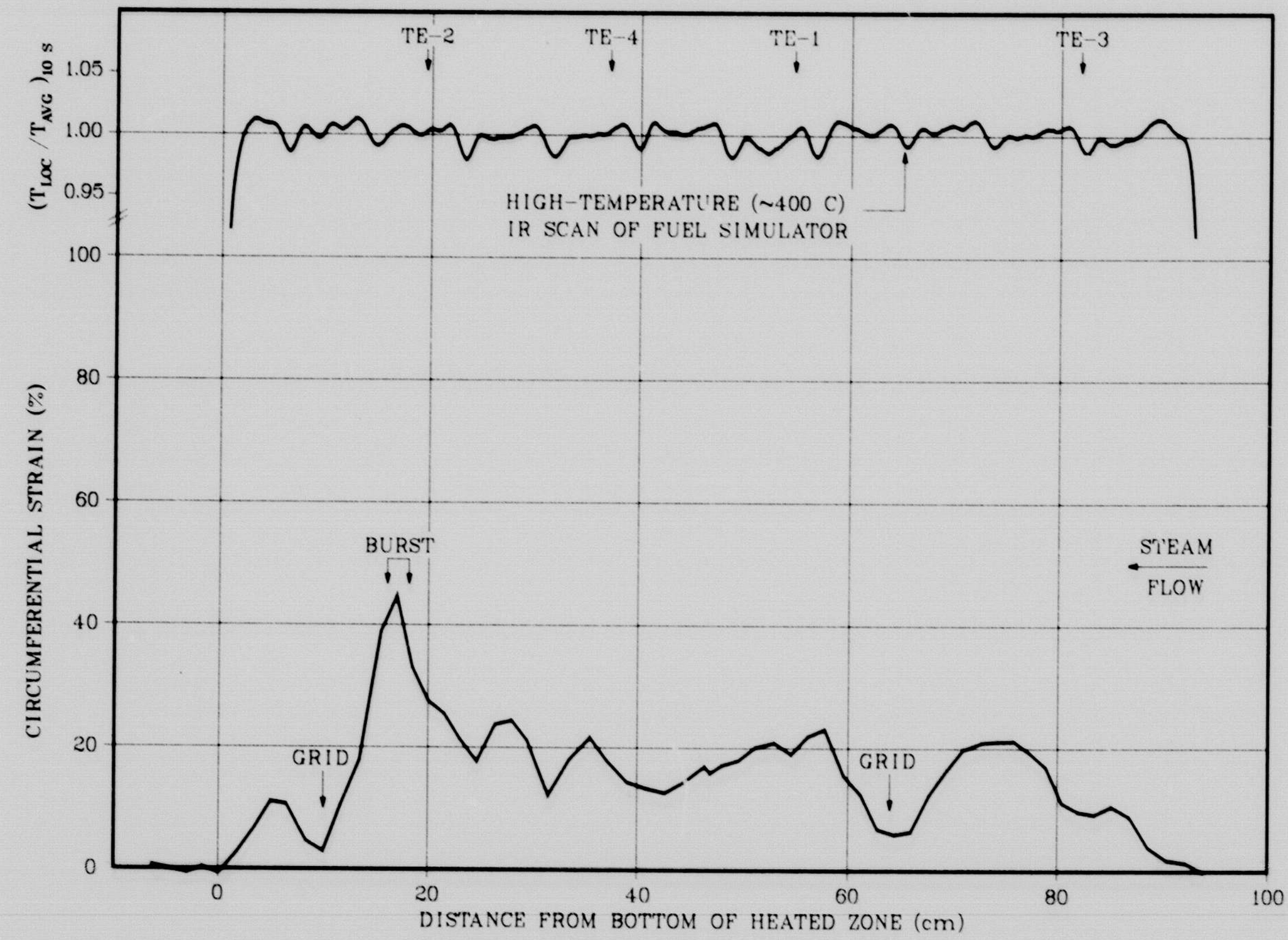


FIG. D. 50. DEFORMATION PROFILE OF B-5 ROD NO. 50

HTR MNL-055 ZR TUBE 0141 HTD LGTH VOL EXP 51.1 % AVG STR 22.9%

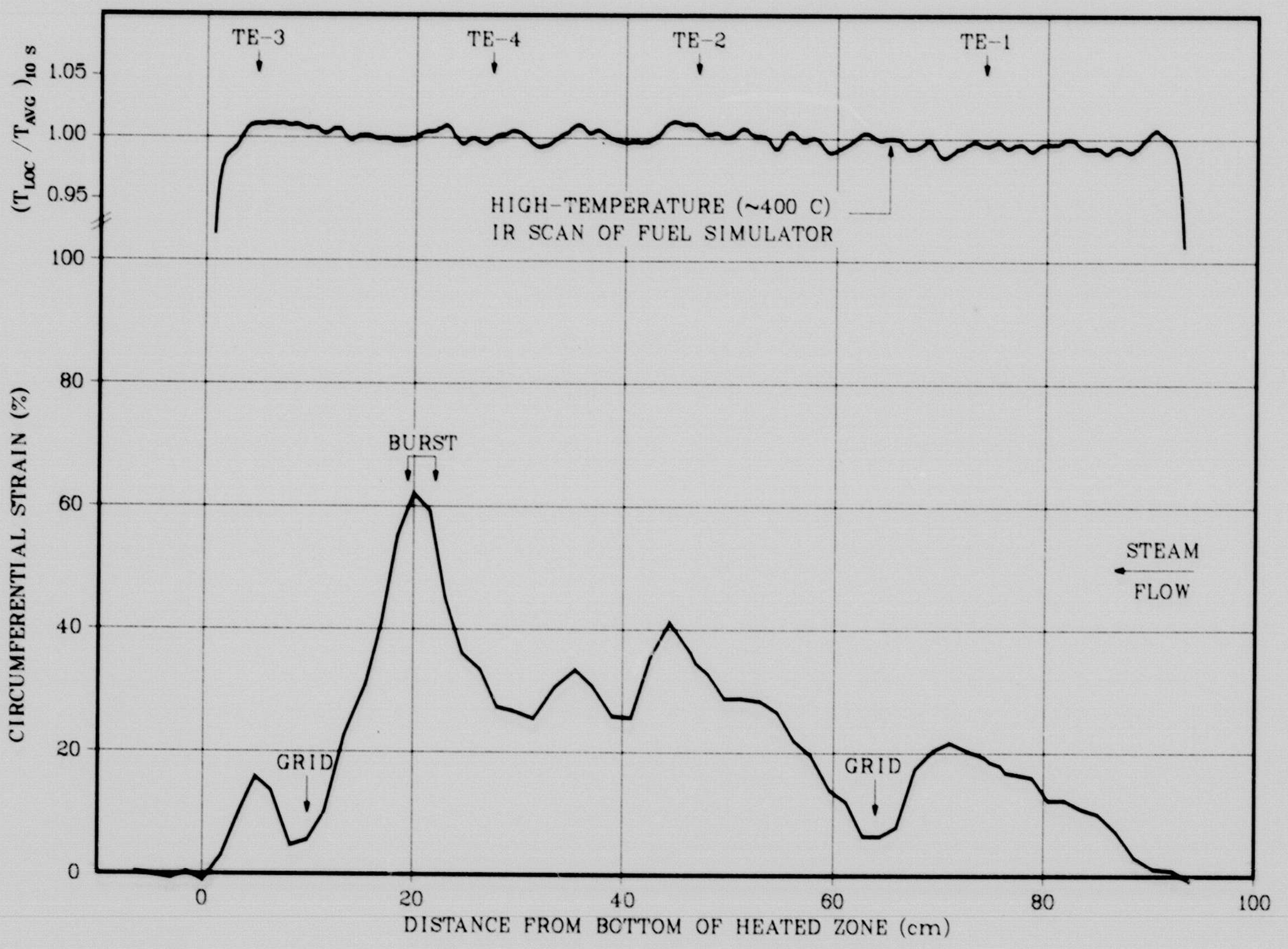


FIG. D. 51. DEFORMATION PROFILE OF B-5 ROD NO. 51

HTR MNL-019 ZR TUBE 0777 HTD LGTH VOL EXP 59.7 % AVG STR 26.4%

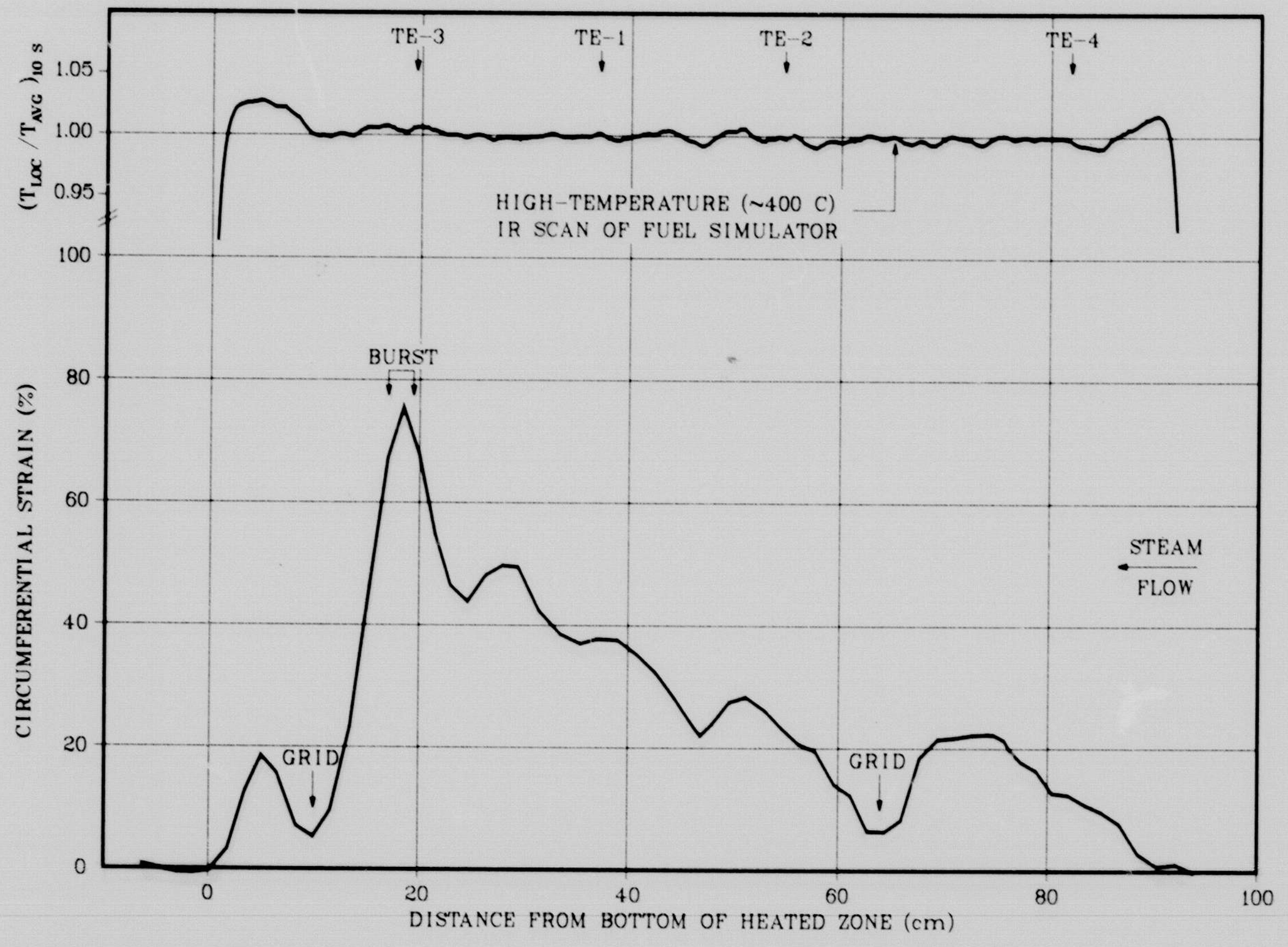
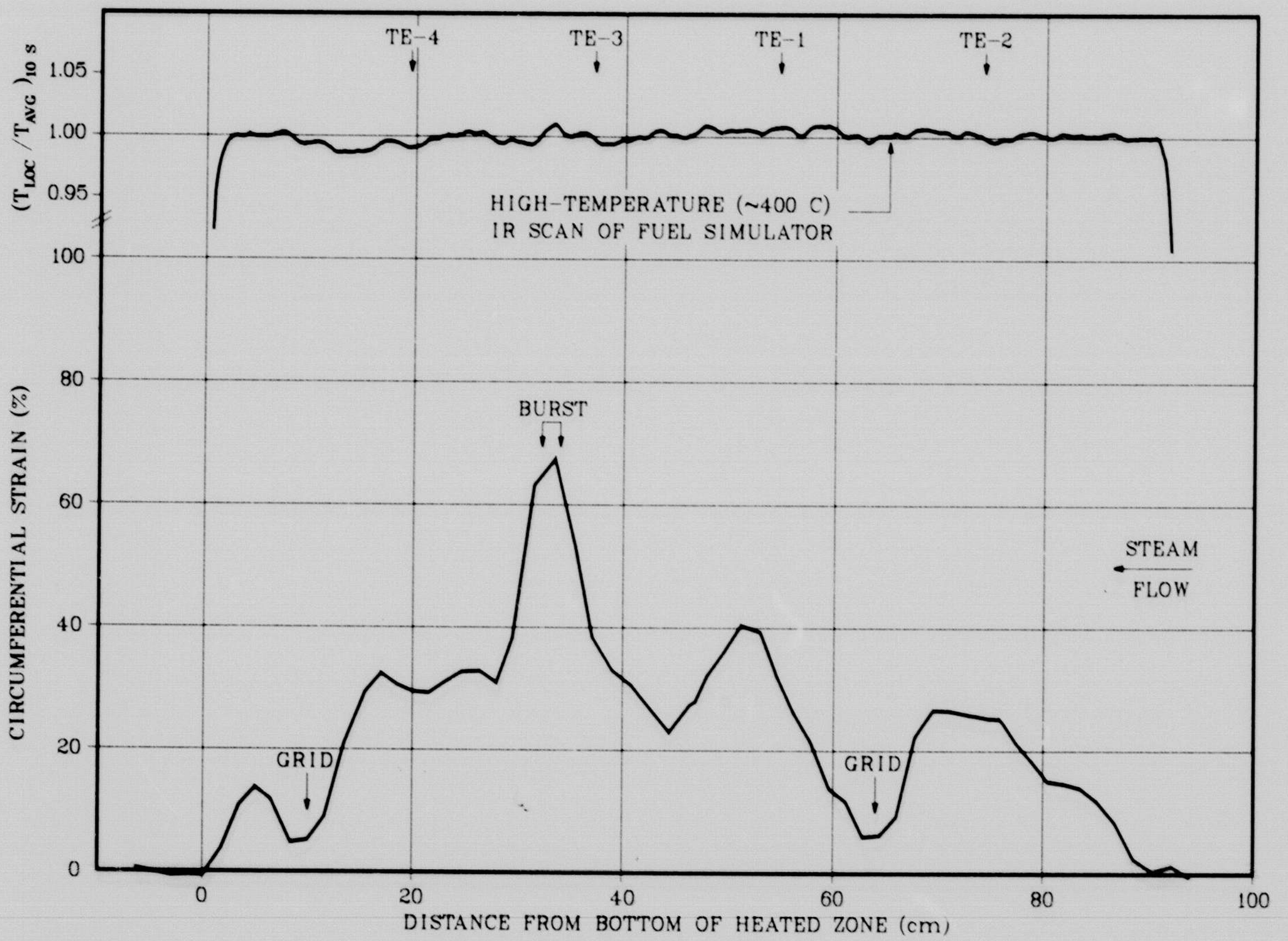


FIG. D. 52. DEFORMATION PROFILE OF B-5 ROD NO. 52

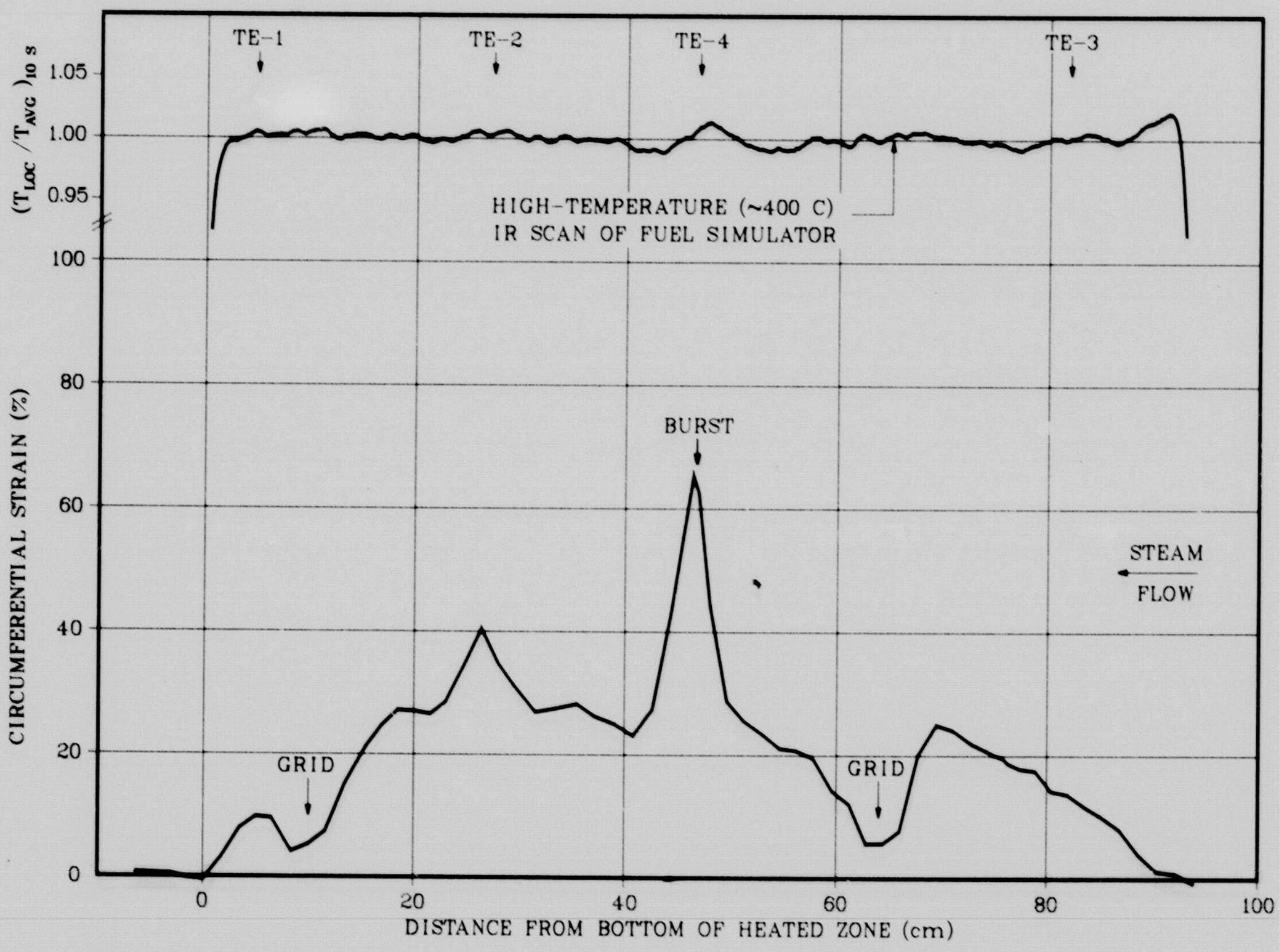
HTR MNL-048 ZR TUBE 0142 HTD LGTH VOL EXP 55.2% AVG STR 24.6%



PLOT 1 12.01.46 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 53. DEFORMATION PROFILE OF B-5 ROD NO. 53

HTR MNL-021 ZR TUBE 0778 HTD LGTH VOL EXP 46.1% AVG STR 20.9%



PLOT 1 12.01.52 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 54. DEFORMATION PROFILE OF B-5 ROD NO. 54

HTR MNL-038 ZR TUBE 0158 HTD LGTH VOL EXP 52.6% AVG STR 23.5%

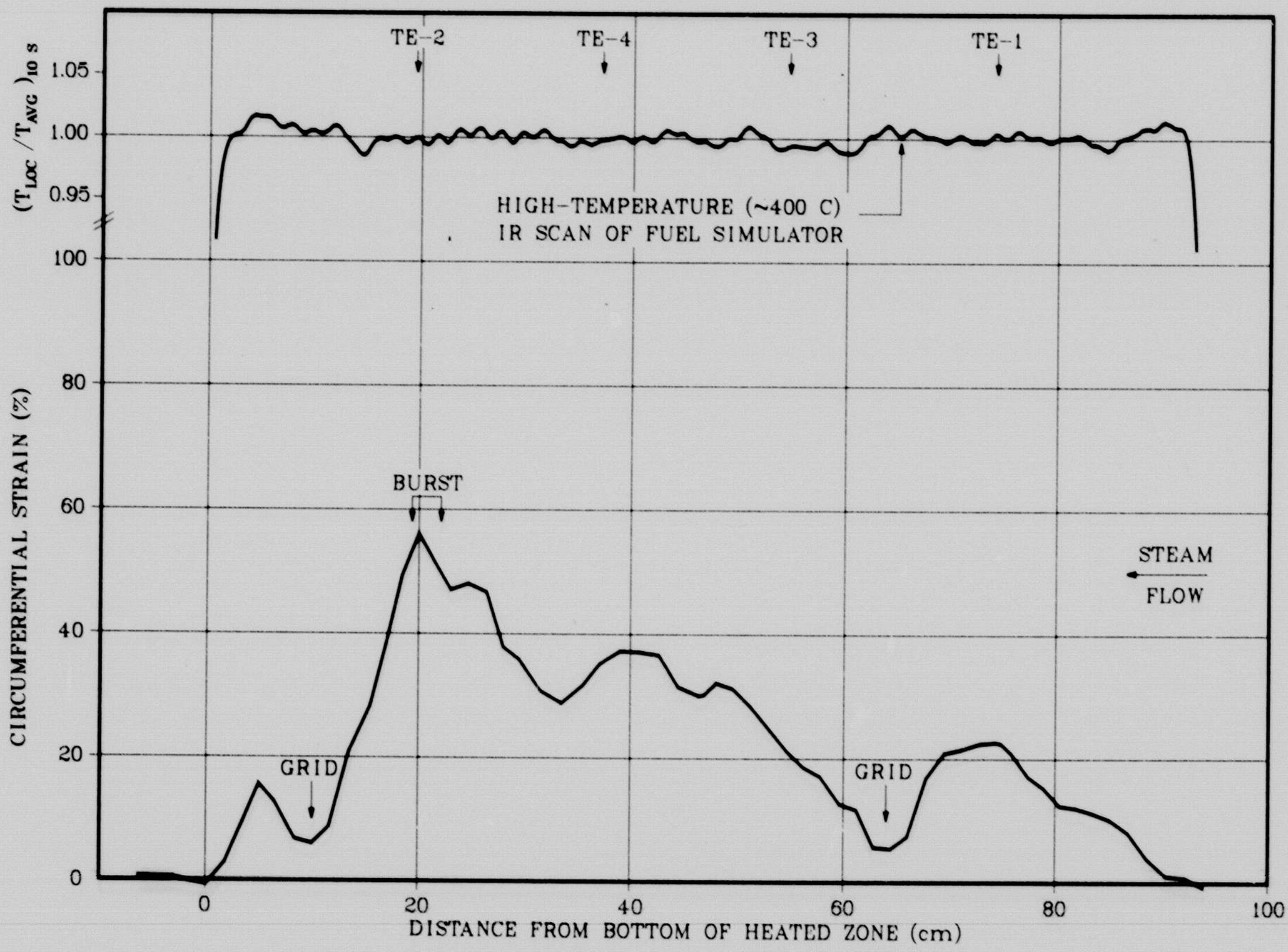
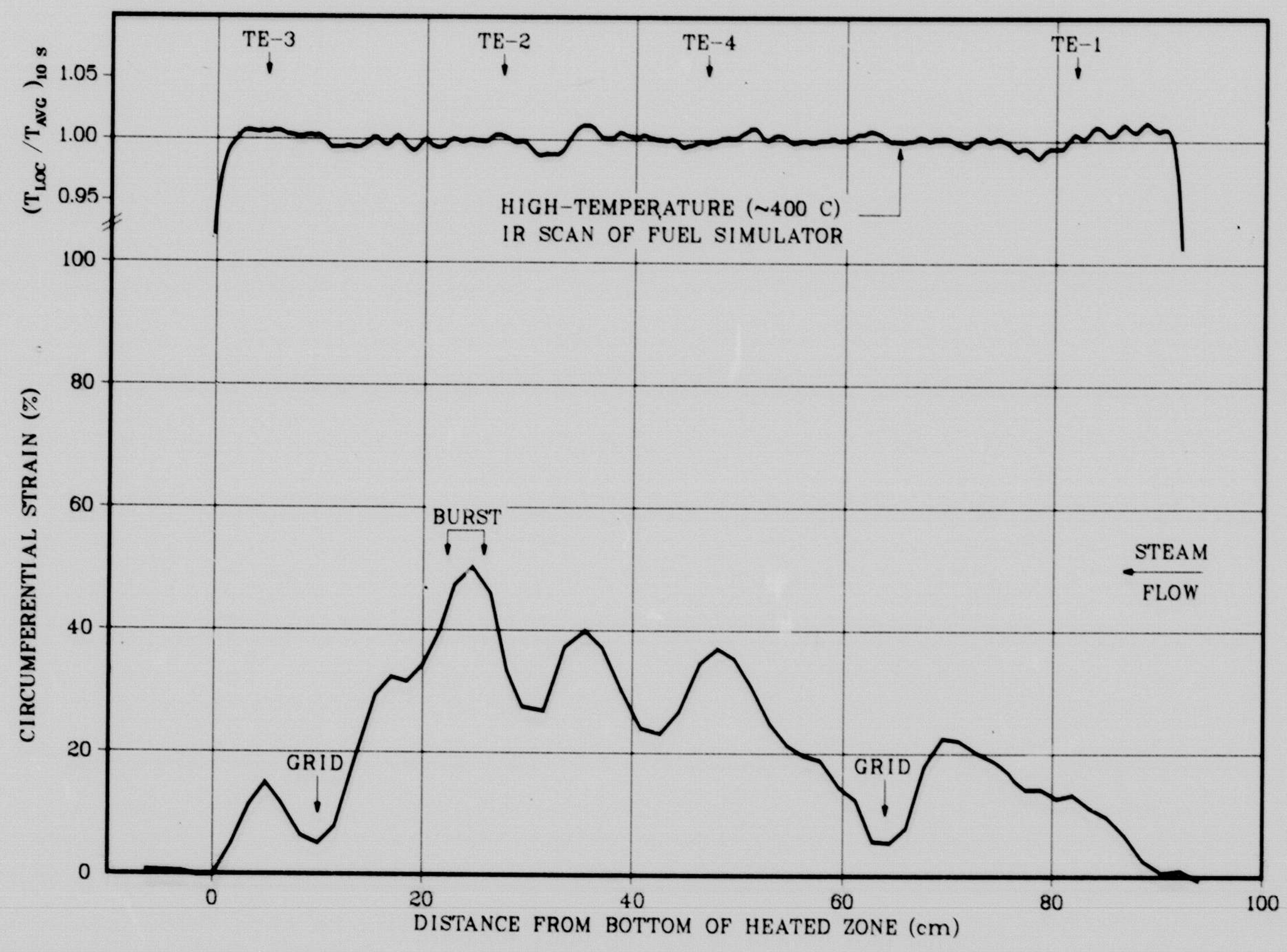


FIG. D. 55. DEFORMATION PROFILE OF B-5 ROD NO. 55

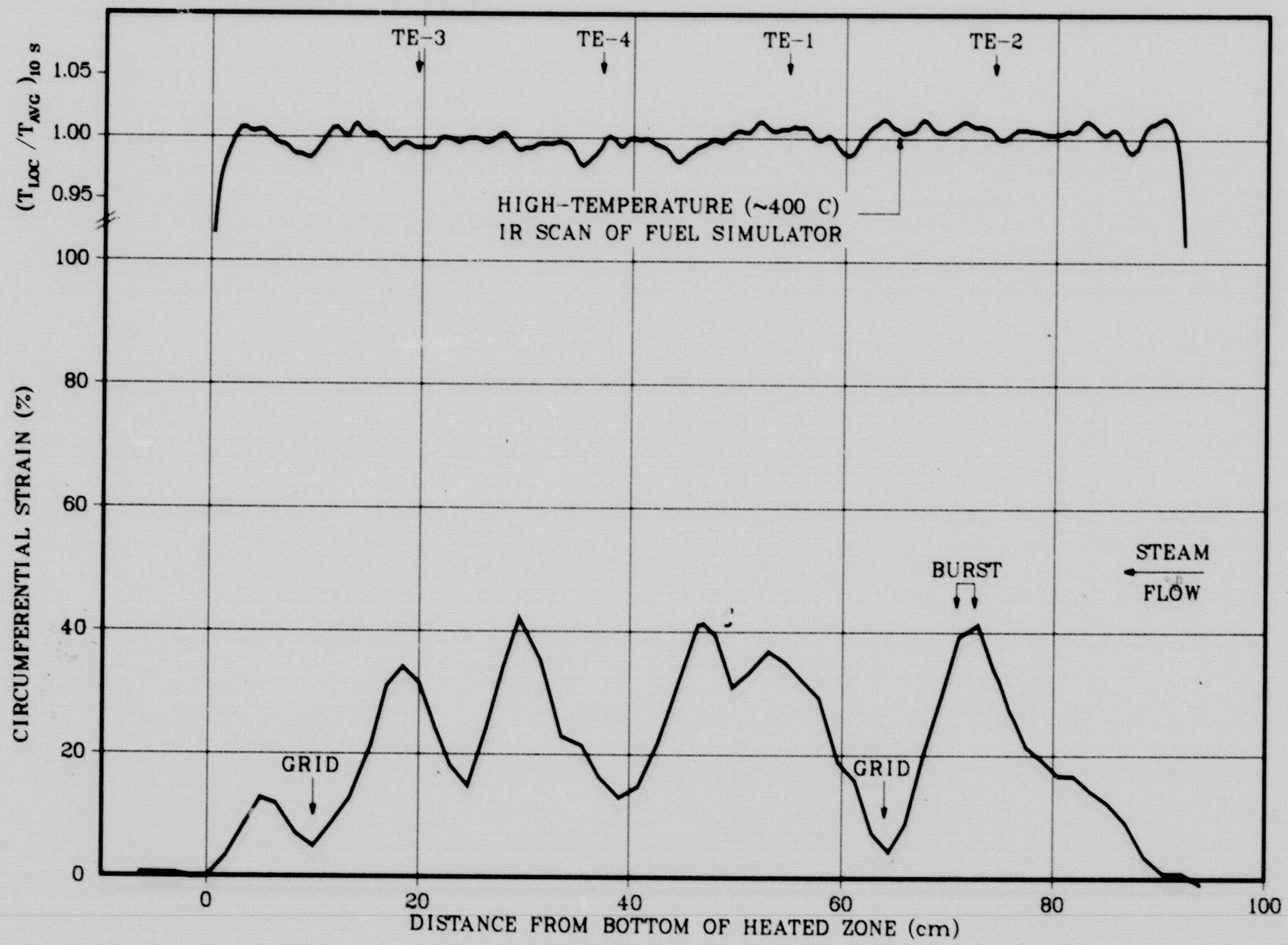
HTR MNL-084 ZR TUBE 0779 HTD LGTH VOL EXP 48.6% AVG STR 21.9%



PLOT 1 12.02.12 FRI 10 FEB, 1984 JOB-FRGSTRS , ISSCO DISSPLA VER 8.2

FIG. D. 56. DEFORMATION PROFILE OF B-5 ROD NO. 56

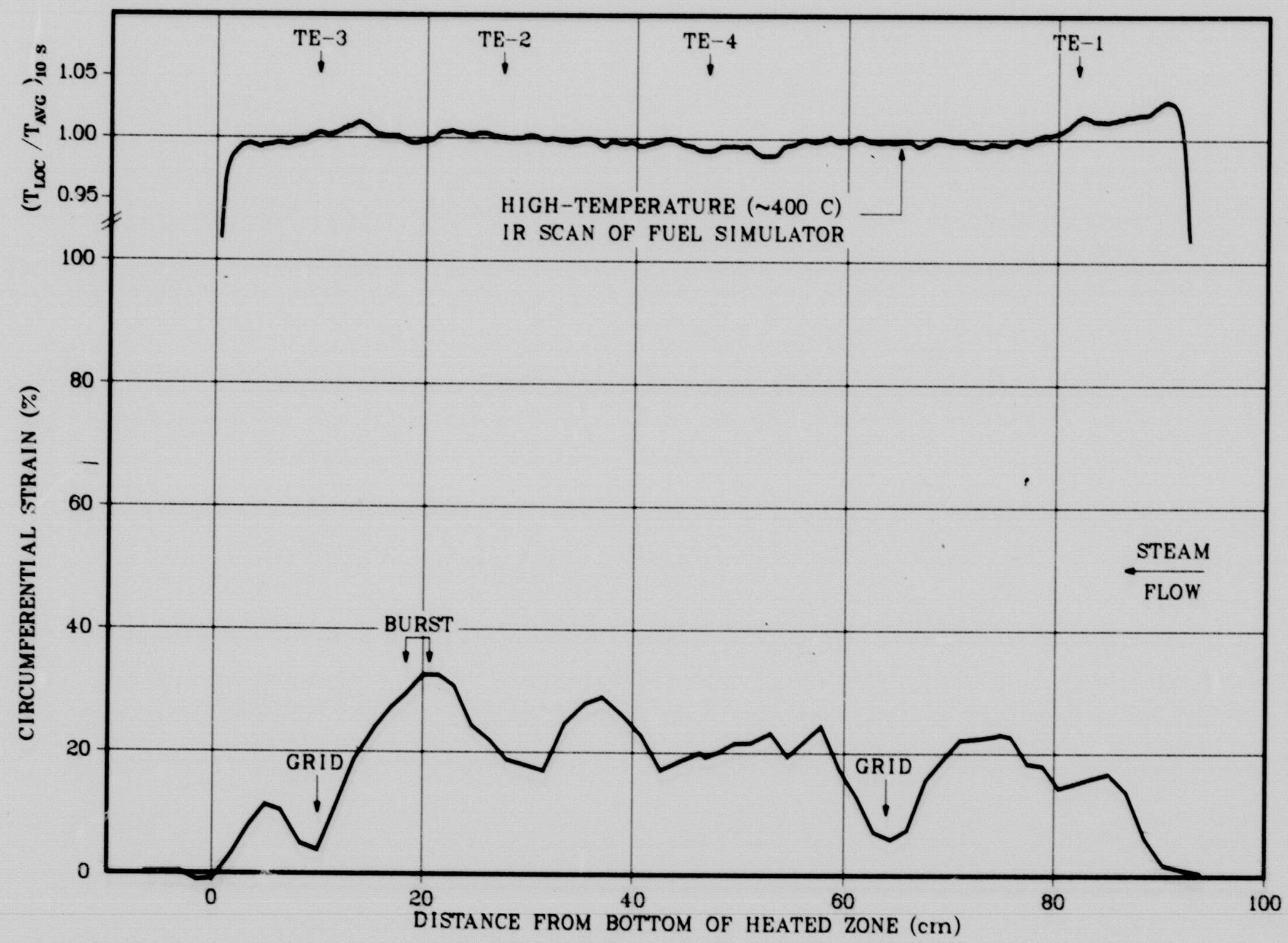
HTR MNL-054 ZR TUBE 0156 HTD LGTH VOL EXP 47.7% AVG STR 21.5%



PLOT 1 12.02.19 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 57. DEFORMATION PROFILE OF B-5 ROD NO. 57

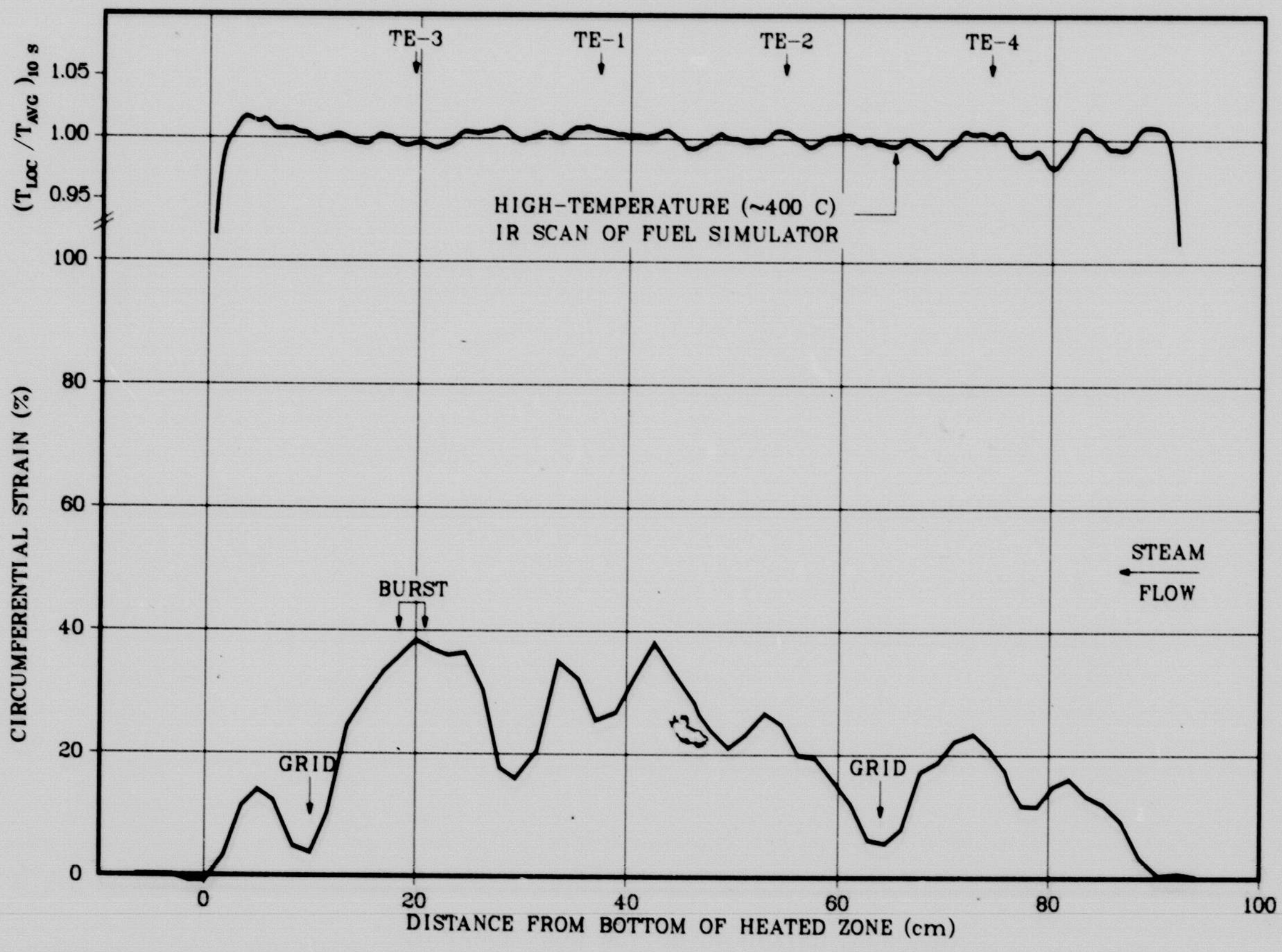
HTR MNL-013 ZR TUBE 0154 HTD LGTH VOL EXP 39.3% AVG STR 18.0%



PLOT 1 12.02.31 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 58. DEFORMATION PROFILE OF B-5 ROD NO. 58

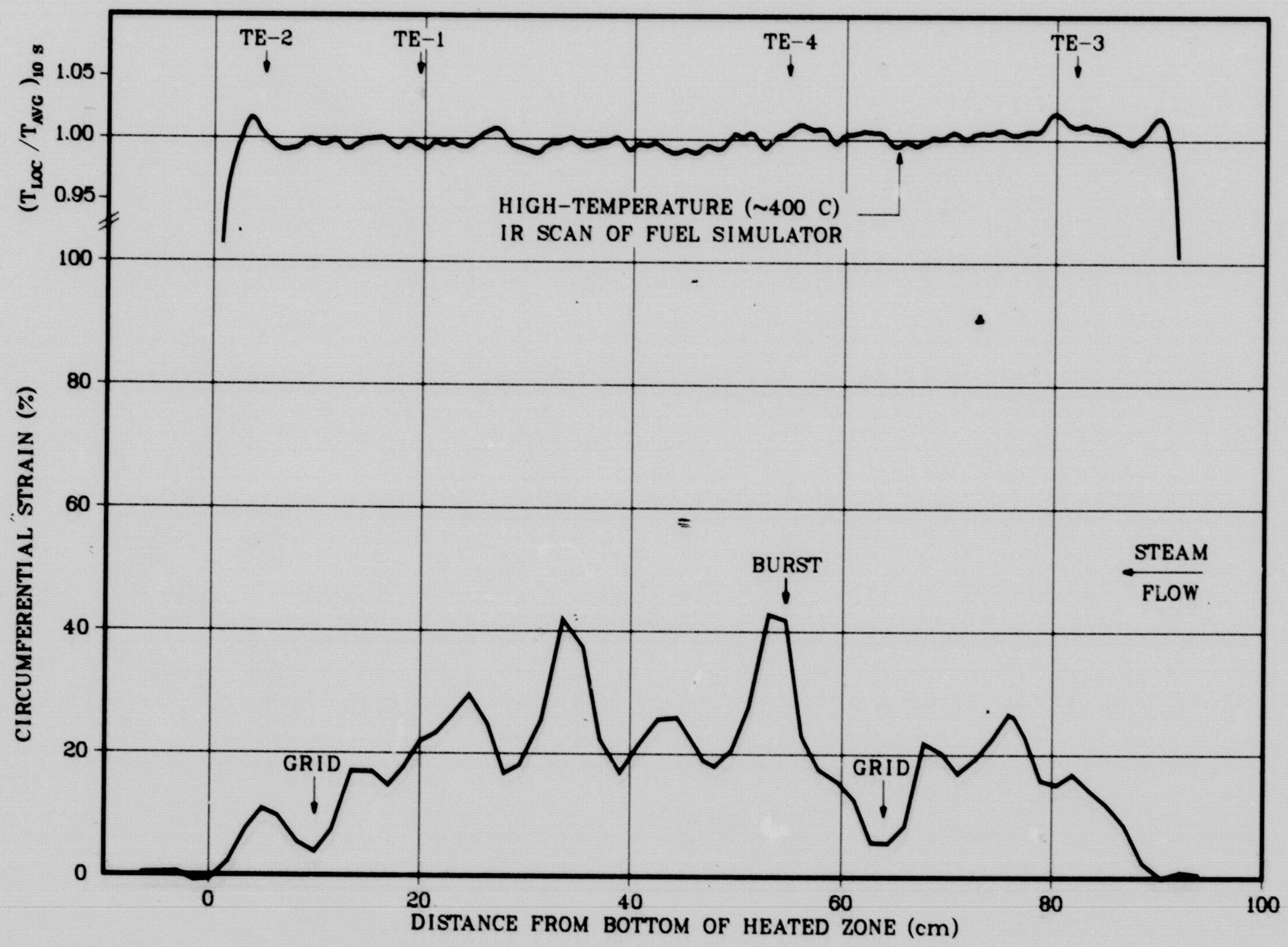
HTR MNL-049 ZR TUBE 0792 HTD LGTH VOL EXP 44.5% AVG STR 20.2%



PLOT 1 . 12.02.41 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 59. DEFORMATION PROFILE OF B-5 ROD NO. 59

HTR MNL-093 ZR TUBE 0146 HTD LGTH VOL EXP 40.2% AVG STR 18.4%



PLOT 1 12.02.46 FRI 10 FEB, 1984 JOB-FRGSTR5 , ISSCO DISSPLA VER 8.2

FIG. D. 60. DEFORMATION PROFILE OF B-5 ROD NO. 60

HTR MNL-007 ZR TUBE 0793 HTD LGTH VOL EXP 48.1% AVG STR 21.7%

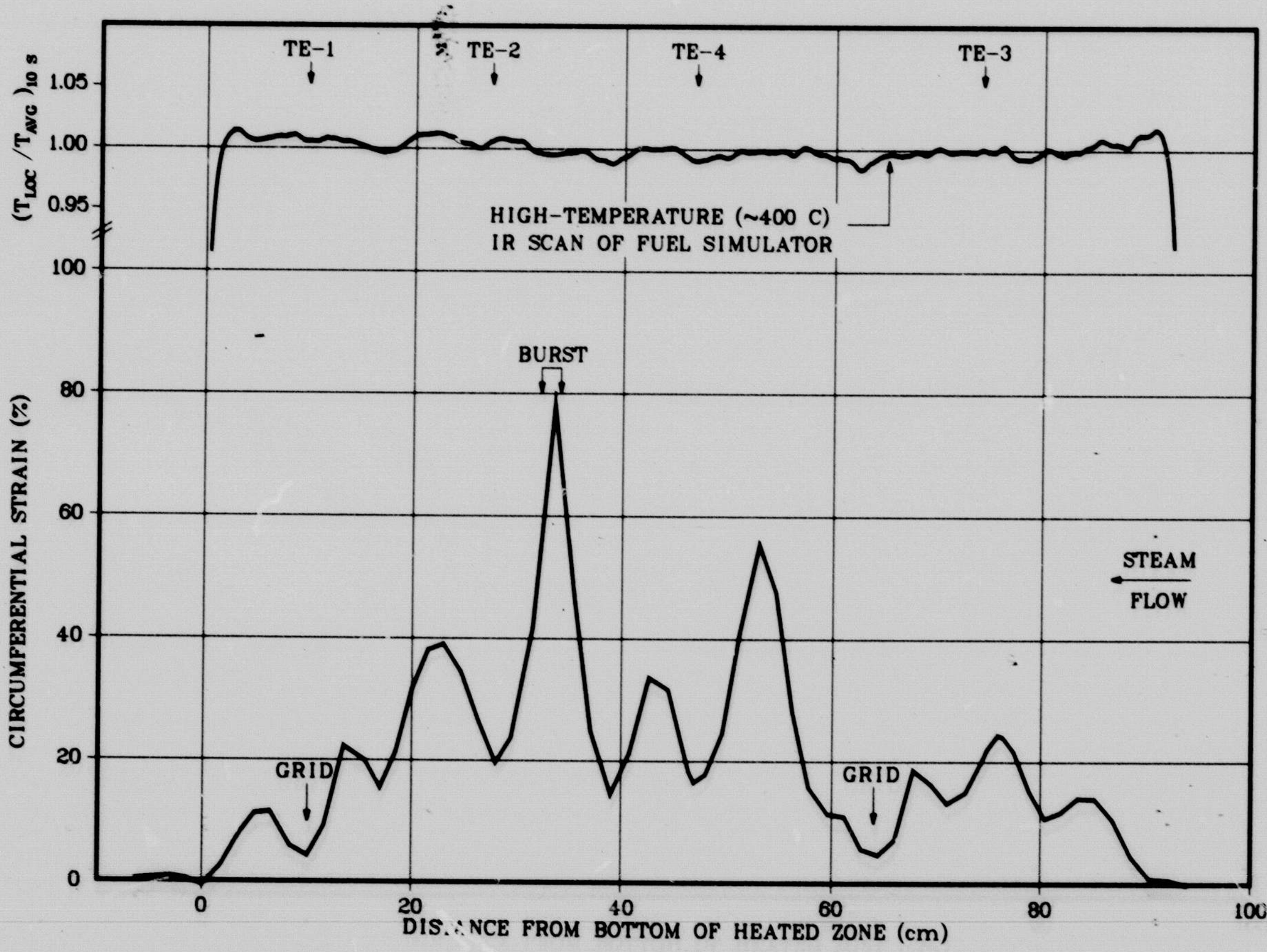


FIG. D. 61. DEFORMATION PROFILE OF B-5 ROD NO. 61

HTR MNL-030 ZR TUBE 0147 HTD LGTH VOL EXP 43.1% AVG STR 19.6%

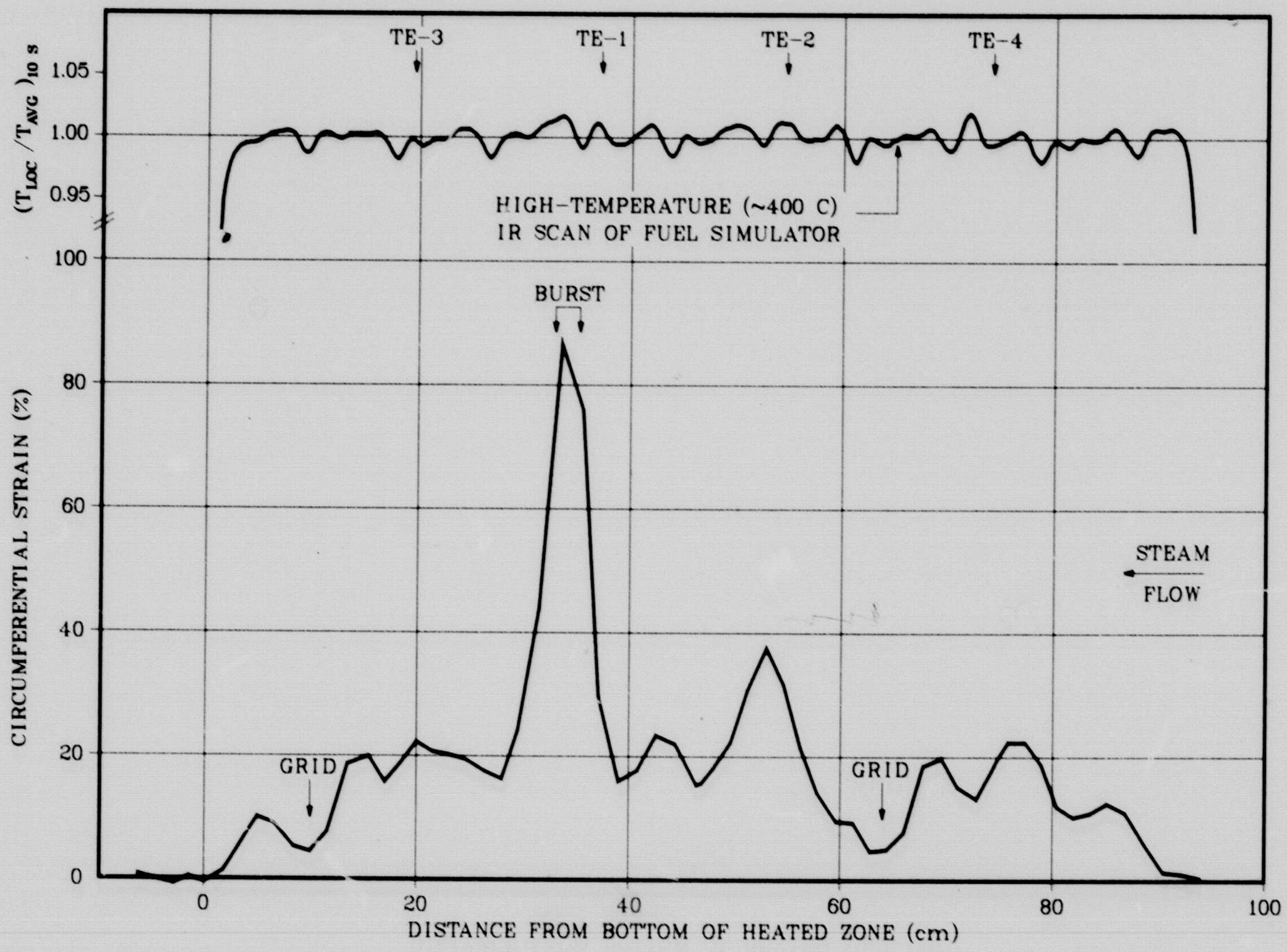


FIG. D. 62. DEFORMATION PROFILE OF B-5 ROD NO. 62

HTR MNL-076 ZR TUBE 0787 HTD LGTH VOL EXP 0.7 % AVG STR 0.3 %

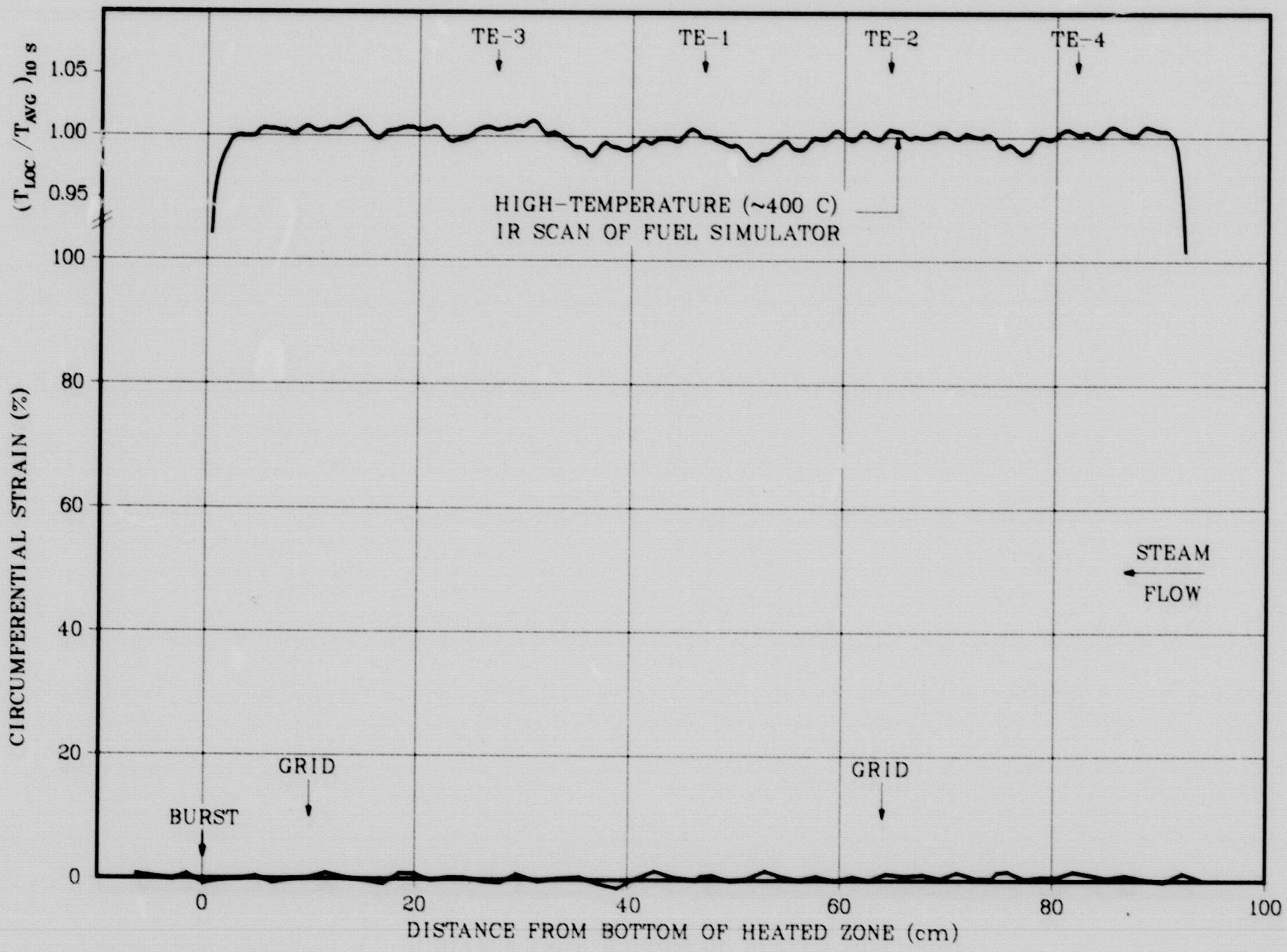


FIG. D. 63. DEFORMATION PROFILE OF B-5 ROD NO. 63

HTR MNL-051 ZR TUBE 0148 HTD LGTH VOL EXP 54.2% AVG STR 24.2%

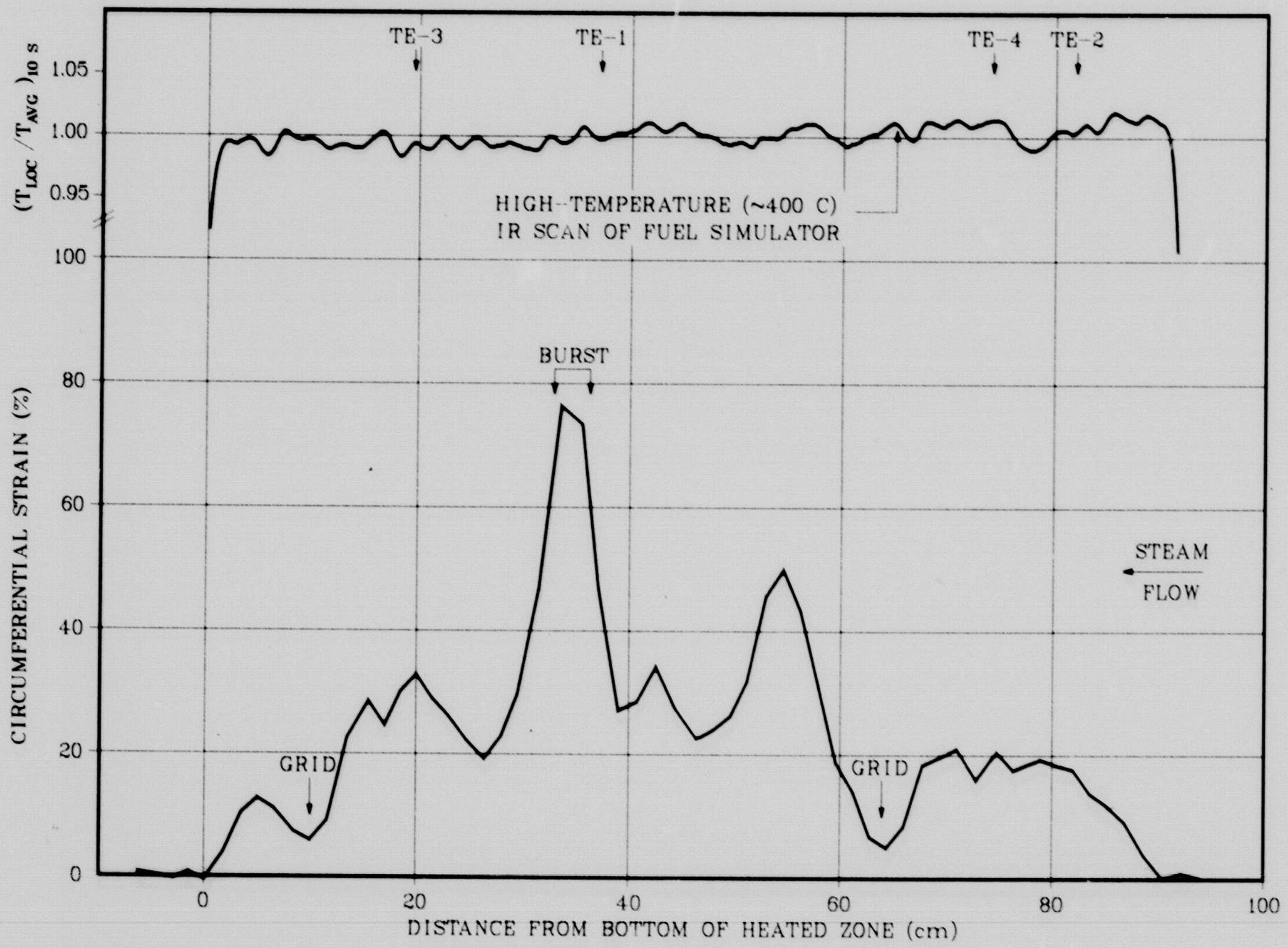


FIG. D. 64. DEFORMATION PROFILE OF B-5 ROD NO. 64

HTR MNL-044 ZR TUBE 0790 HTD LGTH VOL EXP 37.2% AVG STR 17.1 %

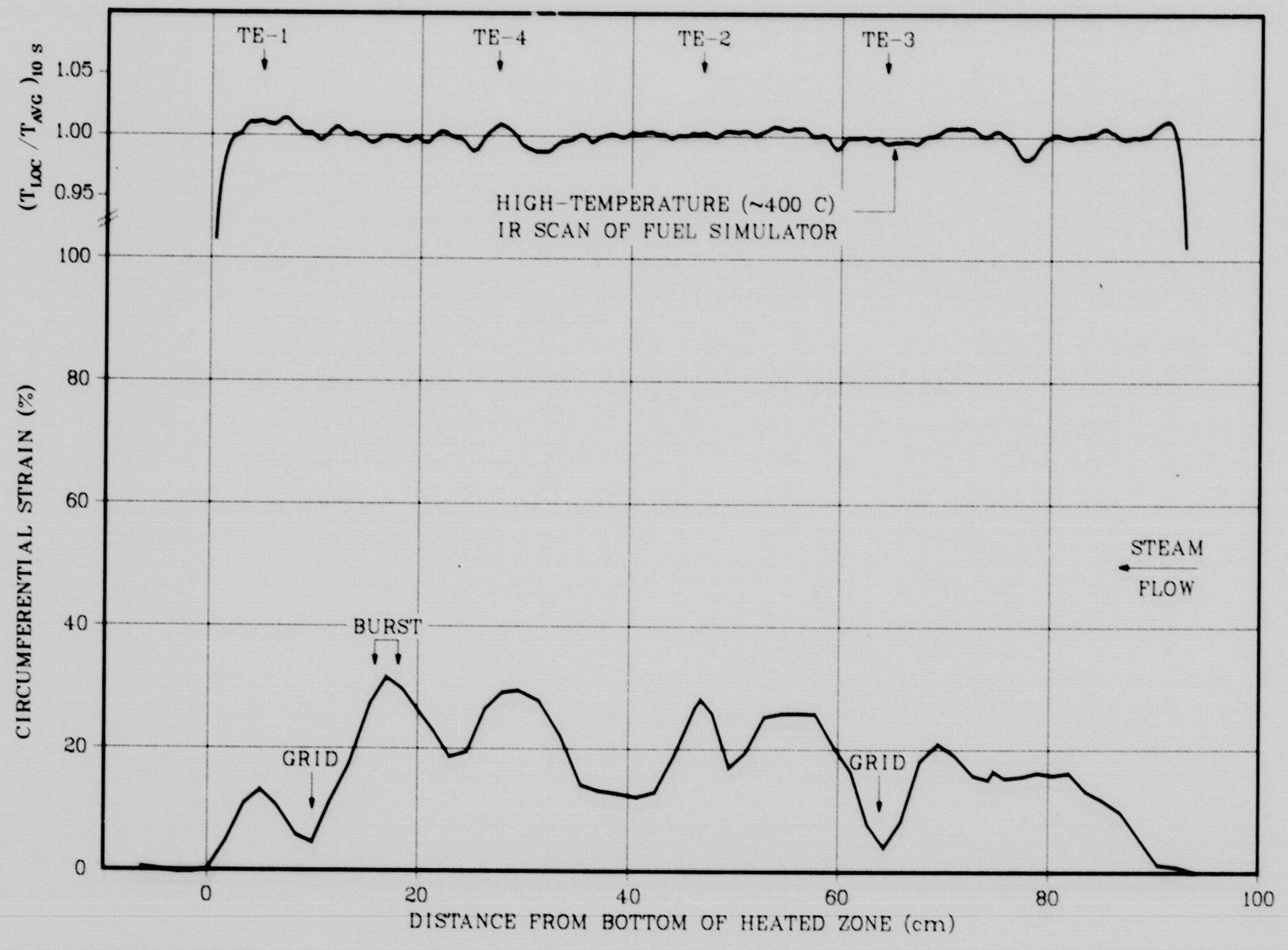


TABLE E- 1. TUBE CENTROID DISPLACEMENTS AT -13.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	1.843	-0.513	1.843	-0.513
2	14.427	-0.062	16.016	-0.209	1.589	-0.147
3	28.854	-0.125	30.149	0.104	1.295	0.229
4	43.282	-0.187	44.432	0.372	1.150	0.559
5	57.709	-0.249	58.535	0.685	0.826	0.934
6	72.136	-0.312	72.897	0.979	0.761	1.291
7	86.563	-0.374	87.145	1.361	0.582	1.735
8	100.990	-0.436	101.086	1.581	0.095	2.017
9	0.062	14.427	1.630	13.813	1.568	-0.614
10	14.490	14.365	15.745	13.824	1.255	-0.541
11	28.917	14.303	30.051	14.103	1.134	-0.199
12	43.344	14.240	44.212	14.431	0.868	0.191
13	57.771	14.178	58.464	14.710	0.693	0.533
14	72.198	14.116	72.667	15.068	0.468	0.952
15	86.626	14.053	87.153	15.434	0.527	1.380
16	101.053	13.991	101.420	15.775	0.367	1.784
17	0.125	28.854	1.550	27.912	1.426	-0.942
18	14.552	28.792	15.635	28.022	1.083	-0.770
19	28.979	28.730	29.771	28.329	0.792	-0.400
20	43.406	28.667	44.018	28.628	0.611	-0.040
21	57.833	28.605	58.158	28.983	0.325	0.378
22	72.261	28.543	72.406	29.434	0.146	0.891
23	86.688	28.481	86.615	29.749	-0.073	1.269
24	101.115	28.418	100.920	30.122	-0.195	1.704
25	0.187	43.282	1.202	42.104	1.015	-1.178
26	14.614	43.219	15.316	42.256	0.702	-0.963
27	29.041	43.157	29.458	42.558	0.416	-0.599
28	43.469	43.095	43.643	42.896	0.175	-0.198
29	57.896	43.032	58.048	43.475	0.153	0.443
30	72.323	42.970	72.137	43.666	-0.186	0.696
31	86.750	42.908	86.263	44.009	-0.487	1.101
32	101.177	42.845	100.508	44.378	-0.670	1.533
33	0.249	57.709	0.998	56.365	0.748	-1.344
34	14.676	57.646	15.153	56.534	0.477	-1.113
35	29.104	57.584	29.278	56.864	0.174	-0.720
36	43.531	57.522	43.366	57.291	-0.165	-0.231
37	57.958	57.460	57.712	57.588	-0.246	0.129
38	72.385	57.397	71.828	57.977	-0.557	0.580
39	86.812	57.335	86.001	58.306	-0.812	0.971
40	101.240	57.273	100.014	58.702	-1.225	1.429
41	0.312	72.136	0.752	70.410	0.440	-1.726
42	14.739	72.074	14.896	70.766	0.157	-1.308
43	29.166	72.011	29.102	71.071	-0.064	-0.940
44	43.593	71.949	43.332	71.374	-0.261	-0.576
45	58.020	71.887	57.406	71.787	-0.614	-0.100
46	72.448	71.824	71.576	72.125	-0.872	0.300
47	86.875	71.762	85.766	72.550	-1.109	0.788
48	101.302	71.700	100.008	72.972	-1.294	1.272
49	0.374	86.563	0.431	84.731	0.058	-1.832
50	14.801	86.501	14.625	85.007	-0.176	-1.494
51	29.228	86.439	28.757	85.338	-0.471	-1.100
52	43.655	86.376	42.932	85.730	-0.724	-0.646
53	58.083	86.314	57.118	86.024	-0.965	-0.290

54	72.510	86.252	71.332	86.323	-1 178	0.072
55	86.937	86.189	85.554	86.852	-1.383	0.662
56	101.364	86.127	99.610	87.155	-1.755	1.028
57	0.436	100.990	0.526	98.701	0.090	-2.290
58	14.863	100.928	14.516	99.160	-0.348	-1.768
59	29.291	100.866	28.709	99.400	-0.582	-1.466
60	43.718	100.803	42.810	99.830	-0.908	-0.974
61	58.145	100.741	56.948	100.140	-1.197	-0.601
62	72.572	100.679	71.096	100.586	-1.476	-0.093
63	86.999	100.617	85.150	101.029	-1.849	0.413
64	101.427	100.554	99.260	101.005	-2.167	0.451

[redacted] C 1 [redacted]

TABLE E- 2. TUBE CENTROID DISPLACEMENTS AT -6.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	1.656	-0.609	1.656	-0.609
2	14.427	-0.056	15.779	-0.189	1.351	-0.133
3	28.854	-0.113	29.956	0.069	1.101	0.181
4	43.282	-0.169	44.303	0.235	1.021	0.404
5	57.709	-0.225	58.434	0.465	0.725	0.691
6	72.136	-0.282	72.840	0.864	0.704	1.146
7	86.563	-0.338	87.125	1.234	0.561	1.572
8	100.990	-0.394	101.243	1.287	0.253	1.681
9	0.056	14.427	1.384	13.814	1.328	-0.613
10	14.484	14.371	15.465	13.758	0.982	-0.612
11	28.911	14.315	29.890	13.994	0.980	-0.320
12	43.338	14.258	44.069	14.298	0.731	0.040
13	57.765	14.202	58.378	14.521	0.613	0.319
14	72.192	14.146	72.564	14.920	0.372	0.775
15	86.620	14.089	86.923	15.206	0.303	1.117
16	101.047	14.033	101.392	15.712	0.346	1.679
17	0.113	28.854	1.351	27.927	1.238	-0.928
18	14.540	28.798	15.488	28.012	0.949	-0.786
19	28.967	28.742	29.609	28.264	0.642	-0.477
20	43.394	28.685	43.851	28.527	0.457	-0.158
21	57.821	28.629	58.063	28.954	0.241	0.325
22	72.249	28.573	72.414	29.412	0.166	0.840
23	86.676	28.516	86.589	29.642	-0.087	1.125
24	101.103	28.460	101.044	29.972	-0.059	1.512
25	0.169	43.282	0.921	42.114	0.752	-1.167
26	14.596	43.225	15.146	42.299	0.549	-0.927
27	29.023	43.169	29.411	42.558	0.388	-0.611
28	43.451	43.113	43.554	42.913	0.103	-0.200
29	57.878	43.056	58.074	43.177	0.196	0.121
30	72.305	43.000	72.240	43.647	-0.065	0.647
31	86.732	42.944	86.291	43.944	-0.441	1.000
32	101.159	42.887	100.690	44.260	-0.469	1.373
33	0.225	57.709	0.771	56.504	0.546	-1.204
34	14.653	57.652	15.034	56.596	0.381	-1.056
35	29.080	57.596	29.252	56.906	0.172	-0.690
36	43.507	57.540	43.404	57.299	-0.103	-0.241
37	57.934	57.483	57.673	57.501	-0.261	0.018
38	72.361	57.427	71.823	57.973	-0.539	0.546
39	86.789	57.371	86.114	58.258	-0.675	0.887
40	101.216	57.314	100.168	58.618	-1.048	1.303
41	0.282	72.136	0.603	70.623	0.321	-1.513
42	14.709	72.080	14.797	70.879	0.088	-1.200
43	29.136	72.023	29.130	71.227	-0.006	-0.796
44	43.563	71.967	43.269	71.478	-0.295	-0.489
45	57.990	71.911	57.449	71.807	-0.541	-0.104
46	72.418	71.854	71.697	72.169	-0.721	0.315
47	86.845	71.798	85.881	72.552	-0.964	0.754
48	101.272	71.742	100.261	73.052	-1.011	1.310
49	0.338	86.563	0.281	84.976	-0.057	-1.587
50	14.765	86.507	14.545	85.280	-0.220	-1.227
51	29.192	86.451	28.857	85.637	-0.335	-0.814
52	43.620	86.394	42.950	85.949	-0.669	-0.445
53	58.047	86.338	57.136	86.188	-0.911	-0.150

54	72.474	86.282	71.421	86.426	-1.053	0.144
55	86.901	86.225	85.652	86.952	-1.250	0.726
56	101.328	86.169	99.833	87.252	-1.495	1.083
57	0.394	100.990	0.404	99.019	0.010	-1.971
58	14.822	100.934	14.448	99.444	-0.374	-1.491
59	29.249	100.878	28.792	99.756	-0.457	-1.122
60	43.676	100.821	42.986	100.074	-0.690	-0.747
61	58.103	100.765	57.091	100.418	-1.012	-0.347
62	72.530	100.709	71.374	100.767	-1.156	0.058
63	86.958	100.652	85.459	101.212	-1.498	0.559
64	101.385	100.596	99.622	101.079	-1.763	0.483

[redacted] E I [redacted]

TABLE E- 3. TUBE CENTROID DISPLACEMENTS AT -3.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	2.120	-0.041	2.120	-0.041
2	14.427	-0.048	15.961	0.454	1.534	0.502
3	28.854	-0.096	29.935	0.654	1.081	0.750
4	43.282	-0.144	44.037	0.931	0.755	1.076
5	57.709	-0.192	57.972	1.079	0.263	1.271
6	72.136	-0.240	72.163	1.501	0.027	1.742
7	86.563	-0.288	86.254	1.842	-0.309	2.130
8	100.990	-0.336	100.218	1.811	-0.773	2.147
9	0.048	14.427	1.888	14.155	1.840	-0.272
10	14.475	14.379	15.620	14.125	1.145	-0.254
11	28.902	14.331	29.858	14.358	0.956	0.027
12	43.330	14.283	43.807	14.652	0.477	0.369
13	57.757	14.235	57.734	14.759	-0.023	0.524
14	72.184	14.187	71.872	15.297	-0.313	1.110
15	86.611	14.139	85.972	15.535	-0.639	1.396
16	101.038	14.091	100.334	16.019	-0.704	1.928
17	0.096	28.954	1.986	28.039	1.890	-0.815
18	14.523	28.806	15.811	28.100	1.288	-0.707
19	28.950	28.758	29.487	28.255	0.537	-0.503
20	43.378	28.710	43.676	28.641	0.298	-0.069
21	57.805	28.662	57.630	29.082	-0.175	0.420
22	72.232	28.614	72.260	29.759	0.028	1.145
23	86.659	28.566	86.303	29.805	-0.356	1.239
24	101.086	28.518	100.699	30.252	-0.388	1.734
25	0.144	43.282	1.613	42.284	1.469	-0.998
26	14.571	43.234	15.703	42.484	1.13[illegible]	-0.750
27	28.999	43.186	29.785	42.740	0.786	-0.446
28	43.426	43.137	43.759	43.091	0.333	-0.046
29	57.853	43.089	58.112	43.246	0.259	0.157
30	72.280	43.041	72.109	43.805	-0.171	0.764
31	86.707	42.993	86.039	44.130	-0.668	1.136
32	101.135	42.945	100.292	44.433	-0.842	1.487
33	0.192	57.709	1.469	56.501	1.277	-1.208
34	14.619	57.661	15.589	56.593	0.970	-1.067
35	29.047	57.613	29.600	56.962	0.553	-0.651
36	43.474	57.565	43.576	57.331	0.103	-0.234
37	57.901	57.517	57.505	57.101	-0.396	-0.415
38	72.328	57.469	71.710	57.977	-0.618	0.508
39	86.755	57.421	85.844	58.345	-0.912	0.924
40	101.183	57.373	99.532	58.358	-1.650	0.985
41	0.240	72.136	1.256	70.470	1.016	-1.666
42	14.667	72.088	15.240	70.714	0.573	-1.374
43	29.095	72.040	29.414	71.107	0.319	-0.933
44	43.522	71.992	43.398	71.354	-0.124	-0.637
45	57.949	71.944	57.476	71.710	-0.473	-0.234
46	72.376	71.896	71.600	72.033	-0.776	0.137
47	86.803	71.848	85.678	72.451	-1.125	0.603
48	101.231	71.800	99.946	72.961	-1.285	1.162
49	0.288	86.563	0.960	84.642	0.672	-1.921
50	14.715	86.515	15.050	85.007	0.334	-1.508
51	29.143	86.467	29.232	85.317	0.089	-1.150
52	43.570	86.419	43.157	85.622	-0.413	-0.797
53	57.997	86.371	57.172	85.685	-0.825	-0.686

54	72.424	86.323	71.266	86.126	-1.158	-0.197
55	86.851	86.275	85.400	86.694	-1.451	0.419
56	101.279	86.227	99.468	87.037	-1.811	0.810
57	0.336	100.990	0.975	98.584	0.639	-2.407
58	14.763	100.942	14.867	98.996	0.103	-1.947
59	29.191	100.894	29.133	99.309	-0.058	-1.586
60	43.618	100.846	43.205	99.559	-0.413	-1.287
61	58.045	100.798	57.237	99.927	-0.808	-0.872
62	72.472	100.750	70.914	99.611	-1.558	-1.139
63	86.899	100.702	85.256	100.844	-1.643	0.142
64	101.327	100.654	99.319	100.728	-2.007	0.074

[redacted] G 1 [redacted]

TABLE E- 4. TUBE CENTROID DISPLACEMENTS AT -1.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	2.265	-0.284	2.265	-0.284
2	14.427	-0.057	16.003	0.130	1.576	0.186
3	28.854	-0.113	30.063	0.463	1.208	0.577
4	43.282	-0.170	44.153	0.703	0.871	0.873
5	57.709	-0.227	58.054	0.827	0.346	1.054
6	72.136	-0.284	72.320	1.298	0.184	1.582
7	86.563	-0.340	86.446	1.695	-0.117	2.035
8	100.990	-0.397	100.489	1.676	-0.501	2.073
9	0.057	14.427	1.874	13.931	1.818	-0.496
10	14.484	14.370	15.795	14.130	1.311	-0.241
11	28.911	14.314	30.155	14.170	1.244	-0.143
12	43.338	14.257	44.159	14.698	0.821	0.441
13	57.766	14.200	58.338	14.955	0.573	0.755
14	72.193	14.144	72.417	15.372	0.224	1.228
15	86.620	14.087	86.597	15.662	-0.023	1.575
16	101.047	14.030	101.109	16.217	0.062	2.187
17	0.113	28.854	1.919	28.145	1.806	-0.709
18	14.541	28.798	15.848	28.188	1.307	-0.610
19	28.968	28.741	29.769	28.425	0.801	-0.316
20	43.395	28.684	43.857	28.722	0.462	0.038
21	57.822	28.628	57.944	29.190	0.122	0.562
22	72.249	28.571	72.166	29.673	-0.083	1.102
23	86.677	28.514	86.292	29.839	-0.384	1.324
24	101.104	28.457	100.663	30.192	-0.441	1.735
25	0.170	43.282	1.463	42.128	1.293	-1.154
26	14.597	43.225	15.597	42.351	1.000	-0.874
27	29.025	43.168	29.694	42.614	0.670	-0.554
28	43.452	43.111	43.677	42.973	0.226	-0.139
29	57.879	43.055	58.075	43.105	0.196	0.051
30	72.306	42.998	72.121	43.768	-0.185	0.770
31	86.733	42.941	86.045	44.087	-0.688	1.146
32	101.161	42.885	100.369	44.395	-0.791	1.510
33	0.227	57.709	1.320	56.347	1.093	-1.361
34	14.654	57.652	15.486	56.441	0.832	-1.211
35	29.081	57.595	29.480	56.867	0.399	-0.729
36	43.508	57.539	43.463	57.236	-0.046	-0.302
37	57.936	57.482	57.629	57.438	-0.307	-0.044
38	72.363	57.425	71.058	57.379	-1.305	-0.046
39	86.790	57.369	85.826	58.347	-0.964	0.979
40	101.217	57.312	99.817	58.637	-1.400	1.326
41	0.284	72.136	1.130	70.320	0.846	-1.816
42	14.711	72.079	15.066	70.654	0.356	-1.425
43	29.138	72.023	29.278	71.056	0.140	-0.966
44	43.565	71.966	43.237	71.278	-0.328	-0.687
45	57.992	71.909	57.350	71.631	-0.643	-0.278
46	72.420	71.852	71.499	72.044	-0.920	0.192
47	86.847	71.796	85.619	72.464	-1.228	0.669
48	101.274	71.739	99.938	73.031	-1.336	1.292
49	0.340	86.563	0.791	84.484	0.450	-2.080
50	14.767	86.506	14.810	84.938	0.042	-1.569
51	29.195	86.450	29.062	85.282	-0.132	-1.167
52	43.622	86.393	43.028	85.600	-0.594	-0.793
53	58.049	86.336	57.009	85.883	-1.040	-0.454

54	72.476	86.280	71.212	86.143	-1.264	-0.137
55	86.903	86.223	85.358	86.738	-1.545	0.516
56	101.331	86.166	99.494	87.157	-1.836	0.991
57	0.397	100.990	0.910	98.438	0.513	-2.552
58	14.824	100.934	14.811	98.872	-0.013	-2.062
59	29.251	100.877	29.094	99.263	-0.158	-1.614
60	43.679	100.820	43.087	99.520	-0.591	-1.300
61	58.106	100.764	57.074	99.950	-1.032	-0.813
62	72.533	100.707	71.243	100.353	-1.290	-0.354
63	86.960	100.650	85.211	100.919	-1.750	0.269
64	101.387	100.593	99.267	100.838	-2.120	0.245

[redacted] 1 1 [redacted]

TABLE E- 5. TUBE CENTROID DISPLACEMENTS AT 0.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	2.171	-0.557	2.171	-0.557
2	14.427	-0.073	16.015	-0.040	1.587	0.034
3	28.854	-0.146	30.414	0.372	1.559	0.518
4	43.282	-0.219	44.677	0.671	1.395	0.890
5	57.709	-0.292	58.768	0.840	1.059	1.132
6	72.136	-0.365	73.171	1.390	1.035	1.755
7	86.563	-0.438	87.425	1.771	0.862	2.209
8	100.990	-0.511	101.610	1.759	0.619	2.270
9	0.073	14.427	2.023	14.001	1.950	-0.426
10	14.500	14.354	15.892	14.024	1.392	-0.330
11	28.927	14.281	30.286	14.270	1.359	-0.011
12	43.355	14.208	44.371	14.631	1.016	0.422
13	57.782	14.135	58.589	14.926	0.807	0.791
14	72.209	14.062	72.710	15.363	0.501	1.301
15	86.636	13.989	86.901	15.673	0.265	1.684
16	101.063	13.916	101.547	16.229	0.483	2.313
17	0.146	28.854	2.010	28.074	1.864	-0.780
18	14.573	28.781	15.995	28.174	1.422	-0.607
19	29.000	28.708	29.904	28.477	0.903	-0.232
20	43.428	28.635	44.079	28.825	0.651	0.190
21	57.855	28.562	58.206	29.307	0.352	0.745
22	72.282	28.489	72.513	29.670	0.231	1.380
23	86.709	28.416	86.678	30.057	-0.031	1.641
24	101.136	28.343	101.129	30.462	-0.008	2.119
25	0.219	43.282	1.478	42.173	1.259	-1.109
26	14.646	43.209	15.644	42.415	0.998	-0.794
27	29.073	43.136	29.781	42.709	0.708	-0.427
28	43.501	43.063	43.770	43.153	0.270	0.091
29	57.928	42.990	58.256	43.309	0.329	0.320
30	72.355	42.917	72.366	44.014	0.011	1.097
31	86.782	42.844	86.332	44.438	-0.450	1.594
32	101.209	42.771	100.096	44.364	-1.113	1.594
33	0.292	57.709	1.276	55.977	0.984	-1.732
34	14.719	57.636	15.435	56.141	0.716	-1.495
35	29.146	57.563	29.381	56.587	0.235	-0.976
36	43.574	57.490	43.389	57.014	-0.184	-0.475
37	58.001	57.417	57.480	57.260	-0.521	-0.157
38	72.428	57.344	71.376	57.825	-1.052	0.482
39	86.855	57.271	85.608	58.231	-1.247	0.961
40	101.282	57.198	99.528	58.579	-1.755	1.381
41	0.365	72.136	0.998	69.952	0.633	-2.184
42	14.792	72.063	14.981	70.309	0.189	-1.754
43	29.219	71.990	29.167	70.765	-0.052	-1.225
44	43.647	71.917	43.094	71.037	-0.553	-0.880
45	58.074	71.844	57.170	71.454	-0.904	-0.390
46	72.501	71.771	71.291	71.889	-1.210	0.118
47	86.928	71.698	85.359	72.315	-1.569	0.617
48	101.355	71.625	99.639	72.925	-1.716	1.300
49	0.438	86.563	0.646	84.125	0.208	-2.438
50	14.865	86.490	14.694	84.619	-0.171	-1.871
51	29.292	86.417	28.829	84.953	-0.463	-1.464
52	43.720	86.344	42.808	85.349	-0.912	-0.995
53	58.147	86.271	56.768	85.640	-1.379	-0.631

54	72.574	86.198	70.975	86.111	-1.599	-0.087
55	87.001	86.125	85.159	86.691	-1.842	0.566
56	101.428	86.052	99.297	87.133	-2.132	1.080
57	0.511	100.990	0.608	98.184	0.097	-2.806
58	14.938	100.917	14.542	98.682	-0.396	-2.235
59	29.365	100.844	28.828	99.119	-0.537	-1.725
60	43.793	100.771	42.901	99.399	-0.892	-1.373
61	58.220	100.698	- 56.878	99.847	-1.342	-0.852
62	72.647	100.625	71.049	100.326	-1.598	-0.299
63	87.074	100.552	85.012	100.919	-2.062	0.367
64	101.501	100.479	99.072	100.837	-2.430	0.358

[redacted] K 1 [redacted]

TABLE E- 6. TUBE CENTROID DISPLACEMENTS AT 1.8 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	2.113	-0.657	2.113	-0.657
2	14.427	-0.071	16.058	-0.003	1.631	0.068
3	28.854	-0.143	30.254	0.347	1.399	0.489
4	43.282	-0.214	44.636	0.530	1.354	0.744
5	57.709	-0.285	58.636	0.760	0.927	1.045
6	72.136	-0.356	73.024	1.306	0.888	1.662
7	86.563	-0.428	87.261	1.727	0.697	2.154
8	100.990	-0.499	101.529	1.570	0.539	2.069
9	0.071	14.427	1.874	13.866	1.803	-0.562
10	14.498	14.356	15.744	13.905	1.245	-0.451
11	28.926	14.285	30.123	14.135	1.198	-0.149
12	43.353	14.213	44.211	14.491	0.858	0.278
13	57.780	14.142	58.401	14.811	0.621	0.669
14	72.207	14.071	72.514	15.297	0.307	1.226
15	86.634	14.000	86.759	15.691	0.124	1.691
16	101.062	13.928	101.394	16.087	0.333	2.158
17	0.143	28.854	1.826	28.001	1.683	-0.853
18	14.570	28.783	15.808	28.047	1.238	-0.736
19	28.997	28.712	29.500	28.027	0.503	-0.685
20	43.424	28.641	43.890	28.715	0.466	0.075
21	57.851	28.569	58.081	29.187	0.229	0.618
22	72.279	28.498	72.369	29.780	0.090	1.282
23	86.706	28.427	86.574	29.958	-0.131	1.531
24	101.133	28.356	101.053	30.302	-0.080	1.946
25	0.214	43.282	1.317	42.083	1.103	-1.199
26	14.641	43.210	15.363	41.922	0.722	-1.289
27	29.068	43.139	29.622	42.621	0.554	-0.518
28	43.495	43.068	43.704	43.027	0.209	-0.041
29	57.923	42.997	58.080	43.200	0.158	0.203
30	72.350	42.925	72.301	43.973	-0.049	1.048
31	86.777	42.854	86.264	44.336	-0.513	1.482
32	101.204	42.783	100.680	44.652	-0.524	1.869
33	0.285	57.709	1.111	55.899	0.826	-1.810
34	14.712	57.638	15.297	56.097	0.585	-1.541
35	29.139	57.566	29.292	56.525	0.153	-1.041
36	43.567	57.495	43.326	56.884	-0.240	-0.611
37	57.994	57.424	57.841	57.657	-0.153	0.234
38	72.421	57.353	71.805	58.213	-0.616	0.861
39	86.848	57.281	86.503	59.017	-0.345	1.736
40	101.275	57.210	100.731	59.255	-0.544	2.045
41	0.356	72.135	0.811	70.232	0.455	-1.904
42	14.783	72.065	14.849	70.616	0.065	-1.449
43	29.211	71.993	29.257	70.907	0.046	-1.086
44	43.638	71.922	43.125	71.334	-0.513	-0.588
45	58.065	71.851	57.475	71.639	-0.590	-0.212
46	72.492	71.780	71.520	72.208	-0.973	0.428
47	86.919	71.708	85.403	72.205	-1.516	0.496
48	101.347	71.637	99.753	72.782	-1.594	1.144
49	0.428	86.563	0.553	84.037	0.125	-2.527
50	14.855	86.492	14.442	84.450	-0.413	-2.042
51	29.282	86.421	28.734	84.862	-0.548	-1.558
52	43.709	86.349	42.750	85.222	-0.959	-1.127
53	58.136	86.278	56.743	85.550	-1.394	-0.728

54	72.564	86.207	70.945	85.843	-1.619	-0.364
55	86.991	86.136	85.333	86.940	-1.658	0.804
56	101.418	86.064	99.268	86.887	-2.150	0.822
57	0.499	100.990	0.484	97.938	-0.015	-3.053
58	14.926	100.919	14.566	98.686	-0.360	-2.233
59	29.353	100.848	28.951	99.410	-0.403	-1.438
60	43.780	100.777	43.043	99.641	-0.737	-1.135
61	58.208	100.705	57.017	100.110	-1.191	-0.596
62	72.635	100.634	71.251	100.677	-1.383	0.043
63	87.062	100.563	85.185	101.210	-1.877	0.647
64	101.489	100.492	99.328	101.102	-2.161	0.611

[redacted] M I [redacted]

TABLE E- 7. TUBE CENTROID DISPLACEMENTS AT 3.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	2.328	-0.544	2.328	-0.544
2	14.427	-0.068	16.049	-0.186	1.621	-0.118
3	28.854	-0.136	30.153	0.163	1.299	0.299
4	43.282	-0.204	44.437	0.448	1.156	0.652
5	57.709	-0.272	58.555	0.601	0.846	0.874
6	72.136	-0.341	72.970	1.159	0.834	1.499
7	86.563	-0.409	87.292	1.571	0.728	1.980
8	100.990	-0.477	101.456	1.462	0.466	1.939
9	0.068	14.427	1.840	13.665	1.771	-0.762
10	14.495	14.359	15.622	13.691	1.127	-0.668
11	28.923	14.291	29.979	13.932	1.057	-0.359
12	43.350	14.223	44.078	14.276	0.729	0.053
13	57.777	14.155	58.303	14.633	0.526	0.478
14	72.204	14.087	72.516	15.112	0.312	1.026
15	86.631	14.018	86.722	15.484	0.091	1.465
16	101.059	13.950	101.399	15.862	0.341	1.911
17	0.136	28.854	1.739	27.772	1.603	-1.082
18	14.563	28.786	15.701	27.808	1.138	-0.978
19	28.991	28.718	29.576	28.186	0.585	-0.532
20	43.418	28.650	43.816	28.457	0.398	-0.193
21	57.845	28.582	58.017	29.016	0.172	0.434
22	72.272	28.514	72.282	29.608	0.010	1.094
23	86.699	28.446	86.550	29.814	-0.150	1.369
24	101.127	28.378	100.995	30.158	-0.132	1.780
25	0.204	43.282	1.336	41.760	1.132	-1.522
26	14.632	43.213	15.411	42.096	0.779	-1.117
27	29.059	43.145	29.536	42.413	0.478	-0.732
28	43.486	43.077	43.595	42.823	0.109	-0.254
29	57.913	43.009	58.037	43.072	0.124	0.063
30	72.340	42.941	72.165	43.847	-0.176	0.905
31	86.768	42.873	86.225	44.105	-0.542	1.232
32	101.195	42.805	100.561	44.486	-0.633	1.681
33	0.272	57.709	1.119	56.148	0.846	-1.560
34	14.700	57.641	15.271	56.401	0.571	-1.239
35	29.127	57.573	29.380	56.814	0.253	-0.759
36	43.554	57.504	43.499	57.177	-0.055	-0.327
37	57.981	57.436	57.699	57.496	-0.282	0.060
38	72.408	57.368	71.689	58.072	-0.720	0.704
39	86.836	57.300	85.973	58.562	-0.862	1.262
40	101.263	57.232	100.091	58.827	-1.172	1.595
41	0.341	72.136	0.857	70.192	0.516	-1.944
42	14.768	72.068	14.814	70.679	0.047	-1.389
43	29.195	72.000	29.042	70.996	-0.153	-1.003
44	43.622	71.932	43.179	71.371	-0.443	-0.560
45	58.049	71.864	57.334	71.856	-0.715	-0.008
46	72.477	71.795	71.602	72.239	-0.875	0.443
47	86.904	71.727	85.723	72.642	-1.181	0.915
48	101.331	71.659	100.162	73.279	-1.169	1.620
49	0.409	86.563	0.510	84.396	0.101	-2.167
50	14.836	86.495	14.492	84.971	-0.344	-1.524
51	29.263	86.427	28.749	85.289	-0.515	-1.138
52	43.690	86.359	42.859	85.650	-0.831	-0.709
53	58.118	86.291	57.019	86.017	-1.099	-0.273

54	72.545	86.223	71.253	86.343	-1.292	0.125
55	86.972	86.154	85.468	86.919	-1.504	0.765
56	101.399	86.086	99.782	87.434	-1.617	1.347
57	0.477	100.990	0.523	98.442	0.046	-2.548
58	14.904	100.922	14.402	98.890	-0.502	-2.032
59	29.331	100.854	28.852	99.434	-0.479	-1.421
60	43.758	100.786	43.024	99.672	-0.735	-1.114
61	58.186	100.718	57.102	100.152	-1.084	-0.566
62	72.613	100.650	71.317	100.873	-1.296	0.224
63	87.040	100.582	85.395	101.301	-1.645	0.719
64	101.467	100.514	99.529	101.143	-1.938	0.629

[redacted] 0 1 [redacted]

TABLE E- 8. TUBE CENTROID DISPLACEMENTS AT 5.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	2.276	-0.341	2.276	-0.341
2	14.427	-0.062	16.017	0.079	1.590	0.140
3	28.854	-0.124	30.150	0.439	1.296	0.562
4	43.282	-0.186	44.393	0.676	1.111	0.861
5	57.709	-0.247	58.444	0.872	0.735	1.119
6	72.136	-0.309	72.817	1.419	0.681	1.729
7	86.563	-0.371	87.180	1.784	0.617	2.155
8	100.990	-0.433	101.261	1.746	0.271	2.179
9	0.062	14.427	1.820	13.876	1.758	-0.551
10	14.489	14.365	15.530	13.783	1.041	-0.582
11	28.916	14.304	29.921	14.249	1.003	-0.054
12	43.343	14.242	44.007	14.444	0.664	0.202
13	57.771	14.180	58.011	14.692	0.240	0.512
14	72.198	14.118	71.986	15.086	-0.211	0.968
15	86.625	14.056	86.257	15.502	-0.368	1.446
16	101.052	13.994	100.788	15.826	-0.265	1.831
17	0.124	28.854	1.835	28.055	1.711	-0.800
18	14.551	28.793	15.671	27.852	1.120	-0.941
19	28.978	28.731	29.506	28.230	0.528	-0.501
20	43.405	28.669	43.655	28.461	0.250	-0.208
21	57.832	28.607	57.969	29.143	0.137	0.536
22	72.260	28.545	72.123	29.707	-0.137	1.161
23	86.687	28.483	86.326	29.897	-0.361	1.414
24	101.114	28.422	100.609	30.241	-0.505	1.820
25	0.186	43.282	1.483	41.916	1.298	-1.365
26	14.613	43.220	15.415	42.233	0.802	-0.987
27	29.040	43.158	29.458	42.261	0.418	-0.897
28	43.467	43.096	43.616	42.840	0.149	-0.256
29	57.894	43.034	57.854	43.260	-0.040	0.226
30	72.322	42.972	71.948	43.925	-0.374	0.952
31	86.749	42.911	86.050	44.146	-0.699	1.236
32	101.176	42.849	100.244	44.465	-0.932	1.617
33	0.247	57.709	1.314	56.249	1.066	-1.460
34	14.675	57.647	15.322	56.487	0.648	-1.160
35	29.102	57.585	29.425	56.880	0.323	-0.706
36	43.529	57.523	43.499	57.160	-0.030	-0.363
37	57.956	57.461	57.946	57.749	-0.010	0.287
38	72.383	57.400	71.495	57.769	-0.888	0.369
39	86.811	57.338	85.924	58.475	-0.887	1.137
40	101.238	57.276	100.446	58.691	-0.792	1.415
41	0.309	72.136	1.150	70.655	0.841	-1.481
42	14.736	72.074	14.942	70.838	0.205	-1.236
43	29.164	72.012	29.113	70.982	-0.051	-1.030
44	43.591	71.950	43.231	71.319	-0.360	-0.631
45	58.018	71.889	57.341	71.813	-0.677	-0.076
46	72.445	71.827	71.863	72.353	-0.583	0.527
47	86.872	71.765	85.684	72.572	-1.188	0.807
48	101.300	71.703	100.601	73.409	-0.699	1.705
49	0.371	86.563	0.676	84.370	0.305	-2.193
50	14.798	86.501	14.693	85.179	-0.106	-1.322
51	29.225	86.440	28.764	85.223	-0.462	-1.215
52	43.653	86.378	42.816	85.530	-0.837	-0.847
53	58.080	86.316	56.794	85.427	-1.285	-0.888

54	72.507	86.254	71.672	86.639	-0.835	0.385
55	86.934	86.192	85.872	87.075	-1.062	0.883
56	101.361	86.130	100.208	87.583	-1.153	1.453
57	0.433	100.990	0.889	97.893	0.456	-3.097
58	14.860	100.929	14.369	98.206	-0.491	-2.723
59	29.287	100.867	28.806	98.768	-0.482	-2.098
60	43.714	100.805	42.721	98.837	-0.994	-1.968
61	58.142	100.743	57.224	100.002	-0.918	-0.741
62	72.569	100.681	71.254	100.772	-1.315	0.091
63	86.996	100.619	85.259	101.030	-1.737	0.410
64	101.423	100.558	99.617	101.140	-1.807	0.583

TABLE E- 9. TUBE CENTROID DISPLACEMENTS AT 6.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

TUBE NO.	PRETEST CENTROID X-DIM. (MM)	PRETEST CENTROID Y-DIM. (MM)	POSTTEST CENTROID X-DIM. (MM)	POSTTEST CENTROID Y-DIM. (MM)	CTR DISPLACEMENT X-DIRECT (MM)	CTR DISPLACEMENT Y-DIRECT (MM)
1	0.000	0.000	2.375	-0.605	2.375	-0.605
2	14.427	-0.071	16.136	-0.336	1.709	-0.265
3	28.854	-0.141	30.216	0.148	1.361	0.290
4	43.282	-0.212	44.389	0.414	1.108	0.626
5	57.709	-0.283	58.532	0.729	0.823	1.012
6	72.136	-0.354	73.078	1.395	0.942	1.749
7	86.563	-0.424	87.129	1.729	0.566	2.153
8	100.990	-0.495	101.187	1.764	0.197	2.259
9	0.071	14.427	1.979	13.617	1.908	-0.810
10	14.498	14.356	15.699	13.663	1.201	-0.693
11	28.925	14.286	30.024	13.877	1.098	-0.408
12	43.352	14.215	44.088	14.439	0.736	0.224
13	57.780	14.144	58.268	14.893	0.488	0.749
14	72.207	14.074	72.649	15.423	0.442	1.349
15	86.634	14.003	86.785	15.704	0.151	1.702
16	101.061	13.932	101.128	16.158	0.067	2.226
17	0.141	28.854	1.755	27.633	1.614	-1.222
18	14.569	28.784	15.691	27.753	1.122	-1.031
19	28.996	28.713	29.641	28.265	0.645	-0.448
20	43.423	28.642	44.013	28.723	0.590	0.081
21	57.850	28.571	58.007	28.732	0.157	0.611
22	72.277	28.501	72.149	29.770	-0.128	1.270
23	86.705	28.430	86.790	30.125	0.086	1.695
24	101.132	28.359	100.598	30.412	-0.534	2.052
25	0.212	43.282	1.505	41.585	1.293	-1.696
26	14.639	43.211	15.470	41.941	0.831	-1.270
27	29.067	43.140	29.625	42.328	0.559	-0.812
28	43.494	43.069	43.967	43.222	0.473	0.153
29	57.921	42.999	57.782	43.286	-0.139	0.287
30	72.348	42.928	71.910	44.013	-0.438	1.085
31	86.775	42.857	86.327	44.228	-0.449	1.371
32	101.203	42.787	100.179	44.683	-1.023	1.897
33	0.283	57.709	1.298	56.090	1.015	-1.619
34	14.710	57.638	15.254	56.233	0.543	-1.405
35	29.137	57.567	29.469	56.837	0.332	-0.730
36	43.565	57.497	43.635	57.126	0.070	-0.370
37	57.992	57.426	57.827	57.603	-0.164	0.178
38	72.419	57.355	71.873	58.122	-0.546	0.767
39	86.846	57.284	86.129	58.606	-0.717	1.322
40	101.273	57.214	100.230	58.920	-1.043	1.706
41	0.354	72.136	0.839	70.135	0.485	-2.001
42	14.781	72.065	14.812	70.571	0.031	-1.494
43	29.208	71.995	28.948	70.856	-0.260	-1.138
44	43.635	71.924	43.142	71.246	-0.493	-0.678
45	58.062	71.853	57.247	71.815	-0.816	-0.038
46	72.490	71.782	71.527	72.240	-0.963	0.458
47	86.917	71.712	85.704	72.631	-1.212	0.920
48	101.344	71.641	100.024	73.151	-1.320	1.510
49	0.424	86.563	0.584	84.098	0.159	-2.465
50	14.852	86.492	14.559	84.781	-0.292	-1.712
51	29.279	86.422	28.751	84.994	-0.528	-1.428
52	43.706	86.351	42.876	85.402	-0.830	-0.949
53	58.133	86.280	57.150	85.805	-0.983	-0.475

54	72.560	86.210	71.300	86.228	-1.260	0.019
55	86.988	86.139	85.491	86.713	-1.497	0.575
56	101.415	86.068	99.766	87.198	-1.649	1.130
57	0.495	100.990	0.65[illegible]	98.249	0.162	-2.741
58	14.922	100.920	14.508	98.656	-0.415	-2.263
59	29.349	100.849	28.954	99.244	-0.395	-1.605
60	43.777	100.778	43.008	99.465	-0.768	-1.314
61	58.204	100.707	57.115	99.887	-1.089	-0.820
62	72.631	100.637	71.203	100.913	-1.428	0.276
63	87.058	100.566	85.275	101.017	-1.783	0.451
64	101.485	100.495	99.309	100.953	-2.176	0.357

[redacted] D 2 [redacted]

TABLE E-10. TUBE CENTROID DISPLACEMENTS AT 8.4 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	1.739	-0.735	1.739	-0.735
2	14.427	-0.057	15.652	-0.636	1.225	-0.580
3	28.854	-0.113	29.791	-0.139	0.937	-0.026
4	43.282	-0.170	44.082	0.025	0.801	0.194
5	57.709	-0.226	58.270	0.370	0.562	0.596
6	72.136	-0.283	72.471	0.837	0.335	1.120
7	86.563	-0.339	87.003	1.123	0.440	1.462
8	100.990	-0.396	101.174	1.331	0.184	1.726
9	0.057	14.427	1.156	13.473	1.100	-0.954
10	14.484	14.371	15.421	13.586	0.937	-0.785
11	28.911	14.314	29.752	13.887	0.841	-0.427
12	43.338	14.258	43.965	14.199	0.627	-0.059
13	57.765	14.201	58.031	14.630	0.266	0.429
14	72.193	14.145	72.190	15.011	-0.002	0.866
15	86.620	14.088	86.777	15.321	0.157	1.233
16	101.047	14.032	101.427	15.575	0.380	1.544
17	0.113	28.854	1.001	27.831	0.888	-1.024
18	14.540	28.798	15.299	27.786	0.759	-1.012
19	28.967	28.741	29.342	28.248	0.374	-0.493
20	43.395	28.685	43.637	28.491	0.242	-0.194
21	57.822	28.628	58.056	28.923	0.234	0.295
22	72.249	28.572	72.219	29.545	-0.030	0.974
23	86.676	28.515	86.647	29.592	-0.029	1.076
24	101.103	28.459	101.063	29.965	-0.041	1.506
25	0.170	43.282	1.046	41.853	0.876	-1.428
26	14.597	43.225	15.238	42.458	0.641	-0.767
27	29.024	43.169	29.387	42.772	0.363	-0.397
28	43.451	43.112	43.518	42.568	0.067	-0.544
29	57.878	43.056	57.933	43.476	0.054	0.420
30	72.306	42.999	72.181	44.054	-0.125	1.055
31	86.733	42.943	86.534	44.336	-0.199	1.394
32	101.160	42.886	100.877	44.655	-0.283	1.769
33	0.226	57.709	0.696	56.305	0.470	-1.403
34	14.653	57.652	15.149	56.569	0.496	-1.084
35	29.080	57.596	29.317	56.927	0.237	-0.669
36	43.508	57.539	43.598	57.177	0.090	-0.362
37	57.935	57.483	57.767	57.674	-0.168	0.191
38	72.362	57.426	71.927	58.072	-0.435	0.646
39	86.789	57.370	86.231	58.449	-0.558	1.079
40	101.216	57.313	100.611	58.820	-0.606	1.507
41	0.283	72.136	0.389	70.574	0.107	-1.562
42	14.710	72.079	14.737	70.919	0.027	-1.161
43	29.137	72.023	29.064	71.204	-0.073	-0.819
44	43.564	71.966	43.173	71.451	-0.391	-0.515
45	57.991	71.910	57.375	71.863	-0.617	-0.047
46	72.419	71.853	71.740	72.476	-0.679	0.623
47	86.846	71.797	86.260	72.686	-0.586	0.889
48	101.273	71.740	100.691	73.143	-0.582	1.403
49	0.339	86.563	0.292	84.715	-0.047	-1.848
50	14.766	86.507	14.248	84.741	-0.518	-1.765
51	29.193	86.450	28.596	85.464	-0.598	-0.987
52	43.621	86.394	43.129	85.831	-0.491	-0.563
53	58.048	86.337	57.428	86.156	-0.619	-0.181

54	72.475	86.281	71.492	86.685	-0.983	0.404
55	86.902	86.224	85.777	86.998	-1.125	0.774
56	101.329	86.168	100.412	87.323	-0.918	1.155
57	0.396	100.990	0.374	98.825	-0.022	-2.165
58	14.823	100.934	14.638	99.295	-0.184	-1.639
59	29.250	100.877	28.853	99.914	-0.397	-0.964
60	43.677	100.821	42.982	100.004	-0.695	-0.817
C:	58.104	100.764	57.245	100.351	-0.859	-0.413
62	72.532	100.708	71.595	101.485	-0.936	0.777
63	86.959	100.651	85.661	101.348	-1.297	0.697
64	101.386	100.595	100.025	101.182	-1.361	0.587

[redacted] F 2 [redacted]

TABLE E-11. TUBE CENTROID DISPLACEMENTS AT 10.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	1.901	-0.922	1.901	-0.922
2	14.427	-0.072	15.805	-0.770	1.378	-0.698
3	28.854	-0.144	30.137	-0.286	1.282	-0.143
4	43.282	-0.215	44.362	-0.013	1.081	0.202
5	57.709	-0.287	58.682	0.438	0.973	0.725
6	72.136	-0.359	73.006	0.859	0.870	1.218
7	86.563	-0.431	87.446	1.198	0.883	1.629
8	100.990	-0.502	101.602	1.487	0.611	1.989
9	0.072	14.427	1.339	13.256	1.267	-1.171
10	14.499	14.355	15.515	13.455	1.016	-0.901
11	28.926	14.284	29.882	13.812	0.956	-0.472
12	43.353	14.212	43.954	14.136	0.601	-0.076
13	57.781	14.140	58.512	14.690	0.731	0.550
14	72.208	14.068	72.904	15.128	0.696	1.060
15	86.635	13.997	86.644	15.513	0.010	1.517
16	101.062	13.925	101.478	15.893	0.415	1.968
17	0.144	28.854	0.864	27.544	0.721	-1.310
18	14.571	28.783	15.318	27.694	0.747	-1.089
19	28.998	28.711	29.614	28.256	0.616	-0.455
20	43.425	28.639	44.007	28.511	0.582	-0.128
21	57.852	28.567	58.139	29.100	0.286	0.533
22	72.280	28.496	72.401	29.523	0.122	1.027
23	86.707	28.424	86.878	29.864	0.172	1.440
24	101.134	28.352	101.259	30.219	0.125	1.867
25	0.215	43.282	0.936	41.721	0.720	-1.561
26	14.642	43.210	15.149	41.521	0.506	-1.689
27	29.070	43.138	29.602	42.554	0.532	-0.585
28	43.497	43.066	43.860	42.737	0.363	-0.329
29	57.924	42.995	58.099	43.306	0.175	0.311
30	72.351	42.923	72.259	43.817	-0.092	0.894
31	86.778	42.851	86.605	44.092	-0.173	1.241
32	101.206	42.779	100.729	44.532	-0.477	1.752
33	0.287	57.709	0.503	56.174	0.216	-1.535
34	14.714	57.637	15.218	55.760	0.504	-1.877
35	29.141	57.565	29.377	56.873	0.235	-0.692
36	43.569	57.494	43.465	56.937	-0.103	-0.557
37	57.996	57.422	57.682	57.373	-0.314	-0.049
38	72.423	57.350	72.196	58.230	-0.227	0.880
39	86.850	57.278	86.412	58.599	-0.438	1.321
40	101.277	57.207	100.719	59.134	-0.558	1.927
41	0.359	72.136	0.283	70.523	-0.076	-1.613
42	14.786	72.064	15.047	70.737	0.261	-1.327
43	29.213	71.992	28.950	71.119	-0.263	-0.874
44	43.640	71.921	43.035	70.892	-0.605	-1.029
45	58.068	71.849	57.386	71.840	-0.681	-0.009
46	72.495	71.777	71.897	72.766	-0.598	0.988
47	86.922	71.705	86.281	72.983	-0.641	1.277
48	101.349	71.634	100.548	73.427	-0.801	1.793
49	0.431	86.563	-0.085	84.022	-0.515	-2.541
50	14.858	86.491	14.468	85.312	-0.389	-1.180
51	29.285	86.420	28.685	85.296	-0.599	-1.124
52	43.712	86.348	43.191	86.045	-0.521	-0.303
53	58.139	86.276	57.374	86.336	-0.766	0.060

54	72.567	86.204	71.528	87.025	-1.038	0.821
55	86.994	86.133	85.524	86.779	-1.470	0.646
56	101.421	86.061	100.209	87.656	-1.212	1.595
57	0.502	100.990	0.165	98.683	-0.337	-2.308
58	14.929	100.919	14.374	98.385	-0.555	-2.533
59	29.357	100.847	28.664	99.596	-0.692	-1.251
60	43.784	100.775	42.769	99.746	-1.015	-1.029
61	58.211	100.703	57.157	100.449	-1.054	-0.255
62	72.638	100.632	70.971	101.473	-1.668	0.841
63	87.065	100.560	85.630	101.545	-1.436	0.985
64	101.493	100.488	99.252	101.046	-2.241	0.558

[redacted] H 2 [redacted]

TABLE E-12. TUBE CENTROID DISPLACEMENTS AT 11.6 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.327	-1.694	0.327	-1.694
2	14.427	-0.044	14.558	-1.648	0.130	-1.604
3	28.854	-0.088	29.435	-1.282	0.581	-1.193
4	43.282	-0.132	43.825	-0.934	0.543	-0.802
5	57.709	-0.176	58.366	-0.477	0.658	-0.300
6	72.136	-0.221	72.894	-0.178	0.758	0.042
7	86.563	-0.265	87.436	0.020	0.873	0.285
8	100.990	-0.309	101.861	0.395	0.871	0.703
9	0.044	14.427	-0.163	12.777	-0.207	-1.650
10	14.471	14.383	14.488	13.019	0.017	-1.364
11	28.899	14.339	29.194	13.257	0.295	-1.082
12	43.326	14.295	43.776	13.560	0.450	-0.735
13	57.753	14.251	58.218	14.126	0.465	-0.125
14	72.180	14.207	72.563	14.390	0.383	0.184
15	86.607	14.163	87.086	14.736	0.479	0.574
16	101.035	14.118	101.753	15.016	0.719	0.897
17	0.086	28.854	-0.631	27.278	-0.719	-1.577
18	14.515	28.810	14.205	27.532	-0.311	-1.278
19	28.943	28.766	29.042	28.074	0.100	-0.692
20	43.370	28.722	43.797	28.223	0.427	-0.500
21	57.797	28.678	58.018	28.605	0.221	-0.073
22	72.224	28.634	72.453	28.846	0.228	0.212
23	86.651	28.590	87.053	29.275	0.402	0.685
24	101.079	28.546	101.725	29.533	0.647	0.988
25	0.132	43.282	-0.407	41.868	-0.539	-1.413
26	14.560	43.237	14.435	41.956	-0.124	-1.282
27	28.987	43.193	29.032	42.599	0.045	-0.595
28	43.414	43.149	43.680	42.571	0.266	-0.579
29	57.841	43.105	58.104	43.048	0.263	-0.057
30	72.268	43.061	72.429	43.376	0.161	0.315
31	86.696	43.017	86.932	43.806	0.236	0.789
32	101.123	42.973	101.478	44.058	0.355	1.085
33	0.176	57.709	-0.995	56.635	-1.172	-1.074
34	14.604	57.665	14.402	56.061	-0.201	-1.604
35	29.031	57.621	28.988	57.157	-0.042	-0.463
36	43.458	57.576	43.492	57.177	0.034	-0.400
37	57.885	57.532	57.799	57.699	-0.086	0.167
38	72.312	57.488	72.304	58.028	-0.008	0.540
39	86.740	57.444	86.926	58.394	0.186	0.949
40	101.167	57.400	101.524	58.803	0.357	1.403
41	0.221	72.136	-0.896	71.495	-1.116	-0.641
42	14.648	72.092	14.705	71.394	0.057	-0.698
43	29.075	72.048	28.802	72.089	-0.273	0.042
44	43.502	72.004	43.501	71.875	-0.001	-0.129
45	57.929	71.960	57.905	72.388	-0.025	0.428
46	72.357	71.915	72.394	73.208	0.037	1.292
47	86.784	71.871	86.879	73.066	0.096	1.195
48	101.211	71.827	101.434	73.219	0.223	1.392
49	0.265	86.563	-0.896	86.065	-1.161	-0.498
50	14.692	86.519	13.994	86.520	-0.698	0.001
51	29.119	86.475	28.640	86.754	-0.479	0.279
52	43.546	86.431	43.331	86.830	-0.215	0.399
53	57.973	86.387	57.678	86.933	-0.295	0.546

54	72.401	86.343	72.065	87.663	-0.336	1.320
55	86.828	86.299	86.509	87.383	-0.319	1.084
56	101.255	86.254	101.188	87.649	-0.067	1.394
57	0.309	100.990	-0.606	100.540	-0.914	-0.451
58	14.735	100.946.	14.182	100.786	-0.554	-0.160
59	29.163	100.902	28.837	101.381	-0.326	0.478
60	43.590	100.858	43.212	101.056	-0.379	0.198
61	58.018	100.814	57.698	101.249	-0.320	0.435
62	72.445	100.770	72.062	102.520	-0.383	1.750
63	86.872	100.726	86.587	101.943	-0.285	1.217
64	101.299	100.682	100.964	102.127	-0.335	1.445

[redacted] J 2 [redacted]

TABLE E-13. TUBE CENTROID DISPLACEMENTS AT 13.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	1.191	-1.135	1.191	-1.135
2	14.427	-0.051	14.872	-1.271	0.444	-1.220
3	28.854	-0.103	30.118	-0.615	1.264	-0.512
4	43.282	-0.154	44.026	-0.550	0.745	-0.396
5	57.709	-0.205	58.982	0.235	1.173	0.440
6	72.136	-0.257	72.901	0.232	0.765	0.489
7	86.563	-0.308	87.294	0.426	0.731	0.734
8	100.990	-0.359	101.311	0.780	0.321	1.139
9	0.051	14.427	0.424	12.874	0.373	-1.553
10	14.479	14.376	14.815	12.998	0.337	-1.378
11	28.906	14.325	29.381	13.265	0.475	-1.060
12	43.333	14.273	43.801	13.600	0.468	-0.673
13	57.760	14.222	58.209	14.463	0.449	0.241
14	72.187	14.171	72.206	14.351	0.018	0.181
15	86.615	14.119	86.548	14.896	-0.067	0.777
16	101.042	14.068	101.065	15.047	0.024	0.979
17	0.103	28.854	-0.245	26.849	-0.348	-2.005
18	14.530	28.803	14.710	27.725	0.180	-1.078
19	28.957	28.752	29.176	28.044	0.219	-0.708
20	43.384	28.700	44.000	28.167	0.616	-0.534
21	57.811	28.649	57.800	28.434	-0.012	-0.215
22	72.239	28.598	71.694	28.566	-0.545	-0.032
23	86.666	28.546	86.748	29.482	0.082	0.936
24	101.093	28.495	101.995	29.984	0.902	1.489
25	0.154	43.282	0.139	41.853	-0.015	-1.428
26	14.581	43.230	14.964	41.938	0.383	-1.293
27	29.008	43.179	29.573	42.837	0.564	-0.342
28	43.436	43.128	44.201	42.640	0.766	-0.487
29	57.863	43.076	57.914	42.612	0.051	-0.465
30	72.290	43.025	72.015	42.711	-0.275	-0.314
31	86.717	42.974	86.383	43.478	-0.334	0.505
32	101.144	42.922	101.461	44.358	0.317	1.436
33	0.205	57.709	-0.452	56.587	-0.657	-1.122
34	14.632	57.657	14.635	55.252	0.003	-2.405
35	29.060	57.606	28.929	56.563	-0.131	-1.044
36	43.487	57.555	43.284	56.456	-0.203	-1.098
37	57.914	57.504	57.803	58.077	-0.111	0.574
38	72.341	57.452	71.910	57.982	-0.431	0.530
39	86.768	57.401	86.403	58.207	-0.365	0.806
40	101.196	57.350	100.761	58.665	-0.435	1.316
41	0.257	72.136	-0.615	70.874	-0.871	-1.262
42	14.684	72.085	15.025	70.611	0.341	-1.474
43	29.111	72.033	29.374	72.306	0.263	0.272
44	43.538	71.982	43.639	71.549	0.101	-0.433
45	57.965	71.931	57.817	72.201	-0.148	0.270
46	72.393	71.879	72.668	74.097	0.276	2.218
47	86.820	71.828	87.096	73.722	0.276	1.894
48	101.247	71.777	100.379	72.943	-0.868	1.166
49	0.308	86.563	-0.595	85.488	-0.903	-1.075
50	14.735	86.512	14.097	85.564	-0.639	-0.948
51	29.162	86.461	28.938	87.317	-0.225	0.857
52	43.590	86.409	43.784	87.224	0.195	0.814
53	58.017	86.358	57.163	86.486	-0.854	0.128

[redacted] K ? [redacted]

54	72.444	86.307	71.777	88.083	-0.667	1.776
55	86.871	86.255	85.613	86.831	-1.259	0.575
56	101.298	86.204	100.094	87.158	-1.205	0.954
57	0.359	100.990	-0.092	99.506	-0.452	-1.485
58	14.786	100.939	14.637	100.718	-0.150	-0.221
59	29.214	100.888	28.780	100.306	-0.434	-0.582
60	43.641	100.836	43.468	101.026	-0.173	0.190
61	58.068	100.785	57.813	101.290	-0.256	0.505
62	72.495	100.734	72.070	102.745	-0.425	2.011
63	86.922	100.682	86.490	102.260	-0.432	1.577
64	101.350	100.631	100.925	102.831	-0.425	2.200

[redacted] L 2 [redacted]

TABLE E-14. TUBE CENTROID DISPLACEMENTS AT 15.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.479	-1.112	0.479	-1.112
2	14.427	-0.045	14.185	-1.201	-0.242	-1.157
3	28.854	-0.089	29.485	-0.687	0.630	-0.598
4	43.282	-0.134	43.836	-0.621	0.554	-0.487
5	57.709	-0.178	58.268	0.211	0.559	0.389
6	72.136	-0.223	72.674	0.242	0.538	0.464
7	86.563	-0.267	87.189	0.291	0.626	0.558
8	100.990	-0.312	101.573	0.642	0.583	0.953
9	0.045	14.427	-0.140	12.956	-0.184	-1.471
10	14.472	14.383	14.335	13.002	-0.137	-1.380
11	28.899	14.338	29.110	13.244	0.212	-1.094
12	43.326	14.294	43.908	13.664	0.582	-0.630
13	57.753	14.249	58.195	14.549	0.442	0.300
14	72.181	14.205	72.192	14.120	0.012	-0.085
15	86.608	14.160	86.621	14.756	0.013	0.595
16	101.035	14.116	101.433	14.846	0.398	0.730
17	0.089	28.854	-0.739	26.731	-0.828	-2.124
18	14.516	28.810	14.035	27.541	-0.481	-1.269
19	28.943	28.765	29.150	28.099	0.207	-0.666
20	43.371	28.721	43.959	27.836	0.589	-0.885
21	57.798	28.676	57.939	28.443	0.141	-0.233
22	72.225	28.632	71.935	28.334	-0.290	-0.298
23	86.652	28.587	86.669	29.360	0.016	0.772
24	101.079	28.543	101.243	29.357	0.164	0.814
25	0.134	43.282	0.359	40.659	0.225	-2.623
26	14.561	43.237	14.322	41.541	-0.239	-1.696
27	28.988	43.193	29.245	42.571	0.257	-0.622
28	43.415	43.148	44.029	42.284	0.614	-0.864
29	57.842	43.104	58.491	42.947	0.649	-0.157
30	72.270	43.059	72.804	42.454	0.535	-0.605
31	86.697	43.015	87.123	43.719	0.427	0.704
32	101.124	42.970	101.493	44.222	0.369	1.252
33	0.178	57.709	-0.011	57.235	-0.189	-0.474
34	14.605	57.664	14.379	55.125	-0.226	-2.539
35	29.032	57.620	29.013	56.730	-0.019	-0.890
36	43.460	57.575	43.255	56.527	-0.205	-1.049
37	57.887	57.531	57.046	57.775	-0.841	0.244
38	72.314	57.486	71.751	57.659	-0.563	0.173
39	86.741	57.442	87.175	58.524	0.434	1.082
40	101.168	57.397	101.484	58.946	0.315	1.549
41	0.223	72.136	0.033	70.832	-0.190	-1.304
42	14.650	72.091	16.661	71.131	2.011	-0.961
43	29.077	72.047	29.278	71.925	0.201	-0.122
44	43.504	72.002	43.921	71.840	0.417	-0.162
45	57.931	71.958	58.111	72.602	0.179	0.644
46	72.359	71.913	72.590	74.071	0.232	2.158
47	86.786	71.869	86.830	73.236	0.044	1.467
48	101.213	71.824	101.111	73.343	-0.102	1.518
49	0.267	86.563	-0.817	85.868	-1.084	-0.695
50	14.694	86.519	14.047	86.673	-0.648	0.155
51	29.121	86.474	28.836	87.413	-0.286	0.939
52	43.549	86.430	43.686	87.158	0.138	0.729
53	57.976	86.385	57.420	87.138	-0.556	0.753

54	72.403	86.341	71.661	88.745	-0.743	2.405
55	86.830	86.296	86.201	87.417	-0.629	1.121
56	101.257	86.252	100.751	87.785	-0.507	1.534
57	0.312	100.990	-0.511	100.567	-0.822	-0.423
58	14.739	100.946	14.379	100.668	-0.359	-0.278
59	29.166	100.901	29.037	101.463	-0.129	0.561
60	43.593	100.857	43.244	100.921	-0.349	0.064
61	58.020	100.812	57.535	100.926	-0.485	0.114
62	72.448	100.768	71.689	102.392	-0.759	1.614
63	86.875	100.723	86.029	101.741	-0.846	1.018
64	101.302	100.679	100.450	102.257	-0.852	1.578

[redacted] N 2 [redacted]

TABLE E-15. TUBE CENTROID DISPLACEMENTS AT 17.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

TUBE NO.	PRETEST CENTROID X-DIM. (MM)	PRETEST CENTROID Y-DIM. (MM)	POSTTEST CENTROID X-DIM. (MM)	POSTTEST CENTROID Y-DIM. (MM)	CTR DISPLACEMENT X-DIRECT (MM)	CTR DISPLACEMENT Y-DIRECT (MM)
1	0.000	0.000	0.427	-1.054	0.427	-1.054
2	14.427	-0.045	13.999	-1.267	-0.428	-1.222
3	28.854	-0.089	29.481	-0.676	0.626	-0.586
4	43.282	-0.134	43.938	-0.551	0.656	-0.417
5	57.709	-0.179	58.284	0.258	0.576	0.437
6	72.136	-0.224	72.588	0.264	0.452	0.488
7	86.563	-0.268	86.998	0.345	0.434	0.613
8	100.990	-0.313	101.354	0.553	0.363	0.866
9	0.045	14.427	-0.116	12.953	-0.161	-1.474
10	14.472	14.382	14.418	13.011	-0.054	-1.372
11	28.899	14.338	29.430	13.215	0.530	-1.123
12	43.326	14.293	43.978	13.601	0.652	-0.692
13	57.754	14.248	58.279	14.707	0.525	0.459
14	72.181	14.204	72.330	14.144	0.150	-0.060
15	86.608	14.159	86.746	14.923	0.138	0.764
16	101.035	14.114	101.400	14.768	0.365	0.653
17	0.089	28.854	-0.882	26.897	-0.972	-1.957
18	14.517	28.810	13.918	27.462	-0.599	-1.347
19	28.944	28.765	29.393	28.186	0.450	-0.579
20	43.371	28.720	44.417	28.032	1.046	-0.688
21	57.798	28.676	57.972	28.387	0.174	-0.288
22	[illegible]	28.631	71.848	28.139	-0.378	-0.491
23	[illegible].653	28.586	86.486	29.348	-0.167	0.762
24	[illegible].080	28.541	101.081	29.188	0.001	0.647
25	0.134	43.282	-0.480	41.078	-0.614	-2.204
26	14.561	43.237	14.205	41.394	-0.357	-1.843
27	28.989	43.192	29.354	42.586	0.366	-0.607
28	43.416	43.147	44.138	41.842	0.722	-1.305
29	57.[illegible]3	43.103	58.557	42.708	0.714	-0.395
30	72.[illegible]0	43.058	72.903	41.898	0.633	-1.160
31	86.697	43.013	86.971	43.401	0.274	0.387
32	101.125	42.969	100.983	43.959	-0.142	0.991
33	0.179	57.709	-0.883	56.349	-1.061	-1.359
34	14.606	57.664	14.198	54.701	-0.408	-2.963
35	29.033	57.619	29.055	56.730	0.022	-0.890
36	43.460	57.575	43.130	56.339	-0.331	-1.236
37	57.888	57.530	57.001	57.712	-0.887	0.182
38	72.315	57.485	72.345	57.099	0.030	-0.387
39	86.742	57.441	87.482	58.648	0.740	1.208
40	101.169	57.396	102.277	59.557	1.108	2.161
41	0.224	72.136	0.043	70.511	-0.180	-1.625
42	14.651	72.091	17.415	71.357	2.764	-0.734
43	29.078	72.047	29.418	71.846	0.340	-0.201
44	43.505	72.002	43.995	71.833	0.490	-0.169
45	57.932	71.957	58.261	72.896	0.329	0.939
46	72.360	71.912	72.874	74.421	0.514	2.509
47	86.787	71.868	87.367	73.781	0.580	1.914
48	101.214	71.823	100.795	73.451	-0.419	1.628
49	0.268	86.563	0.042	85.536	-0.226	-1.027
50	14.695	86.518	13.882	86.875	-0.814	0.357
51	29.123	86.474	29.068	87.229	-0.054	0.755
52	43.550	86.429	43.866	87.425	0.316	0.996
53	57.977	86.384	57.283	87.359	-0.694	0.974

54	72.404	86.340	71.549	89.284	-0.856	2.944
55	86.831	86.295	86.156	87.486	-0.676	1.192
56	101.259	86.250	100.408	87.846	-0.851	1.596
57	0.313	100.990	-0.616	100.947	-0.929	-0.044
58	14.740	100.946	14.327	100.914	-0.413	-0.032
59	29.167	100.901	29.003	101.754	-0.164	0.853
60	43.595	100.856	43.256	101.186	-0.339	0.330
61	58.022	100.812	57.513	101.095	-0.509	0.284
62	72.449	100.767	71.513	102.400	-0.936	1.633
63	86.876	100.722	85.958	101.948	-0.918	1.226
64	101.303	100.677	99.335	101.461	-1.969	0.783

[redacted] P 2 [redacted]

TABLE E-16. TUBE CENTROID DISPLACEMENTS AT 18.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.496	-1.030	0.496	-1.030
2	14.427	-0.053	13.905	-1.345	-0.523	-1.292
3	28.854	-0.106	29.503	-0.772	0.649	-0.666
4	43.282	-0.159	44.177	-0.468	0.896	-0.309
5	57.709	-0.212	58.489	0.345	0.780	0.557
6	72.136	-0.265	72.756	0.289	0.620	0.553
7	86.563	-0.318	87.109	0.432	0.546	0.750
8	100.990	-0.371	101.484	0.565	0.494	0.936
9	0.053	14.427	-0.019	12.985	-0.072	-1.442
10	14.480	14.374	14.669	12.694	0.189	-1.680
11	28.907	14.321	29.622	13.176	0.714	-1.145
12	43.335	14.268	44.191	13.483	0.857	-0.785
13	57.762	14.215	58.514	14.778	0.752	0.563
14	72.189	14.162	72.432	14.042	0.243	-0.121
15	86.616	14.109	86.887	14.863	0.271	0.754
16	101.043	14.057	101.403	14.723	0.360	0.666
17	0.106	28.[illegible]	-0.821	26.910	-0.927	-1.944
18	14.533	2[illegible]	14.015	27.375	-0.518	-1.426
19	28.960	28.[illegible]	29.676	28.173	0.715	-0.576
20	43.388	28.696	44.716	27.878	1.329	-0.818
21	57.815	28.643	58.188	28.339	0.373	-0.304
22	72.242	28.590	71.960	28.113	-0.282	-0.477
23	86.669	28.537	86.580	29.439	-0.089	0.903
24	101.096	28.484	101.102	29.152	0.006	0.668
25	0.159	43.282	-0.483	41.285	-0.642	-1.996
26	14.586	43.229	14.241	41.148	-0.345	-2.081
27	29.013	43.176	29.560	42.538	0.547	-0.638
28	43.440	43.123	44.443	41.604	1.003	-1.518
29	57.868	43.070	58.899	42.780	1.031	-0.289
30	72.295	43.017	73.316	41.938	1.021	-1.079
31	86.722	42.964	87.228	43.424	0.506	0.460
32	101.149	42.911	100.995	44.008	-0.154	1.097
33	0.212	57.709	-0.852	55.985	-1.064	-1.723
34	14.639	57.656	14.159	54.451	-0.480	-3.205
35	29.066	57.603	29.816	56.627	0.750	-0.976
36	43.493	57.550	43.049	56.165	-0.444	-1.385
37	57.921	57.497	57.174	57.579	-0.746	0.082
38	72.348	57.444	72.253	57.014	-0.095	-0.430
39	86.775	57.391	87.007	58.555	0.232	1.164
40	101.202	57.338	101.607	59.252	0.404	1.913
41	0.265	72.136	-0.535	71.337	-0.800	-0.799
42	14.692	72.083	15.380	69.406	0.688	-2.677
43	29.119	72.030	29.321	71.702	0.202	-0.328
44	43.546	71.977	44.072	71.563	0.526	-0.414
45	57.974	71.924	58.228	73.104	0.254	1.180
46	72.401	71.871	73.147	74.322	0.746	2.451
47	86.828	71.818	87.161	73.679	0.333	1.861
48	101.255	71.765	100.764	73.609	-0.491	1.843
49	0.318	86.563	-1.106	85.896	-1.424	-0.667
50	14.745	86.510	13.582	86.876	-1.163	0.366
51	29.172	86.457	29.551	86.553	0.379	0.095
52	43.599	86.404	43.939	87.670	0.340	1.266
53	58.027	86.351	57.168	87.564	-0.859	1.213

54	72.454	86.298	71.566	89.481	-0.888	3.182
55	86.881	86.245	86 255	87.794	-0.626	1.548
56	101.308	86.193	100.326	88.102	-0.982	1.910
57	0.371	100.990	-0.341	100.211	-0.711	-0.779
58	14.798	100.937	14.709	100.360	-0.089	-0.578
59	29.225	100.884	28.789	101.861	-0.437	0.977
60	43.652	100.832	43.250	101.360	-0.402	0.528
61	58.079	100.779	57.510	101.294	-0.570	0.515
62	72.507	100.726	71.368	102.827	-1.138	2.102
63	86.934	100.673	85.891	102.202	-1.043	1.529
64	101.361	100.620	100.114	102.564	-1.247	1.944

TABLE E-17. TUBE CENTROID DISPLACEMENTS AT 20.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.237	-1.220	0.237	-1.220
2	14.42	-0.057	13.684	-1.853	-0.743	-1.796
3	28.85	-0.115	29.413	-1.212	0.559	-1.097
4	43.282	-0.172	44.430	-0.675	1.149	-0.503
5	57.709	-0.229	58.695	0.205	0.986	0.434
6	72.136	-0.287	73.047	0.019	0.911	0.306
7	86.563	-0.344	87.325	0.413	0.761	0.757
8	100.990	-0.402	101.672	0.341	0.682	0.743
9	0.057	14.427	-0.202	12.909	-0.259	-1.518
10	14.485	14.370	15.586	11.729	1.102	-2.641
11	28.912	14.312	29.795	13.114	0.984	-1.198
12	43.339	14.255	44.353	13.221	1.014	-1.034
13	57.766	14.198	58.739	14.678	0.973	0.480
14	72.193	14.140	72.723	13.755	0.529	-0.385
15	86.621	14.083	87.189	14.648	0.569	0.565
16	101.048	14.026	101.774	14.386	0.726	0.360
17	0.115	28.854	-1.200	26.781	-1.315	-2.074
18	14.542	28.797	13.716	27.243	-0.826	-1.554
19	28.969	28.740	29.481	27.946	0.512	-0.794
20	43.396	28.682	44.643	27.485	1.247	-1.197
21	57.824	28.625	58.236	28.075	0.412	-0.550
22	72.251	28.568	72.079	27.869	-0.172	-0.698
23	86.678	28.510	86.817	29.241	0.139	0.731
24	101.105	28.453	100.728	28.575	-0.377	0.122
25	0.172	43.282	-0.651	41.192	-0.823	-2.090
26	14.599	43.224	13.392	41.071	-1.207	-2.154
27	29.026	43.167	29.547	42.293	0.520	-0.874
28	43.454	43.110	44.571	41.244	1.117	-1.866
29	57.881	43.052	59.234	42.668	1.353	-0.384
30	72.308	42.995	73.712	41.990	1.404	-1.005
31	86.735	42.937	87.460	43.319	0.725	0.382
32	101.162	42.880	101.282	43.971	0.120	1.091
33	0.229	57.709	-1.072	55.901	-1.301	-1.807
34	14.657	57.651	14.032	54.402	-0.625	-3.249
35	29.084	57.594	30.257	56.578	1.173	-1.017
36	43.511	57.537	42.959	55.959	-0.552	-1.578
37	57.938	57.479	57.313	57.721	-0.625	0.241
38	72.365	57.422	71.796	57.470	-0.569	0.048
39	86.793	57.365	87.347	57.710	0.554	0.345
40	101.220	57.307	101.885	59.297	0.665	1.990
41	0.287	72.136	-0.816	71.555	-1.103	-0.581
42	14.714	72.079	14.969	69.549	0.255	-2.530
43	29.141	72.021	29.126	72.291	-0.015	0.270
44	43.568	71.964	43.455	71.913	-0.113	-0.051
45	57.996	71.907	58.181	73.432	0.186	1.526
46	72.423	71.849	73.599	74.316	1.177	2.466
47	86.850	71.792	87.601	73.888	0.751	2.096
48	101.277	71.734	100.854	73.870	-0.423	2.135
49	0.344	86.563	-1.465	86.265	-1.809	-0.298
50	14.771	86.506	12.998	86.983	-1.773	0.477
51	29.199	86.448	28.644	87.485	-0.554	1.037
52	43.626	86.391	43.645	87.914	0.019	1.523
53	58.053	86.334	57.169	87.949	-0.884	1.616

54	72.480	86.276	71.708	89.649	-0.772	3.373
55	86.907	86.219	86.480	88.238	-0.428	2.019
56	101.335	86.162	100.501	88.479	-0.834	2.317
57	0.402	100.990	-0.390	100.101	-0.792	-0.889
58	14.829	100.933	14.869	100.145	0.041	-0.788
59	29.256	100.876	28.632	102.076	-0.624	1.200
60	43.683	100.818	43.416	101.751	-0.267	0.933
61	58.110	100.761	57.623	101.654	-0.487	0.893
62	72.538	100.704	71.368	103.343	-1.170	2.640
63	86.965	100.646	86.051	102.602	-0.914	1.956
64	101.392	100.589	100.299	102.939	1.093	2.350

[redacted] E 3 [redacted]

TABLE E-18. TUBE CENTROID DISPLACEMENTS AT 21.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.115	-1.050	-0.115	-1.050
2	14.427	-0.046	13.340	-1.665	-1.087	-1.619
3	28.854	-0.092	29.248	-1.352	0.394	-1.260
4	43.282	-0.138	44.517	-0.606	1.235	-0.469
5	57.709	-0.183	58.789	0.242	1.080	0.425
6	72.136	-0.229	73.169	-0.252	1.033	-0.023
7	86.563	-0.275	87.410	0.346	0.847	0.621
8	100.990	-0.321	101.568	0.058	0.577	0.379
9	0.046	14.427	-0.139	13.042	-0.185	-1.385
10	14.473	14.381	15.537	11.951	1.064	-2.430
11	28.900	14.335	29.720	13.279	0.819	-1.057
12	43.327	14.290	44.362	13.120	1.035	-1.170
13	57.755	14.244	58.767	14.671	1.013	0.427
14	72.182	14.198	72.682	13.623	0.500	-0.575
15	86.609	14.152	87.047	14.418	0.438	0.266
16	101.036	14.106	101.497	14.109	0.461	0.002
17	0.092	28.854	-1.347	26.992	-1.438	-1.863
18	14.519	28.809	13.475	27.433	-1.044	-1.376
19	28.946	28.763	29.259	27.874	0.313	-0.889
20	43.373	28.717	44.433	27.224	1.060	-1.493
21	57.801	28.671	58.047	27.927	0.247	-0.744
22	72.228	28.625	72.018	27.758	-0.210	-0.867
23	86.655	28.579	86.527	29.193	-0.128	0.614
24	101.082	28.533	100.092	27.924	-0.990	-0.609
25	0.138	43.282	-0.658	41.338	-0.796	-1.944
26	14.565	43.236	13.820	40.859	-0.745	-2.377
27	28.992	43.190	29.380	42.068	0.388	-1.122
28	43.419	43.144	44.685	40.992	1.266	-2.152
29	57.846	43.098	59.544	42.328	1.698	-0.770
30	72.274	43.052	73.842	42.071	1.569	-0.981
31	86.701	43.006	87.495	43.137	0.794	0.131
32	101.128	42.961	101.189	43.787	0.061	0.827
33	0.183	57.709	-0.830	56.076	-1.014	-1.633
34	14.611	57.663	13.984	55.693	-0.627	-1.970
35	29.038	57.617	29.759	56.964	0.721	-0.653
36	43.465	57.571	43.235	55.797	-0.230	-1.774
37	57.892	57.525	57.365	57.992	-0.527	0.467
38	72.319	57.479	71.769	57.398	-0.551	-0.082
39	86.747	57.434	87.503	57.486	0.756	0.052
40	101.174	57.388	101.805	59.015	0.631	1.627
41	0.229	72.136	-0.111	71.636	-0.340	-0.500
42	14.657	72.090	14.748	71.421	0.092	-0.669
43	29.084	72.044	28.925	72.691	-0.158	0.647
44	43.511	71.998	43.392	71.773	-0.119	-0.226
45	57.938	71.953	57.809	73.419	-0.129	1.466
46	72.365	71.907	73.190	74.200	0.824	2.293
47	86.793	71.861	87.768	73.725	0.975	1.864
48	101.220	71.815	100.783	73.584	-0.437	1.769
49	0.275	86.563	-1.255	86.657	-1.530	0.094
50	14.702	86.517	13.353	86.910	-1.349	0.392
51	29.130	86.471	28.715	87.731	-0.414	1.259
52	43.557	86.426	43.523	87.945	-0.034	1.520
53	57.984	86.380	57.250	88.008	-0.734	1.628

54	72.411	86.334	71.755	90.233	-0.656	3.899
55	86.838	86.288	86.411	88.058	-0.427	1.770
56	101.266	86.242	100.469	88.256	-0.796	2.014
57	0.321	100.990	-0.874	101.059	-1.195	0.069
58	14.748	100.945	13.964	101.003	-0.784	0.058
59	29.175	100.899	28.754	102.080	-0.421	1.182
60	43.603	100.853	43.702	101.720	0.099	0.867
61	58.030	100.807	57.889	101.672	-0.141	0.865
62	72.457	100.761	71.439	103.355	-1.018	2.594
63	86.884	100.715	86.154	102.441	-0.730	1.726
64	101.311	100.669	100.422	102.587	-0.890	1.917

TABLE E-19. TUBE CENTROID DISPLACEMENTS AT 23.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

TUBE NO.	PRETEST CENTROID X-DIM. (MM)	PRETEST CENTROID Y-DIM. (MM)	POSTTEST CENTROID X-DIM. (MM)	POSTTEST CENTROID Y-DIM. (MM)	CTR DISPLACEMENT X-DIRECT (MM)	CTR DISPLACEMENT Y-DIRECT (MM)
1	0.000	0.000	0.066	-1.205	0.066	-1.205
2	14.427	-0.056	13.432	-1.711	-0.996	-1.655
3	28.854	-0.112	29.382	-1.264	0.527	-1.152
4	43.282	-0.168	44.767	-0.563	1.486	-0.394
5	57.709	-0.225	59.027	0.464	1.318	0.689
6	72.136	-0.281	73.237	-0.252	1.101	0.028
7	86.563	-0.337	87.345	0.646	0.782	0.983
8	100.990	-0.393	101.271	0.332	0.281	0.725
9	0.056	14.427	0.265	12.780	0.208	-1.647
10	14.483	14.371	14.784	12.588	0.301	-1.783
11	28.911	14.315	29.835	13.193	0.925	-1.122
12	43.338	14.259	44.754	12.914	1.416	-1.345
13	57.765	14.203	59.076	14.565	1.312	0.362
14	72.192	14.147	73.054	13.502	0.862	-0.644
15	86.619	14.090	87.531	14.749	0.912	0.658
16	101.047	14.034	101.494	14.117	0.447	0.083
17	0.112	28.854	-1.120	26.692	-1.232	-2.162
18	14.539	28.798	13.685	27.212	-0.855	-1.586
19	28.967	28.742	29.362	27.491	0.395	-1.251
20	43.394	28.686	44.589	26.858	1.195	-1.828
21	57.821	28.630	58.189	27.715	0.368	-0.915
22	72.248	28.574	72.395	27.628	0.147	-0.946
23	86.675	28.518	86.861	29.140	0.185	0.623
24	101.103	28.461	100.895	28.653	-0.208	0.192
25	0.168	43.282	-0.393	41.046	-0.561	-2.235
26	14.596	43.225	14.267	40.888	-0.329	-2.337
27	29.023	43.169	29.590	41.633	0.568	-1.536
28	43.450	43.113	44.990	40.716	1.540	-2.397
29	57.877	43.057	59.859	42.262	1.982	-0.796
30	72.304	43.001	74.021	42.146	1.716	-0.854
31	86.732	42.945	87.766	43.271	1.035	0.326
32	101.159	42.889	101.240	43.814	0.081	0.926
33	0.225	57.709	-0.436	55.956	-0.660	-1.753
34	14.652	57.653	14.226	55.861	-0.426	-1.791
35	29.079	57.597	29.798	57.002	0.719	-0.595
36	43.506	57.540	43.481	55.403	-0.025	-2.137
37	57.933	57.484	57.395	57.998	-0.538	0.514
38	72.361	57.428	71.804	57.189	-0.557	-0.240
39	86.788	57.372	87.157	58.023	0.369	0.651
40	101.215	57.316	101.725	58.851	0.510	1.535
41	0.281	72.136	-0.441	71.499	-0.721	-0.637
42	14.708	72.080	14.275	71.937	-0.433	-0.143
43	29.135	72.024	28.863	72.667	-0.272	0.643
44	43.562	71.968	43.408	71.551	-0.155	-0.417
45	57.989	71.911	57.693	73.171	-0.296	1.259
46	72.417	71.855	71.473	75.037	-0.944	3.182
47	86.844	71.799	87.969	73.555	1.125	1.756
48	101.271	71.743	100.819	73.506	-0.452	1.763
49	0.337	86.563	-0.987	86.363	-1.323	-0.200
50	14.764	86.507	13.327	86.942	-1.437	0.435
51	29.191	86.451	28.684	87.625	-0.507	1.174
52	43.618	86.395	43.397	87.737	-0.222	1.343
53	58.046	86.339	57.342	87.951	-0.703	1.612

54	72.473	86.283	71.184	91.082	-1.289	4.800
55	86.900	86.226	85.169	87.181	-1.731	0.955
56	101.327	86.170	100.423	88.127	-0.904	1.956
57	0.393	100.930	-0.961	100.523	-1.354	-0.468
58	14.820	100.934	13.655	100.505	-1.165	-0.349
59	29.247	100.878	28.736	101.864	-0.511	0.986
60	43.675	100.822	43.782	101.618	0.108	0.795
61	58.102	100.766	58.049	101.713	-0.053	0.947
62	72.529	100.710	71.427	103.498	-1.102	2.788
63	86.956	100.654	86.193	102.416	-0.763	1.762
64	101.383	100.597	100.120	102.667	-1.263	2.069

TABLE E-20. TUBE CENTROID DISPLACEMENTS AT 24.7 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.244	-1.278	-0.244	-1.278
2	14.427	-0.039	13.128	-1.771	-1.299	-1.732
3	28.854	-0.078	28.281	0.182	-0.573	0.260
4	43.282	-0.117	44.511	-0.666	1.230	-0.549
5	57.709	-0.156	58.875	0.347	1.166	0.503
6	72.136	-0.195	73.074	-0.487	0.938	-0.292
7	86.563	-0.234	87.115	0.572	0.552	0.806
8	100.990	-0.273	100.769	0.221	-0.221	0.494
9	0.039	14.427	0.109	12.480	0.070	-1.948
10	14.466	14.388	13.960	12.646	-0.507	-1.742
11	28.893	14.349	29.715	13.434	0.821	-0.915
12	43.321	14.310	44.654	12.606	1.333	-1.704
13	57.748	14.271	58.906	14.238	1.159	-0.033
14	72.175	14.232	73.018	13.163	0.843	-1.069
15	86.602	14.193	87.399	14.470	0.796	0.277
16	101.029	14.154	101.184	13.718	0.155	-0.436
17	0.078	28.854	-1.486	26.505	-1.564	-2.349
18	14.505	28.815	13.450	26.904	-1.056	-1.912
19	28.932	28.776	28.960	27.310	0.028	-1.466
20	43.360	28.737	44.252	26.387	0.893	-2.351
21	57.787	28.698	57.935	27.484	0.148	-1.214
22	72.214	28.659	72.118	27.241	-0.096	-1.418
23	86.641	28.621	86.687	28.800	0.046	0.179
24	101.068	28.582	100.550	28.431	-0.519	-0.151
25	0.117	43.282	-0.704	41.012	-0.821	-2.269
26	14.544	43.243	13.850	41.058	-0.694	-2.185
27	28.971	43.204	29.447	41.898	0.475	-1.306
28	43.399	43.165	44.692	40.499	1.294	-2.665
29	57.826	43.126	59.967	41.781	2.141	-1.345
30	72.253	43.087	73.784	42.231	1.531	-0.856
31	86.680	43.048	87.597	43.066	0.917	0.018
32	101.107	43.009	100.962	43.417	-0.146	0.408
33	0.156	57.709	-0.325	56.108	-0.481	-1.601
34	14.583	57.670	14.750	56.250	0.167	-1.420
35	29.010	57.631	30.429	57.288	1.419	-0.343
36	43.438	57.592	43.089	54.739	-0.348	-2.852
37	57.865	57.553	57.124	57.549	-0.741	-0.004
38	72.292	57.514	71.804	57.311	-0.488	-0.203
39	86.719	57.475	87.262	57.881	0.543	0.406
40	101.146	57.436	101.336	58.471	0.190	1.036
41	0.195	72.136	-0.880	71.658	-1.075	-0.478
42	14.622	72.097	13.431	72.507	-1.191	0.410
43	29.049	72.058	28.173	73.394	-0.877	1.336
44	43.477	72.019	43.728	71.386	0.251	-0.633
45	57.904	71.980	58.296	73.310	0.392	1.330
46	72.331	71.941	72.538	74.663	0.207	2.722
47	86.758	71.902	88.400	73.581	1.642	1.679
48	101.185	71.863	101.459	73.507	0.274	1.644
49	0.234	86.563	-0.862	86.948	-1.096	0.385
50	14.661	86.524	13.241	87.730	-1.420	1.206
51	29.088	86.485	28.503	88.278	-0.585	1.792
52	43.515	86.446	43.408	88.233	-0.108	1.786
53	57.943	86.407	57.783	88.404	-0.159	1.997

54	72.370	86.368	71.792	91.127	-0.578	4.759
55	86.797	86.329	86.020	87.534	-0.777	1.205
56	101.224	86.290	101.174	88.207	-0.050	1.917
57	0.273	100.990	-1.007	101.121	-1.280	0.131
58	14.700	100.951	13.529	101.447	-1.171	0.496
59	29.127	100.912	28.831	102.445	-0.296	1.533
60	43.554	100.873	43.830	102.082	0.275	1.209
61	57.982	100.834	58.366	102.155	0.395	1.320
62	72.409	100.795	71.668	104.064	-0.741	3.269
63	86.836	100.757	86.538	102.776	-0.298	2.019
64	101.263	100.718	100.481	102.908	-0.782	2.190

[redacted] K 3 [redacted]

TABLE E-21. TUBE CENTROID DISPLACEMENTS AT 26.4 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.633	-1.516	-0.633	-1.516
2	14.427	-0.038	12.794	-1.982	-1.633	-1.944
3	28.854	-0.076	28.755	-0.323	-0.099	-0.247
4	43.282	-0.114	44.189	-0.889	0.907	-0.776
5	57.709	-0.151	58.666	0.068	0.957	0.220
6	72.136	-0.189	73.036	-0.688	0.900	-0.499
7	86.563	-0.227	87.219	0.289	0.656	0.516
8	100.990	-0.265	100.718	0.010	-0.273	0.275
9	0.038	14.427	-0.332	12.176	-0.370	-2.252
10	14.465	14.389	14.010	12.201	-0.455	-2.188
11	28.892	14.352	29.460	13.082	0.568	-1.270
12	43.319	14.314	44.600	12.101	1.281	-2.213
13	57.747	14.276	58.787	13.850	1.040	-0.426
14	72.174	14.238	73.103	12.914	0.929	-1.324
15	86.601	14.200	87.515	14.275	0.914	0.075
16	101.028	14.162	101.104	13.555	0.076	-0.607
17	0.076	28.854	-2.093	26.406	-2.169	-2.448
18	14.503	28.817	13.181	26.476	-1.322	-2.341
19	28.930	28.779	28.336	27.352	-0.594	-1.427
20	43.357	28.741	44.001	26.073	0.644	-2.668
21	57.784	28.703	57.892	27.513	0.107	-1.190
22	72.212	28.665	72.076	27.164	-0.136	-1.501
23	86.639	28.627	86.757	28.694	0.118	0.067
24	101.066	28.590	100.295	28.463	-0.771	-0.127
25	0.114	43.282	-1.317	41.106	-1.430	-2.176
26	14.541	43.244	13.391	41.060	-1.150	-2.183
27	28.968	43.206	30.174	41.363	1.206	-1.843
28	43.395	43.168	44.883	40.763	1.488	-2.405
29	57.822	43.130	59.861	42.400	2.038	-0.731
30	72.250	43.092	74.098	42.698	1.848	-0.394
31	86.677	43.055	88.102	43.264	1.426	0.209
32	101.104	43.017	101.506	43.415	0.402	0.398
33	0.151	57.709	-0.576	56.693	-0.727	-1.016
34	14.579	57.671	16.053	57.081	1.475	-0.590
35	29.006	57.633	31.349	57.895	2.343	0.262
36	43.433	57.595	43.304	55.248	-0.129	-2.348
37	57.860	57.557	57.621	57.601	-0.239	0.043
38	72.287	57.520	72.719	58.205	0.432	0.685
39	86.715	57.482	88.016	58.215	1.301	0.733
40	101.142	57.444	101.976	58.700	0.834	1.256
41	0.189	72.136	-1.056	72.296	-1.245	0.160
42	14.616	72.098	13.090	73.589	-1.526	1.491
43	29.044	72.060	28.108	73.584	-0.935	1.523
44	43.471	72.022	43.534	71.200	0.064	-0.822
45	57.898	71.985	58.425	73.039	0.527	1.055
46	72.325	71.947	74.179	74.329	1.854	2.381
47	86.752	71.909	88.118	73.427	1.366	1.518
48	101.180	71.871	101.408	73.216	0.228	1.345
49	0.227	86.563	-1.247	86.970	-1.474	0.407
50	14.654	86.525	12.619	87.939	-2.035	1.413
51	29.081	86.488	27.945	88.421	-1.137	1.933
52	43.509	86.450	42.957	88.094	-0.552	1.645
53	57.936	86.412	57.558	88.412	-0.377	2.000

54	72.363	86.374	72.093	90.884	-0.270	4.510
55	86.790	86.336	86.625	88.284	-0.165	1.948
56	101.217	86.298	101.052	87.940	-0.166	1.642
57	0.265	100.990	-1.262	100.965	-1.527	-0.025
58	14.692	100.953	13.080	101.564	-1.612	0.611
59	29.119	100.915	28.541	102.387	-0.578	1.472
60	43.546	100.877	43.341	102.055	-0.206	1.178
61	57.974	100.839	58.272	102.140	0.298	1.301
62	72.401	100.801	71.543	104.188	-0.858	3.387
63	86.828	100.763	86.454	102.628	-0.374	1.865
64	101.255	100.726	100.195	102.700	-1.061	1.974

[redacted] M 3 [redacted]

TABLE E-22. TUBE CENTROID DISPLACEMENTS AT 28.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.128	-1.224	-0.128	-1.224
2	14.427	-0.047	13.429	-1.668	-0.998	-1.621
3	28.854	-0.094	29.665	-0.646	0.811	-0.552
4	43.282	-0.141	44.387	-0.570	1.106	-0.426
5	57.709	-0.189	58.957	0.316	1.248	0.505
6	72.136	-0.236	73.273	-0.361	1.137	-0.126
7	86.563	-0.283	87.616	0.470	1.053	0.753
8	100.990	-0.330	100.835	0.366	-0.155	0.696
9	0.047	14.427	0.149	12.565	0.102	-1.862
10	14.474	14.380	14.642	12.564	0.167	-1.816
11	28.902	14.333	30.076	13.184	1.175	-1.149
12	43.329	14.286	45.016	11.913	1.687	-2.373
13	57.756	14.239	59.134	13.851	1.378	-0.388
14	72.183	14.191	73.521	13.108	1.337	-1.084
15	86.610	14.144	87.876	14.365	1.266	0.221
16	101.038	14.097	101.212	13.648	0.174	-0.449
17	0.094	28.854	-1.833	26.780	-1.927	-2.074
18	14.521	28.807	13.340	27.334	-1.182	-1.473
19	28.949	28.760	28.320	27.690	-0.628	-1.070
20	43.376	28.713	44.842	25.847	1.466	-2.866
21	57.803	28.666	58.128	27.878	0.325	-0.788
22	72.230	28.619	72.117	27.577	-0.113	-1.041
23	86.657	28.572	86.841	28.851	0.184	0.280
24	101.085	28.524	100.136	28.651	-0.948	0.126
25	0.141	43.282	-0.858	41.485	-0.999	-1.796
26	14.569	43.234	13.793	41.627	-0.776	-1.608
27	28.996	43.187	30.525	41.488	1.529	-1.699
28	43.423	43.140	45.090	41.214	1.667	-1.926
29	57.850	43.093	59.528	42.484	1.677	-0.609
30	72.277	43.046	73.649	43.263	1.372	0.217
31	86.705	42.999	87.512	43.420	0.807	0.421
32	101.132	42.952	100.827	43.507	-0.305	0.555
33	0.189	57.709	-0.480	56.515	-0.668	-1.194
34	14.616	57.662	16.768	57.447	2.153	-0.214
35	29.043	57.615	31.354	57.977	2.311	0.362
36	43.470	57.567	43.510	55.539	0.040	-2.029
37	57.897	57.520	57.684	56.885	-0.213	-0.635
38	72.325	57.473	72.470	58.345	0.146	0.872
39	86.752	57.426	87.523	58.060	0.771	0.634
40	101.179	57.379	101.212	58.776	0.033	1.397
41	0.236	72.136	-0.275	72.361	-0.511	0.225
42	14.663	72.089	13.657	73.402	-1.006	1.313
43	29.090	72.042	28.284	73.363	-0.806	1.321
44	43.517	71.995	42.483	71.475	-1.034	-0.519
45	57.945	71.947	58.150	72.568	0.206	0.621
46	72.372	71.900	73.541	74.028	1.170	2.128
47	86.799	71.853	87.391	73.136	0.592	1.283
48	101.226	71.806	100.816	73.048	-0.410	1.242
49	0.283	86.563	-0.629	86.466	-0.912	-0.097
50	14.710	86.516	12.774	87.409	-1.936	0.893
51	29.137	86.469	27.855	88.021	-1.282	1.552
52	43.564	86.422	42.868	87.398	-0.697	0.976
53	57.992	86.375	57.498	87.938	-0.493	1.564

54	72.419	86.327	71.719	90.455	-0.700	4.128
55	86.846	86.280	85.944	87.797	-0.902	1.516
56	101.273	86.233	100.352	87.542	-0.921	1.309
57	0.330	100.990	-0.812	100.072	-1.142	-0.918
58	14.757	100.943	13.168	100.986	-1.589	0.043
59	29.184	100.896	28.251	101.948	-0.933	1.052
60	43.612	100.849	42.862	101.711	-0.749	0.862
61	58.039	100.802	58.037	101.408	-0.002	0.606
62	72.466	100.755	71.082	103.807	-1.384	3.052
63	86.893	100.708	85.875	102.015	-1.018	1.307
64	101.320	100.660	99.701	102.257	-1.619	1.597

TABLE E-23. TUBE CENTROID DISPLACEMENTS AT 29.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.024	-1.613	-0.024	-1.613
2	14.427	-0.052	13.561	-1.910	-0.866	-1.859
3	28.854	-0.104	29.880	-1.067	1.025	-0.963
4	43.282	-0.156	44.331	-0.879	1.049	-0.724
5	57.709	-0.207	59.126	0.018	1.417	0.226
6	72.136	-0.259	73.469	-0.417	1.333	-0.158
7	86.563	-0.311	88.089	0.093	1.525	0.404
8	100.990	-0.363	101.177	0.323	0.187	0.686
9	0.052	14.427	-0.013	12.345	-0.065	-2.082
10	14.479	14.375	14.694	12.365	0.215	-2.011
11	28.906	14.324	30.345	13.093	1.439	-1.231
12	43.333	14.272	45.184	11.511	1.851	-2.761
13	57.761	14.220	59.332	13.538	1.572	-0.682
14	72.188	14.168	73.859	12.962	1.671	-1.206
15	86.615	14.116	88.250	14.187	1.635	0.070
16	101.042	14.064	101.566	13.499	0.523	-0.565
17	0.104	28.854	-1.940	26.840	-2.044	-2.015
18	14.531	28.803	13.344	27.585	-1.187	-1.217
19	28.958	28.751	28.098	27.820	-0.860	-0.930
20	43.385	28.699	44.668	25.738	1.283	-2.961
21	57.812	28.647	58.274	27.889	0.461	-0.758
22	72.240	28.595	72.370	27.699	0.130	-0.896
23	86.667	28.543	87.050	28.746	0.383	0.202
24	101.094	28.492	100.462	28.445	-0.632	-0.047
25	0.156	43.282	-0.921	41.585	-1.076	-1.696
26	14.583	43.230	13.693	42.240	-0.890	-0.990
27	29.010	43.178	29.587	42.726	0.577	-0.452
28	43.437	43.126	45.140	41.325	1.702	-1.801
29	57.864	43.074	59.587	42.330	1.722	-0.744
30	72.292	43.022	73.781	43.490	1.489	0.468
31	86.719	42.971	87.632	43.460	0.913	0.489
32	101.146	42.919	101.112	43.567	-0.034	0.648
33	0.207	57.709	-0.504	56.678	-0.711	-1.031
34	14.635	57.657	14.162	57.451	-0.472	-0.206
35	29.062	57.605	30.527	58.330	1.465	0.725
36	43.489	57.553	43.569	55.626	0.080	-1.928
37	57.916	57.501	58.003	56.413	0.087	-1.088
38	72.343	57.450	72.767	58.485	0.423	1.035
39	86.771	57.398	87.771	58.019	1.000	0.621
40	101.198	57.346	101.439	58.961	0.241	1.616
41	0.259	72.136	-0.493	71.841	-0.752	-0.295
42	14.686	72.084	13.472	73.174	-1.215	1.090
43	29.114	72.032	27.992	73.279	-1.121	1.247
44	43.541	71.980	42.120	71.402	-1.421	-0.578
45	57.968	71.929	58.100	72.281	0.132	0.353
46	72.395	71.877	73.425	74.167	1.030	2.290
47	86.822	71.825	87.555	73.139	0.733	1.314
48	101.250	71.773	101.329	73.240	0.080	1.467
49	0.311	86.563	-0.894	86.288	-1.205	-0.276
50	14.738	86.511	12.498	87.271	-2.240	0.760
51	29.165	86.460	27.523	87.940	-1.643	1.480
52	43.593	86.408	42.881	87.160	-0.712	0.752
53	58.020	86.356	57.796	87.763	-0.224	1.407

54	72.447	86.304	71.867	90.525	-0.580	4.221
55	86.874	86.252	86.168	87.704	-0.706	1.452
56	101.301	86.200	100.657	87.813	-0.644	1.613
57	0.363	100.990	-0.788	99.926	-1.151	-1.065
58	14.790	100.939	13.077	101.042	-1.713	0.104
59	29.217	100.887	28.048	102.012	-1.169	1.125
60	43.644	100.835	42.593	102.116	-1.052	1.281
61	58.072	100.783	58.142	101.426	0.070	0.643
62	72.499	100.731	71.210	104.250	-1.289	3.519
63	86.926	100.679	86.243	102.213	-0.683	1.533
64	101.353	100.628	100.288	102.617	-1.066	1.989

TABLE E-24. TUBE CENTROID DISPLACEMENTS AT 31.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.638	-1.139	0.638	-1.139
2	14.427	-0.049	14.288	-1.413	-0.139	-1.364
3	28.854	-0.097	30.376	-0.670	1.522	-0.573
4	43.282	-0.146	44.307	-0.371	1.025	-0.225
5	57.709	-0.195	59.314	0.482	1.605	0.677
6	72.136	-0.243	73.523	0.134	1.387	0.378
7	86.563	-0.292	88.384	0.211	1.821	0.503
8	100.990	-0.341	101.290	0.959	0.299	1.300
9	0.049	14.427	0.388	12.949	0.340	-1.478
10	14.476	14.379	14.973	12.852	0.497	-1.527
11	28.903	14.330	30.203	13.579	1.300	-0.751
12	43.330	14.281	45.606	12.283	2.276	-1.998
13	57.757	14.233	59.518	13.946	1.761	-0.287
14	72.185	14.184	74.045	13.546	1.861	-0.638
15	86.612	14.135	88.431	14.460	1.819	0.325
16	101.039	14.086	101.579	13.776	0.540	-0.311
17	0.097	28.854	-1.324	27.461	-1.421	-1.394
18	14.525	28.806	13.643	28.317	-0.881	-0.488
19	28.952	28.757	28.309	28.553	-0.642	-0.204
20	43.379	28.708	43.547	26.383	0.168	-2.326
21	57.806	28.660	57.978	27.954	0.172	-0.705
22	72.233	28.611	72.254	28.284	0.021	-0.327
23	86.661	28.562	86.520	28.780	-0.141	0.217
24	101.088	28.514	100.059	28.379	-1.029	-0.135
25	0.146	43.282	-0.302	42.107	-0.449	-1.174
26	14.573	43.233	13.821	43.103	-0.752	-0.130
27	29.000	43.184	29.647	43.508	0.646	0.324
28	43.428	43.136	44.830	41.297	1.403	-1.838
29	57.855	43.087	59.272	42.232	1.417	-0.855
30	72.282	43.038	73.354	43.680	1.072	0.642
31	86.709	42.990	86.886	43.480	0.177	0.490
32	101.136	42.941	100.573	43.581	-0.563	0.640
33	0.195	57.709	0.019	57.030	-0.176	-0.678
34	14.622	57.660	14.184	57.615	-0.438	-0.045
35	29.049	57.611	29.638	58.466	0.589	0.854
36	43.476	57.563	43.524	55.649	0.047	-1.914
37	57.903	57.514	58.177	56.185	0.274	-1.330
38	72.331	57.465	72.636	58.363	0.305	0.898
39	86.758	57.417	87.276	57.844	0.518	0.428
40	101.185	57.368	100.949	58.870	-0.236	1.502
41	0.243	72.136	0.069	71.573	-0.175	-0.563
42	14.671	72.087	13.731	72.722	-0.940	0.634
43	29.098	72.039	28.030	72.897	-1.068	0.858
44	43.525	71.990	42.004	71.037	-1.521	-0.952
45	57.952	71.941	57.462	71.491	-0.490	-0.450
46	72.379	71.893	72.693	74.267	0.313	2.374
47	86.807	71.844	87.131	72.713	0.325	0.869
48	101.234	71.795	101.054	73.202	-0.179	1.407
49	0.292	86.563	-0.472	85.833	-0.764	-0.730
50	14.719	86.515	12.705	86.789	-2.014	0.274
51	29.146	86.466	27.142	87.356	-2.004	0.890
52	43.574	86.417	42.872	86.663	-0.702	0.246
53	58.001	86.369	58.092	86.415	0.092	0.046

54	72.428	86.320	71.650	89.857	-0.778	3.537
55	86.855	86.271	85.920	86.720	-0.935	0.449
56	101.282	86.222	100.499	87.508	-0.784	1.286
57	0.341	100.990	-0.280	99.330	-0.621	-1.660
58	14.768	100.942	13.358	100.888	-1.410	-0.054
59	29.195	100.893	27.953	101.647	-1.242	0.754
60	43.622	100.844	42.708	101.415	-0.915	0.571
61	58.050	100.796	58.170	100.813	0.120	0.017
62	72.477	100.747	71.119	103.787	-1.357	3.040
63	86.904	100.698	86.211	101.401	-0.692	0.702
64	101.331	100.650	100.437	101.761	-0.894	1.111

[redacted] D 4 [redacted]

TABLE E-25. TUBE CENTROID DISPLACEMENTS AT 33.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.457	-1.653	0.457	-1.653
2	14.427	-0.046	14.250	-1.751	-0.177	-1.705
3	28.854	-0.092	30.166	-1.055	1.311	-0.963
4	43.282	-0.139	43.963	-0.652	0.681	-0.514
5	57.709	-0.185	59.224	0.165	1.515	0.350
6	72.136	-0.231	73 540	-0.145	1.404	0.086
7	86.563	-0.277	88.639	-0.231	2.076	0.046
8	100.990	-0.323	101.548	0.886	0.557	1.209
9	0.046	14.427	0.568	12.512	0.522	-1.915
10	14.473	14.381	14.971	12.528	0.497	-1.853
11	28.901	14.335	29.203	13.240	0.302	-1.095
12	43.328	14.289	45.401	12.247	2.073	-2.041
13	57.755	14.242	59.300	13.696	1.545	-0.546
14	72.182	14.196	73.902	13.493	1.720	-0.704
15	86.609	14.150	88.355	14.144	1.746	-0.006
16	101.037	14.104	101.462	13.419	0.425	-0.684
17	0.092	28.854	-1.009	27.809	-1.101	-1.046
18	14.520	28.808	13.693	28.547	-0.826	-0.262
19	28.947	28.762	28.517	28.874	-0.430	0.112
20	43.374	28.716	43.484	26.589	0.110	-2.127
21	57.801	28.670	58.019	27.808	0.218	-0.862
22	72.228	28.623	72.510	28.481	0.281	-0.142
23	86.656	28.577	86.615	28.694	-0.041	0.117
24	101.083	28.531	100.379	28.034	-0.703	-0.497
25	0.139	43.282	-0.340	42.400	-0.479	-0.882
26	14.566	43.235	13.800	43.585	-0.766	0.350
27	28.993	43.189	29.582	43.916	0.589	0.727
28	43.420	43.143	44.535	41.066	1.114	-2.077
29	57.847	43.097	59.128	42.161	1.281	-0.936
30	72.275	43.051	73.496	43.600	1.221	0.550
31	86.702	43.004	86.874	43.425	0.172	0.420
32	101.129	42.958	100.865	43.558	-0.264	0.600
33	0.185	57.709	-0.197	57.355	-0.382	-0.354
34	14.612	57.663	13.947	57.793	-0.665	0.131
35	29.039	57.616	28.574	58.649	-0.466	1.033
36	43.466	57.570	43.342	55.979	-0.125	-1.591
37	57.894	57.524	58.482	56.488	0.589	-1.036
38	72.321	57.478	72.856	58.549	0.535	1.071
39	86.748	57.432	87.306	58.019	0.558	0.588
40	101.175	57.385	101.279	58.940	0.104	1.554
41	0.231	72.136	-0.033	71.672	-0.264	-0.464
42	14.658	72.090	13.558	72.548	-1.100	0.459
43	29.085	72.044	27.731	72.957	-1.354	0.913
44	43.513	71.997	41.885	71.223	-1.627	-0.774
45	57.940	71.951	57.006	71.295	-0.934	-0.656
46	72.367	71.905	72.216	74.920	-0.151	3.015
47	86.794	71.859	87.173	72.738	0.379	0.879
48	101.221	71.813	101.446	73.667	0.225	1.854
49	0.277	86.563	-0.774	85.841	-1.051	-0.723
50	14.704	86.517	12.448	86.801	-2.256	0.284
51	29.132	86.471	26.992	87.176	-2.140	0.705
52	43.559	86.425	42.929	85.392	-0.629	-1.033
53	57.986	86.378	58.362	85.624	0.376	-0.755

54	72.413	86.332	71.743	90.078	-0.670	3.745
55	86.840	86.286	86.480	86.488	-0.360	0.202
56	101.268	86.240	101.260	88.232	-0.008	1.992
57	0.323	100.990	-0.399	99.621	-0.722	-1.369
58	14.751	100.944	13.359	101.459	-1.391	0.515
59	29.178	100.898	27.636	102.165	-1.542	1.267
60	43.605	100.852	43.285	100.986	-0.320	0.135
61	58.032	100.806	59.163	101.041	1.131	0.235
62	72.459	100.759	71.402	104.459	-1.057	3.699
63	86.887	100.713	84.975	101.703	-1.911	0.989
64	101.314	100.667	101.511	102.102	0.197	1.435

[redacted] F 4 [redacted]

TABLE E-26. TUBE CENTROID DISPLACEMENTS AT 35.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.406	-1.738	0.406	-1.738
2	14.427	-0.044	14.463	-1.648	0.035	-1.604
3	28.854	-0.088	30.018	-0.870	1.164	-0.782
4	43.282	-0.132	43.734	-0.572	0.452	-0.441
5	57.709	-0.175	58.944	0.284	1.236	0.459
6	72.136	-0.219	73.318	-0.138	1.182	0.081
7	86.563	-0.263	88.429	-0.444	1.866	-0.181
8	100.990	-0.307	101.333	0.864	0.343	1.171
9	0.044	14.427	0.856	12.495	0.812	-1.932
10	14.471	14.383	15.403	12.643	0.932	-1.741
11	28.898	14.340	30.099	13.376	1.201	-0.963
12	43.325	14.296	45.343	12.599	2.018	-1.697
13	57.753	14.252	59.290	13.951	1.537	-0.301
14	72.180	14.208	73.936	13.725	1.757	-0.483
15	86.607	14.164	88.373	14.174	1.766	0.010
16	101.034	14.120	101.461	13.417	0.426	-0.703
17	0.088	28.854	-0.647	28.106	-0.735	-0.749
18	14.515	28.811	13.971	28.756	-0.544	-0.054
19	28.942	28.767	28.632	29.086	-0.310	0.320
20	43.369	28.723	43.654	26.808	0.285	-1.914
21	57.796	28.679	57.973	27.774	0.177	-0.905
22	72.224	28.635	72.409	28.509	0.186	-0.126
23	86.651	28.591	86.545	28.581	-0.106	-0.010
24	101.078	28.547	100.719	27.603	-0.359	-0.945
25	0.132	43.282	-0.124	42.722	-0.255	-0.560
26	14.559	43.238	14.067	43.915	-0.492	0.677
27	28.986	43.194	29.605	44.330	0.619	1.136
28	43.413	43.150	44.241	41.108	0.827	-2.042
29	57.840	43.106	58.806	42.019	0.966	-1.087
30	72.268	43.062	73.318	43.274	1.050	0.211
31	86.695	43.019	86.563	43.257	-0.132	0.238
32	101.122	42.975	100.615	43.449	-0.507	0.475
33	0.175	57.709	-0.221	57.530	-0.397	-0.179
34	14.603	57.665	13.765	57.810	-0.837	0.145
35	29.030	57.621	27.909	58.708	-1.121	1.087
36	43.457	57.577	43.166	55.660	-0.291	-1.917
37	57.884	57.533	58.412	56.681	0.528	-0.853
38	72.311	57.490	72.794	58.712	0.483	1.223
39	86.739	57.446	86.927	58.104	0.188	0.659
40	101.166	57.402	101.322	58.893	0.156	1.492
41	0.219	72.136	0.180	71.575	-0.040	-0.561
42	14.646	72.092	13.665	72.357	-0.982	0.264
43	29.074	72.048	27.664	72.854	-1.410	0.806
44	43.501	72.004	41.786	71.432	-1.714	-0.572
45	57.928	71.961	56.774	71.324	-1.154	-0.637
46	72.355	71.917	71.921	75.175	-0.435	3.258
47	86.782	71.873	86.928	72.750	0.146	0.877
48	101.210	71.829	101.122	74.067	-0.087	2.238
49	0.263	86.563	-0.604	85.603	-0.868	-0.961
50	14.690	86.519	12.647	86.700	-2.043	0.181
51	29.117	86.476	27.220	86.986	-1.898	0.511
52	43.545	86.432	42.845	86.748	-0.700	0.317
53	57.972	86.388	58.360	85.462	0.389	-0.926

54	72.399	86.344	71.743	89.925	-0.656	3.581
55	86.826	86.300	86.514	86.183	-0.313	-0.117
56	101.253	86.256	101.270	88.241	0.017	1.985
57	0.307	100.990	0.097	99.220	-0.210	-1.771
58	14.734	100.947	13.815	101.135	-0.919	0.188
59	29.161	100.903	28.074	101.672	-1.087	0.770
60	43.589	100.859	42.878	101.478	-0.710	0.619
61	58.016	100.815	58.190	100.373	0.175	-0.442
62	72.443	100.771	71.446	104.070	-0.997	3.299
63	86.870	100.727	85.335	101.429	-1.535	0.702
64	101.297	100.683	101.817	101.595	0.520	0.911

[redacted] H 4 [redacted]

TABLE E-27. TUBE CENTROID DISPLACEMENTS AT 37.1 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.622	-1.560	0.622	-1.560
2	14.427	-0.043	14.771	-1.494	0.344	-1.451
3	28.854	-0.086	29.995	-0.681	1.141	-0.595
4	43.282	-0.128	43.763	-0.438	0.481	-0.309
5	57.709	-0.171	58.916	0.429	1.207	0.600
6	72.136	-0.214	73.245	-0.053	1.109	0.161
7	86.563	-0.257	88.419	-0.450	1.856	-0.193
8	100.990	-0.300	101.280	0.852	0.290	1.152
9	0.043	14.427	0.588	12.682	0.545	-1.745
10	14.470	14.384	15.325	12.759	0.855	-1.625
11	28.857	14.342	30.192	13.374	1.295	-0.968
12	43.324	14.299	45.242	12.792	1.917	-1.507
13	57.752	14.256	59.307	14.125	1.556	-0.131
14	72.179	14.213	73.861	13.911	1.682	-0.302
15	86.606	14.170	88.269	14.300	1.663	0.129
16	101.033	14.127	101.383	13.510	0.350	-0.617
17	0.086	28.854	-0.461	27.943	-0.546	-0.911
18	14.513	28.812	13.859	28.704	-0.653	-0.108
19	28.940	28.769	28.570	29.299	-0.370	0.530
20	43.367	28.726	43.850	27.031	0.483	-1.695
21	57.794	28.683	57.940	27.732	0.146	-0.951
22	72.222	28.640	72.335	28.453	0.113	-0.187
23	86.649	28.597	86.727	28.521	0.078	-0.076
24	101.076	28.555	100.885	27.375	-0.191	-1.180
25	0.128	43.282	0.222	42.794	0.093	-0.488
26	14.556	43.239	14.429	43.758	-0.126	0.520
27	28.983	43.196	29.694	44.520	0.711	1.324
28	43.410	43.153	44.093	41.238	0.683	-1.916
29	57.837	43.110	58.494	41.836	0.657	-1.274
30	72.264	43.067	73.067	43.136	0.802	0.069
31	86.692	43.025	86.317	43.019	-0.375	-0.005
32	101.119	42.982	99.790	43.759	-1.329	0.777
33	0.171	57.709	0.112	57.440	-0.059	-0.268
34	14.599	57.666	13.907	57.558	-0.691	-0.108
35	29.026	57.623	27.693	58.573	-1.333	0.950
36	43.453	57.580	42.567	56.078	-0.886	-1.503
37	57.880	57.537	58.081	56.538	0.200	-0.999
38	72.307	57.495	72.489	58.856	0.182	1.361
39	86.735	57.452	86.543	58.168	-0.191	0.716
40	101.162	57.409	101.276	58.933	0.114	1.524
41	0.214	72.136	0.446	71.387	0.232	-0.749
42	14.641	72.093	13.826	72.005	-0.815	-0.089
43	29.069	72.050	27.716	72.536	-1.353	0.486
44	43.496	72.008	41.759	71.528	-1.736	-0.479
45	57.923	71.965	56.546	71.381	-1.377	-0.583
46	72.350	71.922	71.666	75.100	-0.684	3.179
47	86.777	71.879	86.586	72.754	-0.192	0.875
48	101.205	71.836	100.765	74.113	-0.439	2.277
49	0.257	86.563	-0.302	85.254	-0.559	-1.309
50	14.684	86.520	12.882	86.460	-1.802	-0.060
51	29.111	86.478	27.484	86.807	-1.628	0.329
52	43.539	86.435	42.884	86.838	-0.655	0.403
53	57.966	86.392	58.149	85.486	0.183	-0.906

54	72.393	86.349	71.676	90.010	-0.717	3.661
55	86.820	86.306	86.494	85.435	-0.326	0.129
56	101.247	86.263	101.042	88.323	-0.205	2.060
57	0.300	100.990	0.401	98.925	0.101	-2.066
58	14.727	100.948	14.082	101.074	-0.645	0.126
59	29.154	100.905	28.178	101.504	-0.976	0.600
60	43.581	100.862	42.856	101.467	-0.725	0.605
61	58.009	100.819	58.334	101.112	0.325	0.293
62	72.436	100.776	71.405	103.670	-1.031	2.894
63	86.863	100.733	87.185	101.338	0.322	0.604
64	101.290	100.691	101.566	101.270	0.276	0.579

[redacted] J 4 [redacted]

TABLE E-28. TUBE CENTROID DISPLACEMENTS AT 39.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.371	-1.066	0.371	-1.066
2	14.427	-0.028	14.659	-1.048	0.232	-1.020
3	28.854	-0.056	29.535	-0.337	0.680	-0.281
4	43.282	-0.084	43.512	-0.215	0.230	-0.131
5	57.709	-0.112	58.631	0.485	0.923	0.597
6	72.136	-0.140	72.933	-0.008	0.797	0.132
7	86.563	-0.168	88.187	-0.447	1.624	-0.279
8	100.990	-0.196	101.092	0.602	0.102	0.799
9	0.028	14.427	0.545	12.992	0.517	-1.435
10	14.455	14.399	15.135	13.078	0.680	-1.321
11	28.882	14.371	29.977	13.527	1.095	-0.844
12	43.310	14.343	44.818	13.066	1.508	-1.277
13	57.737	14.315	59.138	14.262	1.402	-0.053
14	72.164	14.287	73.694	13.885	1.530	-0.402
15	86.591	14.259	88.112	14.314	1.521	0.055
16	101.018	14.231	101.225	13.538	0.206	-0.693
17	0.056	28.854	-0.305	28.230	-0.361	-0.625
18	14.483	28.826	13.573	28.699	-0.910	-0.127
19	28.910	28.798	27.503	30.106	-1.407	1.308
20	43.338	28.770	43.695	27.407	0.357	-1.364
21	57.765	28.742	57.702	27.811	-0.063	-0.931
22	72.192	28.714	72.177	28.349	-0.015	-0.365
23	86.619	28.686	86.916	28.359	0.296	-0.328
24	101.046	28.658	101.046	27.236	-0.000	-1.422
25	0.084	43.282	0.322	43.232	0.238	-0.049
26	14.511	43.254	14.547	43.807	0.036	0.553
27	28.938	43.226	29.639	44.874	0.701	1.648
28	43.366	43.198	43.813	41.689	0.447	-1.508
29	57.793	43.170	58.064	41.716	0.272	-1.453
30	72.220	43.141	72.702	43.095	0.482	-0.046
31	86.647	43.113	86.557	42.744	-0.090	-0.369
32	101.074	43.085	100.900	42.470	-0.175	-0.615
33	0.112	57.709	0.308	57.733	0.196	0.024
34	14.539	57.681	14.021	57.638	-0.518	-0.043
35	28.966	57.653	27.674	58.770	-1.292	1.117
36	43.394	57.625	42.466	56.096	-0.928	-1.529
37	57.821	57.597	57.485	56.357	-0.336	-1.239
38	72.248	57.569	72.217	59.134	-0.032	1.565
39	86.675	57.541	86.775	58.133	0.100	0.592
40	101.102	57.513	101.586	58.089	0.483	0.577
41	0.140	72.136	0.641	71.768	0.501	-0.368
42	14.567	72.108	14.014	72.103	-0.554	-0.005
43	28.995	72.080	27.880	72.491	-1.114	0.411
44	43.422	72.052	41.796	71.797	-1.626	-0.255
45	57.849	72.024	56.510	71.633	-1.339	-0.391
46	72.276	71.996	71.588	75.351	-0.688	3.355
47	86.703	71.968	86.566	72.879	-0.138	0.912
48	101.131	71.940	100.966	73.818	-0.165	1.878
49	0.168	86.563	0.010	85.567	-0.158	-0.996
50	14.595	86.535	13.339	86.701	-1.257	0.165
51	29.023	86.507	27.965	87.026	-1.058	0.519
52	43.450	86.479	42.848	87.229	-0.602	0.750
53	57.877	86.451	58.124	85.754	0.247	-0.697

54	72.304	86.423	72.032	90.286	-0.272	3.863
55	86.731	86.395	86.557	86.573	-0.174	0.177
56	101.159	86.367	101.340	88.519	0.181	2.152
57	0.196	100.990	0.759	99.276	0.563	-1.715
58	14.623	100.962	14.517	101.376	-0.106	0.414
59	29.051	100.934	28.090	100.862	-0.960	-0.073
60	43.478	100.906	42.676	100.742	-0.802	-0.164
61	57.905	100.878	58.175	100.871	0.270	-0.007
62	72.332	100.850	71.044	102.939	-1.288	2.089
63	86.759	100.822	86.706	100.756	-0.054	-0.066
64	101.187	100.794	100.882	100.697	-0.305	-0.097

[redacted] L 4 [redacted]

TABLE E-29. TUBE CENTROID DISPLACEMENTS AT 40.8 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

TUBE NO.	PRETEST CENTROID X-DIM. (MM)	PRETEST CENTROID Y-DIM. (MM)	POSTTEST CENTROID X-DIM. (MM)	POSTTEST CENTROID Y-DIM. (MM)	CTR DISPLACEMENT X-DIRECT (MM)	CTR DISPLACEMENT Y-DIRECT (MM)
1	0.000	0.000	0.634	-0.835	0.634	-0.835
2	14.427	-0.026	14.808	-0.683	0.381	-0.657
3	28.854	-0.052	29.440	0.061	0.585	0.113
4	43.282	-0.078	43.559	0.066	0.277	0.143
5	57.709	-0.104	58.559	0.709	0.851	0.812
6	72.136	-0.129	72.812	0.231	0.676	0.361
7	86.563	-0.155	88.029	-0.201	1.466	-0.045
8	100.990	-0.181	100.808	0.713	-0.183	0.894
9	0.026	14.427	0.751	13.050	0.725	-1.377
10	14.453	14.401	15.187	13.255	0.734	-1.146
11	28.880	14.375	29.786	13.763	0.906	-0.613
12	43.307	14.350	44.470	13.368	1.162	-0.982
13	57.735	14.324	58.955	14.480	1.221	0.156
14	72.162	14.298	73.456	14.046	1.294	-0.251
15	86.589	14.272	87.673	14.490	1.084	0.219
16	101.016	14.246	100.847	13.785	-0.169	-0.461
17	0.052	28.854	-0.062	28.174	-0.114	-0.680
18	14.479	28.829	13.687	28.392	-0.792	-0.436
19	28.906	28.803	27.180	30.363	-1.726	1.561
20	43.333	28.777	43.538	27.739	0.204	-1.037
21	57.761	28.751	57.450	27.869	-0.311	-0.882
22	72.188	28.725	72.032	28.413	-0.156	-0.312
23	86.615	28.699	87.171	28.260	0.556	-0.439
24	101.042	28.673	101.095	27.390	0.053	-1.284
25	0.078	43.282	0.442	43.266	0.365	-0.016
26	14.505	43.256	14.807	43.516	0.302	0.260
27	28.932	43.230	29.728	44.353	0.796	1.623
28	43.359	43.204	43.670	41.906	0.311	-1.298
29	57.786	43.178	57.647	41.617	-0.139	-1.561
30	72.214	43.152	72.218	43.211	0.004	0.059
31	86.641	43.126	86.684	42.565	0.043	-0.561
32	101.068	43.100	101.132	42.185	0.064	-0.916
33	0.104	57.709	0.465	57.550	0.361	-0.159
34	14.531	57.683	14.205	57.324	-0.326	-0.359
35	28.958	57.657	27.763	58.659	-1.195	1.002
36	43.385	57.631	42.227	56.189	-1.158	-1.442
37	57.812	57.605	57.017	56.408	-0.795	-1.198
38	72.240	57.579	71.888	59.455	-0.352	1.876
39	86.667	57.553	87.154	58.139	0.487	0.586
40	101.094	57.528	101.748	57.588	0.654	0.060
41	0.129	72.136	0.690	71.777	0.561	-0.359
42	14.557	72.110	14.060	71.875	-0.496	-0.235
43	28.984	72.084	27.924	72.242	-1.060	0.158
44	43.411	72.058	41.775	71.686	-1.636	-0.372
45	57.838	72.032	56.398	71.415	-1.440	-0.618
46	72.265	72.007	71.266	75.472	-0.999	3.465
47	86.693	71.981	86.224	72.910	-0.468	0.929
48	101.120	71.955	100.778	73.324	-0.342	1.369
49	0.155	86.563	0.276	85.265	0.121	-1.298
50	14.583	86.537	13.687	86.374	-0.895	-0.164
51	29.010	86.511	28.199	86.742	-0.811	0.231
52	43.437	86.486	42.552	87.003	-0.885	0.518
53	57.864	86.460	57.770	85.620	-0.094	-0.839

54	72.291	86.434	72.013	90.214	-0.279	3.780
55	86.719	86.408	86.258	86.378	-0.461	-0.030
56	101.146	86.382	100.950	88.311	-0.196	1.929
57	0.181	100.990	0.874	98.856	0.693	-2.135
58	14.608	100.965	14.668	100.868	0.060	-0.097
59	29.036	100.939	28.632	100.918	-0.404	-0.020
60	43.463	100.913	43.284	100.926	-0.179	0.014
61	57.890	100.887	58.788	101.313	0.898	0.426
62	72.317	100.861	71.535	103.053	-0.782	2.192
63	86.744	100.835	87.143	100.923	0.399	0.088
64	01.172	100.809	101.090	101.100	-0.081	0.290

[redacted] N 4 [redacted]

TABLE E-30. TUBE CENTROID DISPLACEMENTS AT 42.6 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.543	-1.230	0.543	-1.230
2	14.427	-0.029	14.670	-0.948	0.243	-0.919
3	28.854	-0.057	29.248	-0.131	0.394	-0.074
4	43.282	-0.086	43.581	-0.170	0.299	-0.084
5	57.709	-0.115	58.482	0.433	0.773	0.548
6	72.136	-0.143	72.834	-0.043	0.698	0.100
7	86.563	-0.172	88.071	-0.404	1.508	-0.232
8	100.990	-0.200	100.863	0.356	-0.127	0.556
9	0.029	14.427	0.736	12.815	0.708	-1.612
10	14.456	14.399	15.198	13.023	0.743	-1.375
11	28.883	14.370	29.659	13.640	0.776	-0.730
12	43.310	14.341	44.269	13.358	0.959	-0.983
13	57.737	14.313	59.018	14.423	1.281	0.111
14	72.165	14.284	73.562	13.825	1.397	-0.459
15	86.592	14.255	87.634	14.358	1.042	0.103
16	101.019	14.227	100.937	13.823	-0.082	-0.404
17	0.057	28.854	-0.124	27.990	-0.182	-0.865
18	14.484	28.826	13.727	28.000	-0.757	-0.826
19	28.912	28.797	28.369	28.777	-0.543	-0.020
20	43.339	28.769	43.329	27.838	-0.009	-0.931
21	57.766	28.740	57.234	27.861	-0.532	-0.879
22	72.193	28.711	72.054	28.318	-0.139	-0.393
23	86.620	28.683	87.600	28.045	0.979	-0.638
24	101.048	28.654	101.336	27.612	0.289	-1.042
25	0.086	43.282	0.366	43.204	0.280	-0.078
26	14.513	43.253	14.863	43.128	0.350	-0.125
27	28.940	43.224	29.646	44.645	0.705	1.420
28	43.368	43.196	43.484	42.031	0.117	-1.165
29	57.795	43.167	57.379	41.532	-0.416	-1.635
30	72.222	43.138	71.902	43.252	-0.320	0.113
31	86.649	43.110	87.032	42.403	0.383	-0.707
32	101.076	43.081	101.239	42.336	0.163	-0.745
33	0.115	57.709	0.283	57.291	0.168	-0.418
34	14.542	57.680	14.113	57.072	-0.428	-0.608
35	28.969	57.652	27.708	58.580	-1.261	0.928
36	43.396	57.623	41.955	56.325	-1.442	-1.298
37	57.823	57.594	56.581	56.304	-1.243	-1.291
38	72.251	57.566	71.704	59.845	-0.547	2.280
39	86.678	57.537	87.380	58.270	0.702	0.733
40	101.105	57.508	101.917	57.292	0.812	-0.217
41	0.143	72.136	0.443	71.899	0.300	-0.237
42	14.570	72.107	13.910	71.823	-0.660	-0.284
43	28.998	72.079	27.829	72.219	-1.168	0.140
44	43.425	72.050	41.737	71.652	-1.688	-0.398
45	57.852	72.021	56.325	71.245	-1.527	-0.776
46	72.279	71.993	71.169	75.668	-1.110	3.675
47	86.706	71.964	86.068	73.024	-0.638	1.059
48	101.134	71.936	100.994	73.012	-0.140	1.077
49	0.172	86.563	0.145	85.635	-0.027	-0.928
50	14.599	86.535	13.804	86.574	-0.795	0.040
51	29.026	86.506	28.415	87.059	-0.611	0.553
52	43.453	86.477	42.419	87.175	-1.034	0.698
53	57.881	86.449	57.646	85.988	-0.235	-0.460

54	72.308	86.420	72.385	90.632	0.077	4.212
55	86.735	86.391	86.518	86.926	-0.217	0.535
56	101.162	86.363	101.237	88.700	0.074	2.337
57	0.200	100.990	0.734	99.256	0.534	-1.735
58	14.628	100.962	14.545	101.135	-0.083	0.173
59	29.055	100.933	28.676	101.068	-0.379	0.135
60	43.482	100.905	43.409	101.176	-0.073	0.272
61	57.909	100.876	59.037	101.769	1.128	0.894
62	72.336	100.847	71.800	103.330	-0.537	2.483
63	86.764	100.819	87.285	101.363	0.521	0.544
64	101.191	100.790	101.196	101.872	0.005	1.082

[redacted] P 4 [redacted]

TABLE E-31. TUBE CENTROID DISPLACEMENTS AT 44.4 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.315	-1.427	-0.315	-1.427
2	14.427	-0.009	13.863	-1.155	-0.564	-1.146
3	28.854	-0.017	28.606	-0.371	-0.248	-0.354
4	43.282	-0.026	43.282	-0.341	0.001	-0.315
5	57.709	-0.034	58.038	0.188	0.329	0.223
6	72.136	-0.043	72.532	-0.502	0.396	-0.459
7	86.563	-0.051	87.785	-0.861	1.222	-0.810
8	100.990	-0.060	100.638	-0.348	-0.353	-0.288
9	0.009	14.427	0.031	12.848	0.022	-1.579
10	14.436	14.419	14.693	13.088	0.257	-1.331
11	28.863	14.410	29.094	13.751	0.231	-0.659
12	43.290	14.402	43.806	13.507	0.516	-0.895
13	57.717	14.393	58.639	14.269	0.922	-0.124
14	72.145	14.385	73.248	13.621	1.103	-0.764
15	86.572	14.376	87.206	13.803	0.634	-0.573
16	100.999	14.367	100.731	13.644	-0.268	-0.723
17	0.017	28.854	-0.565	28.187	-0.582	-0.667
18	14.444	28.846	13.543	27.856	-0.902	-0.990
19	28.871	28.837	28.371	28.509	-0.500	-0.328
20	43.299	28.829	42.907	27.904	-0.392	-0.924
21	57.726	28.820	56.768	27.830	-0.958	-0.990
22	72.153	28.812	71.967	28.074	-0.186	-0.738
23	86.580	28.803	87.908	27.542	1.327	-1.261
24	101.007	28.795	101.596	27.503	0.588	-1.292
25	0.026	43.282	0.041	43.521	0.015	0.240
26	14.453	43.273	14.775	43.140	0.322	-0.133
27	28.880	43.265	29.433	44.647	0.553	1.382
28	43.307	43.256	43.358	42.256	0.051	-1.000
29	57.734	43.247	57.161	41.611	-0.573	-1.636
30	72.162	43.239	71.684	43.281	-0.478	0.042
31	86.589	43.230	86.718	43.109	0.129	-0.122
32	101.016	43.222	101.415	42.352	0.399	-0.870
33	0.034	57.709	-0.016	57.582	-0.050	-0.127
34	14.461	57.700	14.037	57.269	-0.424	-0.432
35	28.889	57.692	27.727	58.756	-1.162	1.064
36	43.316	57.683	41.851	56.625	-1.465	-1.058
37	57.743	57.675	56.399	56.222	-1.344	-1.453
38	72.170	57.666	71.617	60.479	-0.553	2.813
39	86.597	57.658	87.611	58.196	1.014	0.538
40	101.025	57.649	102.107	56.890	1.083	-0.759
41	0.043	72.136	0.386	72.501	0.343	0.365
42	14.470	72.127	14.000	72.147	-0.470	0.020
43	28.897	72.119	27.953	72.525	-0.944	0.406
44	43.324	72.110	41.922	71.764	-1.402	-0.347
45	57.751	72.102	56.605	71.196	-1.146	-0.906
46	72.179	72.093	71.260	75.881	-0.918	3.788
47	86.606	72.085	86.110	72.984	-0.496	0.900
48	101.033	72.076	101.279	72.506	0.246	0.430
49	0.051	86.563	0.258	86.392	0.206	-0.171
50	14.478	86.555	14.085	87.139	-0.393	0.584
51	28.906	86.546	28.765	87.502	-0.141	0.955
52	43.333	86.538	42.629	87.307	-0.704	0.769
53	57.760	86.529	57.926	86.318	0.166	-0.211

54	72.187	86.521	72.831	90.714	0.644	4.194
55	86.614	86.512	86.869	87.199	0.254	0.687
56	101.042	86.503	101.585	88.540	0.544	2.037
57	0.060	100.990	0.677	100.096	0.618	-0.894
58	14.487	100.982	14.602	101.812	0.115	0.830
59	28.914	100.973	28.841	101.544	-0.073	0.571
60	43.341	100.965	43.776	101.538	0.434	0.573
61	57.769	100.956	59.504	102.070	1.735	1.114
62	72.196	100.948	72.331	103.293	0.136	2.345
63	86.623	100.939	87.655	101.554	1.032	0.615
64	101.050	100.931	101.463	102.201	0.413	1.270

TABLE E-32. TUBE CENTROID DISPLACEMENTS AT 46.4 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.141	-1.355	-0.141	-1.355
2	14.427	-0.007	13.728	-1.082	-0.599	-1.074
3	28.854	-0.014	28.482	-0.268	-0.372	-0.253
4	43.282	-0.022	43.204	-0.086	-0.077	-0.065
5	57.709	-0.029	57.716	0.339	0.007	0.368
6	72.136	-0.036	72.117	-0.335	-0.019	-0.299
7	86.563	-0.043	87.252	-0.803	0.689	-0.759
8	100.990	-0.051	100.172	-0.363	-0.818	-0.312
9	0.007	14.427	0.179	13.058	0.172	-1.369
10	14.434	14.420	14.654	13.229	0.220	-1.191
11	28.862	14.413	28.946	14.093	0.085	-0.319
12	43.289	14.405	43.560	13.925	0.272	-0.480
13	57.716	14.398	58.208	14.407	0.492	0.008
14	72.143	14.391	72.990	13.672	0.847	-0.719
15	86.570	14.384	86.919	13.741	0.348	-0.643
16	100.998	14.376	100.571	14.050	-0.426	-0.326
17	0.014	28.854	-0.234	28.527	-0.248	-0.328
18	14.442	28.847	13.941	27.791	-0.501	-1.056
19	28.869	28.840	28.657	28.592	-0.212	-0.248
20	43.296	28.833	42.857	28.163	-0.439	-0.669
21	57.723	28.825	56.495	28.135	-1.228	-0.690
22	72.150	28.818	71.948	28.258	-0.202	-0.561
23	86.578	28.811	88.174	27.556	1.596	-1.255
24	101.005	28.804	101.853	28.031	0.848	-0.772
25	0.022	43.282	0.316	43.810	0.294	0.528
26	14.449	43.274	15.067	43.140	0.618	-0.135
27	28.876	43.267	29.606	44.621	0.730	1.354
28	43.303	43.260	43.549	42.636	0.246	-0.623
29	57.731	43.253	57.035	41.896	-0.695	-1.357
30	72.158	43.245	71.601	43.871	-0.557	0.626
31	86.585	43.238	87.390	43.133	0.805	-0.105
32	101.012	43.231	101.528	42.642	0.516	-0.589
33	0.029	57.709	0.235	57.745	0.206	0.036
34	14.456	57.702	14.285	57.465	-0.172	-0.237
35	28.883	57.694	28.147	58.752	-0.736	1.058
36	43.311	57.687	42.101	56.823	-1.210	-0.864
37	57.738	57.680	56.419	56.280	-1.318	-1.400
38	72.165	57.673	71.713	61.256	-0.452	3.584
39	86.592	57.665	87.818	58.250	1.226	0.585
40	101.019	57.658	102.325	56.752	1.306	-0.906
41	0.036	72.136	0.699	72.375	0.663	0.239
42	14.463	72.129	14.280	71.874	-0.183	-0.255
43	28.891	72.122	28.074	72.386	-0.817	0.265
44	43.318	72.114	41.960	71.396	-1.358	-0.718
45	57.745	72.107	56.679	70.711	-1.066	-1.396
46	72.172	72.100	70.978	75.594	-1.194	3.494
47	86.599	72.093	85.474	72.402	-1.125	0.310
48	101.027	72.085	99.807	72.982	-1.219	0.897
49	0.043	86.563	0.653	86.301	0.610	-0.263
50	14.471	86.556	14.453	86.824	-0.018	0.268
51	28.898	86.549	28.822	87.194	-0.076	0.645
52	43.325	86.541	42.637	86.706	-0.688	0.165
53	57.752	86.534	58.089	86.193	0.336	-0.341

54	72.179	86.527	72.752	90.091	0.573	3.564
55	86.607	86.520	86.573	87.277	-0.034	0.757
56	101.034	86.512	101.602	88.118	0.568	1.606
57	0.051	100.990	1.029	99.814	0.978	-1.176
58	14.478	100.983	14.661	101.278	0.183	0.295
59	28.905	100.976	28.673	101.316	-0.232	0.340
60	43.332	100.969	43.783	101.255	0.451	0.286
61	57.760	100.961	59.435	101.662	1.676	0.701
62	72.187	100.954	72.294	102.686	0.107	1.732
63	86.614	100.947	87.382	101.395	0.768	0.448
64	101.041	100.940	101.141	101.891	0.100	0.952

TABLE E-33. TUBE CENTROID DISPLACEMENTS AT 46.9 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.494	-1.160	0.494	-1.160
2	14.427	-0.015	14.210	-0.967	-0.217	-0.952
3	28.854	-0.031	28.940	-0.022	0.085	0.009
4	43.282	-0.046	43.557	0.157	0.276	0.203
5	57.709	-0.062	57.987	0.607	0.278	0.669
6	72.136	-0.077	72.313	-0.096	0.177	-0.019
7	86.563	-0.092	87.361	-0.520	0.798	-0.427
8	100.990	-0.108	100.201	-0.010	-0.789	0.098
9	0.015	14.427	0.699	13.115	0.684	-1.312
10	14.443	14.412	15.096	13.227	0.654	-1.185
11	28.870	14.396	29.297	14.249	0.427	-0.147
12	43.297	14.381	43.842	14.062	0.545	-0.319
13	57.724	14.366	58.378	14.505	0.654	0.140
14	72.151	14.350	72.819	13.659	0.668	-0.692
15	86.579	14.335	86.654	13.623	0.075	-0.712
16	101.006	14.319	100.231	14.199	-0.775	-0.120
17	0.031	28.854	0.108	28.331	0.077	-0.524
18	14.458	28.839	14.301	27.560	-0.157	-1.279
19	28.885	28.824	28.845	28.388	-0.040	-0.436
20	43.312	28.808	42.891	28.034	-0.421	-0.774
21	57.740	28.793	56.394	28.073	-1.346	-0.720
22	72.167	28.777	71.803	28.137	-0.364	-0.641
23	86.594	28.762	87.972	27.471	1.378	-1.291
24	101.021	28.747	101.558	28.043	0.537	-0.704
25	0.046	43.282	0.582	43.527	0.536	0.246
26	14.473	43.266	15.293	42.805	0.819	-0.461
27	28.901	43.251	29.757	44.350	0.857	1.099
28	43.328	43.235	43.541	42.463	0.213	-0.773
29	57.755	43.220	56.919	41.748	-0.836	-1.472
30	72.182	43.205	71.409	43.958	-0.774	0.753
31	86.609	43.189	87.387	42.747	0.778	-0.442
32	101.037	43.174	101.125	42.500	0.089	-0.674
33	0.062	57.709	0.448	57.386	0.386	-0.323
34	14.489	57.693	14.416	57.087	-0.073	-0.606
35	28.916	57.678	28.111	58.476	-0.805	0.798
36	43.343	57.663	41.943	56.634	-1.401	-1.029
37	57.770	57.647	56.101	56.135	-1.670	-1.512
38	72.198	57.632	71.289	61.191	-0.908	3.559
39	86.625	57.616	87.348	58.093	0.723	0.477
40	101.052	57.601	101.795	56.599	0.743	-1.003
41	0.077	72.136	0.817	72.249	0.740	0.113
42	14.504	72.121	14.413	71.769	-0.091	-0.351
43	28.931	72.105	28.175	72.352	-0.756	0.247
44	43.359	72.090	41.982	71.360	-1.376	-0.730
45	57.786	72.074	56.703	70.760	-1.082	-1.314
46	72.213	72.059	70.924	75.665	-1.289	3.606
47	86.640	72.044	85.416	72.442	-1.225	0.398
48	101.067	72.028	99.839	72.998	-1.228	0.969
49	0.092	86.563	0.814	86.202	0.722	-0.361
50	14.520	86.548	14.614	86.655	0.095	0.107
51	28.947	86.532	28.839	87.097	-0.108	0.564
52	43.374	86.517	42.691	86.650	-0.683	0.133
53	57.801	86.502	58.092	86.254	0.291	-0.248

54	72.228	86.486	72.705	90.174	0.477	3.687
55	86.656	86.471	86.540	87.507	-0.116	1.036
56	101.083	86.455	101.642	88.348	0.559	1.893
57	0.108	100.990	1.033	99.627	0.925	-1.363
58	14.535	100.975	14.612	101.006	0.077	0.031
59	28.962	100.960	28.533	101.229	-0.430	0.269
60	43.389	100.944	43.643	101.228	0.253	0.284
61	57.817	100.929	59.265	101.711	1.449	0.782
62	72.244	100.913	72.178	102.796	-0.066	1.883
63	86.671	100.898	87.204	101.631	0.533	0.733
64	101.098	100.883	101.052	102.169	-0.046	1.287

TABLE E-34. TUBE CENTROID DISPLACEMENTS AT 48.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.107	-1.425	-0.107	-1.425
2	14.427	0.004	13.596	-1.217	-0.831	-1.221
3	28.854	0.008	28.447	-0.364	-0.407	-0.372
4	43.282	0.012	43.110	-0.101	-0.171	-0.113
5	57.709	0.016	57.484	0.322	-0.225	0.306
6	72.136	0.021	71.837	-0.480	-0.299	-0.501
7	86.563	0.025	86.907	-0.890	0.344	-0.915
8	100.990	0.029	99.818	-0.503	-1.173	-0.532
9	-0.004	14.427	0.008	12.936	0.012	-1.491
10	14.423	14.431	14.528	13.093	0.105	-1.338
11	28.850	14.435	28.772	14.063	-0.078	-0.372
12	43.277	14.440	43.348	13.942	0.071	-0.498
13	57.705	14.444	57.916	14.250	0.211	-0.194
14	72.132	14.448	72.318	13.312	0.186	-1.136
15	86.559	14.452	86.159	12.972	-0.401	-1.480
16	100.986	14.456	99.830	13.822	-1.156	-0.634
17	-0.008	28.854	-0.438	28.211	-0.429	-0.644
18	14.419	28.859	14.024	27.359	-0.395	-1.500
19	28.846	28.863	28.606	28.094	-0.240	-0.769
20	43.273	28.867	42.544	27.834	-0.729	-1.033
21	57.701	28.871	55.926	27.787	-1.775	-1.083
22	72.128	28.875	71.407	27.889	-0.720	-0.986
23	86.555	28.879	87.765	27.070	1.210	-1.809
24	100.982	28.883	101.434	27.776	0.452	-1.107
25	-0.012	43.282	0.111	43.499	0.124	0.218
26	14.415	43.286	14.900	42.588	0.485	-0.698
27	28.842	43.290	29.484	43.979	0.641	0.689
28	43.269	43.294	43.307	42.282	0.038	-1.012
29	57.696	43.298	56.603	41.552	-1.094	-1.746
30	72.124	43.302	71.624	45.562	-0.500	2.260
31	86.551	43.306	87.429	42.357	0.878	-0.949
32	100.978	43.310	100.896	42.077	-0.082	-1.233
33	-0.016	57.709	0.087	57.363	0.104	-0.346
34	14.411	57.713	14.127	57.040	-0.284	-0.673
35	28.838	57.717	27.927	58.354	-0.911	0.637
36	43.265	57.721	41.778	56.533	-1.488	-1.188
37	57.692	57.725	55.828	55.884	-1.864	-1.841
38	72.120	57.729	70.924	61.266	-1.195	3.537
39	86.547	57.733	87.854	58.263	1.307	0.530
40	100.974	57.738	102.473	56.794	1.499	-0.944
41	-0.021	72.136	0.674	72.790	0.694	0.654
42	14.407	72.140	14.448	72.300	0.041	0.160
43	28.834	72.144	28.298	72.829	-0.536	0.685
44	43.261	72.148	42.225	71.674	-1.036	-0.475
45	57.688	72.152	57.172	71.237	-0.516	-0.915
46	72.115	72.157	71.356	76.005	-0.759	3.849
47	86.543	72.161	85.966	72.844	-0.576	0.683
48	100.970	72.165	100.884	72.972	-0.086	0.807
49	-0.025	86.563	0.846	86.902	0.870	0.339
50	14.403	86.567	14.730	87.293	0.327	0.726
51	28.830	86.571	28.988	87.694	0.158	1.122
52	43.257	86.576	43.137	87.041	-0.120	0.466
53	57.684	86.580	58.225	86.788	0.541	0.209

54	72.111	86.584	73.172	90.444	1.061	3.860
55	86.539	86.588	87.296	88.017	0.758	1.429
56	100.966	86.592	102.307	88.321	1.341	1.729
57	-0.029	100.990	1.044	100.422	1.073	-0.569
58	14.398	100.995	14.594	101.675	0.196	0.680
59	28.826	100.999	28.658	102.083	-0.168	1.085
60	43.253	101.003	44.043	101.895	0.790	0.892
61	57.680	101.007	59.727	102.307	2.047	1.300
62	72.107	101.011	72.779	103.228	0.672	2.217
63	86.534	101.015	87.756	102.177	1.222	1.162
64	100.962	101.019	101.856	102.530	0.895	1.510

TABLE E-35. TUBE CENTROID DISPLACEMENTS AT 49.6 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.143	-1.430	0.143	-1.430
2	14.427	-0.013	13.819	-1.091	-0.608	-1.079
3	28.854	-0.025	28.806	-0.194	-0.048	-0.168
4	43.282	-0.038	43.550	0.166	0.269	0.204
5	57.709	-0.050	57.872	0.599	0.163	0.650
6	72.136	-0.063	72.369	-0.157	0.233	-0.095
7	86.563	-0.075	87.441	-0.586	0.878	-0.511
8	100.990	-0.088	100.542	-0.075	-0.448	0.013
9	0.013	14.427	-0.012	12.995	-0.024	-1.432
10	14.440	14.415	14.686	12.985	0.246	-1.430
11	28.867	14.402	29.015	14.267	0.148	-0.135
12	43.294	14.390	43.679	14.249	0.385	-0.141
13	57.721	14.377	58.167	14.626	0.446	0.249
14	72.149	14.365	72.570	13.470	0.421	-0.894
15	86.576	14.352	86.568	13.155	-0.008	-1.197
16	101.003	14.339	100.430	14.393	-0.572	0.054
17	0.025	28.854	-0.608	28.233	-0.633	-0.622
18	14.452	28.842	14.440	27.611	-0.013	-1.231
19	28.879	28.829	28.938	28.657	0.059	-0.173
20	43.307	28.817	42.896	28.157	-0.410	-0.660
21	57.734	28.804	56.224	28.224	-1.510	-0.581
22	72.161	28.792	71.828	28.723	-0.334	-0.069
23	86.588	28.779	87.932	28.027	1.344	-0.752
24	101.015	28.767	102.116	28.354	1.101	-0.412
25	0.038	43.282	0.181	43.832	0.143	0.551
26	14.465	43.269	15.197	42.740	0.733	-0.529
27	28.892	43.257	29.801	43.882	0.909	0.626
28	43.319	43.244	43.719	42.710	0.400	-0.534
29	57.746	43.231	56.991	41.984	-0.756	-1.247
30	72.174	43.219	71.969	46.464	-0.205	3.245
31	86.601	43.206	87.975	43.056	1.374	-0.151
32	101.028	43.194	101.344	42.603	0.316	-0.590
33	0.050	57.709	0.084	57.699	0.034	-0.010
34	14.477	57.696	14.236	57.111	-0.241	-0.585
35	28.905	57.684	28.145	58.384	-0.760	0.700
36	43.332	57.671	41.980	56.675	-1.352	-0.996
37	57.759	57.659	56.064	56.023	-1.695	-1.635
38	72.186	57.646	70.811	61.422	-1.376	3.776
39	86.613	57.634	87.087	57.755	0.473	0.122
40	101.041	57.621	101.732	56.534	0.692	-1.087
41	0.063	72.136	0.410	72.189	0.347	0.053
42	14.490	72.123	14.293	71.712	-0.197	-0.412
43	28.917	72.111	28.103	72.341	-0.814	0.230
44	43.344	72.098	42.043	71.170	-1.301	-0.929
45	57.771	72.086	57.028	71.006	-0.743	-1.079
46	72.199	72.073	70.856	75.440	-1.342	3.367
47	86.626	72.061	86.188	73.195	-0.438	1.134
48	101.053	72.048	101.483	71.912	0.429	-0.136
49	0.075	86.563	0.818	86.342	0.743	-0.221
50	14.502	86.551	14.688	86.710	0.185	0.159
51	28.930	86.538	28.692	86.995	-0.237	0.457
52	43.357	86.526	43.088	86.215	-0.268	-0.311
53	57.784	86.513	57.951	86.231	0.167	-0.282

54	72.211	86.501	72.682	89.553	0.471	3.052
55	86.638	86.488	87.075	87.462	0.437	0.974
56	101.066	86.475	101.691	87.370	0.626	0.894
57	0.088	100.990	0.809	99.752	0.721	-1.238
58	14.515	100.978	14.151	100.865	-0.364	-0.113
59	28.942	100.965	28.126	101.579	-0.816	0.613
60	43.369	100.953	43.650	101.198	0.280	0.245
61	57.797	100.940	59.184	101.567	1.387	0.626
62	72.224	100.928	72.330	102.427	0.106	1.500
63	86.651	100.915	87.044	101.569	0.393	0.654
64	101.078	100.903	101.388	101.850	0.310	0.948

TABLE E-36. TUBE CENTROID DISPLACEMENTS AT 51.2 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETEP
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO.
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.312	-1.244	0.312	-1.244
2	14.427	-0.006	13.775	-1.004	-0.652	-0.998
3	28.854	-0.013	28.846	-0.059	-0.008	-0.047
4	43.282	-0.019	43.420	0.298	0.139	0.317
5	57.709	-0.025	57.617	0.615	-0.092	0.641
6	72.136	-0.032	72.072	-0.272	-0.064	-0.240
7	86.563	-0.038	87.007	-0.665	0.443	-0.627
8	100.990	-0.044	100.252	-0.062	-0.738	-0.018
9	0.006	14.427	-0.239	12.932	-0.246	-1.495
10	14.434	14.421	14.601	12.840	0.167	-1.581
11	28.861	14.415	28.944	14.229	0.083	-0.186
12	43.288	14.408	43.500	14.211	0.212	-0.197
13	57.715	14.402	57.776	14.652	0.061	0.250
14	72.142	14.396	71.994	13.418	-0.148	-0.977
15	86.570	14.389	86.081	12.963	-0.488	-1.427
16	100.997	14.383	100.004	14.226	-0.993	-0.157
17	0.013	28.854	-0.874	28.078	-0.886	-0.776
18	14.440	28.848	14.688	27.562	0.248	-1.287
19	28.867	28.842	29.015	28.615	0.148	-0.227
20	43.294	28.835	42.827	28.271	-0.467	-0.565
21	57.721	28.829	56.167	28.220	-1.554	-0.609
22	72.149	28.823	72.185	29.009	0.036	0.186
23	86.576	28.817	88.751	28.165	2.175	-0.652
24	101.003	28.810	101.939	28.410	0.936	-0.400
25	0.019	43.282	0.141	43.896	0.122	0.614
26	14.446	43.275	15.297	42.709	0.850	-0.566
27	28.873	43.269	29.746	43.661	0.873	0.392
28	43.301	43.263	43.722	42.745	0.422	-0.518
29	57.728	43.256	57.034	42.086	-0.694	-1.170
30	72.155	43.250	71.388	44.320	-0.767	1.070
31	86.582	43.244	87.546	43.504	0.964	0.260
32	101.009	43.237	101.010	42.510	0.001	-0.728
33	0.025	57.709	0.030	57.799	0.005	0.090
34	14.452	57.702	14.325	57.294	-0.128	-0.408
35	28.880	57.696	28.405	58.410	-0.474	0.713
36	43.307	57.690	42.267	56.956	-1.040	-0.734
37	57.734	57.684	56.271	56.181	-1.463	-1.502
38	72.161	57.677	71.185	61.474	-0.976	3.796
39	86.588	57.671	86.799	57.741	0.211	0.070
40	101.016	57.665	101.727	56.803	0.712	-0.861
41	0.032	72.136	0.227	72.282	0.196	0.146
42	14.459	72.130	14.316	71.885	-0.142	-0.245
43	28.886	72.123	28.221	72.421	-0.665	0.298
44	43.313	72.117	42.236	71.412	-1.077	-0.705
45	57.740	72.111	57.325	71.417	-0.415	-0.694
46	72.168	72.104	71.002	75.417	-1.165	3.312
47	86.595	72.098	86.174	73.305	-0.420	1.207
48	101.022	72.092	101.664	72.082	0.642	-0.010
49	0.038	86.563	0.877	86.466	0.839	-0.097
50	14.465	86.557	14.731	86.855	0.266	0.298
51	28.892	86.551	28.625	86.996	-0.267	0.445
52	43.319	86.544	43.320	86.167	0.000	-0.377
53	57.747	86.538	58.243	86.513	0.497	-0.025

54	72.174	86.532	72.691	89.369	0.517	2.837
55	86.601	86.525	87.287	87.520	0.686	0.994
56	101.028	86.519	101.805	87.157	0.777	0.638
57	0.044	100.990	0.747	99.974	0.703	-1.017
58	14.471	100.984	13.993	100.895	-0.478	-0.089
59	28.899	100.978	28.006	101.838	-0.893	0.860
60	43.326	100.971	43.640	101.226	0.314	0.255
61	57.753	100.965	59.187	101.652	1.434	0.687
62	72.180	100.959	72.505	102.492	0.325	1.533
63	86.607	100.953	87.019	101.633	0.412	0.680
64	101.035	100.946	101.708	101.812	0.674	0.865

[redacted] M 5 [redacted]

TABLE E-37. TUBE CENTROID DISPLACEMENTS AT 53.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.369	-1.145	0.369	-1.145
2	14.427	-0.001	13.800	-0.799	-0.627	-0.798
3	28.854	-0.002	28.913	0.184	0.059	0.186
4	43.282	-0.003	43.302	0.473	0.021	0.476
5	57.709	-0.005	57.428	0.798	-0.281	0.802
6	72.136	-0.006	71.887	-0.305	-0.249	-0.299
7	86.563	-0.007	86.751	-0.666	0.188	-0.659
8	100.990	-0.008	100.161	-0.015	-0.830	-0.007
9	0.001	14.427	-0.271	12.862	-0.272	-1.566
10	14.428	14.426	14.576	12.898	0.147	-1.528
11	28.856	14.425	29.040	14.254	0.184	-0.171
12	43.283	14.424	43.478	14.298	0.195	-0.126
13	57.710	14.423	57.609	14.866	-0.101	0.443
14	72.137	14.421	71.718	13.582	-0.419	-0.840
15	86.564	14.420	85.934	13.096	-0.630	-1.325
16	100.992	14.419	99.977	14.206	-1.015	-0.213
17	0.002	28.854	-0.199	28.504	-0.202	-0.351
18	14.430	28.853	15.040	27.536	0.611	-1.317
19	28.857	28.852	29.106	28.716	0.250	-0.136
20	43.284	28.851	42.930	28.439	-0.354	-0.412
21	57.711	28.850	56.333	28.308	-1.378	-0.542
22	72.138	28.849	71.143	28.647	-0.995	-0.202
23	86.566	28.847	87.347	27.891	0.781	-0.957
24	100.993	28.846	101.523	28.451	0.530	-0.395
25	0.003	43.282	0.183	43.862	0.180	0.581
26	14.431	43.280	15.351	42.723	0.920	-0.558
27	28.858	43.279	29.802	43.442	0.944	0.163
28	43.285	43.278	43.736	42.759	0.451	-0.519
29	57.712	43.277	57.088	42.200	-0.625	-1.077
30	72.139	43.276	71.437	43.987	-0.702	0.711
31	86.567	43.275	87.098	43.296	0.531	0.022
32	100.994	43.274	100.599	42.584	-0.395	-0.690
33	0.005	57.709	0.067	57.795	0.063	0.086
34	14.432	57.708	14.391	57.239	-0.041	-0.469
35	28.859	57.706	28.545	58.115	-0.314	0.409
36	43.286	57.705	42.434	56.945	-0.852	-0.760
37	57.713	57.704	56.638	56.517	-1.076	-1.187
38	72.141	57.703	71.403	61.201	-0.737	3.498
39	86.568	57.702	86.592	57.889	0.024	0.187
40	100.995	57.701	101.657	57.097	0.662	-0.604
41	0.006	72.136	0.055	72.284	0.050	0.148
42	14.433	72.135	14.412	72.037	-0.021	-0.097
43	28.860	72.134	28.417	72.477	-0.443	0.344
44	43.287	72.133	42.568	71.539	-0.719	-0.594
45	57.715	72.131	57.462	71.484	-0.253	-0.647
46	72.142	72.130	71.251	75.226	-0.891	3.095
47	86.569	72.129	85.957	72.786	-0.612	0.657
48	100.996	72.128	101.603	72.336	0.607	0.208
49	0.007	86.563	0.928	86.555	0.921	-0.008
50	14.434	86.562	14.912	86.965	0.478	0.403
51	28.861	86.561	28.787	87.011	-0.075	0.450
52	43.289	86.560	43.613	86.140	0.325	-0.419
53	57.716	86.559	58.481	86.679	0.765	0.121

[redacted] N 5 [redacted]

54	72.143	86.557	72.770	89.057	0.627	2.500
55	86.570	86.556	87.450	87.360	0.880	0.803
56	100.997	86.555	101.788	87.014	0.791	0.459
57	0.008	100.990	0.389	100.253	0.381	-0.738
58	14.435	100.989	13.770	100.939	-0.665	-0.051
59	28.862	100.988	28.066	101.776	-0.797	0.788
60	43.290	100.987	43.749	101.218	0.460	0.232
61	57.717	100.986	59.148	101.728	1.431	0.743
62	72.144	100.985	72.608	102.518	0.464	1.533
63	86.571	100.983	86.939	101.610	0.367	0.627
64	100.998	100.982	101.913	101.715	0.915	0.733

TABLE E-38. TUBE CENTROID DISPLACEMENTS AT 54.6 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.099	-0.987	0.099	-0.987
2	14.427	0.002	13.714	-0.786	-0.713	-0.788
3	28.854	0.004	28.849	0.140	-0.005	0.136
4	43.282	0.006	43.255	0.394	-0.026	0.388
5	57.709	0.008	57.445	0.692	-0.264	0.684
6	72.136	0.010	71.992	-0.396	-0.144	-0.406
7	86.563	0.012	86.796	-0.751	0.233	-0.763
8	100.990	0.014	100.469	-0.190	-0.521	-0.204
9	-0.002	14.427	-0.621	12.794	-0.619	-1.633
10	14.425	14.429	14.308	13.033	-0.117	-1.396
11	28.852	14.431	28.895	14.305	0.043	-0.126
12	43.280	14.433	43.387	14.298	0.108	-0.135
13	57.707	14.435	57.492	14.916	-0.215	0.481
14	72.134	14.437	71.679	13.696	-0.455	-0.741
15	86.561	14.439	86.098	13.178	-0.463	-1.261
16	100.988	14.441	100.292	14.085	-0.696	-0.357
17	-0.004	28.854	0.628	29.146	0.632	0.292
18	14.423	28.856	15.182	27.529	0.758	-1.328
19	28.850	28.858	29.018	28.793	0.168	-0.066
20	43.278	28.860	42.955	28.620	-0.322	-0.241
21	57.705	28.862	56.576	28.369	-1.129	-0.494
22	72.132	28.864	71.333	28.707	-0.799	-0.158
23	86.559	28.866	87.273	27.863	0.714	-1.004
24	100.986	28.868	101.541	28.476	0.555	-0.393
25	-0.006	43.282	-0.025	44.081	-0.019	0.800
26	14.421	43.284	15.292	42.938	0.871	-0.345
27	28.848	43.286	29.650	43.463	0.801	0.178
28	43.276	43.288	43.737	42.940	0.462	-0.347
29	57.703	43.290	57.266	42.481	-0.437	-0.808
30	72.130	43.292	71.622	43.987	-0.508	0.696
31	86.557	43.294	87.078	43.388	0.521	0.095
32	100.984	43.296	100.582	42.787	-0.402	-0.509
33	-0.008	57.709	0.045	58.116	0.053	0.407
34	14.419	57.711	14.406	57.494	-0.013	-0.217
35	28.846	57.713	28.685	58.173	-0.161	0.460
36	43.274	57.715	42.587	57.282	-0.687	-0.433
37	57.701	57.717	56.732	56.683	-0.969	-1.033
38	72.128	57.719	71.416	60.730	-0.712	3.011
39	86.555	57.721	86.395	57.781	-0.160	0.060
40	100.982	57.723	101.427	57.082	0.445	-0.641
41	-0.010	72.136	-0.150	72.280	-0.140	0.144
42	14.417	72.138	14.283	72.141	-0.134	0.003
43	28.844	72.140	28.382	72.423	-0.462	0.283
44	43.272	72.142	42.563	71.613	-0.708	-0.529
45	57.699	72.144	57.433	71.610	-0.266	-0.534
46	72.126	72.146	71.334	74.829	-0.792	2.683
47	86.553	72.148	86.020	72.683	-0.533	0.535
48	100.980	72.150	101.319	72.325	0.339	0.175
49	-0.012	86.563	0.686	86.537	0.698	-0.026
50	14.415	86.565	14.756	86.936	0.341	0.370
51	28.842	86.567	28.686	86.884	-0.157	0.317
52	43.270	86.569	43.702	86.112	0.432	-0.457
53	57.697	86.571	58.468	86.660	0.771	0.089

54	72.124	86.573	72.677	88.647	0.553	'2.074
55	86.551	86.575	87.328	86.983	0.777	0.408
56	100.978	86.577	101.664	86.774	0.685	0.197
57	-0.014	100.990	0.232	100.512	0.246	-0.478
58	14.413	100.992	13.722	100.982	-0.691	-0.011
59	28.840	100.994	28.251	101.637	-0.589	0.643
60	43.268	100.996	43.714	101.325	0.446	0.328
61	57.695	100.998	58.969	101.773	1.274	0.774
62	72.122	101.000	72.632	102.364	0.510	1.364
63	86.549	101.002	86.967	101.327	0.417	0.325
64	100.976	101.004	102.057	101.451	1.080	0.446

TABLE F 39. TUBE CENTROID DISPLACEMENTS AT 56.2 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.404	-0.529	0.404	-0.529
2	14.427	-0.002	14.026	-0.457	-0.401	-0.455
3	28.854	-0.004	29.016	0.253	0.161	0.256
4	43.282	-0.005	43.310	0.512	0.029	0.518
5	57.709	-0.007	57.576	0.851	-0.133	0.858
6	72.136	-0.009	71.920	-0.028	-0.216	-0.019
7	86.563	-0.011	86.624	-0.401	0.061	-0.390
8	100.990	-0.013	100.456	0.075	-0.534	0.088
9	0.002	14.427	-0.398	13.133	-0.400	-1.294
10	14.429	14.425	14.446	13.318	0.017	-1.107
11	28.856	14.424	28.982	14.423	0.126	-0.000
12	43.283	14.422	43.442	14.455	0.159	0.033
13	57.711	14.420	57.447	15.072	-0.264	0.652
14	72.138	14.418	71.573	13.957	-0.565	-0.461
15	86.565	14.416	86.100	13.524	-0.465	-0.893
16	100.992	14.414	100.370	14.220	-0.623	-0.194
17	0.004	28.854	-0.003	28.548	-0.007	-0.307
18	14.431	28.853	15.268	27.693	0.837	-1.160
19	28.858	28.851	29.181	28.852	0.323	0.002
20	43.285	28.849	43.124	28.761	-0.161	-0.088
21	57.712	28.847	56.867	28.572	-0.845	-0.275
22	72.140	28.845	71.503	28.944	-0.637	0.098
23	86.567	28.843	87.001	28.156	0.435	-0.687
24	100.994	28.842	101.150	28.695	0.156	-0.147
25	0.005	43.282	0.271	43.823	0.265	0.541
26	14.433	43.280	15.349	42.916	0.916	-0.364
27	28.860	43.278	29.718	43.373	0.858	0.095
28	43.287	43.276	43.755	43.038	0.468	-0.238
29	57.714	43.274	57.438	42.678	-0.276	-0.596
30	72.141	43.273	71.691	43.961	-0.450	0.688
31	86.569	43.271	86.906	43.449	0.338	0.178
32	100.996	43.269	100.304	43.020	-0.692	-0.249
33	0.007	57.709	0.220	57.994	0.213	0.286
34	14.434	57.707	14.536	57.511	0.101	-0.196
35	28.862	57.705	28.833	57.981	-0.029	0.276
36	43.289	57.703	42.753	57.364	-0.536	-0.340
37	57.716	57.702	56.973	56.952	-0.743	-0.749
38	72.143	57.700	71.541	60.234	-0.602	2.534
39	86.570	57.698	86.263	57.883	-0.307	0.186
40	100.998	57.696	101.101	57.327	0.103	-0.369
41	0.009	72.136	0.031	72.078	0.022	-0.058
42	14.436	72.134	14.387	71.946	-0.049	-0.189
43	28.863	72.132	28.554	72.258	-0.310	0.126
44	43.291	72.131	42.784	71.608	-0.507	-0.522
45	57.718	72.129	57.476	71.720	-0.242	-0.409
46	72.145	72.127	71.418	74.370	-0.727	2.243
47	86.572	72.125	86.031	72.687	-0.541	0.561
48	100.999	72.123	101.021	72.286	0.021	0.163
49	0.011	86.563	0.793	86.187	0.782	-0.376
50	14.438	86.561	14.947	86.601	0.509	0.040
51	28.865	86.560	28.876	86.624	0.010	0.064
52	43.293	86.558	43.658	85.967	0.365	-0.590
53	57.720	86.556	58.385	86.511	0.665	-0.045

54	72.147	86.554	72.479	88.147	0.332	1.593
55	86.574	86.552	87.011	86.686	0.437	0.134
56	101.001	86.550	101.229	86.546	0.228	-0.004
57	0.013	100.990	0.429	100.236	0.417	-0.755
58	14.440	100.989	13.973	100.621	-0.467	-0.368
59	28.867	100.987	28.192	101.532	-0.675	0.545
60	43.294	100.985	43.642	101.016	0.347	0.031
61	57.722	100.983	58.745	101.492	1.023	0.509
62	72.149	100.981	72.536	101.987	0.387	1.006
63	86.576	100.979	86.753	101.047	0.182	0.068
64	101.003	100.978	101.712	101.026	0.709	0.049

TABLE E-40. TUBE CENTROID DISPLACEMENTS AT 57.8 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.255	-0.445	0.255	-0.445
2	14.427	0.002	13.961	-0.518	-0.466	-0.520
3	28.854	0.004	28.924	0.101	0.070	0.097
4	43.282	0.006	43.223	0.269	-0.058	0.263
5	57.709	0.007	57.584	0.554	-0.125	0.546
6	72.136	0.009	71.892	-0.115	-0.244	-0.124
7	86.563	0.011	86.552	-0.433	-0.012	-0.444
8	100.990	0.013	100.579	-0.119	-0.412	-0.132
9	-0.002	14.427	-0.565	13.309	-0.563	-1.118
10	14.425	14.429	14.304	13.457	-0.121	-0.972
11	28.853	14.431	28.899	14.405	0.047	-0.026
12	43.280	14.433	43.340	14.415	0.060	-0.018
13	57.707	14.435	57.382	14.910	-0.325	0.475
14	72.134	14.437	71.560	13.970	-0.574	-0.466
15	86.561	14.438	86.127	13.539	-0.435	-0.900
16	100.989	14.440	100.606	14.019	-0.382	-0.421
17	-0.004	28.854	-0.462	28.251	-0.458	-0.604
18	14.423	28.856	15.081	27.827	0.657	-1.030
19	28.851	28.858	29.092	28.840	0.241	-0.018
20	43.278	28.860	43.124	28.736	-0.154	-0.124
21	57.705	28.862	57.062	28.548	-0.643	-0.314
22	72.132	28.864	71.567	28.978	-0.565	0.114
23	86.559	28.866	86.803	28.300	0.244	-0.566
24	100.987	28.867	100.946	28.610	-0.041	-0.257
25	-0.006	43.282	0.182	43.632	0.188	0.350
26	14.422	43.283	15.189	43.009	0.767	-0.275
27	28.849	43.285	29.547	43.322	0.698	0.037
28	43.276	43.287	43.660	43.071	0.384	-0.216
29	57.703	43.289	57.549	42.833	-0.155	-0.456
30	72.130	43.291	71.811	43.818	-0.320	0.527
31	86.558	43.293	86.851	43.389	0.294	0.096
32	100.985	43.295	100.277	43.108	-0.708	-0.187
33	-0.007	57.709	0.124	57.997	0.131	0.288
34	14.420	57.711	14.566	57.666	0.146	-0.044
35	28.847	57.713	28.933	57.912	0.086	0.200
36	43.274	57.714	42.916	57.541	-0.358	-0.174
37	57.701	57.716	57.218	57.228	-0.483	-0.488
38	72.129	57.718	71.721	59.825	-0.407	2.106
39	86.556	57.720	86.306	57.918	-0.249	0.198
40	100.983	57.722	100.942	57.534	-0.041	-0.188
41	-0.009	72.136	-0.075	72.197	-0.065	0.061
42	14.418	72.138	14.345	72.103	-0.073	-0.035
43	28.845	72.140	28.602	72.323	-0.243	0.183
44	43.272	72.142	42.944	71.852	-0.328	-0.290
45	57.699	72.143	57.558	71.913	-0.142	-0.231
46	72.127	72.145	71.583	74.049	-0.544	1.903
47	86.554	72.147	86.165	72.691	-0.389	0.544
48	100.981	72.149	100.908	72.348	-0.073	0.199
49	-0.011	86.563	0.611	86.357	0.622	-0.206
50	14.416	86.565	14.884	86.655	0.468	0.090
51	28.843	86.567	28.925	86.722	0.082	0.155
52	43.270	86.569	43.685	86.173	0.415	-0.396
53	57.698	86.571	58.350	86.608	0.653	0.037

54	72.125	86.573	72.516	87.910	0.391	1.337
55	86.552	86.574	86.943	86.579	0.391	0.005
56	100.979	86.576	101.179	86.481	0.199	-0.096
57	-0.013	100.990	0.318	100.587	0.331	-0.403
58	14.414	100.992	14.054	100.862	-0.360	-0.130
59	28.841	100.994	28.487	101.505	-0.354	0.511
60	43.269	100.996	43.670	101.197	0.402	0.201
61	57.696	100.998	58.657	101.631	0.961	0.634
62	72.123	101.000	72.689	102.026	0.566	1.027
63	86.550	101.002	86.882	101.185	0.332	0.183
64	100.977	101.003	101.766	100.948	0.789	-0.055

[redacted] F 6 [redacted]

TABLE E-41. TUBE CENTROID DISPLACEMENTS AT 59.6 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.678	0.107	0.678	0.107
2	14.427	-0.005	14.514	-0.038	0.087	-0.033
3	28.854	-0.010	29.283	0.503	0.429	0.513
4	43.282	-0.014	43.579	0.591	0.298	0.605
5	57.709	-0.019	57.914	0.841	0.206	0.860
6	72.136	-0.024	72.221	0.417	0.085	0.441
7	86.563	-0.029	86.753	0.087	0.190	0.116
8	100.990	-0.034	100.897	0.389	-0.094	0.422
9	0.005	14.427	-0.057	13.999	-0.062	-0.428
10	14.432	14.422	14.657	14.070	0.225	-0.353
11	28.859	14.418	29.196	14.772	0.336	0.354
12	43.286	14.413	43.594	14.764	0.308	0.352
13	57.714	14.408	57.713	15.271	-0.000	0.863
14	72.141	14.403	71.980	14.525	-0.161	0.121
15	86.568	14.398	86.459	14.187	-0.109	-0.212
16	100.995	14.393	101.080	14.447	0.085	0.053
17	0.010	28.854	-0.036	28.468	-0.046	-0.386
18	14.437	28.850	14.979	28.156	0.543	-0.693
19	28.864	28.845	29.105	28.863	0.241	0.018
20	43.291	28.840	43.133	28.863	-0.158	0.023
21	57.718	28.835	57.155	28.718	-0.564	-0.117
22	72.146	28.830	71.522	29.118	-0.623	0.287
23	86.573	28.825	86.345	28.647	-0.228	-0.178
24	101.000	28.821	100.381	28.835	-0.619	0.014
25	0.014	43.282	0.379	43.275	0.364	-0.006
26	14.442	43.277	15.125	43.049	0.683	-0.228
27	28.869	43.272	29.404	43.197	0.535	-0.075
28	43.296	43.267	43.431	43.130	0.135	-0.138
29	57.723	43.262	57.445	42.994	-0.279	-0.269
30	72.150	43.258	71.614	43.651	-0.536	0.394
31	86.578	43.253	86.380	43.371	-0.197	0.118
32	101.005	43.248	99.948	43.163	-1.057	-0.085
33	0.019	57.709	0.403	57.699	0.384	-0.010
34	14.446	57.704	14.643	57.638	0.197	-0.066
35	28.874	57.699	28.991	57.673	0.117	-0.026
36	43.301	57.694	42.945	57.564	-0.356	-0.130
37	57.728	57.690	57.217	57.386	-0.511	-0.303
38	72.155	57.685	71.574	59.138	-0.581	1.454
39	86.582	57.680	85.987	57.843	-0.595	0.163
40	101.010	57.675	100.476	57.489	-0.533	-0.186
41	0.024	72.136	0.261	71.875	0.237	-0.261
42	14.451	72.131	14.541	71.914	0.090	-0.217
43	28.878	72.126	28.779	72.088	-0.099	-0.038
44	43.306	72.122	43.111	71.853	-0.195	-0.268
45	57.733	72.117	57.459	71.854	-0.273	-0.263
46	72.160	72.112	71.574	73.392	-0.586	1.280
47	86.587	72.107	85.955	72.397	-0.632	0.290
48	101.014	72.102	100.489	72.095	-0.526	-0.007
49	0.029	86.563	0.728	86.009	0.699	-0.554
50	14.456	86.558	14.960	86.271	0.504	-0.287
51	28.883	86.554	29.089	86.363	0.206	-0.190
52	43.311	86.549	43.584	86.021	0.274	-0.528
53	57.738	86.544	58.125	86.276	0.387	-0.268

54	72.165	86.539	72.207	87.230	0.042	0.691
55	86.592	86.534	86.519	86.153	-0.073	-0.381
56	101.019	86.529	100.605	86.149	-0.415	-0.381
57	0.034	100.990	0.626	100.258	0.593	-0.732
58	14.461	100.986	14.493	100.462	0.032	-0.524
59	28.888	100.981	28.844	100.767	-0.044	-0.214
60	43.315	100.976	43.594	100.709	0.279	-0.267
61	57.743	100.971	58.275	101.191	0.532	0.220
62	72.170	100.966	72.365	101.441	0.195	0.475
63	86.597	100.961	86.490	100.639	-0.107	-0.323
64	101.024	100.957	101.086	100.345	0.062	-0.612

[redacted] H 6 [redacted]

TABLE E-42. TUBE CENTROID DISPLACEMENTS AT 61.2 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.270	-0.388	0.270	-0.388
2	14.427	-0.005	14.278	-0.554	-0.149	-0.548
3	28.854	-0.011	28.950	-0.057	0.095	-0.047
4	43.282	-0.016	43.264	0.013	-0.018	0.029
5	57.709	-0.021	57.677	0.254	-0.032	0.275
6	72.136	-0.027	72.012	0.114	-0.124	0.140
7	86.563	-0.032	86.536	-0.140	-0.027	-0.108
8	100.990	-0.037	100.690	0.181	-0.300	0.218
9	0.005	14.427	-0.255	13.662	-0.260	-0.766
10	14.433	14.422	14.372	13.771	-0.061	-0.650
11	28.860	14.417	28.896	14.278	0.036	-0.139
12	43.287	14.411	43.335	14.339	0.048	-0.072
13	57.714	14.406	57.535	14.773	-0.179	0.368
14	72.141	14.401	71.904	14.276	-0.238	-0.125
15	86.569	14.395	86.357	14.095	-0.211	-0.300
16	100.996	14.390	100.984	14.284	-0.012	-0.106
17	0.011	28.854	-0.062	28.321	-0.073	-0.534
18	14.438	28.849	14.748	28.180	0.310	-0.669
19	28.865	28.844	29.074	28.719	0.209	-0.125
20	43.292	28.838	43.271	28.791	-0.021	-0.047
21	57.719	28.833	57.459	28.701	-0.260	-0.133
22	72.147	28.828	71.877	29.088	-0.270	0.261
23	86.574	28.822	86.613	28.827	0.039	0.005
24	101.001	28.817	100.838	28.902	-0.163	0.085
25	0.016	43.282	0.199	42.985	0.183	-0.297
26	14.443	43.276	14.871	43.021	0.428	-0.255
27	28.870	43.271	29.256	43.133	0.386	-0.138
28	43.298	43.266	43.433	43.136	0.136	-0.130
29	57.725	43.260	57.658	43.140	-0.067	-0.120
30	72.152	43.255	71.882	43.598	-0.270	0.343
31	86.579	43.250	86.667	43.502	0.088	0.252
32	101.006	43.244	100.511	43.271	-0.495	0.027
33	0.021	57.709	0.255	57.558	0.233	-0.151
34	14.448	57.703	14.499	57.663	0.050	-0.041
35	28.876	57.698	28.964	57.647	0.089	-0.052
36	43.303	57.693	43.046	57.745	-0.257	0.053
37	57.730	57.688	57.463	57.690	-0.267	0.002
38	72.157	57.682	71.851	58.954	-0.306	1.272
39	86.585	57.677	86.315	58.044	-0.270	0.368
40	101.012	57.672	100.833	57.716	-0.179	0.044
41	0.027	72.136	0.147	71.891	0.120	-0.245
42	14.454	72.131	14.422	71.991	-0.031	-0.140
43	28.881	72.125	28.772	72.247	-0.109	0.121
44	43.308	72.120	43.241	72.146	-0.068	0.026
45	57.735	72.115	57.601	72.106	-0.135	-0.009
46	72.163	72.109	71.885	73.336	-0.278	1.226
47	86.590	72.104	86.294	72.600	-0.296	0.496
48	101.017	72.099	100.801	72.401	-0.216	0.302
49	0.032	86.563	0.369	86.164	0.337	-0.399
50	14.459	86.558	14.729	86.385	0.270	-0.172
51	28.886	86.553	29.011	86.516	0.124	-0.036
52	43.314	86.547	43.522	86.372	0.209	-0.175
53	57.741	86.542	58.049	86.587	0.308	0.045

54	72.168	86.537	72.312	87.305	0.144	0.769
55	86.595	86.531	86.648	86.492	0.053	-0.040
56	101.022	86.526	100.889	86.527	-0.134	0.001
57	0.037	100.990	0.354	100.491	0.317	-0.500
58	14.464	100.985	14.505	100.715	0.040	-0.270
59	28.892	100.980	28.944	100.903	0.052	-0.076
60	43.319	100.974	43.549	100.992	0.230	0.017
61	57.746	100.969	58.178	101.482	0.432	0.513
62	72.173	100.964	72.470	101.714	0.297	0.750
63	86.600	100.958	86.689	101.110	0.088	0.151
64	101.028	100.953	101.179	100.793	0.151	-0.161

[redacted] J 6 [redacted]

TABLE E-43. TUBE CENTROID DISPLACEMENTS AT 62.8 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.016	-0.341	0.016	-0.341
2	14.427	-0.002	14.291	-0.561	-0.137	-0.560
3	28.854	-0.003	28.824	-0.218	-0.031	-0.214
4	43.282	-0.005	43.196	-0.146	-0.085	-0.141
5	57.709	-0.007	57.687	-0.015	-0.022	-0.008
6	72.136	-0.008	72.029	0.028	-0.107	0.037
7	86.563	-0.010	86.591	-0.173	0.028	-0.163
8	100.990	-0.012	100.793	0.143	-0.197	0.154
9	0.002	14.427	-0.436	13.969	-0.438	-0.458
10	14.429	14.426	14.129	14.071	-0.300	-0.355
11	28.856	14.424	28.644	14.284	-0.212	-0.140
12	43.283	14.422	43.179	14.397	-0.105	-0.025
13	57.710	14.420	57.555	14.726	-0.155	0.306
14	72.138	14.419	72.015	14.425	-0.123	0.006
15	86.565	14.417	86.446	14.323	-0.119	-0.094
16	100.992	14.415	101.075	14.446	0.083	0.030
17	0.003	28.854	-0.315	28.529	-0.318	-0.325
18	14.431	28.853	14.389	28.513	-0.042	-0.340
19	28.858	28.851	28.919	28.796	0.061	-0.055
20	43.285	28.849	43.302	28.918	0.017	0.068
21	57.712	28.848	57.609	28.928	-0.103	0.081
22	72.139	28.846	72.091	29.143	-0.048	0.297
23	86.567	28.844	86.703	28.986	0.136	0.142
24	100.994	28.843	101.128	29.017	0.134	0.175
25	0.005	43.282	-0.031	43.085	-0.036	-0.197
26	14.432	43.280	14.542	43.262	0.109	-0.018
27	28.859	43.278	29.011	43.331	0.152	0.052
28	43.287	43.277	43.362	43.391	0.076	0.115
29	57.714	43.275	57.756	43.427	0.042	0.152
30	72.141	43.273	72.058	43.652	-0.083	0.379
31	86.568	43.271	86.765	43.638	0.196	0.367
32	100.995	43.270	100.842	43.313	-0.153	0.044
33	0.007	57.709	0.006	57.686	-0.000	-0.023
34	14.434	57.707	14.366	57.894	-0.068	0.187
35	28.861	57.705	28.897	57.850	0.036	0.144
36	43.288	57.704	43.179	58.006	-0.110	0.302
37	57.716	57.702	57.642	58.014	-0.073	0.312
38	72.143	57.700	72.029	58.795	-0.114	1.095
39	86.570	57.699	86.515	58.172	-0.055	0.474
40	100.997	57.697	101.080	57.823	0.083	0.126
41	0.008	72.136	0.067	72.131	0.059	-0.005
42	14.436	72.134	14.422	72.274	-0.013	0.140
43	28.863	72.133	28.777	72.170	-0.086	0.037
44	43.290	72.131	43.185	72.134	-0.105	0.003
45	57.717	72.129	57.554	72.029	-0.164	-0.100
46	72.144	72.128	71.932	72.932	-0.213	0.805
47	86.572	72.126	86.261	72.348	-0.311	0.222
48	100.999	72.124	100.767	72.132	-0.232	0.008
49	0.010	86.563	0.298	86.147	0.288	-0.416
50	14.437	86.562	14.728	86.288	0.291	-0.274
51	28.865	86.560	29.095	86.363	0.230	-0.197
52	43.292	86.558	43.539	86.349	0.247	-0.209
53	57.719	86.556	57.969	86.464	0.250	-0.092

54	72.146	86.555	72.315	86.922	0.169	0.367
55	86.573	86.553	86.632	86.344	0.059	-0.209
56	101.001	86.551	100.866	86.392	-0.135	-0.159
57	0.012	100.990	0.379	100.420	0.367	-0.570
58	14.439	100.989	14.648	100.633	0.209	-0.356
59	28.866	100.987	29.099	100.749	0.232	-0.238
60	43.293	100.985	43.544	100.810	0.250	-0.176
61	57.721	100.984	58.069	101.160	0.348	0.176
62	72.148	100.982	72.398	101.234	0.250	0.252
63	86.575	100.980	86.645	100.852	0.070	-0.128
64	101.002	100.979	101.007	100.512	0.005	-0.466

[redacted] L 6 [redacted]

TABLE E-44. TUBE CENTROID DISPLACEMENTS AT 64.4 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.386	-0.417	-0.386	-0.417
2	14.427	0.010	14.107	-0.523	-0.320	-0.533
3	28.854	0.020	28.535	-0.295	-0.320	-0.315
4	43.282	0.030	42.887	-0.198	-0.394	-0.228
5	57.709	0.040	57.376	-0.112	-0.333	-0.153
6	72.136	0.050	71.710	0.043	-0.426	-0.007
7	86.563	0.060	86.169	-0.060	-0.395	-0.120
8	100.990	0.070	100.297	0.166	-0.693	0.095
9	-0.010	14.427	-0.401	13.939	-0.391	-0.488
10	14.417	14.437	14.049	14.062	-0.368	-0.376
11	28.844	14.447	28.457	14.032	-0.388	-0.415
12	43.272	14.457	42.997	14.233	-0.274	-0.225
13	57.699	14.467	57.447	14.430	-0.251	-0.037
14	72.126	14.477	71.998	14.302	-0.128	-0.176
15	86.553	14.488	86.268	14.344	-0.285	-0.144
16	100.980	14.498	100.658	14.456	-0.323	-0.041
17	-0.020	28.854	-0.459	28.435	-0.438	-0.419
18	14.407	28.864	14.081	28.539	-0.326	-0.326
19	28.834	28.875	28.682	28.621	-0.152	-0.253
20	43.261	28.885	43.105	28.770	-0.157	-0.114
21	57.689	28.895	57.367	28.796	-0.322	-0.098
22	72.116	28.905	71.915	28.936	-0.201	0.031
23	86.543	28.915	86.482	28.906	-0.061	-0.009
24	100.970	28.925	100.667	28.926	-0.303	0.001
25	-0.030	43.282	-0.113	42.914	-0.083	-0.367
26	14.397	43.292	14.175	43.198	-0.222	-0.093
27	28.824	43.302	28.741	43.207	-0.084	-0.094
28	43.251	43.312	43.154	43.258	-0.098	-0.053
29	57.679	43.322	57.528	43.288	-0.151	-0.034
30	72.106	43.332	71.886	43.389	-0.220	0.057
31	86.533	43.342	86.490	43.486	-0.043	0.144
32	100.960	43.352	100.500	43.101	-0.461	-0.251
33	-0.040	57.709	-0.079	57.459	-0.038	-0.250
34	14.387	57.719	14.210	57.716	-0.177	-0.003
35	28.814	57.729	28.773	57.705	-0.041	-0.024
36	43.241	57.739	43.092	57.824	-0.150	0.085
37	57.669	57.749	57.573	57.845	-0.096	0.096
38	72.096	57.759	72.005	58.320	-0.091	0.560
39	86.523	57.769	86.350	57.891	-0.173	0.122
40	100.950	57.779	100.707	57.629	-0.244	-0.150
41	-0.050	72.136	0.138	71.922	0.188	-0.214
42	14.377	72.146	14.534	72.041	0.157	-0.105
43	28.804	72.156	28.931	72.329	0.177	0.173
44	43.231	72.166	43.295	72.256	0.063	0.089
45	57.659	72.175	57.789	72.170	0.130	-0.007
46	72.086	72.186	72.172	72.840	0.087	0.654
47	86.513	72.196	86.495	72.368	-0.018	0.172
48	100.940	72.206	100.768	72.196	-0.173	-0.011
49	-0.060	86.563	0.327	86.348	0.387	-0.215
50	14.367	86.573	14.748	86.468	0.382	-0.105
51	28.794	86.583	29.174	86.525	0.380	-0.059
52	43.221	86.593	43.644	86.583	0.422	-0.011
53	57.648	86.603	57.996	86.645	0.348	0.041

54	72.076	86.613	72.395	86.850	0.320	0.236
55	86.503	86.624	86.661	86.455	0.159	-0.169
56	100.930	86.634	100.852	86.501	-0.078	-0.132
57	-0.070	100.990	0.695	101.313	0.766	0.322
58	14.357	101.000	15.118	101.540	0.761	0.540
59	28.784	101.011	29.660	101.594	0.876	0.583
60	43.211	101.021	44.128	101.736	0.916	0.715
61	57.638	101.031	58.705	101.852	1.067	0.821
62	72.066	101.041	72.997	101.832	0.932	0.792
63	86.493	101.051	87.464	101.664	0.971	0.613
64	100.920	101.061	101.703	101.356	0.783	0.295

[redacted] N 6 [redacted]

TABLE E-45. TUBE CENTROID DISPLACEMENTS AT 66.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	0.457	-0.579	0.457	-0.579
2	14.427	-0.015	14.991	-0.483	0.564	-0.468
3	28.854	-0.029	29.118	-0.366	0.264	-0.336
4	43.282	-0.044	43.318	-0.214	0.036	-0.171
5	57.709	-0.058	57.680	-0.250	-0.029	-0.192
6	72.136	-0.073	72.033	0.193	-0.103	0.266
7	86.563	-0.087	86.484	0.176	-0.079	0.264
8	100.990	-0.102	100.869	0.278	-0.121	0.380
9	0.015	14.427	0.383	14.106	0.368	-0.321
10	14.442	14.413	14.513	14.387	0.071	-0.025
11	28.869	14.398	28.718	14.083	-0.151	-0.315
12	43.296	14.383	43.167	14.391	-0.130	0.007
13	57.723	14.369	57.634	14.614	-0.089	0.245
14	72.151	14.354	72.245	14.594	0.095	0.240
15	86.578	14.340	86.429	14.859	-0.149	0.519
16	101.005	14.325	101.070	15.062	0.065	0.736
17	0.029	28.854	0.169	28.402	0.140	-0.452
18	14.456	28.840	14.258	28.805	-0.198	-0.035
19	28.884	28.825	28.801	28.661	-0.083	-0.164
20	43.311	28.811	43.222	28.966	-0.088	0.156
21	57.738	28.796	57.401	29.090	-0.337	0.294
22	72.165	28.782	72.021	29.203	-0.144	0.421
23	86.592	28.767	86.573	29.434	-0.019	0.667
24	101.020	28.752	101.138	29.381	0.118	0.628
25	0.044	43.282	0.415	42.536	0.371	-0.746
26	14.471	43.267	14.272	43.094	-0.199	-0.173
27	28.898	43.252	28.639	43.273	-0.259	0.020
28	43.325	43.238	43.165	43.379	-0.160	0.141
29	57.753	43.223	57.450	43.568	-0.302	0.345
30	72.180	43.209	71.818	43.650	-0.362	0.441
31	86.607	43.194	86.435	43.991	-0.172	0.796
32	101.034	43.180	100.864	43.362	-0.170	0.182
33	0.058	57.709	0.449	56.884	0.391	-0.825
34	14.485	57.694	14.441	57.389	-0.045	-0.305
35	28.913	57.680	28.739	57.720	-0.174	0.041
36	43.340	57.665	43.082	57.865	-0.258	0.200
37	57.767	57.651	57.456	57.929	-0.311	0.279
38	72.194	57.636	71.890	58.472	-0.305	0.836
39	86.621	57.621	86.248	58.321	-0.373	0.699
40	101.049	57.607	101.034	58.117	-0.014	0.511
41	0.073	72.136	0.581	71.167	0.508	-0.969
42	14.500	72.121	14.672	71.661	0.172	-0.460
43	28.927	72.107	29.017	72.086	0.089	-0.021
44	43.354	72.092	43.145	72.243	-0.209	0.151
45	57.782	72.078	57.625	72.215	-0.156	0.137
46	72.209	72.063	72.054	72.904	-0.154	0.841
47	86.636	72.049	86.302	72.721	-0.334	0.673
48	101.063	72.034	100.850	72.479	-0.213	0.445
49	0.087	86.563	0.809	85.507	0.722	-1.056
50	14.515	86.549	14.874	85.900	0.359	-0.648
51	28.942	86.534	29.120	86.085	0.178	-0.450
52	43.369	86.519	43.399	86.506	0.030	-0.014
53	57.796	86.505	57.742	86.610	-0.054	0.105

54	72.223	86.490	72.104	86.792	-0.120	0.301
55	86.651	86.476	86.376	86.800	-0.274	0.324
56	101.078	86.461	100.895	86.906	-0.183	0.445
57	0.102	100.990	0.882	99.587	0.780	-1.404
58	14.529	100.976	14.988	100.123	0.459	-0.853
59	28.956	100.961	29.325	100.240	0.369	-0.722
60	43.384	100.947	43.525	100.611	0.142	-0.336
61	57.811	100.932	57.931	100.632	0.120	-0.300
62	72.238	100.918	72.256	100.414	0.018	-0.504
63	86.665	100.903	86.537	101.009	-0.128	0.106
64	101.092	100.888	100.859	100.891	-0.234	0.002

TABLE E-46. TUBE CENTROID DISPLACEMENTS AT 67.8 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-1.102	-1.298	-1.102	-1.298
2	14.427	0.016	13.996	-0.960	-0.431	-0.976
3	28.854	0.031	28.286	-1.137	-0.568	-1.168
4	43.282	0.047	42.660	-0.930	-0.622	-0.977
5	57.709	0.062	57.073	-1.280	-0.636	-1.343
6	72.136	0.078	71.766	-0.714	-0.370	-0.792
7	86.563	0.094	86.355	-0.808	-0.208	-0.901
8	100.990	0.109	100.878	-0.862	-0.113	-0.972
9	-0.016	14.427	-0.677	13.711	-0.662	-0.716
10	14.412	14.443	13.344	14.191	-1.067	-0.252
11	28.839	14.458	27.727	13.364	-1.112	-1.094
12	43.266	14.474	42.443	13.729	-0.823	-0.745
13	57.693	14.490	57.330	13.825	-0.363	-0.665
14	72.120	14.505	72.213	13.960	0.092	-0.545
15	86.548	14.521	86.374	14.411	-0.174	-0.110
16	100.975	14.537	101.068	14.468	0.093	-0.068
17	-0.031	28.854	-0.788	28.494	-0.757	-0.360
18	14.396	28.870	13.075	29.082	-1.321	0.212
19	28.823	28.886	27.896	28.468	-0.928	-0.418
20	43.250	28.901	42.800	28.894	-0.450	-0.008
21	57.678	28.917	57.241	28.865	-0.436	-0.052
22	72.105	28.932	72.172	28.944	0.068	0.011
23	86.532	28.948	87.025	29.236	0.494	0.288
24	100.959	28.964	101.201	28.814	0.242	-0.149
25	-0.047	43.282	-0.670	42.758	-0.623	-0.524
26	14.380	43.297	13.105	43.472	-1.276	0.175
27	28.808	43.313	27.799	43.564	-1.009	0.252
28	43.235	43.328	42.913	43.526	-0.322	0.197
29	57.662	43.344	57.403	43.659	-0.259	0.315
30	72.089	43.360	71.919	43.752	-0.170	0.392
31	86.516	43.375	86.664	43.810	0.148	0.435
32	100.944	43.391	100.947	42.714	0.003	-0.677
33	-0.062	57.709	-0.400	57.289	-0.337	-0.420
34	14.365	57.724	13.619	57.741	-0.746	0.016
35	28.792	57.740	28.110	58.248	-0.682	0.508
36	43.219	57.756	42.844	58.223	-0.375	0.467
37	57.646	57.771	57.708	58.456	0.062	0.685
38	72.074	57.787	72.390	58.866	0.317	1.079
39	86.501	57.803	86.909	58.541	0.408	0.738
40	100.928	57.818	101.748	58.168	0.820	0.350
41	-0.078	72.136	0.284	72.138	0.362	0.002
42	14.349	72.152	14.415	72.550	0.066	0.398
43	28.776	72.167	29.058	72.881	0.282	0.714
44	43.204	72.183	43.269	73.033	0.064	0.846
45	57.631	72.198	58.086	72.862	0.456	0.663
46	72.058	72.214	72.813	73.380	0.755	1.166
47	86.485	72.230	86.932	72.971	0.447	0.741
48	100.912	72.245	101.493	72.632	0.580	0.387
49	-0.094	86.563	0.579	86.810	0.672	0.247
50	14.333	86.579	14.627	87.019	0.293	0.440
51	28.761	86.594	29.241	86.941	0.480	0.346
52	43.188	86.610	43.613	87.394	0.425	0.784
53	57.615	86.626	58.203	87.457	0.588	0.832

54	72.042	86.641	72.788	87.319	0.745	0.678
55	86.470	86.657	87.094	87.138	0.625	0.481
56	100.897	86.673	101.772	87.162	0.876	0.490
57	-0.109	100.990	0.819	100.984	0.929	-0.006
58	14.318	101.006	15.106	101.195	0.788	0.189
59	28.745	101.022	29.662	100.957	0.917	-0.064
60	43.172	101.037	44.060	101.331	0.887	0.294
61	57.599	101.053	58.573	101.157	0.974	0.104
62	72.027	101.068	73.124	100.741	1.097	-0.328
63	86.454	101.084	87.396	100.846	0.942	-0.238
64	100.881	101.100	101.827	101.044	0.946	-0.056

TABLE E-47. TUBE CENTROID DISPLACEMENTS AT 69.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.874	-1.408	-0.874	-1.408
2	14.427	0.003	14.371	-0.898	-0.056	-0.901
3	28.854	0.007	28.700	-1.194	-0.155	-1.201
4	43.282	0.010	42.898	-0.814	-0.383	-0.824
5	57.709	0.013	57.451	-1.491	-0.258	-1.505
6	72.136	0.017	72.111	-0.692	-0.025	-0.708
7	86.563	0.020	86.811	-0.744	0.247	-0.764
8	100.990	0.023	101.257	-0.788	0.266	-0.812
9	-0.003	14.427	-0.381	13.664	-0.377	-0.763
10	14.424	14.431	13.466	14.292	-0.958	-0.138
11	28.851	14.434	27.648	13.157	-1.203	-1.277
12	43.278	14.437	42.448	13.684	-0.830	-0.753
13	57.705	14.441	57.910	13.603	0.205	-0.838
14	72.133	14.444	72.507	14.099	0.374	-0.345
15	86.560	14.447	86.739	14.831	0.179	0.384
16	100.987	14.451	101.286	15.068	0.299	0.618
17	-0.007	28.854	-0.520	28.550	-0.514	-0.304
18	14.420	28.858	13.034	29.534	-1.387	0.676
19	28.848	28.861	27.820	28.642	-1.028	-0.219
20	43.275	28.864	42.873	29.106	-0.402	0.241
21	57.702	28.868	57.404	29.284	-0.298	0.416
22	72.129	28.871	72.653	29.147	0.524	0.276
23	86.556	28.875	87.707	29.788	1.150	0.913
24	100.984	28.878	101.500	29.103	0.516	0.226
25	-0.010	43.282	-0.427	42.814	-0.417	-0.468
26	14.417	43.285	12.982	43.803	-1.435	0.518
27	28.844	43.288	27.711	43.968	-1.133	0.680
28	43.272	43.292	43.187	43.925	-0.084	0.633
29	57.699	43.295	57.725	44.099	0.027	0.804
30	72.126	43.298	72.366	44.233	0.240	0.935
31	86.553	43.302	86.857	44.205	0.304	0.904
32	100.980	43.305	100.953	42.821	-0.028	-0.484
33	-0.013	57.709	-0.042	57.245	-0.029	-0.464
34	14.414	57.712	13.717	57.798	-0.697	0.086
35	28.841	57.716	28.067	58.697	-0.774	0.981
36	43.268	57.719	42.952	58.697	-0.317	0.978
37	57.695	57.722	57.575	58.545	-0.120	0.823
38	72.123	57.726	72.409	58.989	0.286	1.263
39	86.550	57.729	86.828	58.637	0.278	0.908
40	100.977	57.732	101.307	57.682	0.330	-0.050
41	-0.017	72.136	0.518	71.805	0.535	-0.331
42	14.410	72.139	14.526	72.192	0.115	0.052
43	28.838	72.143	29.087	72.732	0.249	0.589
44	43.265	72.146	43.035	73.018	-0.230	0.871
45	57.692	72.149	57.841	72.928	0.149	0.778
46	72.119	72.153	72.726	73.382	0.607	1.230
47	86.546	72.156	86.572	72.801	0.025	0.645
48	100.974	72.159	100.819	72.532	-0.154	0.373
49	-0.020	86.563	0.857	86.381	0.877	-0.182
50	14.407	86.567	14.616	86.485	0.209	-0.082
51	28.834	86.570	29.105	86.426	0.271	-0.144
52	43.261	86.573	43.359	87.087	0.098	0.514
53	57.689	86.577	57.864	87.299	0.176	0.723

54	72.116	86.580	72.465	87.010	0.349	0.460
55	86.543	86.583	86.543	86.848	-0.000	0.265
56	100.970	86.587	101.089	86.885	0.119	0.299
57	-0.023	100.990	0.892	100.417	0.916	-0.573
58	14.404	100.994	15.098	100.512	0.695	-0.482
59	28.831	100.997	29.545	100.219	0.714	-0.778
60	43.258	101.000	43.855	100.673	0.597	-0.327
61	57.685	101.004	58.291	100.484	0.606	-0.519
62	72.113	101.007	72.889	100.158	0.776	-0.849
63	86.540	101.011	86.981	99.978	0.441	-1.033
64	100.967	101.014	101.383	100.481	0.416	-0.533

TABLE E-48. TUBE CENTROID DISPLACEMENTS AT 71.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-1.097	-1.621	-1.097	-1.621
2	14.427	0.002	14.316	-1.052	-0.111	-1.053
3	28.854	0.004	28.791	-1.556	-0.063	-1.560
4	43.282	0.006	42.843	-1.009	-0.439	-1.014
5	57.709	0.007	57.494	-1.857	-0.215	-1.865
6	72.136	0.009	72.413	-0.781	0.277	-0.790
7	86.563	0.011	87.036	-1.173	0.473	-1.184
8	100.990	0.013	101.443	-1.145	0.453	-1.158
9	-0.002	14.427	-0.688	13.616	-0.687	-0.812
10	14.425	14.429	13.487	14.206	-0.938	-0.223
11	28.853	14.431	27.435	12.860	-1.418	-1.571
12	43.280	14.433	42.336	13.390	-0.943	-1.042
13	57.707	14.435	58.347	13.501	0.640	-0.934
14	72.134	14.436	72.725	13.981	0.590	-0.456
15	86.561	14.438	87.128	14.980	0.566	0.542
16	100.989	14.440	101.491	15.305	0.503	0.865
17	-0.004	28.854	-0.643	28.556	-0.640	-0.298
18	14.423	28.856	12.795	29.719	-1.629	0.863
19	28.851	28.858	27.625	28.622	-1.226	-0.236
20	43.278	28.860	42.918	29.165	-0.360	0.305
21	57.705	28.862	57.355	29.500	-0.350	0.638
22	72.132	28.864	73.084	28.866	0.951	0.002
23	86.559	28.866	88.345	29.903	1.785	1.038
24	100.987	28.867	101.686	29.171	0.700	0.303
25	-0.006	43.282	-0.649	42.832	-0.644	-0.450
26	14.422	43.283	12.572	43.971	-1.849	0.688
27	28.849	43.285	27.431	44.309	-1.417	1.024
28	43.276	43.287	43.134	44.168	-0.142	0.881
29	57.703	43.289	57.872	44.279	0.169	0.990
30	72.130	43.291	72.728	44.507	0.598	1.216
31	86.558	43.293	86.829	44.269	0.272	0.976
32	100.985	43.295	101.017	42.841	0.033	-0.453
33	-0.007	57.709	-0.052	57.197	-0.045	-0.512
34	14.420	57.711	13.520	57.815	-0.900	0.104
35	28.847	57.713	27.866	59.034	-0.981	1.322
36	43.274	57.714	42.867	59.007	-0.407	1.292
37	57.701	57.716	57.654	58.804	-0.047	1.088
38	72.129	57.718	72.803	59.264	0.675	1.546
39	86.556	57.720	87.214	58.783	0.659	1.063
40	100.983	57.722	100.988	57.007	0.005	-0.715
41	-0.009	72.136	0.601	71.885	0.610	-0.251
42	14.418	72.138	14.565	72.178	0.147	0.040
43	28.84[illegible]	72.140	29.145	72.876	0.300	0.737
44	43.272	72.142	42.899	73.275	-0.373	1.133
45	57.700	72.143	57.912	73.285	0.212	1.142
46	72.127	72.145	72.942	73.685	0.815	1.540
47	86.554	72.147	86.634	72.860	0.081	0.713
48	100.981	72.149	100.703	72.596	-0.278	0.448
49	-0.011	86.563	1.008	86.454	1.019	-0.109
50	14.416	86.565	14.489	86.394	0.073	-0.171
51	28.843	86.567	29.125	86.330	0.282	-0.237
52	43.270	86.569	43.233	87.105	-0.037	0.537
53	57.698	86.571	57.859	87.478	0.161	0.907

54	72.125	86.572	72.528	87.117	0.403	0.544
55	86.552	86.574	86.497	86.842	-0.055	0.267
56	100.979	86.576	100.186	86.186	-0.793	-0.390
57	-0.013	100.990	0.904	100.399	0.917	-0.591
58	14.414	100.992	15.053	100.439	0.639	-0.554
59	28.841	100.994	29.430	100.024	0.589	-0.970
60	43.269	100.996	43.786	100.577	0.518	-0.419
61	57.696	100.998	58.263	100.472	0.567	-0.526
62	72.123	101.000	72.821	100.067	0.698	-0.932
63	86.550	101.002	86.876	99.921	0.326	-1.081
64	100.977	101.003	101.354	100.426	0.377	-0.578

TABLE E-49. TUBE CENTROID DISPLACEMENTS AT 72.8 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.449	-0.865	-0.449	-0.865
2	14.427	0.001	14.139	-1.265	-0.288	-1.267
3	28.854	0.003	28.701	-2.016	-0.153	-2.019
4	43.282	0.004	42.674	-1.250	-0.608	-1.254
5	57.709	0.005	57.287	-1.967	-0.422	-1.972
6	72.136	0.007	73.195	-0.062	1.059	-0.069
7	86.563	0.008	87.254	-1.649	0.691	-1.657
8	100.990	0.009	101.648	-1.666	0.658	-1.675
9	-0.001	14.427	-0.974	13.601	-0.972	-0.826
10	14.426	14.429	13.754	14.753	-0.672	0.324
11	28.853	14.430	27.223	12.707	-1.630	-1.723
12	43.280	14.431	42.627	12.853	-0.653	-1.578
13	57.707	14.433	58.524	13.468	0.817	-0.964
14	72.135	14.434	72.328	14.101	0.194	-0.333
15	86.562	14.435	87.383	15.067	0.821	0.631
16	100.989	14.436	101.826	13.785	0.836	-0.651
17	-0.003	28.854	-0.720	28.797	-0.717	-0.057
18	14.425	28.856	12.701	29.849	-1.724	0.993
19	28.852	28.857	27.238	28.651	-1.614	-0.206
20	43.279	28.858	42.675	29.174	-0.604	0.316
21	57.706	28.860	57.022	29.331	-0.684	0.471
22	72.133	28.861	73.224	28.724	1.091	-0.137
23	86.561	28.862	88.504	30.017	1.943	1.155
24	100.988	28.864	101.743	29.301	0.755	0.437
25	-0.004	43.282	-0.868	42.951	-0.864	-0.330
26	14.423	43.283	12.315	43.996	-2.108	0.713
27	28.850	43.284	26.878	44.346	-1.972	1.061
28	43.278	43.286	43.346	44.245	0.068	0.959
29	57.705	43.287	58.229	44.049	0.524	0.762
30	72.132	43.288	72.986	44.607	0.854	1.319
31	86.559	43.290	87.090	44.360	0.531	1.071
32	100.986	43.291	100.910	43.064	-0.076	-0.227
33	-0.005	57.709	-0.179	57.105	-0.174	-0.603
34	14.422	57.710	13.252	57.793	-1.170	0.083
35	28.849	57.711	27.550	59.095	-1.299	1.383
36	43.276	57.713	42.625	59.348	-0.651	1.635
37	57.703	57.714	57.744	58.639	0.040	0.925
38	72.131	57.715	73.095	59.360	0.964	1.645
39	86.558	57.717	87.515	58.691	0.957	0.974
40	100.985	57.718	101.701	57.870	0.716	0.152
41	-0.007	72.136	0.550	71.939	0.557	-0.197
42	14.421	72.137	14.476	72.162	0.056	0.024
43	28.848	72.139	29.079	72.983	0.232	0.844
44	43.275	72.140	42.656	73.344	-0.619	1.204
45	57.702	72.141	58.111	73.534	0.409	1.392
46	72.129	72.143	73.069	73.798	0.940	1.655
47	86.557	72.144	86.592	72.865	0.035	0.721
48	100.984	72.145	100.726	72.473	-0.258	0.327
49	-0.008	86.563	1.032	86.553	1.040	-0.010
50	14.419	86.565	14.250	86.297	-0.169	-0.268
51	28.846	86.566	28.920	86.307	0.073	-0.259
52	43.274	86.567	43.023	87.090	-0.251	0.523
53	57.701	86.569	57.657	87.683	-0.044	1.114

54	72.128	86.570	72.420	87.178	0.292	0.608
55	86.555	86.571	96.345	86.799	-0.210	0.228
56	100.982	86.572	100.782	86.589	-0.201	0.017
57	-0.009	100.990	0.799	100.545	0.809	-0.446
58	14.418	100.992	14.961	100.249	0.543	-0.742
59	28.845	100.993	29.277	99.784	0.432	-1.209
60	43.272	100.994	43.678	100.307	0.406	-0.687
61	57.700	100.996	58.183	100.331	0.484	-0.665
62	72.127	100.997	72.794	100.011	0.667	-0.986
63	86.554	100.998	86.807	99.824	0.253	-1.174
64	100.981	101.000	101.489	100.385	0.508	-0.615

TABLE E-50. TUBE CENTROID DISPLACEMENTS AT 74.3 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-1.625	-1.829	-1.625	-1.829
2	14.427	-0.000	14.094	-1.156	-0.333	-1.156
3	28.854	-0.001	28.609	-2.241	-0.246	-2.240
4	43.282	-0.001	42.602	-1.374	-0.680	-1.373
5	57.709	-0.001	57.461	-2.200	-0.248	-2.199
6	72.136	-0.002	72.882	-0.539	0.746	-0.537
7	86.563	-0.002	87.368	-1.820	0.805	-1.818
8	100.990	-0.002	101.867	-1.844	0.877	-1.842
9	0.000	14.427	-0.392	13.233	-0.392	-1.195
10	14.428	14.427	13.925	14.667	-0.502	0.441
11	28.855	14.426	27.165	12.788	-1.690	-1.639
12	43.282	14.426	42.616	12.922	-0.666	-1.504
13	57.709	14.426	58.256	13.283	0.547	-1.142
14	72.136	14.425	72.207	14.323	0.070	-0.102
15	86.564	14.425	87.738	14.188	1.174	-0.237
16	100.991	14.425	103.037	14.025	2.046	-0.400
17	0.001	28.854	-0.641	29.052	-0.642	0.197
18	14.428	28.854	12.786	29.674	-1.642	1.020
19	28.855	28.854	26.909	28.784	-1.946	-0.070
20	43.282	28.853	42.412	29.399	-0.871	0.546
21	57.710	28.853	57.592	29.206	-0.117	0.353
22	72.137	28.853	73.461	29.315	1.325	0.462
23	86.564	28.852	88.349	30.091	1.786	1.239
24	100.991	28.852	101.829	29.517	0.838	0.665
25	0.001	43.282	-0.853	43.117	-0.854	-0.165
26	14.428	43.281	12.290	43.992	-2.138	0.711
27	28.855	43.281	26.766	44.211	-2.090	0.931
28	43.283	43.281	42.826	44.544	-0.457	1.264
29	57.710	43.280	58.267	43.458	0.557	0.178
30	72.137	43.280	73.214	44.619	1.077	1.339
31	86.564	43.279	87.095	44.322	0.531	1.043
32	100.991	43.279	100.637	43.308	-0.354	0.029
33	0.001	57.709	-0.153	57.104	-0.154	-0.605
34	14.429	57.708	13.118	57.799	-1.311	0.091
35	28.856	57.708	27.488	58.964	-1.367	1.255
36	43.283	57.708	42.495	59.334	-0.788	1.626
37	57.710	57.707	57.938	58.208	0.228	0.501
38	72.137	57.707	73.585	59.203	1.447	1.496
39	86.565	57.707	87.666	58.570	1.102	0.864
40	100.992	57.706	101.576	58.000	0.584	0.294
41	0.002	72.136	0.528	72.068	0.527	-0.068
42	14.429	72.136	14.439	72.259	0.010	0.124
43	28.856	72.135	28.986	73.035	0.130	0.900
44	43.283	72.135	42.503	73.426	-0.781	1.291
45	57.711	72.135	58.713	73.271	1.002	1.136
46	72.138	72.134	73.169	73.889	1.031	1.755
47	86.565	72.134	86.632	72.851	0.067	0.717
48	100.992	72.134	100.800	72.504	-0.192	0.370
49	0.002	86.563	1.028	86.659	1.026	0.096
50	14.429	86.563	14.124	86.292	-0.305	-0.271
51	28.857	86.562	28.793	86.378	-0.064	-0.184
52	43.284	86.562	42.906	87.128	-0.378	0.566
53	57.711	86.562	57.632	87.810	-0.078	1.248

54	72.138	86.561	72.453	87.280	0.315	0.719
55	86.565	86.561	86.335	86.845	-0.230	0.284
56	100.993	86.561	100.947	87.041	-0.046	0.480
57	0.002	100.990	0.676	100.746	0.674	-0.245
58	14.430	100.990	14.806	100.326	0.376	-0.664
59	28.857	100.990	29.079	99.770	0.222	-1.220
60	43.284	100.989	43.549	100.326	0.265	-0.663
61	57.711	100.989	58.132	100.447	0.421	-0.542
62	72.138	100.989	72.750	100.202	0.611	-0.787
63	86.566	100.988	86.806	99.929	0.240	-1.059
64	100.993	100.988	101.524	100.517	0.531	-0.471

[redacted] K 7 [redacted]

TABLE E-51. TUBE CENTROID DISPLACEMENTS AT 74.8 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-1.683	-1.762	-1.683	-1.762
2	14.427	-0.000	14.198	-1.126	-0.229	-1.125
3	28.854	-0.000	28.675	-2.101	-0.179	-2.101
4	43.282	-0.000	42.673	-1.242	-0.609	-1.242
5	57.709	-0.000	57.588	-2.081	-0.121	-2.081
6	72.136	-0.000	72.724	-0.674	0.588	-0.674
7	86.563	-0.000	87.259	-1.699	0.695	-1.699
8	100.990	-0.001	101.729	-1.968	0.738	-1.968
9	0.000	14.427	0.158	13.163	0.158	-1.264
10	14.427	14.427	14.282	15.205	-0.146	0.778
11	28.854	14.427	27.529	13.045	-1.326	-1.382
12	43.282	14.427	42.352	13.491	-0.930	-0.936
13	57.709	14.427	58.161	13.374	0.452	-1.053
14	72.136	14.427	72.190	14.662	0.054	0.235
15	86.563	14.427	87.255	13.763	0.692	-0.664
16	100.990	14.427	102.853	14.062	1.863	-0.365
17	0.000	28.854	-0.412	29.257	-0.412	0.403
18	14.427	28.854	13.019	29.984	-1.409	1.130
19	28.855	28.854	27.015	28.930	-1.840	0.076
20	43.282	28.854	42.295	29.584	-0.986	0.730
21	57.709	28.854	57.491	29.470	-0.218	0.615
22	72.136	28.854	73.435	29.600	1.298	0.746
23	86.563	28.854	88.103	30.165	1.539	1.312
24	100.991	28.854	101.625	29.702	0.635	0.848
25	0.000	43.282	-0.525	43.152	-0.525	-0.130
26	14.427	43.282	12.528	43.985	-1.899	0.703
27	28.855	43.281	26.938	44.206	-1.917	0.924
28	43.282	43.281	42.925	44.330	-0.357	1.049
29	57.709	43.281	58.112	43.345	0.403	0.064
30	72.136	43.281	73.293	44.600	1.157	1.319
31	86.563	43.281	86.957	44.313	0.394	1.032
32	100.991	43.281	100.333	43.446	-0.657	0.165
33	0.000	57.709	0.084	57.113	0.083	-0.596
34	14.428	57.709	13.283	57.775	-1.145	0.066
35	28.855	57.709	27.638	58.934	-1.216	1.225
36	43.282	57.709	42.558	59.225	-0.724	1.516
37	57.709	57.708	58.107	57.723	0.398	0.014
38	72.136	57.708	73.545	59.094	1.408	1.385
39	86.564	57.708	87.503	58.504	0.940	0.795
40	100.991	57.708	101.286	57.876	0.295	0.167
41	0.000	72.136	0.628	72.025	0.628	-0.111
42	14.428	72.136	14.556	72.217	0.129	0.081
43	28.855	72.136	29.083	72.947	0.229	0.811
44	43.282	72.136	42.531	73.328	-0.751	1.192
45	57.709	72.136	58.449	73.492	0.740	1.356
46	72.136	72.136	73.111	73.806	0.975	1.671
47	86.564	72.136	86.535	72.781	-0.028	0.645
48	100.991	72.135	100.605	72.371	-0.386	0.236
49	0.000	86.563	1.109	86.607	1.108	0.044
50	14.428	86.563	14.185	86.157	-0.243	-0.406
51	28.855	86.563	28.865	86.247	0.010	-0.316
52	43.282	86.563	42.883	86.974	-0.399	0.411
53	57.709	86.563	57.555	87.672	-0.154	1.109

54	72.136	86.563	72.334	87.175	0.198	0.612
55	86.564	86.563	86.200	86.733	-0.364	0.170
56	100.991	86.563	100.820	87.012	-0.171	0.449
57	0.001	100.990	0.676	100.721	0.676	-0.269
58	14.428	100.990	14.886	100.197	0.458	-0.793
59	28.855	100.990	29.101	99.640	0.246	-1.350
60	43.282	100.990	43.550	100.230	0.268	-0.761
61	57.709	100.990	58.069	100.323	0.360	-0.668
62	72.137	100.990	72.705	100.186	0.568	-0.804
63	86.564	100.990	86.754	99.902	0.191	-1.088
64	100.991	100.990	101.442	100.513	0.451	-0.477

[redacted] M 7 [redacted]

TABLE E-52. TUBE CENTROID DISPLACEMENTS AT 75.8 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

TUBE NO.	PRETEST CENTROID X-DIM. (MM)	PRETEST CENTROID Y-DIM. (MM)	POSTTEST CENTROID X-DIM. (MM)	POSTTEST CENTROID Y-DIM. (MM)	CTR DISPLACEMENT X-DIRECT (MM)	CTR DISPLACEMENT Y-DIRECT (MM)
1	0.000	0.000	-2.049	-1.704	-2.049	-1.704
2	14.427	0.007	14.319	-0.974	-0.108	-0.981
3	28.854	0.014	28.291	-2.055	-0.564	-2.070
4	43.282	0.021	42.382	-0.983	-0.899	-1.004
5	57.709	0.028	57.692	-1.935	-0.017	-1.963
6	72.136	0.035	72.632	-1.061	0.496	-1.097
7	86.563	0.042	86.978	-1.769	0.415	-1.811
8	100.990	0.049	101.492	-2.352	0.502	-2.401
9	-0.007	14.427	0.620	13.036	0.627	-1.391
10	14.420	14.434	14.489	15.646	0.069	1.212
11	28.847	14.441	28.094	13.485	-0.753	-0.956
12	43.275	14.448	42.064	14.489	-1.211	0.040
13	57.702	14.455	58.025	13.769	0.324	-0.687
14	72.129	14.462	72.316	14.776	0.187	0.314
15	86.556	14.470	86.637	13.620	0.081	-0.849
16	100.983	14.477	101.629	15.009	0.646	0.532
17	-0.014	28.854	-0.413	29.669	-0.398	0.814
18	14.413	28.861	13.178	30.066	-1.235	1.204
19	28.840	28.869	26.972	29.036	-1.868	0.167
20	43.267	28.876	42.066	29.873	-1.202	0.997
21	57.695	28.883	57.170	29.710	-0.525	0.828
22	72.122	28.890	73.346	29.900	1.224	1.010
23	86.549	28.897	87.853	29.956	1.304	1.059
24	100.976	28.904	101.643	29.652	0.667	0.748
25	-0.021	43.282	-0.311	43.401	-0.290	0.120
26	14.406	43.289	12.717	44.028	-1.689	0.740
27	28.833	43.296	27.134	44.184	-1.699	0.888
28	43.260	43.303	42.421	44.654	-0.839	1.352
29	57.688	43.310	57.852	42.999	0.164	-0.311
30	72.115	43.317	73.482	44.360	1.367	1.043
31	86.542	43.324	87.025	44.138	0.483	0.814
32	100.969	43.331	100.331	43.440	-0.638	0.109
33	-0.028	57.709	0.404	57.227	0.432	-0.482
34	14.399	57.716	13.460	57.881	-0.939	0.166
35	28.826	57.723	27.710	58.935	-1.117	1.212
36	43.253	57.730	42.630	59.189	-0.624	1.459
37	57.681	57.737	58.330	57.240	0.649	-0.497
38	72.108	57.744	73.306	59.015	1.198	1.271
39	86.535	57.751	87.434	58.378	0.899	0.627
40	100.962	57.758	101.202	57.709	0.240	-0.049
41	-0.035	72.136	0.753	72.098	0.788	-0.038
42	14.392	72.143	14.639	72.295	0.247	0.152
43	28.819	72.150	29.110	72.926	0.291	0.776
44	43.246	72.157	42.518	73.300	-0.729	1.142
45	57.674	72.164	58.556	73.390	0.882	1.226
46	72.101	72.171	73.120	73.679	1.019	1.508
47	86.528	72.178	86.551	72.686	0.023	0.507
48	100.955	72.185	100.675	72.260	-0.280	0.075
49	-0.042	86.563	1.277	86.635	1.319	0.072
50	14.385	86.570	14.263	86.138	-0.122	-0.433
51	28.812	86.577	28.903	86.230	0.091	-0.348
52	43.239	86.584	42.929	86.871	-0.311	0.286
53	57.666	86.591	57.567	87.560	-0.100	0.969

54	72.094	86.598	72.340	87.046	0.246	0.448
55	86.521	86.606	86.209	86.602	-0.312	-0.004
56	100.948	86.613	100.688	86.915	-0.260	0.302
57	-0.049	100.990	0.757	100.764	0.806	-0.226
58	14.378	100.997	14.943	100.165	0.565	-0.832
59	28.805	101.005	29.184	99.589	0.379	-1.416
60	43.232	101.012	43.633	100.140	0.401	-0.871
61	57.659	101.019	58.131	100.268	0.472	-0.751
62	72.087	101.026	72.712	100.088	0.625	-0.938
63	86.514	101.033	86.718	99.719	0.204	-1.314
64	100.941	101.040	101.387	100.274	0.446	-0.766

TABLE E-53. TUBE CENTROID DISPLACEMENTS AT 76.3 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-1.954	-1.609	-1.954	-1.609
2	14.427	0.009	14.259	-0.892	-0.168	-0.901
3	28.854	0.018	28.163	-1.920	-0.692	-1.939
4	43.282	0.028	42.208	-0.666	-1.073	-0.694
5	57.709	0.037	57.702	-1.727	-0.007	-1.764
6	72.136	0.046	72.579	-1.159	0.443	-1.205
7	86.563	0.055	86.809	-1.741	0.245	-1.796
8	100.990	0.065	101.226	-2.247	0.236	-2.311
9	-0.009	14.427	0.772	13.073	0.781	-1.354
10	14.418	14.436	14.566	15.716	0.148	1.279
11	28.845	14.446	28.132	13.575	-0.713	-0.870
12	43.272	14.455	42.018	14.859	-1.254	0.404
13	57.700	14.464	57.937	14.041	0.238	-0.423
14	72.127	14.473	72.735	14.121	0.609	-0.352
15	86.554	14.483	86.822	14.411	0.268	-0.071
16	100.981	14.492	101.451	15.016	0.470	0.524
17	-0.018	29.854	-0.376	29.684	-0.357	0.830
18	14.409	28.864	13.242	29.969	-1.166	1.106
19	28.836	28.873	26.942	29.024	-1.894	0.151
20	43.263	28.882	42.008	29.902	-1.255	1.020
21	57.690	28.891	57.082	29.749	-0.609	0.857
22	72.118	28.901	73.120	29.970	1.003	1.070
23	86.545	28.910	87.556	29.971	1.011	1.061
24	100.972	28.919	101.412	29.714	0.440	0.795
25	-0.028	43.282	-0.219	43.360	-0.191	0.078
26	14.400	43.291	12.735	43.908	-1.665	0.617
27	28.827	43.300	27.173	44.070	-1.654	0.770
28	43.254	43.309	42.330	44.587	-0.924	1.278
29	57.681	43.318	57.731	43.117	0.050	-0.201
30	72.108	43.328	73.298	44.258	1.190	0.930
31	86.536	43.337	86.768	44.101	0.233	0.764
32	100.963	43.346	100.029	43.538	-0.933	0.192
33	-0.037	57.709	0.509	57.128	0.545	-0.581
34	14.390	57.718	13.473	57.745	-0.917	0.027
35	28.818	57.727	27.700	58.784	-1.117	1.056
36	43.245	57.736	42.595	58.996	-0.650	1.260
37	57.672	57.746	58.393	57.358	0.721	-0.388
38	72.099	57.755	73.202	58.819	1.103	1.064
39	86.526	57.764	87.312	58.219	0.786	0.455
40	100.954	57.773	100.993	57.449	0.039	-0.324
41	-0.046	72.136	0.887	72.047	0.933	-0.089
42	14.381	72.145	14.736	72.172	0.355	0.027
43	28.808	72.154	29.203	72.785	0.395	0.630
44	43.235	72.164	42.590	73.190	-0.645	1.026
45	57.663	72.17[illegible]	58.279	73.457	0.617	1.284
46	72.090	72[illegible]	73.098	73.524	1.008	1.342
47	86.517	72[illegible]91	86.539	72.526	0.022	0.334
48	100.944	[illegible].201	100.618	72.060	-0.327	-0.141
49	-0.055	86.563	1.394	86.586	1.450	0.023
50	14.372	86.572	14.385	85.987	0.013	-0.585
51	28.799	86.582	28.966	86.162	0.167	-0.420
52	43.226	86.591	42.994	86.782	-0.232	0.191
53	57.653	86.600	57.657	87.410	0.004	0.810

54	72.081	86.609	72.379	86.942	0.298	0.332
55	86.508	86.619	86.292	86.494	-0.216	-0.124
56	100.935	86.628	100.732	86.798	-0.203	0.171
57	-0.065	100.990	0.811	100.924	0.876	-0.066
58	14.363	101.000	15.060	100.247	0.698	-0.753
59	28.790	101.009	29.268	99.747	0.478	-1.262
60	43.217	101.018	43.697	100.346	0.480	-0.672
61	57.644	101.027	58.255	100.469	0.610	-0.558
62	72.071	101.037	72.870	100.325	0.798	-0.712
63	86.499	101.046	86.913	99.981	0.414	-1.065
64	100.926	101.055	101.580	100.528	0.655	-0.527

TABLE E-54. TUBE CENTROID DISPLACEMENTS AT 77.4 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-1.728	-1.693	-1.728	-1.693
2	14.427	0.006	13.413	-0.463	-1.014	-0.469
3	28.854	0.012	28.248	-1.457	-0.606	-1.469
4	43.282	0.018	42.587	-1.643	-0.695	-1.661
5	57.709	0.024	57.518	-0.805	-0.191	-0.828
6	72.136	0.030	73.022	-0.969	0.886	-0.999
7	86.563	0.036	86.837	-1.656	0.274	-1.691
8	100.990	0.041	101.087	-1.560	0.097	-1.601
9	-0.006	14.427	0.684	13.492	0.690	-0.936
10	14.421	14.433	14.665	15.816	0.244	1.383
11	28.848	14.439	27.834	13.588	-1.015	-0.851
12	43.276	14.445	42.202	15.356	-1.073	0.911
13	57.703	14.451	57.821	14.610	0.118	0.160
14	72.130	14.457	72.553	14.652	0.423	0.196
15	86.557	14.463	86.704	15.346	0.146	0.883
16	100.984	14.469	101.359	15.139	0.374	0.670
17	-0.012	28.854	-0.290	29.609	-0.279	0.755
18	14.415	28.860	13.502	29.805	-0.913	0.944
19	28.843	28.866	27.163	29.017	-1.679	0.150
20	43.270	28.872	42.140	30.133	-1.130	1.261
21	57.697	28.878	57.240	29.630	-0.457	0.752
22	72.124	28.884	73.068	29.900	0.944	1.016
23	86.551	28.890	87.421	29.898	0.870	1.009
24	100.979	28.896	101.365	29.689	0.386	0.793
25	-0.018	43.282	0.218	43.303	0.235	0.021
26	14.409	43.288	13.083	43.740	-1.326	0.453
27	28.837	43.293	27.523	43.896	-1.313	0.603
28	43.264	43.299	42.370	44.545	-0.893	1.246
29	57.691	43.305	57.735	43.530	0.044	0.224
30	72.118	43.311	73.212	44.181	1.093	0.870
31	86.545	43.317	86.841	44.013	0.295	0.696
32	100.973	43.323	100.063	43.722	-0.909	0.399
33	-0.024	57.709	0.796	57.041	0.819	-0.667
34	14.404	57.715	13.685	57.706	-0.719	-0.009
35	28.831	57.721	27.915	58.598	-0.915	0.878
36	43.258	57.727	42.678	58.805	-0.580	1.078
37	57.685	57.732	57.829	58.477	0.144	0.745
38	72.112	57.738	73.260	58.636	1.148	0.898
39	86.540	57.744	87.257	58.080	0.717	0.335
40	100.967	57.750	100.883	57.391	-0.084	-0.359
41	-0.030	72.136	1.109	71.877	1.138	-0.259
42	14.398	72.142	14.939	72.083	0.542	-0.059
43	28.825	72.148	29.313	72.625	0.489	0.478
44	43.252	72.154	42.676	73.020	-0.576	0.866
45	57.679	72.160	57.946	73.465	0.267	1.305
46	72.106	72.166	73.078	73.416	0.971	1.251
47	86.534	72.172	86.505	72.437	-0.028	0.265
48	100.961	72.177	100.572	72.046	-0.389	-0.132
49	-0.036	86.563	1.526	86.348	1.561	-0.216
50	14.392	86.569	14.537	85.838	0.145	-0.731
51	28.819	86.575	29.035	86.041	0.216	-0.534
52	43.246	86.581	43.017	86.563	-0.229	-0.018
53	57.673	86.587	57.669	87.239	-0.004	0.652

54	72.100	86.593	72.300	86.786	0.200	0.193
55	86.528	86.599	86.203	86.359	-0.325	-0.240
56	100.955	86.605	100.440	86.671	-0.515	0.066
57	-0.041	100.990	0.853	100.414	0.895	-0.577
58	14.386	100.996	15.195	99.764	0.809	-1.232
59	28.813	101.002	29.338	99.346	0.525	-1.656
60	43.240	101.008	43.692	99.880	0.452	-1.128
61	57.66/	101.014	58.166	100.096	0.499	-0.918
62	72.095	101.020	72.686	99.961	0.592	-1.059
63	86.522	101.026	86.629	99.565	0.107	-1.461
64	100.949	101.032	101.177	100.080	0.228	-0.931

TABLE E-55. TUBE CENTROID DISPLACEMENTS AT 78.9 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-1.496	-1.639	-1.496	-1.639
2	14.427	0.010	13.204	-0.239	-1.223	-0.249
3	28.854	0.019	27.855	-1.236	-0.999	-1.255
4	43.282	0.029	41.138	-0.878	-2.143	-0.907
5	57.709	0.038	56.967	-0.053	-0.741	-0.091
6	72.136	0.048	73.325	-0.838	1.189	-0.885
7	86.563	0.057	86.704	-1.653	0.140	-1.710
8	100.990	0.067	100.860	0.360	-0.130	0.293
9	-0.010	14.427	-0.232	13.760	-0.222	-0.667
10	14.418	14.437	14.618	15.592	0.201	1.155
11	28.845	14.446	27.867	13.564	-0.978	-0.882
12	43.272	14.456	42.420	15.450	-0.853	0.994
13	57.699	14.465	57.666	14.868	-0.033	0.402
14	72.126	14.475	72.517	14.729	0.391	0.255
15	86.554	14.484	86.603	15.302	0.049	0.818
16	100.981	14.494	101.262	15.034	0.281	0.540
17	-0.019	28.854	-0.257	29.473	-0.238	0.618
18	14.408	28.864	13.637	29.562	-0.771	0.698
19	28.835	28.873	27.390	28.904	-1.446	0.031
20	43.263	28.883	42.306	30.133	-0.956	1.250
21	57.690	28.892	57.418	29.430	-0.272	0.538
22	72.117	28.902	72.954	29.748	0.837	0.846
23	86.544	28.912	87.239	29.722	0.694	0.810
24	100.971	28.921	101.339	29.525	0.367	0.604
25	-0.029	43.282	0.447	43.292	0.475	0.010
26	14.399	43.291	13.412	43.563	-0.986	0.272
27	28.826	43.301	27.911	43.717	-0.915	0.416
28	43.253	43.310	42.462	44.434	-0.791	1.124
29	57.680	43.320	57.850	43.383	0.170	0.063
30	72.107	43.329	73.211	43.994	1.103	0.665
31	86.535	43.339	86.928	43.816	0.393	0.477
32	100.962	43.348	100.203	43.674	-0.759	0.326
33	-0.038	57.709	0.824	57.034	0.862	-0.675
34	14.389	57.718	13.772	57.659	-0.617	-0.059
35	28.816	57.728	28.066	58.357	-0.750	0.629
36	43.244	57.737	42.807	58.560	-0.436	0.823
37	57.671	57.747	57.667	58.645	-0.003	0.898
38	72.098	57.756	73.266	58.349	1.168	0.592
39	86.525	57.766	87.175	57.842	0.650	0.076
40	100.952	57.775	100.787	57.131	-0.165	-0.644
41	-0.048	72.136	1.058	71.916	1.106	-0.220
42	14.380	72.146	14.910	72.118	0.530	-0.028
43	28.807	72.155	29.337	72.497	0.530	0.342
44	43.234	72.165	42.787	72.856	-0.447	0.692
45	57.661	72.174	57.883	73.301	0.222	1.127
46	72.088	72.184	73.062	73.188	0.973	1.004
47	86.516	72.193	86.594	72.287	0.079	0.093
48	100.943	72.203	100.609	71.871	-0.334	-0.331
49	-0.057	86.563	1.304	86.372	1.361	-0.192
50	14.370	86.573	14.552	85.888	0.182	-0.685
51	28.797	86.582	29.097	86.119	0.299	-0.463
52	43.224	86.592	43.141	86.523	-0.083	-0.069
53	57.652	86.601	57.778	87.150	0.126	0.549

54	72.079	86.611	72.373	86.716	0.294	0.105
55	86.506	86.620	86.382	86.282	-0.124	-0.338
56	100.933	86.630	100.511	86.571	-0.422	-0.059
57	-0.067	100.990	0.633	100.525	0.700	-0.466
58	14.361	101.000	15.205	99.822	0.844	-1.178
59	28.788	101.009	29.395	99.537	0.607	-1.473
60	43.215	101.019	43.779	100.016	0.564	-1.003
61	57.642	101.028	58.223	100.243	0.581	-0.785
62	72.069	101.038	72.767	100.128	0.698	-0.910
63	86.497	101.048	86.770	99.679	0.273	-1.368
64	100.924	101.057	101.314	100.153	0.391	-0.904

TABLE E-56. TUBE CENTROID DISPLACEMENTS AT 80.4 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.855	-1.036	-0.855	-1.036
2	14.427	0.008	13.520	0.325	-0.907	0.316
3	28.854	0.016	27.984	-0.481	-0.870	-0.497
4	43.282	0.025	42.410	0.169	-0.871	0.144
5	57.709	0.033	57.464	-0.223	-0.245	-0.256
6	72.136	0.041	72.833	-0.257	0.697	-0.298
7	86.563	0.049	86.502	-0.748	-0.061	-0.798
8	100.990	0.058	100.473	-0.119	-0.517	-0.177
9	-0.008	14.427	0.074	14.190	0.082	-0.237
10	14.419	14.435	14.830	15.736	0.411	1.300
11	28.846	14.444	28.106	13.985	-0.740	-0.459
12	43.273	14.452	42.647	15.720	-0.626	1.268
13	57.701	14.460	57.370	14.928	-0.330	0.468
14	72.128	14.468	72.312	15.068	0.184	0.599
15	86.555	14.477	86.288	15.424	-0.267	0.947
16	100.982	14.485	100.845	14.948	-0.137	0.463
17	-0.016	28.854	0.230	29.599	0.246	0.744
18	14.411	28.863	14.072	29.583	-0.339	0.720
19	28.838	28.871	27.830	29.056	-1.008	0.186
20	43.265	28.879	42.533	30.072	-0.733	1.193.
21	57.692	28.887	57.390	29.395	-0.302	0.508
22	72.120	28.896	72.559	29.680	0.439	0.785
23	86.547	28.904	86.768	29.677	0.221	0.773
24	100.974	28.912	100.874	29.538	-0.100	0.626
25	-0.025	43.282	0.924	43.359	0.948	0.078
26	14.402	43.290	13.938	43.484	-0.465	0.194
27	28.830	43.298	28.333	43.672	-0.496	0.374
28	43.257	43.306	42.608	44.291	-0.649	0.985
29	57.684	43.315	57.714	43.270	0.030	-0.045
30	72.111	43.323	72.853	43.903	0.742	0.580
31	86.538	43.331	86.610	43.693	0.072	0.362
32	100.966	43.339	99.966	43.633	-1.000	0.294
33	-0.033	57.709	1.095	57.097	1.128	-0.612
34	14.394	57.717	14.149	57.666	-0.245	-0.051
35	28.821	57.725	28.380	58.174	-0.442	0.448
36	43.249	57.734	42.929	58.424	-0.320	0.690
37	57.676	57.742	57.477	58.621	-0.198	0.879
38	72.103	57.750	72.971	58.138	0.868	0.388
39	86.530	57.758	86.755	57.751	0.225	-0.007
40	100.957	57.766	100.353	57.123	-0.604	-0.644
41	-0.041	72.136	1.280	71.732	1.321	-0.404
42	14.386	72.144	15.050	72.006	0.664	-0.138
43	28.813	72.152	29.381	72.252	0.568	0.100
44	43.240	72.161	42.841	72.604	-0.399	0.443
45	57.668	72.169	57.719	72.964	0.051	0.795
46	72.095	72.177	72.677	72.892	0.583	0.715
47	86.522	72.185	86.248	72 147	-0.274	-0.039
48	100.949	72.194	100.186	71.826	-0.763	-0.367
49	-0.049	86.563	1.389	86.131	1.438	-0.432
50	14.378	86.571	14.870	85.762	0.492	-0.809
51	28.805	86.580	29.253	85.992	0.448	-0.587
52	43.232	86.588	43.242	86.258	0.010	-0.330
53	57.659	86.596	57.771	86.867	0.112	0.271

54	72.087	86.604	72.156	86.433	0.069	-0.171
55	86.514	86.613	86.199	86.085	-0.315	-0.528
56	100.941	86.621	100.124	86.322	-0.817	-0.299
57	-0.058	100.990	0.784	100.128	0.842	-0.862
58	14.370	100.999	15.408	99.521	1.038	-1.477
59	28.797	101.007	29.488	99.489	0.691	-1.518
60	43.224	101.015	43.794	99.923	0.570	-1.092
61	57.651	101.023	58.075	100.144	0.423	-0.879
62	72.078	101.032	72.515	100.000	0.437	-1.032
63	86.506	101.040	86.430	99.625	-0.076	-1.414
64	100.933	101.048	100.854	99.908	-0.078	-1.140

TABLE E-57. TUBE CENTROID DISPLACEMENTS AT 81.9 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT, POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.767	-1.089	-0.767	-1.089
2	14.427	0.015	13.490	0.309	-0.937	0.294
3	28.854	0.030	27.995	-0.356	-0.859	-0.386
4	43.282	0.045	42.308	0.157	-0.974	0.112
5	57.709	0.060	57.428	-0.447	-0.280	-0.507
6	72.136	0.075	72.537	-0.438	0.401	-0.513
7	86.563	0.090	86.390	-0.672	-0.173	-0.761
8	100.990	0.105	100.625	-1.680	-0.366	-1.785
9	-0.015	14.427	-0.226	14.042	-0.211	-0.386
10	14.412	14.442	14.583	15.325	0.170	0.883
11	28.839	14.457	28.076	13.903	-0.763	-0.555
12	43.267	14.472	42.619	15.390	-0.647	0.918
13	57.694	14.487	57.315	14.825	-0.379	0.338
14	72.121	14.502	72.241	14.887	0.120	0.385
15	86.548	14.517	86.130	15.042	-0.418	0.525
16	100.975	14.532	100.690	14.572	-0.285	0.040
17	-0.030	28.854	-0.151	29.352	-0.121	0.498
18	14.397	28.869	13.883	29.349	-0.514	0.479
19	28.824	28.884	27.847	28.920	-0.978	0.036
20	43.252	28.899	42.513	29.785	-0.739	0.885
21	57.679	28.914	57.332	29.127	-0.346	0.212
22	72.106	28.929	72.271	29.430	0.165	0.501
23	86.533	28.944	86.500	29.428	-0.033	0.484
24	100.960	28.959	100.679	29.279	-0.282	0.320
25	-0.045	43.282	0.582	43.228	0.627	-0.054
26	14.382	43.297	13.888	43.303	-0.494	0.006
27	28.809	43.312	28.321	43.516	-0.489	0.205
28	43.237	43.327	42.582	44.056	-0.655	0.729
29	57.664	43.342	57.774	43.181	0.110	-0.160
30	72.091	43.357	72.790	43.802	0.699	0.446
31	86.518	43.371	86.751	43.570	0.232	0.199
32	100.945	43.386	100.251	43.521	-0.694	0.135
33	-0.060	57.709	0.725	57.359	0.785	-0.350
34	14.367	57.724	14.114	57.826	-0.253	0.102
35	28.794	57.739	28.468	58.179	-0.326	0.440
36	43.222	57.754	43.004	58.448	-0.217	0.695
37	57.649	57.769	57.561	58.562	-0.088	0.793
38	72.076	57.784	72.964	58.052	0.888	0.269
39	86.503	57.799	86.807	57.743	0.303	-0.056
40	100.930	57.814	100.470	57.238	-0.460	-0.575
41	-0.075	72.136	0.927	72.050	1.002	-0.086
42	14.352	72.151	14.836	72.305	0.484	0.155
43	28.779	72.166	29.314	72.422	0.534	0.256
44	43.207	72.181	42.929	72.751	-0.277	0.570
45	57.634	72.196	57.860	73.011	0.226	0.815
46	72.061	72.211	72.740	72.900	0.679	0.689
47	86.488	72.226	86.514	72.279	0.026	0.053
48	100.915	72.241	100.459	71.939	-0.457	-0.302
49	-0.090	86.563	0.938	86.509	1.028	-0.054
50	14.337	86.578	14.779	86.241	0.441	-0.337
51	28.765	86.593	29.248	86.409	0.484	-0.184
52	43.192	86.608	43.361	86.519	0.169	-0.089
53	57.619	86.623	57.895	87.110	0.276	0.487

54	72.046	86.638	72.311	86.647	0.265	0.009
55	86.473	86.653	86.511	86.296	0.037	-0.358
56	100.901	86.668	100.465	86.462	-0.435	-0.206
57	-0.105	100.990	0.519	100.631	0.624	-0.359
58	14.322	101.005	15.291	100.159	0.969	-0.847
59	28.750	101.020	29.511	100.169	0.761	-0.852
60	43.177	101.035	43.799	100.438	0.623	-0.598
61	57.604	101.050	58.184	100.735	0.580	-0.315
62	72.031	101.065	72.682	100.505	0.651	-0.560
63	86.458	101.080	86.725	100.204	0.266	-0.876
64	100.886	101.095	101.181	100.335	0.296	-0.760

[redacted] J 8 [redacted]

TABLE E-58. TUBE CENTROID DISPLACEMENTS AT 83.5 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.444	-0.894	-0.444	-0.894
2	14.427	0.006	13.854	0.388	-0.573	0.382
3	28.854	0.012	28.280	0.048	-0.575	0.036
4	43.282	0.017	42.528	0.288	-0.753	0.271
5	57.709	0.023	57.450	0.018	-0.258	-0.005
6	72.136	0.029	72.475	-0.016	0.339	-0.045
7	86.563	0.035	86.564	-0.268	0.001	-0.303
8	100.990	0.040	100.930	-1.172	-0.060	-1.212
9	-0.006	14.427	-0.065	14.096	-0.060	-0.331
10	14.421	14.433	14.674	15.103	0.253	0.670
11	28.849	14.439	28.367	14.029	-0.482	-0.409
12	43.276	14.445	42.887	15.159	-0.389	0.714
13	57.703	14.450	57.577	14.934	-0.126	0.484
14	72.130	14.456	72.391	14.858	0.261	0.402
15	86.557	14.462	86.313	14.869	-0.245	0.407
16	100.985	14.468	100.929	14.434	-0.055	-0.034
17	-0.012	28.854	-0.006	29.231	0.006	0.377
18	14.416	28.860	14.170	29.259	-0.245	0.399
19	28.843	28.866	28.298	28.975	-0.545	0.110
20	43.270	28.872	42.830	29.576	-0.440	0.704
21	57.697	28.878	57.556	29.080	-0.142	0.202
22	72.124	28.883	72.289	29.332	0.165	0.449
23	86.552	28.889	86.631	29.400	0.079	0.511
24	100.979	28.895	100.813	29.310	-0.166	0.415
25	-0.017	43.282	0.582	43.247	0.599	-0.034
26	14.410	43.287	14.198	43.290	-0.212	0.003
27	28.837	43.293	28.633	43.565	-0.204	0.272
28	43.264	43.299	42.820	43.966	-0.444	0.667
29	57.691	43.305	57.723	43.107	0.032	-0.198
30	72.119	43.310	72.567	43.721	0.449	0.410
31	86.546	43.316	86.646	43.521	0.100	0.205
32	100.973	43.322	100.159	43.557	-0.814	0.235
33	-0.023	57.709	0.553	57.282	0.576	-0.427
34	14.404	57.715	14.316	57.708	-0.089	-0.007
35	28.831	57.720	28.624	57.995	-0.207	0.275
36	43.258	57.726	43.055	58.276	-0.204	0.549
37	57.686	57.732	57.529	58.304	-0.157	0.572
38	72.113	57.738	72.733	57.912	0.620	0.174
39	86.540	57.743	86.612	57.738	0.072	-0.005
40	100.967	57.749	100.390	57.460	-0.578	-0.289
41	-0.029	72.136	0.842	71.812	0.871	-0.324
42	14.398	72.142	14.822	72.137	0.423	-0.005
43	28.826	72.148	29.297	72.212	0.471	0.064
44	43.253	72.153	42.979	72.508	-0.273	0.355
45	57.680	72.159	57.805	72.721	0.125	0.562
46	72.107	72.165	72.517	72.668	0.409	0.503
47	86.534	72.171	86.396	72.199	-0.138	0.029
48	100.962	72.176	100.407	71.996	-0.555	-0.180
49	-0.035	86.563	0.713	86.244	0.748	-0.319
50	14.393	86.569	14.762	86.109	0.369	-0.460
51	28.820	86.575	29.144	86.293	0.325	-0.282
52	43.247	86.581	43.266	86.394	0.019	-0.186
53	57.674	86.586	57.766	86.875	0.092	0.289

54	72.101	86.592	72.071	86.490	-0.031	-0.102
55	86.529	86.598	86.338	86.290	-0.190	-0.308
56	100.956	86.604	100.313	86.440	-0.643	-0.163
57	-0.040	100.990	0.505	100.326	0.545	-0.665
58	14.387	100.996	15.192	100.087	0.806	-0.910
59	28.814	101.002	29.412	100.172	0.598	-0.830
60	43.241	101.008	43.711	100.392	0.470	-0.616
61	57.668	101.014	57.951	100.714	0.283	-0.299
62	72.096	101.019	72.411	100.501	0.316	-0.518
63	86.523	101.025	86.491	100.360	-0.032	-0.665
64	100.950	101.031	100.859	100.359	-0.091	-0.672

[redacted] L 8 [redacted]

TABLE E-59. TUBE CENTROID DISPLACEMENTS AT 85.1 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.367	-0.390	-0.367	-0.390
2	14.427	0.014	13.971	0.629	-0.456	0.616
3	28.854	0.028	28.289	0.402	-0.565	0.374
4	43.282	0.042	42.501	0.432	-0.781	0.391
5	57.709	0.056	57.078	0.269	-0.631	0.213
6	72.136	0.069	72.066	0.259	-0.070	0.190
7	86.563	0.083	86.167	-0.095	-0.396	-0.179
8	100.990	0.097	100.576	-0.685	-0.415	-0.782
9	-0.014	14.427	-0.122	14.393	-0.108	-0.034
10	14.413	14.441	14.603	15.083	0.190	0.642
11	28.841	14.455	28.423	14.235	-0.417	-0.220
12	43.268	14.469	42.923	15.012	-0.345	0.543
13	57.695	14.483	57.508	14.979	-0.187	0.497
14	72.122	14.497	72.184	14.813	0.062	0.317
15	86.549	14.511	86.078	14.566	-0.472	0.055
16	100.977	14.524	100.626	14.279	-0.351	-0.246
17	-0.028	28.854	-0.018	29.309	0.010	0.455
18	14.399	28.868	14.239	29.334	-0.161	0.466
19	28.827	28.882	28.448	29.054	-0.379	0.172
20	43.254	28.896	42.870	29.419	-0.384	0.523
21	57.681	28.910	57.465	29.029	-0.216	0.119
22	72.108	28.924	72.018	29.236	-0.091	0.312
23	86.535	28.938	86.321	29.255	-0.215	0.317
24	100.963	28.952	100.528	29.149	-0.434	0.197
25	-0.042	43.282	0.449	43.364	0.490	0.082
26	14.386	43.295	14.326	43.401	-0.060	0.106
27	28.813	43.309	28.754	43.606	-0.059	0.297
28	43.240	43.323	42.894	43.854	-0.346	0.531
29	57.667	43.337	57.588	43.130	-0.079	-0.207
30	72.094	43.351	72.249	43.604	0.155	0.253
31	86.522	43.365	86.433	43.360	-0.088	-0.005
32	100.949	43.379	100.039	43.463	-0.910	0.084
33	-0.056	57.709	0.631	57.521	0.687	-0.188
34	14.372	57.723	14.527	57.787	0.156	0.064
35	28.799	57.737	28.793	57.892	-0.006	0.155
36	43.226	57.750	43.140	58.171	-0.086	0.421
37	57.653	57.764	57.534	58.110	-0.119	0.346
38	72.080	57.778	72.524	57.754	0.443	-0.024
39	86.508	57.792	86.439	57.619	-0.069	-0.173
40	100.935	57.806	100.288	57.446	-0.647	-0.360
41	-0.069	72.136	0.834	71.900	0.904	-0.236
42	14.358	72.150	14.907	72.213	0.549	0.063
43	28.785	72.164	29.344	72.166	0.559	0.002
44	43.212	72.178	43.087	72.409	-0.125	0.232
45	57.639	72.192	57.858	72.547	0.219	0.355
46	72.067	72.205	72.374	72.431	0.308	0.226
47	86.494	72.219	86.367	72.067	-0.127	-0.153
48	100.921	72.233	100.427	71.906	-0.494	-0.327
49	-0.083	86.563	0.691	86.352	0.774	-0.211
50	14.344	86.577	14.902	86.333	0.559	-0.244
51	28.771	86.591	29.284	86.386	0.513	-0.205
52	43.198	86.605	43.420	86.415	0.222	-0.190
53	57.625	86.619	57.858	86.792	0.233	0.173

54	72.053	86.633	72.146	86.389	0.094	-0.244
55	86.480	86.647	86.385	86.206	-0.095	-0.440
56	100.907	86.660	100.435	86.299	-0.472	-0.362
57	-0.097	100.990	0.739	100.447	0.836	-0.543
58	14.330	101.004	15.291	100.346	0.961	-0.659
59	28.757	101.018	29.526	100.416	0.769	-0.602
60	43.184	101.032	43.806	100.543	0.621	-0.489
61	57.612	101.046	58.051	100.856	0.439	-0.190
62	72.039	101.060	72.490	100.562	0.451	-0.497
63	86.466	101.074	86.516	100.435	0.050	-0.639
64	100.893	101.088	100.860	100.338	-0.034	-0.750

[redacted] N 8 [redacted]

TABLE E-60. TUBE CENTROID DISPLACEMENTS AT 86.8 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.619	-0.235	-0.619	-0.235
2	14.427	0.025	13.761	0.394	-0.666	0.369
3	28.854	0.050	28.052	0.266	-0.802	0.216
4	43.282	0.075	42.271	0.179	-1.011	0.103
5	57.709	0.101	56.730	0.109	-0.978	0.009
6	72.136	0.126	71.489	0.217	-0.647	0.092
7	86.563	0.151	85.592	-0.165	-0.971	-0.316
8	100.990	0.176	100.014	-0.496	-0.976	-0.672
9	-0.025	14.427	-0.385	14.368	-0.360	-0.060
10	14.402	14.452	14.314	14.745	-0.088	0.292
11	28.829	14.477	28.292	14.086	-0.537	-0.391
12	43.256	14.503	42.700	14.575	-0.556	0.073
13	57.684	14.528	57.213	14.705	-0.471	0.177
14	72.111	14.553	71.749	14.496	-0.362	-0.057
15	86.538	14.578	85.687	14.200	-0.851	-0.378
16	100.965	14.603	100.093	13.961	-0.872	-0.642
17	-0.050	28.854	-0.181	29.322	-0.130	0.468
18	14.377	28.880	14.220	29.316	-0.157	0.437
19	28.804	28.905	28.584	29.041	-0.220	0.137
20	43.231	28.930	42.981	29.250	-0.250	0.320
21	57.659	28.955	57.532	28.968	-0.127	0.013
22	72.086	28.980	71.956	29.063	-0.130	0.083
23	86.513	29.005	86.335	29.081	-0.178	0.076
24	100.940	29.030	100.492	28.933	-0.448	-0.097
25	-0.075	43.282	0.173	43.491	0.249	0.209
26	14.352	43.307	14.366	43.520	0.014	0.213
27	28.779	43.332	28.835	43.632	0.056	0.300
28	43.206	43.357	43.031	43.796	-0.175	0.439
29	57.633	43.382	57.643	43.199	0.009	-0.183
30	72.061	43.407	72.203	43.542	0.143	0.135
31	86.488	43.432	86.507	43.261	0.019	-0.172
32	100.915	43.458	100.228	43.346	-0.686	-0.112
33	-0.101	57.709	0.278	57.759	0.379	0.050
34	14.327	57.734	14.524	57.986	0.197	0.252
35	28.754	57.759	28.871	57.956	0.117	0.197
36	43.181	57.784	43.240	58.242	0.059	0.457
37	57.608	57.809	57.680	58.076	0.072	0.267
38	72.035	57.835	72.444	57.775	0.409	-0.059
39	86.463	57.860	86.478	57.602	0.016	-0.258
40	100.890	57.885	100.367	57.587	-0.523	-0.298
41	-0.126	72.136	0.575	72.153	0.701	0.017
42	14.301	72.161	14.842	72.467	0.541	0.305
43	28.729	72.186	29.309	72.324	0.580	0.138
44	43.156	72.211	43.205	72.494	0.050	0.282
45	57.583	72.237	57.929	72.595	0.346	0.359
46	72.010	72.262	72.415	72.385	0.404	0.123
47	86.437	72.287	86.522	72.102	0.084	-0.185
48	100.865	72.312	100.639	71.950	-0.225	-0.362
49	-0.151	86.563	0.616	86.686	0.767	0.123
50	14.276	86.588	14.972	86.728	0.696	0.139
51	28.704	86.613	29.356	86.684	0.653	0.071
52	43.131	86.639	43.604	86.635	0.473	-0.004
53	57.558	86.664	58.081	86.901	0.523	0.238

54	71.985	86.689	72.304	86.538	0.319	-0.151
55	86.412	86.714	86.660	86.343	0.248	-0.371
56	100.840	86.739	100.762	86.371	-0.077	-0.368
57	-0.176	100.990	0.840	100.916	1.016	-0.074
58	14.251	101.016	15.322	100.924	1.071	-0.092
59	28.678	101.041	29.624	100.908	0.945	-0.133
60	43.106	101.066	43.939	100.904	0.834	-0.162
61	57.533	101.091	58.241	101.146	0.708	0.055
62	71.960	101.116	72.617	100.813	0.657	-0.303
63	86.387	101.141	86.940	100.746	0.453	-0.395
64	100.814	101.166	101.103	100.463	0.289	-0.703

TABLE E-61. TUBE CENTROID DISPLACEMENTS AT 88.6 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.187	0.213	-0.187	0.213
2	14.427	0.013	14.229	0.549	-0.199	0.536
3	28.854	0.025	28.449	0.549	-0.405	0.524
4	43.282	0.038	42.672	0.423	-0.610	0.385
5	57.709	0.051	57.121	0.386	-0.587	0.335
6	72.136	0.063	71.577	0.592	-0.559	0.528
7	86.563	0.076	85.816	0.234	-0.747	0.158
8	100.990	0.089	100.444	-0.038	-0.546	-0.127
9	-0.013	14.427	0.052	14.715	0.065	0.288
10	14.415	14.440	14.582	14.869	0.167	0.429
11	28.842	14.453	28.653	14.508	-0.189	0.056
12	43.269	14.465	43.012	14.761	-0.257	0.295
13	57.696	14.478	57.442	14.917	-0.255	0.439
14	72.123	14.491	71.946	14.723	-0.178	0.233
15	86.551	14.503	86.024	14.456	-0.527	-0.047
16	100.978	14.516	100.517	14.315	-0.460	-0.201
17	-0.025	28.854	0.196	29.158	0.222	0.304
18	14.402	28.867	14.561	29.220	0.159	0.353
19	28.829	28.880	28.803	29.063	-0.026	0.184
20	43.256	28.892	43.103	29.148	-0.153	0.256
21	57.683	28.905	57.444	28.970	-0.239	0.065
22	72.111	28.918	71.816	29.020	-0.295	0.102
23	86.538	28.930	86.164	29.084	-0.373	0.154
24	100.965	28.943	100.344	28.925	-0.621	-0.018
25	-0.038	43.282	0.480	43.354	0.518	0.072
26	14.389	43.294	14.639	43.387	0.250	0.093
27	28.816	43.307	28.908	43.480	0.092	0.173
28	43.244	43.320	43.081	43.592	-0.163	0.272
29	57.671	43.332	57.526	43.208	-0.144	-0.125
30	72.098	43.345	71.924	43.417	-0.174	0.072
31	86.525	43.358	86.278	43.271	-0.247	-0.087
32	100.952	43.370	100.221	43.363	-0.732	-0.008
33	-0.051	57.709	0.516	57.533	0.567	-0.176
34	14.376	57.721	14.753	57.694	0.377	-0.028
35	28.804	57.734	28.948	57.691	0.144	-0.043
36	43.231	57.747	43.220	57.947	-0.011	0.200
37	57.658	57.760	57.517	57.863	-0.141	0.103
38	72.085	57.772	72.125	57.654	0.040	-0.118
39	86.512	57.785	86.273	57.671	-0.239	-0.114
40	100.940	57.798	100.364	57.657	-0.576	-0.140
41	-0.063	72.136	0.676	71.839	0.739	-0.297
42	14.364	72.149	14.905	72.098	0.541	-0.050
43	28.791	72.161	29.282	72.003	0.491	-0.158
44	43.218	72.174	43.128	72.130	-0.090	-0.044
45	57.645	72.187	57.749	72.252	0.104	0.065
46	72.073	72.199	72.144	72.141	0.072	-0.059
47	86.500	72.212	86.359	72.044	-0.141	-0.168
48	100.927	72.225	100.581	72.003	-0.346	-0.221
49	-0.076	86.563	0.738	86.232	0.814	-0.332
50	14.351	86.576	14.996	86.365	0.645	-0.211
51	28.778	86.589	29.282	86.339	0.504	-0.249
52	43.206	86.601	43.506	86.330	0.301	-0.271
53	57.633	86.614	57.870	86.546	0.237	-0.068

54	72.060	86.627	72.080	86.320	0.020	-0.307
55	86.487	86.639	86.462	86.346	-0.025	-0.294
56	100.914	86.652	100.682	86.390	-0.232	-0.262
57	-0.089	100.990	0.861	100.512	0.950	-0.478
58	14.338	101.003	15.192	100.694	0.854	-0.309
59	28.766	101.016	29.431	100.726	0.666	-0.289
60	43.193	101.028	43.687	100.715	0.494	-0.314
61	57.620	101.041	57.975	100.902	0.355	-0.139
62	72.047	101.054	72.296	100.695	0.249	-0.359
63	86.474	101.066	86.570	100.775	0.096	-0.291
64	100.902	101.079	100.845	100.595	-0.056	-0.484

TABLE E-62. TUBE CENTROID DISPLACEMENTS AT 90.4 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.685	0.345	-0.685	0.345
2	14.427	0.028	13.831	0.415	-0.597	0.387
3	28.854	0.056	28.164	0.375	-0.691	0.320
4	43.282	0.083	42.519	0.241	-0.763	0.158
5	57.709	0.111	56.973	0.162	-0.736	0.051
6	72.136	0.139	71.314	0.410	-0.822	0.271
7	86.563	0.167	85.606	0.113	-0.958	-0.054
8	100.990	0.194	100.115	-0.137	-0.876	-0.332
9	-0.028	14.427	-0.463	14.804	-0.435	0.377
10	14.399	14.455	14.177	14.849	-0.223	0.394
11	28.827	14.483	28.442	14.579	-0.385	0.097
12	43.254	14.510	42.853	14.733	-0.401	0.223
13	57.681	14.538	57.266	14.800	-0.415	0.262
14	72.108	14.566	71.716	14.627	-0.393	0.061
15	86.535	14.594	85.857	14.364	-0.679	-0.229
16	100.963	14.621	100.226	14.227	-0.736	-0.394
17	-0.056	28.854	-0.168	29.277	-0.113	0.423
18	14.372	28.882	14.277	29.322	-0.095	0.440
19	28.799	28.910	28.693	29.150	-0.106	0.240
20	43.226	28.938	43.055	29.189	-0.171	0.252
21	57.653	28.965	57.388	29.019	-0.265	0.054
22	72.080	28.993	71.709	28.955	-0.371	-0.038
23	86.508	29.021	86.003	28.920	-0.505	-0.101
24	100.935	29.049	100.193	28.784	-0.742	-0.264
25	-0.083	43.282	0.134	43.695	0.217	0.413
26	14.344	43.309	14.466	43.635	0.122	0.325
27	28.771	43.337	28.859	43.598	0.088	0.261
28	43.198	43.365	43.159	43.638	-0.040	0.273
29	57.626	43.393	57.525	43.357	-0.100	-0.035
30	72.053	43.420	71.860	43.356	-0.193	-0.065
31	86.480	43.448	86.174	43.184	-0.306	-0.264
32	100.907	43.476	100.201	43.210	-0.706	-0.266
33	-0.111	57.709	0.316	57.971	0.427	0.263
34	14.316	57.737	14.662	58.034	0.346	0.298
35	28.743	57.764	28.986	57.889	0.243	0.124
36	43.171	57.792	43.295	58.038	0.125	0.246
37	57.598	57.820	57.627	57.908	0.030	0.088
38	72.025	57.848	72.079	57.653	0.054	-0.195
39	86.452	57.875	86.283	57.588	-0.169	-0.288
40	100.879	57.903	100.326	57.559	-0.553	-0.344
41	-0.139	72.136	0.546	72.332	0.684	0.196
42	14.288	72.164	14.915	72.442	0.626	0.278
43	28.716	72.192	29.361	72.249	0.646	0.057
44	43.143	72.219	43.232	72.301	0.089	0.082
45	57.570	72.247	57.848	72.278	0.278	0.031
46	71.997	72.275	72.225	72.138	0.228	-0.136
47	86.424	72.303	86.443	71.973	0.018	-0.329
48	100.852	72.330	100.682	71.840	-0.170	-0.490
49	-0.167	86.563	0.718	86.737	0.885	0.174
50	14.261	86.591	15.095	86.752	0.834	0.161
51	28.688	86.619	29.427	86.600	0.740	-0.019
52	43.115	86.646	43.691	86.538	0.576	-0.108
53	57.542	86.674	58.034	86.602	0.492	-0.072

54	71.969	86.702	72.297	86.397	0.328	-0.305
55	86.397	86.730	86.637	86.283	0.240	-0.447
56	100.824	86.757	100.845	86.215	0.021	-0.542
57	-0.194	100.990	1.051	100.936	1.245	-0.055
58	14.233	101.018	15.429	101.070	1.196	0.051
59	28.660	101.046	29.689	100.962	1.028	-0.084
60	43.087	101.074	43.913	100.883	0.826	-0.191
61	57.515	101.101	58.208	100.909	0.693	-0.193
62	71.942	101.129	72.542	100.679	0.600	-0.450
63	86.369	101.157	86.697	100.608	0.328	-0.549
64	100.796	101.185	100.938	100.348	0.142	-0.836

TABLE E-63. TUBE CENTROID DISPLACEMENTS AT 92.2 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

	PRETEST CENTROID		POSTTEST CENTROID		CTR DISPLACEMENT	
TUBE NO.	X-DIM. (MM)	Y-DIM. (MM)	X-DIM. (MM)	Y-DIM. (MM)	X-DIRECT (MM)	Y-DIRECT (MM)
1	0.000	0.000	-0.828	0.360	-0.828	0.360
2	14.427	0.037	13.613	0.276	-0.814	0.239
3	28.854	0.073	27.955	0.197	-0.900	0.124
4	43.282	0.110	42.326	0.037	-0.956	-0.072
5	57.709	0.146	56.739	-0.086	-0.970	-0.233
6	72.136	0.183	71.100	0.060	-1.036	-0.123
7	86.563	0.220	85.397	-0.242	-1.166	-0.461
8	100.990	0.256	99.890	-0.557	-1.101	-0.814
9	-0.037	14.427	-0.610	14.729	-0.573	0.302
10	14.391	14.464	13.932	14.696	-0.458	0.232
11	28.818	14.500	28.173	14.490	-0.645	-0.010
12	43.245	14.537	42.591	14.539	-0.654	0.002
13	57.672	14.574	57.015	14.483	-0.658	-0.090
14	72.099	14.610	71.457	14.341	-0.642	-0.269
15	86.527	14.647	85.687	14.030	-0.840	-0.617
16	100.954	14.683	100.026	13.868	-0.928	-0.815
17	-0.073	28.854	-0.385	29.186	-0.312	0.332
18	14.354	28.891	14.126	29.275	-0.228	0.384
19	28.781	28.928	28.550	29.077	-0.231	0.149
20	43.208	28.964	42.959	29.077	-0.249	0.113
21	57.636	29.001	57.340	28.917	-0.296	-0.084
22	72.063	29.037	71.729	28.798	-0.333	-0.239
23	86.490	29.074	86.123	28.719	-0.367	-0.355
24	100.917	29.111	100.362	28.569	-0.555	-0.542
25	-0.110	43.282	-0.089	43.737	0.021	0.456
26	14.317	43.318	14.233	43.693	-0.085	0.375
27	28.745	43.355	28.708	43.593	-0.037	0.238
28	43.172	43.391	43.063	43.553	-0.109	0.161
29	57.599	43.428	57.485	43.369	-0.114	-0.059
30	72.026	43.465	71.892	43.280	-0.134	-0.184
31	86.453	43.501	86.297	43.109	-0.157	-0.393
32	100.881	43.538	100.408	43.041	-0.473	-0.496
33	-0.146	57.709	0.080	58.137	0.227	0.428
34	14.281	57.745	14.450	58.157	0.169	0.411
35	28.708	57.782	28.836	58.007	0.128	0.225
36	43.135	57.819	43.259	58.069	0.124	0.250
37	57.562	57.855	57.651	57.926	0.088	0.071
38	71.990	57.892	72.110	57.723	0.120	-0.168
39	86.417	57.928	86.437	57.584	0.020	-0.345
40	100.844	57.965	100.545	57.535	-0.299	-0.430
41	-0.183	72.136	0.380	72.584	0.563	0.448
42	14.244	72.173	14.785	72.628	0.540	0.455
43	28.671	72.209	29.256	72.403	0.585	0.194
44	43.099	72.246	43.325	72.450	0.227	0.204
45	57.526	72.282	57.958	72.398	0.432	0.116
46	71.953	72.319	72.383	72.270	0.430	-0.049
47	86.380	72.356	86.730	72.086	0.350	-0.269
48	100.807	72.392	101.053	71.868	0.245	-0.524
49	-0.220	86.563	0.521	87.085	0.740	0.522
50	14.208	86.600	14.960	87.106	0.753	0.506
51	28.635	86.636	29.358	86.912	0.723	0.276
52	43.062	86.673	43.731	86.826	0.669	0.153
53	57.489	86.710	58.164	86.848	0.675	0.139

54	71.916	86.746	72.529	86.658	0.612	-0.088
55	86.344	86.783	86.937	86.520	0.593	-0.263
56	100.771	86.819	101.271	86.431	0.500	-0.389
57	-0.256	100.990	0.889	101.405	1.145	0.414
58	14.171	101.027	15.275	101.517	1.103	0.490
59	28.598	101.064	29.644	101.373	1.046	0.309
60	43.025	101.100	43.977	101.261	0.952	0.161
61	57.453	101.137	58.379	101.259	0.927	0.123
62	71.880	101.173	72.769	101.070	0.889	-0.104
63	86.307	101.210	87.125	100.921	0.818	-0.288
64	100.734	101.247	101.465	100.662	0.731	-0.585

TABLE E-64. TUBE CENTROID DISPLACEMENTS AT 94.0 CM ELEVATION.

TUBE CENTROID LOCATIONS BASED ON AREA ENCLOSED BY O.D. PERIMETER
WITH ORIGIN ARBITRARILY LOCATED AT PRETEST CENTROID OF TUBE NO. 1
(NOTE: POSITIVE X IS LEFT TO RIGHT. POSITIVE Y IS TOP TO BOTTOM.)

TUBE NO.	PRETEST CENTROID X-DIM. (MM)	PRETEST CENTROID Y-DIM. (MM)	POSTTEST CENTROID X-DIM. (MM)	POSTTEST CENTROID Y-DIM. (MM)	CTR DISPLACEMENT X-DIRECT (MM)	CTR DISPLACEMENT Y-DIRECT (MM)
1	0.000	0.000	-0.483	0.521	-0.483	0.521
2	14.427	0.029	13.893	0.442	-0.534	0.412
3	28.854	0.059	28.271	0.452	-0.584	0.394
4	43.282	0.088	42.631	0.315	-0.651	0.227
5	57.709	0.117	57.006	0.258	-0.702	0.141
6	72.136	0.147	71.319	0.407	-0.817	0.260
7	86.563	0.176	85.557	0.198	-1.006	0.022
8	100.990	0.205	99.926	-0.062	-1.064	-0.268
9	-0.029	14.427	-0.438	14.886	-0.408	0.459
10	14.398	14.457	14.052	14.870	-0.346	0.414
11	28.825	14.486	28.434	14.741	-0.391	0.256
12	43.252	14.515	42.796	14.786	-0.457	0.271
13	57.679	14.544	57.211	14.712	-0.468	0.168
14	72.107	14.574	71.609	14.614	-0.498	0.041
15	86.534	14.603	85.765	14.443	-0.769	-0.160
16	100.961	14.632	100.001	14.300	-0.960	-0.332
17	-0.059	28.854	-0.007	29.354	0.051	0.500
18	14.369	28.884	14.399	29.316	0.031	0.432
19	28.796	28.913	28.785	29.212	-0.011	0.299
20	43.223	28.942	43.117	29.203	-0.106	0.260
21	57.650	28.973	57.442	29.056	-0.208	0.084
22	72.077	29.001	71.778	28.943	-0.300	-0.058
23	86.505	29.030	86.016	28.858	-0.488	-0.172
24	100.932	29.060	100.159	28.735	-0.773	-0.324
25	-0.088	43.282	0.102	43.786	0.190	0.505
26	14.339	43.311	14.416	43.682	0.077	0.371
27	28.766	43.340	28.763	43.640	-0.004	0.300
28	43.194	43.370	43.133	43.572	-0.061	0.202
29	57.621	43.399	57.468	43.474	-0.153	0.075
30	72.048	43.428	71.818	43.351	-0.230	-0.077
31	86.475	43.457	86.081	43.217	-0.395	-0.240
32	100.902	43.487	100.169	43.112	-0.733	-0.374
33	-0.117	57.709	0.387	58.125	0.504	0.416
34	14.310	57.738	14.755	58.105	0.445	0.366
35	28.737	57.767	29.045	57.975	0.308	0.207
36	43.164	57.797	43.415	57.971	0.251	0.174
37	57.592	57.826	57.723	57.865	0.132	0.039
38	72.019	57.855	71.994	57.720	-0.025	-0.136
39	86.446	57.885	86.256	57.569	-0.190	-0.315
40	100.873	57.914	100.295	57.493	-0.578	-0.421
41	-0.147	72.136	0.533	72.439	0.680	0.303
42	14.281	72.165	14.880	72.474	0.599	0.309
43	28.708	72.195	29.227	72.278	0.519	0.083
44	43.135	72.224	43.399	72.297	0.264	0.073
45	57.562	72.253	57.838	72.215	0.276	-0.038
46	71.989	72.283	72.165	72.084	0.176	-0.199
47	86.417	72.312	86.389	71.912	-0.028	-0.400
48	100.844	72.341	100.561	71.744	-0.283	-0.597
49	-0.176	86.563	0.808	86.812	0.984	0.249
50	14.251	86.593	15.158	86.792	0.906	0.199
51	28.679	86.622	29.476	86.617	0.797	-0.005
52	43.106	86.651	43.768	86.554	0.662	-0.097
53	57.533	86.680	58.058	86.484	0.525	-0.196

54	71.960	86.710	72.349	86.341	0.389	-0.369
55	86.387	86.739	86.610	86.200	0.222	-0.539
56	100.815	86.768	100.739	86.152	-0.076	-0.617
57	-0.205	100.990	1.095	100.966	1.300	-0.024
58	14.222	101.020	15.348	101.063	1.125	0.044
59	28.649	101.049	29.684	100.924	1.035	-0.125
60	43.076	101.078	43.917	100.797	0.840	-0.281
61	57.504	101.108	58.207	100.720	0.703	-0.387
62	71.931	101.137	72.455	100.603	0.524	-0.534
63	86.358	101.166	86.621	100.415	0.263	-0.751
64	100.785	101.196	100.785	100.157	-0.000	-1.038

FIG. F-1. B-5 POSTTEST TUBE LOCATIONS AT -13.0CM

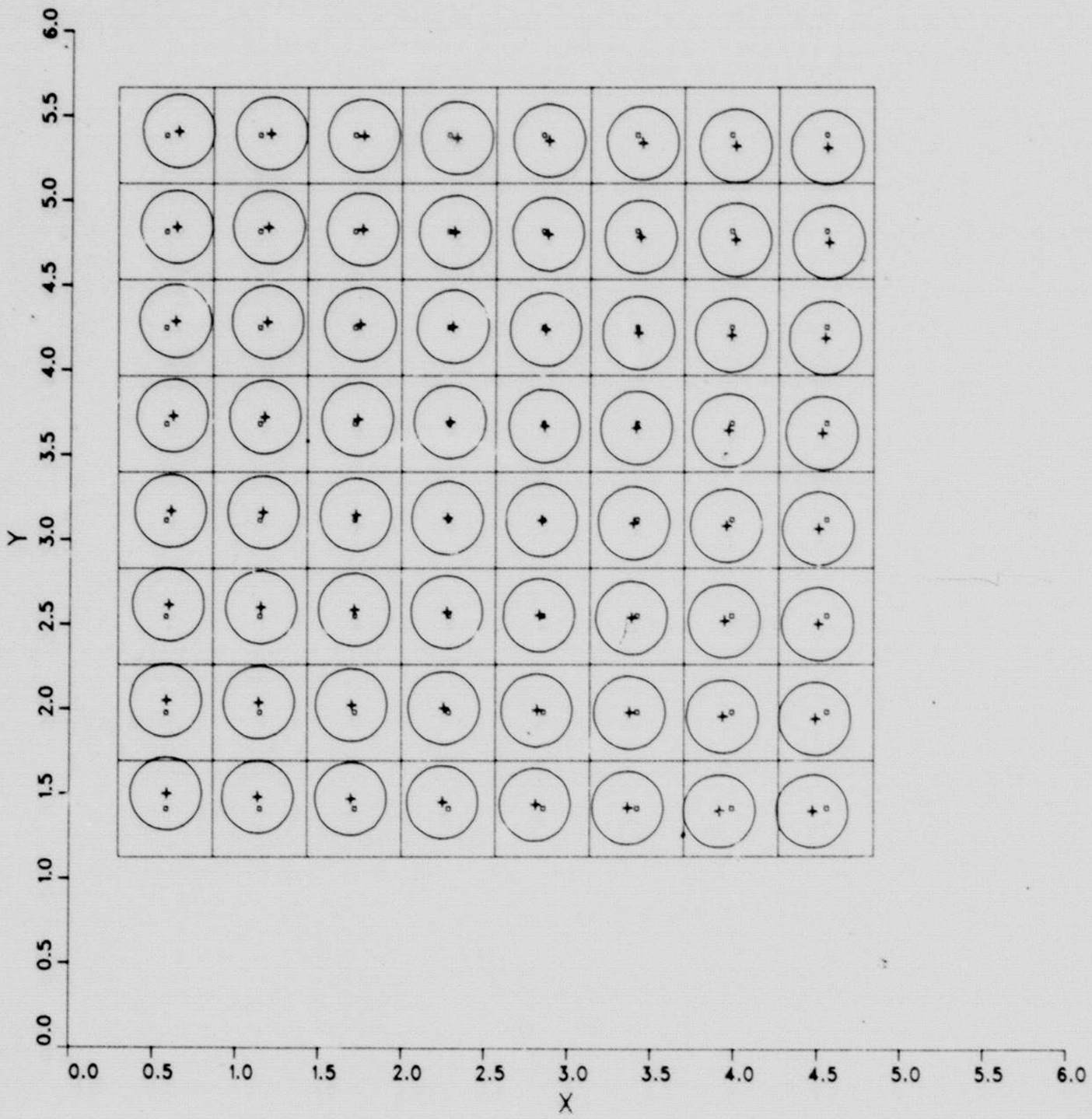


FIG. F-2. B-5 POSTTEST TUBE LOCATIONS AT -6.5CM

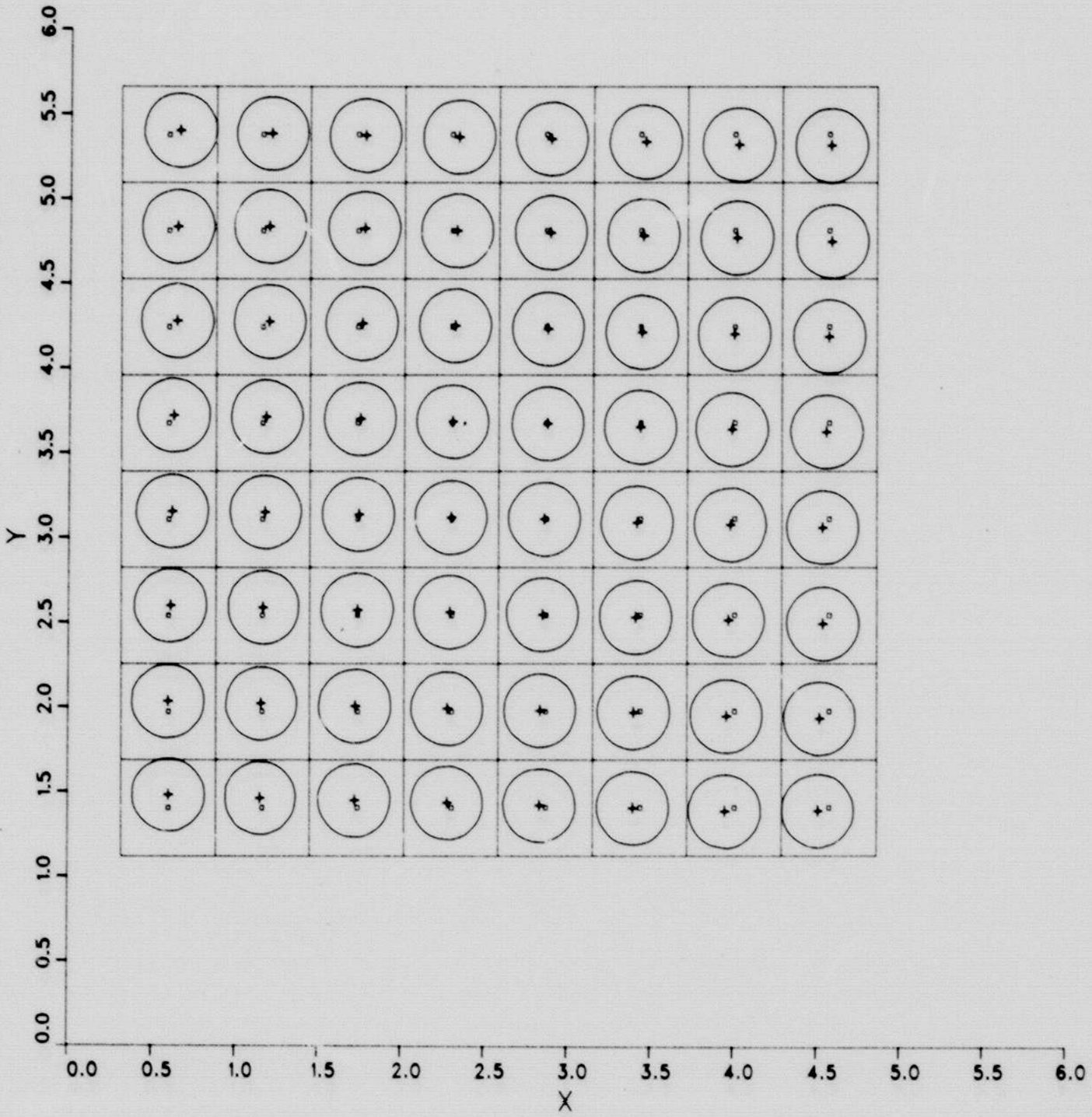


FIG. F-3. B-5 POSTTEST TUBE LOCATIONS AT -3.0CM

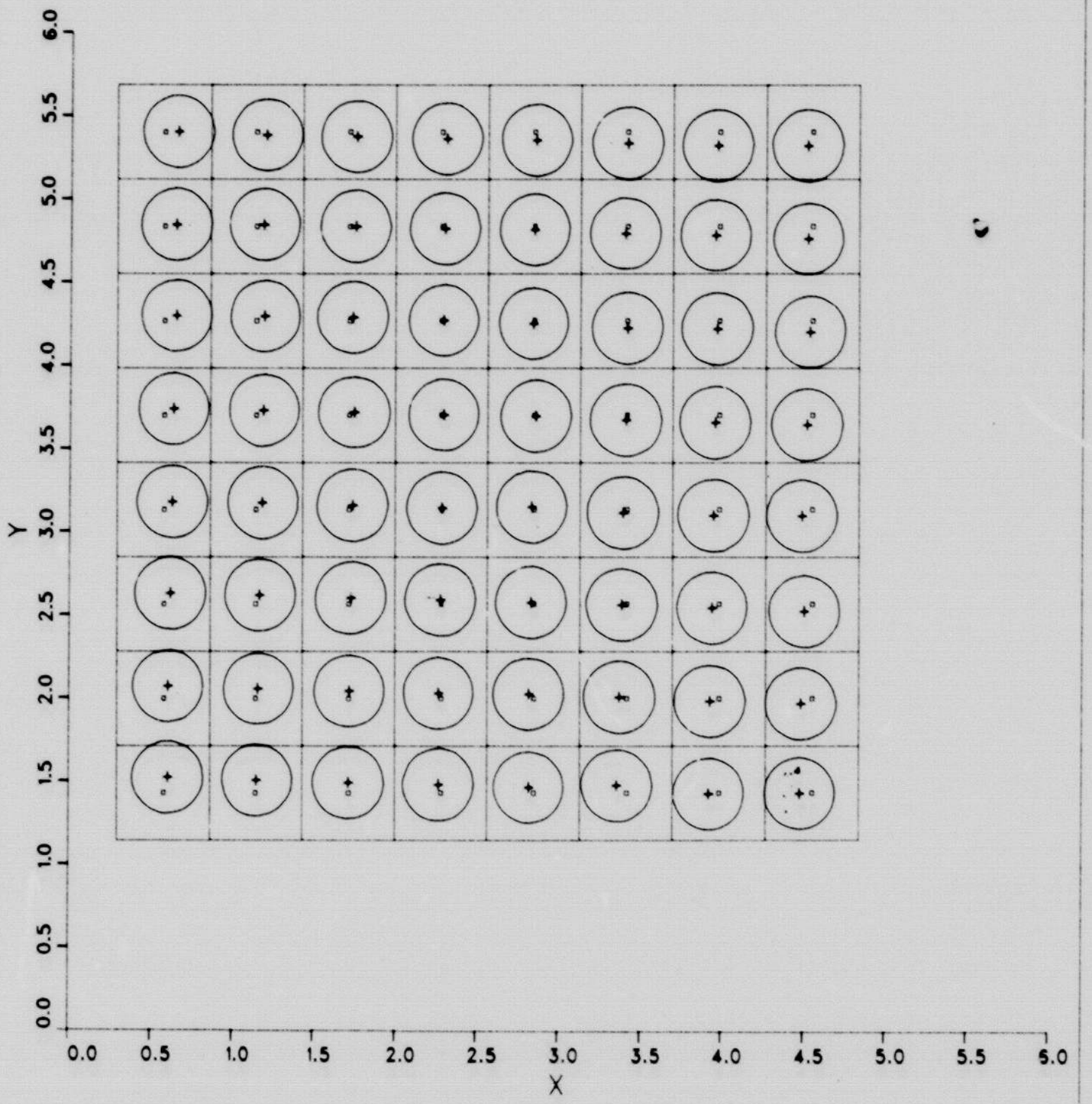


FIG. F-4. B-5 POSTTEST TUBE LOCATIONS AT -1.5CM

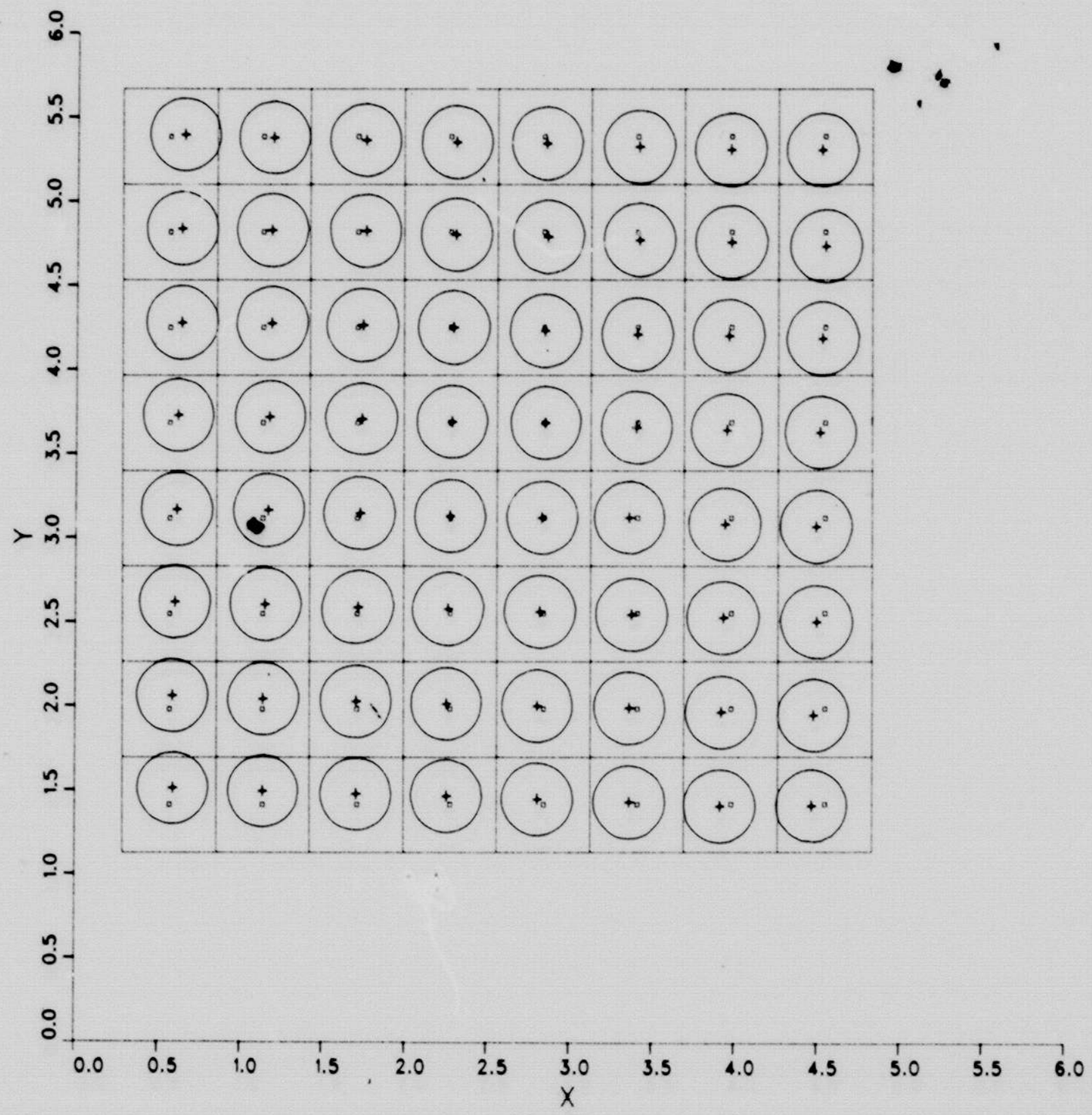


FIG. F-5. B-5 POSTTEST TUBE LOCATIONS AT 0.0CM

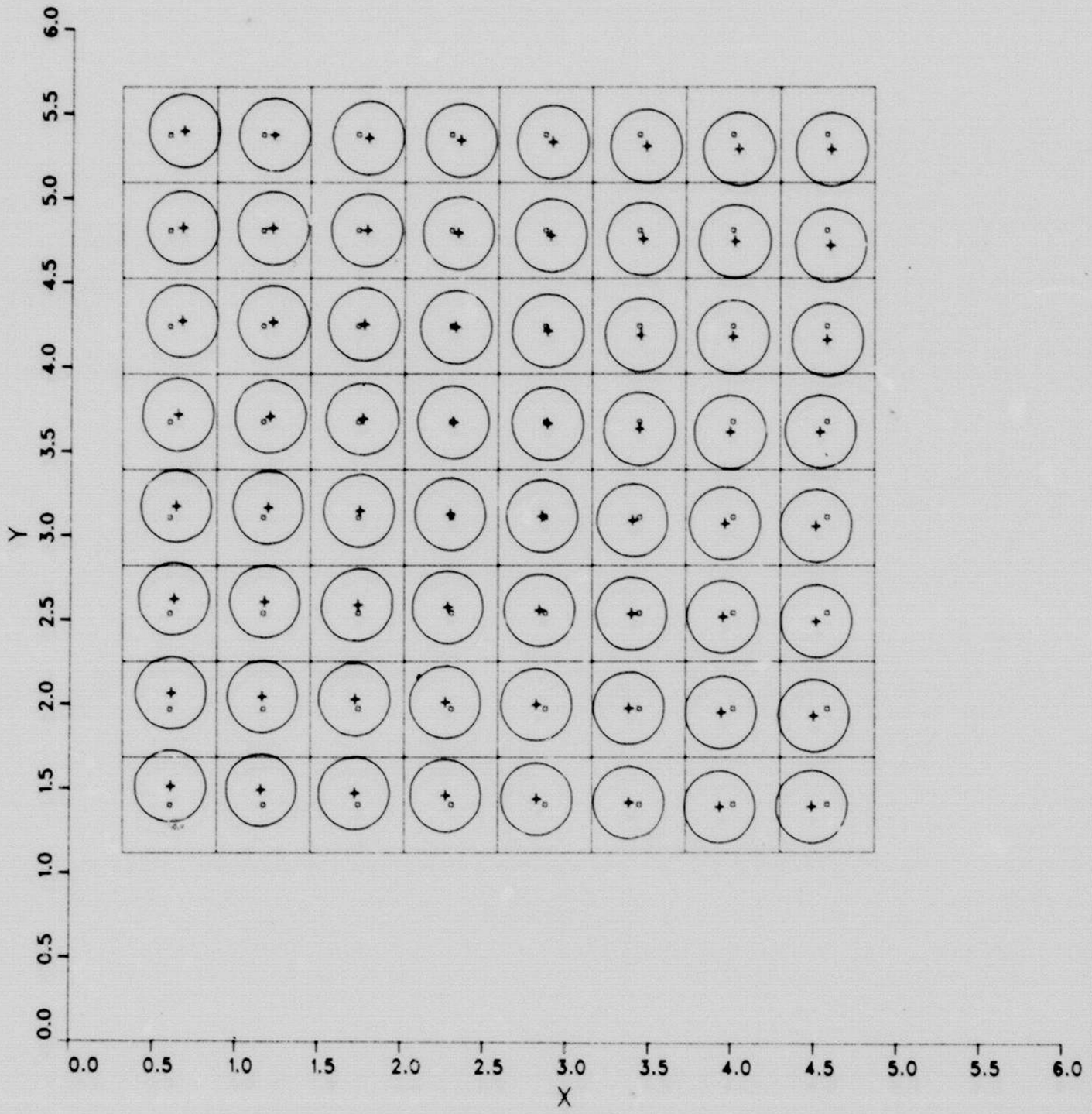


FIG. F-6. B-5 POSTTEST TUBE LOCATIONS AT 1.8CM

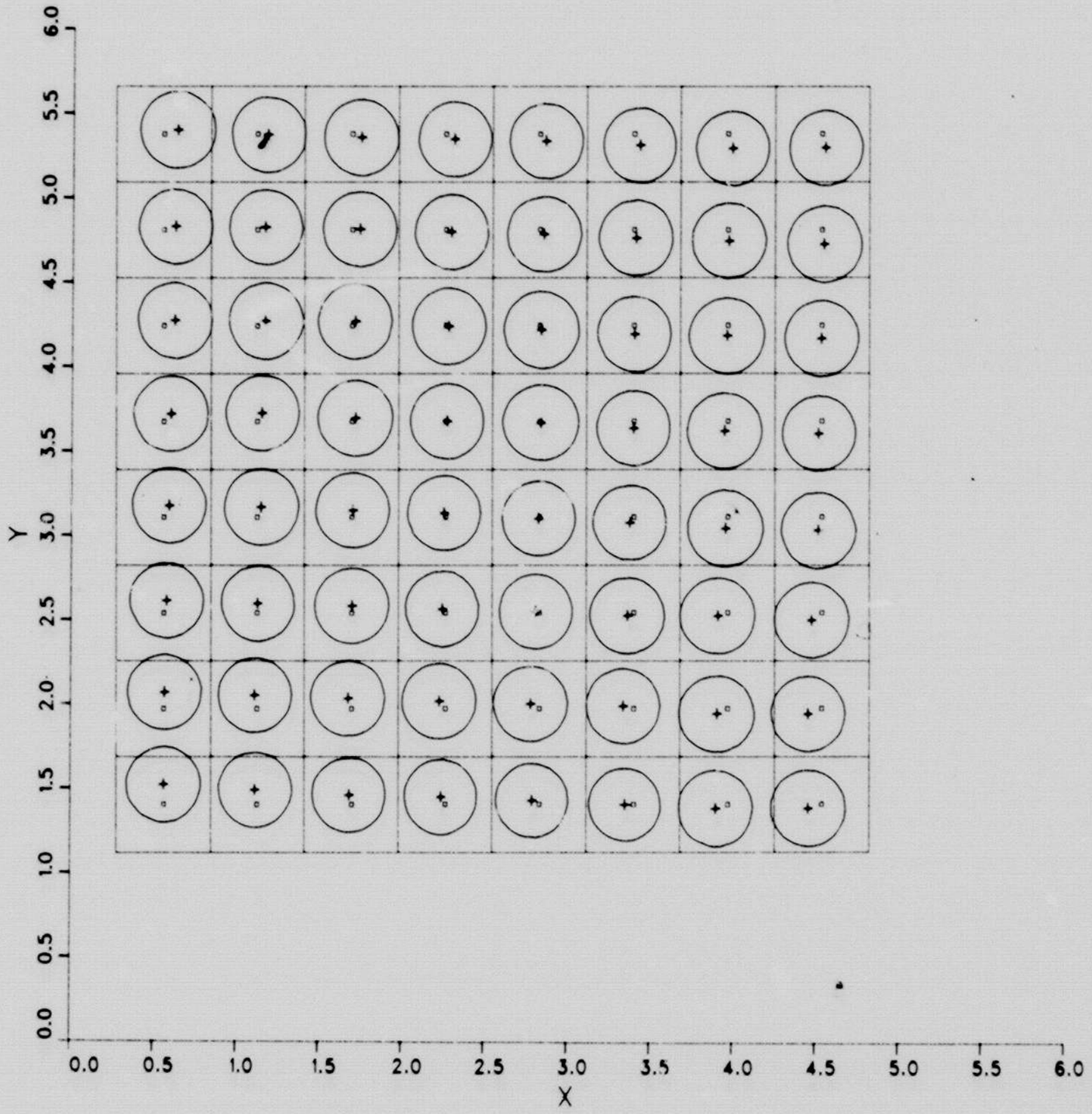


FIG. F-7. B-5 POSTTEST TUBE LOCATIONS AT 3.5CM

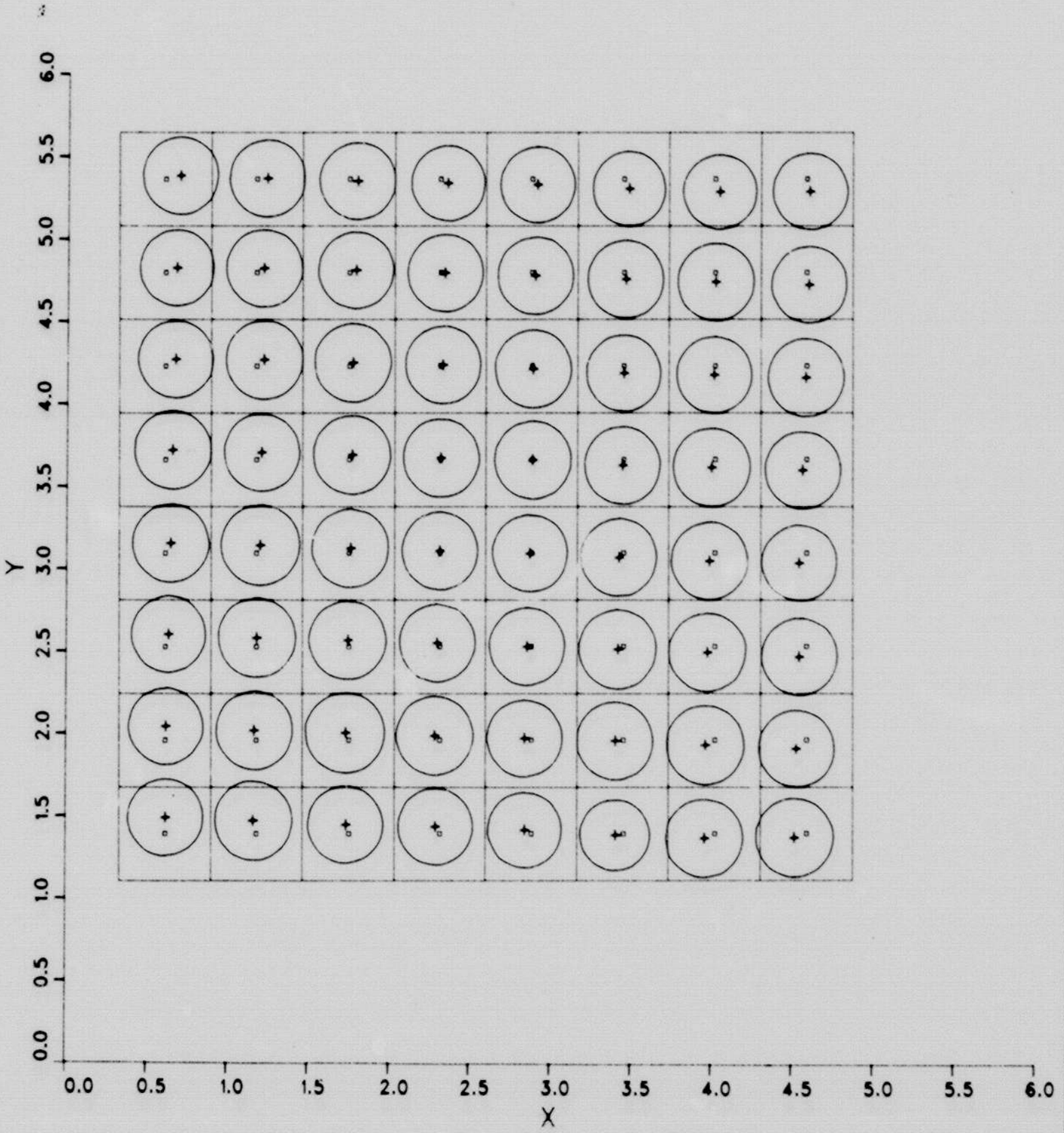


FIG. F-8. B-5 POSTTEST TUBE LOCATIONS AT 5.0CM

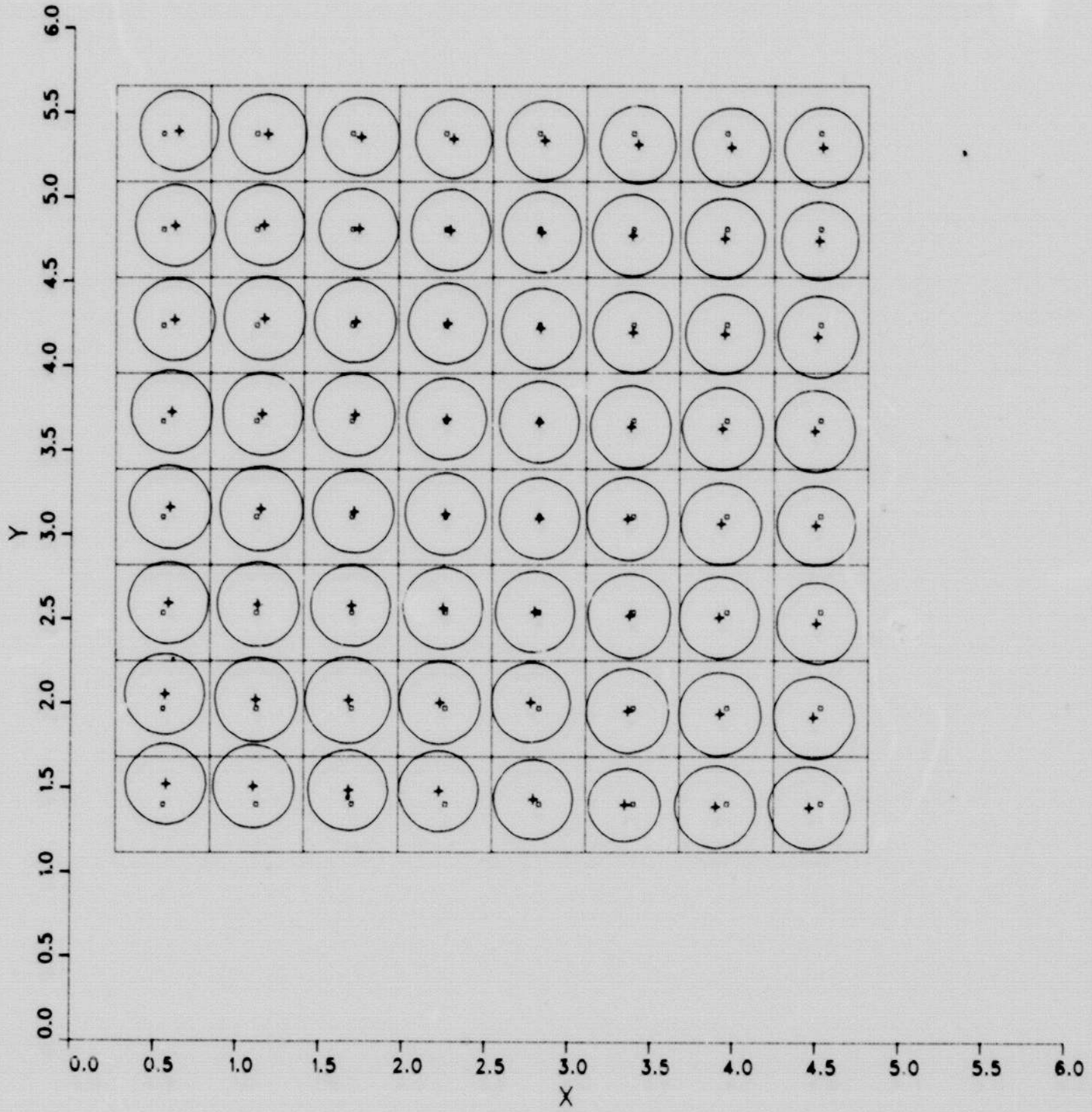


FIG. F-9. B-5 POSTTEST TUBE LOCATIONS AT 6.5CM

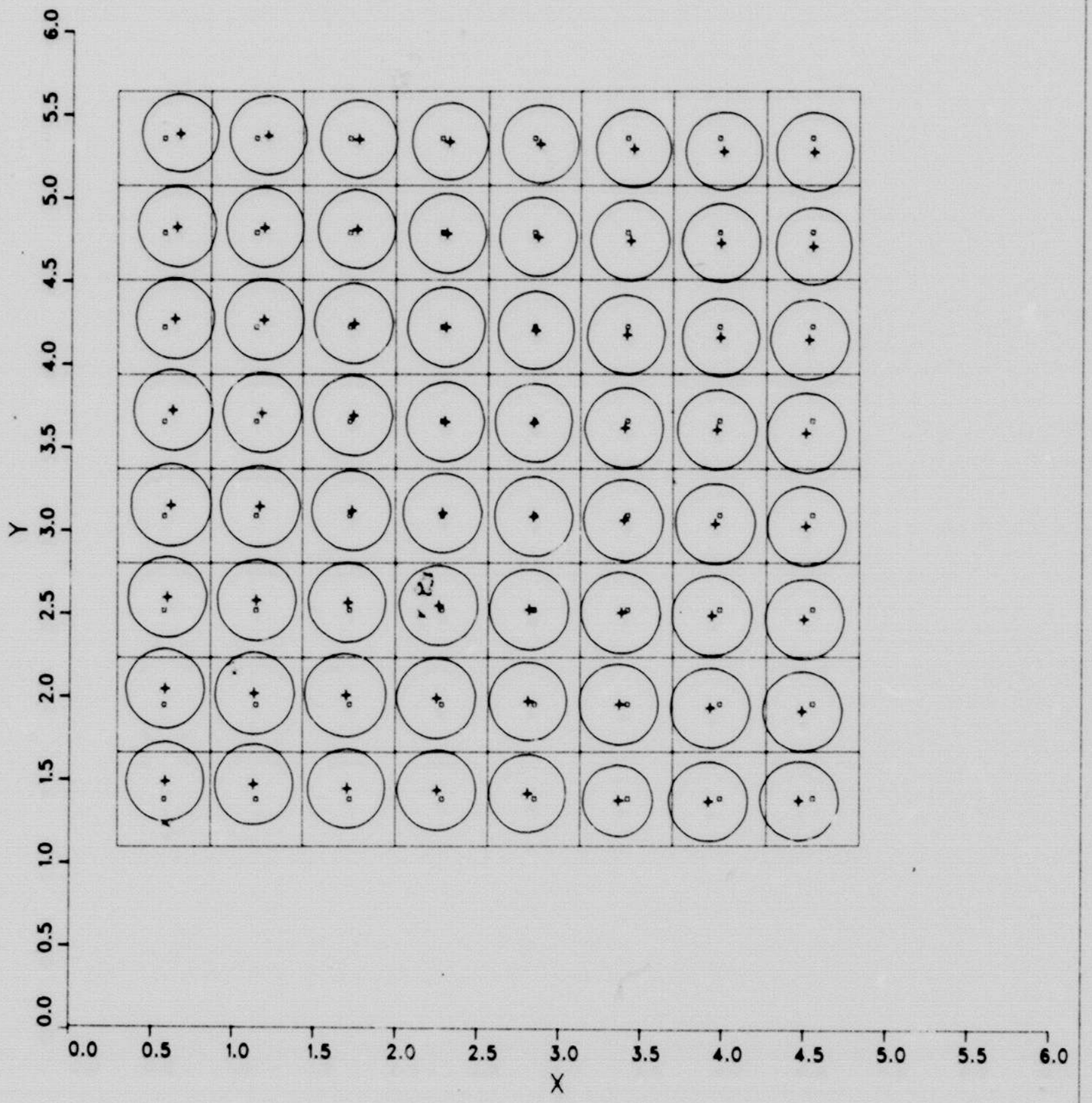


FIG. F-10. B-5 POSTTEST TUBE LOCATIONS AT 8.4CM

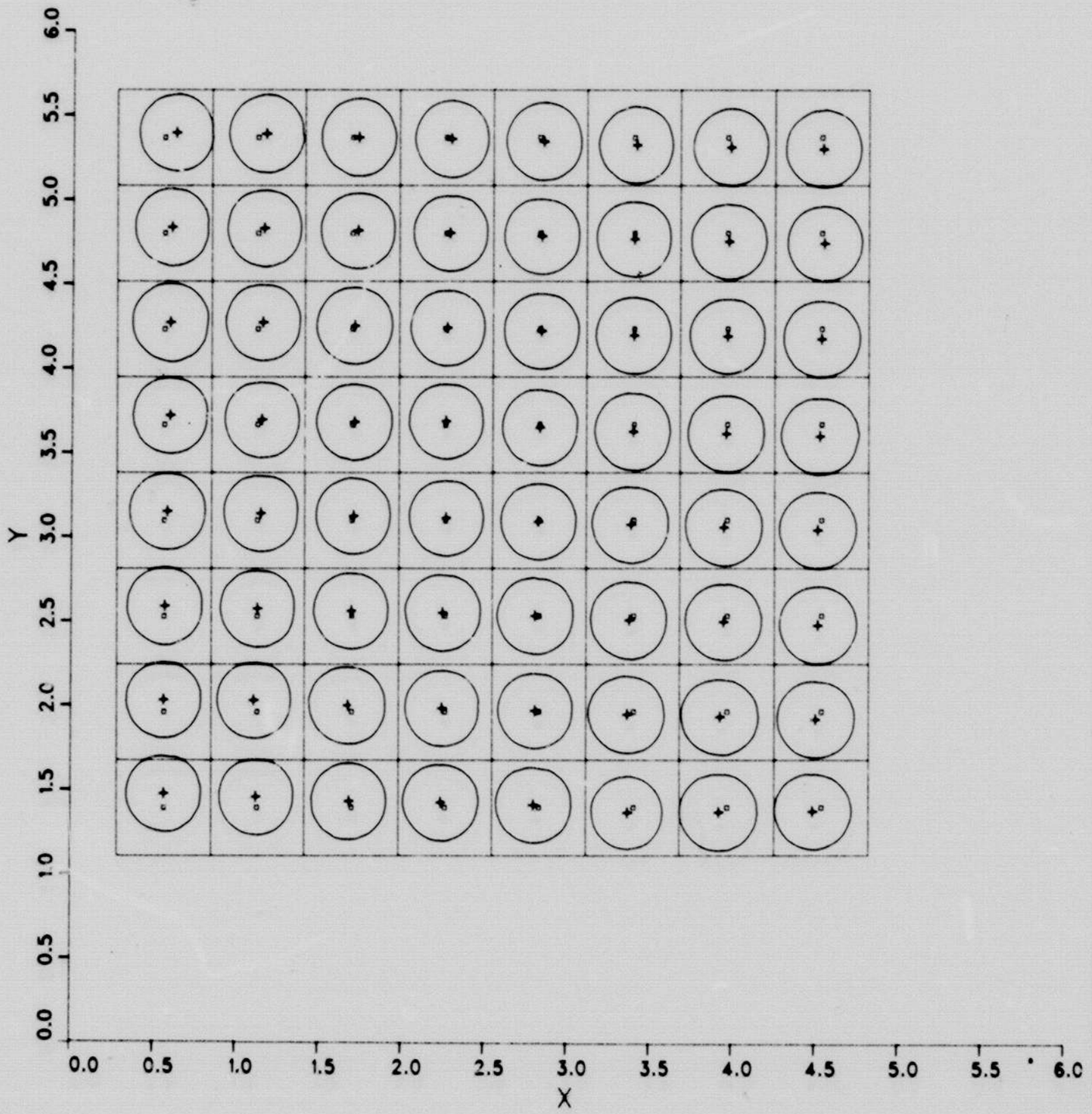


FIG. F-11. B-5 POSTTEST TUBE LOCATIONS AT 10.0CM

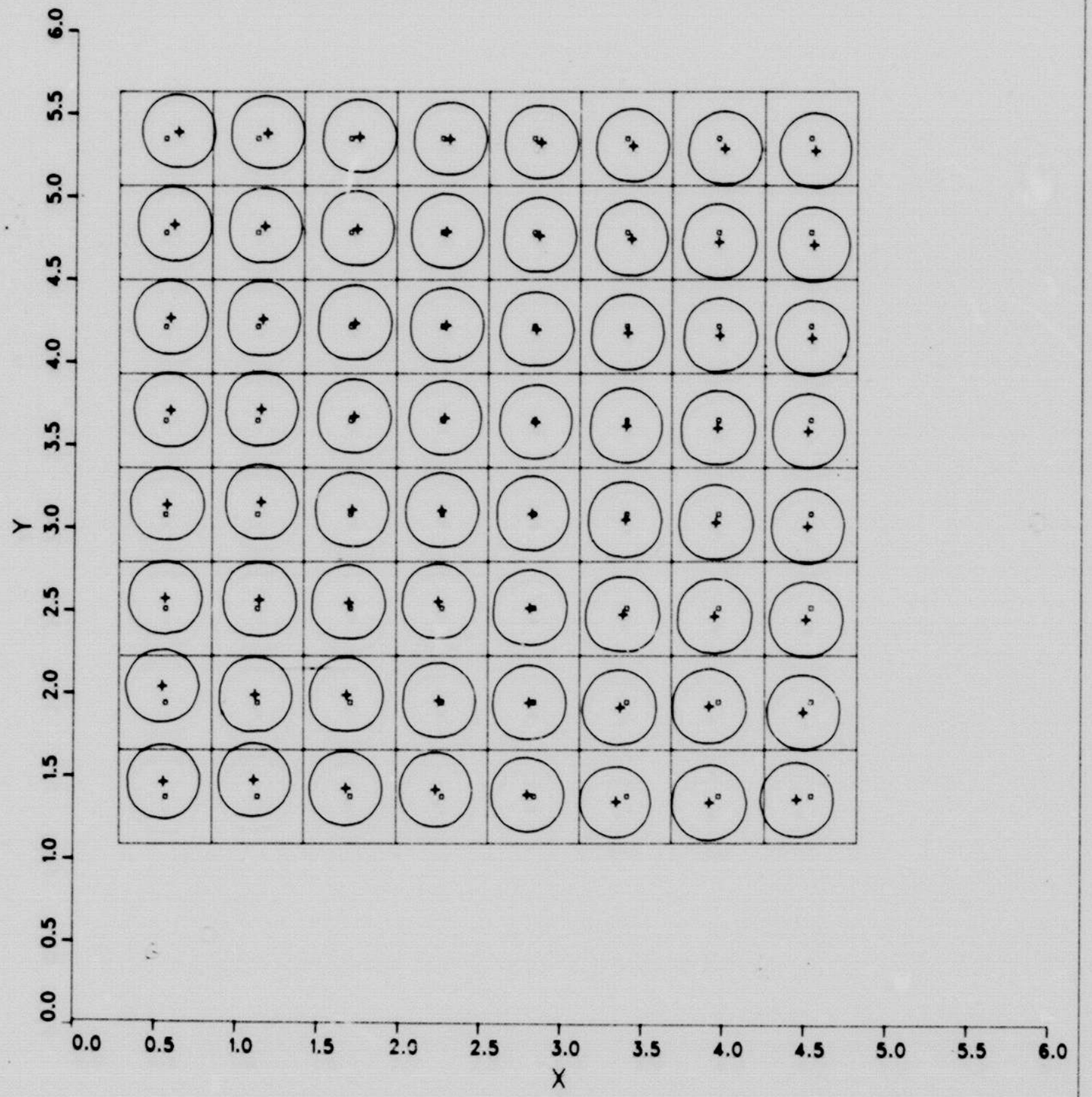


FIG. F-12. B-5 POSTTEST TUBE LOCATIONS AT 11.6CM

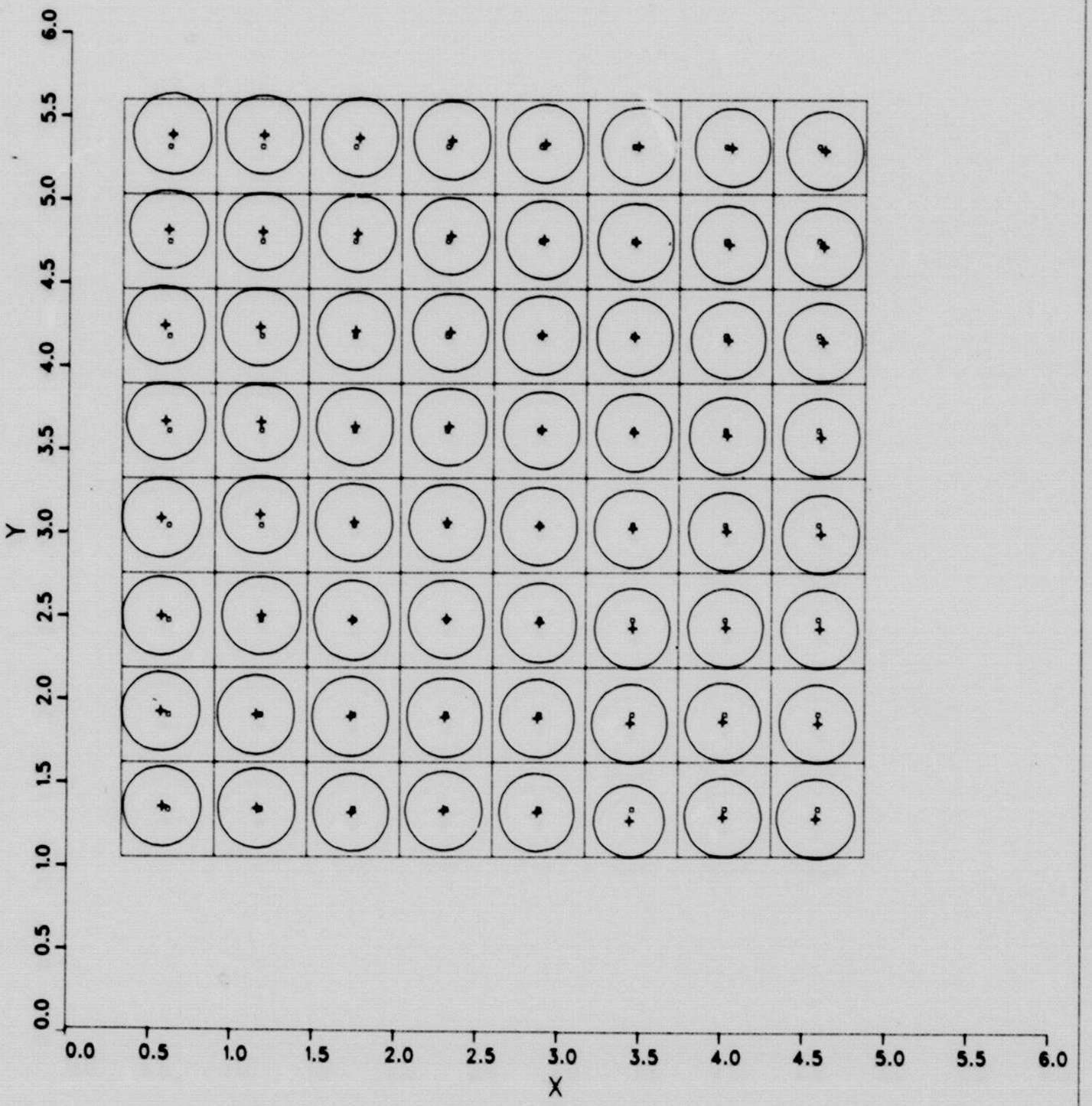


FIG. F-13. B-5 POSTTEST TUBE LOCATIONS AT 13.5CM

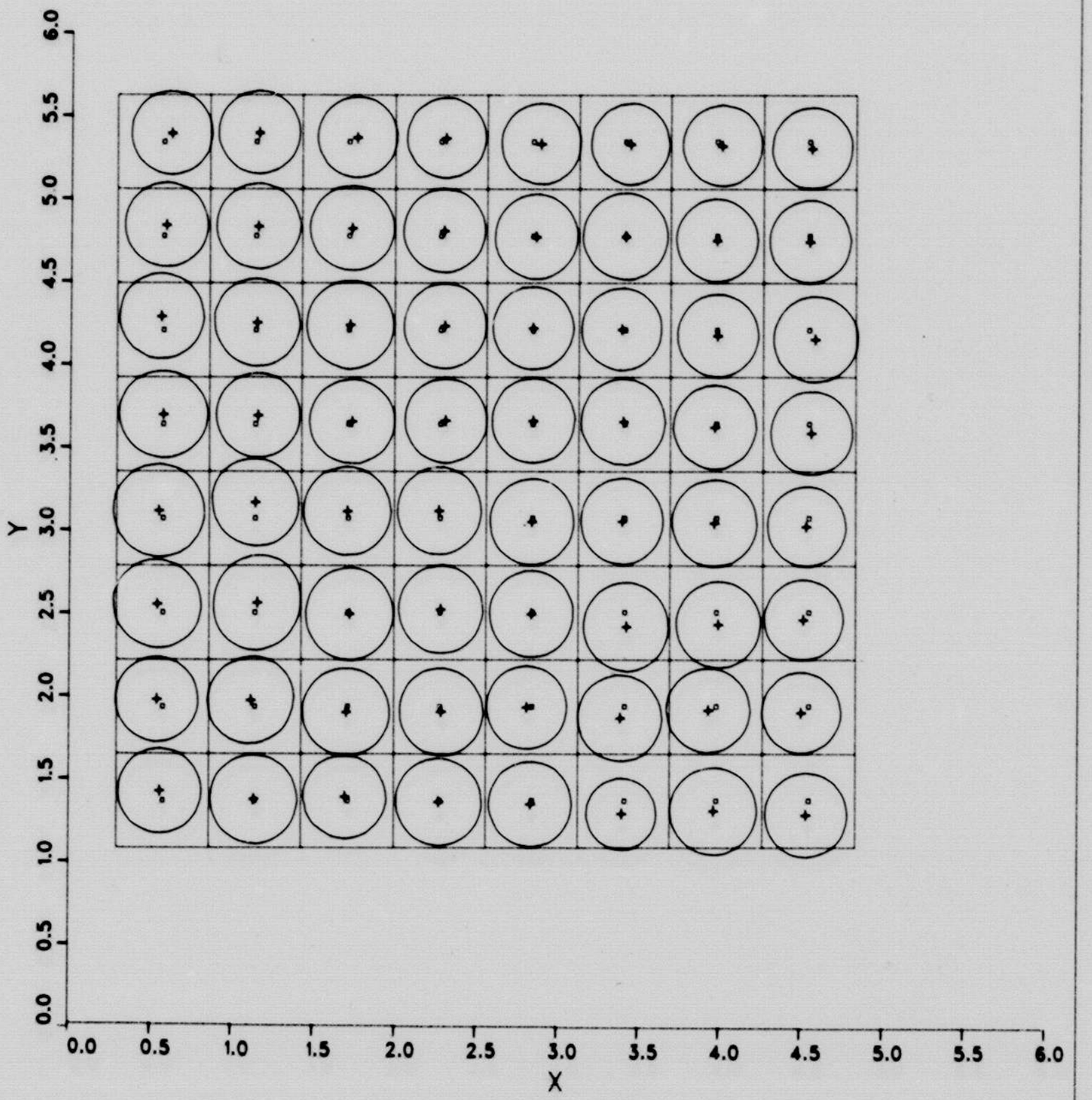


FIG. F-14. B-5 POSTTEST TUBE LOCATIONS AT 15.5CM

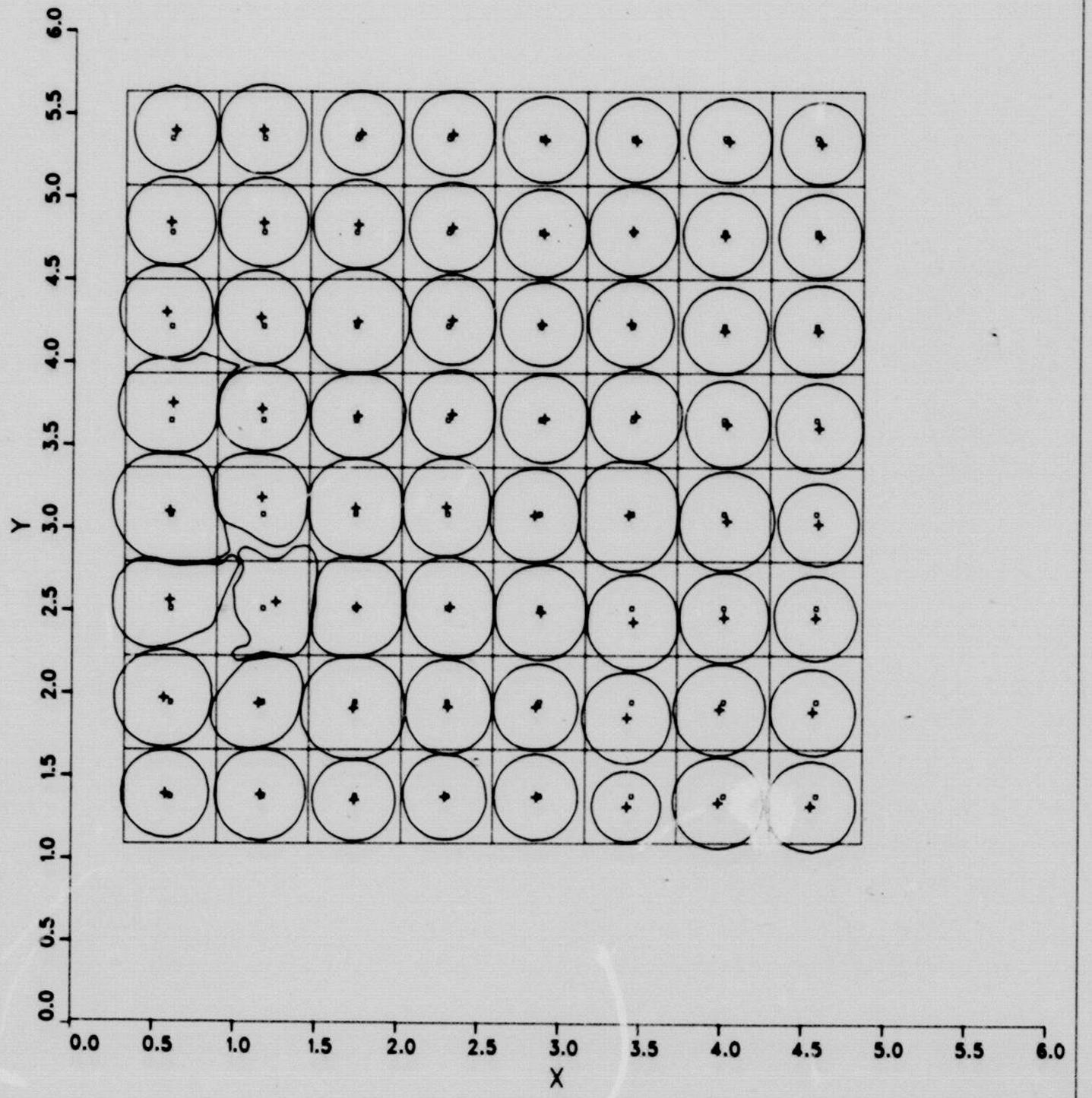


FIG. F-15. B-5 POSTTEST TUBE LOCATIONS AT 17.0CM

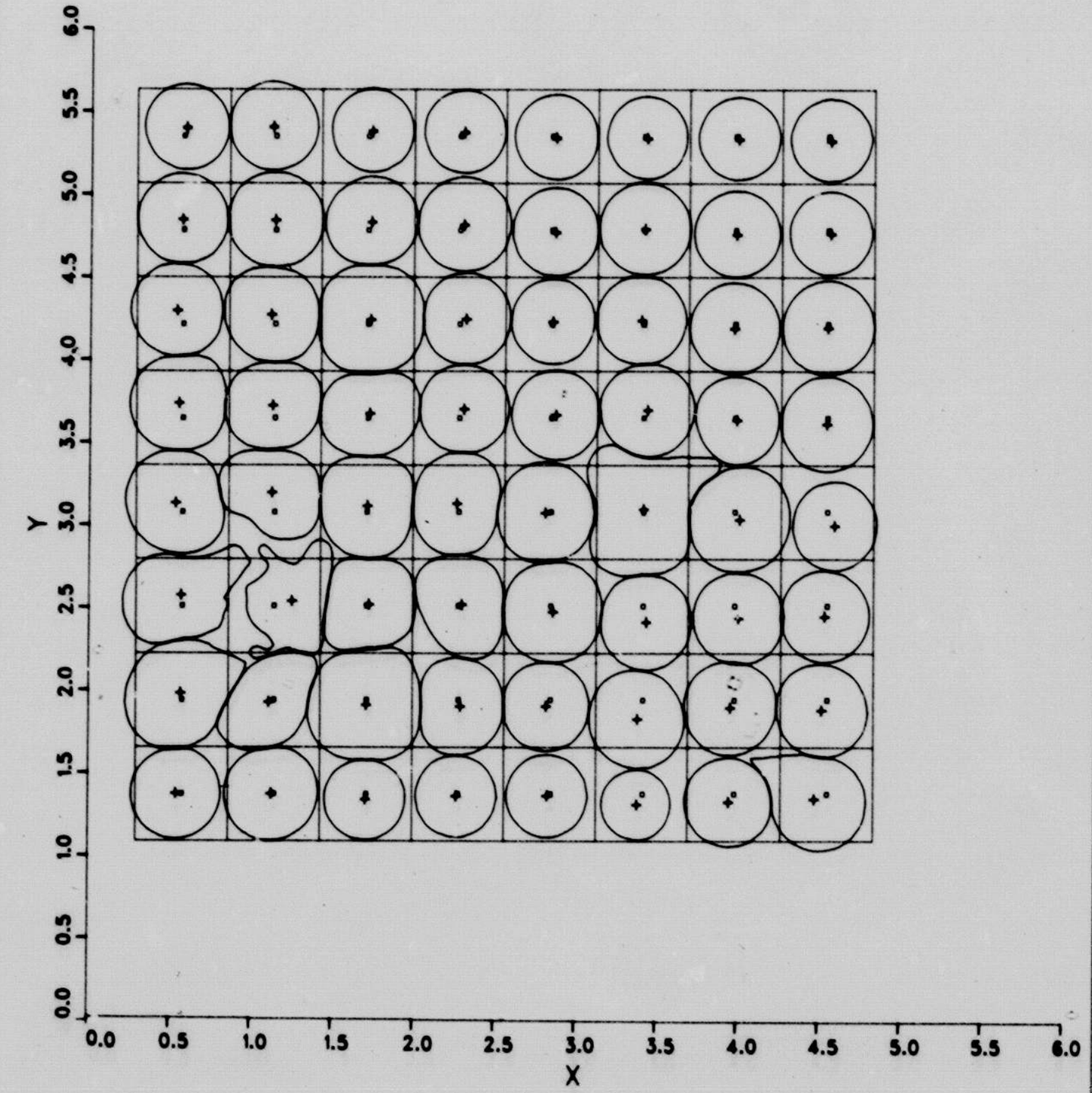


FIG. F-16. B-5 POSTTEST TUBE LOCATIONS AT 18.5CM

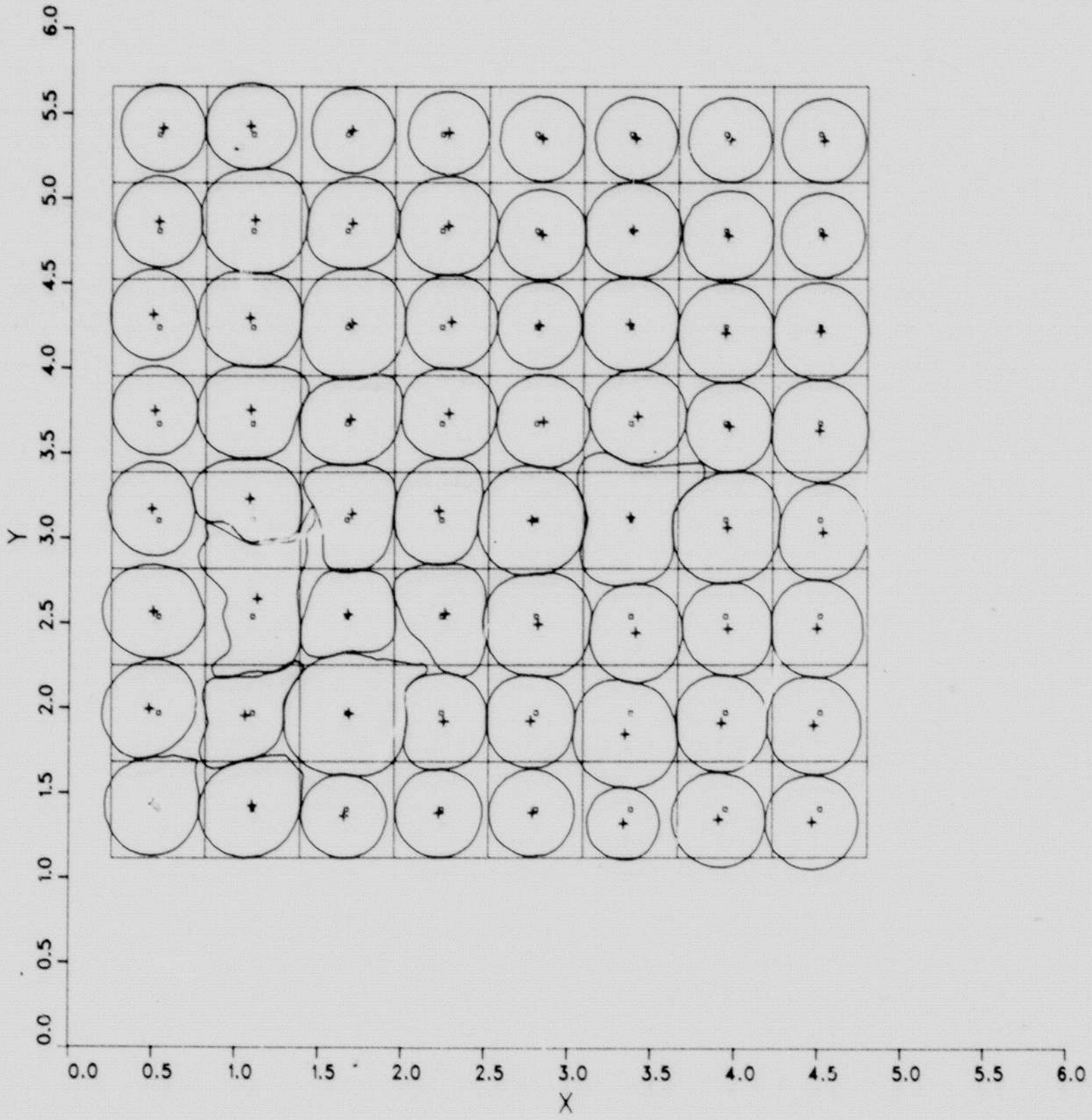


FIG. F-17. B-5 POSTTEST TUBE LOCATIONS AT 20.0CM

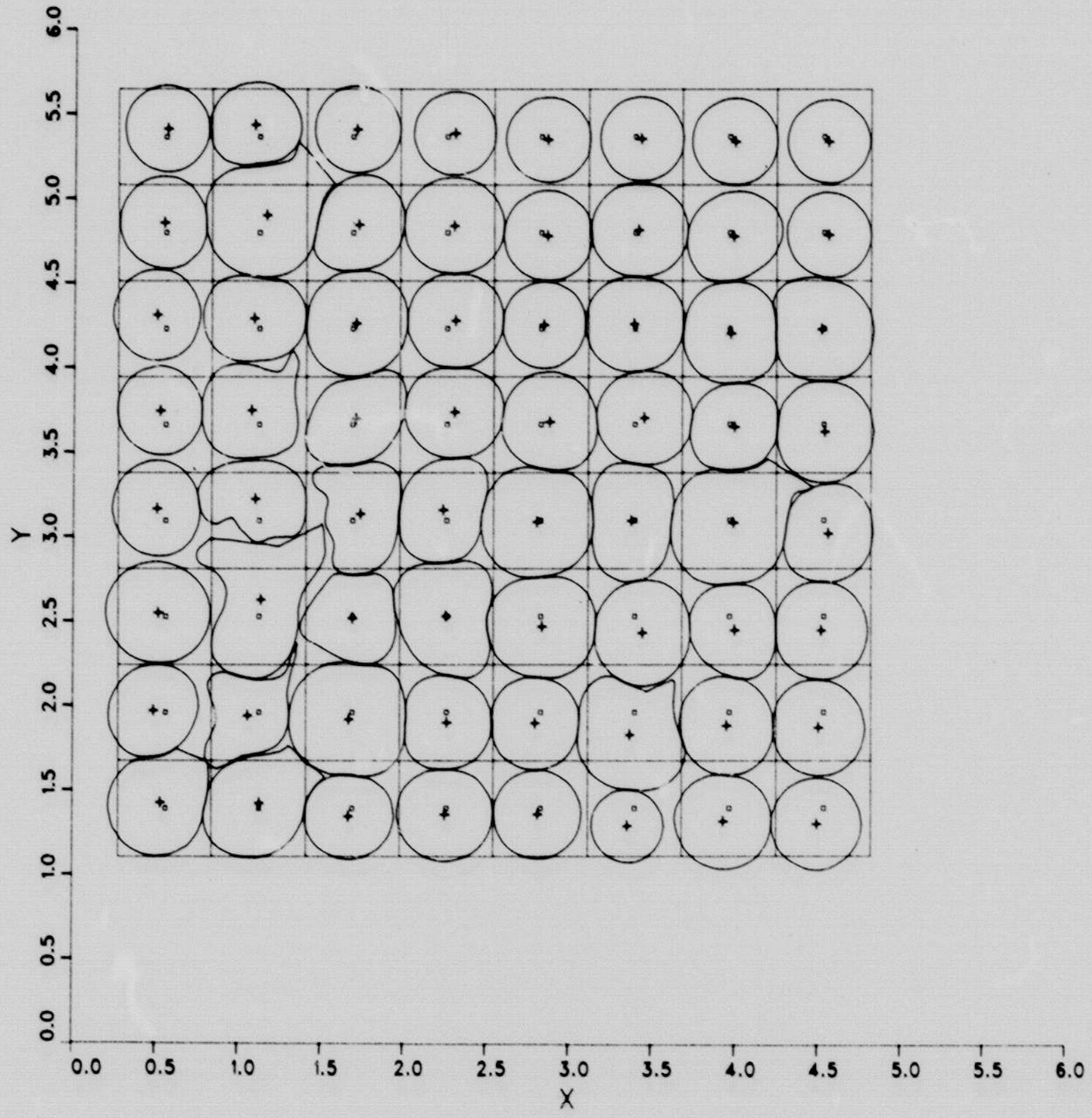


FIG. F-18. B-5 POSTTEST TUBE LOCATIONS AT 21.5CM

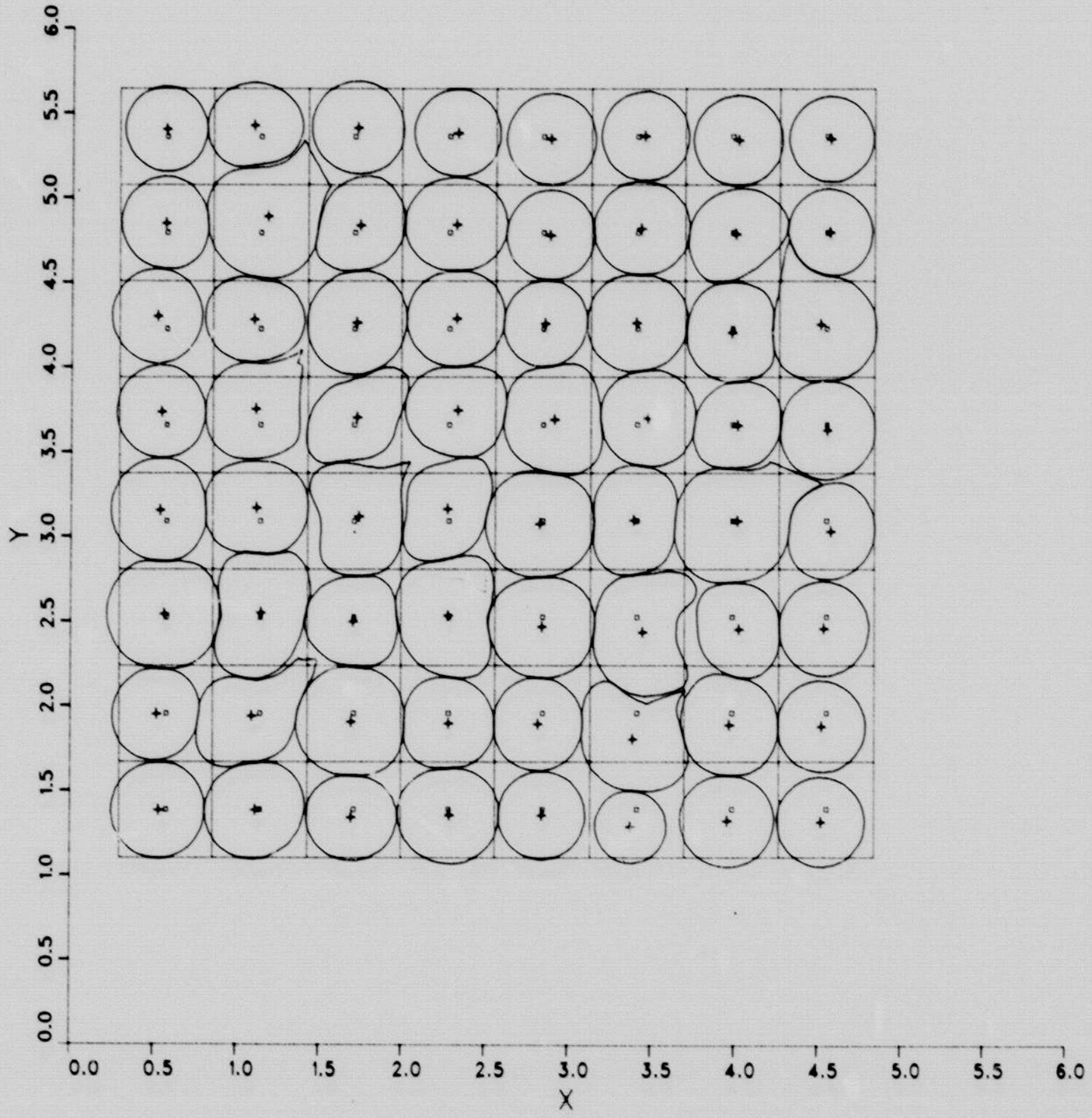


FIG. F-19. B-5 POSTTEST TUBE LOCATIONS AT 23.0CM

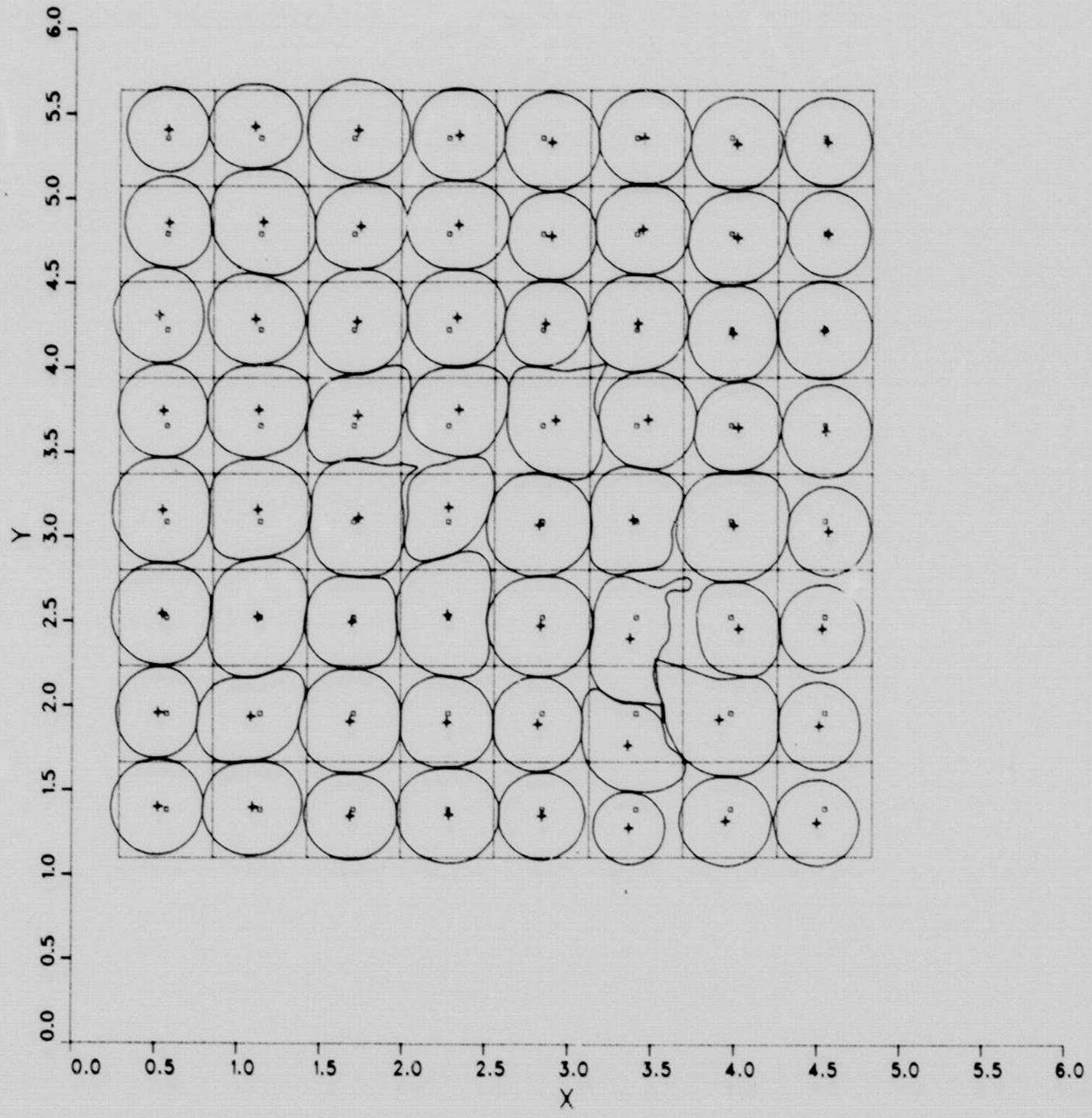


FIG. F-20. B-5 POSTTEST TUBE LOCATIONS AT 24.7CM

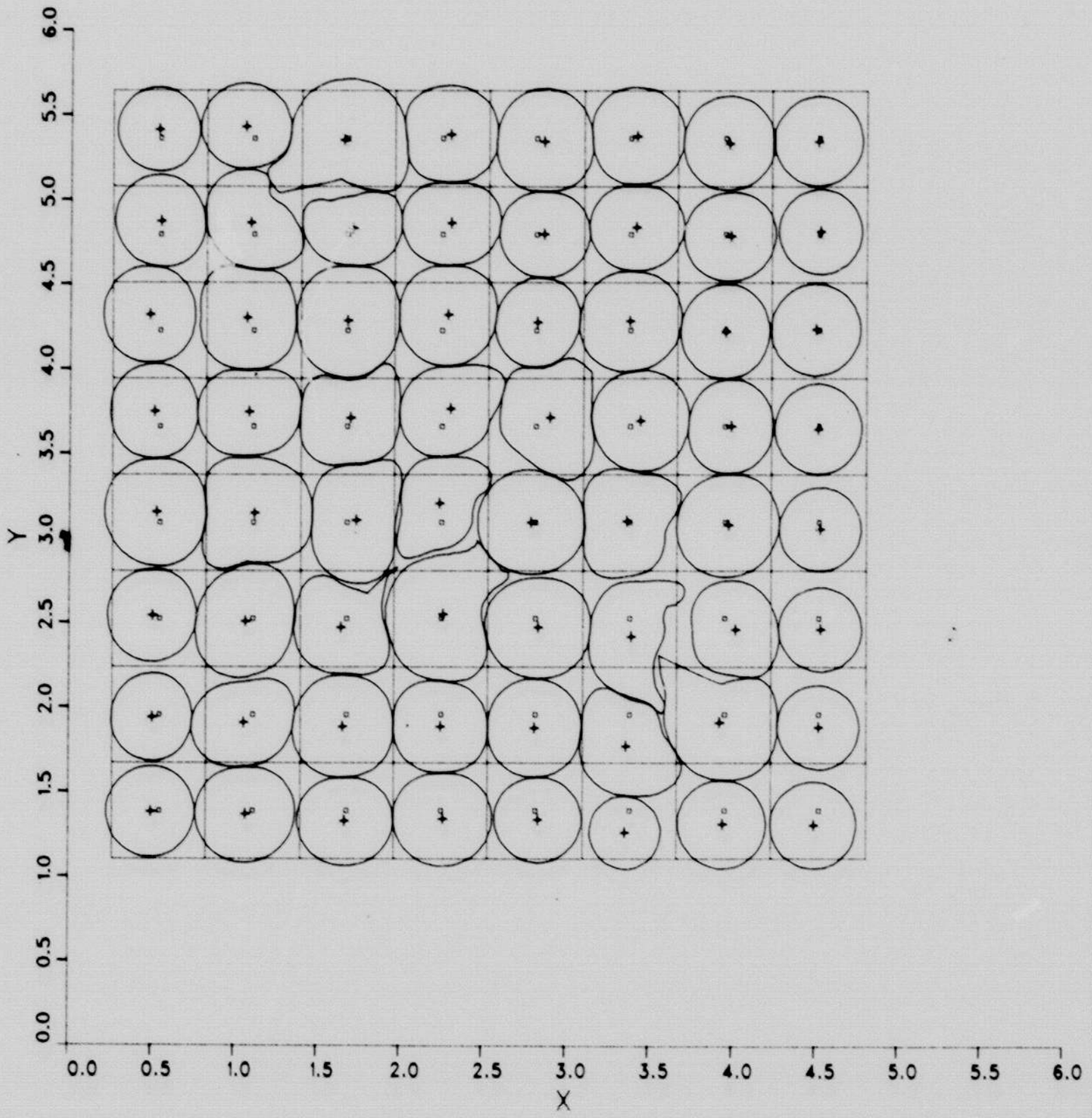


FIG. F-21. B-5 POSTTEST TUBE LOCATIONS AT 26.4CM

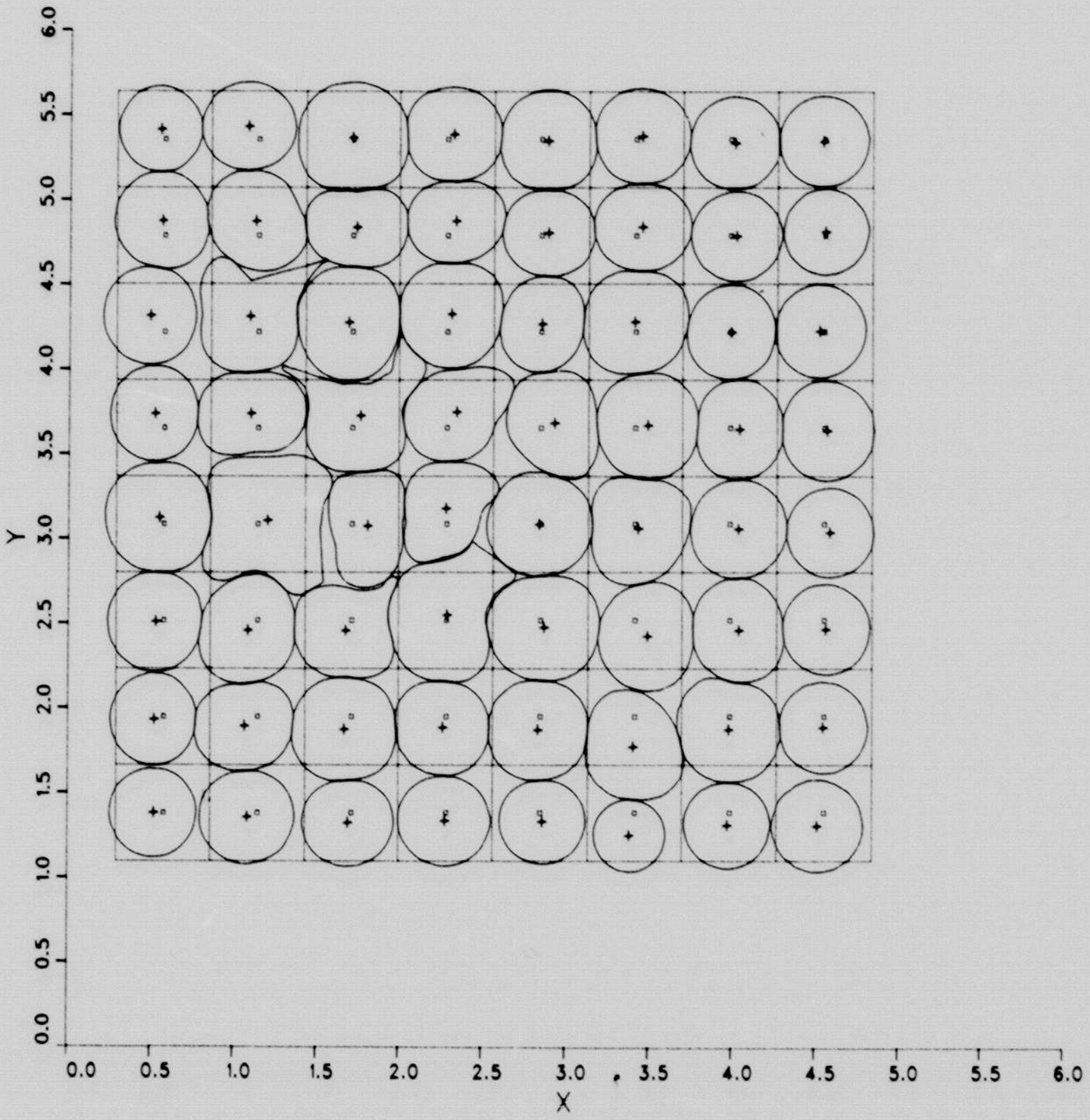


FIG. F-22. B-5 POSTTEST TUBE LOCATIONS AT 28.0CM

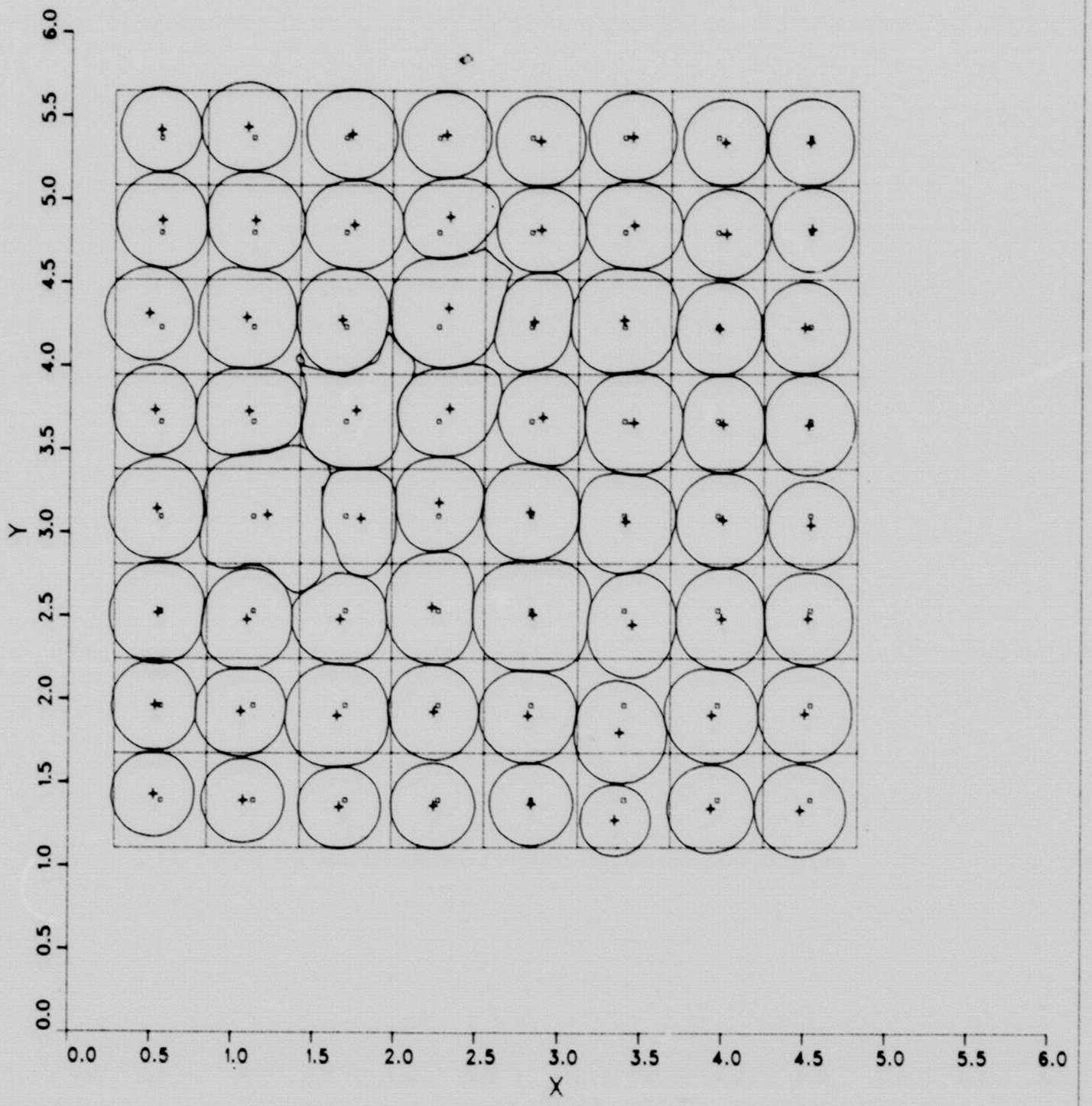


FIG. F-23. B-5 POSTTEST TUBE LOCATIONS AT 29.5CM

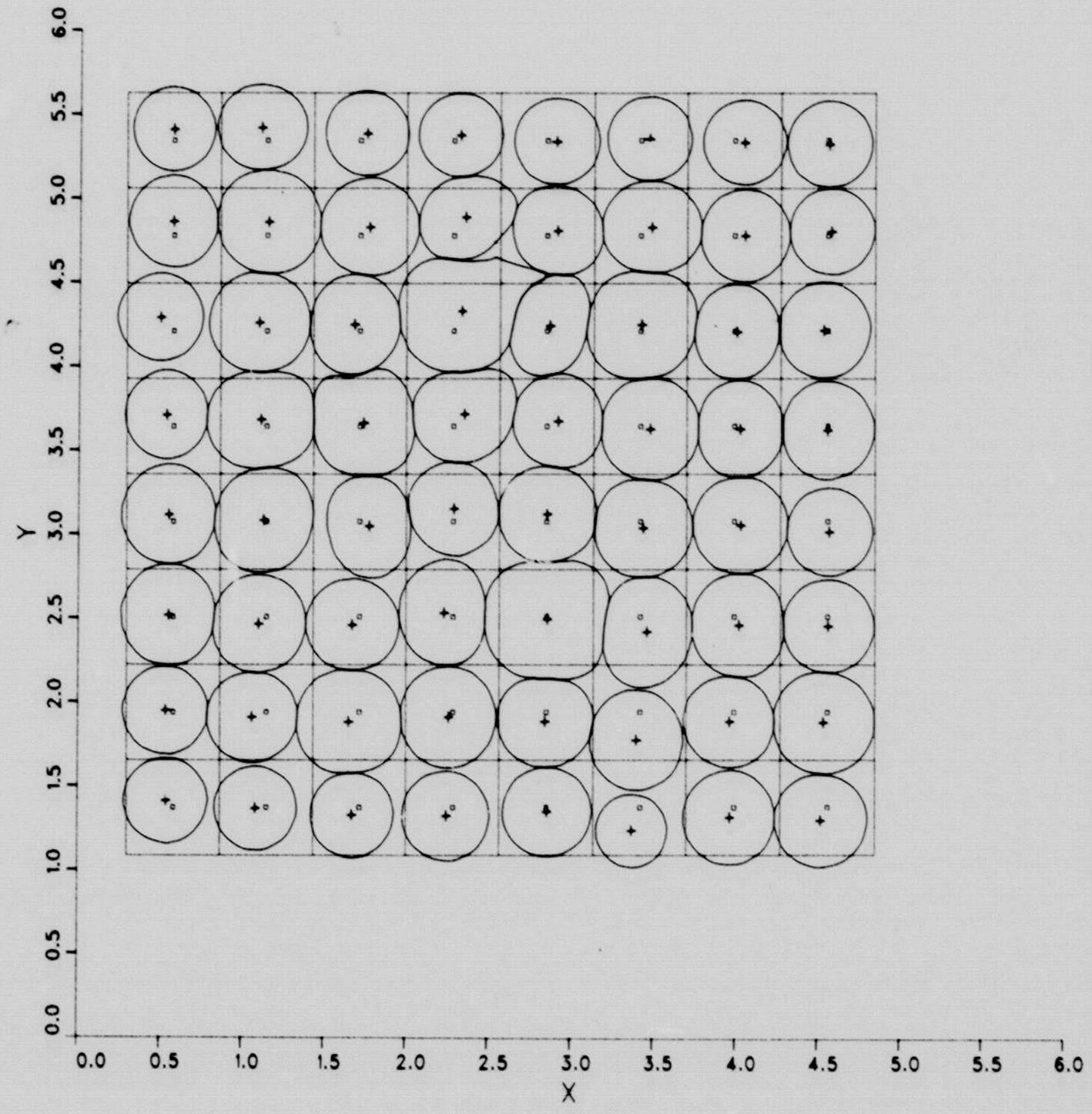


FIG. F-24. B-5 POSTTEST TUBE LOCATIONS AT 31.5CM

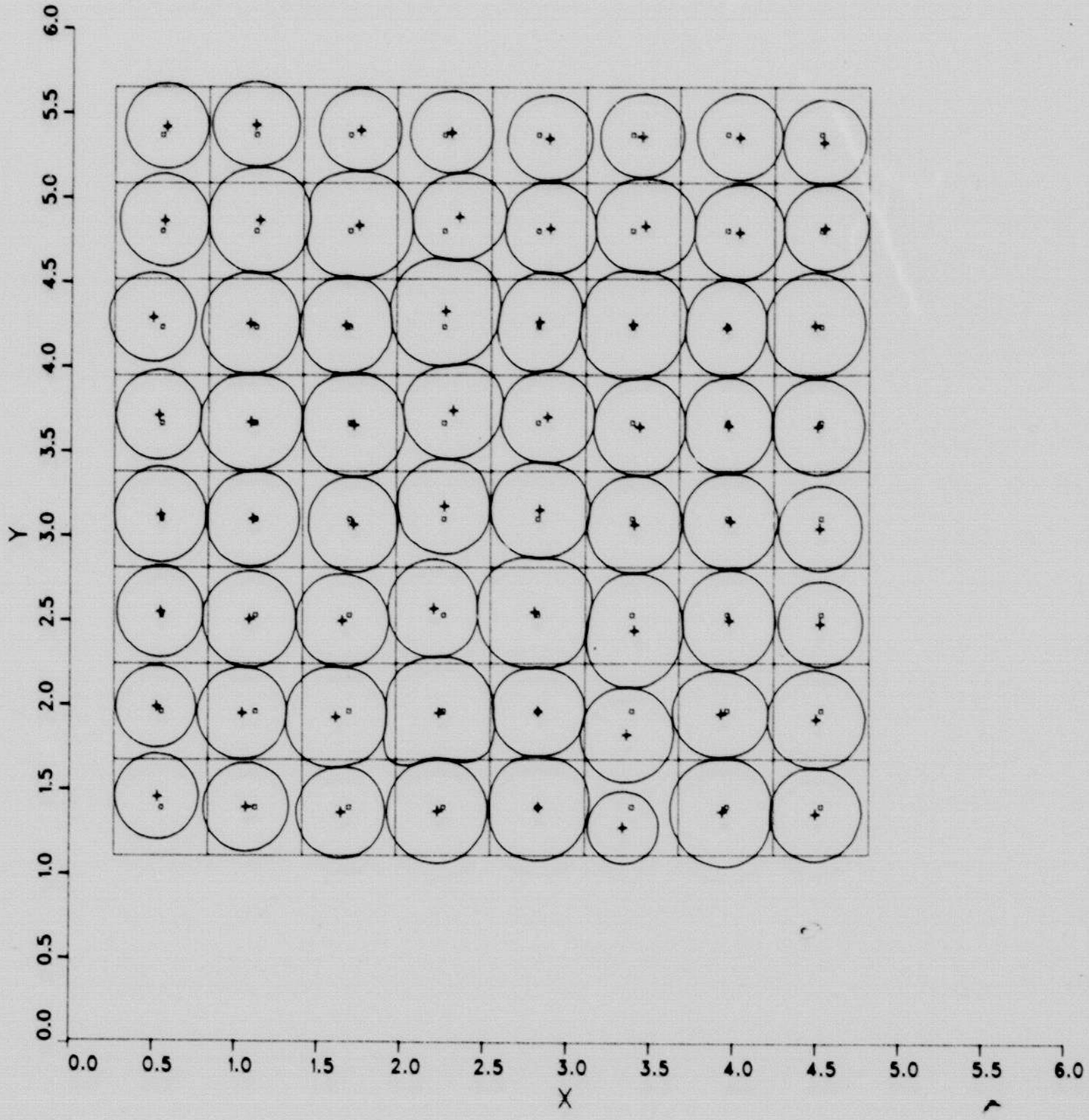


FIG. F-25. B-5 POSTTEST TUBE LOCATIONS AT 33.5CM

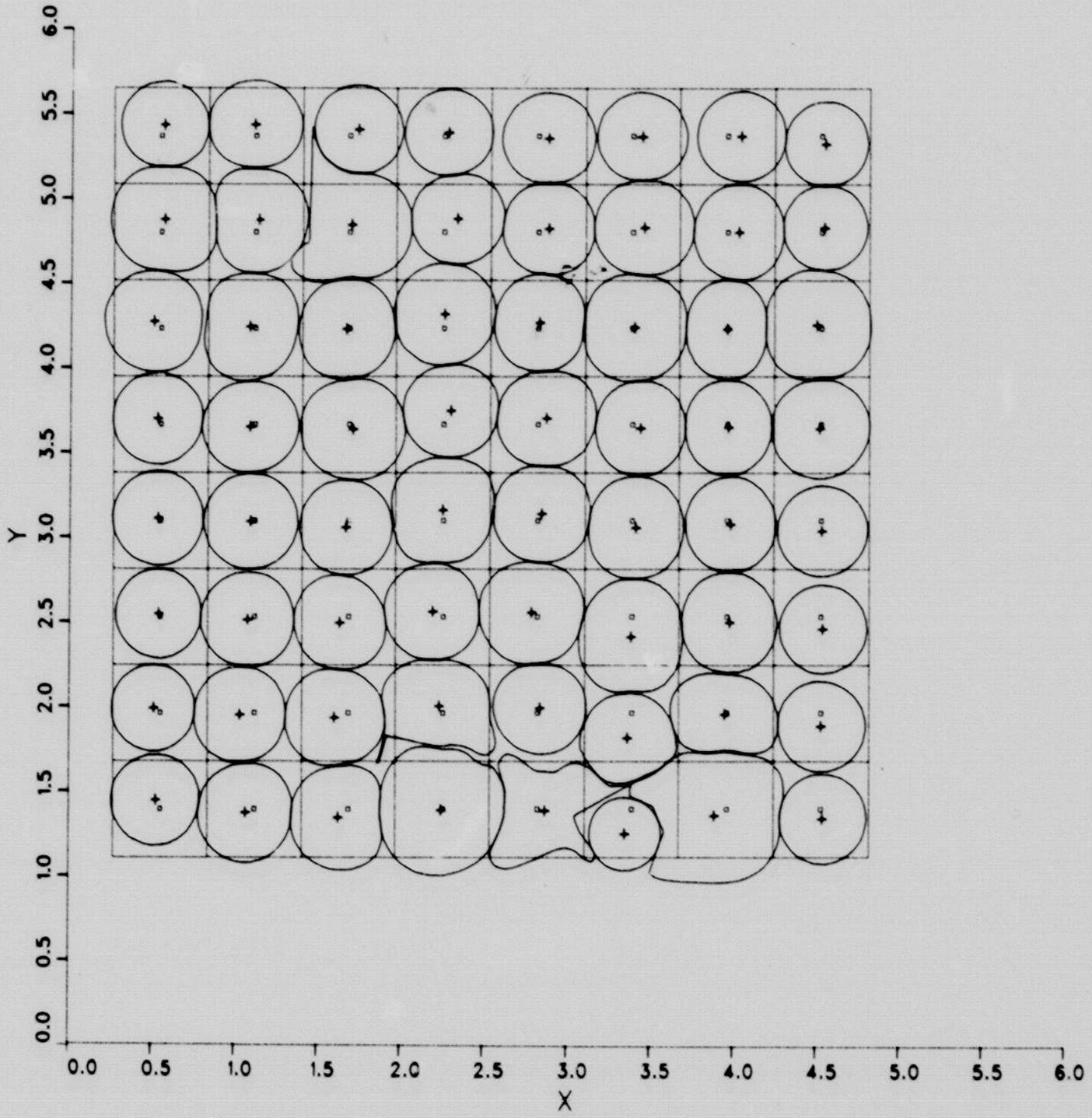


FIG. F-26. B-5 POSTTEST TUBE LOCATIONS AT 35.5CM

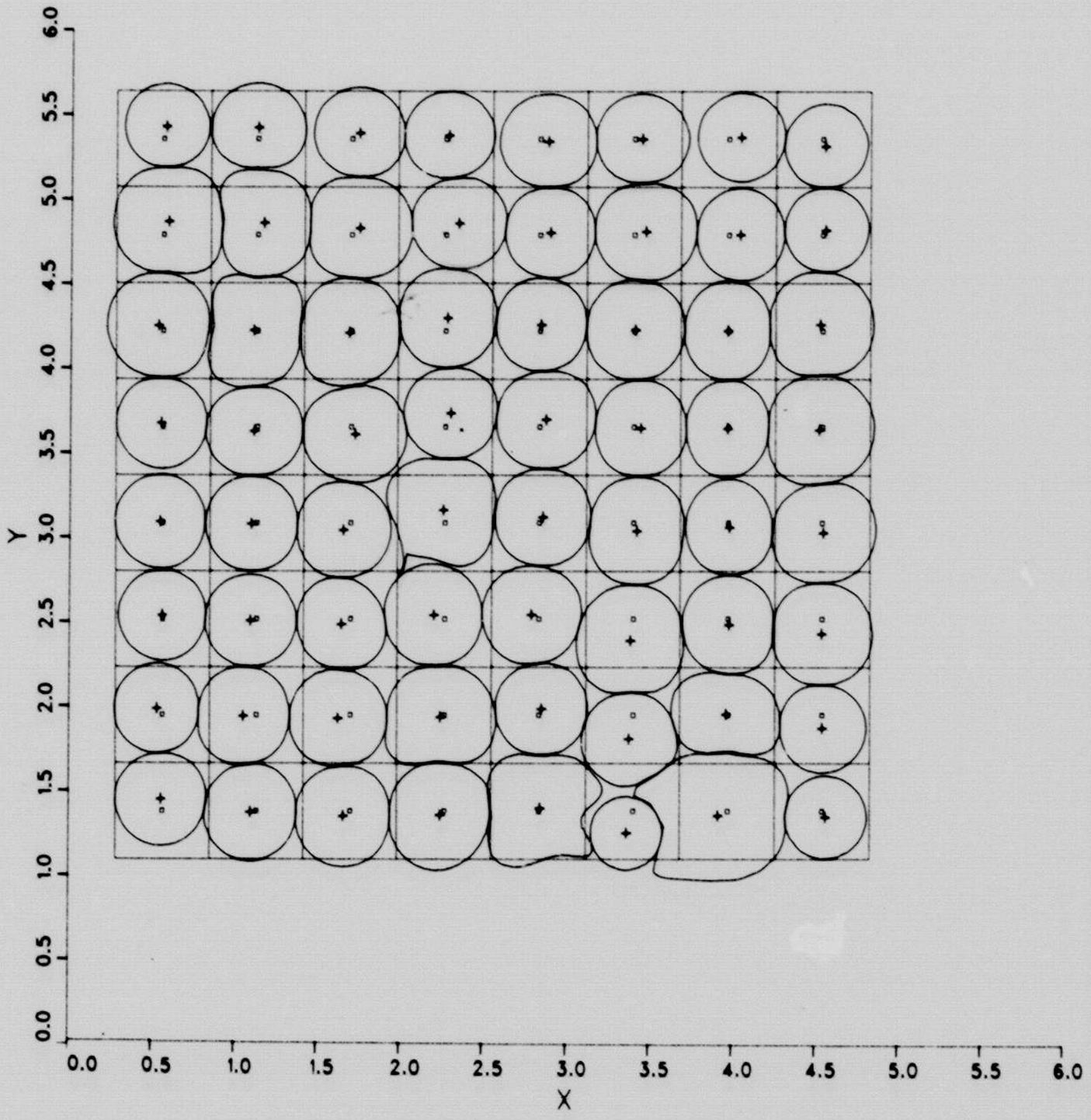


FIG. F-27. B-5 POSTTEST TUBE LOCATIONS AT 37.1CM

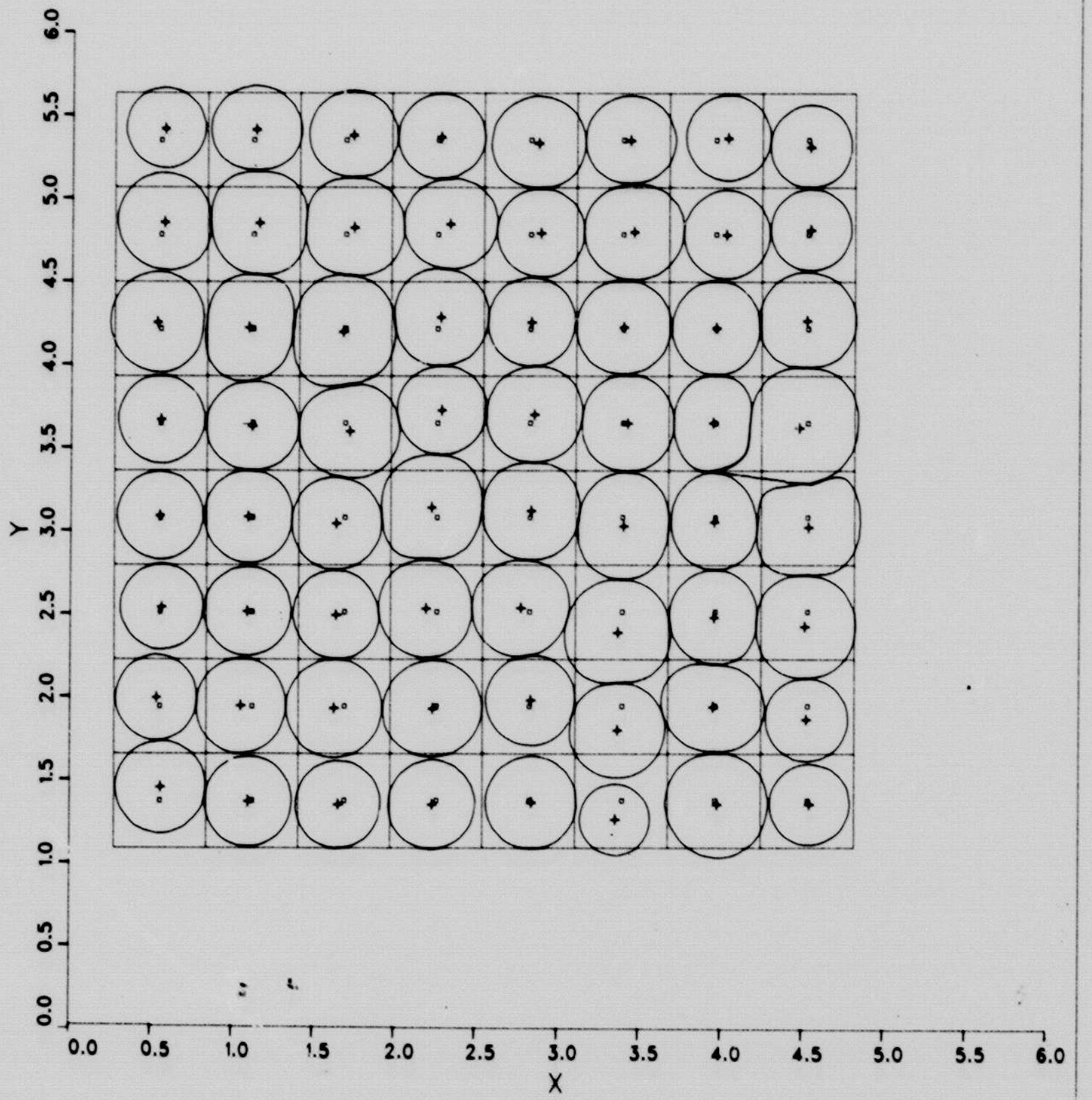


FIG. F-28. B-5 POSTTEST TUBE LOCATIONS AT 39.0CM

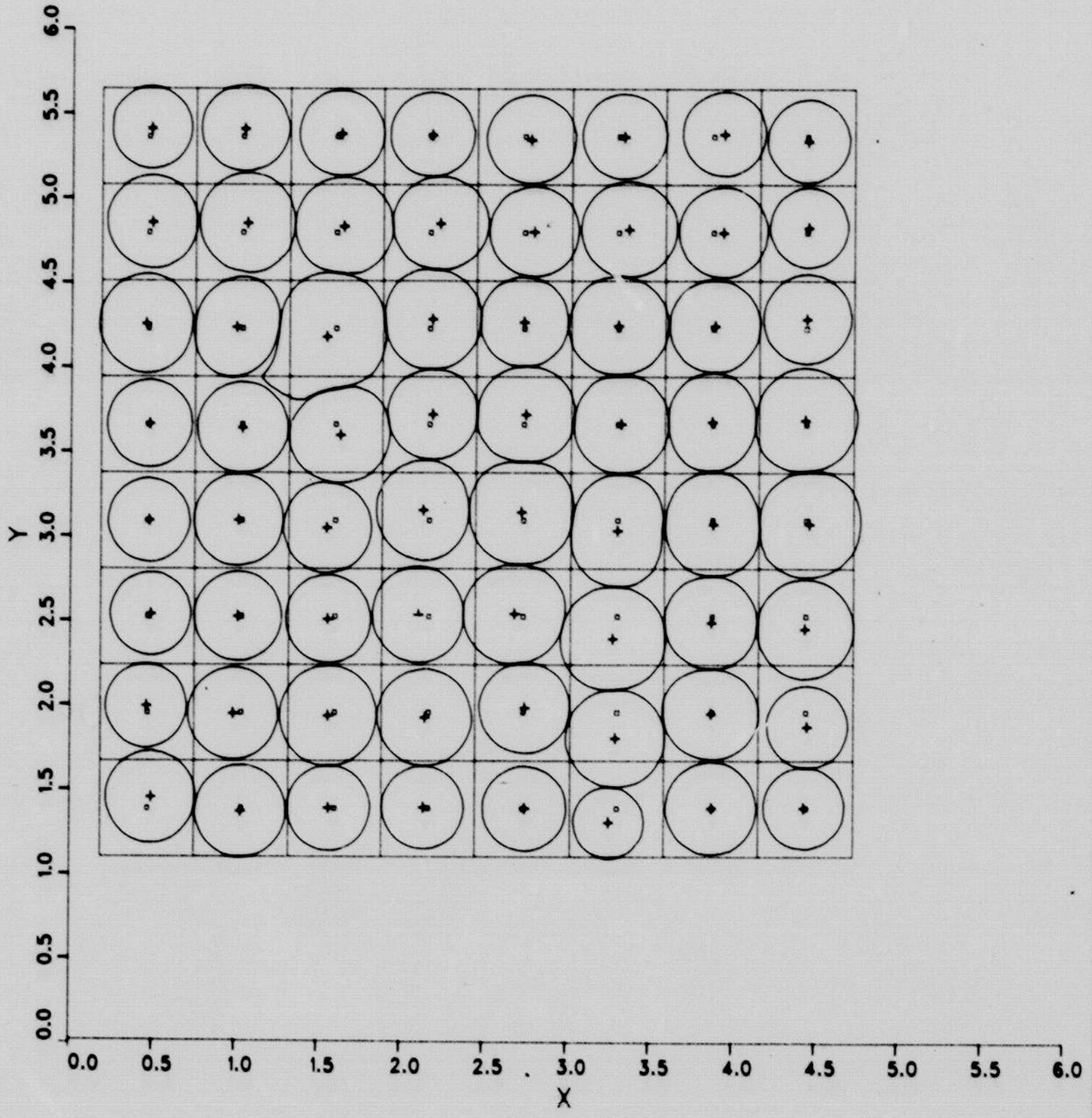


FIG. F-29. B-5 POSTTEST TUBE LOCATIONS AT 40.8CM

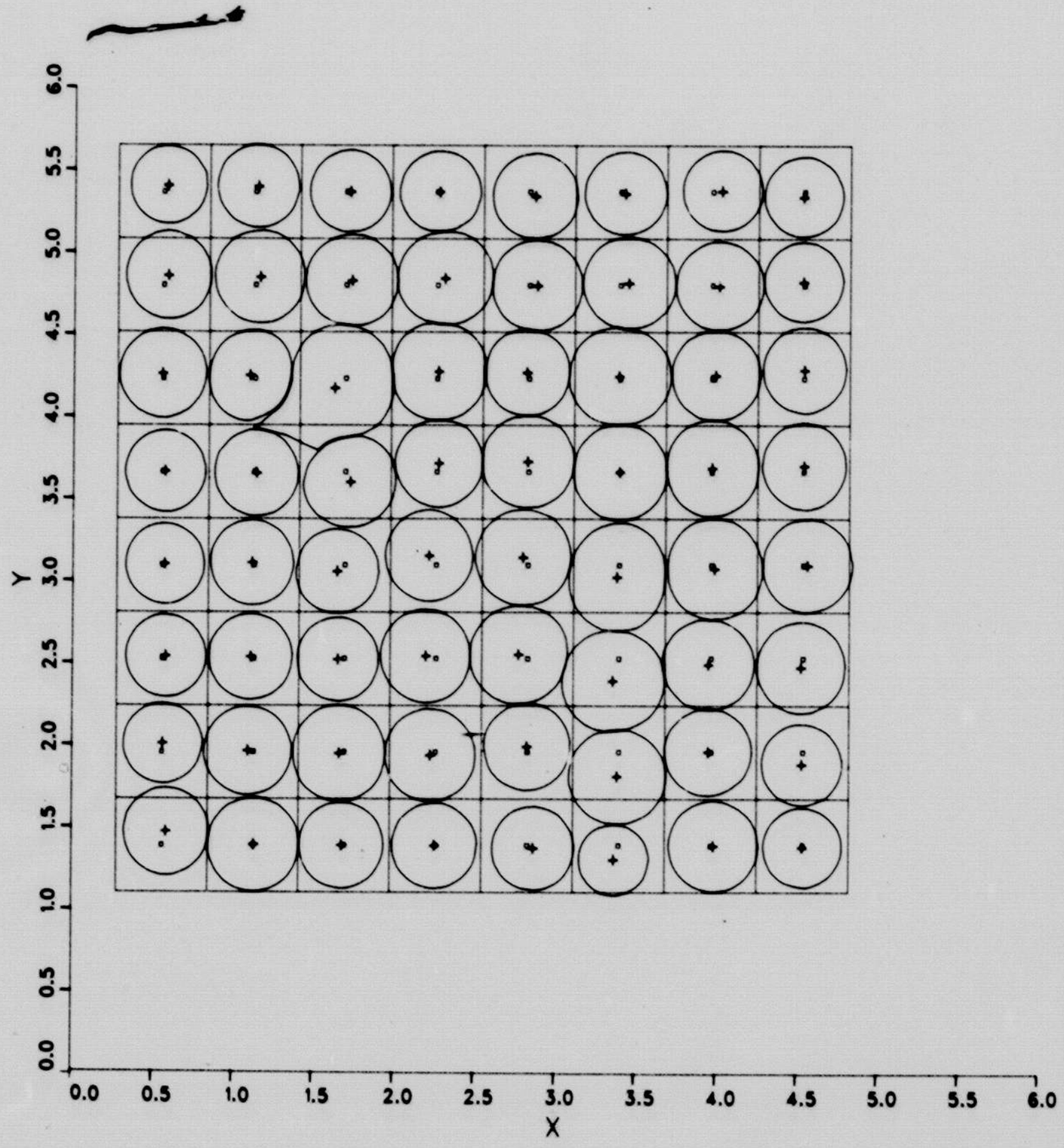


FIG. F-30. B-5 POSTTEST TUBE LOCATIONS AT 42.6CM

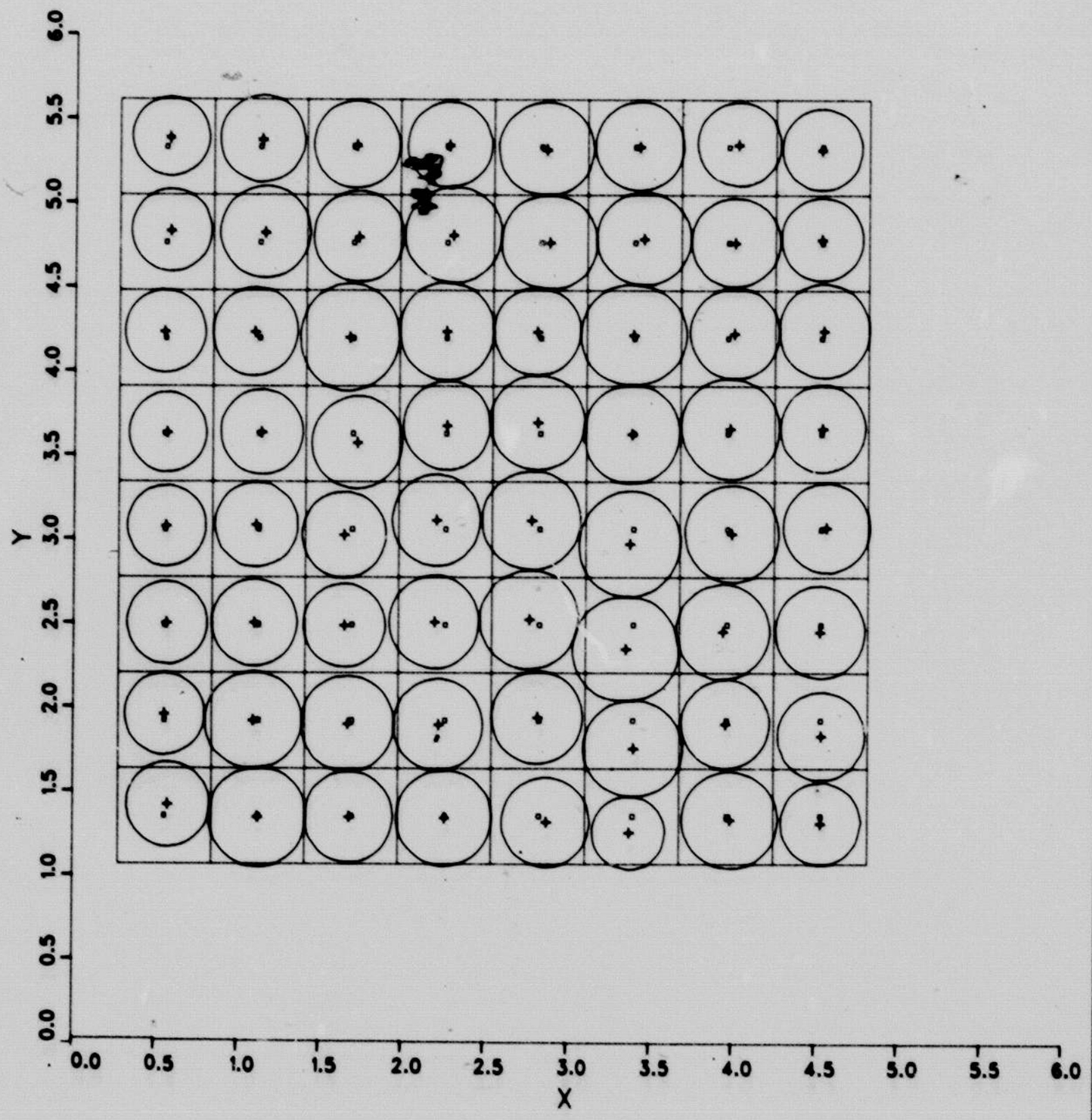


FIG. F-31. B-5 POSTTEST TUBE LOCATIONS AT 44.4CM

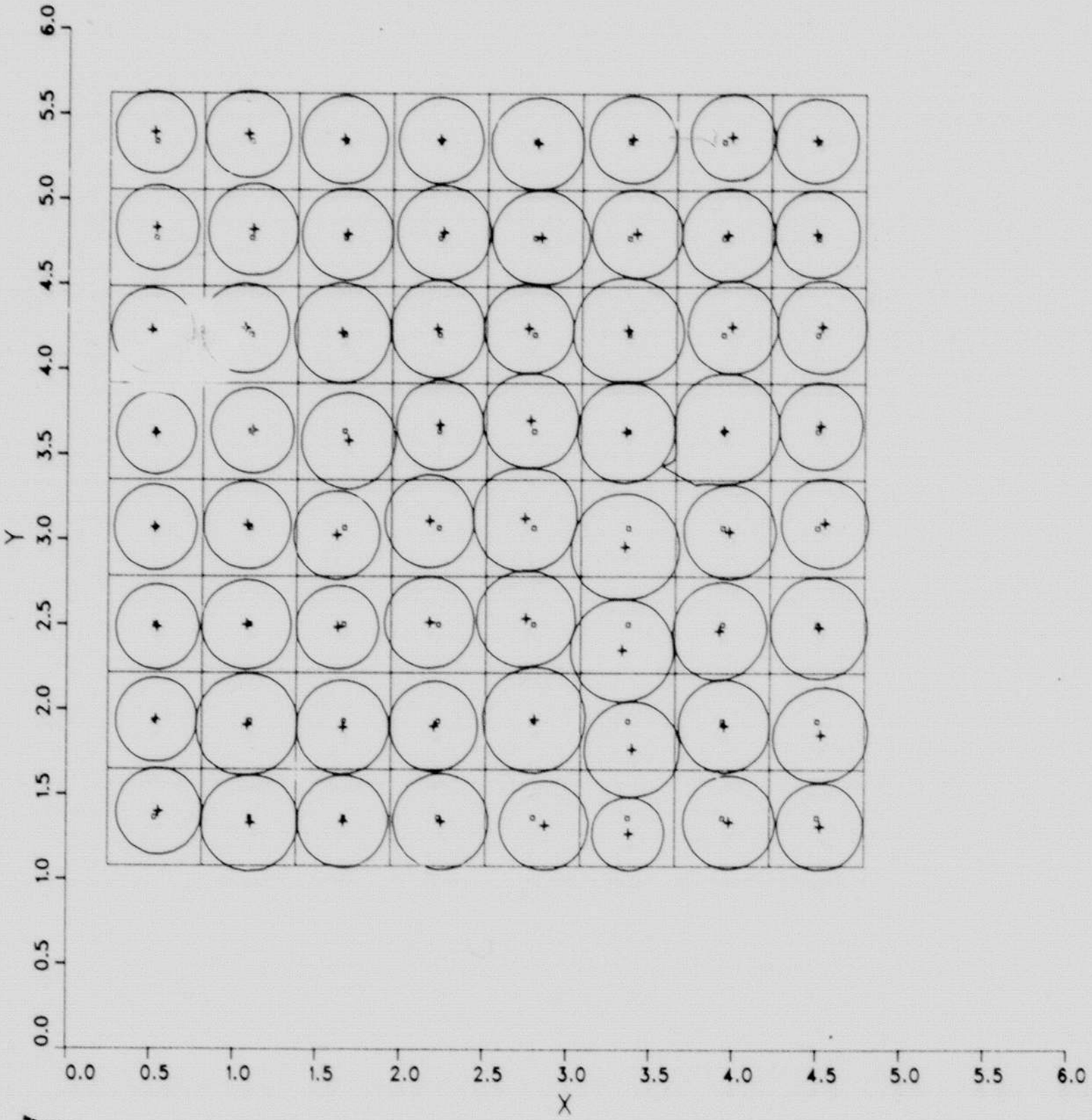


FIG. F-32. B-5 POSTTEST TUBE LOCATIONS AT 46.4CM

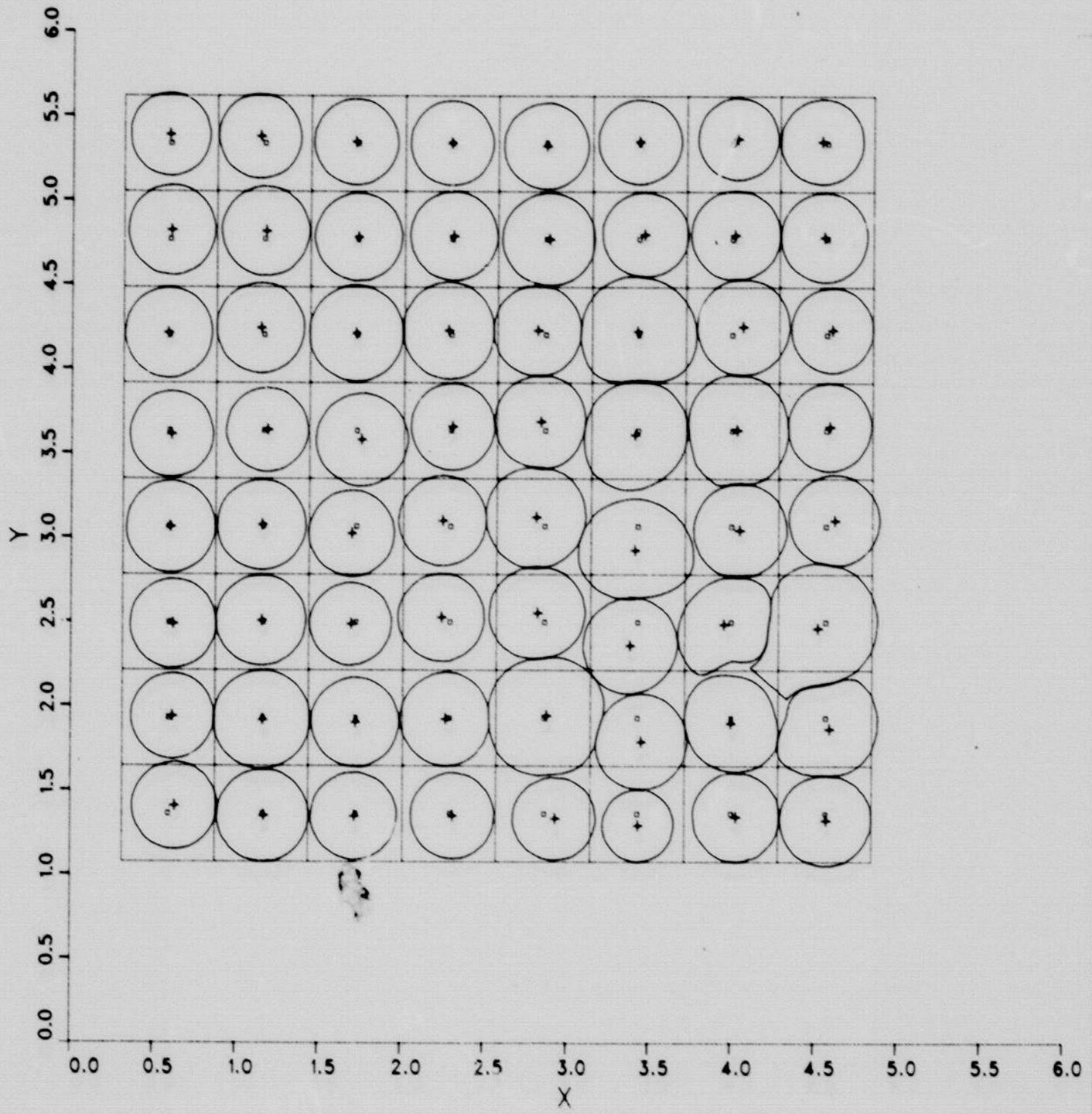


FIG. F-33. B-5 POSTTEST TUBE LOCATIONS AT 46.9CM

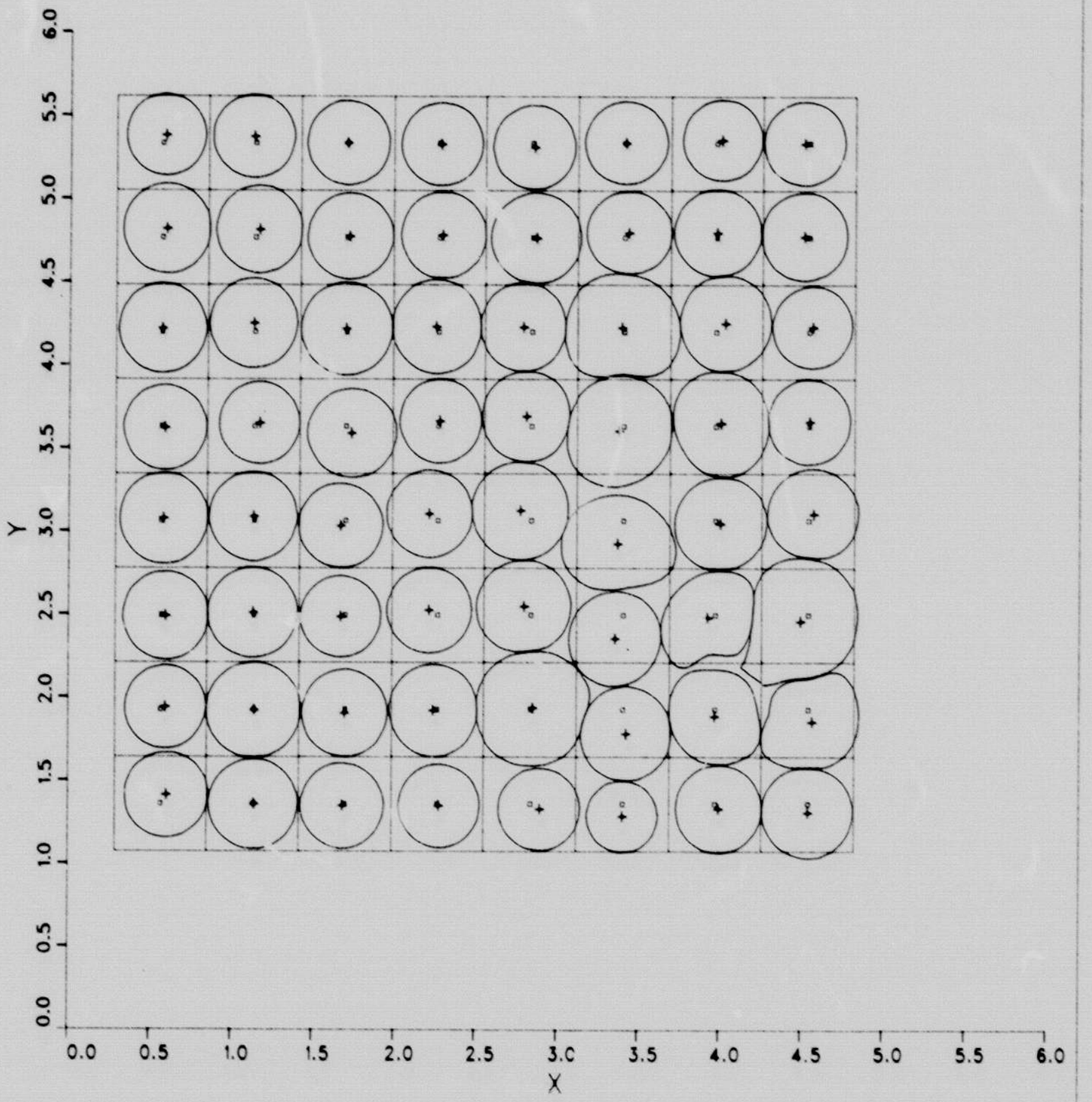


FIG. F-34. B-5 POSTTEST TUBE LOCATIONS AT 48.0CM

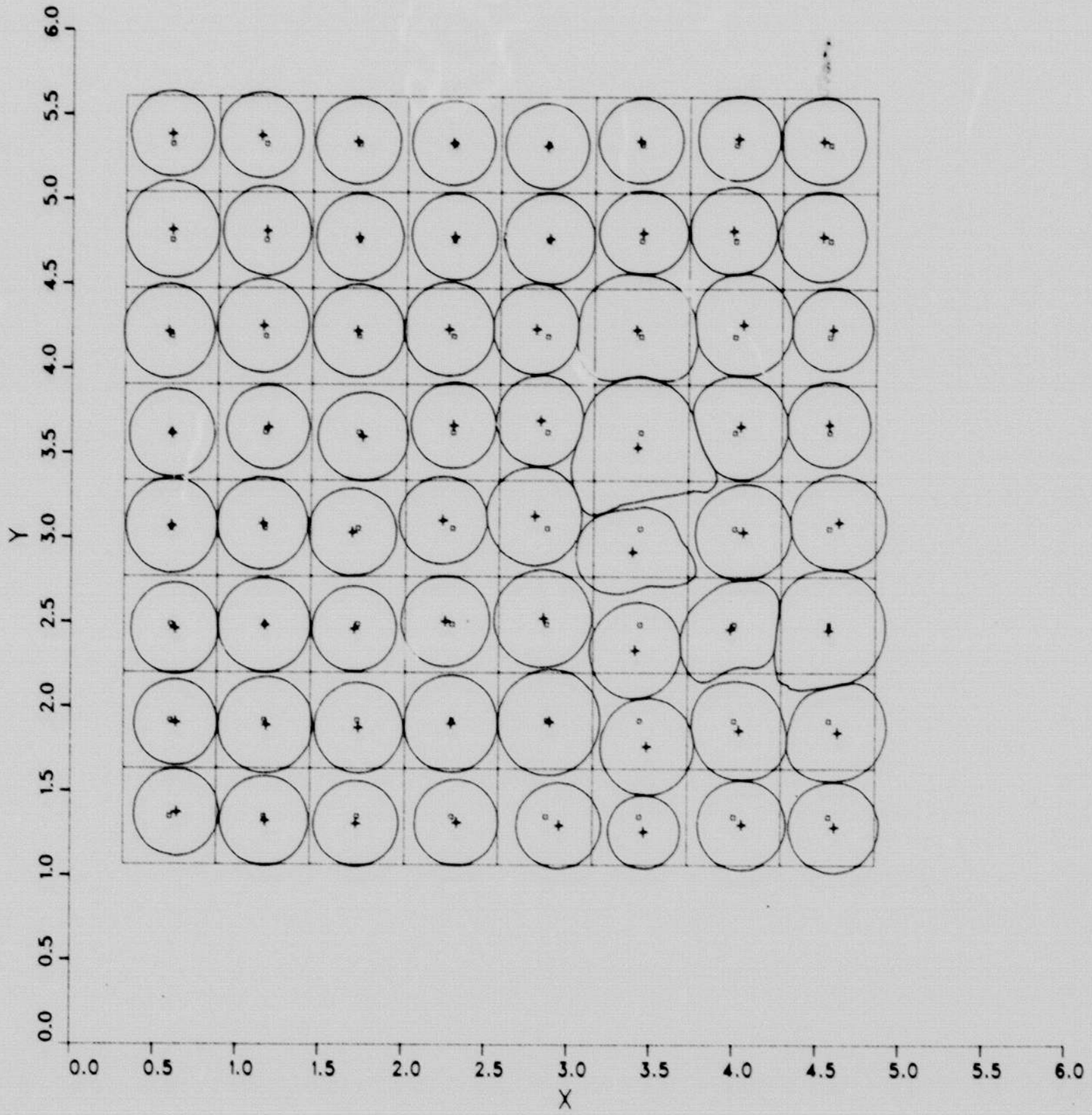


FIG. F-35. B-5 POSTTEST TUBE LOCATIONS AT 49.6CM

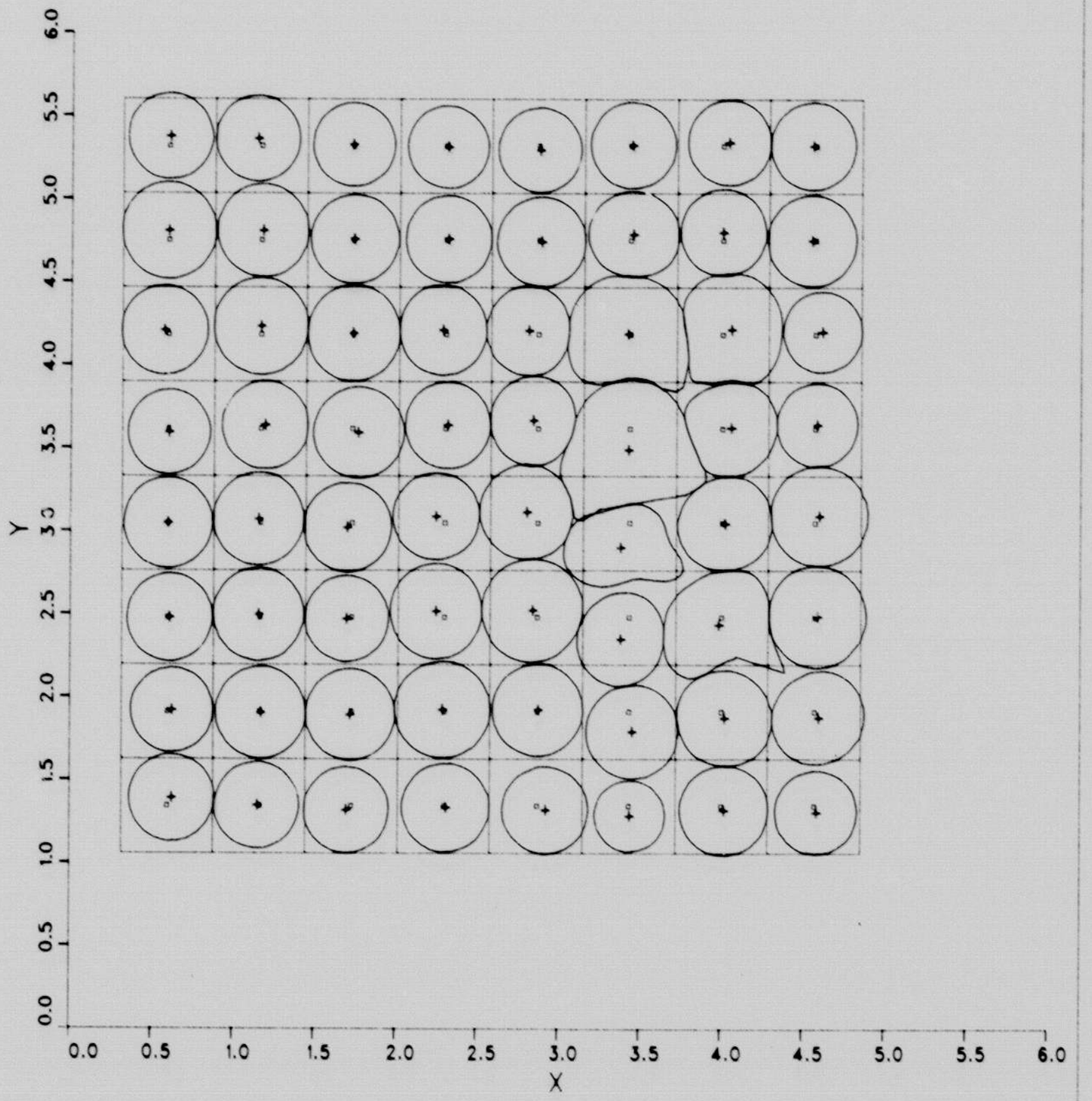


FIG. F-36. B-5 POSTTEST TUBE LOCATIONS AT 51.2CM

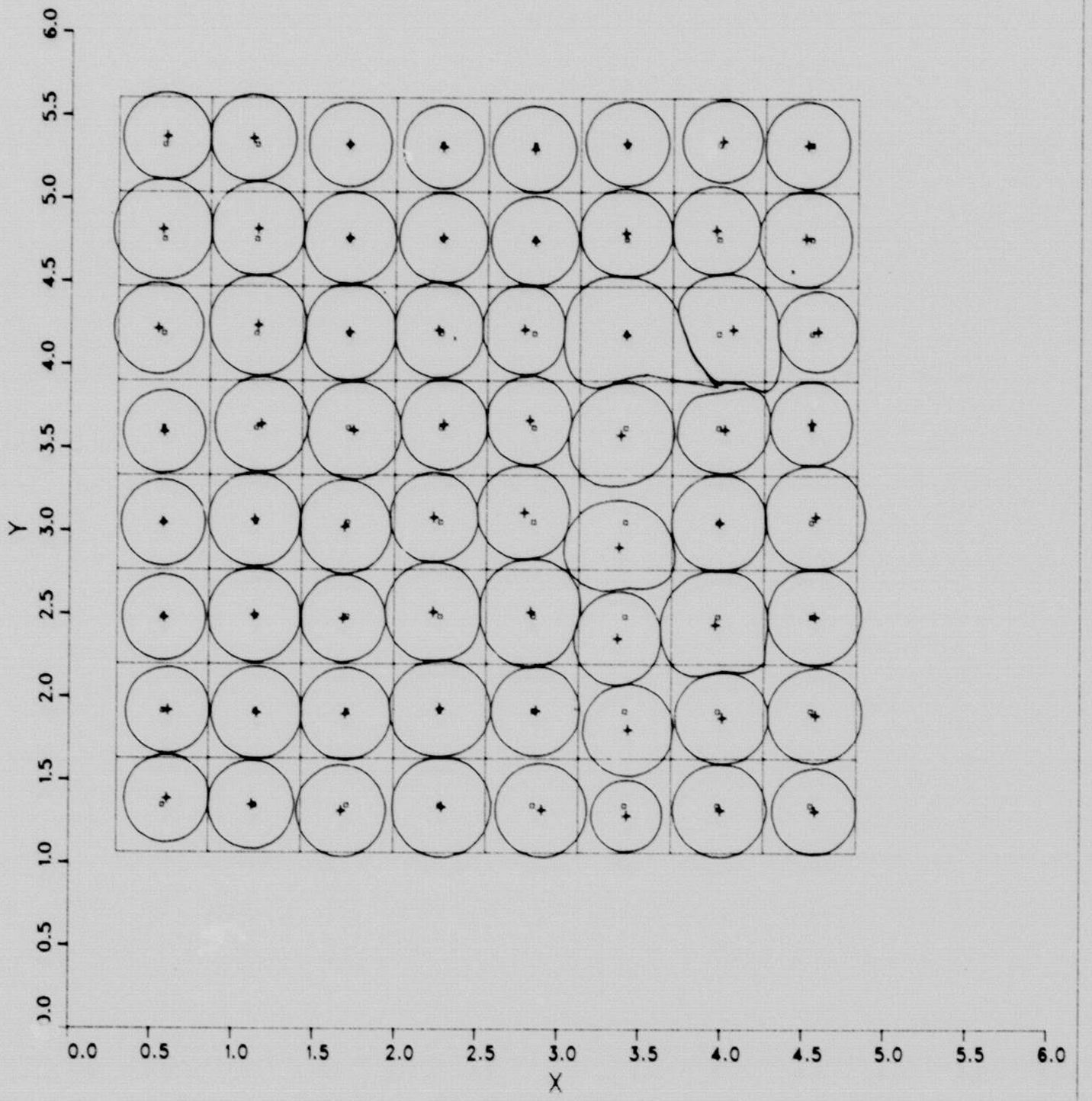


FIG. F-37. B-5 POSTTEST TUBE LOCATIONS AT 53.0CM

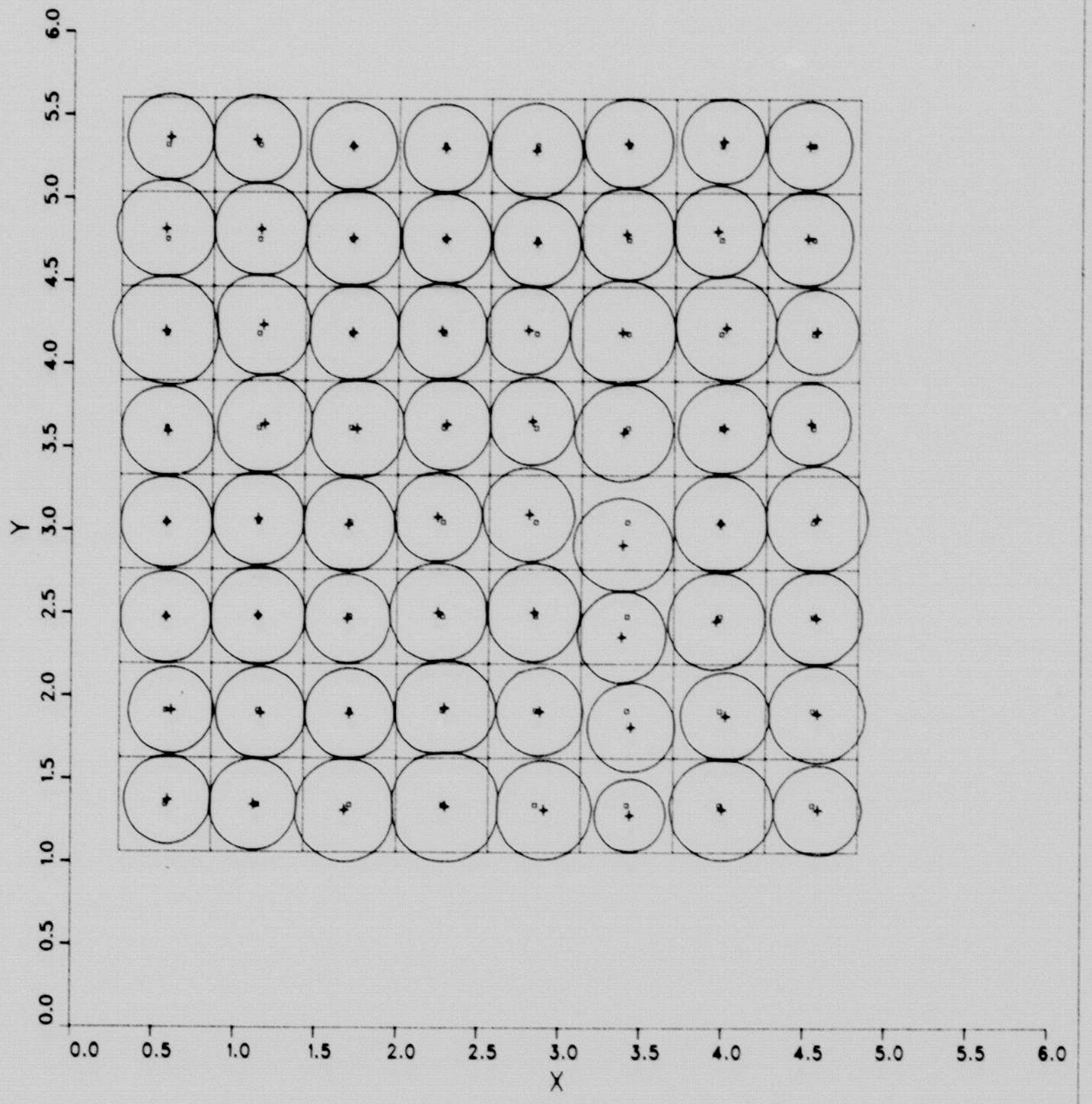


FIG. F-38. B-5 POSTTEST TUBE LOCATIONS AT 54.6CM

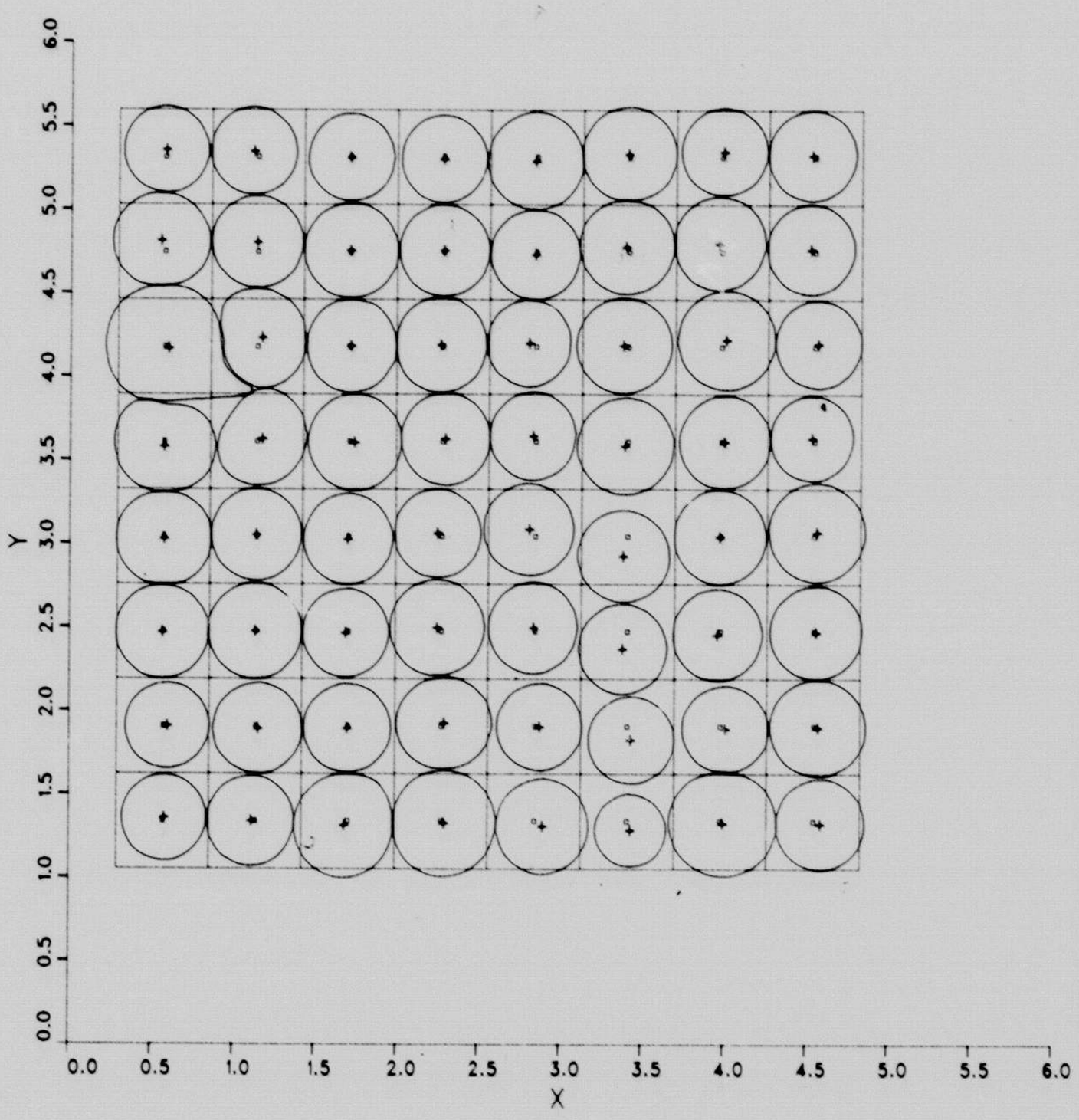


FIG. F-39. B-5 POSTTEST TUBE LOCATIONS AT 56.2CM

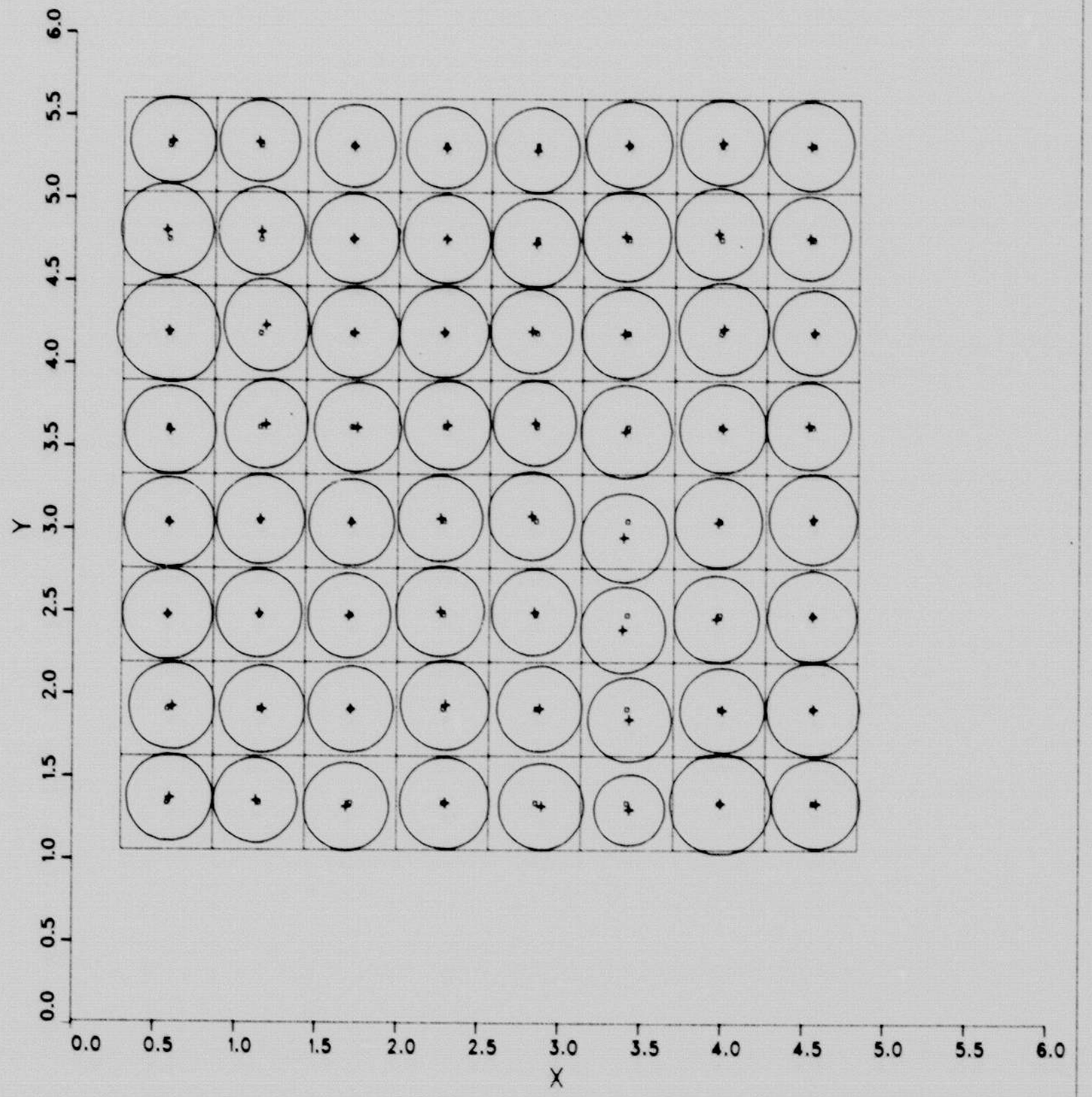


FIG. F-40. B-5 POSTTEST TUBE LOCATIONS AT 57.8CM

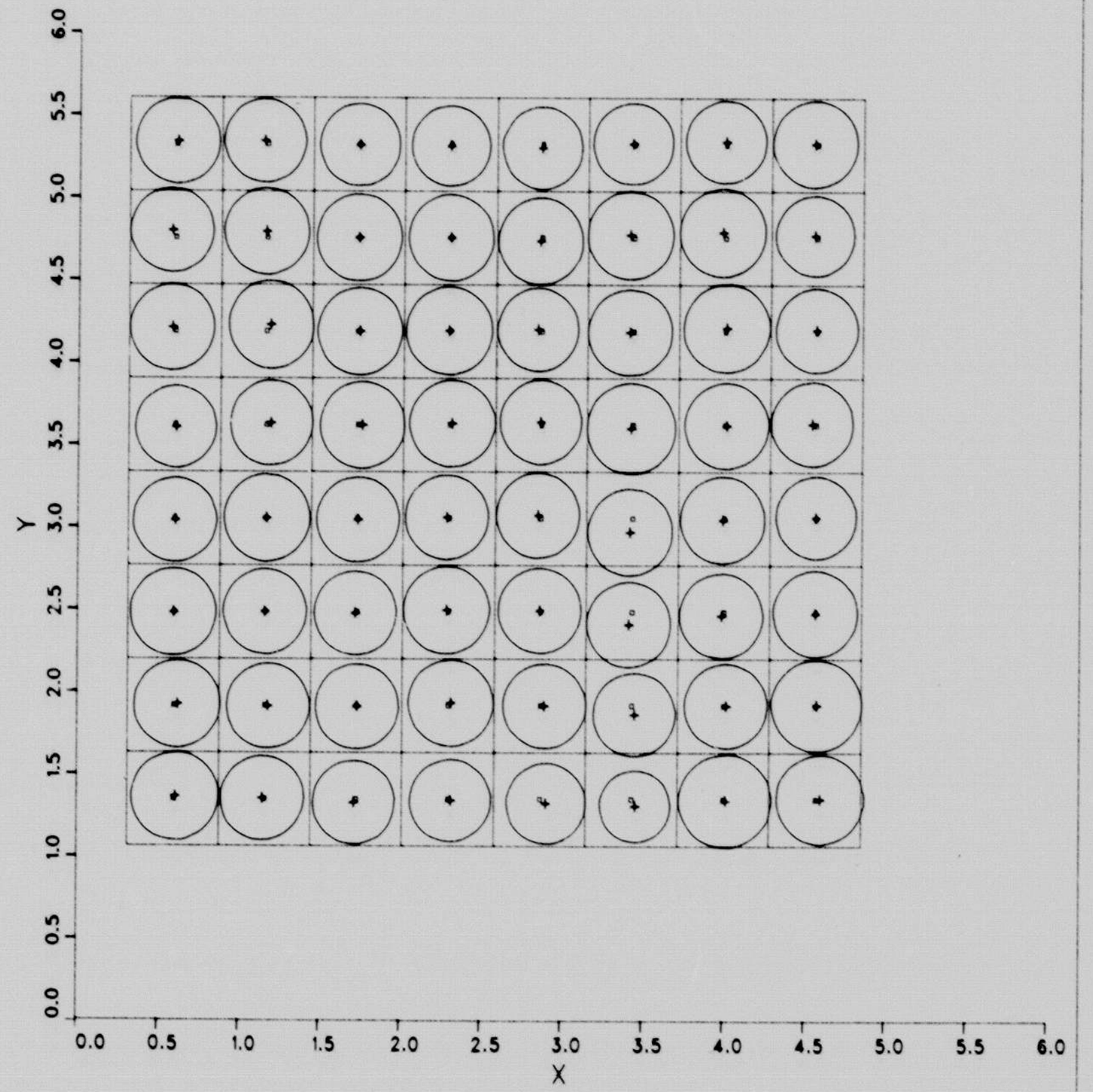


FIG. F-41. B-5 POSTTEST TUBE LOCATIONS AT 59.6CM

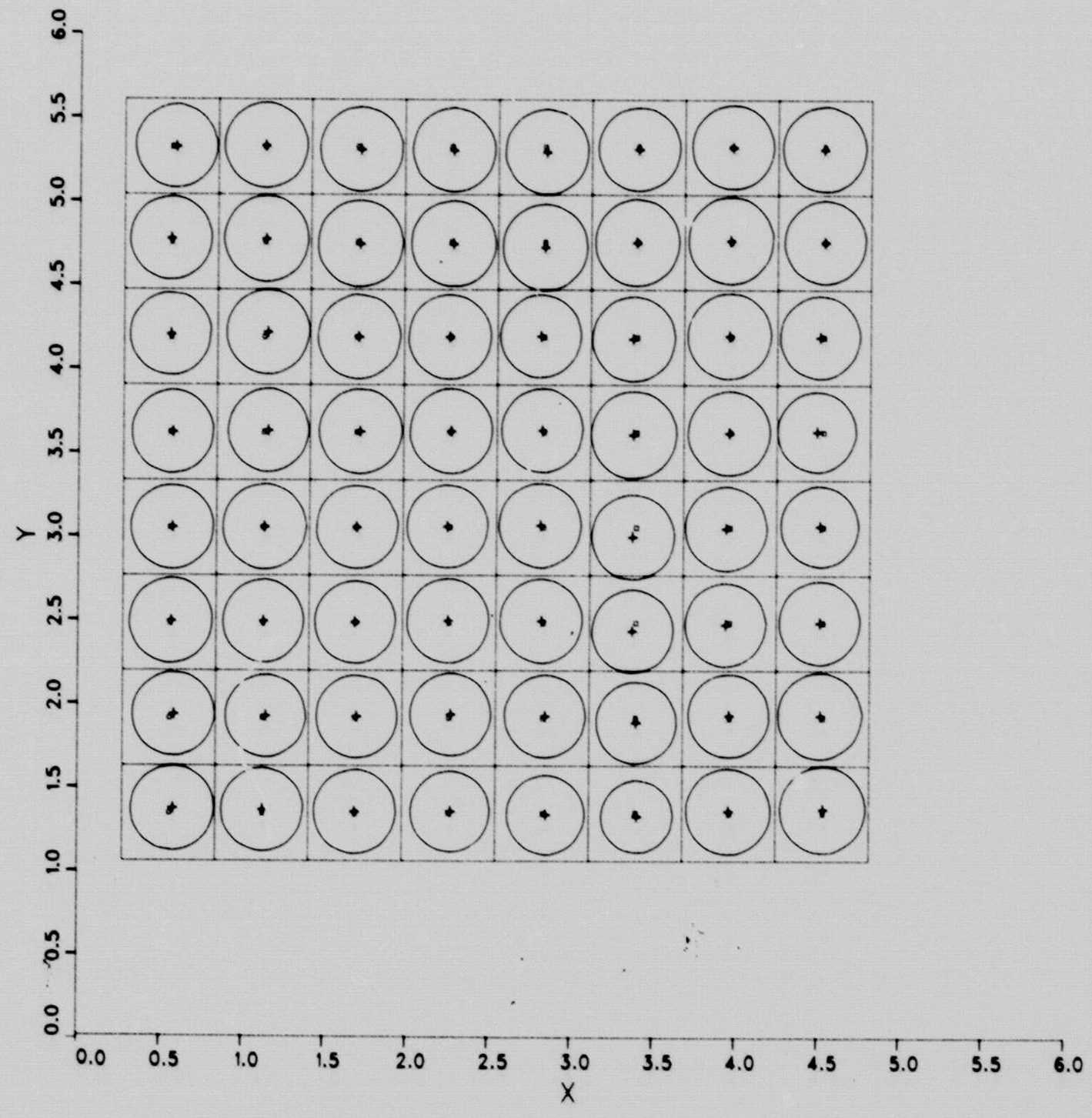


FIG. F-42. B-5 POSTTEST TUBE LOCATIONS AT 61.2CM

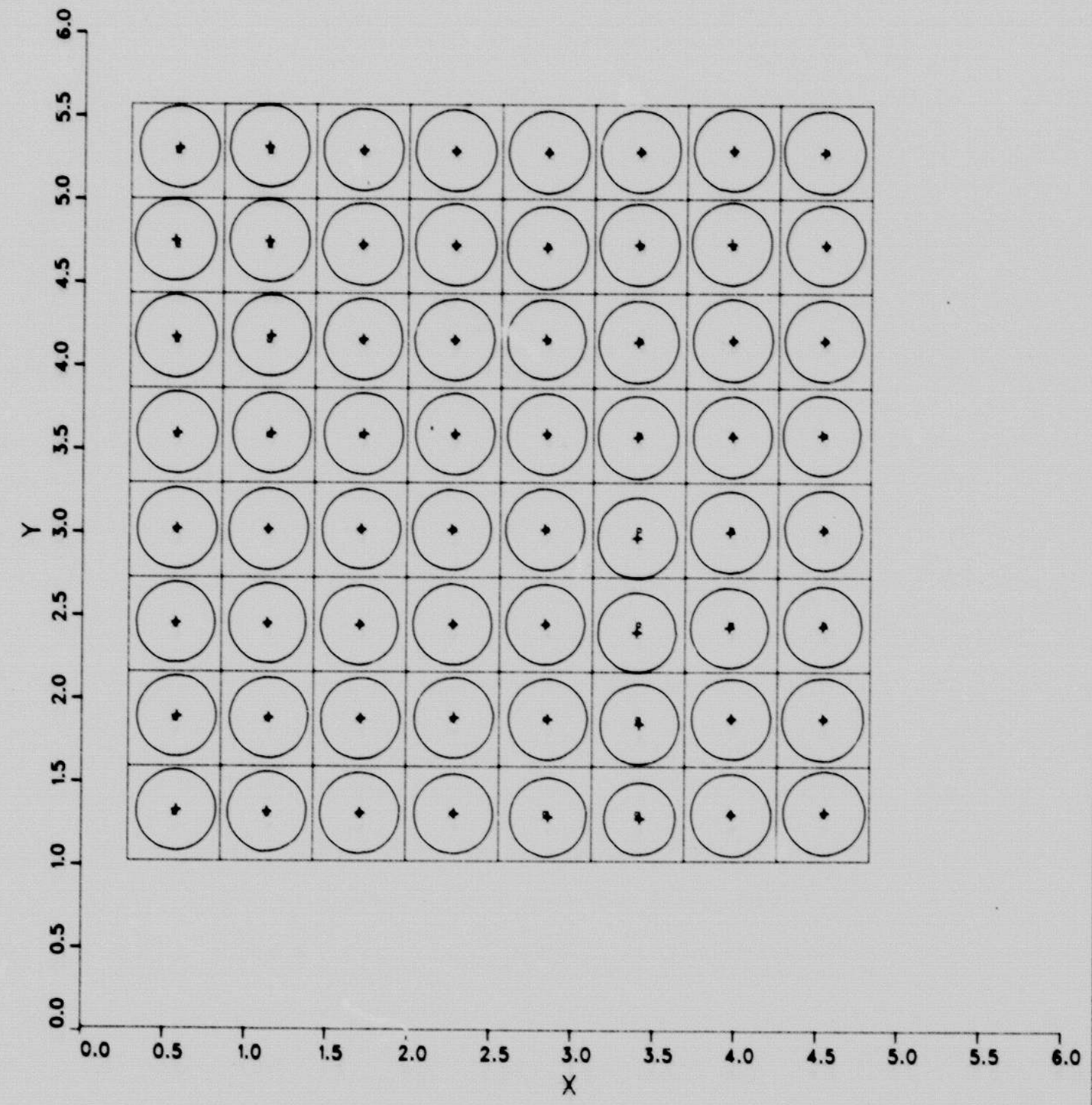


FIG. F-43. B-5 POSTTEST TUBE LOCATIONS AT 62.8CM

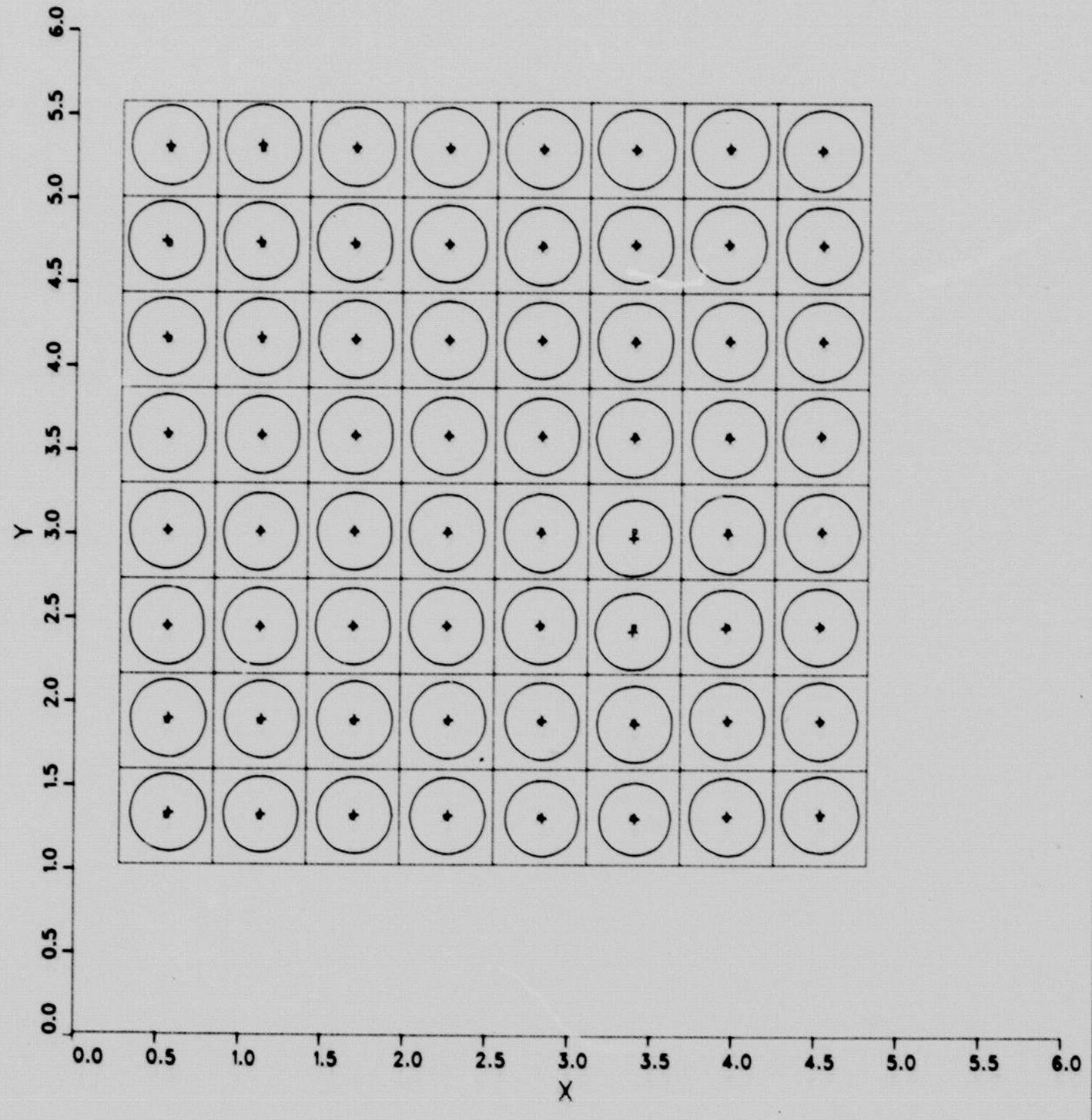


FIG. F-44. B-5 POSTTEST TUBE LOCATIONS AT 64.4CM

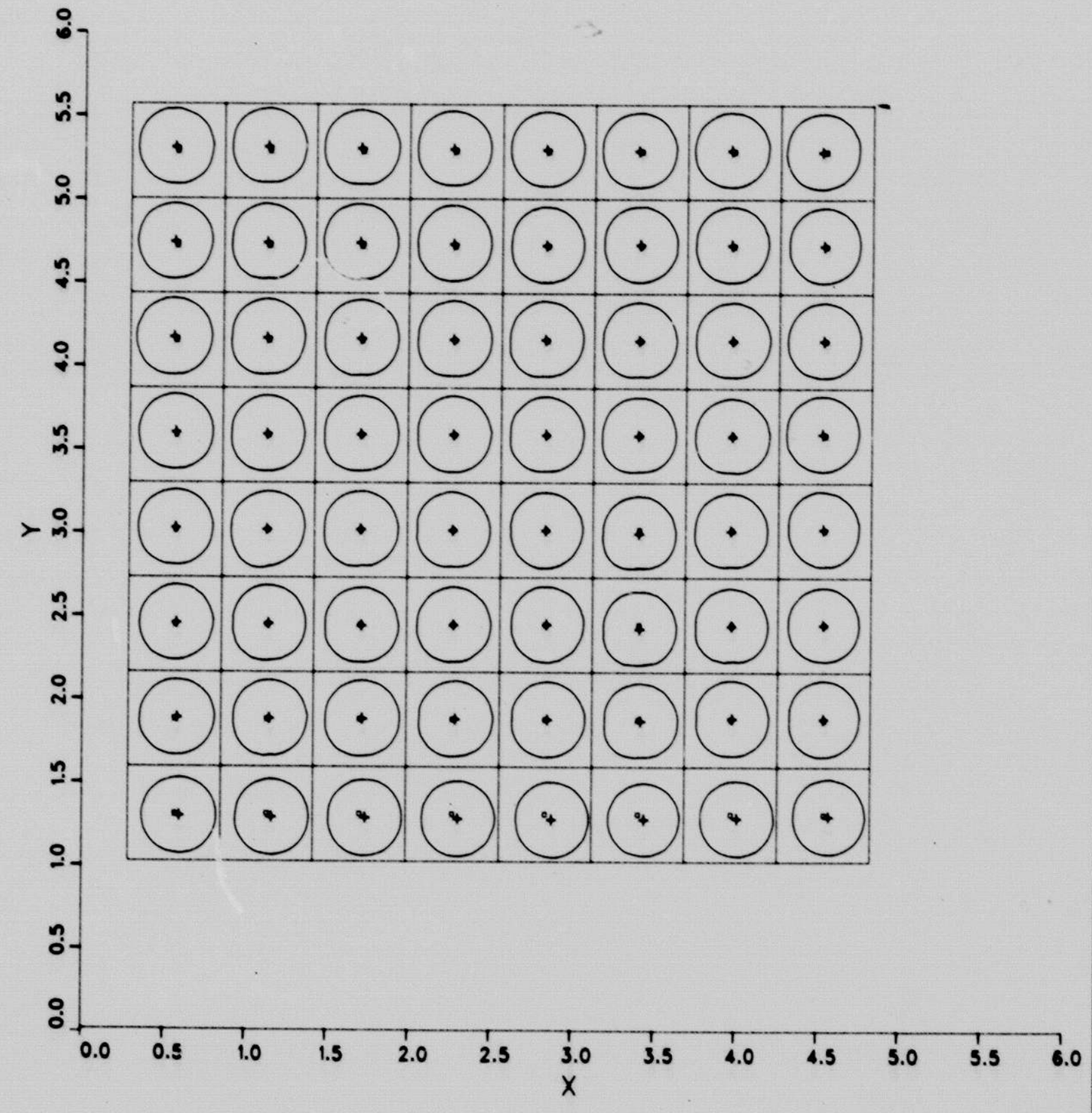


FIG. F-45. B-5 POSTTEST TUBE LOCATIONS AT 66.0CM

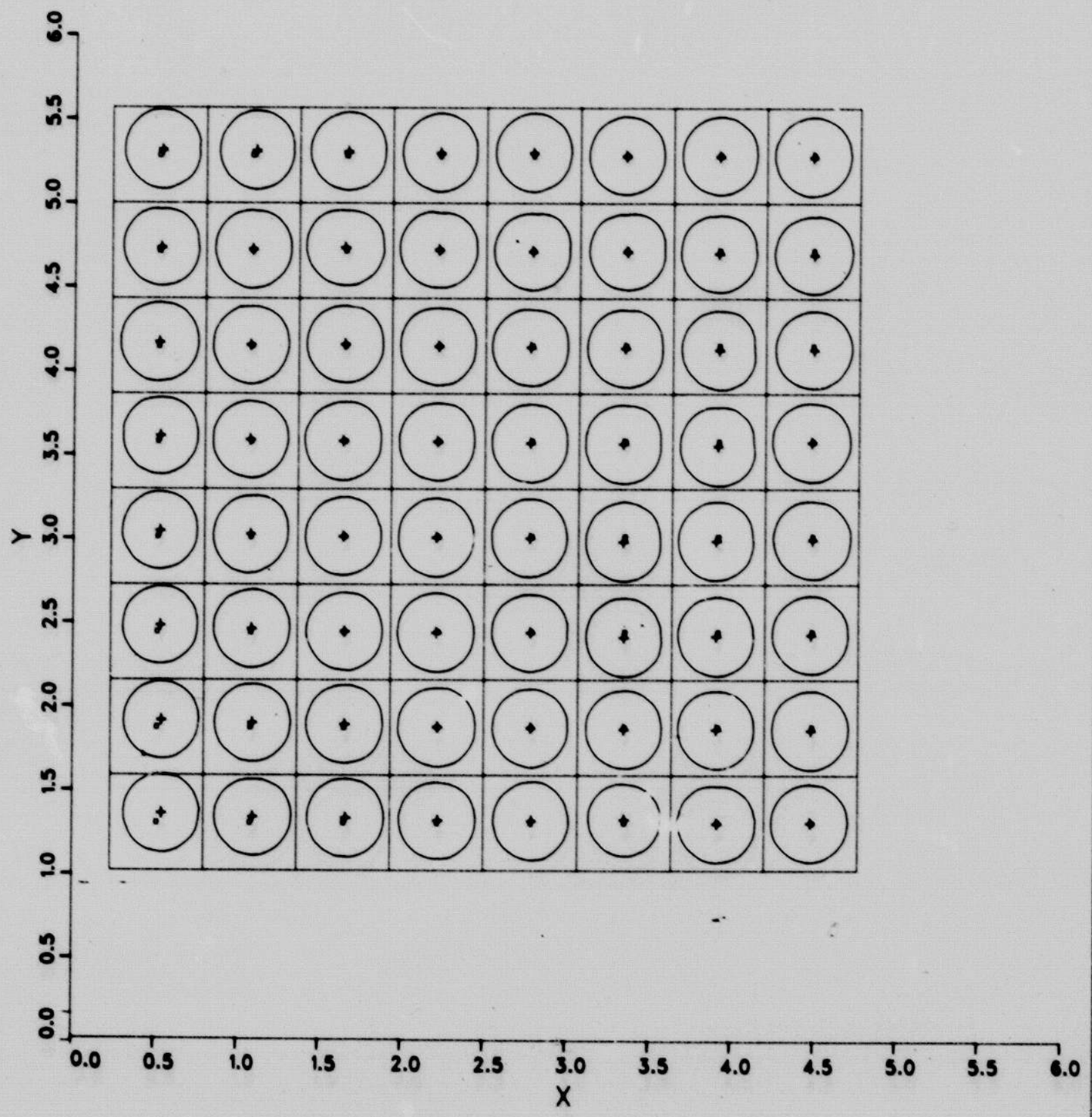


FIG. F-46. B-5 POSTTEST TUBE LOCATIONS AT 67.8CM

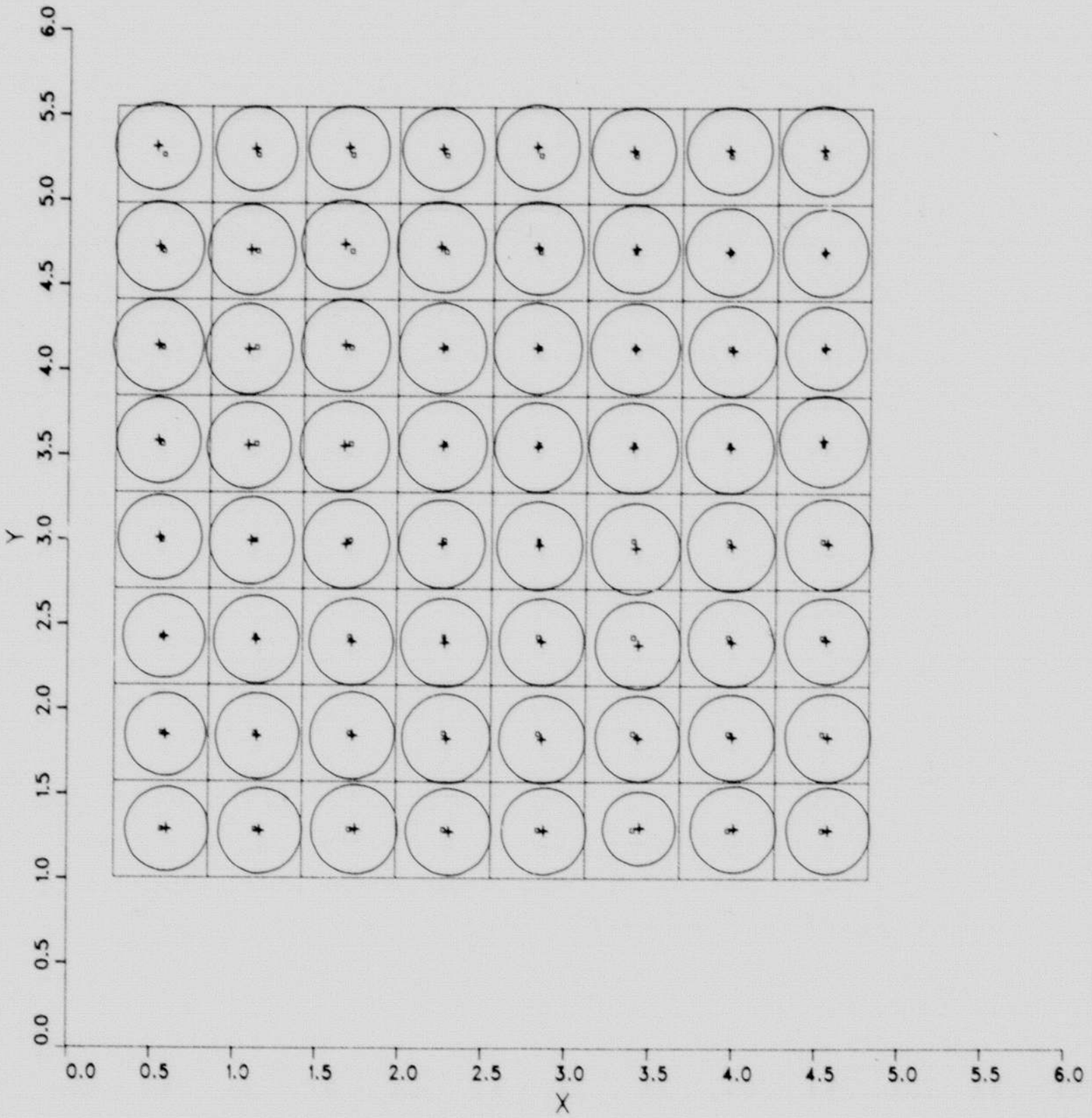


FIG. F-47. B-5 POSTTEST TUBE LOCATIONS AT 69.5CM

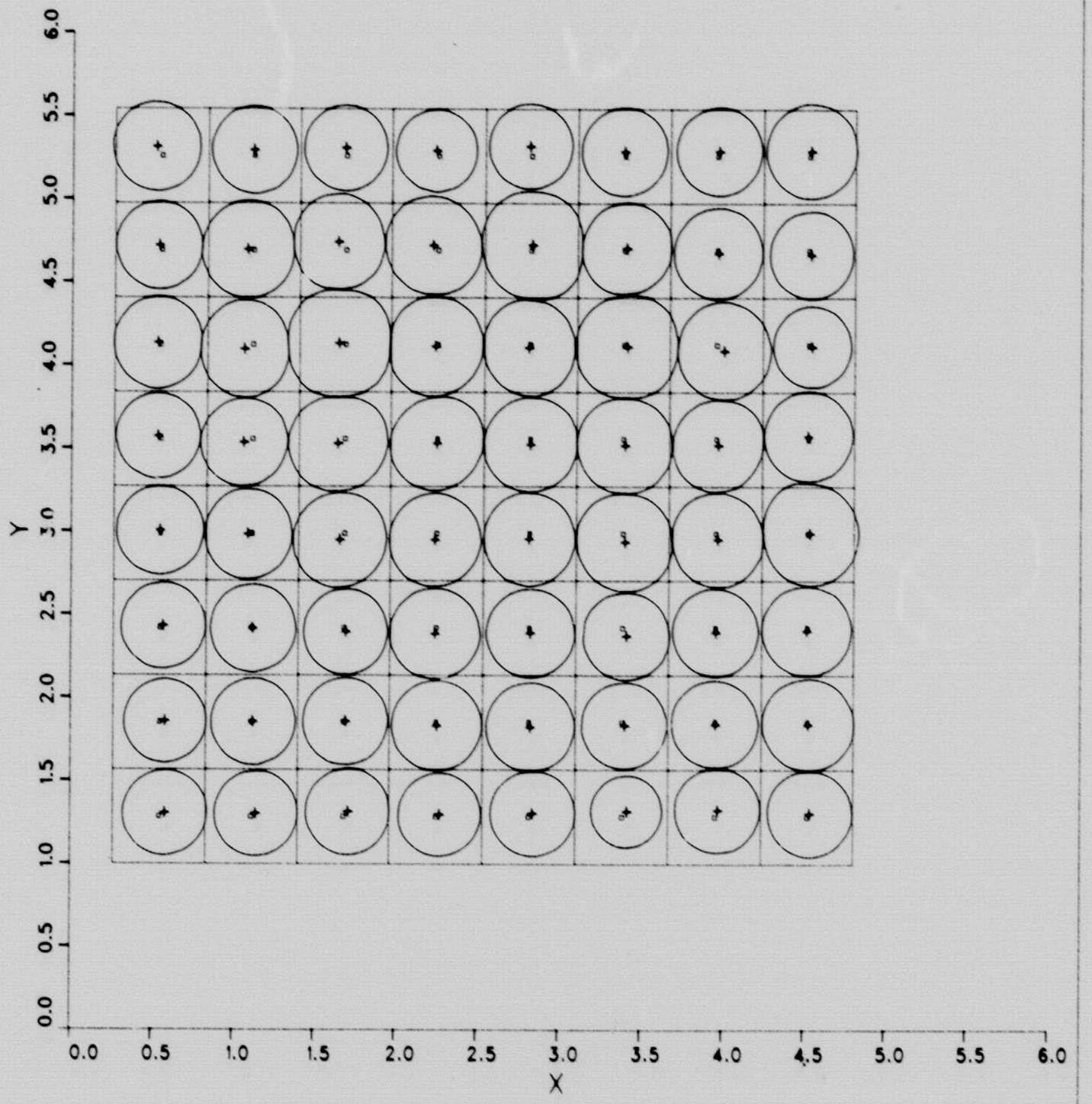


FIG. F-48. B-5 POSTTEST TUBE LOCATIONS AT 71.0CM

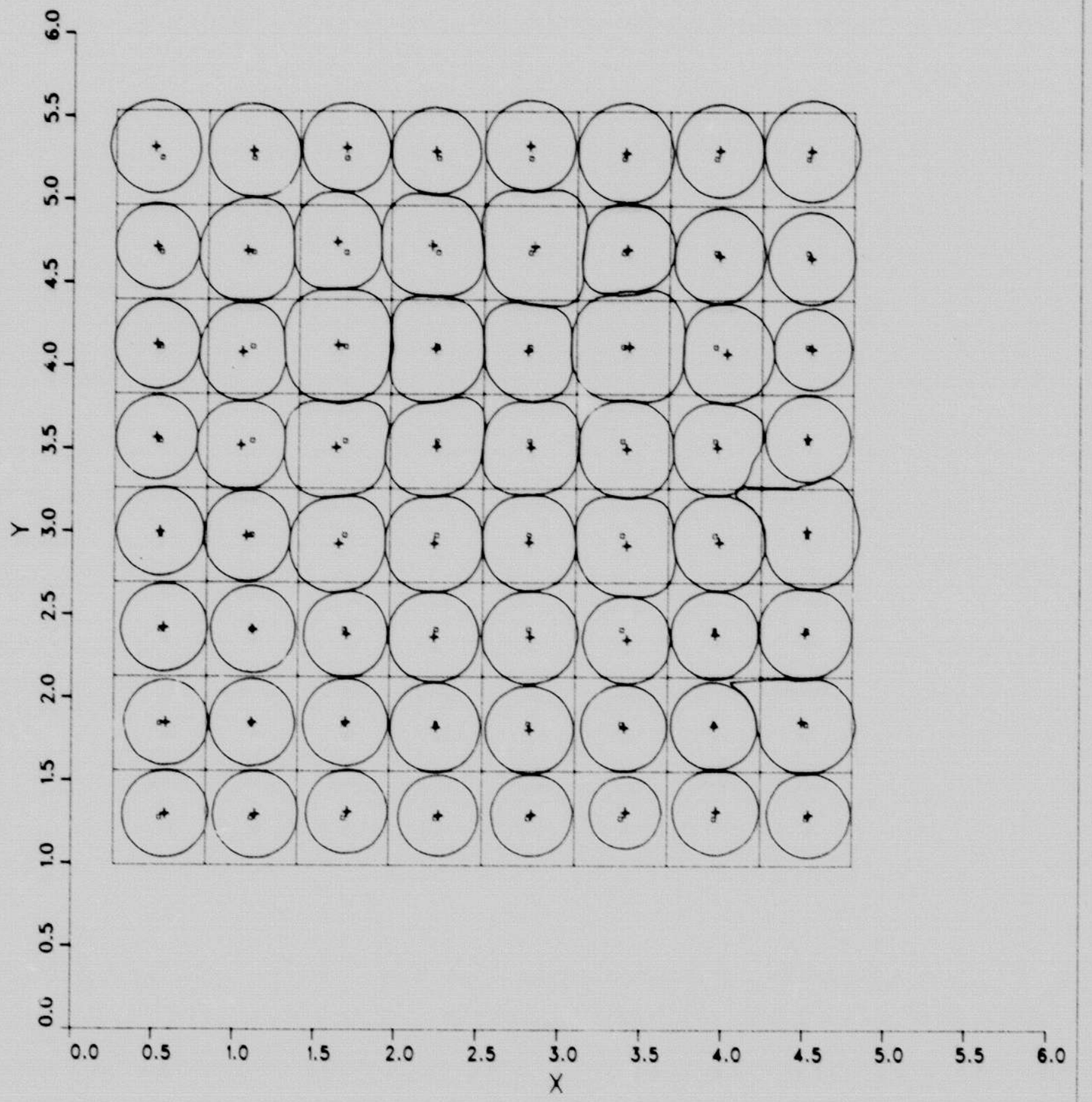


FIG. F-49. B-5 POSTTEST TUBE LOCATIONS AT 72.8CM

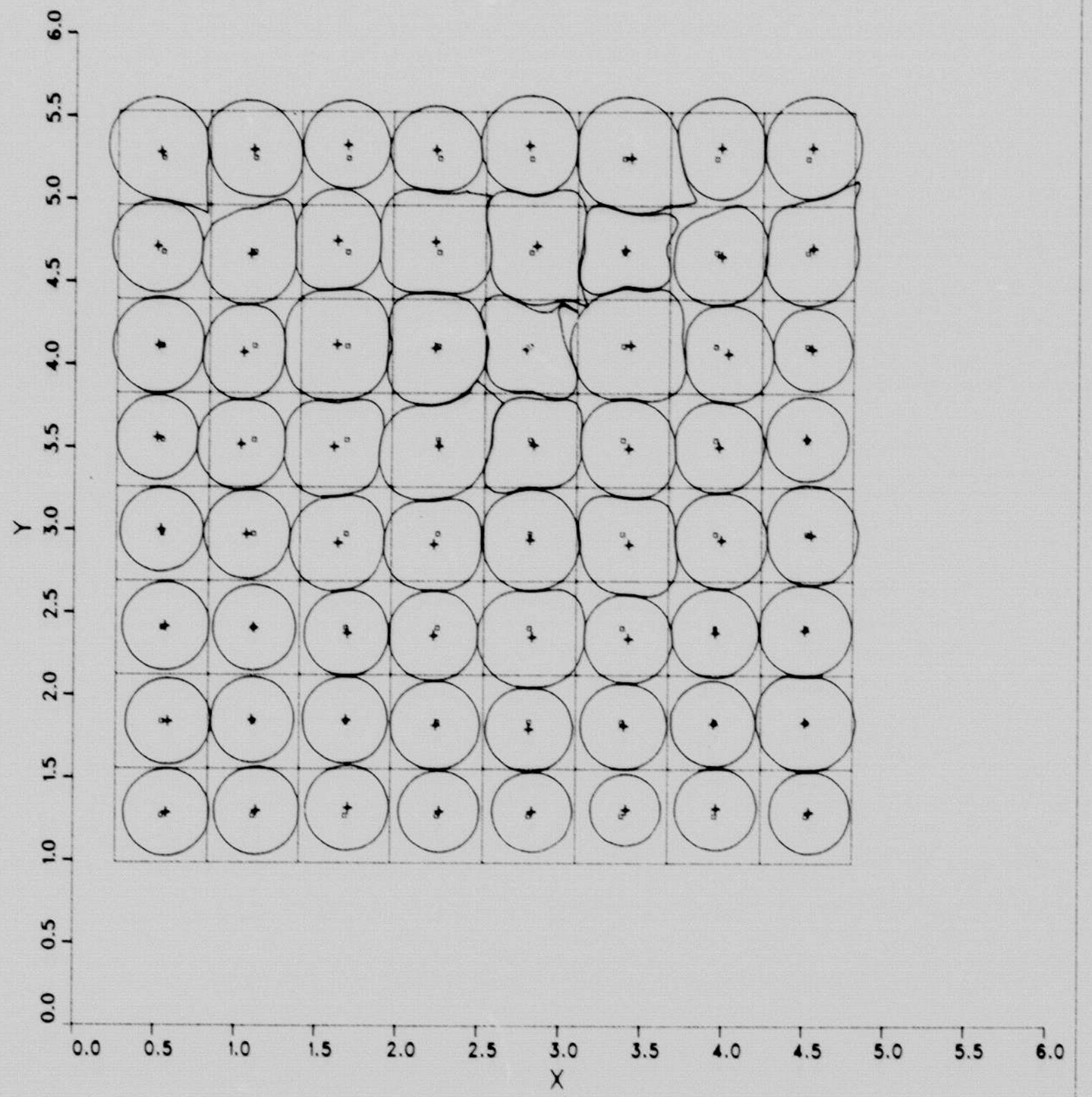


FIG. F-50. B-5 POSTTEST TUBE LOCATIONS AT 74.3CM

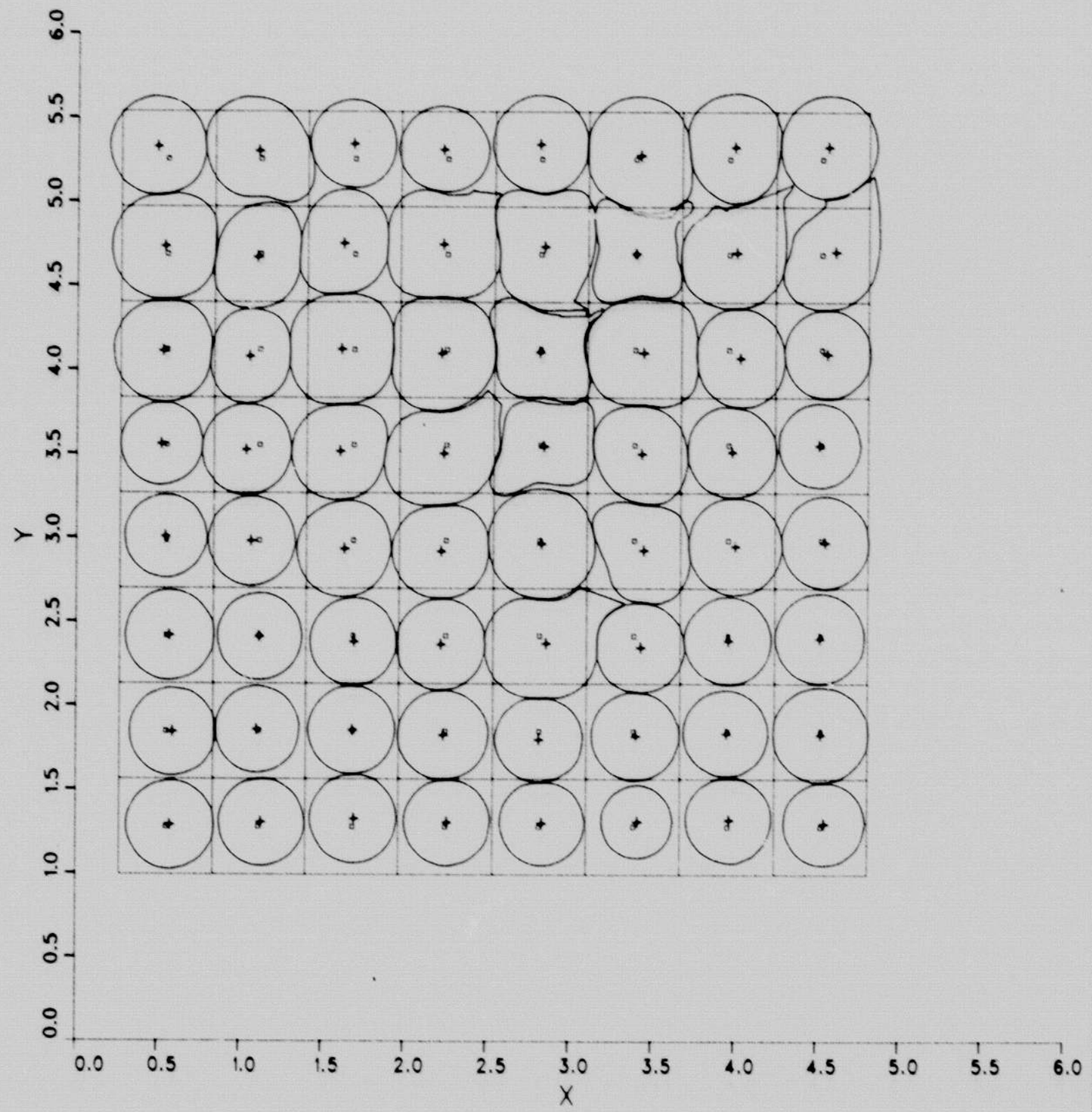


FIG. F-51. B-5 POSTTEST TUBE LOCATIONS AT 74.8CM

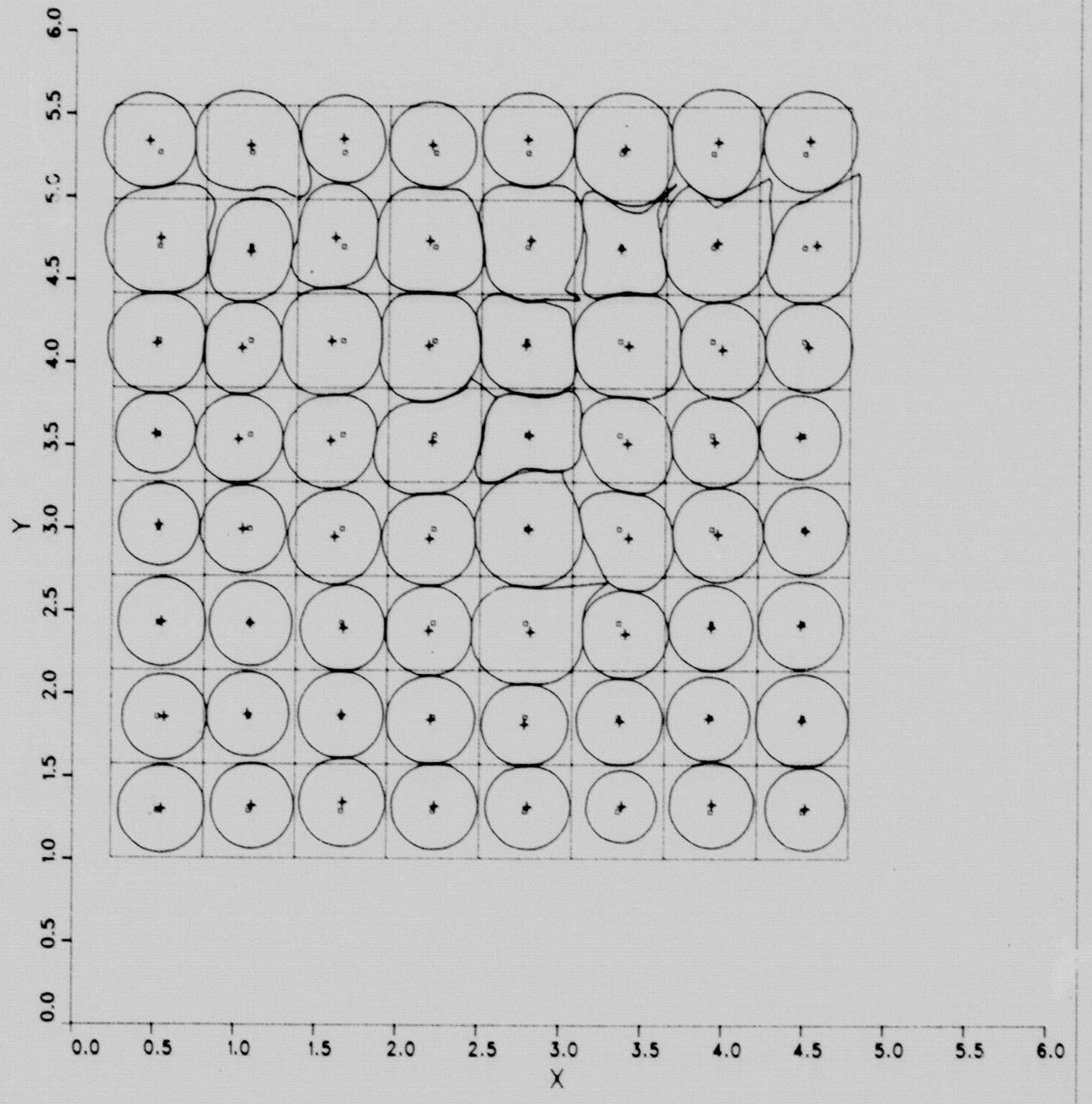


FIG. F-52. B-5 POSTTEST TUBE LOCATIONS AT 75.8CM

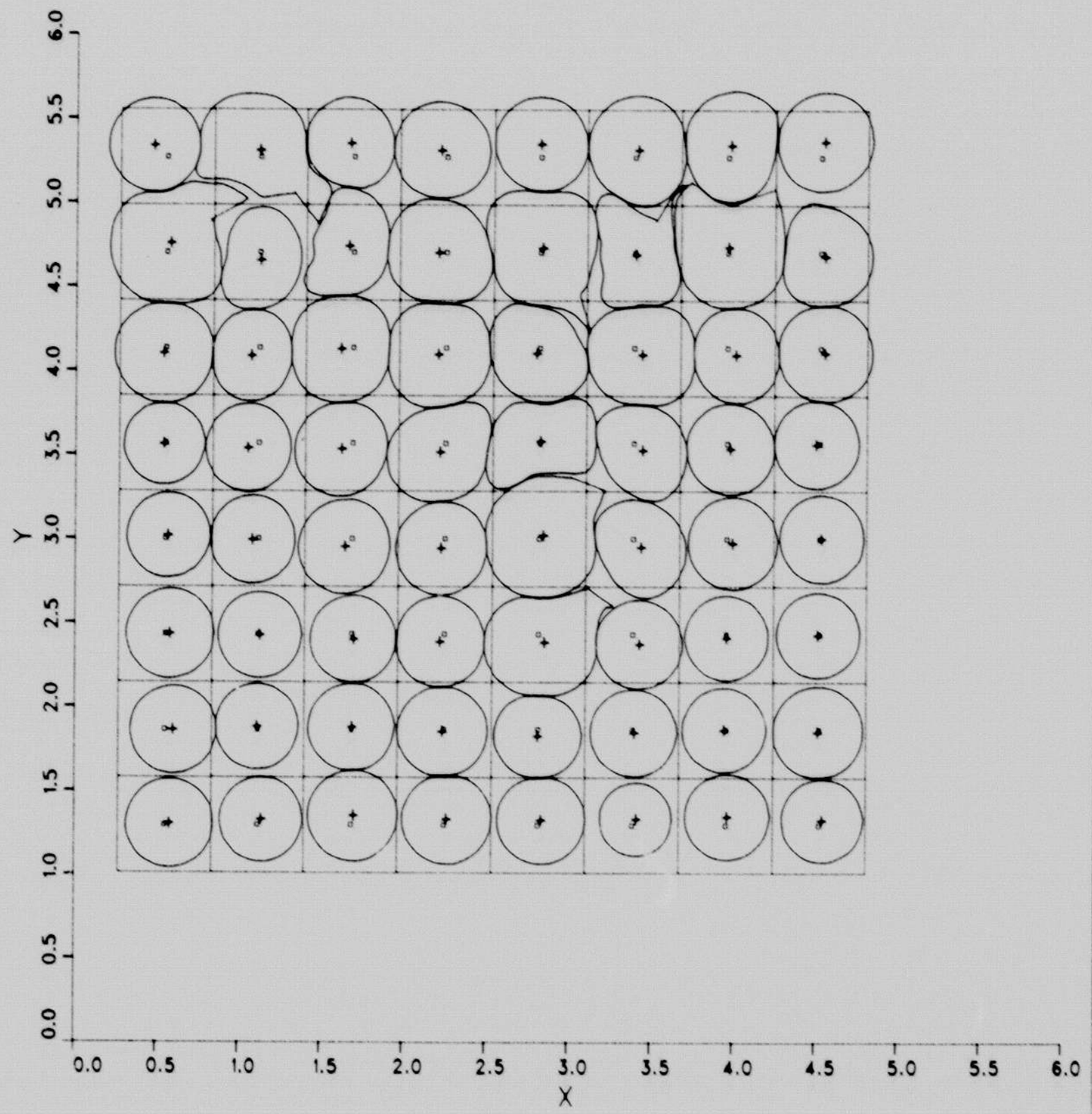


FIG. F-53. B-5 POSTTEST TUBE LOCATIONS AT 76.3CM

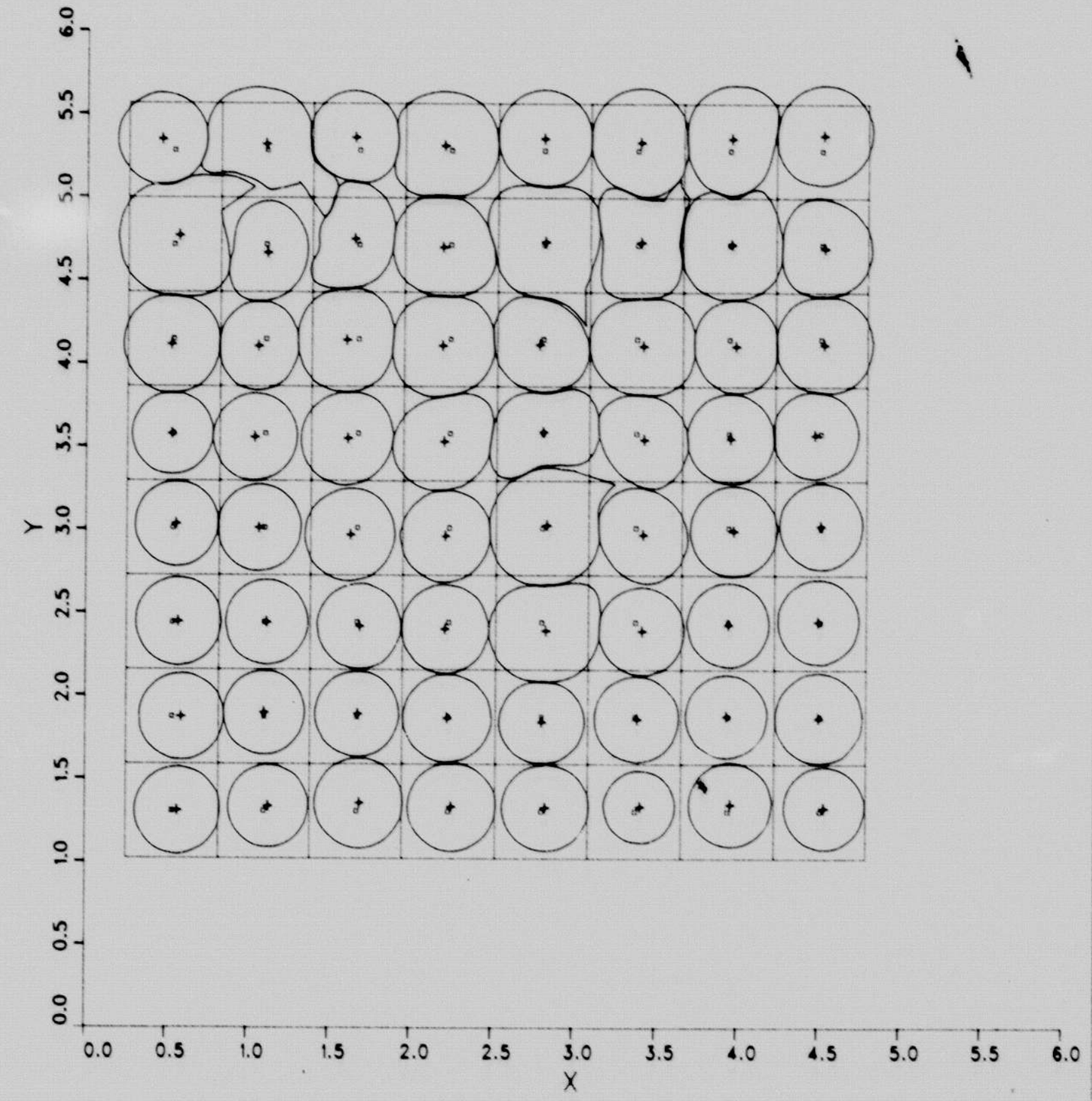


FIG. F-54. B-5 POSTTEST TUBE LOCATIONS AT 77.4CM

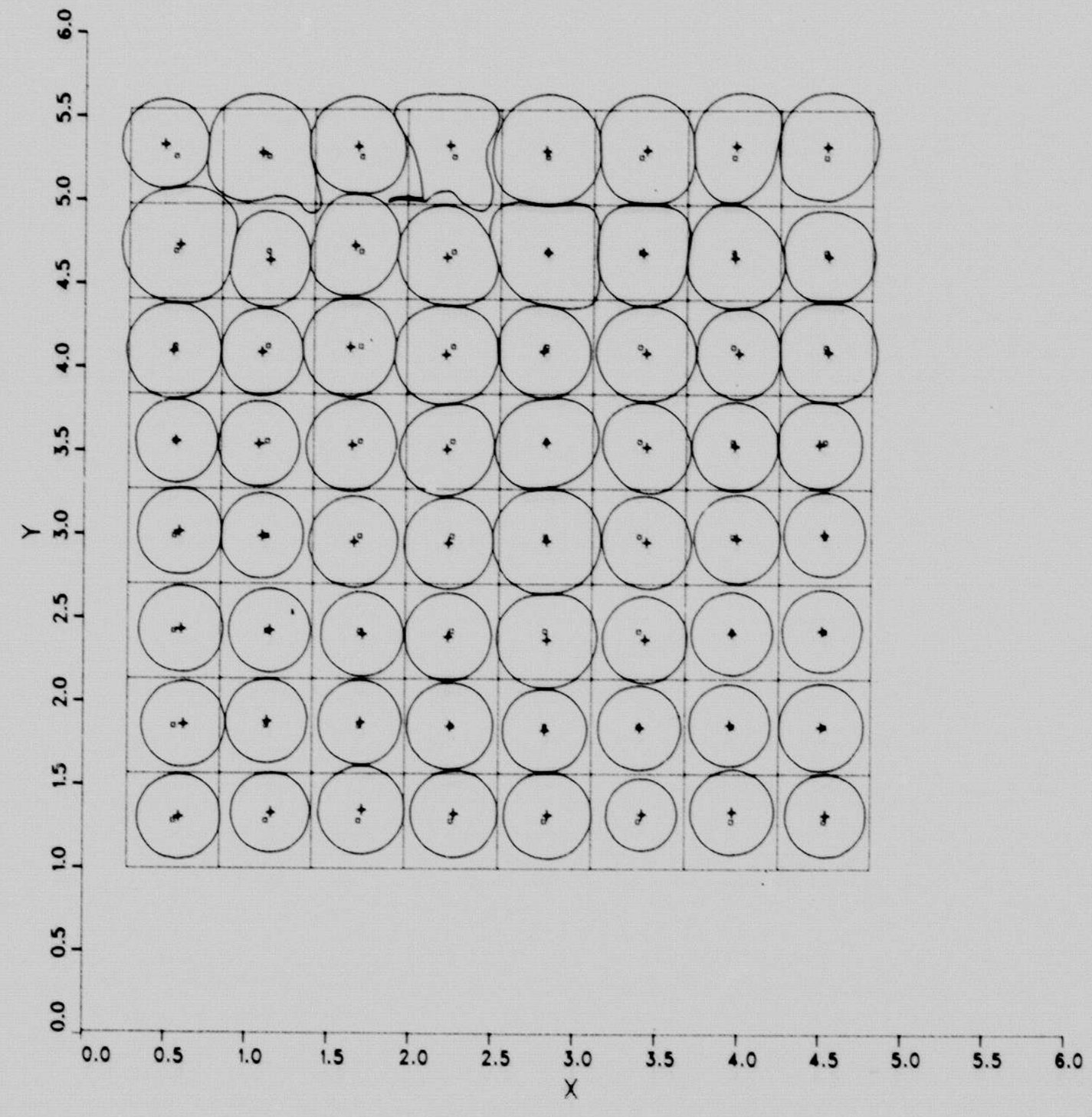


FIG. F-55. B-5 POSTTEST TUBE LOCATIONS AT 78.9CM

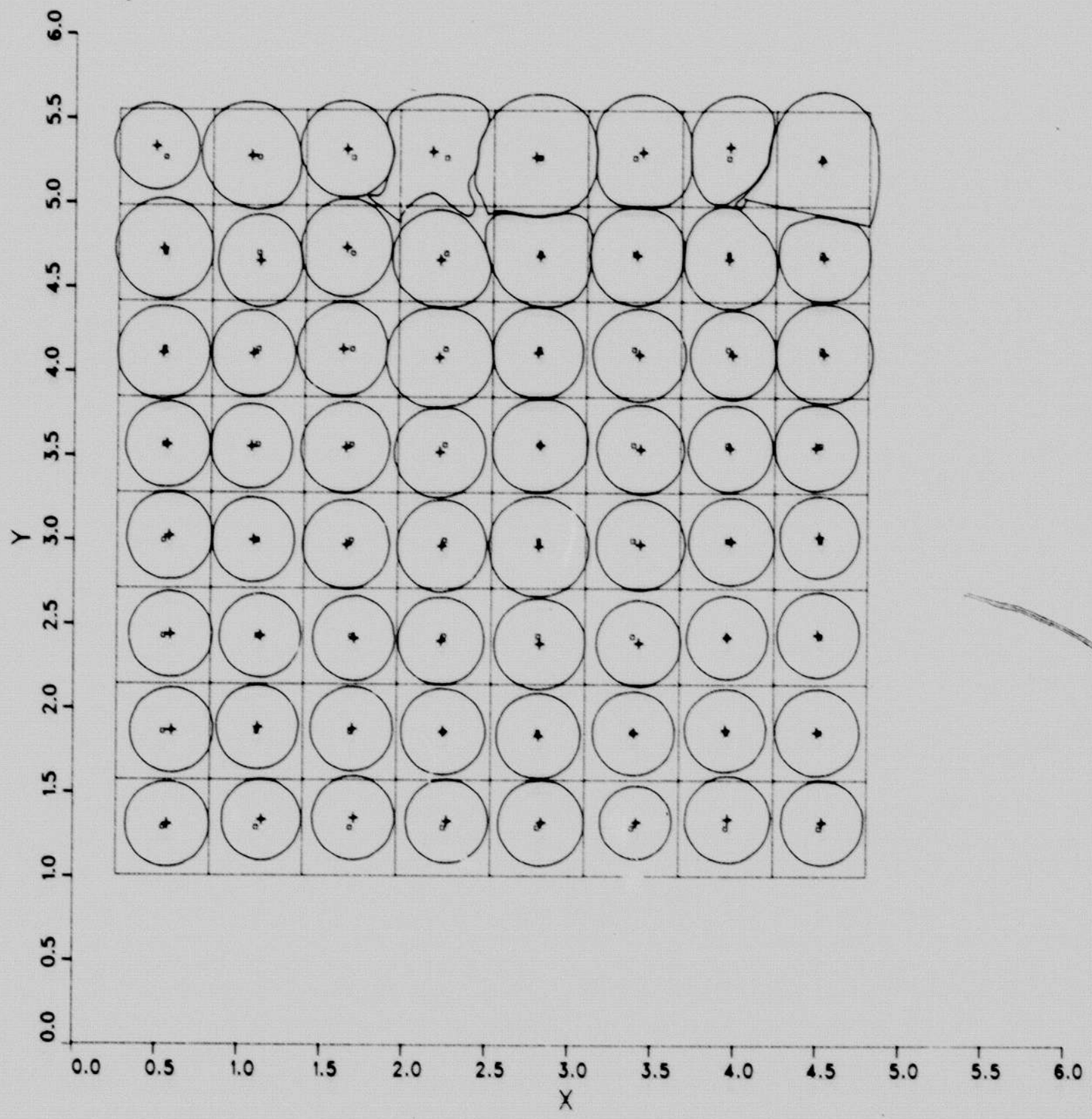


FIG. F-56. B-5 POSTTEST TUBE LOCATIONS AT 80.4CM

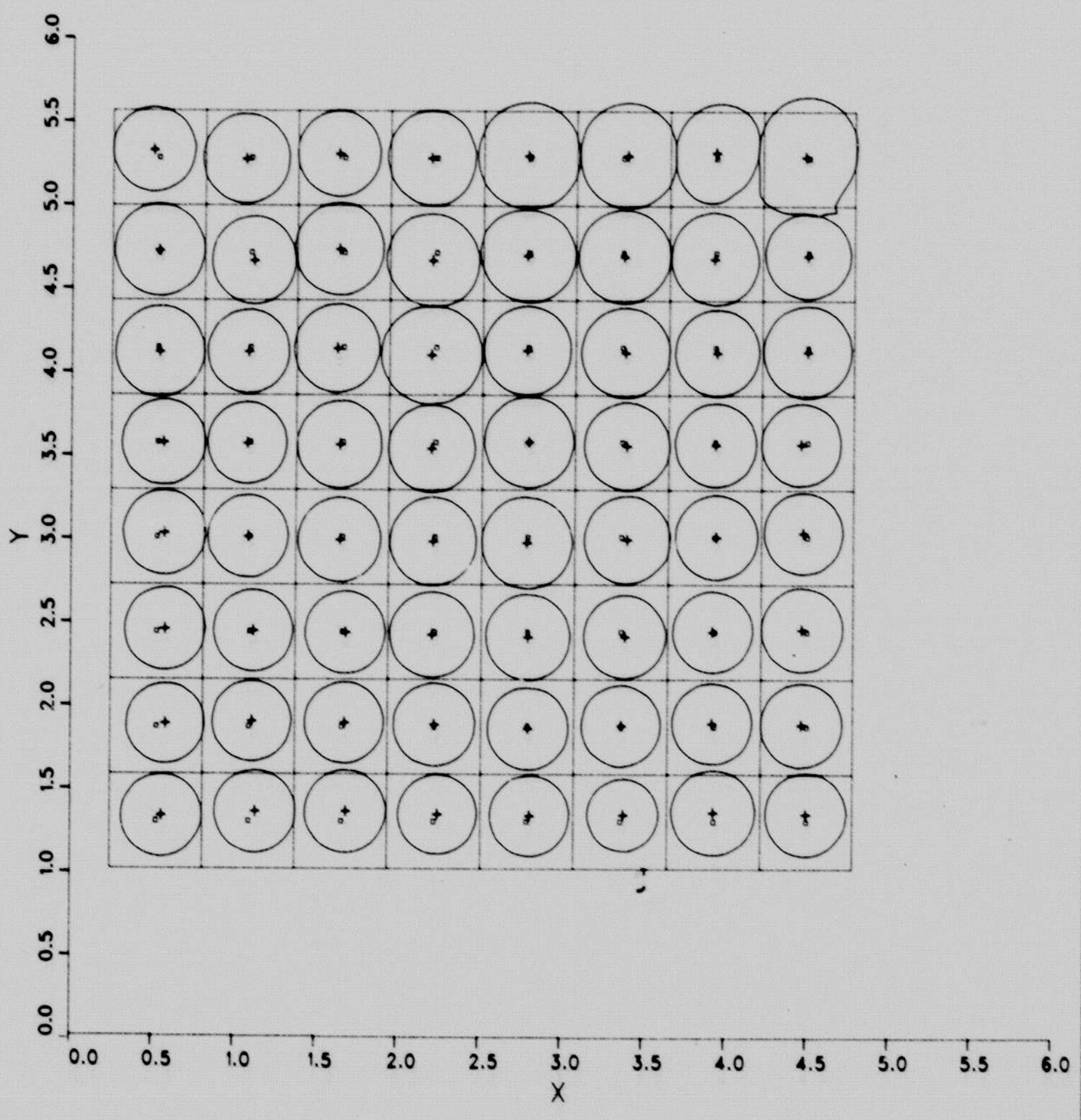


FIG. F-57. B-5 POSTTEST TUBE LOCATIONS AT 81.9CM

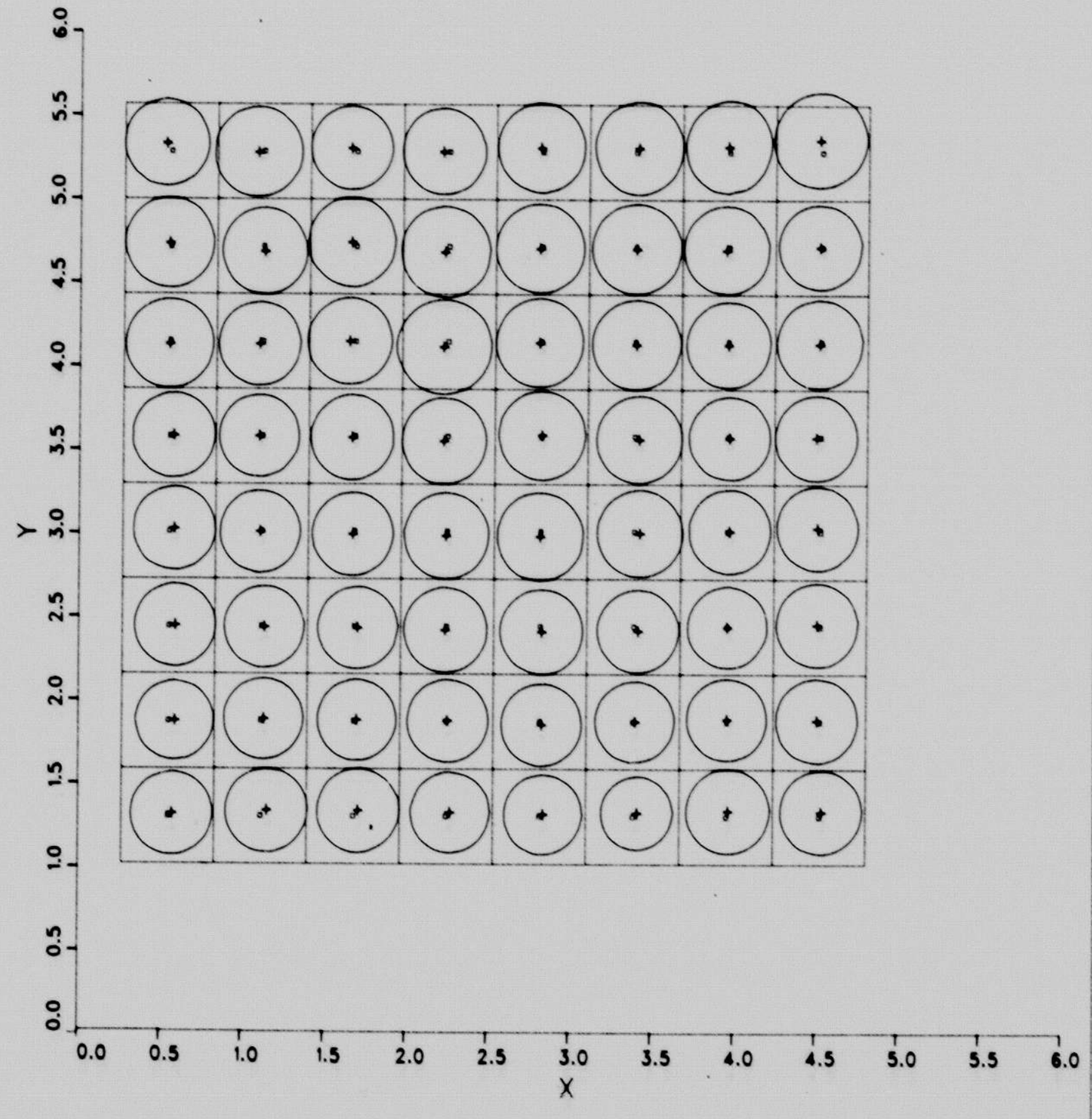


FIG. F-58. B-5 POSTTEST TUBE LOCATIONS AT 83.5CM

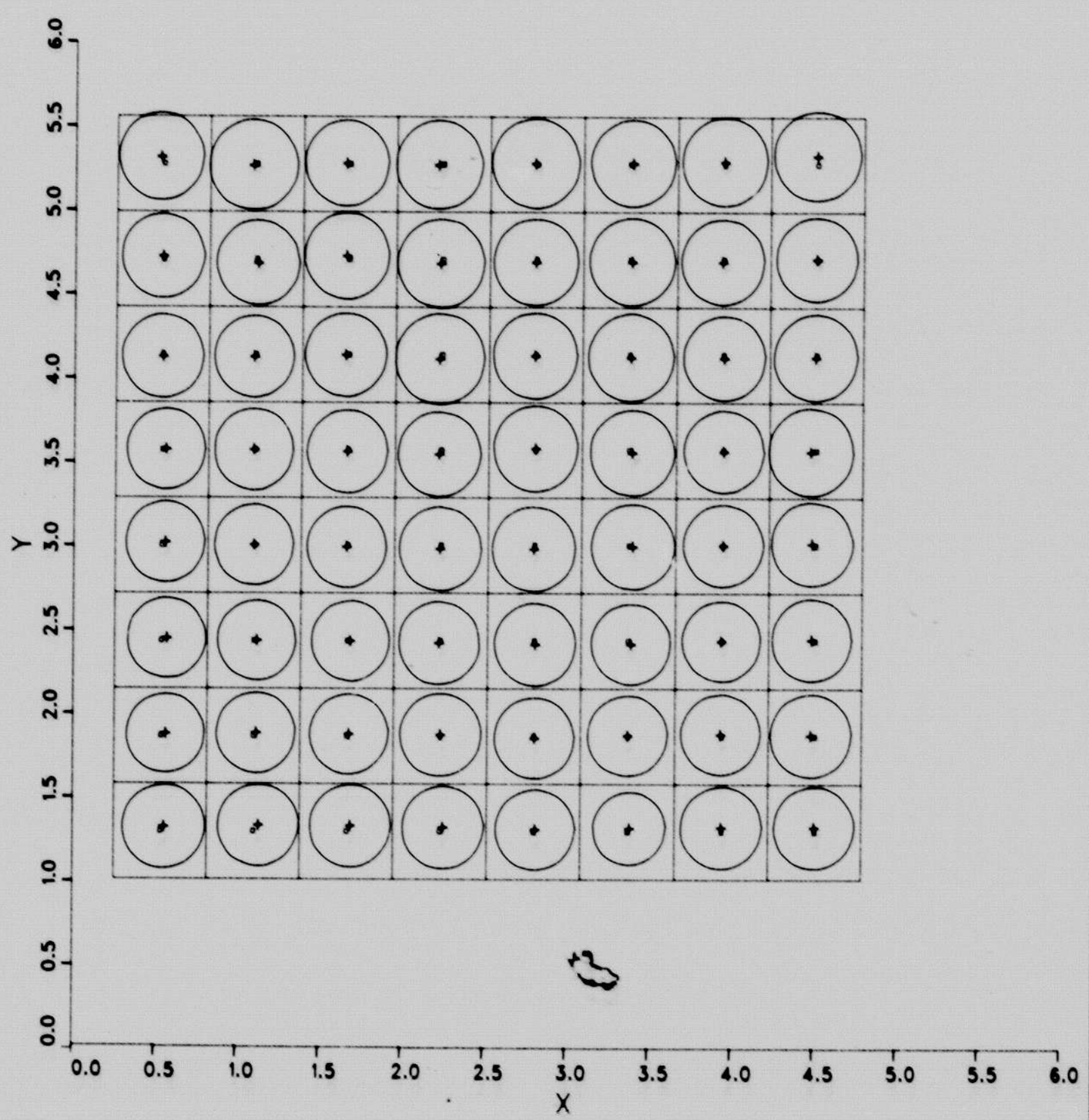


FIG. F-59. B-5 POSTTEST TUBE LOCATIONS AT 85.1CM

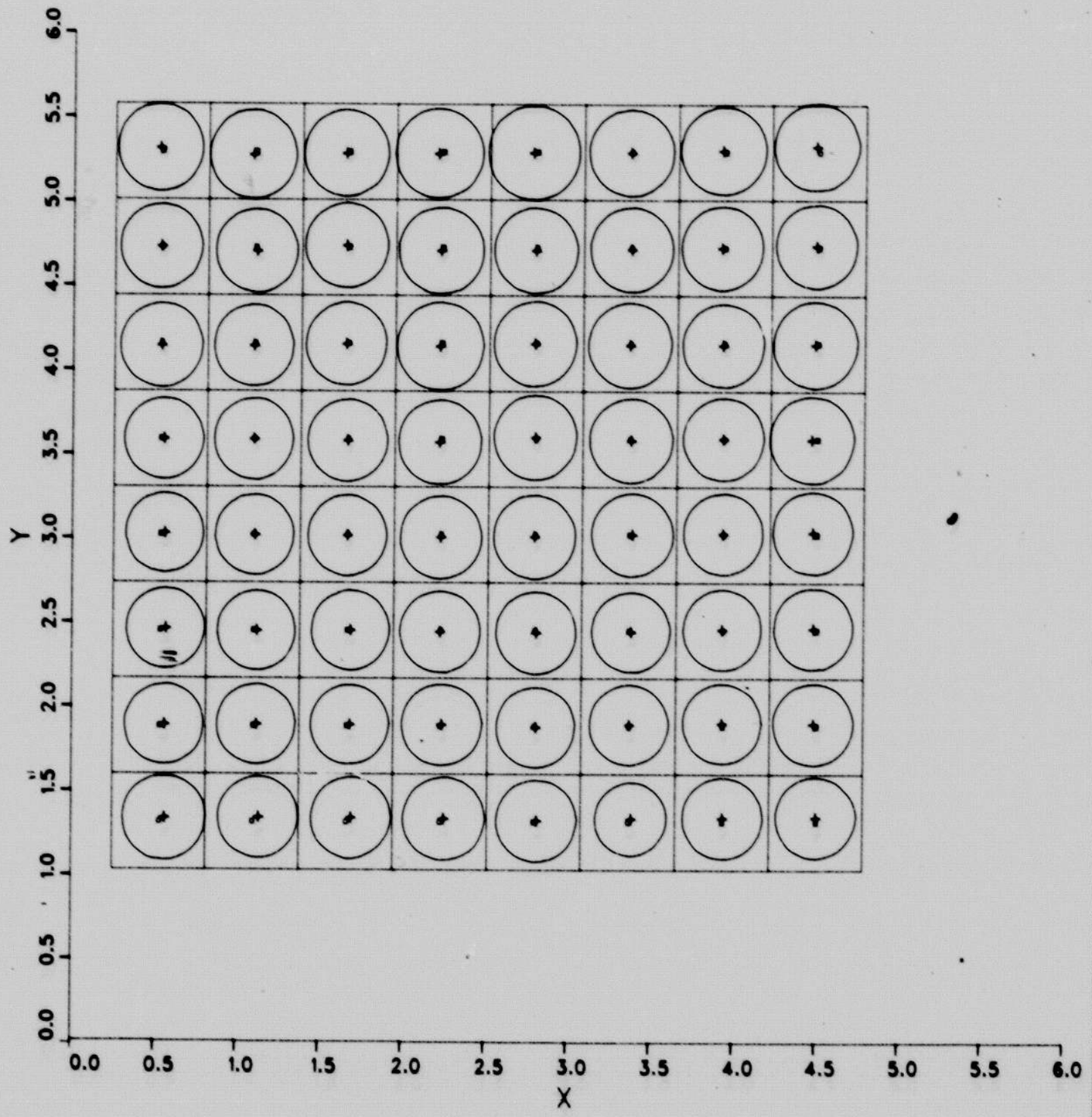


FIG. F-60. B-5 POSTTEST TUBE LOCATIONS AT 86.8CM

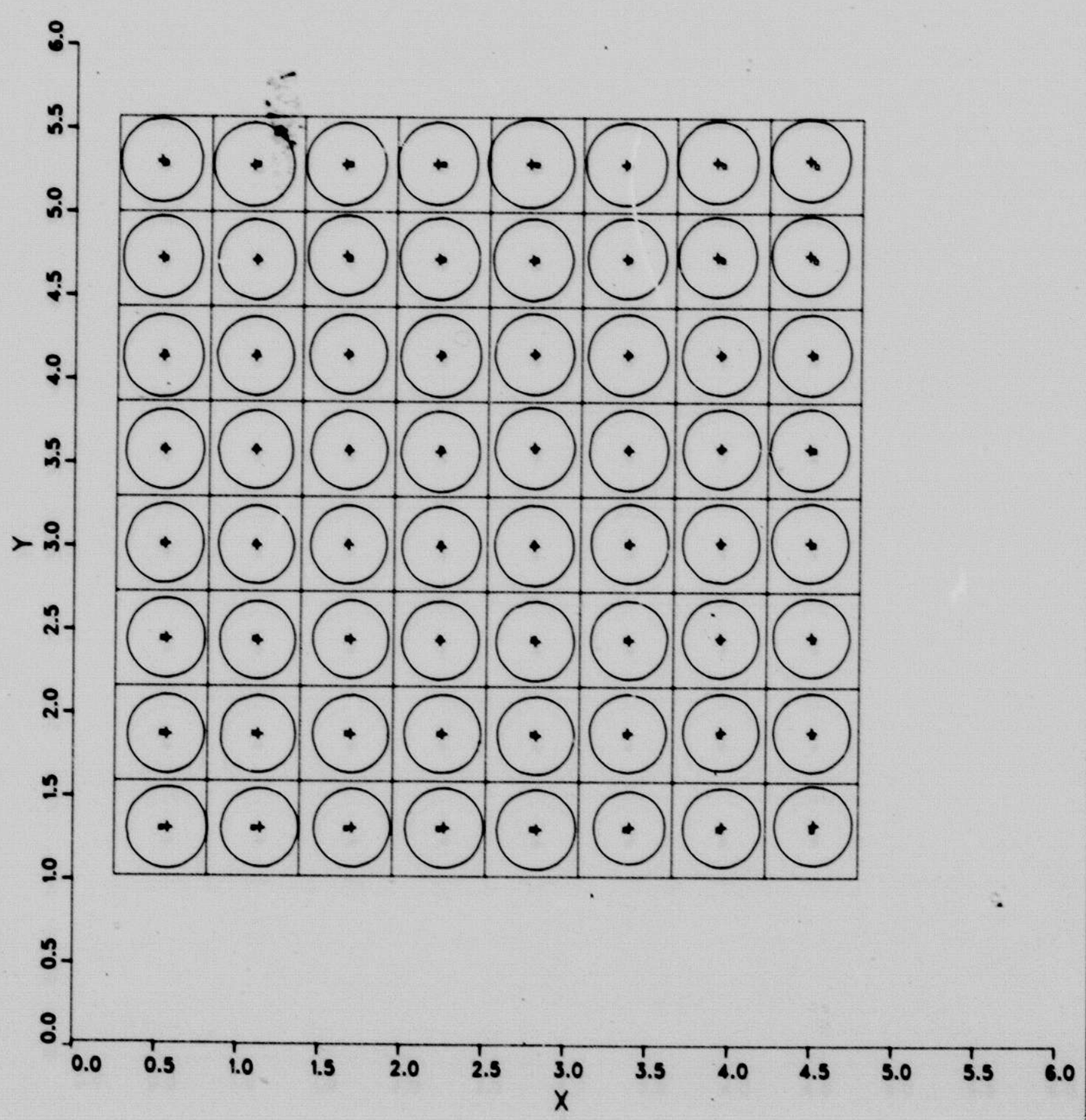


FIG. F-61. B-5 POSTTEST TUBE LOCATIONS AT 88.6CM

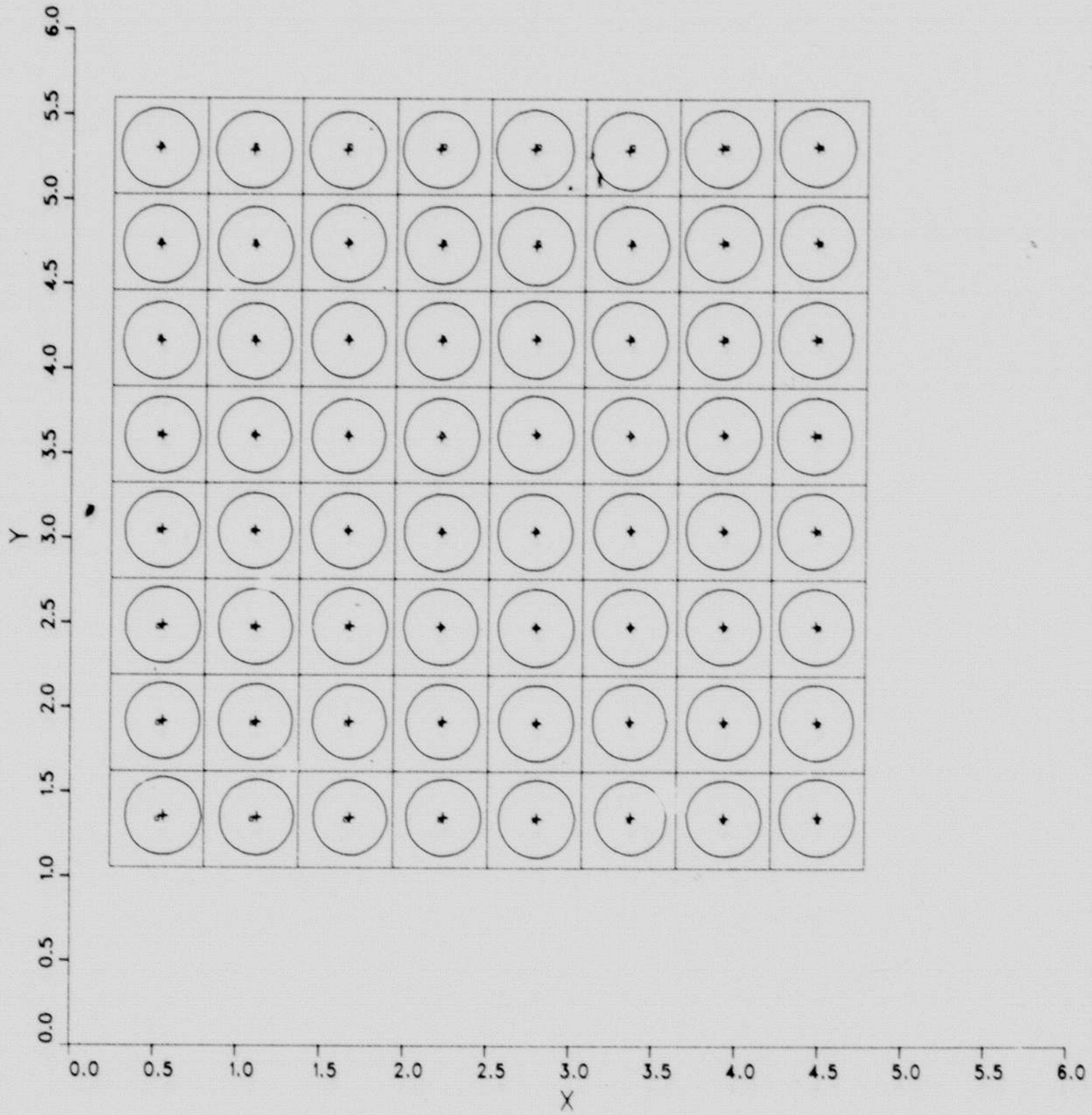


FIG. F-62. B-5 POSTTEST TUBE LOCATIONS AT 90.4CM

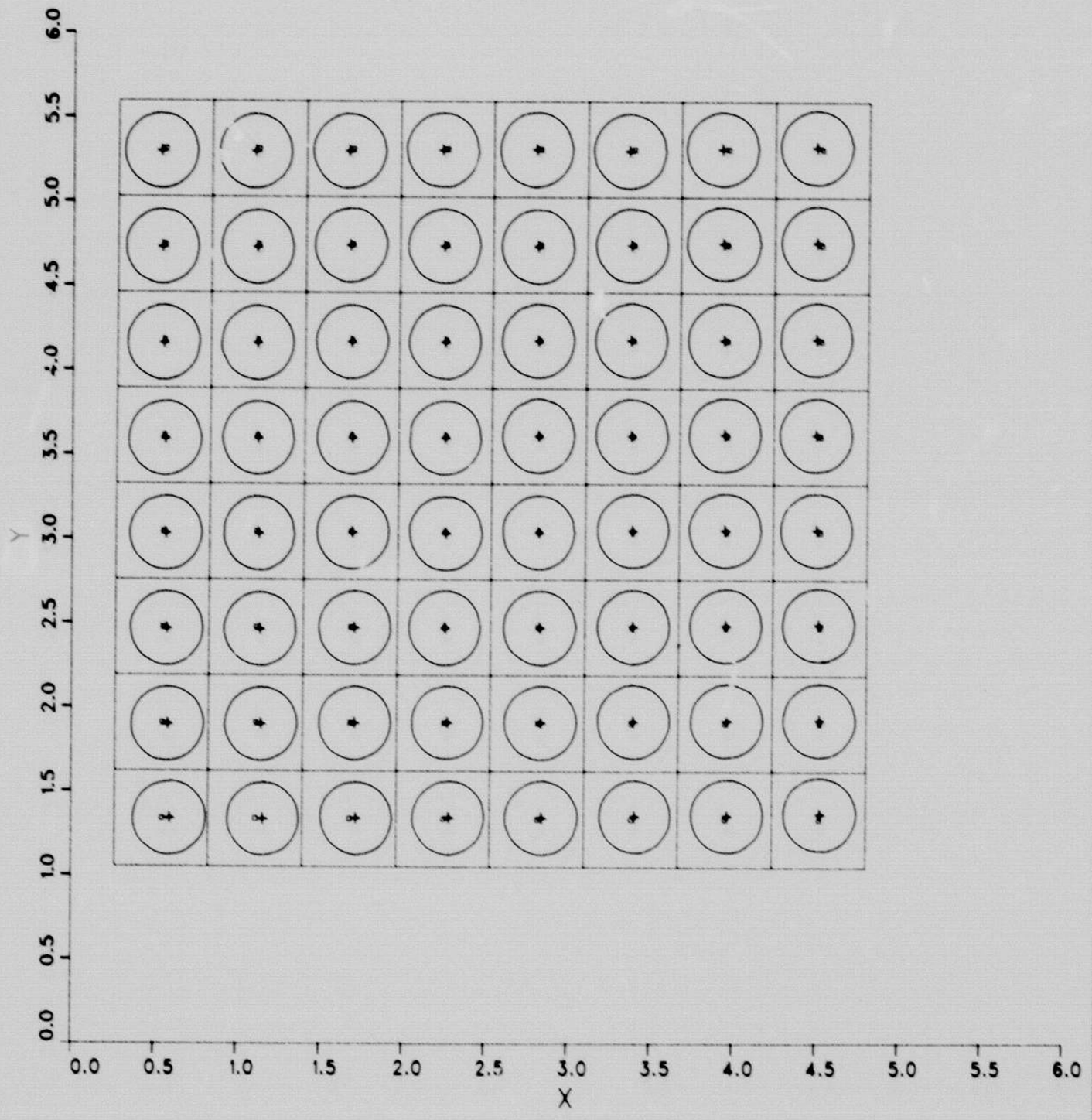


FIG. F-63. B-5 POSTTEST TUBE LOCATIONS AT 92.2CM

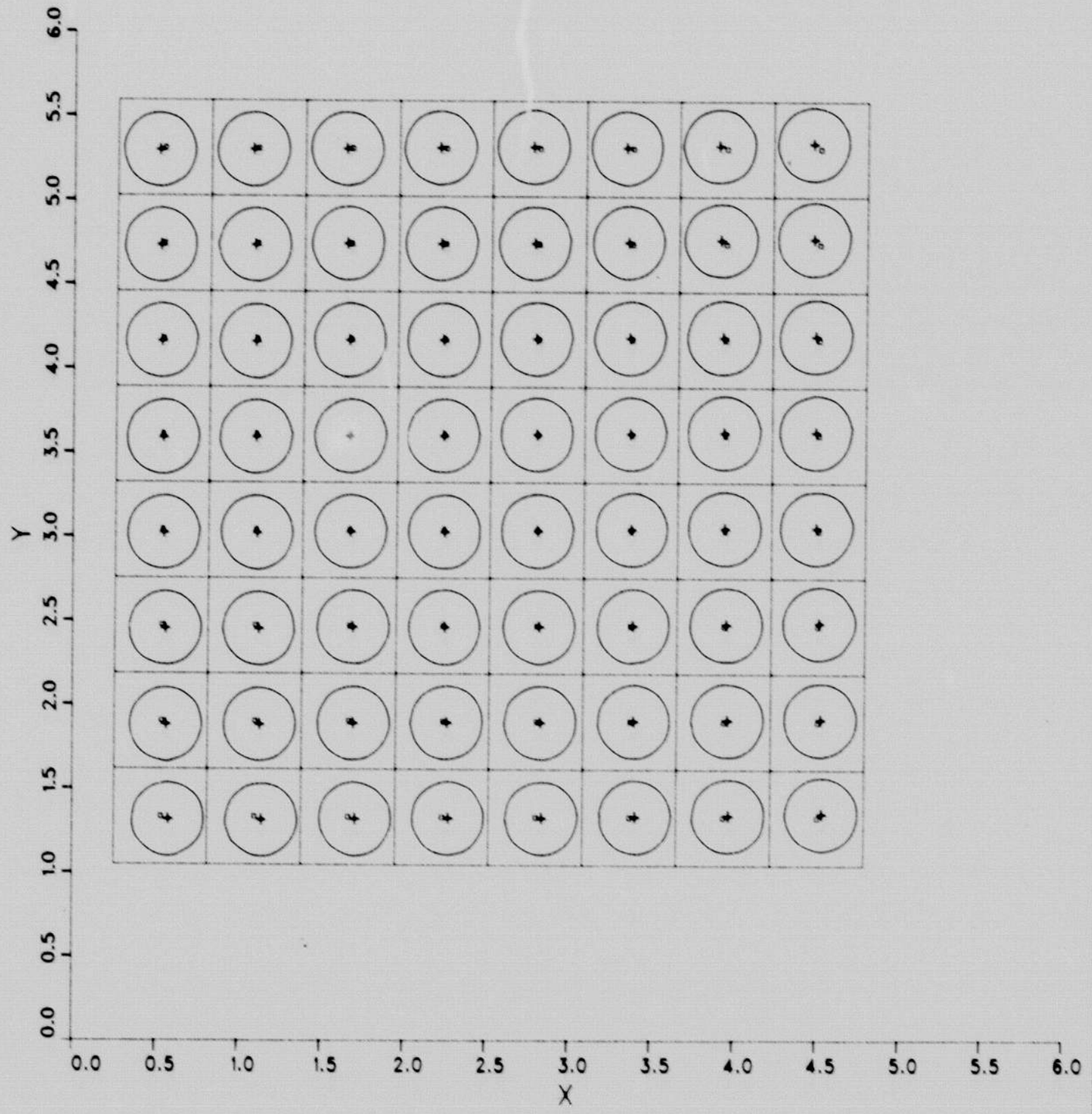
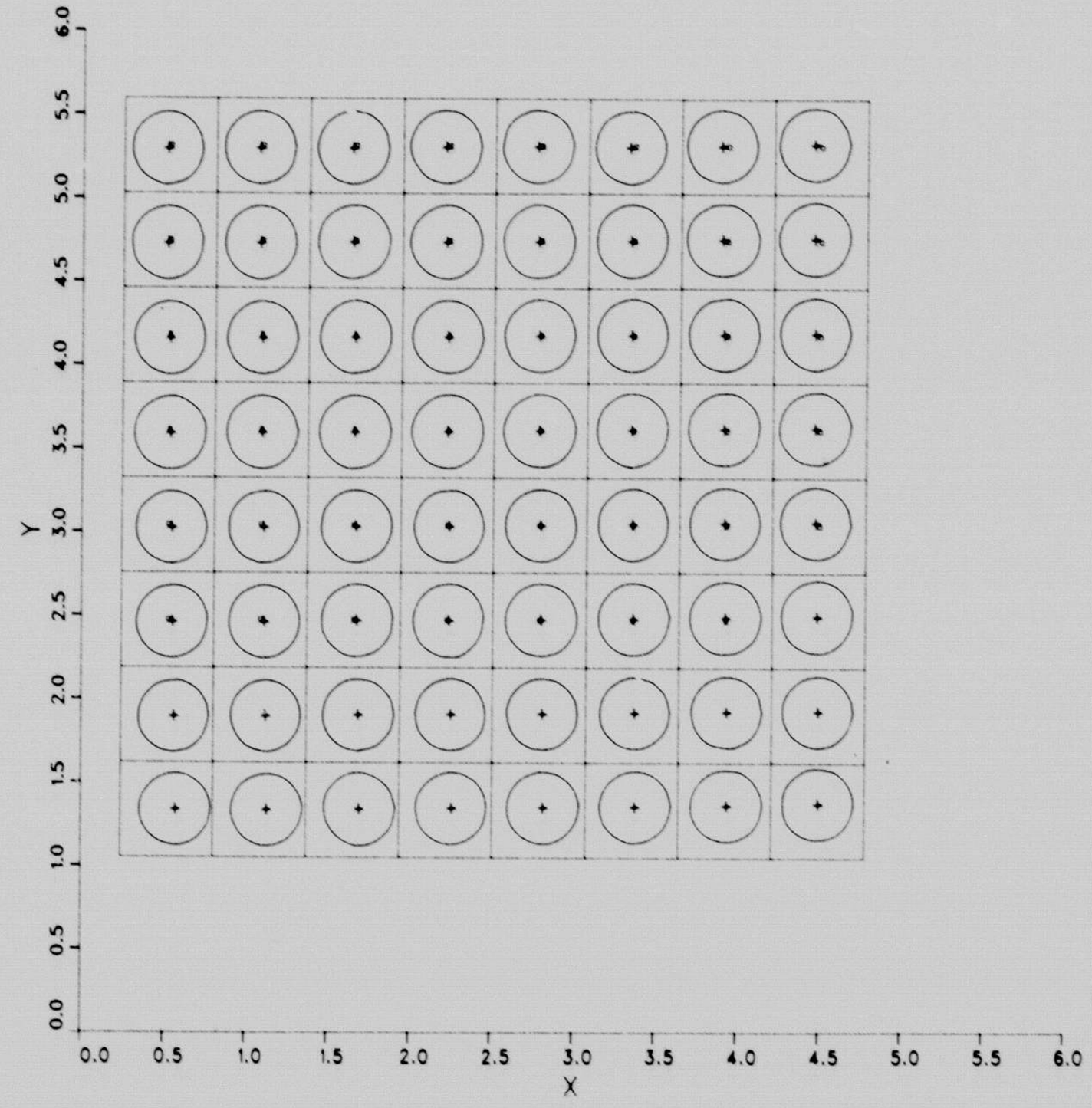



FIG. F-64. B-5 POSTTEST TUBE LOCATIONS AT 94.0CM