02.08-05/01/97-00284

Appendix H

Analytical Data

TPH Immunoassay Test Kit Results
Project # 16487
Field Screening Summary

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-011	7/31/95	72	P-1		RM/AG
CLJ44-FS-012	7/31/95	15	P-1		RM/AG
CLJ44-FS-013	7/31/95	15	P-1		RM/AG
CLJ44-FS-014	7/31/95	81	P-1		RM/AG
CLJ44-FS-015	7/31/95	73	P-1		RM/AG
CLJ44-FS-016	7/31/95	71	P-1		RM/AG
CLJ44-FS-017	7/31/95	71	P-1		RM/AG
CLJ44-FS-018	7/31/95	76	P-1		RM/AG
CLJ44-FS-019	7/31/95	66	P-1		RM/AG
CLJ44-FS-020	7/31/95	83	P-1		RM/AG
CLJ44-FS-021	7/31/95	101	P-1		RM/AG
CLJ44-FS-022	7/31/95	117	P-1		RM/AG
CLJ44-FS-023	7/31/95	128	P-1		RM/AG
CLJ44-FS-024	7/31/95	125	P-2		RM/AG
CLJ44-FS-025	7/31/95	134	P-2		RM/AG
CLJ44-FS-026	7/31/95	152	P-2		RM/AG
CLJ44-FS-027	7/31/95	136	P-2		RM/AG
CLJ44-FS-028	7/31/95	210	P-2		RM/AG
CLJ44-FS-029	7/31/95	814		P-1	RM/AG
CLJ44-FS-030	7/31/95	264	P-2		RM/AG
CLJ44-FS-030D	7/31/95	295	P-2		RM/AG
CLJ44-FS-031	7/31/95	472		P-1	RM/AG
CLJ44-FS-032	7/31/95	2000		P-1	RM/AG
CLJ44-FS-033	7/31/95	211	P-2		RM/AG
CLJ44-FS-034	7/31/95	174	P-2		RM/AG
CLJ44-FS-035	7/31/95	112	P-2		RM/AG
CLJ44-FS-036	7/31/95	1088		P-1	RM/AG
CLJ44-FS-037	7/31/95	1829		P-1	RM/AG
CLJ44-FS-038	7/31/95	106	P-2		RM/AG
CLJ44-FS-039	7/31/95	2000		P-1	RM/AG
CLJ44-FS-040	7/31/95	2000		P-1	RM/AG
CLJ44-FS-041	7/31/95	2000		P-1	RM/AG
CLJ44-FS-042	7/31/95	2000		P-1	RM/AG
CLJ44-FS-043	7/31/95	2000		P-1	RM/AG
CLJ44-FS-044	7/31/95	2000		P-1	RM/AG
CLJ44-FS-045	7/31/95	2000		P-1	RM/AG
CLJ44-FS-046	7/31/95	2000		P-1	RM/AG
CLJ44-FS-047	7/31/95	2000		P-2	RM/AG
CLJ44-FS-048	7/31/95	2000		P-2	RM/AG
CLJ44-FS-049	7/31/95	2000		P-2	RM/AG
CLJ44-FS-049D	7/31/95	2000		P-2	RM/AG
CLJ44-FS-050	7/31/95	1384		P-2	RM/AG
CLJ44-FS-051	7/31/95	2000		P-2	RM/AG
CLJ44-FS-052	7/31/95	465		P-2	RM/AG

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-053	7/31/95	2000		P-2	RM/AG
CLJ44-FS-054	7/31/95	1419		P-2	RM/AG
CLJ44-FS-055	7/31/95	272	P-2		RM/AG
CLJ44-FS-056	7/31/95	271	P-2		RM/AG
CLJ44-FS-057	7/31/95	1221		P-2	RM/AG
CLJ44-FS-058	7/31/95	2000		P-2	RM/AG
CLJ44-FS-059	7/31/95	2000		P-2	RM/AG
CLJ44-FS-060	8/1/95	1584		P-2	RM/AG
CLJ44-FS-061	8/1/95	956		P-2	RM/AG
CLJ44-FS-062	8/1/95	1772		P-2	RM/AG
CLJ44-FS-063	8/1/95	2000		P-3	RM/AG
CLJ44-FS-064	8/1/95	2000		P-3	RM/AG
CLJ44-FS-065	8/1/95	2000		P-3	RM/AG
CLJ44-FS-066	8/1/95	2000		P-3	RM/AG
CLJ44-FS-067	8/1/95	2000		P-3	RM/AG
CLJ44-FS-068	8/1/95	2000		P-3	RM/AG
CLJ44-FS-069	8/1/95	2000		P-3	RM/AG
CLJ44-FS-070	8/1/95	2000		P-3	RM/AG
CLJ44-FS-071	8/1/95	2000		P-3	RM/AG
CLJ44-FS-072	8/1/95	2000		P-3	RM/AG
CLJ44-FS-073	8/1/95	2000		P-3	RM/AG
CLJ44-FS-074	8/1/95	2000		P-3	RM/AG
CLJ44-FS-075	8/1/95	2000		P-3	RM/AG
CLJ44-FS-076	8/1/95	623		P-4	RM/AG
CLJ44-FS-077	8/1/95	2000		P-4	RM/AG
CLJ44-FS-078	8/1/95	860		P-4	RM/AG
CLJ44-FS-079	8/1/95	102	P-2		RM/AG
CLJ44-FS-079D	8/1/95	113	P-2		RM/AG
CLJ44-FS-080	8/1/95	120	P-3		RM/AG
CLJ44-FS-081	8/1/95	126	P-3		RM/AG
CLJ44-FS-082	8/1/95	382	P-3		RM/AG
CLJ44-FS-083	8/1/95	34	P-3		RM/AG
CLJ44-FS-084	8/1/95	40	P-3		RM/AG
CLJ44-FS-085	8/1/95	36	P-3		RM/AG
CLJ44-FS-086	8/1/95	70	P-3		RM/AG
CLJ44-FS-087	8/1/95	2000		P-4	RM/AG
CLJ44-FS-088	8/1/95	2000		P-4	RM/AG
CLJ44-FS-089	8/1/95	2000		P-4	RM/AG
CLJ44-FS-090	8/1/95	2000		P-4	RM/AG
CLJ44-FS-091	8/1/95	2000		P-4	RM/AG
CLJ44-FS-092	8/1/95	2000		P-4	RM/AG
CLJ44-FS-093	8/1/95	2000		P-4	RM/AG
CLJ44-FS-094	8/1/95	753		P-4	RM/AG
CLJ44-FS-095	8/1/95	2000		P-4	RM/AG
CLJ44-FS-096	8/1/95	2000		P-4	RM/AG
CLJ44-FS-097	8/1/95	2000		P-5	RM/AG
CLJ44-FS-098	8/1/95	2000		P-5	RM/AG
CLJ44-FS-099	8/1/95	2000		P-5	RM/AG

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-100	8/1/95	2000		P-5	RM/AG
CLJ44-FS-100D	8/1/95	1757		P-5	RM/AG
CLJ44-FS-101	8/1/95	1471		P-5	RM/AG
CLJ44-FS-102	8/1/95	2000		P-5	RM/AG
CLJ44-FS-103	8/1/95	2000		P-5	RM/AG
CLJ44-FS-104	8/1/95	22	P-3		RM/AG
CLJ44-FS-105	8/1/95	1185		P-5	RM/AG
CLJ44-FS-106	8/1/95	168	P-3		RM/AG
CLJ44-FS-107	8/1/95	21	P-3		RM/AG
CLJ44-FS-108	8/1/95	0	P-3		RM/AG
CLJ44-FS-109	8/1/95	0	P-3		RM/AG
CLJ44-FS-110	8/1/95	33	P-3		RM/AG
CLJ44-FS-111	8/1/95	161	P-3		RM/AG
CLJ44-FS-112	8/1/95	14	P-3		RM/AG
CLJ44-FS-113	8/1/95	384	P-3		RM/AG
CLJ44-FS-114	8/1/95	1633		P-5	RM/AG
CLJ44-FS-115	8/1/95	2000		P-5	RM/AG
CLJ44-FS-116	8/1/95	2000		P-5	RM/AG
CLJ44-FS-117	8/1/95	2000		P-5	RM/AG
CLJ44-FS-118	8/2/95	2000		P-6	RM/AG
CLJ44-FS-119	8/2/95	1527		P-6	RM/AG
CLJ44-FS-120	8/2/95	2000		P-6	RM/AG
CLJ44-FS-120D	8/2/95	2000		P-6	RM/AG
CLJ44-FS-121	8/2/95	1558		P-6	RM/AG
CLJ44-FS-122	8/2/95	2000		P-6	RM/AG
CLJ44-FS-123	8/2/95	2000		P-6	RM/AG
CLJ44-FS-124	8/2/95	1170		P-6	RM/AG
CLJ44-FS-125	8/2/95	991		P-6	RM/AG
CLJ44-FS-126	8/2/95	877		P-6	RM/AG
CLJ44-FS-127	8/2/95	399		P-6	RM/AG
CLJ44-FS-128	8/2/95	967		P-6	RM/AG
CLJ44-FS-129	8/2/95	2000		P-6	RM/AG
CLJ44-FS-130	8/2/95	2000		P-6	RM/AG
CLJ44-FS-131	8/2/95	479		P-7	RM/AG
CLJ44-FS-132	8/2/95	973		P-7	RM/AG
CLJ44-FS-133	8/2/95	1233		P-7	RM/AG
CLJ44-FS-134	8/2/95	49	P-4		RM/AG
CLJ44-FS-135	8/2/95	51	P-4		RM/AG
CLJ44-FS-136	8/2/95	90	P-4		RM/AG
CLJ44-FS-137	8/2/95	2000		P-7	RM/AG
CLJ44-FS-138	8/2/95	237	P-4		RM/AG
CLJ44-FS-139	8/2/95	1322		P-7	RM/AG
CLJ44-FS-140	8/2/95	2000		P-7	RM/AG
CLJ44-FS-140D	8/2/95	2000		P-7	RM/AG
CLJ44-FS-141	8/2/95	819		P-7	RM/AG
CLJ44-FS-142	8/2/95	2000		P-7	RM/AG
CLJ44-FS-143	8/2/95	2000		P-7	RM/AG
CLJ44-FS-144	8/2/95	2000		P-7	RM/AG

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-145	8/2/95	2000		P-7	RM/AG
CLJ44-FS-146	8/2/95	299	P-4		RM/AG
CLJ44-FS-147	8/2/95	1055		P-7	RM/AG
CLJ44-FS-148	8/2/95	75	P-4		RM/AG
CLJ44-FS-149	8/2/95	288	P-4		RM/AG
CLJ44-FS-150	8/2/95	299	P-4		RM/AG
CLJ44-FS-151	8/2/95	371	P-4		RM/AG
CLJ44-FS-152	8/2/95	2000		P-7	RM/AG
CLJ44-FS-153	8/2/95	1823		P-8	RM/AG
CLJ44-FS-154	8/2/95	793		P-8	RM/AG
CLJ44-FS-155	8/2/95	2000		P-8	RM/AG
CLJ44-FS-156	8/2/95	2000		P-8	RM/AG
CLJ44-FS-157	8/2/95	575		P-8	RM/AG
CLJ44-FS-158	8/2/95	93	P-4		RM/AG
CLJ44-FS-159	8/2/95	55	P-5		RM/AG
CLJ44-FS-160	8/2/95	56	P-5		RM/AG
CLJ44-FS-160D	8/2/95	192	P-5		RM/AG
CLJ44-FS-161	8/2/95	38	P-5		RM/AG
CLJ44-FS-162	8/2/95	2000		P-8	RM/AG
CLJ44-FS-163	8/2/95	2000		P-8	RM/AG
CLJ44-FS-164	8/2/95	2000		P-8	RM/AG
CLJ44-FS-165	8/2/95	81	P-5		RM/AG
CLJ44-FS-166	8/2/95	2000		P-8	RM/AG
CLJ44-FS-167	8/2/95	875		P-8	RM/AG
CLJ44-FS-168	8/2/95	2000		P-8	RM/AG
CLJ44-FS-169	8/2/95	2000		P-8	RM/AG
CLJ44-FS-170	8/2/95	2000		P-8	RM/AG
CLJ44-FS-171	8/2/95	2000		P-9	RM/AG
CLJ44-FS-172	8/2/95	2000		P-9	RM/AG
CLJ44-FS-173	8/2/95	2000		P-9	RM/AG
CLJ44-FS-174	8/2/95	2000		P-9	RM/AG
CLJ44-FS-175	8/2/95	2000		P-9	RM/AG
CLJ44-FS-176	8/2/95	137	P-5		RM/AG
CLJ44-FS-177	8/2/95	630		P-9	RM/AG
CLJ44-FS-178	8/2/95	1531		P-9	RM/AG
CLJ44-FS-179	8/2/95	2000		P-9	RM/AG
CLJ44-FS-180	8/2/95	2000		P-9	RM/AG
CLJ44-FS-180D	8/2/95	2000		P-9	RM/AG
CLJ44-FS-181	8/2/95	796		P-9	RM/AG
CLJ44-FS-182	8/2/95	521		P-9	RM/AG
CLJ44-FS-183	8/2/95	2000		P-9	RM/AG
CLJ44-FS-184	8/2/95	1042		P-9	RM/AG
CLJ44-FS-185	8/3/95	72	P-5		RM/AG
CLJ44-FS-186	8/3/95	35	P-5		RM/AG
CLJ44-FS-187	8/3/95	30	P-5		RM/AG
CLJ44-FS-188	8/3/95	1798		P-10	RM/AG
CLJ44-FS-189	8/3/95	754		P-10	RM/AG
CLJ44-FS-190	8/3/95	2000		P-10	RM/AG

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-191	8/3/95	1414		P-10	RM/AG
CLJ44-FS-192	8/3/95	1183		P-10	RM/AG
CLJ44-FS-193	8/3/95	120	P-5		RM/AG
CLJ44-FS-194	8/3/95	502		P-10	RM/AG
CLJ44-FS-195	8/3/95	30	P-5		RM/AG
CLJ44-FS-196	8/3/95	56	P-5		RM/AG
CLJ44-FS-197	8/3/95	54	P-5		RM/AG
CLJ44-FS-198	8/3/95	140	P-5		RM/AG
CLJ44-FS-199	8/3/95	42	P-6		RM/AG
CLJ44-FS-200	8/3/95	66	P-6		RM/AG
CLJ44-FS-200D	8/3/95	57	P-6		RM/AG
CLJ44-FS-201	8/3/95	2000		P-10	RM/AG
CLJ44-FS-202	8/3/95	2000		P-10	RM/AG
CLJ44-FS-203	8/3/95	119	P-6		RM/AG
CLJ44-FS-204	8/3/95	1212		P-10	RM/AG
CLJ44-FS-205	8/3/95	95	P-6		RM/AG
CLJ44-FS-206	8/3/95	438		P-10	RM/AG
CLJ44-FS-207	8/3/95	34			RM/AG
CLJ44-FS-208	8/3/95	30			RM/AG
CLJ44-FS-209	8/3/95	22	P-6		RM/AG
CLJ44-FS-210	8/3/95	119	P-6		RM/AG
CLJ44-FS-211	8/3/95	70	P-6		RM/AG
CLJ44-FS-212	8/3/95	2000		P-10	RM/AG
CLJ44-FS-213	8/3/95	43	P-6		RM/AG
CLJ44-FS-214	8/3/95	55	P-6		RM/AG
CLJ44-FS-215	8/3/95	24	P-6		RM/AG
CLJ44-FS-216	8/3/95	37	P-6		RM/AG
CLJ44-FS-217	8/3/95	0	P-6		RM/AG
CLJ44-FS-218	8/3/95	41	P-6		RM/AG
CLJ44-FS-219	8/3/95	38	P-7		RM/AG
CLJ44-FS-220	8/3/95	66	P-7		RM/AG
CLJ44-FS-220D	8/3/95	69	P-7		RM/AG
CLJ44-FS-221	8/3/95	372	P-7		RM/AG
CLJ44-FS-222	8/3/95	54	P-7		RM/AG
CLJ44-FS-223	8/3/95	0	P-7		RM/AG
CLJ44-FS-224	8/3/95	57	P-7		RM/AG
CLJ44-FS-225	8/3/95	32	P-7		RM/AG
CLJ44-FS-226	8/3/95	2000		P-10	RM/AG
CLJ44-FS-227	8/3/95	107	P-7		RM/AG
CLJ44-FS-228	8/3/95	43	P-7		RM/AG
CLJ44-FS-229	8/3/95	80	P-7		RM/AG
CLJ44-FS-230	8/3/95	2000		P-10	RM/AG
CLJ44-FS-231	8/4/95	2000		P-11	RM/AG
CLJ44-FS-232	8/4/95	2000		P-11	RM/AG
CLJ44-FS-233	8/4/95	2000		P-11	RM/AG
CLJ44-FS-234	8/4/95	2000		P-11	RM/AG
CLJ44-FS-235	8/4/95	2000		P-11	RM/AG
CLJ44-FS-236	8/4/95	2000		P-11	RM/AG

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-237	8/4/95	2000		P-11	RM/AG
CLJ44-FS-238	8/4/95	2000		P-11	RM/AG
CLJ44-FS-239	8/4/95	2000		P-11	RM/AG
CLJ44-FS-240	8/4/95	2000		P-11	RM/AG
CLJ44-FS-240D	8/4/95	2000		P-11	RM/AG
CLJ44-FS-241	8/4/95	2000		P-11	RM/AG
CLJ44-FS-242	8/4/95	2000		P-11	RM/AG
CLJ44-FS-243	8/4/95	2000		P-11	RM/AG
CLJ44-FS-244	8/4/95	2000		P-12	RM/AG
CLJ44-FS-245	8/4/95	2000		P-12	RM/AG
CLJ44-FS-246	8/4/95	2000		P-12	RM/AG
CLJ44-FS-247	8/4/95	2000		P-12	RM/AG
CLJ44-FS-248	8/4/95	2000		P-12	RM/AG
CLJ44-FS-249	8/4/95	2000		P-12	RM/AG
CLJ44-FS-250	8/4/95	1323		P-12	RM/AG
CLJ44-FS-251	8/4/95	2000		P-12	RM/AG
CLJ44-FS-252	8/4/95	2000		P-12	RM/AG
CLJ44-FS-253	8/4/95	2000		P-12	RM/AG
CLJ44-FS-254	8/4/95	2000		P-12	RM/AG
CLJ44-FS-255	8/4/95	2000		P-12	RM/AG
CLJ44-FS-256	8/4/95	880		P-12	RM/AG
CLJ44-FS-257	8/4/95	2000		P-13	RM/AG
CLJ44-FS-258	8/4/95	2000		P-13	RM/AG
CLJ44-FS-259	8/4/95	2000		P-13	RM/AG
CLJ44-FS-260	8/4/95	2000		P-13	RM/AG
CLJ44-FS-260D	8/4/95	2000		P-13	RM/AG
CLJ44-FS-261	8/4/95	2000		P-13	RM/AG
CLJ44-FS-262	8/4/95	1297		P-13	RM/AG
CLJ44-FS-263	8/4/95	2000		P-13	RM/AG
CLJ44-FS-264	8/4/95	2000		P-13	RM/AG
CLJ44-FS-265	8/4/95	2000		P-13	RM/AG
CLJ44-FS-266	8/4/95	2000		P-13	RM/AG
CLJ44-FS-267	8/4/95	2000		P-13	RM/AG
CLJ44-FS-268	8/4/95	2000		P-13	RM/AG
CLJ44-FS-269	8/4/95	2000		P-13	RM/AG
CLJ44-FS-270	8/4/95	2000		P-14	RM/AG
CLJ44-FS-271	8/4/95	2000		P-14	RM/AG
CLJ44-FS-272	8/4/95	2000		P-14	RM/AG
CLJ44-FS-273	8/4/95	2000		P-14	RM/AG
CLJ44-FS-274	8/4/95	2000		P-14	RM/AG
CLJ44-FS-275	8/4/95	2000		P-14	RM/AG
CLJ44-FS-276	8/4/95	2000		P-14	RM/AG
CLJ44-FS-277	8/4/95	2000		P-14	RM/AG
CLJ44-FS-278	8/4/95	2000		P-14	RM/AG
CLJ44-FS-279	8/4/95	2000		P-14	RM/AG
CLJ44-FS-280	8/4/95	2000		P-14	RM/AG
CLJ44-FS-280D	8/4/95	2000		P-14	RM/AG
CLJ44-FS-281	8/4/95	2000		P-14	RM/AG

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-282	8/4/95	2000		P-14	RM/AG
CLJ44-FS-283	8/7/95	2000		P-15	RM/AG
CLJ44-FS-284	8/7/95	2000		P-15	RM/AG
CLJ44-FS-285	8/7/95	2000		P-15	RM/AG
CLJ44-FS-286	8/7/95	2000		P-15	RM/AG
CLJ44-FS-287	8/7/95	2000		P-15	RM/AG
CLJ44-FS-288	8/7/95	2000		P-15	RM/AG
CLJ44-FS-289	8/7/95	2000		P-15	RM/AG
CLJ44-FS-290	8/7/95	2000		P-15	RM/AG
CLJ44-FS-291	8/7/95	2000		P-15	RM/AG
CLJ44-FS-292	8/7/95	2000		P-15	RM/AG
CLJ44-FS-293	8/7/95	2000		P-15	RM/AG
CLJ44-FS-294	8/7/95	2000		P-15	RM/AG
CLJ44-FS-295	8/7/95	58	P-7		RM/AG
CLJ44-FS-296	8/7/95	538		P-15	RM/AG
CLJ44-FS-297	8/7/95	46	P-7		RM/AG
CLJ44-FS-298	8/7/95	1074		P-16	RM/AG
CLJ44-FS-299	8/7/95	335	P-7		RM/AG
CLJ44-FS-300	8/7/95	2000		P-16	RM/AG
CLJ44-FS-300D	8/7/95	2000		P-16	RM/AG
CLJ44-FS-301	8/7/95	1884		P-16	RM/AG
CLJ44-FS-302	8/7/95	2000		P-16	RM/AG
CLJ44-FS-303	8/7/95	2000		P-16	RM/AG
CLJ44-FS-304	8/7/95	2000		P-16	RM/AG
CLJ44-FS-305	8/7/95	2000		P-16	RM/AG
CLJ44-FS-306	8/7/95	818		P-16	RM/AG
CLJ44-FS-307	8/7/95	2000		P-16	RM/AG
CLJ44-FS-308	8/7/95	2000		P-16	RM/AG
CLJ44-FS-309	8/7/95	2000		P-16	RM/AG
CLJ44-FS-310	8/7/95	2000		P-16	RM/AG
CLJ44-FS-311	8/7/95	584		P-16	RM/AG
CLJ44-FS-312	8/7/95	2000		P-17	RM/AG
CLJ44-FS-313	8/7/95	2000		P-17	RM/AG
CLJ44-FS-314	8/7/95	2000		P-17	RM/AG
CLJ44-FS-315	8/7/95	2000		P-17	RM/AG
CLJ44-FS-316	8/7/95	2000		P-17	RM/AG
CLJ44-FS-317	8/7/95	2000		P-17	RM/AG
CLJ44-FS-318	8/7/95	2000		P-17	RM/AG
CLJ44-FS-319	8/7/95	2000		P-17	RM/AG
CLJ44-FS-320	8/7/95	1278		P-17	RM/AG
CLJ44-FS-320D	8/7/95	1216		P-17	RM/AG
CLJ44-FS-321	8/7/95	2000		P-17	RM/AG
CLJ44-FS-322	8/7/95	118	P-8		RM/AG
CLJ44-FS-323	8/7/95	1256		P-17	RM/AG
CLJ44-FS-324	8/7/95	1942		P-17	RM/AG
CLJ44-FS-325	8/7/95	2000		P-17	RM/AG
CLJ44-FS-326	8/7/95	2000		P-18	RM/AG
CLJ44-FS-327	8/7/95	2000		P-18	RM/AG

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-328	8/7/95	2000		P-18	RM/AG
CLJ44-FS-329	8/7/95	2000		P-18	RM/AG
CLJ44-FS-330	8/7/95	2000		P-18	RM/AG
CLJ44-FS-331	8/7/95	2000		P-18	RM/AG
CLJ44-FS-332	8/7/95	2000		P-18	RM/AG
CLJ44-FS-333	8/7/95	2000		P-18	RM/AG
CLJ44-FS-334	8/7/95	23	P-8		RM/AG
CLJ44-FS-335	8/7/95	44	P-8		RM/AG
CLJ44-FS-336	8/7/95	2000		P-18	RM/AG
CLJ44-FS-337	8/7/95	2000		P-18	RM/AG
CLJ44-FS-338	8/7/95	2000		P-18	RM/AG
CLJ44-FS-339	8/7/95	1370		P-18	RM/AG
CLJ44-FS-340	8/7/95	2000		P-18	RM/AG
CLJ44-FS-340D	8/7/95	2000		P-18	RM/AG
CLJ44-FS-341	8/7/95	454		P-19	RM/AG
CLJ44-FS-342	8/7/95	2000		P-19	RM/AG
CLJ44-FS-343	8/7/95	2000		P-19	RM/AG
CLJ44-FS-344	8/7/95	400		P-19	RM/AG
CLJ44-FS-345	8/7/95	2000		P-19	RM/AG
CLJ44-FS-346	8/7/95	2000		P-19	RM/AG
CLJ44-FS-347	8/7/95	2000		P-19	RM/AG
CLJ44-FS-348	8/7/95	2000		P-19	RM/AG
CLJ44-FS-349	8/7/95	2000		P-19	RM/AG
CLJ44-FS-350	8/7/95	2000		P-19	RM/AG
CLJ44-FS-351	8/7/95	2000		P-19	RM/AG
CLJ44-FS-352	8/7/95	2000		P-19	RM/AG
CLJ44-FS-353	8/7/95	2000		P-19	RM/AG
CLJ44-FS-354	8/7/95	2000		P-20	RM/AG
CLJ44-FS-355	8/7/95	2000		P-20	RM/AG
CLJ44-FS-356	8/7/95	2000		P-20	RM/AG
CLJ44-FS-357	8/7/95	2000		P-20	RM/AG
CLJ44-FS-358	8/7/95	2000		P-20	RM/AG
CLJ44-FS-359	8/7/95	548		P-20	RM/AG
CLJ44-FS-360	8/7/95	2000		P-20	RM/AG
CLJ44-FS-360D	8/7/95	2000		P-20	RM/AG
CLJ44-FS-361	8/7/95	2000		P-20	RM/AG
CLJ44-FS-362	8/7/95	2000		P-20	RM/AG
CLJ44-FS-363	8/7/95	2000		P-20	RM/AG
CLJ44-FS-364	8/8/95	2000		P-21	RM/AG
CLJ44-FS-365	8/8/95	2000		P-21	RM/AG
CLJ44-FS-366	8/8/95	2000		P-21	RM/AG
CLJ44-FS-367	8/8/95	2000		P-21	RM/AG
CLJ44-FS-368	8/8/95	2000		P-21	RM/AG
CLJ44-FS-369	8/8/95	2000		P-21	RM/AG
CLJ44-FS-370	8/8/95	2000		P-21	RM/AG
CLJ44-FS-371	8/8/95	2000		P-21	RM/AG
CLJ44-FS-372	8/8/95	2000		P-21	RM/AG
CLJ44-FS-373	8/8/95	2000		P-21	RM/AG

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-374	8/8/95	2000		P-21	RM/AG
CLJ44-FS-375	8/8/95	2000		P-21	RM/AG
CLJ44-FS-376	8/8/95	2000		P-21	RM/AG
CLJ44-FS-377	8/8/95	2000		P-21	RM/AG
CLJ44-FS-378	8/8/95	2000		P-20	RM/AG
CLJ44-FS-379	8/8/95	2000		P-20	RM/AG
CLJ44-FS-380	8/8/95	2000		P-20	RM/AG
CLJ44-FS-380D	8/8/95	2000		P-20	RM/AG
CLJ44-FS-381	8/8/95	2000		P-22	RM/AG
CLJ44-FS-382	8/8/95	2000		P-22	RM/AG
CLJ44-FS-383	8/8/95	2000		P-22	RM/AG
CLJ44-FS-384	8/8/95	2000		P-22	RM/AG
CLJ44-FS-385	8/8/95	222	P-8		RM/AG
CLJ44-FS-386	8/8/95	2000		P-22	RM/AG
CLJ44-FS-387	8/8/95	2000		P-22	RM/AG
CLJ44-FS-388	8/8/95	2000		P-22	RM/AG
CLJ44-FS-389	8/8/95	2000		P-22	RM/AG
CLJ44-FS-390	8/8/95	2000		P-22	RM/AG
CLJ44-FS-391	8/8/95	2000		P-22	RM/AG
CLJ44-FS-392	8/8/95	2000		P-22	RM/AG
CLJ44-FS-393	8/8/95	1451		P-22	CB/RM
CLJ44-FS-394	8/8/95	1400		P-22	CB/RM
CLJ44-FS-395	8/8/95	2000		P-23	CB/RM
CLJ44-FS-396	8/8/95	2000		P-23	AG/RM
CLJ44-FS-397	8/8/95	882		P-23	AG/RM
CLJ44-FS-398	8/8/95	1181		P-23	AG/RM
CLJ44-FS-399	8/8/95	2000		P-23	AG/RM
CLJ44-FS-400	8/8/95	2000		P-23	AG/RM
CLJ44-FS-400D	8/8/95	2000		P-23	AG/RM
CLJ44-FS-401	8/8/95	1764		P-23	AG/RM
CLJ44-FS-402	8/8/95	1156		P-23	AG/RM
CLJ44-FS-403	8/8/95	421		P-23	AG/RM
CLJ44-FS-404	8/8/95	634		P-23	AG/RM
CLJ44-FS-405	8/8/95	159	P-8		AG/RM
CLJ44-FS-406	8/8/95	139	P-8		AG/RM
CLJ44-FS-407	8/8/95	2000		P-23	AG/RM
CLJ44-FS-408	8/8/95	2000		P-23	AG/RM
CLJ44-FS-409	8/8/95	2000		P-23	AG/RM
CLJ44-FS-410	8/9/95	68	P-8		AG/RM
CLJ44-FS-411	8/9/95	145	P-8		CB/AG
CLJ44-FS-412	8/9/95	54	P-8		CB/AG
CLJ44-FS-413	8/9/95	45	P-8		CB/AG
CLJ44-FS-414	8/9/95	95	P-8		CB/AG
CLJ44-FS-415	8/9/95	58	P-8		CB/AG
CLJ44-FS-416	8/9/95	1348		P-24	CB/AG
CLJ44-FS-417	8/9/95	2000		P-24	CB/AG
CLJ44-FS-418	8/9/95	2000		P-24	CB/AG
CLJ44-FS-419	8/9/95	2000		P-24	CB/AG

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-420	8/9/95	2000		P-24	CB/AG
CLJ44-FS-420D	8/9/95	2000		P-24	CB/AG
CLJ44-FS-421	8/9/95	2000		P-24	CB/AG
CLJ44-FS-422	8/9/95	664		P-24	CB/AG
CLJ44-FS-423	8/9/95	2000		P-24	CB/AG
CLJ44-FS-424	8/9/95	113	P-8		CB/AG
CLJ44-FS-425	8/9/95	94	P-9		CB/AG
CLJ44-FS-426	8/9/95	143	P-9		CB/AG
CLJ44-FS-427	8/9/95	165	P-9		CB/AG
CLJ44-FS-428	8/9/95	800		P-24	CB/AG
CLJ44-FS-429	8/9/95	98	P-9		AG/RM
CLJ44-FS-430	8/9/95	173	P-9		AG/RM
CLJ44-FS-431	8/9/95	54	P-9		AG/RM
CLJ44-FS-432	8/9/95	77	P-9		AG/RM
CLJ44-FS-433	8/9/95	218	P-9		AG/RM
CLJ44-FS-434	8/9/95	64	P-9		AG/RM
CLJ44-FS-435	8/9/95	77	P-9		AG/RM
CLJ44-FS-436	8/9/95	69	P-9		AG/RM
A	R			B	
CLJ44-FS-437	8/11/95	2000		P-25	AG/RM
CLJ44-FS-438	8/11/95	2000		P-25	AG/RM
CLJ44-FS-439	8/11/95	2000		P-25	AG/RM
CLJ44-FS-440	8/11/95	2000		P-25	AG/RM
CLJ44-FS-440D	8/11/95	2000		P-25	AG/RM
CLJ44-FS-441	8/11/95	2000		P-25	AG/RM
CLJ44-FS-442	8/11/95	2000		P-25	AG/RM
CLJ44-FS-443	8/11/95	2000		P-25	AG/RM
CLJ44-FS-444	8/11/95	2000		P-25	AG/RM
CLJ44-FS-445	8/11/95	2000		P-25	AG/RM
CLJ44-FS-446	8/11/95	2000		P-25	AG/RM
CLJ44-FS-447	8/11/95	2000		P-25	AG/RM
CLJ44-FS-448	8/11/95	2000		P-25	AG/RM
CLJ44-FS-449	8/11/95	2000		P-25	AG/RM
CLJ44-FS-450	8/11/95	436		P-25	AG/RM
CLJ44-FS-451	8/11/95	2000		P-25	AG/RM
CLJ44-FS-452	8/11/95	2000		P-25	AG/RM
CLJ44-FS-453	8/11/95	2000		P-25	AG/RM
CLJ44-FS-454	8/11/95	2000		P-26	AG/RM
CLJ44-FS-455	8/11/95	2000		P-26	AG/RM
CLJ44-FS-456	8/11/95	2000		P-26	AG/RM
CLJ44-FS-457	8/11/95	2000		P-26	AG/RM
CLJ44-FS-458	8/11/95	776		P-26	AG/RM
CLJ44-FS-459	8/11/95	1733		P-26	AG/RM
CLJ44-FS-460	8/11/95	602		P-26	AG/RM
CLJ44-FS-460D	8/11/95	636		P-26	AG/RM
CLJ44-FS-461	8/11/95	1425		P-26	AG/RM
CLJ44-FS-462	8/11/95	973		P-26	AG/RM
CLJ44-FS-463	8/11/95	620		P-26	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-464	9/26/95	199	P-9		AG/RM
CLJ44-FS-465	9/26/95	231	P-9		AG/RM
CLJ44-FS-466	9/26/95	283	P-10		AG/RM
CLJ44-FS-467	9/26/95	301	P-10		AG/RM
CLJ44-FS-468	9/26/95	161	P-10		AG/RM
CLJ44-FS-469	9/26/95	106	P-10		AG/RM
CLJ44-FS-470	9/26/95	126	P-10		AG/RM
CLJ44-FS-471	9/26/95	242	P-10		AG/RM
CLJ44-FS-472	9/26/95	287	P-10		AG/RM
CLJ44-FS-473	9/26/95	290	P-10		AG/RM
CLJ44-FS-474	9/26/95	137	P-10		AG/RM
CLJ44-FS-475	9/26/95	99	P-10		AG/RM
CLJ44-FS-476	9/26/95	536		P-26	AG/RM
CLJ44-FS-477	9/26/95	2000		P-26	AG/RM
CLJ44-FS-478	9/26/95	1396		P-27	AG/RM
CLJ44-FS-479	9/26/95	2000		P-27	AG/RM
CLJ44-FS-480	9/26/95	2000		P-27	AG/RM
CLJ44-FS-480D	9/26/95	2000		P-27	AG/RM
CLJ44-FS-481	9/26/95	2000		P-27	AG/RM
CLJ44-FS-482	9/26/95	2000		P-27	AG/RM
CLJ44-FS-483	9/26/95	1215		P-27	AG/RM
CLJ44-FS-484	9/26/95	180	P-10		AG/RM
CLJ44-FS-485	9/26/95	333	P-10		AG/RM
CLJ44-FS-486	9/26/95	534		P-27	AG/RM
CLJ44-FS-487	9/26/95	1313		P-27	AG/RM
CLJ44-FS-488	9/26/95	2000		P-27	AG/RM
CLJ44-FS-489	9/26/95	2000		P-27	AG/RM
CLJ44-FS-490	9/26/95	159	P-10		AG/RM
CLJ44-FS-491	9/26/95	551		P-27	AG/RM
CLJ44-FS-492	9/26/95	842		P-27	AG/RM
CLJ44-FS-493	9/26/95	223	P-11	P-27	AG/RM
CLJ44-FS-494	9/26/95	1835		P-27	AG/RM
CLJ44-FS-495	9/26/95	2000		P-28	AG/RM
CLJ44-FS-496	9/26/95	74	P-11		AG/RM
CLJ44-FS-497	9/26/95	1135		P-28	AG/RM
CLJ44-FS-498	9/26/95	575		P-28	AG/RM
CLJ44-FS-499	9/26/95	2000		P-28	AG/RM
CLJ44-FS-500	9/26/95	259	P-11		AG/RM
CLJ44-FS-500D	9/26/95	306	P-11		AG/RM
CLJ44-FS-501	9/26/95	151	P-11		AG/RM
CLJ44-FS-502	9/26/95	2000		P-28	AG/RM
CLJ44-FS-503	9/26/95	2000		P-28	AG/RM
CLJ44-FS-504	9/26/95	2000		P-28	AG/RM
CLJ44-FS-505	9/26/95	177	P-11		AG/RM
CLJ44-FS-506	9/26/95	150	P-11		AG/RM
CLJ44-FS-507	9/26/95	203	P-11		AG/RM
CLJ44-FS-508	9/26/95	391	P-11		AG/RM
CLJ44-FS-509	9/26/95	423		P-28	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-510	9/26/95	432		P-28	AG/RM
CLJ44-FS-511	9/26/95	224	P-11		AG/RM
CLJ44-FS-512	9/26/95	234	P-11		AG/RM
CLJ44-FS-513	9/26/95	314	P-11		AG/RM
CLJ44-FS-514	9/26/95	97	P-11		AG/RM
CLJ44-FS-515	9/26/95	75	P-11		AG/RM
CLJ44-FS-516	9/26/95	90	P-12		AG/RM
CLJ44-FS-517	9/26/95	67	P-12		AG/RM
CLJ44-FS-518	9/26/95	78	P-12		AG/RM
CLJ44-FS-519	9/26/95	238	P-12		AG/RM
CLJ44-FS-520	9/26/95	199	P-12		AG/RM
CLJ44-FS-520D	9/26/95	210	P-12		AG/RM
CLJ44-FS-521	9/26/95	122	P-12		AG/RM
CLJ44-FS-522	9/26/95	917		P-28	AG/RM
CLJ44-FS-523	9/26/95	1222		P-28	AG/RM
CLJ44-FS-524	9/26/95	710		P-28	AG/RM
CLJ44-FS-525	9/26/95	154	P-12		AG/RM
CLJ44-FS-526	9/26/95	510		P-29	AG/RM
CLJ44-FS-527	9/26/95	974		P-29	AG/RM
CLJ44-FS-528	9/26/95	210	P-12		AG/RM
CLJ44-FS-529	9/26/95	2000		P-29	AG/RM
CLJ44-FS-530	9/26/95	2000		P-29	AG/RM
CLJ44-FS-531	9/26/95	2000		P-29	AG/RM
CLJ44-FS-532	9/26/95	1177		P-29	AG/RM
CLJ44-FS-533	9/26/95	507		P-29	AG/RM
CLJ44-FS-534	9/26/95	1514		P-29	AG/RM
CLJ44-FS-535	9/26/95	2000		P-29	AG/RM
CLJ44-FS-536	9/26/95	177	P-12		AG/RM
CLJ44-FS-537	9/26/95	536		P-29	AG/RM
CLJ44-FS-538	9/26/95	420		P-29	AG/RM
CLJ44-FS-539	9/26/95	288	P-12		AG/RM
CLJ44-FS-540	9/26/95	330	P-12		AG/RM
CLJ44-FS-540D	9/26/95	342	P-12		AG/RM
CLJ44-FS-541	9/26/95	63	P-12		AG/RM
CLJ44-FS-542	9/27/95	68	P-12		AG/RM
CLJ44-FS-543	9/27/95	104	P-13		AG/RM
CLJ44-FS-544	9/27/95	39	P-13		AG/RM
CLJ44-FS-545	9/27/95	101	P-13		AG/RM
CLJ44-FS-546	9/27/95	159	P-13		AG/RM
CLJ44-FS-547	9/27/95	212	P-13		AG/RM
CLJ44-FS-548	9/27/95	99	P-13		AG/RM
CLJ44-FS-549	9/27/95	172	P-13		AG/RM
CLJ44-FS-550	9/27/95	66	P-13		AG/RM
CLJ44-FS-551	9/27/95	79	P-13		AG/RM
CLJ44-FS-552	9/27/95	107	P-13		AG/RM
CLJ44-FS-553	9/27/95	56	P-13		AG/RM
CLJ44-FS-554	9/27/95	154	P-13		AG/RM
CLJ44-FS-555	9/27/95	119	P-13		AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-556	9/27/95	595		P-29	AG/RM
CLJ44-FS-557	9/27/95	1137		P-29	AG/RM
CLJ44-FS-558	9/27/95	472		P-30	AG/RM
CLJ44-FS-559	9/27/95	291	P-14		AG/RM
CLJ44-FS-560	9/27/95	1924		P-30	AG/RM
CLJ44-FS-560D	9/27/95	2000		P-30	AG/RM
CLJ44-FS-561	9/27/95	482		P-30	AG/RM
CLJ44-FS-562	9/27/95	2000		P-30	AG/RM
CLJ44-FS-563	9/27/95	2000		P-30	AG/RM
CLJ44-FS-564	9/27/95	2000		P-30	AG/RM
CLJ44-FS-565	9/27/95	1148		P-30	AG/RM
CLJ44-FS-566	9/27/95	125	P-14		AG/RM
CLJ44-FS-567	9/27/95	2000		P-30	AG/RM
CLJ44-FS-568	9/27/95	414		P-30	AG/RM
CLJ44-FS-569	9/27/95	663		P-30	AG/RM
CLJ44-FS-570	9/27/95	815		P-30	AG/RM
CLJ44-FS-571	9/27/95	574		P-30	AG/RM
CLJ44-FS-572	9/27/95	2000		P-30	AG/RM
CLJ44-FS-573	9/27/95	2000		P-31	AG/RM
CLJ44-FS-574	9/27/95	2000		P-31	AG/RM
CLJ44-FS-575	9/27/95	2000		P-31	AG/RM
CLJ44-FS-576	9/27/95	941		P-31	AG/RM
CLJ44-FS-577	9/27/95	2000		P-31	AG/RM
CLJ44-FS-578	9/27/95	2000		P-31	AG/RM
CLJ44-FS-579	9/27/95	2000		P-31	AG/RM
CLJ44-FS-580	9/27/95	2000		P-31	AG/RM
CLJ44-FS-580D	9/27/95	2000		P-31	AG/RM
CLJ44-FS-581	9/27/95	980		P-31	AG/RM
CLJ44-FS-582	9/27/95	1139		P-31	AG/RM
CLJ44-FS-583	9/27/95	2000		P-31	AG/RM
CLJ44-FS-584	9/27/95	692		P-31	AG/RM
CLJ44-FS-585	9/27/95	1496		P-31	AG/RM
CLJ44-FS-586	9/27/95	2000		P-32	AG/RM
CLJ44-FS-587	9/27/95	204	P-14		AG/RM
CLJ44-FS-588	9/27/95	846		P-32	AG/RM
CLJ44-FS-589	9/27/95	2000		P-32	AG/RM
CLJ44-FS-590	9/27/95	2000		P-32	AG/RM
CLJ44-FS-591	9/27/95	61	P-14		AG/RM
CLJ44-FS-592	9/27/95	72	P-14		AG/RM
CLJ44-FS-593	9/27/95	49	P-14		AG/RM
CLJ44-FS-594	9/27/95	958		P-32	AG/RM
CLJ44-FS-595	9/27/95	254	P-14		AG/RM
CLJ44-FS-596	9/27/95	568		P-32	AG/RM
CLJ44-FS-597	9/27/95	2000		P-32	AG/RM
CLJ44-FS-598	9/27/95	1737		P-32	AG/RM
CLJ44-FS-599	9/27/95	2000		P-32	AG/RM
CLJ44-FS-600	9/27/95	1707		P-32	AG/RM
CLJ44-FS-600D	9/27/95	1556		P-32	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-601	9/27/95	2000		P-32	AG/RM
CLJ44-FS-602	9/27/95	2000		P-32	AG/RM
CLJ44-FS-603	9/27/95	2000		P-32	AG/RM
CLJ44-FS-604	9/27/95	2000		P-33	AG/RM
CLJ44-FS-605	9/27/95	174	P-14		AG/RM
CLJ44-FS-606	9/27/95	2000		P-33	AG/RM
CLJ44-FS-607	9/27/95	2000		P-33	AG/RM
CLJ44-FS-608	9/27/95	1962		P-33	AG/RM
CLJ44-FS-609	9/27/95	931		P-33	AG/RM
CLJ44-FS-610	9/27/95	1215		P-33	AG/RM
CLJ44-FS-611	9/27/95	1383		P-33	AG/RM
CLJ44-FS-612	9/27/95	695		P-33	AG/RM
CLJ44-FS-613	9/27/95	2000		P-33	AG/RM
CLJ44-FS-614	9/27/95	2000		P-33	AG/RM
CLJ44-FS-615	9/27/95	2000		P-33	AG/RM
CLJ44-FS-616	9/27/95	2000		P-33	AG/RM
CLJ44-FS-617	9/27/95	2000		P-33	AG/RM
CLJ44-FS-618	9/27/95	2000		P-34	AG/RM
CLJ44-FS-619	9/27/95	2000		P-34	AG/RM
CLJ44-FS-620	9/28/95	2000		P-34	AG/RM
CLJ44-FS-620D	9/28/95	2000		P-34	AG/RM
CLJ44-FS-621	9/28/95	2000		P-34	AG/RM
CLJ44-FS-622	9/28/95	2000		P-34	AG/RM
CLJ44-FS-623	9/28/95	2000		P-34	AG/RM
CLJ44-FS-624	9/28/95	2000		P-34	AG/RM
CLJ44-FS-625	9/28/95	2000		P-34	AG/RM
CLJ44-FS-626	9/28/95	2000		P-34	AG/RM
CLJ44-FS-627	9/28/95	2000		P-34	AG/RM
CLJ44-FS-628	9/28/95	2000		P-34	AG/RM
CLJ44-FS-629	9/28/95	2000		P-34	AG/RM
CLJ44-FS-630	9/28/95	2000		P-34	AG/RM
CLJ44-FS-631	9/28/95	2000		P-35	AG/RM
CLJ44-FS-632	9/28/95	2000		P-35	AG/RM
CLJ44-FS-633	9/28/95	2000		P-35	AG/RM
CLJ44-FS-634	9/28/95	2000		P-35	AG/RM
CLJ44-FS-635	9/28/95	324	P-14		AG/RM
CLJ44-FS-636	9/28/95	1024		P-35	AG/RM
CLJ44-FS-637	9/28/95	772		P-35	AG/RM
CLJ44-FS-638	9/28/95	2000		P-35	AG/RM
CLJ44-FS-639	9/28/95	2000		P-35	AG/RM
CLJ44-FS-640	9/28/95	2000		P-35	AG/RM
CLJ44-FS-640D	9/28/95	2000		P-35	AG/RM
CLJ44-FS-641	9/28/95	903		P-35	AG/RM
CLJ44-FS-642	9/28/95	623		P-35	AG/RM
CLJ44-FS-643	9/28/95	2000		P-35	AG/RM
CLJ44-FS-644	9/28/95	370		P-35	AG/RM
CLJ44-FS-645	9/28/95	981		P-35	AG/RM
CLJ44-FS-646	9/28/95	2000		P-35	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-647	9/28/95	2000		P-36	AG/RM
CLJ44-FS-648	9/28/95	1118		P-36	AG/RM
CLJ44-FS-649	9/28/95	253	P-14		AG/RM
CLJ44-FS-650	9/28/95	844		P-36	AG/RM
CLJ44-FS-651	9/28/95	937		P-36	AG/RM
CLJ44-FS-652	9/28/95	2000		P-36	AG/RM
CLJ44-FS-653	9/28/95	2000		P-36	AG/RM
CLJ44-FS-654	9/28/95	2000		P-36	AG/RM
CLJ44-FS-655	9/28/95	2000		P-36	AG/RM
CLJ44-FS-656	9/28/95	990		P-36	AG/RM
CLJ44-FS-657	9/28/95	1636		P-36	AG/RM
CLJ44-FS-658	9/28/95	874		P-36	AG/RM
CLJ44-FS-659	9/28/95	1144		P-36	AG/RM
CLJ44-FS-660	9/28/95	1723		P-36	AG/RM
CLJ44-FS-660D	9/28/95	1809		P-36	AG/RM
CLJ44-FS-661	9/28/95	921		P-36	AG/RM
CLJ44-FS-662	9/28/95	2000		P-36	AG/RM
CLJ44-FS-663	9/28/95	2000		P-37	AG/RM
CLJ44-FS-664	9/28/95	1359		P-37	AG/RM
CLJ44-FS-665	9/28/95	2000		P-37	AG/RM
CLJ44-FS-666	9/28/95	2000		P-37	AG/RM
CLJ44-FS-667	9/28/95	1869		P-37	AG/RM
CLJ44-FS-668	9/28/95	1991		P-37	AG/RM
CLJ44-FS-669	9/28/95	1637		P-37	AG/RM
CLJ44-FS-670	9/28/95	2000		P-37	AG/RM
CLJ44-FS-671	9/28/95	2000		P-37	AG/RM
CLJ44-FS-672	9/28/95	840		P-37	AG/RM
CLJ44-FS-673	9/28/95	200		P-38	AG/RM
CLJ44-FS-674	9/28/95	775		P-38	AG/RM
CLJ44-FS-675	9/28/95	1609		P-38	AG/RM
CLJ44-FS-676	9/28/95	2000		P-38	AG/RM
CLJ44-FS-677	9/28/95	2000		P-38	AG/RM
CLJ44-FS-678	9/28/95	148	P-14		AG/RM
CLJ44-FS-679	9/28/95	2000		P-38	AG/RM
CLJ44-FS-680	9/28/95	2000		P-38	AG/RM
CLJ44-FS-680D	9/28/95	2000		P-38	AG/RM
CLJ44-FS-681	9/29/95	2000		P-38	AG/RM
CLJ44-FS-682	9/29/95	2000		P-38	AG/RM
CLJ44-FS-683	9/29/95	1459		P-38	AG/RM
CLJ44-FS-684	9/29/95	2000		P-38	AG/RM
CLJ44-FS-685	9/29/95	1212		P-38	AG/RM
CLJ44-FS-686	9/29/95	39	P-14		AG/RM
CLJ44-FS-687	9/29/95	87	P-15		AG/RM
CLJ44-FS-688	9/29/95	44	P-15		AG/RM
CLJ44-FS-689	9/29/95	108	P-15		AG/RM
CLJ44-FS-690	9/29/95	2000		P-38	AG/RM
CLJ44-FS-691	9/29/95	2000		P-39	AG/RM
CLJ44-FS-692	9/29/95	1914		P-39	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-693	9/29/95	127	P-15		AG/RM
CLJ44-FS-694	9/29/95	2000		P-39	AG/RM
CLJ44-FS-695	9/29/95	2000		P-39	AG/RM
CLJ44-FS-696	9/29/95	1462	P-15		AG/RM
CLJ44-FS-697	9/29/95	54		P-39	AG/RM
CLJ44-FS-698	9/29/95	2000		P-39	AG/RM
CLJ44-FS-699	9/29/95	2000	P-15		AG/RM
CLJ44-FS-700	9/29/95	283	P-15		AG/RM
CLJ44-FS-700D	9/29/95	293		P-39	AG/RM
CLJ44-FS-701	9/29/95	2000		P-39	AG/RM
CLJ44-FS-702	9/29/95	2000		P-39	AG/RM
CLJ44-FS-703	9/29/95	2000		P-39	AG/RM
CLJ44-FS-704	9/29/95	2000		P-39	AG/RM
CLJ44-FS-705	9/29/95	806		P-39	AG/RM
CLJ44-FS-706	9/29/95	124	P-15		AG/RM
CLJ44-FS-707	9/29/95	2000		P-39	AG/RM
CLJ44-FS-708	9/29/95	129	P-15		AG/RM
CLJ44-FS-709	9/29/95	79	P-15		AG/RM
CLJ44-FS-710	9/29/95	2000		P-40	AG/RM
CLJ44-FS-711	9/29/95	726		P-40	AG/RM
CLJ44-FS-712	9/29/95	86	P-15		AG/RM
CLJ44-FS-713	9/29/95	100	P-15		AG/RM
CLJ44-FS-714	9/29/95	44	P-15		AG/RM
CLJ44-FS-715	9/29/95	54	P-15		AG/RM
CLJ44-FS-716	9/29/95	47	P-16		AG/RM
CLJ44-FS-717	9/29/95	2000		P-40	AG/RM
CLJ44-FS-718	9/29/95	34	P-16		AG/RM
CLJ44-FS-719	9/29/95	889		P-40	AG/RM
CLJ44-FS-720	9/29/95	908		P-40	AG/RM
CLJ44-FS-720D	9/29/95	1001		P-40	AG/RM
CLJ44-FS-721	9/29/95	198	P-16		AG/RM
CLJ44-FS-722	9/29/95	42	P-16		AG/RM
CLJ44-FS-723	9/29/95	2000		P-40	AG/RM
CLJ44-FS-724	9/29/95	235	P-16		AG/RM
CLJ44-FS-725	9/29/95	2000		P-40	AG/RM
CLJ44-FS-726	9/29/95	225	P-16		AG/RM
CLJ44-FS-727	9/29/95	40	P-16		AG/RM
CLJ44-FS-728	9/29/95	23	P-16		AG/RM
CLJ44-FS-729	9/29/95	64	P-16		AG/RM
CLJ44-FS-730	9/29/95	286	P-16		AG/RM
CLJ44-FS-731	9/29/95	2000		P-40	AG/RM
CLJ44-FS-732	9/29/95	2000		P-40	AG/RM
CLJ44-FS-733	9/29/95	89	P-16		AG/RM
CLJ44-FS-734	9/29/95	2000		P-40	AG/RM
CLJ44-FS-735	9/29/95	2000		P-40	AG/RM
CLJ44-FS-736	9/29/95	2000		P-40	AG/RM
CLJ44-FS-737	9/29/95	1762		P-40	AG/RM
CLJ44-FS-738	9/29/95	2000		P-41	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-739	9/29/95	2000		P-41	AG/RM
CLJ44-FS-740	9/29/95	251	P-16		AG/RM
CLJ44-FS-740D	9/29/95	223	P-16		AG/RM
CLJ44-FS-741	9/29/95	68	P-16		AG/RM
CLJ44-FS-742	9/29/95	237	P-17		AG/RM
CLJ44-FS-743	9/29/95	138	P-17		AG/RM
CLJ44-FS-744	9/29/95	188	P-17		AG/RM
CLJ44-FS-745	9/29/95	708		P-41	AG/RM
CLJ44-FS-746	10/2/95	48	P-17		AG/RM
CLJ44-FS-747	10/2/95	151	P-17		AG/RM
CLJ44-FS-748	10/2/95	97	P-17		AG/RM
CLJ44-FS-749	10/2/95	145	P-17		AG/RM
CLJ44-FS-750	10/2/95	157	P-17		AG/RM
CLJ44-FS-751	10/2/95	111	P-17		AG/RM
CLJ44-FS-752	10/2/95	108	P-17		AG/RM
CLJ44-FS-753	10/2/95	226	P-17		AG/RM
CLJ44-FS-754	10/2/95	1566		P-41	AG/RM
CLJ44-FS-755	10/2/95	199	P-17		AG/RM
CLJ44-FS-756	10/2/95	226	P-17		AG/RM
CLJ44-FS-757	10/2/95	2000		P-41	AG/RM
CLJ44-FS-758	10/2/95	2000		P-41	AG/RM
CLJ44-FS-759	10/2/95	1279		P-41	AG/RM
CLJ44-FS-760	10/2/95	2000		P-41	AG/RM
CLJ44-FS-760D	10/2/95	2000		P-41	AG/RM
CLJ44-FS-761	10/2/95	2000		P-41	AG/RM
CLJ44-FS-762	10/2/95	899		P-41	AG/RM
CLJ44-FS-763	10/2/95	993		P-41	AG/RM
CLJ44-FS-764	10/2/95	2000		P-41	AG/RM
CLJ44-FS-765	10/2/95	2000		P-41	AG/RM
CLJ44-FS-766	10/2/95	178	P-18		AG/RM
CLJ44-FS-767	10/2/95	1824		P-42	AG/RM
CLJ44-FS-768	10/2/95	1642		P-42	AG/RM
CLJ44-FS-769	10/2/95	2000		P-42	AG/RM
CLJ44-FS-770	10/2/95	2000		P-42	AG/RM
CLJ44-FS-771	10/2/95	985		P-42	AG/RM
CLJ44-FS-772	10/2/95	2000		P-42	AG/RM
CLJ44-FS-773	10/2/95	2000		P-42	AG/RM
CLJ44-FS-774	10/2/95	2000		P-42	AG/RM
CLJ44-FS-775	10/2/95	2000		P-42	AG/RM
CLJ44-FS-776	10/2/95	2000		P-42	AG/RM
CLJ44-FS-777	10/2/95	2000		P-42	AG/RM
CLJ44-FS-778	10/2/95	2000		P-42	AG/RM
CLJ44-FS-779	10/2/95	2000		P-42	AG/RM
CLJ44-FS-780	10/2/95	1963		P-43	AG/RM
CLJ44-FS-780D	10/2/95	2000		P-43	AG/RM
CLJ44-FS-781	10/2/95	2000		P-43	AG/RM
CLJ44-FS-782	10/2/95	2000		P-43	AG/RM
CLJ44-FS-783	10/2/95	2000		P-43	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-784	10/2/95	2000		P-43	AG/RM
CLJ44-FS-785	10/2/95	2000		P-43	AG/RM
CLJ44-FS-786	10/2/95	2000		P-43	AG/RM
CLJ44-FS-787	10/2/95	2000		P-43	AG/RM
CLJ44-FS-788	10/2/95	2000		P-43	AG/RM
CLJ44-FS-789	10/2/95	1688		P-43	AG/RM
CLJ44-FS-790	10/2/95	2000		P-43	AG/RM
CLJ44-FS-791	10/2/95	2000		P-43	AG/RM
CLJ44-FS-792	10/2/95	2000		P-43	AG/RM
CLJ44-FS-793	10/2/95	2000		P-44	AG/RM
CLJ44-FS-794	10/2/95	2000		P-44	AG/RM
CLJ44-FS-795	10/2/95	2000		P-44	AG/RM
CLJ44-FS-796	10/2/95	1356		P-44	AG/RM
CLJ44-FS-797	10/2/95	2000		P-44	AG/RM
CLJ44-FS-798	10/2/95	2000		P-44	AG/RM
CLJ44-FS-799	10/2/95	520		P-44	AG/RM
CLJ44-FS-800	10/2/95	69	P-18		AG/RM
CLJ44-FS-800D	10/2/95	102	P-18		AG/RM
CLJ44-FS-801	10/2/95	497		P-44	AG/RM
CLJ44-FS-802	10/2/95	89	P-18		AG/RM
CLJ44-FS-803	10/2/95	129	P-18		AG/RM
CLJ44-FS-804	10/2/95	136	P-18		AG/RM
CLJ44-FS-805	10/2/95	849		P-44	AG/RM
CLJ44-FS-806	10/2/95	175	P-18		AG/RM
CLJ44-FS-807	10/2/95	170	P-18		AG/RM
CLJ44-FS-808	10/2/95	271	P-18		AG/RM
CLJ44-FS-809	10/2/95	126	P-18		AG/RM
CLJ44-FS-810	10/2/95	142	P-18		AG/RM
CLJ44-FS-811	10/3/95	102	P-18		AG/RM
CLJ44-FS-812	10/3/95	1012		P-44	AG/RM
CLJ44-FS-813	10/3/95	470		P-44	AG/RM
CLJ44-FS-814	10/3/95	624		P-44	AG/RM
CLJ44-FS-815	10/3/95	578		P-44	AG/RM
CLJ44-FS-816	10/3/95	141	P-18		AG/RM
CLJ44-FS-817	10/3/95	236	P-18		AG/RM
CLJ44-FS-818	10/3/95	84	P-19		AG/RM
CLJ44-FS-819	10/3/95	371	P-19		AG/RM
CLJ44-FS-820	10/3/95	103	P-19		AG/RM
CLJ44-FS-820D	10/3/95	128	P-19		AG/RM
CLJ44-FS-821	10/3/95	741		P-45	AG/RM
CLJ44-FS-822	10/3/95	874		P-45	AG/RM
CLJ44-FS-823	10/3/95	246		P-45	AG/RM
CLJ44-FS-824	10/3/95	920		P-45	AG/RM
CLJ44-FS-825	10/3/95	294	P-19		AG/RM
CLJ44-FS-826	10/3/95	799		P-45	AG/RM
CLJ44-FS-827	10/3/95	537		P-45	AG/RM
CLJ44-FS-828	10/3/95	1113		P-45	AG/RM
CLJ44-FS-829	10/3/95	623		P-45	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-830	10/3/95	805		P-45	AG/RM
CLJ44-FS-831	10/3/95	1264		P-45	AG/RM
CLJ44-FS-832	10/3/95	253	P-19		AG/RM
CLJ44-FS-833	10/3/95	1572		P-45	AG/RM
CLJ44-FS-834	10/3/95	565		P-45	AG/RM
CLJ44-FS-835	10/3/95	783		P-45	AG/RM
CLJ44-FS-836	10/3/95	204	P-19		AG/RM
CLJ44-FS-837	10/3/95	2000		P-45	AG/RM
CLJ44-FS-838	10/3/95	524		P-46	AG/RM
CLJ44-FS-839	10/3/95	2000		P-46	AG/RM
CLJ44-FS-840	10/3/95	70	P-19		AG/RM
CLJ44-FS-840D	10/3/95	96	P-19		AG/RM
CLJ44-FS-841	10/3/95	110	P-19		AG/RM
CLJ44-FS-842	10/3/95	209	P-19		AG/RM
CLJ44-FS-843	10/3/95	745		P-46	AG/RM
CLJ44-FS-844	10/3/95	1925		P-46	AG/RM
CLJ44-FS-845	10/3/95	810		P-46	AG/RM
CLJ44-FS-846	10/3/95	1127		P-46	AG/RM
CLJ44-FS-847	10/3/95	2000		P-46	AG/RM
CLJ44-FS-848	10/3/95	2000		P-46	AG/RM
CLJ44-FS-849	10/3/95	189	P-19		AG/RM
CLJ44-FS-850	10/3/95	439		P-46	AG/RM
CLJ44-FS-851	10/3/95	2000		P-46	AG/RM
CLJ44-FS-852	10/3/95	97	P-19		AG/RM
CLJ44-FS-853	10/3/95	2000		P-46	AG/RM
CLJ44-FS-854	10/3/95	1977		P-46	AG/RM
CLJ44-FS-855	10/3/95	529		P-46	AG/RM
CLJ44-FS-856	10/3/95	2000		P-47	AG/RM
CLJ44-FS-857	10/3/95	2000		P-47	AG/RM
CLJ44-FS-858	10/3/95	278	P-19		AG/RM
CLJ44-FS-859	10/3/95	97	P-20		AG/RM
CLJ44-FS-860	10/3/95	132	P-20		AG/RM
CLJ44-FS-860D	10/3/95	104	P-20		AG/RM
CLJ44-FS-861	10/3/95	2000		P-47	AG/RM
CLJ44-FS-862	10/3/95	299	P-20		AG/RM
CLJ44-FS-863	10/3/95	139	P-20		AG/RM
CLJ44-FS-864	10/3/95	318	P-20		AG/RM
CLJ44-FS-865	10/3/95	223	P-20		AG/RM
CLJ44-FS-866	10/3/95	280	P-20		AG/RM
CLJ44-FS-867	10/3/95	53	P-20		AG/RM
CLJ44-FS-868	10/3/95	76	P-20		AG/RM
CLJ44-FS-869	10/3/95	135	P-20		AG/RM
CLJ44-FS-870	10/3/95	489		P-47	AG/RM
CLJ44-FS-871	10/3/95	531		P-47	AG/RM
CLJ44-FS-872	10/3/95	2000		P-47	AG/RM
CLJ44-FS-873	10/3/95	758		P-47	AG/RM
CLJ44-FS-874	10/3/95	1555		P-47	AG/RM
CLJ44-FS-875	10/3/95	129	P-20		AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-876	10/4/95	39	P-20		AG/RM
CLJ44-FS-877	10/4/95	6	P-20		AG/RM
CLJ44-FS-878	10/4/95	1434		P-47	AG/RM
CLJ44-FS-879	10/4/95	322	P-21		AG/RM
CLJ44-FS-880	10/4/95	70	P-21		AG/RM
CLJ44-FS-880D	10/4/95	95	P-21		AG/RM
CLJ44-FS-881	10/4/95	108	P-21		AG/RM
CLJ44-FS-882	10/4/95	66	P-21		AG/RM
CLJ44-FS-883	10/4/95	187	P-21		AG/RM
CLJ44-FS-884	10/4/95	70	P-21		AG/RM
CLJ44-FS-885	10/4/95	68	P-21		AG/RM
CLJ44-FS-886	10/4/95	66	P-21		AG/RM
CLJ44-FS-887	10/4/95	456		P-47	AG/RM
CLJ44-FS-888	10/4/95	1603		P-47	AG/RM
CLJ44-FS-889	10/4/95	1951		P-47	AG/RM
CLJ44-FS-890	10/4/95	502		P-47	AG/RM
CLJ44-FS-891	10/4/95	58	P-21		AG/RM
CLJ44-FS-892	10/4/95	96	P-21		AG/RM
CLJ44-FS-893	10/4/95	53	P-21		AG/RM
CLJ44-FS-894	10/4/95	2000		P-48	AG/RM
CLJ44-FS-895	10/4/95	164	P-21		AG/RM
CLJ44-FS-896	10/4/95	820		P-48	AG/RM
CLJ44-FS-897	10/4/95	86	P-21		AG/RM
CLJ44-FS-898	10/4/95	27	P-22		AG/RM
CLJ44-FS-899	10/4/95	168	P-22		AG/RM
CLJ44-FS-900	10/4/95	638		P-48	AG/RM
CLJ44-FS-900D	10/4/95	662		P-48	AG/RM
CLJ44-FS-901	10/4/95	2000		P-48	AG/RM
CLJ44-FS-902	10/4/95	80	P-22		AG/RM
CLJ44-FS-903	10/4/95	2000		P-48	AG/RM
CLJ44-FS-904	10/4/95	331	P-22		AG/RM
CLJ44-FS-905	10/4/95	2000		P-48	AG/RM
CLJ44-FS-906	10/4/95	950		P-48	AG/RM
CLJ44-FS-907	10/4/95	68	P-22		AG/RM
CLJ44-FS-908	10/4/95	1144		P-48	AG/RM
CLJ44-FS-909	10/4/95	626		P-48	AG/RM
CLJ44-FS-910	10/4/95	514		P-48	AG/RM
CLJ44-FS-911	10/4/95	1123		P-48	AG/RM
CLJ44-FS-912	10/4/95	364	P-22		AG/RM
CLJ44-FS-913	10/4/95	519		P-48	AG/RM
CLJ44-FS-914	10/4/95	224	P-22		AG/RM
CLJ44-FS-915	10/4/95	335	P-22		AG/RM
CLJ44-FS-916	10/4/95	318	P-22		AG/RM
CLJ44-FS-917	10/4/95	149	P-22		AG/RM
CLJ44-FS-918	10/4/95	288	P-22		AG/RM
CLJ44-FS-919	10/4/95	171	P-22		AG/RM
CLJ44-FS-920	10/4/95	245	P-22		AG/RM
CLJ44-FS-920D	10/4/95	224	P-22		AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-921	10/4/95	2000		P-48	AG/RM
CLJ44-FS-922	10/4/95	2000		P-49	AG/RM
CLJ44-FS-923	10/4/95	2000		P-49	AG/RM
CLJ44-FS-924	10/4/95	700		P-49	AG/RM
CLJ44-FS-925	10/4/95	1617		P-49	AG/RM
CLJ44-FS-926	10/4/95	779		P-49	AG/RM
CLJ44-FS-927	10/4/95	2000		P-49	AG/RM
CLJ44-FS-928	10/5/95	1592		P-49	AG/RM
CLJ44-FS-929	10/5/95	2000		P-49	AG/RM
CLJ44-FS-930	10/5/95	2000		P-49	AG/RM
CLJ44-FS-931	10/5/95	917		P-49	AG/RM
CLJ44-FS-932	10/5/95	2000		P-49	AG/RM
CLJ44-FS-933	10/5/95	2000		P-49	AG/RM
CLJ44-FS-934	10/5/95	68	P-23		AG/RM
CLJ44-FS-935	10/5/95	35	P-23		AG/RM
CLJ44-FS-936	10/5/95	1767		P-49	AG/RM
CLJ44-FS-937	10/5/95	2000		P-50	AG/RM
CLJ44-FS-938	10/5/95	2000		P-50	AG/RM
CLJ44-FS-939	10/5/95	2000		P-50	AG/RM
CLJ44-FS-940	10/5/95	2000		P-50	AG/RM
CLJ44-FS-940D	10/5/95	2000		P-50	AG/RM
CLJ44-FS-941	10/5/95	2000		P-50	AG/RM
CLJ44-FS-942	10/5/95	1343		P-50	AG/RM
CLJ44-FS-943	10/5/95	2000		P-50	AG/RM
CLJ44-FS-944	10/5/95	2000		P-50	AG/RM
CLJ44-FS-945	10/5/95	2000		P-50	AG/RM
CLJ44-FS-946	10/5/95	790		P-50	AG/RM
CLJ44-FS-947	10/5/95	893		P-50	AG/RM
CLJ44-FS-948	10/5/95	93	P-23		AG/RM
CLJ44-FS-949	10/5/95	10	P-23		AG/RM
CLJ44-FS-950	10/5/95	2000		P-50	AG/RM
CLJ44-FS-951	10/5/95	2000		P-50	AG/RM
CLJ44-FS-952	10/5/95	2000		P-51	AG/RM
CLJ44-FS-953	10/5/95	2000		P-51	AG/RM
CLJ44-FS-954	10/5/95	2000		P-51	AG/RM
CLJ44-FS-955	10/5/95	2000		P-51	AG/RM
CLJ44-FS-956	10/5/95	2000		P-51	AG/RM
CLJ44-FS-957	10/5/95	13125		P-51	AG/RM
CLJ44-FS-958	10/5/95	2000		P-51	AG/RM
CLJ44-FS-959	10/5/95	2000		P-51	AG/RM
CLJ44-FS-960	10/5/95	2000		P-51	AG/RM
CLJ44-FS-960D	10/5/95	2000		P-51	AG/RM
CLJ44-FS-961	10/5/95	2000		P-51	AG/RM
CLJ44-FS-962	10/5/95	2000		P-51	AG/RM
CLJ44-FS-963	10/5/95	2000		P-51	AG/RM
CLJ44-FS-964	10/5/95	2000		P-51	AG/RM
CLJ44-FS-965	10/5/95	2000		P-52	AG/RM
CLJ44-FS-966	10/5/95	2000		P-52	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-967	10/5/95	2000		P-52	AG/RM
CLJ44-FS-968	10/5/95	931		P-52	AG/RM
CLJ44-FS-969	10/5/95	2000		P-52	AG/RM
CLJ44-FS-970	10/5/95	30	P-23		AG/RM
CLJ44-FS-971	10/5/95	14	P-23		AG/RM
CLJ44-FS-972	10/5/95	736		P-52	AG/RM
CLJ44-FS-973	10/5/95	25	P-23		AG/RM
CLJ44-FS-974	10/5/95	20	P-23		AG/RM
CLJ44-FS-975	10/5/95	46	P-23		AG/RM
CLJ44-FS-976	10/5/95	113	P-23		AG/RM
CLJ44-FS-977	10/5/95	2000		P-52	AG/RM
CLJ44-FS-978	10/5/95	34	P-23		AG/RM
CLJ44-FS-979	10/5/95	2000		P-52	AG/RM
CLJ44-FS-980	10/6/95	2000		P-52	AG/RM
CLJ44-FS-980D	10/6/95	2000		P-52	AG/RM
CLJ44-FS-981	10/6/95	2000		P-52	AG/RM
CLJ44-FS-982	10/6/95	2000		P-52	AG/RM
CLJ44-FS-983	10/6/95	679		P-52	AG/RM
CLJ44-FS-984	10/6/95	2000		P-52	AG/RM
CLJ44-FS-985	10/6/95	2000		P-53	AG/RM
CLJ44-FS-986	10/6/95	2000		P-53	AG/RM
CLJ44-FS-987	10/6/95	2000		P-53	AG/RM
CLJ44-FS-988	10/6/95	2000		P-53	AG/RM
CLJ44-FS-989	10/6/95	2000		P-53	AG/RM
CLJ44-FS-990	10/6/95	2000		P-53	AG/RM
CLJ44-FS-991	10/6/95	586		P-53	AG/RM
CLJ44-FS-992	10/6/95	1210		P-53	AG/RM
CLJ44-FS-993	10/6/95	210	P-23		AG/RM
CLJ44-FS-994	10/6/95	2000		P-53	AG/RM
CLJ44-FS-995	10/6/95	2000		P-53	AG/RM
CLJ44-FS-996	10/6/95	869		P-53	AG/RM
CLJ44-FS-997	10/6/95	1118		P-53	AG/RM
CLJ44-FS-998	10/6/95	2000		P-53	AG/RM
CLJ44-FS-999	10/6/95	2000		P-54	AG/RM
CLJ44-FS-1000	10/6/95	135	P-23		AG/RM
CLJ44-FS-1000D	10/6/95	150	P-23		AG/RM
CLJ44-FS-1001	10/6/95	1523		P-54	AG/RM
CLJ44-FS-1002	10/6/95	2000		P-54	AG/RM
CLJ44-FS-1003	10/6/95	1811		P-54	AG/RM
CLJ44-FS-1004	10/6/95	2000		P-54	AG/RM
CLJ44-FS-1005	10/6/95	2000		P-54	AG/RM
CLJ44-FS-1006	10/6/95	2000		P-54	AG/RM
CLJ44-FS-1007	10/6/95	2000		P-54	AG/RM
CLJ44-FS-1008	10/6/95	2000		P-54	AG/RM
CLJ44-FS-1009	10/6/95	2000		P-54	AG/RM
CLJ44-FS-1010	10/6/95	2000		P-54	AG/RM
CLJ44-FS-1011	10/6/95	2000		P-54	AG/RM
CLJ44-FS-1012	10/6/95	2000		P-54	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-1013	10/6/95	89	P-24		AG/RM
CLJ44-FS-1014	10/6/95	223	P-24		AG/RM
CLJ44-FS-1015	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1016	10/6/95	70	P-24		AG/RM
CLJ44-FS-1017	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1018	10/6/95	437		P-55	AG/RM
CLJ44-FS-1019	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1020	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1020D	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1021	10/6/95	184	P-24		AG/RM
CLJ44-FS-1022	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1023	10/6/95	65	P-24		AG/RM
CLJ44-FS-1024	10/6/95	585		P-55	AG/RM
CLJ44-FS-1025	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1026	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1027	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1028	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1029	10/6/95	1488		P-55	AG/RM
CLJ44-FS-1030	10/6/95	2000		P-55	AG/RM
CLJ44-FS-1031	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1032	10/6/95	1651		P-56	AG/RM
CLJ44-FS-1033	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1034	10/6/95	48	P-24		AG/RM
CLJ44-FS-1035	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1036	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1037	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1038	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1039	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1040	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1040D	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1041	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1042	10/6/95	2000		P-56	AG/RM
CLJ44-FS-1043	10/6/95	51			AG/RM
CLJ44-FS-1044	10/9/95	1121		P-56	AG/RM
CLJ44-FS-1045	10/9/95	2000		P-56	AG/RM
CLJ44-FS-1046	10/9/95	1701		P-57	AG/RM
CLJ44-FS-1047	10/9/95	555		P-57	AG/RM
CLJ44-FS-1048	10/9/95	32	P-24		AG/RM
CLJ44-FS-1049	10/9/95	137	P-24		AG/RM
CLJ44-FS-1050	10/9/95	89	P-24		AG/RM
CLJ44-FS-1051	10/9/95	1959		P-57	AG/RM
CLJ44-FS-1052	10/9/95	48	P-24		AG/RM
CLJ44-FS-1053	10/9/95	1372		P-57	AG/RM
CLJ44-FS-1054	10/9/95	2000		P-57	AG/RM
CLJ44-FS-1055	10/9/95	2000		P-57	AG/RM
CLJ44-FS-1056	10/9/95	2000		P-57	AG/RM
CLJ44-FS-1057	10/9/95	2000		P-57	AG/RM
CLJ44-FS-1058	10/9/95	2000		P-57	AG/RM

Sample ID	Date	KIT Conc. (ppm)	Clean Pile	Dirty Pile	Analyst
CLJ44-FS-1059	10/9/95	2000		P-57	AG/RM
CLJ44-FS-1060	10/9/95	2000		P-57	AG/RM
CLJ44-FS-1060D	10/9/95	2000		P-57	AG/RM
CLJ44-FS-1061	10/9/95	2000		P-57	AG/RM
CLJ44-FS-1062	10/9/95	2000		P-57	AG/RM
CLJ44-FS-1063	10/9/95	2000		P-58	AG/RM
CLJ44-FS-1064	10/9/95	2000		P-58	AG/RM
CLJ44-FS-1065	10/9/95	83	P-24		AG/RM
CLJ44-FS-1066	10/9/95	2000		P-58	AG/RM
CLJ44-FS-1067	10/9/95	1649		P-58	AG/RM
CLJ44-FS-1068	10/9/95	1792		P-58	AG/RM
CLJ44-FS-1069	10/9/95	24	P-24		AG/RM
CLJ44-FS-1070	10/9/95	87	P-25		AG/RM
CLJ44-FS-1071	10/9/95	543		P-58	AG/RM
CLJ44-FS-1072	10/9/95	108	P--25		AG/RM
CLJ44-FS-1073	10/18/95	158	P--25		AG/RM
CLJ44-FS-1074	10/18/95	2000		P-58	AG/RM
CLJ44-FS-1075	10/18/95	2000		P-58	AG/RM
CLJ44-FS-1076	10/18/95	2000		P-58	AG/RM
CLJ44-FS-1077	10/18/95	1010		P-58	AG/RM
CLJ44-FS-1078	10/18/95	38	P-25		AG/RM
CLJ44-FS-1079	10/18/95	2000		P-58	AG/RM
CLJ44-FS-1080	10/18/95	2000		P-58	AG/RM
CLJ44-FS-1080D	10/18/95	2000		P-58	AG/RM
CLJ44-FS-1081	10/18/95	2000		P-58	AG/RM
CLJ44-FS-1082	10/18/95	1583		P-59	AG/RM
CLJ44-FS-1083	10/18/95	1789		P-59	AG/RM
CLJ44-FS-1084	10/18/95	1019		P-59	AG/RM
CLJ44-FS-1085	10/18/95	227	P-25		AG/RM
CLJ44-FS-1086	10/18/95	136	P-25		AG/RM
CLJ44-FS-1087	10/18/95	155	P-25		AG/RM
CLJ44-FS-1088	10/25/95	84	P-25		AG/RM
CLJ44-FS-1089	10/25/95	271	P-25		AG/RM
CLJ44-FS-1090	10/25/95	143	P-25		AG/RM
CLJ44-FS-1091	10/25/95	268	P-25		AG/RM
CLJ44-FS-1092	10/25/95	1267		P-59	AG/RM
CLJ44-FS-1093	10/25/95	806		P-59	AG/RM
CLJ44-FS-1094	10/25/95	117	P-25		AG/RM
CLJ44-FS-1095	10/25/95	2000		P-59	AG/RM
CLJ44-FS-1096	10/25/95	2000		P-59	AG/RM
CLJ44-FS-1097	10/25/95	2000		P-59	AG/RM
CLJ44-FS-1098	10/25/95	2000		P-59	AG/RM
CLJ44-FS-1099	10/25/95	2000		P-59	AG/RM
CLJ44-FS-1100	10/25/95	2000		P-59	AG/RM
CLJ44-FS-1100D	10/25/95	2000		P-59	AG/RM
CLJ44-FS-1101	10/25/95	2000		P-59	AG/RM
CLJ44-FS-1102	10/25/95	2000		P-59	AG/RM

OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08 89

№ 116106

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: Camp Geiger
PROJECT LOCATION: Camp Geiger (Jacksonville NC)
PROJ NO: 16487
PROJECT CONTACT: Randy Smith
PROJECT TELEPHONE NO.: (910) 451-2390
CLIENT'S REPRESENTATIVE: Vann Marshburn
PROJECT MANAGER/SUPERVISOR: Jim Dunn

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TPH-GRO	TPH-DRO	TCLP Metals	TCLP Volatiles	TCLP Semi-Volatiles	RCRA Hazardous Waste Char		REMARKS
1	CLJ44-BF-001	8/21	16:00	X		Composite Sample for Backfill Soils for Area C from South of Vernon	2 4oz, 2 8oz	X	X	X	X	X	X	X	
2	CLJ44-BF-002-TB	8/21	16:00		X	Trip Blank	2 40ml	X			X				
3															
4															
5															
6															
7															
8															
9															
10															

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 2 2	Randy Smith	Fed-X	8/21	8:00
2					
3					
4					

REMARKS
Shipped to Pace
3 day T.A.T

[signature]
SAMPLER'S SIGNATURE

FedEx

AIRBILL 6917878472

6917878472

SENDER'S FEDERAL EXPRESS ACCOUNT NUMBER: 1774-0071-

Date: 8/21/95

From (Your Name) Please Print: Randy Smith

Your Phone Number (Very Important): (910) 451-2599

Company: OHM REMEDIATION SERVICES

Street Address: CAMP LEJEUNE/ HOLCOMB BLVD

City: JACKSONVILLE State: NC ZIP Required: 2 8 5 4 2

To (Recipient's Name) Please Print: Gretchen Franzehorn

Recipient's Phone Number (Very Important): (603) 926-7777

Company: Pace Lab

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): PO Box 2130 One Lafayette Rd

City: Hampton State: NA ZIP Required: 03842

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 16487

IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here (Not available at all locations): Street Address / City / State / ZIP Required

PAYMENT: 1 [X] Bill Sender Acct. No. Req'd. 2 [ ] Bill Recipient's FedEx Acct. No. Fill in Account Number below 3 [ ] Bill 3rd Party FedEx Acct. No. Fill in Account Number below (req'd.) 4 [ ] Bill Credit Card Fill in Credit Card No. below (req'd.) 5 [ ] Cash/Check

Acct./Credit Card No. Exp. Date

4 SERVICES (Check only one box)

- Priority Overnight 11 [X]
- Standard Overnight 51 [ ]
- Economy Two-Day 30 [ ]
- Government Overnight 41 [ ]
- Freight Service (for packages over 150 lbs.): 70 [ ] OVERNIGHT FREIGHT; 80 [ ] TWO-DAY FREIGHT

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
- 1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
- 2 [X] DELIVER WEEKDAY

Saturday Service
- 31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
- 3 [ ] DELIVER SATURDAY (Extra charge)
- 9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
- 4 [X] DANGEROUS GOODS (Extra charge)
- 6 [ ] DRY ICE
- 12 [ ] HOLIDAY DELIVERY (if offered) (Extra charge)

6 PACKAGES / WEIGHT / YOUR DECLARED VALUE — Total / Total / Total

DIM SHIPMENT (Chargeable Weight) ____ lbs. L x W x H

Received At: 1 [ ] Regular Stop 2 [ ] On-Call Stop 3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station

INSTRUCTIONS (Mark appropriate boxes)
- Dangerous Goods as per attached Shipper's Declaration [ ]
- Dangerous Goods Shipper's Declaration not required [ ]
- Cargo Aircraft only [ ]

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

SIGNATURE RELEASE UNAVAILABLE

Federal Express Use: Base Charges / Declared Value Charge / Other 1 / Other 2 / Total Charges

REVISION DATE 11/94 Part # 146187/146188 FORMAT #219 GBFE 7/95

219

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TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non applicable) PASSENGER AND CARGO AIRCRAFT / ~~CARGO AIRCRAFT ONLY~~

Airport of Departure: Jacksonville N.C

Airport of Destination:

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

Shipment type: (delete non-applicable) NON-RADIOACTIVE ~~RADIOACTIVE~~

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification							
Proper Shipping Name	Class or Division	UN or ID No.	Packing Group	Subsidiary Risk	Quantity and type of packing	Packing Inst.	Authorization
Other Regulated Substances	Class 9	ID 8027			1 - Plastic Container 2-40ml vials 2-125ml glass jar 2-250ml glass jar	90E	

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labeled, and are in all respects in the proper condition for transport by air according to the applicable International and National Governmental Regulations.

Name/Title of Signatory: Randy Smith/Supervisor

Place and Date: Camp Lejeune N.C 8/21/95

Signature: [signature]

Emergency Telephone Number (Required for U.S. Origin or Destination Shipments): 1-800-444-2407 P.O. #9811496 Randy Smith

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

Field Identification: CLJ44-BF-001

Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	14	45122-001	08/23/95		8015(mod)/2
Total Diesel (ug/g)	6.4	3.8	45122-003	08/24/95		8015(mod),3330/2
Corrosivity (pH, units)	4.7		45122-004	08/23/95	353	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	45122-004	08/23/95	295	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	45122-004	08/23/95	295	7.3.3.2/2
Flash Point (degrees F)	>150	50	45122-004	08/23/95	322	D93-80/4

Field Identification: [redacted]

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	45122-002	08/23/95		8015(mod)/2

References: 1) 40 CFR Part 136, Friday, October 26, 1984
2) EPA SW 846, 3rd Edition
4) ASTM

pace
INCORPORATED
THE ASSURANCE OF QUALITY

TCLP extract

Field Identification: CL346 SF 02

Matrix: ~~So~~ GWF 8/25/95

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method Ref.
Arsenic, total (ug/g) mg/L	BDL	0.2	45122-004	08/25/95	12435	3050,6010/2 or: 3010,6010/
Barium, total (ug/g)	BDL	0.1	45122-004	08/25/95	12435	3050,6010/2 or: 3010,6010/
Cadmium, total (ug/g)	BDL	0.005	45122-004	08/25/95	12435	3050,6010/2 or: 3010,6010/
Chromium, total (ug/g)	BDL	0.01	45122-004	08/25/95	12435	3050,6010/2 or: 3010,6010/
Lead, total (ug/g)	BDL	0.05	45122-004	08/25/95	12435	3050,6010/2 or: 3010,6010/
Mercury, total (ug/g)	BDL	0.0002	45122-004	08/25/95	61633	7471/2 or: 7470/2 245.1/1
Selenium, total (ug/g)	BDL	0.2	45122-004	08/25/95	12435	3050,6010/2 or: 3010,6010/
Silver, total (ug/g)	BDL	0.02	45122-004	08/25/95	12435	3050,6010/2 or: 3010,6010/

GWF 8/25/95

References: 1) 40 CFR Part 136, Friday, October 26, 1984
2) EPA SW 846, 3rd Edition

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 45122-03
Sample Designation: CL346-BF 0001
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/25/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 45122-005
Sample Designation: CLI44-BF 002-TB
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Reporting Limit (ug/L)
VOLATILES	Date Analyzed: 08/25/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

Laboratory number: 45120 004
Sample Designation: CLJ44-BF-001
Date Extracted: 08/24/95
Date Analyzed: 08/25/95
Matrix: TCLP EXTRACT

Instrument File Name: >H8972

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270A

BDL = Below reporting limit

OHM Corporation

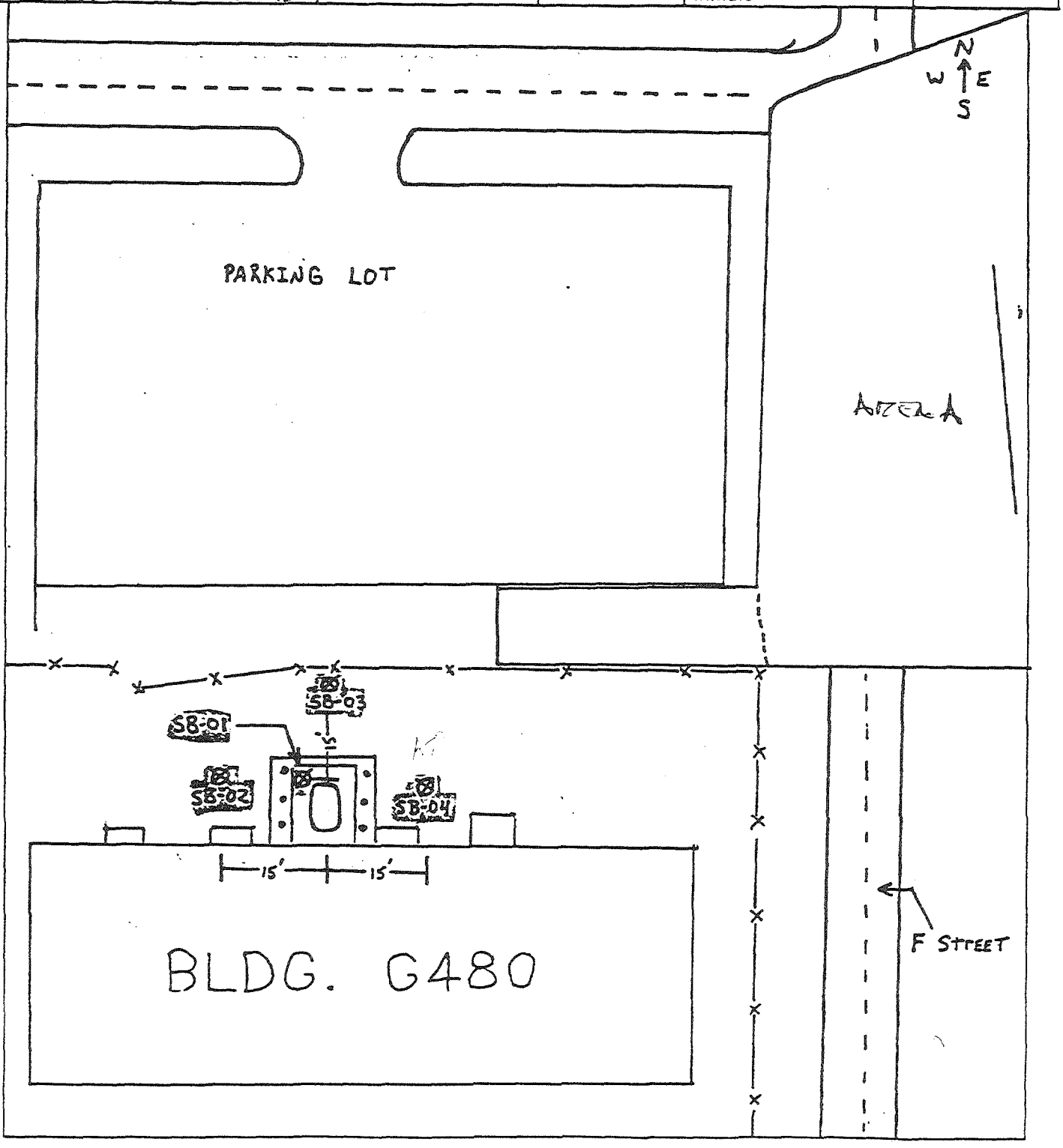
COMPUTATION SHEET

Form No. 0048
Midwest Tech. Servs.
Rev. 08/89

Page _____ of _____

Proj. No.	Client	Location	Subject
16487	LANTDIV	Camp Geiger	AREA A & D

Preparer's Initials	Date	Reviewer's Initials	Date	Approver's Initials	Date
AG	10-24-95				



Sample ID	Date	Truck ID	KIT Conc. (ppm)	Clean	Dirty	Analyst
CLJ44-SB-01-1'	10-19-95	N/A	13	✓		AG
CLJ44-SB-01-2'	10-19-95	N/A	22	✓		AG
CLJ44-SB-01-3'	10-19-95	N/A	43	✓		AG
CLJ44-SB-01-4'	10-19-95	N/A	14	✓		AG
CLJ44-SB-01-5'	10-19-95	N/A	65	✓		AG
CLJ44-SB-02-1'	10-19-95	N/A	80	✓		AG
CLJ44-SB-02-2'	10-19-95	N/A	14	✓		AG
CLJ44-SB-02-3'	10-19-95	N/A	21	✓		AG
CLJ44-SB-02-4'	10-19-95	N/A	19	✓		AG
CLJ44-SB-02-5'	10-19-95	N/A	1954		✓	AG
CLJ44-SB-03-1'	10-19-95	N/A	36	✓		AG
CLJ44-SB-03-2'	10-19-95	N/A	8	✓		AG
CLJ44-SB-03-3'	10-19-95	N/A	7	✓		AG
CLJ44-SB-03-4'	10-19-95	N/A	35	✓		AG
CLJ44-SB-03-5'	10-19-95	N/A	>2000		✓	AG
CLJ44-SB-04-1'	10-19-95	N/A	59	✓		AG
CLJ44-SB-04-2'	10-19-95	N/A	18	✓		AG

Sample ID	Date	Truck ID	KIT Conc. (ppm)	Clean	Dirty	Analyst
CLJ44-SB-04-3'	10-19-95	N/A	20	✓		AG
CLJ44-SB-04-4'	10-19-95	N/A	21	✓		AG
CLJ44-SB-04-5'	10-19-95	N/A	599		✓	AG

O.H. Materials Corp. Remediation Services Corp.

LAB COPY

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

166422

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune D.O. 44	Camp Geiger, NC

PROJ NO	PROJECT CONTACT	PROJECT TELEPHONE NO
16487	Rakesh Mishra	910-451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Jim Dunn / Randy Smith

ITEM NO	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)	REMARKS
1	CLJ44-CC-105	10/19	1035		X	Contaminated Soil from Pile 58 of Area A.		TPH-GRO, TPH-DRO, Target Metals, TCLP Semi-Volatile, TCLP Volatile, RCRA Haz Waste, OEG, PCB, Total Lead, Volatile + BTEX (8240)	
2	CLJ44-CC-106-RB	10/19	1045	X		Rinsate Blank			
3	CLJ44-CC-107-TB					Trip Blank			
4	CLJ44-SB03-4'	10/20	0815		X	Soil Sample at 4' from Area D			
5	CLJ44-SB01-4'	10/20	0825		X	Soil Sample at 4' from Area D			
6	CLJ44-SB02-4'	10/20	0835		X	Soil Sample at 4' from Area D			
7	CLJ44-SB04-4'	10/20	0845		X	Soil Sample at 4' from Area D.			
8									
9									
10									

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-7	[signature]	~~FED EX~~ Air Bill #	10/20	1300
2					
3					
4					

REMARKS Send Samples to Pace Lab
Items 1, 2 & 4-7 24hr. TAT
Item #3 3 days TAT

SAMPLER'S SIGNATURE [signature]

FedEx

6921490914

6921490914

SENDER'S FEDERAL EXPRESS ACCOUNT NUMBER: 1774-5171-1

Date: 10/20/95

1. From — Name: Rakesh Mishra — Your Phone Number: (910) 451-2599

Company: CHM REMEDIATION SERVICES

Street Address: CAMP LEJEUNE/ HOLCOMB BLVD

City: JACKSONVILLE — State: NC — ZIP Required: 23542

2. To — Recipient's Name: Gretchen Frenzenheim — Phone: (603) 926-7777

Company: Pace LAB

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): P O Box 2130 One Lafayette Rd

City: Hampton — State: NH — ZIP Required: 03842

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): Job # 16487

IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here (Not available at all locations) — Street Address / City / State / ZIP Required

3. PAYMENT — 1 [X] Bill Sender Acct. No. Req'd. 2 [ ] Bill Recipient's FedEx Acct. No. Fill in Account Number below 3 [ ] Bill 3rd Party FedEx Acct. No. Fill in Account Number below (req'd.) 4 [ ] Bill Credit Card Fill in Credit Card No. below (req'd.) 5 [ ] Cash/Check — Acct./Credit Card No. — Exp. Date

4. SERVICES (Check only one box)

- Priority Overnight 11 [X]
- Standard Overnight 51 [ ]
- Economy Two-Day 30 [ ]
- Government Overnight 41 [ ]
- Freight Service (for packages over 150 lbs.): 70 [ ] OVERNIGHT FREIGHT** 80 [ ] TWO-DAY FREIGHT**

INSTRUCTIONS (Mark appropriate boxes)
- Dangerous Goods as per attached Shipper's Declaration [X]
- Dangerous Goods Shipper's Declaration not required [ ]
- Cargo Aircraft only [ ]

5. DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service: 1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H); 2 [ ] DELIVER WEEKDAY

Saturday Service: 31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H); 3 [X] DELIVER SATURDAY (Extra charge); 9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling: 4 [X] DANGEROUS GOODS (Extra charge); 6 [ ] DRY ICE; 12 [ ] HOLIDAY DELIVERY

6. Packages: 1 — Weight — Your Declared Value — Total Total Total

DIM SHIPMENT (Chargeable Weight) ___ lbs. L x W x H

1 Regular Stop · 2 On-Call Stop · 3 Drop Box · 4 B.S.C. · 5 Station

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

SIGNATURE RELEASE UNAVAILABLE

Federal Express Use: Base Charges / Declared Value Charge / Other 1 / Other 2 / Total Charges

REVISION DATE 11/94 Part # 146187/146188 FORMAT #219 GBFE 9/95

219

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6921490914 Page __ of __ Pages

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non-applicable)

PASSENGER AND CARGO AIRCRAFT | ~~CARGO AIRCRAFT ONLY~~

Airport of Departure:

Airport of Destination:

Shipment type: (delete non-applicable) NON-RADIOACTIVE | ~~RADIOACTIVE~~

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification

Proper Shipping Name	Class or Division	UN or ID No.	Packing Group	Subsidiary Risk	Quantity and type of packing	Packing Inst.	Authorization
Other Regulated Substances	Class 9	ID 8027			1 Plastic Container w/ 9 - 125 ml glass Jar, 2 - 250 ml glass Jar, 3 - 1 L glass Jar, 4 - 40 ml glass Vial; Total 6.41 L	906	

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labeled, and are in all respects in the proper condition for transport by air according to the applicable International and National Governmental Regulations.

Name/Title of Signatory: Rakesh Mishra / Sr. Chemist

Place and Date: Camp Lejeune NC 10/20/95

Signature (see warning above): [signature]

Emergency Telephone Number (Required for US Origin or Destination Shipments): 1-800-999-6710 PIN #495-3330 Rakesh Mishra

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

Field Identification: CLJ44-CC-105 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	140	13	45748-001	10/23/95	BG1046A	8015(mod)/2
Total Diesel (ug/g)	1300	37	45748-007	10/24/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	2000	280	45748-007	10/24/95	BG1393	9071,5030/2,3

Field Identification: CLJ44-CC-106-R8 Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	45748-002	10/23/95		8015(mod)/2
Total Diesel (ug/L)	130	100	45748-008	10/24/95		8015(mod),3350/2
Corrosivity (pH, units)	6.0		45748-011	10/23/95	375	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	45748-011	10/23/95	317	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	45748-011	10/24/95	317	7.3.3.2/2
Flash Point (degrees F)	>150	50	45748-011	10/23/95	349	D93-80/4

Field Identification: CLJ44-SB03-4' Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	14	45748-003	10/23/95	BG1046A	8015(mod)/2
Total Diesel (ug/g)	9.1	3.8	45748-003	10/24/95		8015(mod),3350/2

Field Identification: CLJ44-SB01-4' Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	45748-004	10/23/95	BG1046A	8015(mod)/2
Total Diesel (ug/g)	27	4.1	45748-004	10/24/95		8015(mod),3350/2

Field Identification: CLJ44-SB02-4' Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	45748-005	10/23/95	BG1046A	8015(mod)/2
Total Diesel (ug/g)	8.7	4.0	45748-005	10/24/95		8015(mod),3350/2

Field Identification: CL344-SB04-4' Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	14	45748-006	10/24/95	BG1046A	8015(mod)/2
Total Diesel (ug/g)	59	3.7	45748-006	10/24/95		8015(mod),3350/2

References: 1) 40 CFR Part 136, Friday, October 26, 1984
2) EPA SW 846, 3rd Edition
3) Standard Methods, 16th Edition
4) ASTM

Field Identification: CLJ44-CC-107-TB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	45749-001	10/26/95		8015(mod)/2 or: 8015(mod)

References: 2) EPA SW 846, 3rd Edition

Field Identification: CL344 CC-136 RB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Arsenic, total (mg/L)	BDL	0.01	45748-010	10/24/95	51211	7060/2 or: 3030,7060/2 286
Barium, total (mg/L)	BDL	0.1	45748-010	10/23/95	12474	3010,6010/2 or: 3050,6010/
Cadmium, total (mg/L)	BDL	0.005	45748-010	10/23/95	12474	3010,6010/2 or: 3050,6010/
Chromium, total (mg/L)	0.02	0.01	45748-010	10/23/95	12474	3010,6010/2 or: 3050,6010/
Lead, total (mg/L)	BDL	0.005	45748-010	10/23/95	31337	3020,7421/2 or: 3050,7421/
Mercury, total (mg/L)	BDL	0.0003	45748-010	10/24/95	51674	7470/2 or: 7471/2 245.1/1
Selenium, total (mg/L)	BDL	0.01	45748-010	10/23/95	51211	7740/2 or: 3050,7740/2 270
Silver, total (mg/L)	BDL	0.02	45748-010	10/23/95	12474	3010,6010/2 or: 3050,6010/

References: 1) 40 CFR Part 136, Friday, October 26, 1984
2) EPA SW 846, 3rd Edition

Sample Designation: CLJ44-CC-106-RB
Date Extracted: 10/23/95
Date Analyzed: 10/23/95
Matrix: WATER

Instrument File Name:)F2847

ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
N-Nitrosodimethylamine	BDL	10
Phenol	BDL	10
Aniline	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzylalcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitroso-di-N-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	50
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	50
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	50
Dimethylphthalate	BDL	10
Acenaphthylene	BDL	10
2,6-Dinitrotoluene	BDL	10
3-Nitroaniline	BDL	50
Acenaphthene	BDL	10
2,4-Dinitrophenol	BDL	50
4-Nitrophenol	BDL	50
Dibenzofuran	BDL	10
2,4-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10
4-Chlorophenyl phenylether	BDL	10
Fluorene	BDL	10
4-Nitroaniline	BDL	50
4,6-Dinitro-2-methylphenol	BDL	50
N-Nitrosodiphenylamine	BDL	10
Azobenzene	BDL	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	BDL	10
Di-N-butylphthalate	BDL	10
Fluoranthene	BDL	10
Benzidine	BDL	50
Pyrene	BDL	10
Butylbenzylphthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	20
Benzo(A)anthracene	BDL	10
Chrysene	BDL	10
Bis(2-ethylhexyl)phthalate	BDL	10
Di-N-octylphthalate	BDL	10
Benzo(B)fluoranthene	BDL	10
Benzo(K)fluoranthene	BDL	10
Benzo(A)pyrene	BDL	10
Indeno(1,2,3,-CD)pyrene	BDL	10
Dibenz(A,H)anthracene	BDL	10
Benzo(G,H,I)perylene	BDL	10

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 625(MODIFIED)

BDL = Below reporting limit
J = Probable presence below listed detection limit.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 45748-009
Sample Designation: CLJ44-CC-106-AB
Date Analyzed: 10/23/95 20:38
QC Batch: BD102395A1
TCLP Batch:
Matrix: TCLP EXTRACT

VOLATILES	Concentration (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Vinyl chloride	BDL	0.2	0.01
1,1-Dichloroethene	BDL	0.7	0.005
1,2-Dichloroethane	BDL	0.5	0.005
Chloroform	BDL	6.0	0.005
Methyl ethyl ketone	BDL	200	0.025
Carbon Tetrachloride	BDL	0.5	0.005
Trichloroethene	BDL	0.5	0.005
Benzene	BDL	0.5	0.005
Tetrachloroethene	BDL	0.7	0.005
Chlorobenzene	BDL	100	0.005

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

Results uncorrected for matrix spike recovery.

BDL = Below reporting limit

Laboratory number: 45749-002
Sample Designation: CLJ44-CC-107-TB
Date Analyzed: 10/25/95
Matrix: WATER

Instrument File Name:)D3907

VOLATILE ORGANICS	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	BDL	10
Acetone	100	25
Carbon disulfide	BDL	5
Tetrahydrofuran	BDL	25
Trichlorofluoromethane	BDL	5
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (total)	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	2.9 J	5
2-Butanone	BDL	25
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	3.2 J	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	BDL	5
Bromoform	BDL	5
4-Methyl-2-Pentanone	BDL	25
2-Hexanone	BDL	25
Tetrachloroethene	BDL	5
1,1,2,2-Tetrachloroethane	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Xylene (total)	BDL	5

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

BDL = Below reporting limit
J = Probable presence below listed detection limit

APPENDIX H
ANALYTICAL DATA

Sample Date	Chain of Custody No.
6/20/95	144107
6/20/95	144108
8/2/94	144099
8/4/95	166402
8/4/95	166403
8/4/95	166404
8/7/95	144100
8/8/95	166405
8/9//95	166406
8/10/95	166409
8/14/95	166445
9/27/95	166725
9/27/95	166410
9/28/95	166411
10/2/95	166687
10/2/95	166688
10/3/95	166412
10/4/95	166413
10/5/95	166414
10/9/95	166415
10/10/95	166416
10/10/95	166417
10/19/95	166422
10/20/95	166423
10/26/95	166458
10/26/95	166459
10/31/95	166460
11/15/95	166464
11/15/95	166465

Note: The analytical laboratory data in this Appendix is organized by the sample date as indicated in the above list of chain of custody forms. Refer to Tables 6-1 through 6-5 for a detailed description of each sample on these chain of custody forms.

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REPORT OF LABORATORY ANALYSIS

July 11, 1995

OHM Remediation Services Corporation
5335 Triangle Parkway
Suite 450
Norcross, GA 30092

SAMPLE DELIVERY GROUP NARRATIVE

Case: OHMRC
SDG: LJN05
Laboratory: PACE New England - New Hampshire of Hampton, NH
Lab Numbers: 44436
Protocol: SW846 Method 8080. NEESA C deliverables. No diskette.

Sample Receipt: Samples were received at PACE, Inc. on June 21, 1995. Laboratory sample numbers were assigned for test parameters as listed on the Sample Table which follows this narrative. Sample shipments were checked for custody seal integrity and cooler temperature. Samples were checked for appropriate preservation and accuracy against the Chains-of-Custody provided. Other than the exceptions noted below, samples were received between 2-6° C and in good condition. PACE Sample Receipt Condition Reports can be found with the Chains-of-Custody.

Shipment received 6/21/95 (44436): Samples were received in one cooler. A temperature blank was not included with the shipment, therefore the cooler temperature could not be verified upon receipt of samples at PACE. Samples were received cool, and had been packed on ice. Custody seals were not present on the cooler. Three 1 liter bottles were received for both the rinsate blank and field blank. Because it was inappropriate to perform GRO (a purge and trap volatiles determination) on a water sample not received in VOA vials, the field and rinsate blanks were not logged in for GRO. Additionally, the trip blank was only logged in for GRO, even though both DRO and GRO were checked off on the COC. Rakesh Mishra (OHM) was notified of this problem. Batch, rather than sample QC was assigned for this SDG. The solid sample spiked (PACE Lab# 44383-10) and reported in this SDG as MS/MSD was provided by another PACE client, and was not one selected from this set of OHM samples.

Two ampules of solid reference material were received from Environmental Resource Associates (ERA) in a separate shipment for use as a QC sample with these field samples (ERA Project No. 0613-95-03). The Quality Control Standards provided were for Hydrocarbon Fuels in Soil for both Gasoline and Diesel. Gretchen Franzheim (PACE) notified Rakesh Mishra (OHM) that the instructions for the GRO ampule were for the California DHS headspace analysis method which PACE would not be using for the determination of GRO for these samples. Since the True Values supplied to Theresa Rojas (OHM) for this standard were determined using the California DHS headspace method, it was communicated in conversation that there would probably be little correlation to the value determined by PACE and the ERA-supplied true value for GRO.

GRO Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

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REPORT OF LABORATORY ANALYSIS

SDG Narrative
Case: OHMRC, SDG: LJN05

DRO Analysis: The following laboratory numbers 44436-1 through -12 for diesel range organics contained petroleum hydrocarbon products which did not match diesel.

Statement of Compliancy and Data Authorization

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Richard D Ullman — 7/11/95

PACE Incorporated, New England-New Hampshire — July 11, 1995

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1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

LAB# 44436
PAGE 1 of 1
COOLER ____ of ____
COC# 144107 + 144108
SDG# LJN05
CASE# OHMRC

CLIENT DHM CORPORATION
DATE/TIME RECEIVED 6-21-95 1000
DELIVERED BY FED-EX
RECEIVED BY BM

LIMS ENTRY BY GMF
TRANSCRIPTION REVIEW BY bd
LIMS REVIEW BY/PM GMF

		NA	YES	EXCEPTION	COMMENT	RESOLUTION
1.	CUSTODY SEALS PRESENT/INTACT	☐	☐	☒		
2.	CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☒	☐		
3.	CHAIN OF CUSTODY SIGNED	☐	☒	☐		
4.	CHAIN OF CUSTODY MATCHES SAMPLES	☐	☒	☐		
5.	SAMPLES RECEIVED AT 2° - 6° C (Ice) Ice Packs Present? (Y) or N	☐	☐	☒	NO TEMP BLANK	
6.	VOLATILES FREE OF HEAD SPACE	☐	☒	☐		
7.	TRIP BLANK PRESENT IN THIS COOLER	☐	☒	☐		
8.	PROPER SAMPLE CONTAINERS AND VOLUME	☐	☒	☐		
9.	SAMPLES WITHIN HOLD TIME	☐	☒	☐		
10.	SAMPLES PROPERLY PRESERVED	☐	☒	☐		

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other ____
12. NUMBER OF PACE FILTRATIONS: ____
13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes:

-15 TEAS Ref. Material
-16 DRO Ref material

CLIENT AUTHORIZATION SIGNATURE ____ DATE ____

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

LAB# 44436
PAGE 1 of 1
COOLER ____ of ____
COC# 144107 - 144108
SDG# LSN05
CASE# CLIMRC

CLIENT DHM CORPORATION
DATE/TIME RECEIVED 6-21-95 1000
DELIVERED BY FED-EX
RECEIVED BY BM
LIMS ENTRY BY GMF
TRANSCRIPTION REVIEW BY bd
LIMS REVIEW BY/PM GMF

	NA	YES	EXCEPTION	COMMENT	RESOLUTION
1. CUSTODY SEALS PRESENT/INTACT	☐	☐	☒		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☒	☐		
3. CHAIN OF CUSTODY SIGNED	☐	☒	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES	☐	☒	☐		
5. SAMPLES RECEIVED AT 2° - 6° C (Ice) Ice Packs Present? (Y) or N	☐	☐	☒	NO TEMP BLANK	
6. VOLATILES FREE OF HEAD SPACE	☐	☒	☐		
7. TRIP BLANK PRESENT IN THIS COOLER	☐	☒	☐		
8. PROPER SAMPLE CONTAINERS AND VOLUME	☐	☒	☐		
9. SAMPLES WITHIN HOLD TIME	☐	☒	☐		
10. SAMPLES PROPERLY PRESERVED	☐	☒	☐		

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other____
12. NUMBER OF PACE FILTRATIONS:____
13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes:

-15 TCAS Ref. Material
-16 DRO Ref material

CLIENT AUTHORIZATION SIGNATURE____ DATE____

SAMPLE TABLE

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-ACS-001	SOLID	44436-001	TOTAL GASOLINE TOTAL DIESEL
CLJ44-ACS-002	SOLID	44436-002	TOTAL GASOLINE TOTAL DIESEL
CLJ44-ABS-003	SOLID	44436-003	TOTAL GASOLINE TOTAL DIESEL
CLJ44-ABS-004	SOLID	44436-004	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-005	SOLID	44436-005	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-006	SOLID	44436-006	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-007	SOLID	44436-007	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-008	SOLID	44436-008	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-009	SOLID	44436-009	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-009D	SOLID	44436-010	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-010	SOLID	44436-011	TOTAL GASOLINE TOTAL DIESEL
CLJ44-RB	WATER	44436-012	TOTAL DIESEL
CLJ44-FB	WATER	44436-013	TOTAL DIESEL

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SAMPLE TABLE
(CONTINUED)

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-TB			
	WATER	44436-014	TOTAL GASOLINE
ERA GAS REFERENCE MATERIAL			
	SOLID	44436-015	TOTAL GASOLINE
ERA DIESEL REFERENCE MATERIAL			
	SOLID	44436-016	TOTAL DIESEL

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Field Identification: CLJ44-ACS-001 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	14	44436-001	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	9.7	3.7	44436-001	06/21/95		8015(mod),3350/2

Field Identification: CLJ44-ACS-002 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	14	44436-002	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	17	3.7	44436-002	06/21/95		8015(mod),3350/2

Field Identification: CLJ44-ABS-003 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	14	44436-003	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	87	3.4	44436-003	06/21/95		8015(mod),3350/2

Field Identification: CLJ44-ABS-004 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-004	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	58	3.8	44436-004	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-AAS-005 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-005	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	15	3.9	44436-005	06/22/95		8015(mod),3350/2

Results expressed on a dry weight basis.

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Field Identification: CLJ44-AAS-006 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	35	19	44436-006	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	36	5.0	44436-006	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-AAS-007 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	16	44436-007	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	50	4.1	44436-007	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-AAS-008 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-008	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	63	4.1	44436-008	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-AAS-009 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-009	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	250	3.9	44436-009	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-AAS-009D Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-010	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	590	40	44436-010	06/22/95		8015(mod),3350/2

Results expressed on a dry weight basis.

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Field Identification: CLJ44-AAS-010 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-011	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	24	4.0	44436-011	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-RB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Diesel (ug/L)	140	100	44436-012	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-FB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Diesel (ug/L)	BDL	110	44436-013	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-TB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44436-014	06/21/95		8015(mod)/2

Field Identification: ERA GAS REFERENCE MATERIAL Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	422	62	44436-015	06/22/95	BG1028A	8015(mod)/2

Field Identification: ERA DIESEL REFERENCE MATERIAL Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Diesel (ug/g)	230	5.0	44436-016	06/21/95		8015(mod),3350/2

Results for solid samples are expressed on a dry weight basis.

References: 2) EPA SW 846, 3rd Edition

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QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: BG1028A
Sample Designation: LABORATORY BLANK
Date Analyzed: 06/21/95
Matrix: SOLID

COMPOUND	CONCENTRATION ug/g	DETECTION LIMIT ug/g
GASOLINE	BDL	12

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1028
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 06/21/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
GASOLINE	0	50	55	110

METHOD REFERENCE: METHOD 8015 (MODIFIED)

pace INCORPORATED THE ASSURANCE OF QUALITY

Calibration Curve for total gas

Titles

Test: total gas
Date: 06/02/95
X-Axis: concentration
Y-Axis: area

	Conc.	Abs.	Calc-Abs.
1	100	1268896	1410739
2	200	1664627	2097020
3	500	4348123	4155865
4	1000	7957574	7587272
5	2000	14248965	14450089

Regression Output:

Constant	724456.9
Std Err of Y Est	305148.5
R Squared	0.977547
No. of Observations	5
Degrees of Freedom	3
X Coefficient(s)	6862.816
Std Err of Coef.	196.4819

Slope = 6862.816
Y-Intercept = 724456.9

Calibration Curve for bromofluorobenzene

Titles

Test: bromofluorobenzene
Date: 06/05/95
X-Axis: concentration
Y-Axis: area

	Conc.	Abs.	Calc-Abs.
1	10	71195.62	74025.06
2	20	130801.1	132655.2
3	50	309498.9	307545.5
4	100	603432.7	598976.2
5	200	1177087	1162297

Regression Output:

Constant	15694.93
Std Err of Y Est	11300.24
R Squared	0.999533
No. of Observations	5
Degrees of Freedom	3
X Coefficient(s)	5833.012
Std Err of Coef.	72.76106

Slope = 5833.012
Y-Intercept = 15694.93

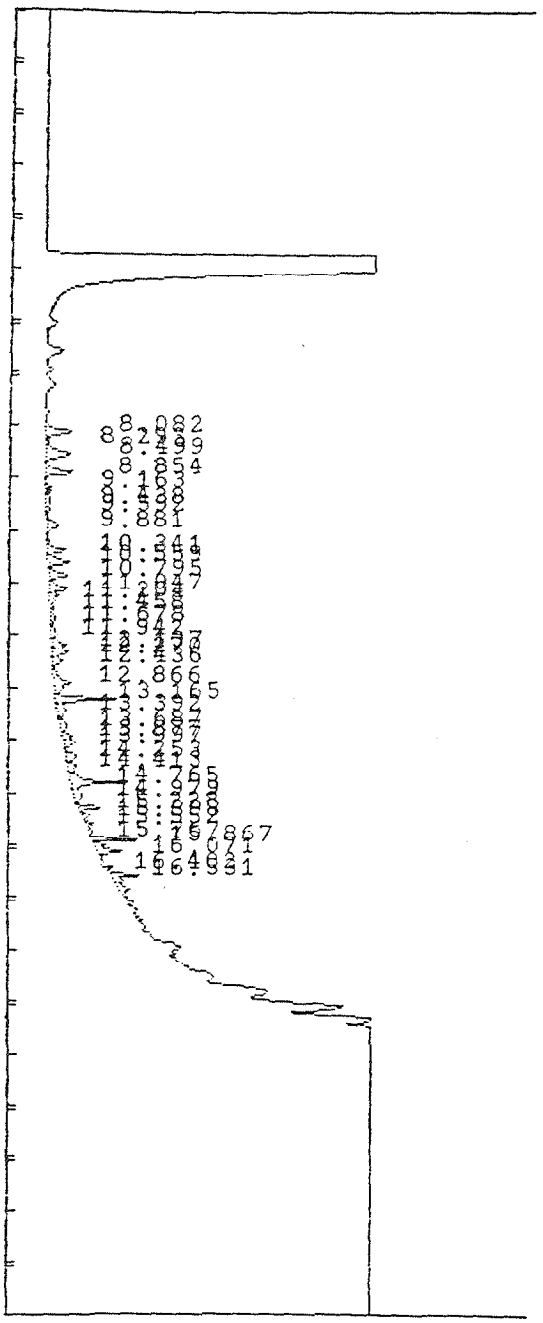
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : vstd 100 5ml 5µl V6241

Report No :247.01

Instrument : GC07

Subseq/Sample/Bottle: 1/ 6/ 6



Sequence File: /DATA/GC07/SEQUENCE/G70608.SEQ
Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117071.RES

Run Time : 25.02 Minutes Injected on 1546 08Jun1995
Report Time : 1415 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.08			69675	VV	2.0903	
2	8.29			4018	VV	.1206	
3	8.50			66286	VV	1.9886	
4	8.85			58092	VV	1.7428	
5	9.16			13984	PV	.4195	
6	9.44			13982	VV	.4195	
7	9.59			6390	VV	.1917	
8	9.88			29436	PV	.8831	
9	10.34			36805	VV	1.1042	
10	10.56			56401	VV	1.6920	
11	10.80			40283	VV	1.2085	
12	11.05			140590	VV	27.7272	C7 N-HEPTANE
13	11.20			22785	VV	.6835	
14	11.46			5915	VV	.1774	
15	11.68			14110	PV	.4233	
16	11.94			18892	VV	.5668	
17	12.14			29567	VV	.8870	
18	12.27			39357	VV	1.1807	
19	12.44			25792	VV	.7738	
21	13.17			80258	PV	2.4077	
22	13.39			39269	VV	1.1781	
23	13.69			24840	PV	.7452	
24	13.88			22040	VV	.6612	
25	14.00			21843	VV	.6553	
26	14.25			29527	VV	.8858	
28	14.77			115978	VV	3.4793	
29	14.98			36655	VV	1.0996	
30	15.23			36037	PV	1.0811	
31	15.40			14669	VV	.4401	
32	15.55			19332	VV	.5800	
34	15.87	#15.85		71199	FF	71198.6200	4 BROMOFLOUROBENZENE
35	16.07			62116	PV	1.8635	
36	16.40			12385	PV	.3716	
37	16.53			81388	PV	2.4416	

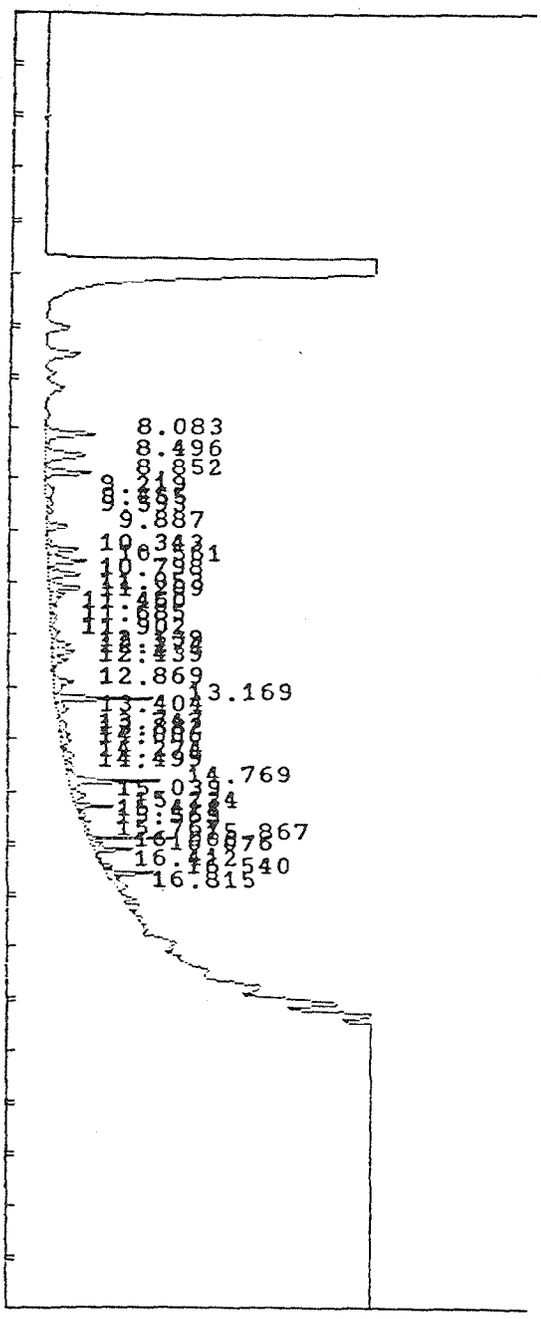
Total Area DRO only : 1359895 - 71198.62 = 1288696

CARBON SIX-CARBON TEN
Sample Name : vstd 200 5ml 10µl V6241

Report No :248.03

Instrument : GC07

Subseq/Sample/Bottle: 1/ 7/ 7



Sequence File: /DATA/GC07/SEQUENCE/G70608.SEQ
Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117072.RES

Run Time : 25.00 Minutes Injected on 1616 08Jun1995
Report Time : 1447 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.08			132886	VV	3.9866	
2	8.50			115075	VV	3.4523	
3	8.85			98626	VV	2.9588	
4	9.22			29376	PV	.8813	
5	9.45			26153	VV	.7846	
6	9.59			12361	VV	.3708	
7	9.89			44846	VV	1.3454	
8	10.34			64957	PV	1.9487	
9	10.56			100530	VV	3.0159	
10	10.80			70640	VV	2.1192	
11	11.05			159006	VV	29.2807	C7 N-HEPTANE
12	11.21			40346	VV	1.2104	
13	11.46			12849	VV	.3855	
14	11.69			21052	VV	.6316	
15	11.90			24394	VV	.7318	
16	12.14			37859	VV	1.1358	
17	12.27			54834	VV	1.6450	
18	12.44			35065	VV	1.0520	
20	13.17			122562	PV	3.6769	
21	13.40			38507	VV	1.1552	
22	13.75			24997	VV	.7499	
23	13.88			21619	VV	.6486	
24	14.01			23394	VV	.7018	
25	14.27			32578	PV	.9774	
27	14.77			164465	VV	4.9340	
28	15.04			47774	VV	1.4332	
29	15.23			49944	PV	1.4983	
30	15.41			12747	VV	.3824	
31	15.57			19342	VV	.5803	
33	15.87	#15.85		120801	FF	120801.1000	4 BROMOFLOUROBENZENE
34	16.00			12682	FF	.3805	
35	16.08			74431	VV	2.2329	
36	16.41			21329	PV	.6399	
37	16.54			75543	VV	2.2663	
38	16.82			41857	VV	1.2557	

Total Area DRO only : 1985428 - 120801.1 = 1864627

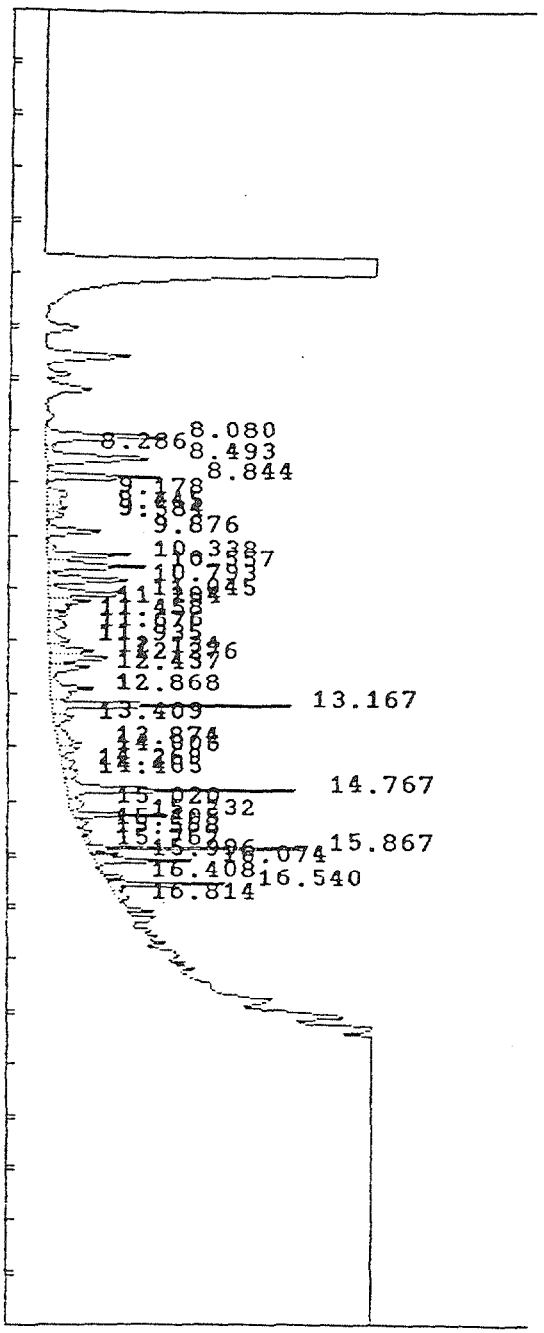
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : VSTD 500 5ml 5µl V 6247

Report No :249.01

Instrument : GC07

Subseq/Sample/Bottle: 1/ 8/ 8



Sequence File: /DATA/GC07/SEQUENCE/G70608.SEQ
Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117073.RES

Run Time : 25.02 Minutes Injected on 1647 08Jun1995
Report Time : 1427 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.08			325767	VV	9.7730	
2	8.29			16822	VV	.5047	
3	8.49			265257	VV	7.9577	
4	8.84			233247	VV	6.9974	
5	9.18			95227	PV	2.8568	
6	9.44			50008	VV	1.5002	
7	9.58			33375	VV	1.0013	
8	9.88			108106	VV	3.2432	
9	10.34			168930	VV	5.0679	
10	10.56			257228	VV	7.7169	
11	10.79			182597	VV	5.4779	
12	11.05			375607	VV	48.9766	C7 N-HEPTANE
13	11.20			107005	VV	3.2102	
14	11.46			35975	VV	1.0793	
15	11.68			67084	VV	2.0125	
16	11.93			64289	VV	1.9287	
17	12.13			92860	VV	2.7858	
18	12.28			137625	VV	4.1287	
19	12.44			107478	VV	3.2243	
21	13.17			321531	PV	9.6459	
22	13.41			58233	VV	1.7470	
23	13.87			100703	VV	3.0211	
24	14.01			44479	VV	1.3344	
25	14.27			38005	VV	1.1401	
27	14.77			374985	VV	11.2496	
28	15.02			56603	VV	1.6981	
29	15.23			128637	PV	3.8591	
30	15.41			22694	VV	.6808	
31	15.57			27516	VV	.8255	
33	15.87	#15.85		320499	FF	320498.9000	4 BROMOFLOUROBENZENE
34	16.00			18127	FF	.5438	
35	16.07			174394	VV	5.2318	
36	16.41			40966	PV	1.2290	
37	16.54			166363	VV	4.9909	
38	16.81			47397	VV	1.4219	

Total Area DRO only : 4665622 - 320498.9 = 4345123

PACE INCORPORATED

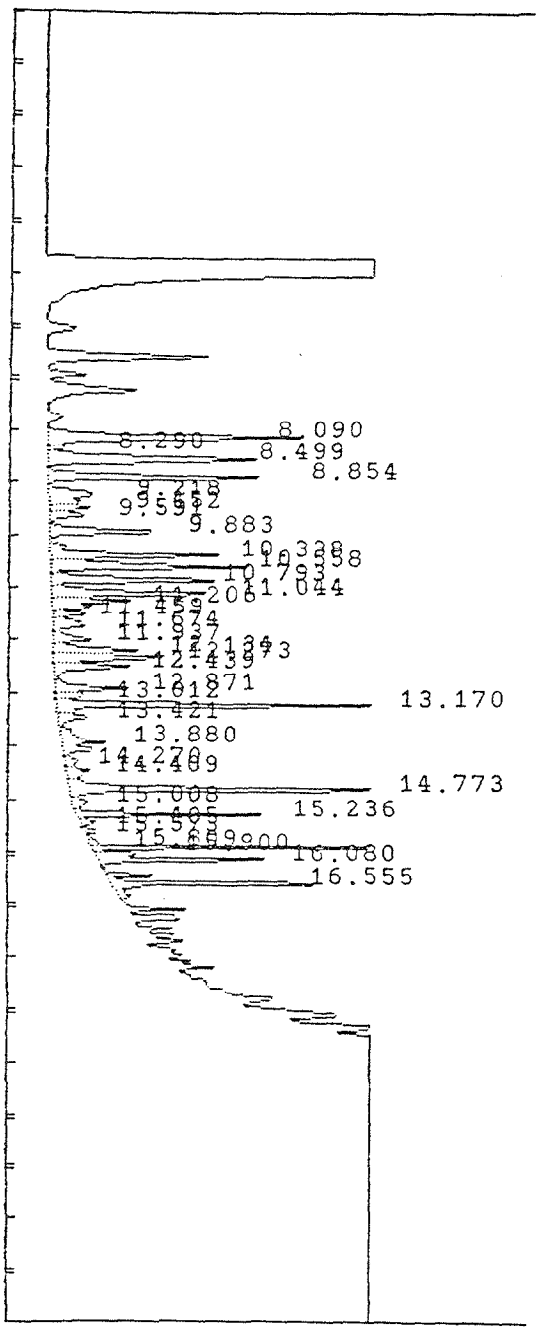
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : V STD 500 5ml / 1000 5µl VG145

Report No :250.01

Instrument : GC07

Subseq/Sample/Bottle: 1/ 9/ 9



Sequence File: /DATA/GC07/SEQUENCE/G70608.SEQ
Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117074.RES

Run Time : 25.00 Minutes Injected on 1717 08Jun1995
Report Time : 1431 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.09			666092	VV	19.9828	
2	8.29			34119	VV	1.0236	
3	8.50			530089	VV	15.9027	
4	8.85			474430	VV	14.2329	
5	9.22			203618	PV	6.1085	
6	9.45			97204	VV	2.9161	
7	9.59			68241	VV	2.0472	
8	9.88			211608	VV	6.3483	
9	10.34			339658	VV	10.1897	
10	10.56			516418	VV	15.4925	
11	10.79			365312	VV	10.9594	
12	11.04			551363	VV	64.8134	C7 N-HEPTANE
13	11.21			195893	VV	5.8768	
14	11.46			60834	VV	1.8250	
15	11.67			118588	VV	3.5576	
16	11.94			105967	VV	3.1790	
17	12.13			163606	VV	4.9082	
18	12.27			259941	VV	7.7982	
19	12.44			186511	VV	5.5953	
21	13.01			70590	VV	2.1177	
22	13.17			589132	PV	17.6740	
23	13.42			71777	VV	2.1533	
24	13.88			200051	VV	6.0015	
25	14.27			36124	VV	1.0837	
27	14.77			687566	VV	20.6270	
28	15.01			55268	VV	1.6580	
29	15.24			239386	PV	7.1816	
30	15.40			29582	VV	.8875	
31	15.57			30765	VV	.9229	
33	15.90	#15.85		605434	FF	605433.7000	4 BROMOFLOUROBENZENE
34	16.08			375142	VV	11.2543	
35	16.55			418699	PV	12.5610	

Total Area DRO only : 8559008 - 605433.7 = 7953574

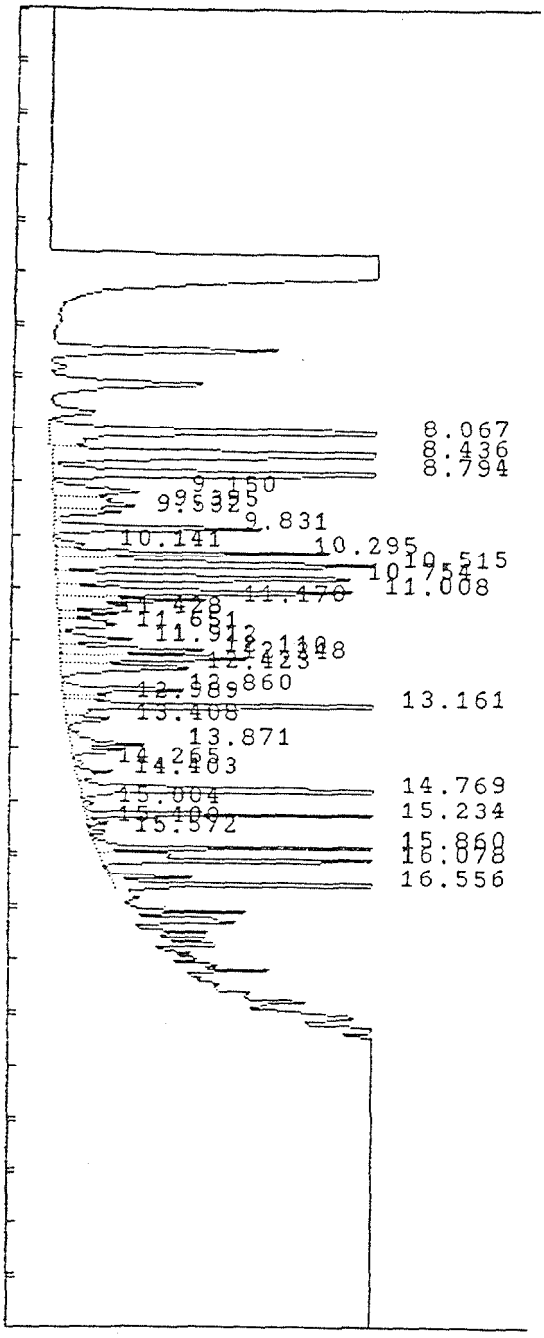
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : VSTD 2000 5ml 10µl V6145

Report No :251.02

Instrument : GC07

Subseq/Sample/Bottle: 1/ 10/ 10



Sequence File: /DATA/GC07/SEQUENCE/G70608.SEQ
Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117075.RES

Run Time : 25.02 Minutes Injected on 1748 08Jun1995
Report Time : 1451 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.07			1328316	FF	39.8495	
2	8.44			1143347	VV	34.3004	
3	8.79			1783316	VV	175.7038	D6 N-HEXANE
4	9.15			296166	VV	8.8850	
5	9.40			276058	VV	8.2817	
6	9.53			133180	VV	3.9954	
7	9.83			398672	VV	11.9602	
8	10.14			57286	PV	1.7186	
9	10.30			578324	VV	17.3497	
10	10.51			974849	VV	29.2455	
11	10.75			681491	VV	20.4447	
13	11.17			359799	VV	10.7940	
14	11.43			111177	VV	3.3353	
15	11.65			207490	VV	6.2247	
16	11.91			180264	VV	5.4079	
17	12.11			282796	VV	8.4839	
18	12.25			479851	VV	14.3955	
19	12.42			318515	VV	9.5555	
21	12.99			98041	VV	2.9412	
22	13.16			1063126	VV	31.8938	
23	13.41			91342	VV	2.7403	
24	13.87			272257	PV	8.1677	
25	14.26			18050	PV	.5415	
27	14.77			1201453	VV	36.0436	
28	15.00			25823	VV	.7747	
29	15.23			415274	VV	12.4582	
30	15.40			30109	VV	.9033	
31	15.57			33410	VV	1.0023	
32	15.86	#15.85		1177087	PV	1177087.0000	4 BROMOFLOUROBENZENE
33	16.08			698340	VV	20.9502	
34	16.56			710840	PV	21.3252	

Total Area DRO only : 15426052 - 1177087 = 14248965

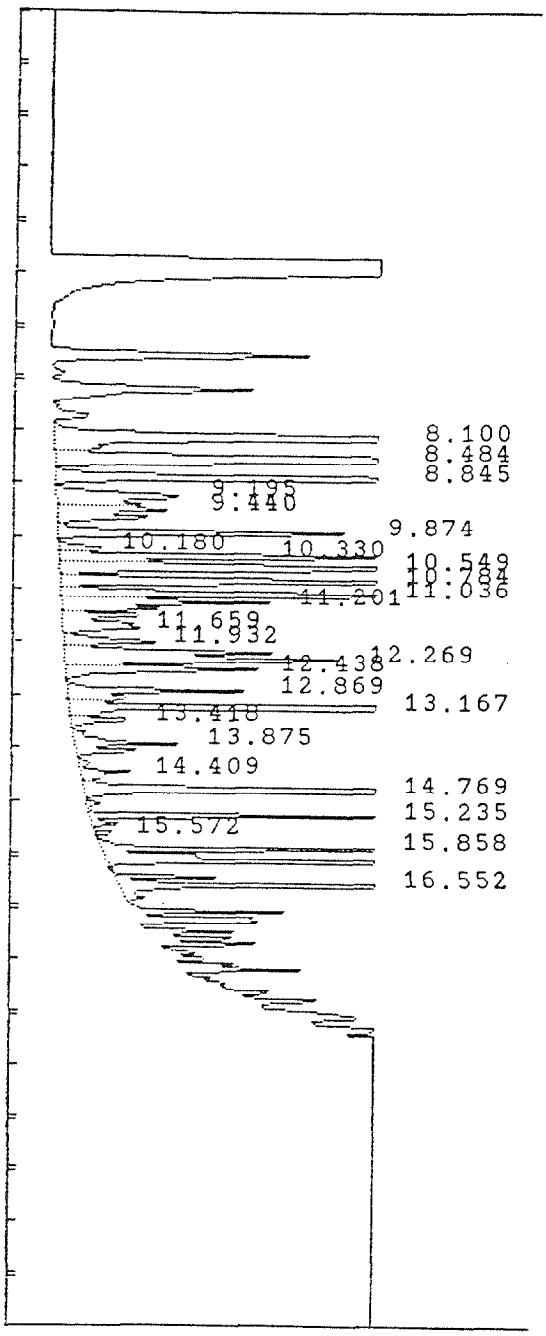
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : VSTD 3000 5ml 15 µl V6145

Report No :252.02

Instrument : GC07

Subseq/Sample/Bottle: 1/ 11/ 11



Sequence File: /DATA/GC07/SEQUENCE/G70608.SEQ
Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117076.RES

Run Time : 25.02 Minutes Injected on 1819 08Jun1995
Report Time : 1454 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.10			1862301	FF	55.8690	
2	8.48			1399897	VV	41.9969	
3	8.84			1250981	VV	37.5294	
4	9.19			528178	VV	15.8454	
5	9.44			466729	VV	14.0019	
6	9.87			555778	VV	16.6733	
7	10.18			79045	PV	2.3714	
8	10.33			814298	VV	24.4289	
9	10.55			1366773	VV	41.0032	
10	10.78			956826	VV	28.7048	
11	11.04			1369312	VV	133.7754	C7 N-HEPTANE
12	11.20			493976	VV	14.8193	
13	11.66			438804	VV	13.1641	
14	11.93			248605	VV	7.4582	
15	12.27			1049009	VV	31.4703	
16	12.44			440308	VV	13.2092	
18	13.17			1450417	VV	43.5125	
19	13.42			121711	VV	3.6513	
20	13.88			359236	PV	10.7771	
22	14.77			1647026	VV	49.4108	
23	15.23			595961	PV	17.8788	
24	15.57			35660	PV	1.0698	
25	15.86	#15.85		2678321	VV	2678321.0000	4 BROMOFLOUROBENZENE
26	16.55			972720	PV	29.1816	

Total Area DRO only : 21181872 - 2678321 = 18503551

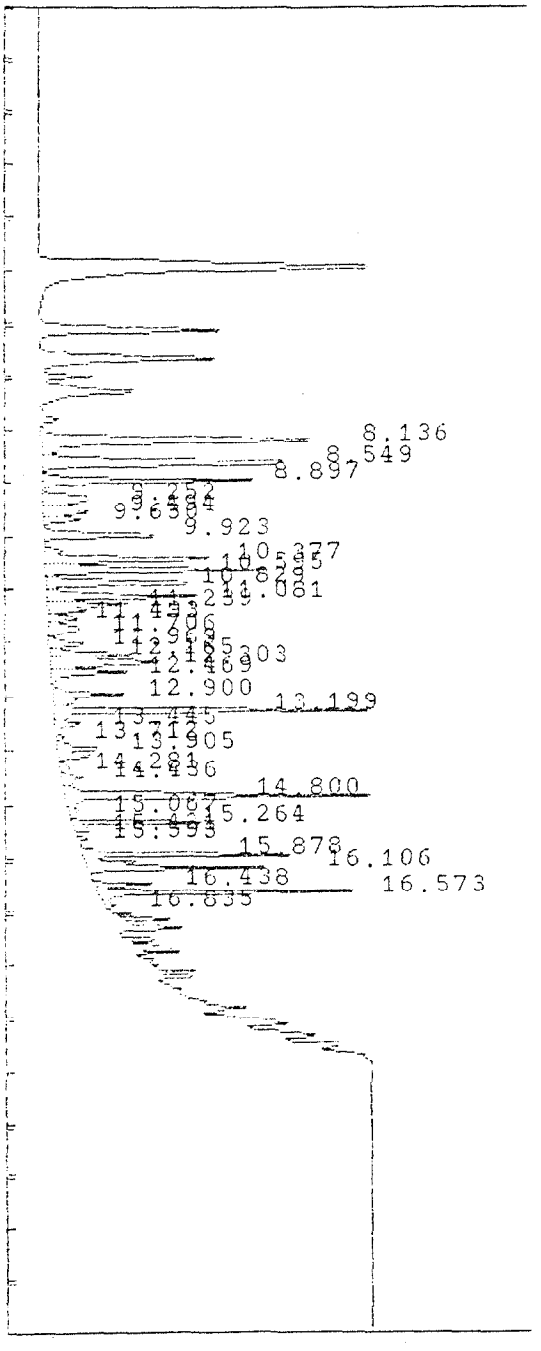
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : VSTD 1000 5UL V6145

Report No :310.01

Instrument : GC07

Subseq/Sample/Bottle: 1/ 2/ 2



Sequence File: /DATA/GC07/SEQUENCE/G70621.SEQ
Method File : /DATA/GC07/METHOD/TGAS0612.MTH
Result File : /DATA/GC07/RESULT/G7CF117133.RES

Run Time : 25.02 Minutes Injected on 1425 21Jun1995
Report Time : 1150 22Jun1995
Run Status : RunStatusOK

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

PK#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.14			714252	VV	21.4275	
2	8.55			652804	VV	19.5841	
3	8.90			476478	VV	14.2943	
4	9.25			161217	VV	4.8365	
5	9.49			149174	VV	4.4752	
6	9.63			73024	VV	2.1907	
7	9.92			214915	VV	6.4475	
8	10.38			345965	PV	10.3790	
9	10.59			523786	VV	15.7136	
10	10.83			366535	VV	10.9961	
11	11.08			564321	VV	61.3051	C7 N-HEPTANE
12	11.24			197097	VV	5.9129	
13	11.49			55571	VV	1.6671	
14	11.71			111848	VV	3.3554	
15	11.97			96398	VV	2.8919	
16	12.16			154623	VV	4.6387	
17	12.30			254431	VV	7.6344	
18	12.47			173930	VV	5.2179	
20	13.20			602635	VV	18.0791	
21	13.44			54850	VV	1.6455	
22	13.71			15434	VV	.4648	
23	13.90			166309	VV	4.9893	
24	14.28			27653	PV	.8296	
26	14.80			723955	VV	21.7187	
27	15.07			30708	VV	.9212	
28	15.26			256741	PV	7.7022	
29	15.42			26533	VV	.7960	
30	15.59			20264	VV	.6079	
31	15.88	#15.89		408329	PV	408328.9000	4 BROMOFLOUROBENZENE
32	16.11			375441	VV	11.2632	
33	16.44			75230	PV	2.2569	
34	16.57			354301	VV	10.6290	
35	16.83			22484	VV	.6745	

Total Area DRO only : $\frac{8447346 - 408328.9 - 724456.9}{6862.816}$ 1065

$\frac{408328.9 - 15694.93}{5833.012} = 67/50$

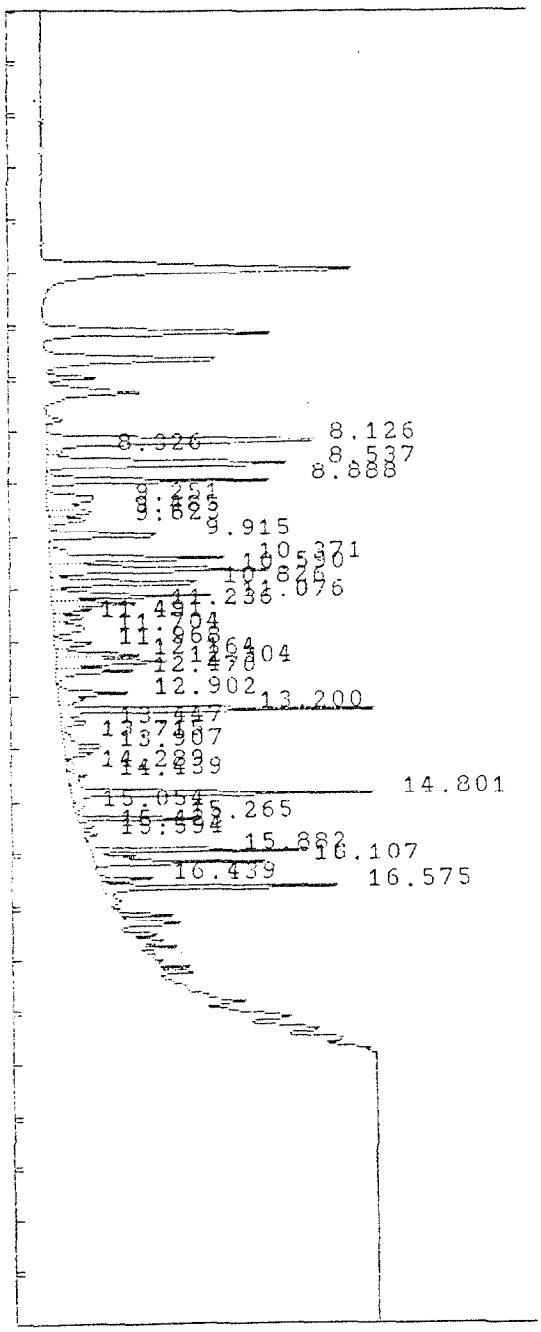
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : VSTD1000 5ULV6145

Report No :311.01

Instrument : GC07

Subseq/Sample/Bottle: 1/ 3/ 3



Sequence File: /DATA/GC07/SEQUENCE/G70621.SEQ
Method File : /DATA/GC07/METHOD/TGAS0612.MTH
Result File : /DATA/GC07/RESULT/G7CF117134.RES

Run Time : 25.02 Minutes Injected on 1456 21Jun1995
Report Time : 1153 22Jun1995
Run Status : RunStatusOK

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm Factor	Area	Code	UG/L	Name
1	8.13		687554	VV	20.6266	
2	8.33		36356	VV	1.0907	
3	8.54		619809	VV	18.5943	
4	8.89		484857	VV	14.5457	
5	9.25		212693	PV	6.3781	
6	9.48		102016	VV	3.0605	
7	9.62		72841	VV	2.1852	
8	9.91		215819	VV	6.4746	
9	10.37		352631	PV	10.5789	
10	10.59		536216	VV	16.0865	
11	10.85		379593	VV	11.3878	
12	11.08		562621	VV	61.0950	D7 N-HEPTANE
13	11.24		197788	VV	5.9336	
14	11.49		57390	VV	1.7190	
15	11.70		114715	VV	3.4415	
16	11.97		98001	VV	2.9400	
17	12.16		160675	VV	4.8203	
18	12.30		258700	VV	7.7610	
19	12.47		175665	VV	5.2699	
21	13.20		592793	VV	17.7838	
22	13.45		61256	VV	1.8377	
23	13.71		15592	PV	.4678	
24	13.91		151382	VV	4.5415	
25	14.29		23255	VV	.6976	
27	14.80		703598	VV	21.1080	
28	15.05		28876	VV	.8663	
29	15.26		237915	PV	7.1375	
30	15.42		20225	VV	.6068	
31	15.59		23256	VV	.6977	
32	15.88	#15.89	374549	VV	374548.8000	4 BROMOFLUOROBENZENE
33	16.11		349075	VV	10.4723	
34	16.44		65975	PV	1.9792	
35	16.58		336473	VV	10.0942	

Total Area DRO only : $\frac{8309982 - 374548.8 - 724456.9}{6862.816} = 1050$

$\frac{374548.8 - 15694.93}{5833.012} = 61$

PACE New England
VOA SOILS PREP

TOTAL GASOLINE

610290RY

Date/Init	Smpl Ct.	SAMPLE #	Prep Wt. (g)	Pan #	Pan Wt. (g)	Wet Wt. + Pan (g)	Dry Wt. + Pan (g)	% Solid	surrogate V6254 (1ml)	spike V6253	MeOH Baxter 34280	COMMENTS
CF 6/21/95		B-G1028A	4.0						MeOH Lot# 9			
		LS-G1028A	4.0					CF entered 6/22/95	1ml	1ml	8	
	S1	44436-1	4.2	C1	1.3	7.9	7.1		1ml		9	
	S2	-1MS	4.1						1ml	1ml	8	
	S3	-1MSD	4.3						1ml	1ml	8	double IS surr 7
	S4	-2	4.4	C2	1.3	7.8	7.1		2ml		9	
	S5	-3	4.0	C3	1.3	8.6	8.2		2ml			
	S6	-4	4.4	C4	1.3	8.3	7.3		2ml			
	S7	-5	4.1	C5	1.3	7.0	6.1		2ml			
	S8	-6	4.1	C6	1.3	16.3	11.2		2ml			
	S9	-7	4.4	C7	1.3	10.1	8.3		2ml			
	S10	-8	4.0	C8	1.3	10.4	8.6		2ml			
	S11	-9	4.0	C9	1.3	9.5	8.2		2ml			
	S12	-10	4.4	C10	1.3	9.2	7.8		2ml			
	S13	-11	4.1	C11	1.3	9.1	7.6		2ml			
	S14	-15	4.0	C12	WAR				2ml			

CF 6/23/95

PACE, Incorporated New England - New Hampshire Laboratory

Instrument GC07 TOTAL GAS Logbook # 1
Reviewed by ____ Date ____ Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
	G7CF117132	5µl	[redacted]	BG062195TGA	5ml		G7062/ cf 6/21/95 TGA50612
	33	5µl	[redacted]	VSTD1000	↓		5µl V6145
	34	5µl	3	VSTD1000	↓		5µl V6145
	35		4	BG1028A	10ml		
	36		5	LG1028			
	37		6	44436-1			
	38		7	2			
	39		8	3			
	40		9	4			
	41		10	5			
	42		1	6			
	43		2	7			
	44		3	8			
	45		4	9			
	46		5	10			
	47		6	11			
	48		7	15			re at 20ml E
	49		8	1MS			
	50		9	1MSD	↓		
	51	5µl	10	14	5ml		TB pH>2 5µl DFD V-
	G7CF117152			BAKE			cf 6/22/95 TGA50612
	53	5µl	1	BG062295TGA	5ml		
	54	5µl	2	VSTD1000	↓		5µl V6145
	55	5µl	3	VSTD1000	↓		5µl V6145
	56		4	BG1027B	10ml		
	57		5	44421-9			
	58		6	-10			
	59		7	-11			
	60		8	-12			
	61		9	-13			
	62		10	-14	↓		
	63		1	44436-15	10ml 5ml		
				cf 6/23/95			surrogate H2O V6255

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1331
Sample Designation: LABORATORY BLANK
Date Analyzed: 06/21/95
Matrix: SOLID

HYDROCARBON TYPE	CONCENTRATION ug/g	DETECTION LIMIT ug/g
DIESEL	BDL	3

MATRIX SPIKE RECOVERY

Laboratory Number: LSH133
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 06/21/95
Matrix: SOLID

COMPOUND	ug/g SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
DIESEL	0	33.5	15.9	47

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8015 (MODIFIED) AND 3350

pace INCORPORATED THE ASSURANCE OF QUALITY

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1332
Sample Designation: LABORATORY BLANK
Date Analyzed: 06/22/95
Matrix: WATER

HYDROCARBON TYPE	CONCENTRATION ug/L	DETECTION LIMIT ug/L
DIESEL	BDL	100

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1332
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 06/22/95
Matrix: SOLID

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
DIESEL	0	1004	803	80

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8015 (MODIFIED) AND 3350

pace INCORPORATED THE ASSURANCE OF QUALITY

PACE INCORPORATED
Organics Extraction
SOLIDS PREP LOG

PROTOCOL: EPA SW846
SOP #: QA5547
METHOD: SONC/3550
MATRIX: SOLID commercial TEST / LEVEL: PHC /

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	INIT WT (g)	SURR # AMT/CONC.	LCS MS/MSD	SPIKE # AMT/CONC.	NA2SO4 (g)	INTER VOL (ml)	ALIQUOT VOL (ml)	FINAL VOL (ml)
–	PAR	BH1331	30.	E1342 0.5mL	LSH1331		60	10.0	10.0	1.0
–	6-21-95	LSH1331	30.	10/ppm	44383-10ms/	E1319 200 mL				
3		44436-1	30.86		msD	5019 ppm N/A				
4		-2	30.56							
5		-3	30.86							
6		-4	30.54							
7		-5	30.64							
8		-6	30.56							
9		-7	30.89							
10		-8	~~30.83~~ 30.46							
11		-9	~~30.69~~ 30.58							
12		-10	30.26							
13		-11	30.65							
–		BH1331B	(E1c)							
–	↓	LSH1331B	↓	↓	↓	E1319 200 mL				
–		44436-16	(PA) 26.07			N/A				

COMMENTS: (E1c) Test blank & LCS using 100% MeCl2
PAR 6-21-95
(PA) - PE ampules - snapped ampule [illegible] - and weighed entire

PACE, INC. NEW ENGLAND - NEW HAMPSHIRE LAB
Organic Extractions
AQUEOUS PREP LOG

PROTOCOL: EPA SW846 LOGBOOK NO: 2

SOP: PACE NE-NH SOP 5501 METHOD: CONT/3520 SEPF/3510

MATRIX: AQUEOUS Comm. TEST/LEVEL: PHC 1

COUNT	DATE/ INIT	CONT #	BLANK/ SPIKE/ SAMPLE #	INIT VOL (L)	SURR AMT/ CONC	LCS MS/MSD	SPIKE # AMT/CONC	INTER VOL (mL)	ALIQUOT VOL (mL)	FINAL VOL (mL)
	6/22/95	N/A	BH1332	1.0	E1342 0.5mL	LSH1332	N/A	10.0	10.0	1.0
			LSH1332	1.0	10ppm	44193 ms MSD	E1319 200ul			
(E1) 16			44436-12	.955			N/A			
17			-13	.910						
18			44438-16	1.0						

LM 6/23/95

6/23/95

COMMENTS: (E1) SAMPLES 44436-12/13 were NOT PRESERVED ACIDIC.

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC12/METHOD/DIESEL004.MTH
Method created: 05/05/95 09:24:55
Method updated: 05/05/95 09:49:40

Result files used for Calibration data:
Level 1 /DATA/GC12/RESULT/G12H00715.RES
Level 2 /DATA/GC12/RESULT/G12H00716.RES
Level 3 /DATA/GC12/RESULT/G12H00717.RES
Level 4 /DATA/GC12/RESULT/G12H00718.RES
Level 5 /DATA/GC12/RESULT/G12H00719.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	4.15	SOLVENT PEAK	.00000	0.00	**********	**********
2	22.25	DIESEL FUEL	1.0000	130.00	4585.31	.15

$R = B0 + B1X + B2X^2$

[illegible] Incorporated
Continuing Calibration Report   Thu Jul 6, 1995 11:20:22 am

[illegible]RESULT/CIZH01025.RES
/[illegible]CIZ/METHOD/DIESEL004.MTH

Sample: DIESEL 2500PPM [illegible]
Injected: Wed Jun 21, 1995 11:20:49 am

RetTime	Analyte	Found	Nominal	%D	Recovery
[illegible]	DIESEL FUEL	2019.20	2500.000	19.2	80.8

[illegible] Incorporated
Continuing Calibration Report Thu Jul 6, 1995 11:20:39 am

[illegible]12/RESULT/C12R01026.RES
/Data/C12/METHOD/DIESEL004.MTH

Sample: DIESEL 2500PPM PB583
Injected: Thu Jun 22, 1995 6:08:08 am

RetTime	Analyte	Found	Nominal	%D	Recovery
[illegible]	DIESEL FUEL	2311.09	2500.000	7.6	92.4

RADIAN Corporation
Continuing Calibration Report

Thu Jul 6, 1995 11:20:34 am

...:B/GC12/RESULT/G12H01047.RES
/Data/GC12/METHOD/DIESEL004.MTH

Sample: DIESEL 2500PPM PW583
Injected: Thu Jun 22, 1995 9:10:21 pm

Retime	Analyte	Found	Nominal	%D	Recovery
21.3	DIESEL FUEL	2111.25	2500.000	15.6	84.4

PACE, INCORPORATED
GC Instrument Run Log

Circle one: CLP/PHC/OPP/HERB/P-P

Reviewed by _____ Date _____

Date	init	result file	Sample	MI	v	Method	column	Sequence
5/3/13	HS	F121t00714	P8591 SP4/C18 500/25 ppm	N	Y	Calib007	131	G120503
		715	DRO 50ppm P8585			Diesel004		
		716	DRO 250ppm P8584					
		717	DRO 2500ppm P8583					
		718	DRO 5000 ppm P8582					
		719	DRO 10000 PPM P8581					
		720	P111284 PHC-S			Calib007		
		721	LCS111284 PHC-S					
		722	43833-3 DRO-S Shell 11-5/12					
		723	43833-4 DRO-S Shell 11-5/12					
		724	43846-1 PHC-S Ramcon 11-5/12					
		725	43846-2 PHC-S Ramcon 11-5/12					
		726	43846-3 PHC-S Ramcon 11-5/12					
		727	43846-4 PHC-S Ramcon 11-5/12					
		728	P8580 GRO/Lube 5042/5104/5ppm 08/13/2013					
5/5/13	HS	G121t00729	P8580 GRO/Lube 5042/5104/5ppm 08/13/2013					
		730	Diesel 2500 PPM P8583 91			Diesel004		
		731	P8580 GRO/Lube 5042/5104/5ppm 49/injection			Calib007		
5/6/13	HS	F121t00732	P111286 PENTANE	Y	Y	Calib007	131	G120503
		733	43858-1 PENTANE PHC-S					
		734	43858-2 PENTANE PHC-S					
		735	43858-3 PENTANE PHC-S					
		736	43860-1 PENTANE PHC-S					
		737	43860-2 PENTANE PHC-S					
		738	43860-3 PENTANE PHC-S					
		739	111287 DRO-S					
		740	LCS111287 DRO-S NJ-PALE 1:10 @HS 5/6/13					
		741	~~DRO 2500 ppm P8583 @HS 5/6/13~~ 43894-11 DRO-S NJ-PALE 1:10		N	need dilution		
		742	DRO 7130ppm P8583 87		Y	Diesel004 need dilution		
		743	43894-12 DRO-S NJ-PALE 1:10					
		744	43894-13 DRO-S NJ-PALE 1:10					

PACE, INCORPORATED
GC Instrument Run Log

Circle one:
CLP/PHC/OPP/HERB/P-P

Reviewed by ____________ Date ________

Date	init	result file	Sample	MI	√	Method	column	Sequence
6/20/95	HS	G121Hol015	44346-1 DRO-W Shell 06/21	Y	Y	Diesel004	131	G120620
↓	↓	016	BH1330 DRO-S	↓	↓	↓	↓	↓
		017	LSH1330 DRO-S					
		018	44383-10 Shell					
		019	-10MSI					
		020	-10MSDI					
		021	BH13301B Test					
		022	LSH1330B ↓					
↓	↓	023	Gas/Lube 5042/5104/51ppm 91/10/1/93 P8580	Y	Y	Calib007A		
6/21/95		024	↓ 91/10/95	Y	Y	~~Diesel004~~ Calib007A HS 6/21/95 ②		
↓	↓	025	Diesel 2500ppm P8583 81	↓	↓	~~Calib007A~~ Diesel004	↓	↓
6/21/95	HS	G121Hol026	BH1331 DRO-S	Y	Y	Diesel004	131	G120621
		027	LSH1331					
		028	44431-16					
		029	-1					
		030	-2					
		031	-3					
		032	-4					
		033	-5					
		034	-6					
		035	-7					
		036	Diesel 2500ppm P8583 92	Y	Y			
		037	44436-8 DRO-S					
		038	-9					
		039	-10 need 1:10	N	N			
		040	-11	Y	Y			
		041	BH1331B Test					
↓	↓	042	LSH1331B ↓				↓	↓
6/22/95	HS	G122Hol043	44436-10 DRO-S 1:10			Diesel004	131	G120622
		044	BH1332 DRO-W					
	↓	045	LSH1332 ↓	↓	↓	↓	↓	↓

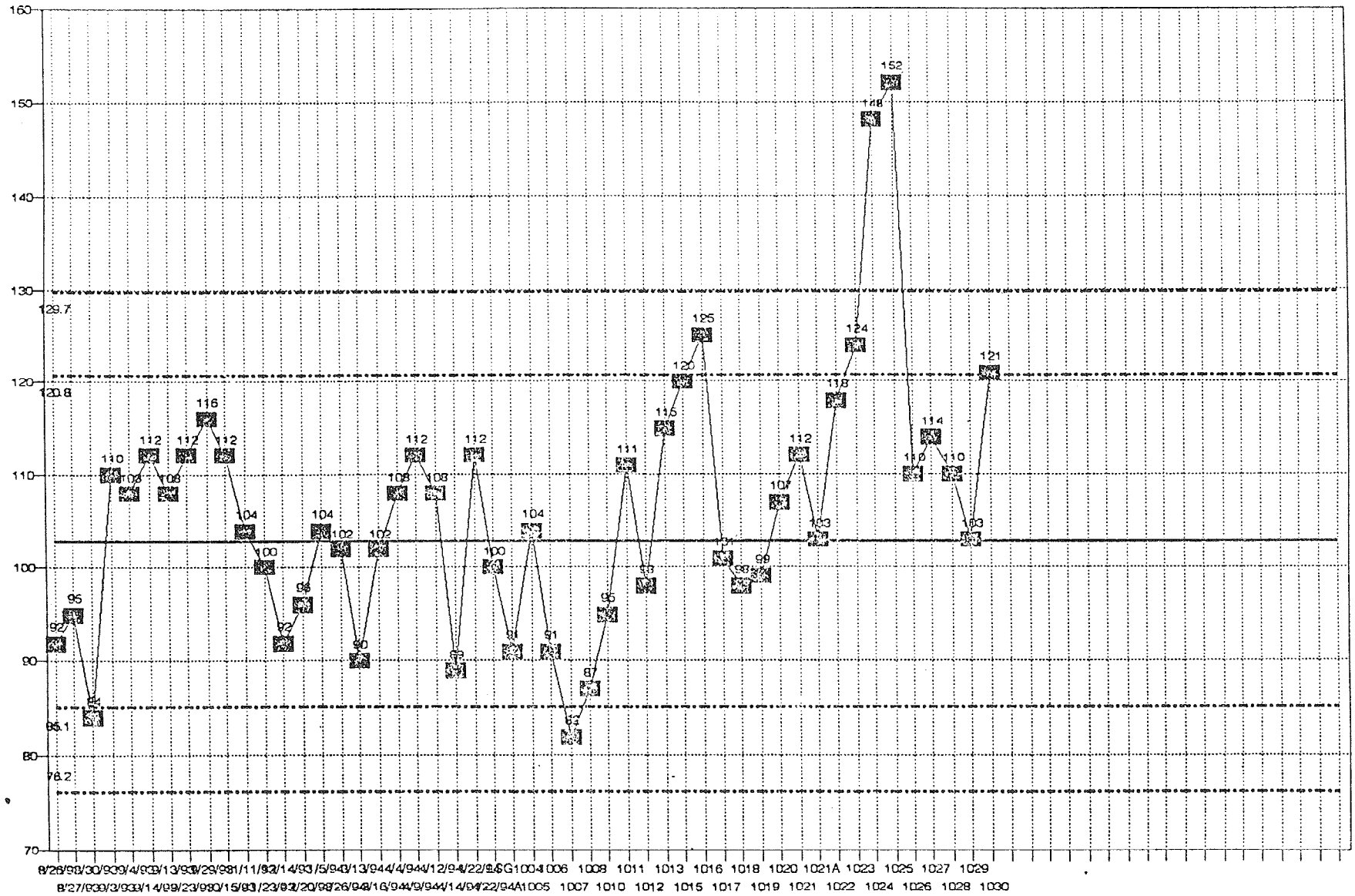
PACE, INCORPORATED
GC Instrument Run Log

Circle one: CLP/PHC/OPP/HERB/P-P (PHC circled)

Reviewed by ____________ Date ________

Date	init	result file	Sample	MI	V	Method	column	Sequence
6/21/95	ABS	G12H01046	44436-12 DRO-W	Y	Y	Diesel004	131	G120622
↓	↓	047	Diesel 2500ppm P8583 84	↓	↓	↓	↓	↓
		048	44436-13 DRO-W					
		049	44438-16 ↓					
↓	↓	050	Diesel 2500ppm P8583			↓	↓	↓
6/22/95	↓	051	~~Bad injection~~ ABS 6/22/95 Gas/lube 5042/5104/51ppm	N	N	↓	↓	↓
		ABS 6/22/95	change liner, Septa					
6/22/95	ABS	G12H01052	Gas/lube 5042/5104/51ppm P8580	N	N	Diesel004	131	G120622
		053	↓ 105/112/99	Y	Y	Calib007A		
		054	BH1336 PHC-O					
		055	44412-1 PHC-O 1:10			↓	↓	↓
6/27/95	ABS	G12H01056	BH 1335 PHC-W	Y	Y	Calib007A	131	G120627
		057	LSH1335 PHC-W					
		058	44438-16 RE ENSAFE PHC-W					
		059	44455-10					
		060	-11 ↓					
		061	44495-19 RB GUV PHC-W					
		062	-20					
		063	-21 ↓					
		064	Gas/lube 5042/5104/51ppm 94/108/121 P8586	Y	N			
		065	↓ 102/108/100	Y	Y			
		066	BH1334 PHC-S					
		067	44431-1 PENTANE PHC-S					
		068	-2					
		069	-3					
		070	44432-1					
		071	-2					
		072	-3 ↓			↓	↓	G120628
6/28/95	ABS	073	BH1337 PHC-S			Calib007A	131	
↓	↓	074	LSH1337			↓	↓	↓
↓	↓	075	44497-4 ↓			↓	↓	↓

TOTAL GAS LCS RECOVERIES
LIMITS SET 4/13/94

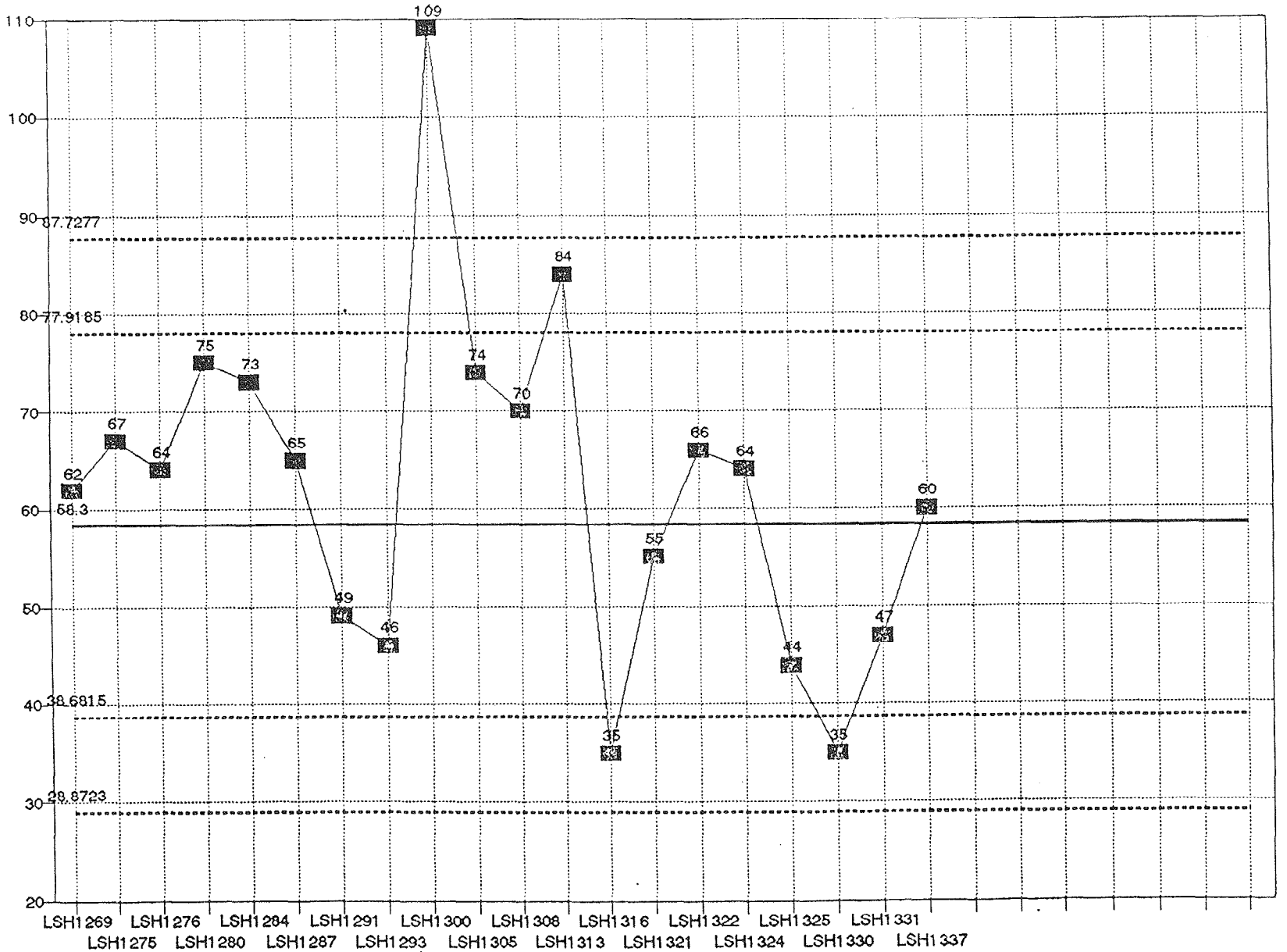


STD DEV = 8.93 MEAN = 103

0000034

PHC LOW SOLIDS - DIESEL

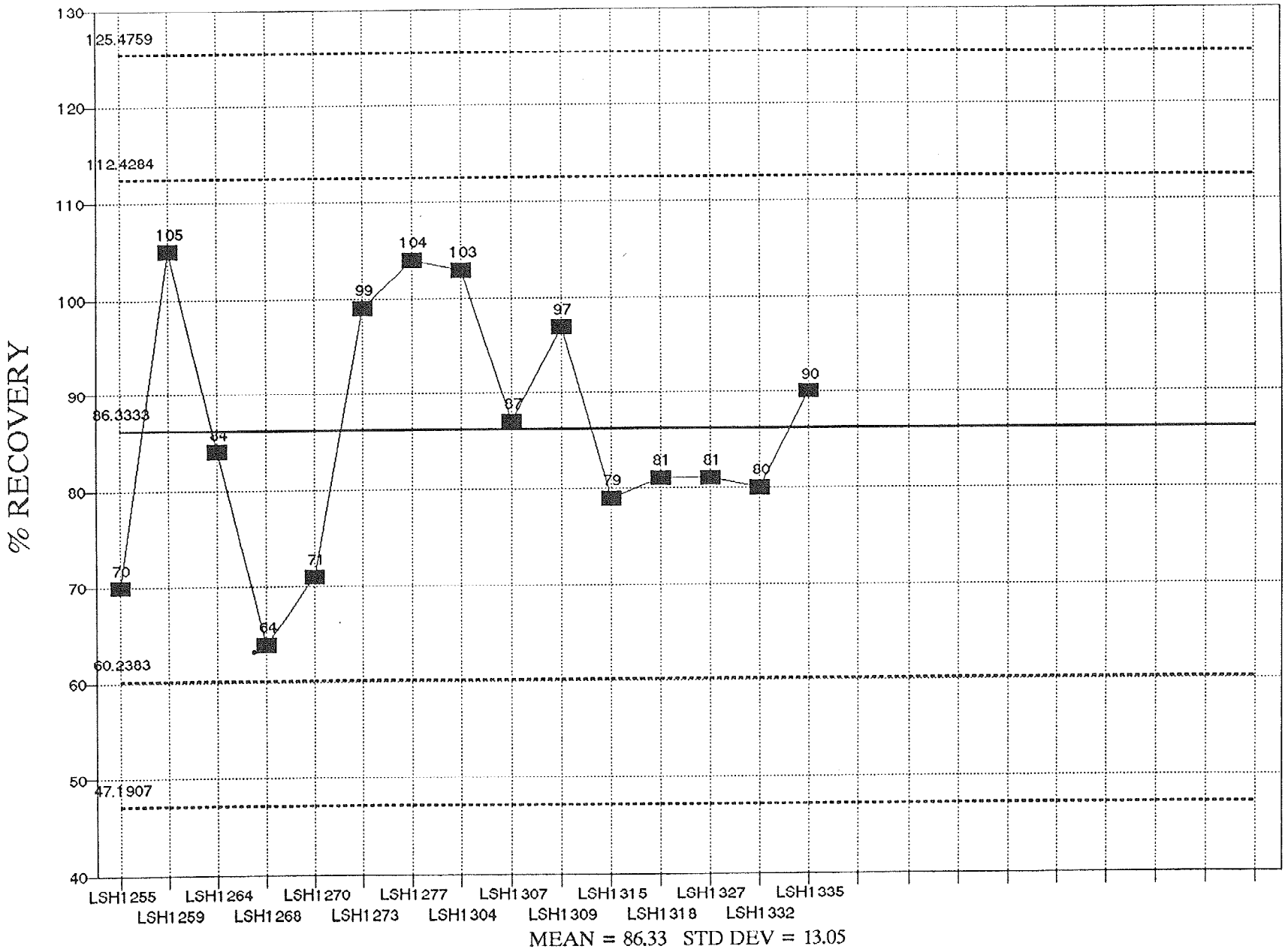
SPK REC LIMS SET6/6/95-PPCBCHT\PHCS1294



MEAN = 58.30 STD DEV =9.81

PHC WATERS BY SEPF - DIESEL

SPK REC LIMS SET0795 PPCBCHT\PHCWSF94



MEAN = 86.33 STD DEV = 13.05

0000036

LAB COPY

OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

144107

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune DO44	Camp Greiger

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
16487	Randy Smith	(910) 451-1809

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Jim Dunn

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) 5030/8015 TPH	3550/8015 TPH							REMARKS 44436
1	CLJ44-ACS-001	6/20	929		X	Soil Sample from Area C	1	X	X	-1						
2	CLJ44-ACS-002	6/20	932		X	Soil Sample from Area C	1	X	X	-2						
3	CLJ44-ABS-003	6/20	951		X	Soil Sample from Area B	1	X	X	-3						
4	CLJ44-ABS-004	6/20	955		X	Soil Sample from Area B	1	X	X	-4						
5	CLJ44-AAS-005	6/20	1000		X	Soil Sample from Area A	1	X	X	-5						
6	CLJ44-AAS-006	6/20	1003		X	Soil Sample from Area A	1	X	X	-6						
7	CLJ44-AAS-007	6/20	1007		X	Soil Sample from Area A	1	X	X	-7						
8	CLJ44-AAS-008	6/20	1010		X	Soil Sample from Area A	1	X	X	-8						
9	CLJ44-AAS-009	6/20	1013		X	Soil Sample from Area A	1	X	X	-9						
10	CLJ44-AAS-009D	6/20	1013		X	Soil Sample from Area A	1	X	X	-10						

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10			6/20	1600
2			Betty McMorrill PACE NH	6/21/95	10:00
3					
4					

REMARKS 48 hr. TAT

SAMPLER'S SIGNATURE

00000037

LAB COPY

OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

144108

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: Camp Lejeune DO 44
PROJECT LOCATION: Camp Geiger
PROJ. NO.: 16487
PROJECT CONTACT: Randy Smith
PROJECT TELEPHONE NO.: (910) 451-1809
CLIENT'S REPRESENTATIVE:
PROJECT MANAGER/SUPERVISOR: Jim Dunn

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) 5030/8015 TPH	3550/8015 TPH	REMARKS
1	CLJ44-AA5-010	6/20	1017		X	Soil Sample from Area A	1	X	X	-11
2	CLJ44-RB	6/20	1019			Rinsate Blank	3	X	X	-12
3	CLJ44-FB	6/20	1022			Field Blank	3	X	X	-13
4	CLJ44-TB	6/20	1025			Trip Blank	1	X	X	-14
5										
6										
7										
8										
9										
10										

44436

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-4			6/20	1600
2			Betty McMorrill PACE NH	6/21/95	10:00
3					
4					

REMARKS: 48 hr. TAT

SAMPLER'S SIGNATURE

00000038

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OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

144108

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: Camp Lejeune .DO 44	PROJECT LOCATION: Camp Geiger
PROJ. NO: 16487	PROJECT CONTACT: Randy Smith
PROJECT TELEPHONE NO.: (910) 451-1809	
CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR: Jim Dunn

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) 5030/8015 TPH	3550/8015 TPH							REMARKS
																44436
1	CLJ44-AAS-010	6/20	1017		X	Soil Sample from Area A	1	X	X	-11						
2	CLJ44-RB	6/20	1019			Rinsate Blank	3	X	X	-12						
3	CLJ44-FB	6/20	1022			Field Blank	3	X	X	-13						
4	CLJ44-TB	6/20	1025			Trip Blank	1	X	X	-14						
5																
6																
7																
8																
9																
10																

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-4			6/20	1600
2			Betty McMorrill PACE NH	6/21/95	10:00
3					
4					

REMARKS: 48 hr. TAT

SAMPLER'S SIGNATURE

00000039

LAB COPY

OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

144107

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: Camp Lejeune, DO 44	PROJECT LOCATION: Camp Geiger		
PROJ. NO.: 16487	PROJECT CONTACT: Randy Smith	PROJECT TELEPHONE NO.: (910) 451-1509	
CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR: Jim Dunn		

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) 5030/8015 TPH	3550/8015 TPH							REMARKS
																44436
1	CLJ44-ACS-001	6/20	929		X	Soil Sample from Area C	1	X	X	-1						
2	CLJ44-ACS-002	6/20	932		X	Soil Sample from Area C	1	X	X	-2						
3	CLJ44-ABS-003	6/20	951		X	Soil Sample from Area B	1	X	X	-3						
4	CLJ44-ABS-004	6/20	955		X	Soil Sample from Area B	1	X	X	-4						
5	CLJ44-AAS-005	6/20	1000		X	Soil Sample from Area A	1	X	X	-5						
6	CLJ44-AAS-006	6/20	1003		X	Soil Sample from Area A	1	X	X	-6						
7	CLJ44-AAS-007	6/20	1007		X	Soil Sample from Area A	1	X	X	-7						
8	CLJ44-AAS-008	6/20	1010		X	Soil Sample from Area A	1	X	X	-8						
9	CLJ44-AAS-009	6/20	1013		X	Soil Sample from Area A	1	X	X	-9						
10	CLJ44-AAS-009D	6/20	1013		X	Soil Sample from Area A	1	X	X	-10						

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10			6/20	1600
2			Betty McMorrill PACE NH	6/21/95	10:00
3					
4					

REMARKS: 48 hr. TAT

SAMPLER'S SIGNATURE

Final Page

00000040

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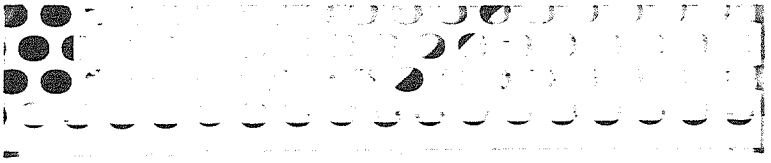
INCORPORATED
ENVIRONMENTAL LABORATORIES



OHM REMEDIATION SERVICES CORP.

CASE: OHMRC SDG: LJN05

PACE LAB NUMBER 44436

JULY 11, 1995

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

July 11, 1995

OHM Remediation Services Corporation
5335 Triangle Parkway
Suite 450
Norcross, GA 30092

SAMPLE DELIVERY GROUP NARRATIVE

Case: OHMRC
SDG: LJN05
Laboratory: PACE New England - New Hampshire of Hampton, NH
Lab Numbers: 44436
Protocol: SW846 Method 8080. NEESA C deliverables. No diskette.

Sample Receipt: Samples were received at PACE, Inc. on June 21, 1995. Laboratory sample numbers were assigned for test parameters as listed on the Sample Table which follows this narrative. Sample shipments were checked for custody seal integrity and cooler temperature. Samples were checked for appropriate preservation and accuracy against the Chains-of-Custody provided. Other than the exceptions noted below, samples were received between 2-6° C and in good condition. PACE Sample Receipt Condition Reports can be found with the Chains-of-Custody.

Shipment received 6/21/95 (44436): Samples were received in one cooler. A temperature blank was not included with the shipment, therefore the cooler temperature could not be verified upon receipt of samples at PACE. Samples were received cool, and had been packed on ice. Custody seals were not present on the cooler. Three 1 liter bottles were received for both the rinsate blank and field blank. Because it was inappropriate to perform GRO (a purge and trap volatiles determination) on a water sample not received in VOA vials, the field and rinsate blanks were not logged in for GRO. Additionally, the trip blank was only logged in for GRO, even though both DRO and GRO were checked off on the COC. Rakesh Mishra (OHM) was notified of this problem. Batch, rather than sample QC was assigned for this SDG. The solid sample spiked (PACE Lab# 44383-10) and reported in this SDG as MS/MSD was provided by another PACE client, and was not one selected from this set of OHM samples.

Two ampules of solid reference material were received from Environmental Resource Associates (ERA) in a separate shipment for use as a QC sample with these field samples (ERA Project No. 0613-95-03). The Quality Control Standards provided were for Hydrocarbon Fuels in Soil for both Gasoline and Diesel. Gretchen Franzheim (PACE) notified Rakesh Mishra (OHM) that the instructions for the GRO ampule were for the California DHS headspace analysis method which PACE would not be using for the determination of GRO for these samples. Since the True Values supplied to Theresa Rojas (OHM) for this standard were determined using the California DHS headspace method, it was communicated in conversation that there would probably be little correlation to the value determined by PACE and the ERA-supplied true value for GRO.

GRO Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

SDG Narrative
Case: OHMRC, SDG: LJN05

DRO Analysis: The following laboratory numbers 44436-1 through -12 for diesel range organics contained petroleum hydrocarbon products which did not match diesel.

Statement of Compliancy and Data Authorization

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Richard A Ullman — 7/11/95

PACE Incorporated, New England-New Hampshire — July 11, 1995

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

LAB# 44436
PAGE 1 of 1
COOLER ____ of ____
COC# 144107 + 144108
SDG# LJN05
CASE# OHMRC

CLIENT OHM CORPORATION
DATE/TIME RECEIVED 6-21-95 1000
DELIVERED BY FED-EX
RECEIVED BY BM

LIMS ENTRY BY GMF
TRANSCRIPTION REVIEW BY bd
LIMS REVIEW BY/PM GMF

	NA	YES	EXCEPTION	COMMENT	RESOLUTION
1. CUSTODY SEALS PRESENT/INTACT	☐	☐	☒		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☒	☐		
3. CHAIN OF CUSTODY SIGNED	☐	☒	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES	☐	☒	☐		
5. SAMPLES RECEIVED AT 2° - 6° C (Ice) Ice Packs Present? (Y) or N	☐	☐	☒	NO TEMP BLANK	
6. VOLATILES FREE OF HEAD SPACE	☐	☒	☐		
7. TRIP BLANK PRESENT IN THIS COOLER	☐	☒	☐		
8. PROPER SAMPLE CONTAINERS AND VOLUME	☐	☒	☐		
9. SAMPLES WITHIN HOLD TIME	☐	☒	☐		
10. SAMPLES PROPERLY PRESERVED	☐	☒	☐		

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other____
12. NUMBER OF PACE FILTRATIONS:____
13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes:

-15 TEAS Ref. material
-16 DRO Ref material

CLIENT AUTHORIZATION SIGNATURE____ DATE

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

LAB# 44436
PAGE 1 of 1
COOLER ____ of ____
COC# 144127 + 144168
SDG# LJN05
CASE# CITMRC

CLIENT OHM CORPORATION
DATE/TIME RECEIVED 6-21-95 1000
DELIVERED BY FED-EX
RECEIVED BY BM
LIMS ENTRY BY GMF
TRANSCRIPTION REVIEW BY bd
LIMS REVIEW BY/PM GMF

		NA	YES	EXCEPTION	COMMENT	RESOLUTION
1.	CUSTODY SEALS PRESENT/INTACT	☐	☐	☑		
2.	CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☑	☐		
3.	CHAIN OF CUSTODY SIGNED	☐	☒	☐		
4.	CHAIN OF CUSTODY MATCHES SAMPLES	☐	☒	☐		
5.	SAMPLES RECEIVED AT 2° - 6° C (Ice) Ice Packs Present? (Y) or N	☐	☐	☑	NO TEMP BLANK	
6.	VOLATILES FREE OF HEAD SPACE	☐	☑	☐		
7.	TRIP BLANK PRESENT IN THIS COOLER	☐	☒	☐		
8.	PROPER SAMPLE CONTAINERS AND VOLUME	☐	☒	☐		
9.	SAMPLES WITHIN HOLD TIME	☐	☒	☐		
10.	SAMPLES PROPERLY PRESERVED	☐	☒	☐		

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other ____
12. NUMBER OF PACE FILTRATIONS: ____
13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes:

-15 TCAS Ref material
-16 DRC Ref material

CLIENT AUTHORIZATION SIGNATURE ____ DATE ____

SAMPLE TABLE

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-ACS-001	SOLID	44436-001	TOTAL GASOLINE TOTAL DIESEL
CLJ44-ACS-002	SOLID	44436-002	TOTAL GASOLINE TOTAL DIESEL
CLJ44-ABS-003	SOLID	44436-003	TOTAL GASOLINE TOTAL DIESEL
CLJ44-ABS-004	SOLID	44436-004	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-005	SOLID	44436-005	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-006	SOLID	44436-006	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-007	SOLID	44436-007	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-008	SOLID	44436-008	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-009	SOLID	44436-009	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-009D	SOLID	44436-010	TOTAL GASOLINE TOTAL DIESEL
CLJ44-AAS-010	SOLID	44436-011	TOTAL GASOLINE TOTAL DIESEL
CLJ44-RB	WATER	44436-012	TOTAL DIESEL
CLJ44-FB	WATER	44436-013	TOTAL DIESEL

pace INCORPORATED
THE ASSURANCE OF QUALITY

SAMPLE TABLE
(CONTINUED)

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-TB	WATER	44436-014	TOTAL GASOLINE
ERA GAS REFERENCE MATERIAL	SOLID	44436-015	TOTAL GASOLINE
ERA DIESEL REFERENCE MATERIAL	SOLID	44436-016	TOTAL DIESEL

pace INCORPORATED
THE ASSURANCE OF QUALITY

Field Identification: CLJ44-ACS-001 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	14	44436-001	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	9.7	3.7	44436-001	06/21/95		8015(mod),3350/2

Field Identification: CLJ44-ACS-002 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	14	44436-002	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	17	3.7	44436-002	06/21/95		8015(mod),3350/2

Field Identification: CLJ44-ABS-003 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	14	44436-003	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	87	3.4	44436-003	06/21/95		8015(mod),3350/2

Field Identification: CLJ44-ABS-004 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-004	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	58	3.8	44436-004	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-AAS-005 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-005	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	15	3.9	44436-005	06/22/95		8015(mod),3350/2

Results expressed on a dry weight basis.

pace INCORPORATED
THE ASSURANCE OF QUALITY

Field Identification: CLJ44-AAS-006 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	35	19	44436-006	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	36	5.0	44436-006	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-AAS-007 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	16	44436-007	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	50	4.1	44436-007	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-AAS-008 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-008	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	63	4.1	44436-008	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-AAS-009 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-009	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	250	3.9	44436-009	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-AAS-009D Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-010	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	590	40	44436-010	06/22/95		8015(mod),3350/2

Results expressed on a dry weight basis.

pace INCORPORATED THE ASSURANCE OF QUALITY

Field Identification: CLJ44-AAS-010 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44436-011	06/12/95	BG1028A	8015(mod)/2
Total Diesel (ug/g)	24	4.0	44436-011	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-RB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Diesel (ug/L)	140	100	44436-012	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-FB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Diesel (ug/L)	BDL	110	44436-013	06/22/95		8015(mod),3350/2

Field Identification: CLJ44-TB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44436-014	06/21/95		8015(mod)/2

Field Identification: ERA GAS REFERENCE MATERIAL Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	422	62	44436-015	06/22/95	BG1028A	8015(mod)/2

Field Identification: ERA DIESEL REFERENCE MATERIAL Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Diesel (ug/g)	230	5.0	44436-016	06/21/95		8015(mod),3350/2

Results for solid samples are expressed on a dry weight basis.

References: 2) EPA SW 846, 3rd Edition

pace INCORPORATED THE ASSURANCE OF QUALITY

QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: BG1028A
Sample Designation: LABORATORY BLANK
Date Analyzed: 06/21/95
Matrix: SOLID

COMPOUND	CONCENTRATION ug/g	DETECTION LIMIT ug/g
GASOLINE	BDL	12

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1028
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 06/21/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%RECOVERY
GASOLINE	0	50	55	110

METHOD REFERENCE: METHOD 8015 (MODIFIED)

pace INCORPORATED
THE ASSURANCE OF QUALITY

Calibration Curve for total gas

Titles

Test: total gas
Date: 06/08/95
X-Axis: concentration
Y-Axis: area

	Conc.	Abs.	Calc-Abs.
1	100	1388696	1410739
2	200	1864627	2097020
3	500	4048123	4155865
4	1000	7930574	7587273
5	2000	14248983	14450089

Regression Output:

Constant	724456.9
Std Err of Y Est	305148.5
R Squared	0.997547
No. of Observations	5
Degrees of Freedom	3
X Coefficient(s)	6862.816
Std Err of Coef.	196.4819

Slope = 6862.816
Y-Intercept = 724456.9

Calibration Curve for bromofluorobenzene

Titles

Test: bromofluorobenzene
Date: 06/09/95
X-Axis: concentration
Y-Axis: area

	Conc.	Abs.	Calc-Abs.
1	10	71196.62	74025.06
2	20	128801.1	132355.2
3	50	321499.9	307345.5
4	100	605433.7	598976.2
5	200	1177087	1182297

Regression Output:

Constant	15694.93
Std Err of Y Est	11300.24
R Squared	0.999533
No. of Observations	5
Degrees of Freedom	3
X Coefficient(s)	5833.012
Std Err of Coef.	72.76106

Slope = 5833.012
Y-Intercept = 15694.93

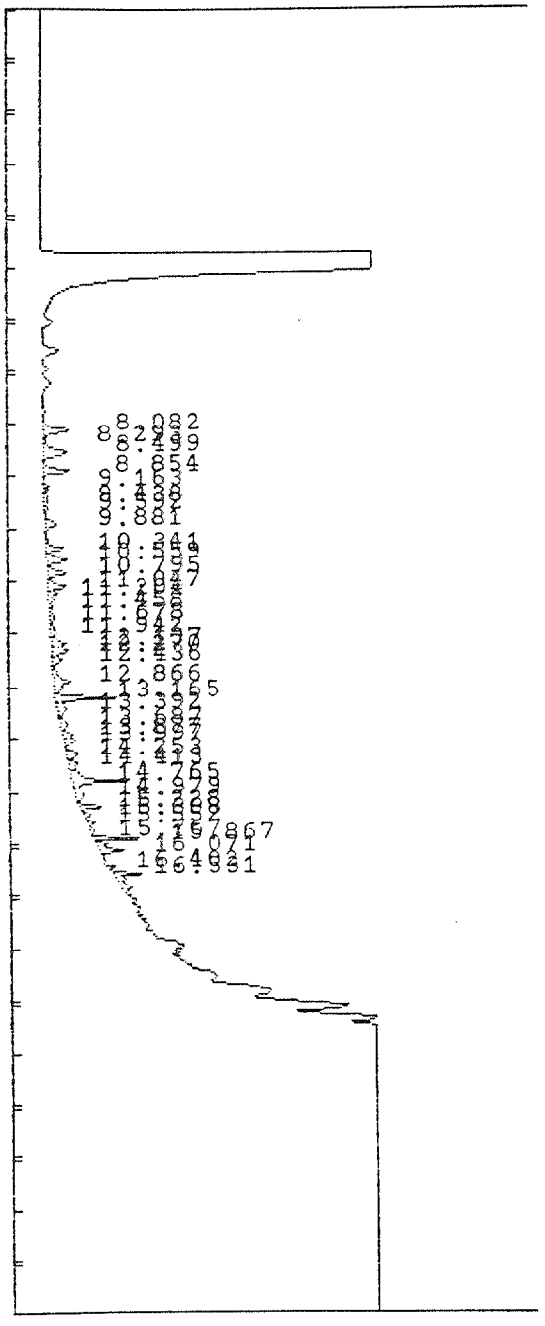
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : vstd 100 5ml 5pl V6241

Report No :247.01

Instrument : GC07

Subseq/Sample/Bottle: 1/ 6/ 6



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Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117071.RES

Run Time : 25.02 Minutes Injected on 1546 08Jun1995
Report Time : 1415 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.08			69675	VV	2.0903	
2	8.29			4018	VV	.1206	
3	8.50			66286	VV	1.9886	
4	8.85			58092	VV	1.7428	
5	9.16			13984	PV	.4195	
6	9.44			13982	VV	.4195	
7	9.59			6390	VV	.1917	
8	9.88			29436	PV	.8831	
9	10.34			36805	VV	1.1042	
10	10.56			56401	VV	1.6920	
11	10.80			40283	VV	1.2085	
12	11.05			140590	VV	27.7272	C7 N-HEPTANE
13	11.20			22785	VV	.6835	
14	11.46			5915	VV	.1774	
15	11.68			14110	PV	.4233	
16	11.94			18892	VV	.5668	
17	12.14			29567	VV	.8870	
18	12.27			39357	VV	1.1807	
19	12.44			25792	VV	.7738	
21	13.17			80258	PV	2.4077	
22	13.39			39269	VV	1.1781	
23	13.69			24840	PV	.7452	
24	13.88			22040	VV	.6612	
25	14.00			21843	VV	.6553	
26	14.25			29527	VV	.8858	
28	14.77			115978	VV	3.4793	
29	14.98			36655	VV	1.0996	
30	15.23			36037	PV	1.0811	
31	15.40			14669	VV	.4401	
32	15.55			19332	VV	.5800	
34	15.87	#15.85		71199	FF	71198.6200	4 BROMOFLOUROBENZENE
35	16.07			62116	PV	1.8635	
36	16.40			12385	PV	.3716	
37	16.53			81388	PV	2.4416	

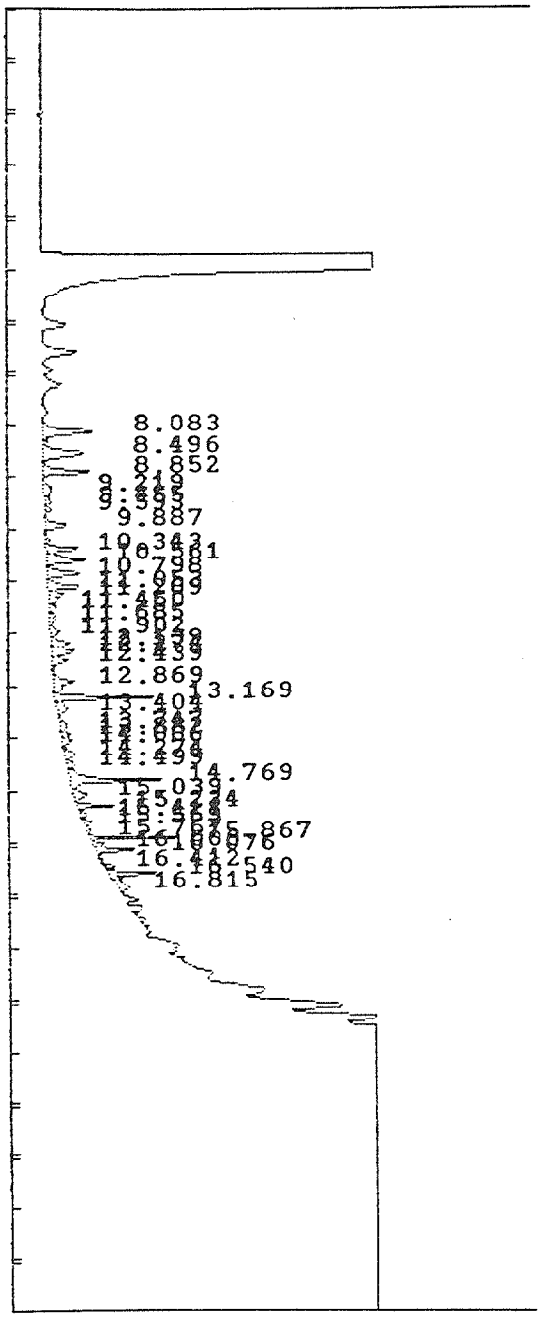
Total Area DRO only : 1359895 - 71198.62 = 1288696

CARBON SIX-CARBON TEN
Sample Name : vstd 200 5ml 10µl V6241

Report No :248.03

Instrument : GC07

Subseq/Sample/Bottle: 1/ 7/ 7



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Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117072.RES

Run Time : 25.00 Minutes Injected on 1616 08Jun1995
Report Time : 1447 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.08			132886	VV	3.9866	
2	8.50			115075	VV	3.4523	
3	8.85			98626	VV	2.9588	
4	9.22			29376	PV	.8813	
5	9.45			26153	VV	.7846	
6	9.59			12361	VV	.3708	
7	9.89			44846	VV	1.3454	
8	10.34			64957	PV	1.9487	
9	10.56			100530	VV	3.0159	
10	10.80			70640	VV	2.1192	
11	11.05			159006	VV	29.2807	C7 N-HEPTANE
12	11.21			40346	VV	1.2104	
13	11.46			12849	VV	.3855	
14	11.69			21052	VV	.6316	
15	11.90			24394	VV	.7318	
16	12.14			37859	VV	1.1358	
17	12.27			54834	VV	1.6450	
18	12.44			35065	VV	1.0520	
20	13.17			122562	PV	3.6769	
21	13.40			38507	VV	1.1552	
22	13.75			24997	VV	.7499	
23	13.88			21619	VV	.6486	
24	14.01			23394	VV	.7018	
25	14.27			32578	PV	.9774	
27	14.77			164465	VV	4.9340	
28	15.04			47774	VV	1.4332	
29	15.23			49944	PV	1.4983	
30	15.41			12747	VV	.3824	
31	15.57			19342	VV	.5803	
33	15.87	#15.85		120801	FF	120801.1000	4 BROMOFLOUROBENZENE
34	16.00			12682	FF	.3805	
35	16.08			74431	VV	2.2329	
36	16.41			21329	PV	.6399	
37	16.54			75543	VV	2.2663	
38	16.82			41857	VV	1.2557	

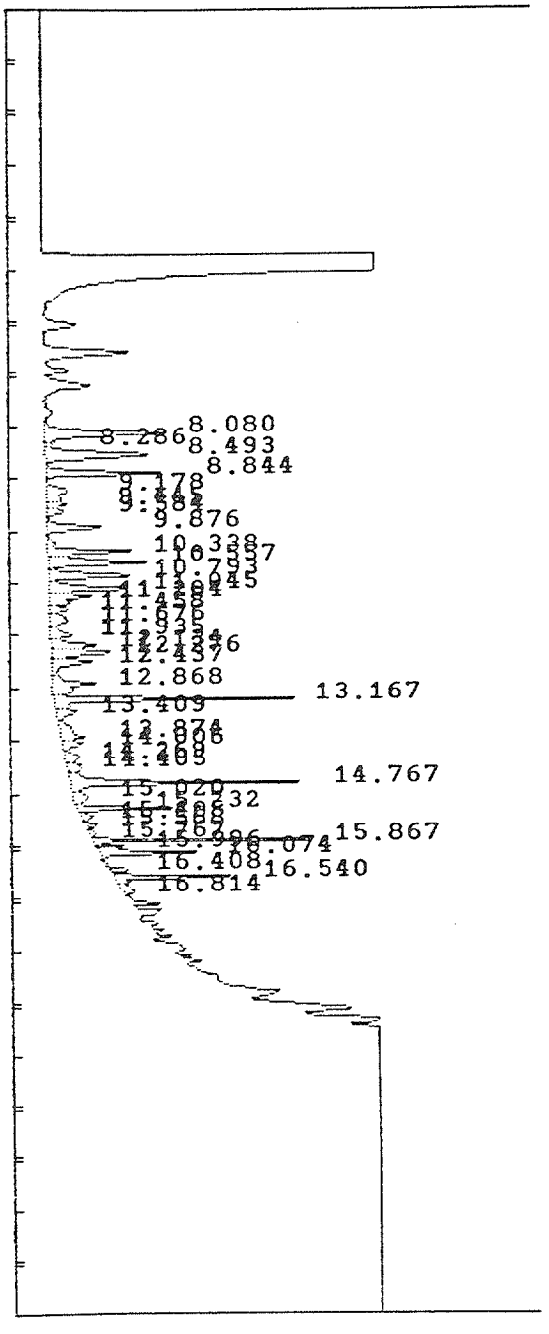
Total Area DRO only : 1985428 - 120801.1 = 1864627

CARBON SIX-CARBON TEN
Sample Name : VSTD ~~500~~ 5ml / 5µl V 6247

Report No :249.01

Instrument : GC07

Subseq/Sample/Bottle: 1/ 8/ 8



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Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117073.RES

Run Time : 25.02 Minutes Injected on 1647 08Jun1995
Report Time : 1427 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.08			325767	VV	9.7730	
2	8.29			16822	VV	.5047	
3	8.49			265257	VV	7.9577	
4	8.84			233247	VV	6.9974	
5	9.18			95227	PV	2.8568	
6	9.44			50008	VV	1.5002	
7	9.58			33375	VV	1.0013	
8	9.88			108106	VV	3.2432	
9	10.34			168930	VV	5.0679	
10	10.56			257228	VV	7.7169	
11	10.79			182597	VV	5.4779	
12	11.05			375607	VV	48.9766	C7 N-HEPTANE
13	11.20			107005	VV	3.2102	
14	11.46			35975	VV	1.0793	
15	11.68			67084	VV	2.0125	
16	11.93			64289	VV	1.9287	
17	12.13			92860	VV	2.7858	
18	12.28			137625	VV	4.1287	
19	12.44			107478	VV	3.2243	
21	13.17			321531	PV	9.6459	
22	13.41			58233	VV	1.7470	
23	13.87			100703	VV	3.0211	
24	14.01			44479	VV	1.3344	
25	14.27			38005	VV	1.1401	
27	14.77			374985	VV	11.2496	
28	15.02			56603	VV	1.6981	
29	15.23			128637	PV	3.8591	
30	15.41			22694	VV	.6808	
31	15.57			27516	VV	.8255	
33	15.87	#15.85		320499	FF	320498.9000	4 BROMOFLOUROBENZENE
34	16.00			18127	FF	.5438	
35	16.07			174394	VV	5.2318	
36	16.41			40966	PV	1.2290	
37	16.54			166363	VV	4.9909	
38	16.81			47397	VV	1.4219	

Total Area DRO only : 4665622 - 320498.9 = 4345123

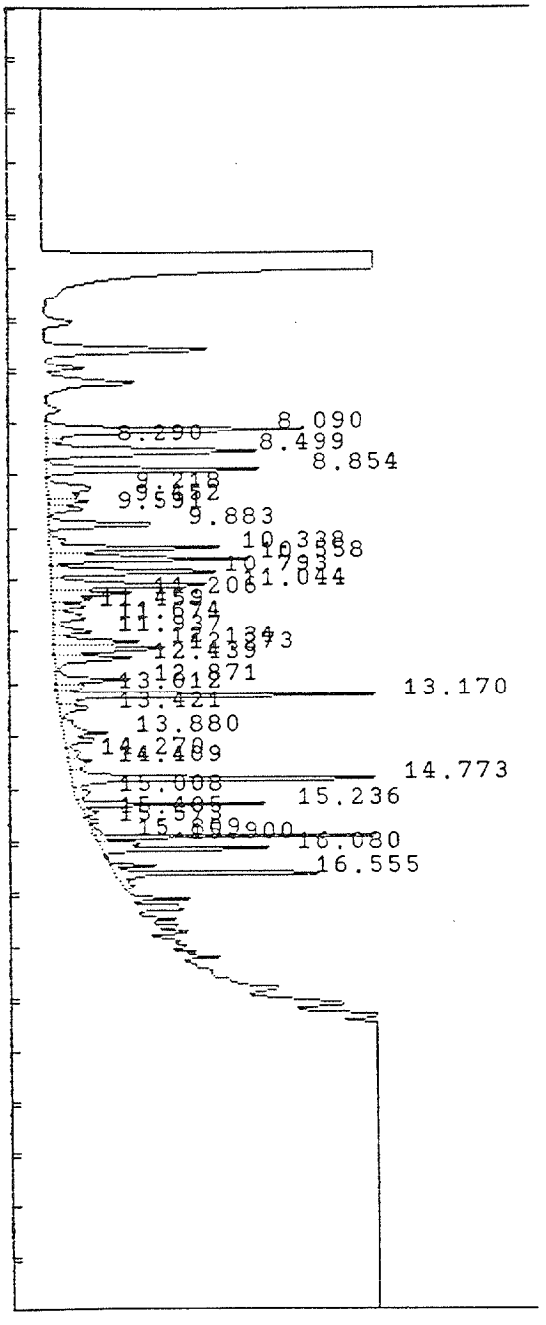
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : V STD 500 5ml / 1000 5µl V6145

Report No :250.01

Instrument : GC07

Subseq/Sample/Bottle: 1/ 9/ 9



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Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117074.RES

Run Time : 25.00 Minutes Injected on 1717 08Jun1995
Report Time : 1431 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.09			666092	VV	19.9828	
2	8.29			34119	VV	1.0236	
3	8.50			530089	VV	15.9027	
4	8.85			474430	VV	14.2329	
5	9.22			203618	PV	6.1085	
6	9.45			97204	VV	2.9161	
7	9.59			68241	VV	2.0472	
8	9.88			211608	VV	6.3483	
9	10.34			339658	VV	10.1897	
10	10.56			516418	VV	15.4925	
11	10.79			365312	VV	10.9594	
12	11.04			551363	VV	64.8184	C7 N-HEPTANE
13	11.21			195893	VV	5.8768	
14	11.46			60834	VV	1.8250	
15	11.67			118588	VV	3.5576	
16	11.94			105967	VV	3.1790	
17	12.13			163606	VV	4.9082	
18	12.27			259941	VV	7.7982	
19	12.44			186511	VV	5.5953	
21	13.01			70590	VV	2.1177	
22	13.17			589132	PV	17.6740	
23	13.42			71777	VV	2.1533	
24	13.88			200051	VV	6.0015	
25	14.27			36124	VV	1.0837	
27	14.77			687566	VV	20.6270	
28	15.01			55268	VV	1.6580	
29	15.24			239386	PV	7.1816	
30	15.40			29582	VV	.8875	
31	15.57			30765	VV	.9229	
33	15.90	#15.85		605434	FF	605433.7000	4 BROMOFLOUROBENZENE
34	16.08			375142	VV	11.2543	
35	16.55			418699	PV	12.5610	

Total Area DRO only : 8559008 - 605433.7 = 7953574

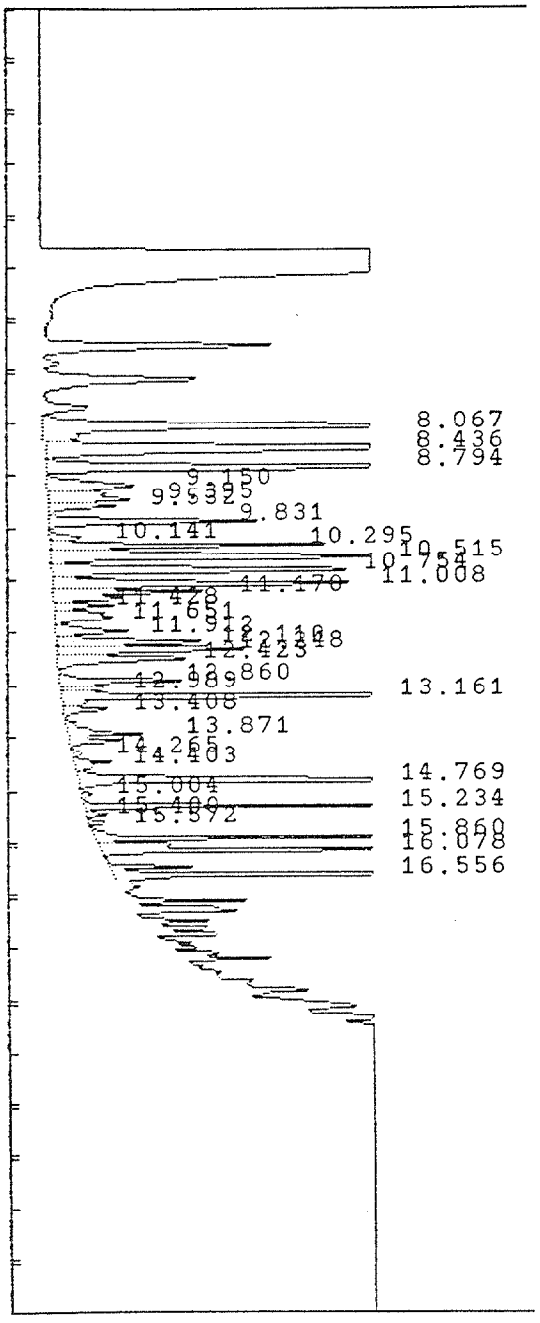
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : VSTD200 5ml 10µl V6145

Report No :251.02

Instrument : GC07

Subseq/Sample/Bottle: 1/ 10/ 10



Sequence File: /DATA/GC07/SEQUENCE/G70608.SEQ
Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117075.RES

Run Time : 25.02 Minutes Injected on 1748 08Jun1995
Report Time : 1451 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.07			1328316	FF	39.8495	
2	8.44			1143347	VV	34.3004	
3	8.79			1783316	VV	175.7038	C6 N-HEXANE
4	9.15			296166	VV	8.8850	
5	9.40			276058	VV	8.2817	
6	9.53			133180	VV	3.9954	
7	9.83			398672	VV	11.9602	
8	10.14			57286	PV	1.7186	
9	10.30			578324	VV	17.3497	
10	10.51			974849	VV	29.2455	
11	10.75			681491	VV	20.4447	
13	11.17			359799	VV	10.7940	
14	11.43			111177	VV	3.3353	
15	11.65			207490	VV	6.2247	
16	11.91			180264	VV	5.4079	
17	12.11			282796	VV	8.4839	
18	12.25			479851	VV	14.3955	
19	12.42			318515	VV	9.5555	
21	12.99			98041	VV	2.9412	
22	13.16			1063126	VV	31.8938	
23	13.41			91342	VV	2.7403	
24	13.87			272257	PV	8.1677	
25	14.26			18050	PV	.5415	
27	14.77			1201453	VV	36.0436	
28	15.00			25823	VV	.7747	
29	15.23			415274	VV	12.4582	
30	15.40			30109	VV	.9033	
31	15.57			33410	VV	1.0023	
32	15.86	#15.85		1177087	PV	1177087.0000	4 BROMOFLOUROBENZENE
33	16.08			698340	VV	20.9502	
34	16.56			710840	PV	21.3252	

Total Area DRO only : 15426052 - 1177087 = 14248965

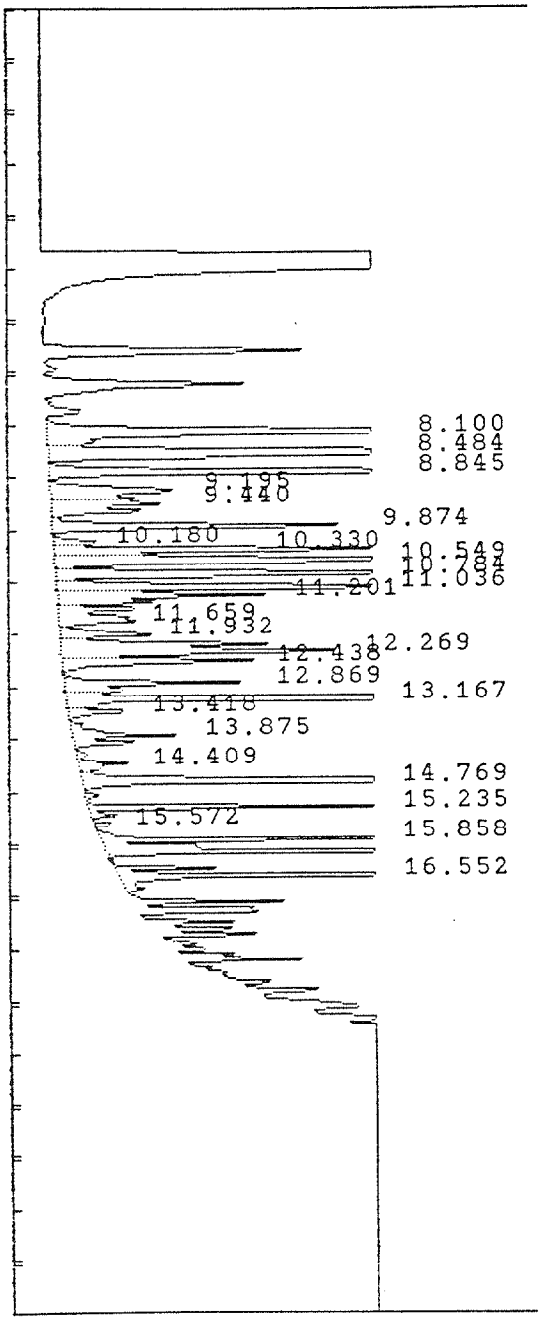
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : VSTD 3000 5ml 15 µl V6145

Report No :252.02

Instrument : GC07

Subseq/Sample/Bottle: 1/ 11/ 11



Sequence File: /DATA/GC07/SEQUENCE/G70608.SEQ
Method File : /DATA/GC07/METHOD/TGAS0322.MTH
Result File : /DATA/GC07/RESULT/G7CF117076.RES

Run Time : 25.02 Minutes Injected on 1819 08Jun1995
Report Time : 1454 12Jun1995
Run Status : RunStatusOK
SpecialInteg

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.10			1862301	FF	55.8690	
2	8.48			1399897	VV	41.9969	
3	8.84			1250981	VV	37.5294	
4	9.19			528178	VV	15.8454	
5	9.44			466729	VV	14.0019	
6	9.87			555778	VV	16.6733	
7	10.18			79045	PV	2.3714	
8	10.33			814298	VV	24.4289	
9	10.55			1366773	VV	41.0032	
10	10.78			956826	VV	28.7048	
11	11.04			1369312	VV	133.7754	C7 N-HEPTANE
12	11.20			493976	VV	14.8193	
13	11.66			438804	VV	13.1641	
14	11.93			248605	VV	7.4582	
15	12.27			1049009	VV	31.4703	
16	12.44			440308	VV	13.2092	
18	13.17			1450417	VV	43.5125	
19	13.42			121711	VV	3.6513	
20	13.88			359236	PV	10.7771	
22	14.77			1647026	VV	49.4108	
23	15.23			595961	PV	17.8788	
24	15.57			35660	PV	1.0698	
25	15.86	#15.85		2678321	VV	2678321.0000	4 BROMOFLOUROBENZENE
26	16.55			972720	PV	29.1816	
Total Area DRO only :				21181872		-2678321= 18503551	

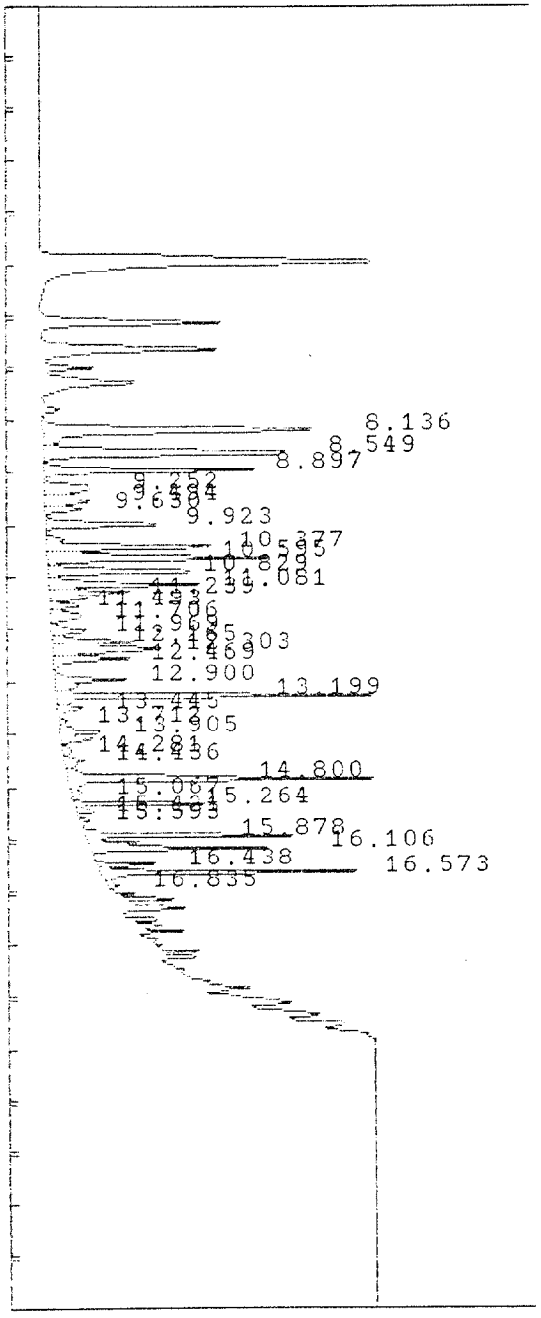
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : VSTD 1000 5UL V6145

Report No :310.01

Instrument : GC07

Subseq/Sample/Bottle: 1/ 2/ 2



Sequence File: /DATA/GC07/SEQUENCE/G70621.SEQ
Method File : /DATA/GC07/METHOD/TGAS0612.MTH
Result File : /DATA/GC07/RESULT/G7CF117133.RES

Run Time : 25.02 Minutes Injected on 1425 21Jun1995
Report Time : 1150 22Jun1995
Run Status : RunStatusOK

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.14			714252	VV	21.4275	
2	8.55			652804	VV	19.5841	
3	8.90			476478	VV	14.2943	
4	9.25			161217	VV	4.8365	
5	9.49			149174	VV	4.4752	
6	9.63			73024	VV	2.1907	
7	9.92			214915	VV	6.4475	
8	10.38			345965	PV	10.3790	
9	10.59			523786	VV	15.7136	
10	10.83			366535	VV	10.9961	
11	11.08			564321	VV	61.3051	C7 N-HEPTANE
12	11.24			197097	VV	5.9129	
13	11.49			55571	VV	1.6671	
14	11.71			111848	VV	3.3554	
15	11.97			96398	VV	2.8919	
16	12.16			154623	VV	4.6387	
17	12.30			254481	VV	7.6344	
18	12.47			173930	VV	5.2179	
20	13.20			602635	VV	18.0791	
21	13.44			54850	VV	1.6455	
22	13.71			15494	VV	.4648	
23	13.90			166309	VV	4.9893	
24	14.28			27653	PV	.8296	
26	14.80			723955	VV	21.7187	
27	15.07			30708	VV	.9212	
28	15.26			256741	PV	7.7022	
29	15.42			26533	VV	.7960	
30	15.59			20264	VV	.6079	
31	15.88	#15.89		408329	PV	408328.9000	4 BROMOFLOUROBENZENE
32	16.11			375441	VV	11.2632	
33	16.44			75230	PV	2.2569	
34	16.57			354301	VV	10.6290	
35	16.83			22484	VV	.6745	

Total Area DRO only : $\frac{8447346 - 408328.9 - 724456.9}{6862.816}$ 1065

$\frac{408328.9 - 15694.93}{5833.012} = 67/50$

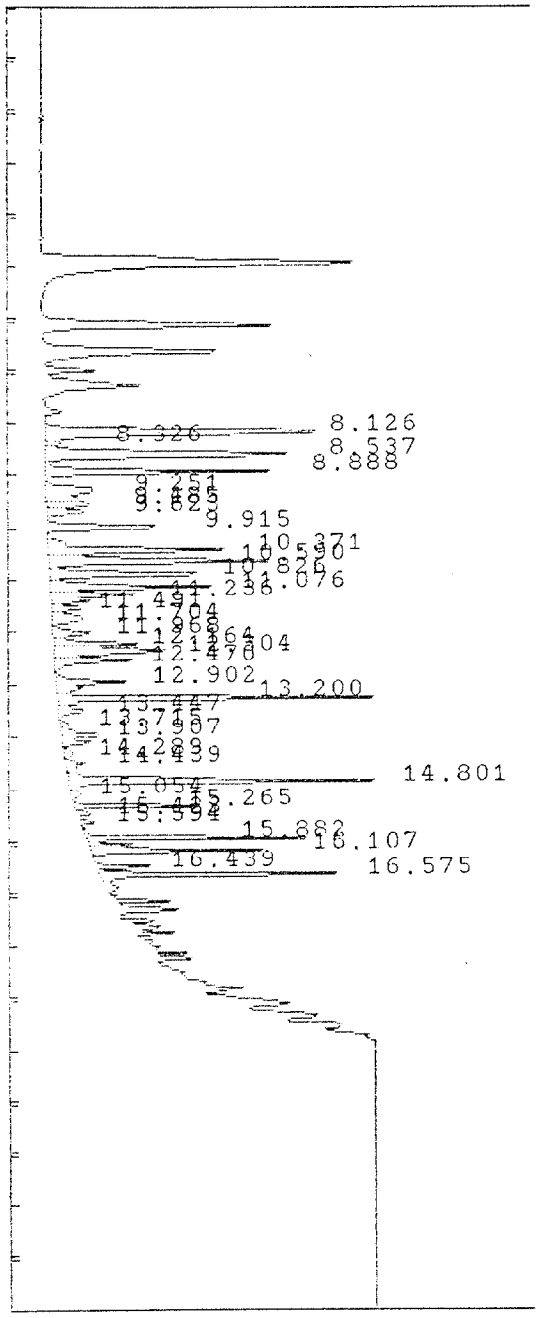
PACE INCORPORATED

CARBON SIX-CARBON TEN
Sample Name : VSTD1000 5ULV6145

Report No :311.01

Instrument : GC07

Subseq/Sample/Bottle: 1/ 3/ 3



Sequence File: /DATA/GC07/SEQUENCE/G70621.SEQ
Method File : /DATA/GC07/METHOD/TGAS0612.MTH
Result File : /DATA/GC07/RESULT/G7CF117134.RES

Run Time : 25.02 Minutes Injected on 1456 21Jun1995
Report Time : 1153 22Jun1995
Run Status : RunStatusOK

Dil-Fact : 100.00% Sample Amt: 0.0000 Standard Amt: 1.0000

Pk#	RT	ID-tm	Factor	Area	Code	UG/L	Name
1	8.13			687554	VV	20.6266	
2	8.33			36356	VV	1.0907	
3	8.54			619869	VV	18.5943	
4	8.89			484857	VV	14.5457	
5	9.25			212603	PV	6.3781	
6	9.48			102016	VV	3.0605	
7	9.62			72641	VV	2.1052	
8	9.91			215819	VV	6.4746	
9	10.37			352631	PV	10.5789	
10	10.59			536216	VV	16.0865	
11	10.83			379593	VV	11.3878	
12	11.08			562621	VV	61.0950	C7 N-HEPTANE
13	11.24			197788	VV	5.9336	
14	11.49			57300	VV	1.7190	
15	11.70			114715	VV	3.4415	
16	11.97			98001	VV	2.9400	
17	12.16			160675	VV	4.8203	
18	12.30			258700	VV	7.7610	
19	12.47			175665	VV	5.2699	
21	13.20			592793	VV	17.7838	
22	13.45			61256	VV	1.8377	
23	13.71			15592	PV	.4678	
24	13.91			151382	VV	4.5415	
25	14.29			23255	VV	.6976	
27	14.80			703598	VV	21.1080	
28	15.05			28876	VV	.8663	
29	15.26			237915	PV	7.1375	
30	15.42			20225	VV	.6068	
31	15.59			23256	VV	.6977	
32	15.88	#15.89		374549	VV	374548.8000	4 BROMOFLOURODENZENE
33	16.11			349075	VV	10.4723	
34	16.44			65975	PV	1.9792	
35	16.58			336473	VV	10.0942	

Total Area DRO only : 8309982

$$\frac{8309982 - 374548.8 - 724456.9}{6862.816} = 1050$$

$$\frac{374548.8 - 15694.93}{5833.012} = 61$$

PACE New England
VOA SOILS PREP

TOTAL GASOLINE

G1028DRY

Date/Init	Smpl Ct.	SAMPLE #	Prep Wt. (g)	Pan #	Pan Wt. (g)	Wet Wt. + Pan (g)	Dry Wt. + Pan (g)	% Solid	COMMENTS surrogate V6254	spike V6253	methanol Baker 34280	
CF 6/21/95		B-G1028A	4.0						1ml MeOH Lot# 9			
		LS-G1028A	4.0					CF entered 6/22/95	1ml	1ml	8	
	S1	44436-1	4.2	C1	1.3	7.9	7.1		1ml		9	
	S2	-1MS	4.1						1ml	1ml	8	
	S3	-1MSD	4.3						1ml	1ml	8	
	S4	-2	4.4	C2	1.3	7.8	7.1		2ml	double surr/	9	
	S5	-3	4.0	C3	1.3	8.6	8.2		2ml			
	S6	-4	4.4	C4	1.3	8.3	7.3		2ml			
	S7	-5	4.1	C5	1.3	7.0	6.1		2ml			
	S8	-6	4.1	C6	1.3	16.3	11.2		2ml			
	S9	-7	4.4	C7	1.3	10.1	8.3		2ml			
	S10	-8	4.0	C8	1.3	10.4	8.6		2ml			
	S11	-9	4.0	C9	1.3	9.5	8.2		2ml			
	S12	-10	4.4	C10	1.3	9.2	7.8		2ml			
	S13	-11	4.1	C11	1.3	9.1	7.6		2ml			
	S14	-15	4.0	C12	WAR				2ml			

CF 6/23/95

PACE, Incorporated New England - New Hampshire Laboratory

Instrument GC07 TOTAL GAS Logbook # 1
Reviewed by ____ Date ____ Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
							G70621 cf 6/21/15 TGA50612
	G7CF117132	5µl		BG062195TG-A	5µl		
	33	5µl		VSTD 1000			5µl V6145
	34	5µl	3	VSTD 1000			5µl V6145
	35		4	BG1028A	10ml		
	36		5	LG1028			
	37		6	44436-1			
	38		7	2			
	39		8	3			
	40		9	4			
	41		10	5			
	42		1	6			
	43		2	7			
	44		3	8			
	45		4	9			
	46		5	10			
	47		6	11			
	48		7	15			rerun at 20ml
	49		8	1 MS			
	50		9	1 MSD			
	51	5µl	10	14	5ml		TB pH>2 5µl DFB V-
	G7CF117152			BAKE			cf 6/22/15 TGA50612
	53	5µl	1	BG062295TG-A	5ml		
	54	5µl	2	VSTD1000			5µl V6145
	55	5µl	3	VSTD 1000			5µl V6145
	56		4	BG1027B	10ml		
	57		5	44421-9			
	58		6	-10			
	59		7	-11			
	60		8	-12			
	61		9	-13			
	62		10	-14			
	63		1	44436-15	20ml 10ml		
				cf 6/23/15			surrogate H2O V6255

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1331
Sample Designation: LABORATORY BLANK
Date Analyzed: 06/21/95
Matrix: SOLID

HYDROCARBON TYPE	CONCENTRATION ug/g	DETECTION LIMIT ug/g
DIESEL	BDL	3

MATRIX SPIKE RECOVERY

Laboratory Number: LSH133
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 06/21/95
Matrix: SOLID

COMPOUND	ug/g SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
DIESEL	0	33.5	15.9	47

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8015 (MODIFIED) AND 3350

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1332
Sample Designation: LABORATORY BLANK
Date Analyzed: 06/22/95
Matrix: WATER

HYDROCARBON TYPE	CONCENTRATION ug/L	DETECTION LIMIT ug/L
DIESEL	BDL	100

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1332
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 06/22/95
Matrix: SOLID

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
DIESEL	0	1004	803	80

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8015 (MODIFIED) AND 3350

pace INCORPORATED THE ASSURANCE OF QUALITY

PACE INCORPORATED
Organics Extraction
SOLIDS PREP LOG

PROTOCOL: EPA SW846

SOP #: QA5547

METHOD: SONC/3550

MATRIX: SOLID commercial TEST / LEVEL: PHC /

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	INIT WT (g)	SURR # AMT/CONC.	LCS MS/MSD	SPIKE # AMT/CONC.	NA2SO4 (g)	INTER VOL (ml)	ALIQUOT VOL (ml)	FINAL VOL (ml)
–	PR	BH 1331	30.	E1342 0.5mL	LSH1331		60	10.0	10.0	1.0
–	6-21-95	LSH1331	30.	101 ppm	44383-10MS	E1319 200 uL				
3		44436-1	30.86		MSD	5019 ppm N/A				
4		-2	30.56							
5		-3	30.86							
6		-4	30.54							
7		-5	30.64							
8		-6	30.56							
9		-7	30.89							
10		-8	~~30.03~~ 30.46							
11		-9	~~30.69~~ 30.28							
12		-10	30.26							
13		-11	30.65							
–		BH1331B	E10							
–		LSH1331B				E1319 200 uL				
–		44436-16	GRAT 20.07			N/A				

COMMENTS: E10 Test blank & LCS using 100% MeCl2
PAR 6-21-95
GRAT - PE ampules - snapped ampule in [illegible] - and weighed entire

PACE, INC. NEW ENGLAND - NEW HAMPSHIRE LAB
Organic Extractions
AQUEOUS PREP LOG

PROTOCOL: EPA SW846 LOGBOOK NO: 2

SOP: PACE NE-NH SOP 5501 METHOD: CONT/3520 (SEPF/3510)

MATRIX: AQUEOUS Comm. TEST/LEVEL: PHC /

COUNT	DATE/ INIT	CONT #	BLANK/ SPIKE/ SAMPLE #	INIT VOL (L)	SURR AMT/ CONC	LCS MS/MSD	SPIKE # AMT/CONC	INTER VOL (mL)	ALIQUOT VOL (mL)	FINAL VOL (mL)
	6/22/95	N/A	BH1332	1.0	E1342 0.5mL	LSH1332	N/A	10.0	10.0	1.0
			LSH1332	1.0	10 ppm	44193 MS MSD	E1319 200 uL			
(E0) 16			44436-12	.955			N/A			
17			-13	.910						
18			44438-16	1.0						

(E1) 6/23/95

6/23/95

COMMENTS: (E0) SAMPLES 44436-12/13 were NOT PRESERVED Acidic.

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC12/METHOD/DIESEL004.MTH
Method created: 05/05/95 09:24:55
Method updated: 05/05/95 09:49:40

Result files used for Calibration data:
Level 1 /DATA/GC12/RESULT/G12H00715.RES
Level 2 /DATA/GC12/RESULT/G12H00716.RES
Level 3 /DATA/GC12/RESULT/G12H00717.RES
Level 4 /DATA/GC12/RESULT/G12H00718.RES
Level 5 /DATA/GC12/RESULT/G12H00719.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	4.15	SOLVENT PEAK	.00000	0.00	**********	**********
2	22.25	DIESEL FUEL	1.0000	130.00	4585.31	.15

$R = B0 + B1X + B2X^2$

[illegible], Incorporated
Continuing Calibration Report Thu Jul 6, 1995 11:20:22 am

[illegible]/RESULT/CICH0102S.RES
[illegible]/METHOD/DIESEL004.MTH

Sample: DIESEL 2500PPM PA583
Injected: Wed Jun 21, 1995 11:20:49 am

RetTime	Analyte	Found	Nominal	%D	Recovery
27.99	DIESEL FUEL	2019.20	2500.000	19.2	80.8

[illegible], Incorporated
[illegible] Tuning Calibration Report Thu Jul 6, 1995 11:20:39 am

/[illegible]/RESULT/C12N01054.RES
/[illegible]/METHOD/DIUSEL004.MTH

Sample: DIESEL 2500PPM P0567
Injected: Thu Jun 22, 1995 6:08:08 am

Retime	Analyte	Found	Nominal	%D	Recovery
[illegible]	DIESEL FUEL	2311.09	2500.000	7.6	92.4

RSEI, Incorporated
Continuing Calibration Report Thu Jul 6, 1995 11:20:54 am

C:\HP5890\G12\RESULT\G12H01047.RES
C:\HP5890\G12\METHOD\DIESEL004.MTH

Sample: DIESEL 2500PPM P8505
Injected: Thu Jun 22, 1995 9:10:21 pm

Acetone	Analyte	Found	Nominal	%D	Recovery
21.26	DIESEL FUEL	2111.23	2500.000	15.6	84.4

PACE, INCORPORATED
GC Instrument Run Log

Circle one: CLP/PHC/OPP/HERB/P-P (PHC circled)

Reviewed by ____________ Date ________

Date	init	result file	Sample	MI	√	Method	column	Sequence
5/3/95	HS	G121H00714	P8591 JP4/C18 500/25PPM	Y	Y	Calib007	131	G120503
		715	DRO 50ppm P8585			Diesel004		
		716	DRO 500ppm P8584					
		717	DRO 2500ppm P8583					
		718	DRO 5000ppm P8582					
		719	DRO 10000 PPM P8581					
		720	BH1284 PHC-S			Calib007		
		721	LSH1284 PHC-S					
		722	43833-3 DRO-S Shed H-5/12					
		723	43833-4 DRO-S Shed H-5/12					
		724	43846-1 PHC-S Ramson H-5/12					
		725	43846-2 PHC-S Ramson H-5/12					
		726	43846-3 PHC-S Ramson H-5/12					
		727	43846-4 PHC-S Ramson H-5/12					
		728	P8580 GAS/Lube 5042/5104/51PPM 118/131/47					
5/3/95	HS	G121H00729	P8580 Gas/Lube 5042/5104/51ppm 98/120/83					
		730	Diesel 2500ppm P8583 91			Diesel004		
		731	P8580 Gas/Lube 5042/5104/51PPM 99/116/100			Calib007		
5/4/95	HS	G121H00732	BH1286 PENTANE	Y	Y	Calib007	131	G120503
		733	43858-1 PENTANE PHC-S					
		734	43858-2 PENTANE PHC-S					
		735	43858-3 PENTANE PHC-S					
		736	43860-1 PENTANE PHC-S					
		737	43860-2 PENTANE PHC-S					
		738	43860-3 PENTANE PHC-S					
		739	BH1287 DRO-S					
		740	LSH1287 DRO-S NJ-PACE 1:10 (HS 5/4/95)					
		741	~~DRO 2500 PPM P8583~~ 43894-11 DRO-S NJ-PACE 1:10 (HS 5/4/95)		N	need dilution		
		742	DRO 2500ppm P8583 87		Y	Diesel004		
		743	43894-12 DRO-S NJ-PACE 1:10		N	need dilution		
		744	43894-13 DRO-S NJ-PACE 1:10					

PACE, INCORPORATED
GC Instrument Run Log

0000036

Circle one:
CLP/PHC/OPP/HERB/P-P

Reviewed by _____ Date _____

Date	init	result file	Sample	MI	√	Method	column	Sequence
6/24/95	HS	G12116|015	44346-1 DRO-W Shell 06/21	Y	Y	Diesel004	131	G120620
		016	BH1330 DRO-S					
		017	LSH1330 DRO-S					
		018	44383-10 Shell					
		019	-10MSI					
		020	-10MSDI					
		021	BH13303 Test					
		022	LSH1330B ↓					
		023	Gas/Lube 5042/5104/51 PPM 91/110/193 P8580	Y	Y	Calib007A		
6/24/95		024	↓ 91/102/95	Y	Y	Diesel004 Calib007A ③	US 6/21/95	
↓	↓	025	Diesel 250ppm P8583 81	↓	↓	~~Calib007A~~ Diesel004		
6/24/95	HS	G12116|026	BH1331 DRO-S	Y	Y	Diesel004	131	G120621
		027	LSH1331					
		028	44436-16					
		029	-1					
		030	-2					
		031	-3					
		032	-4					
		033	-5					
		034	-6					
		035	-7					
		036	Diesel 2500 ppm P8583 92	Y	Y			
		037	44436-8 DRO-S					
		038	-9					
		039	-10 Need 1:10	N	N			
		040	-11	Y	Y			
		041	BH1331B Test					
		042	LSH1331B ↓					
6/24/95	HS	G12116|043	44436-10 DRO-S 1:10			Diesel004	131	G120622
		044	BH1332 DRO-W					
		045	LSH1332 ↓					

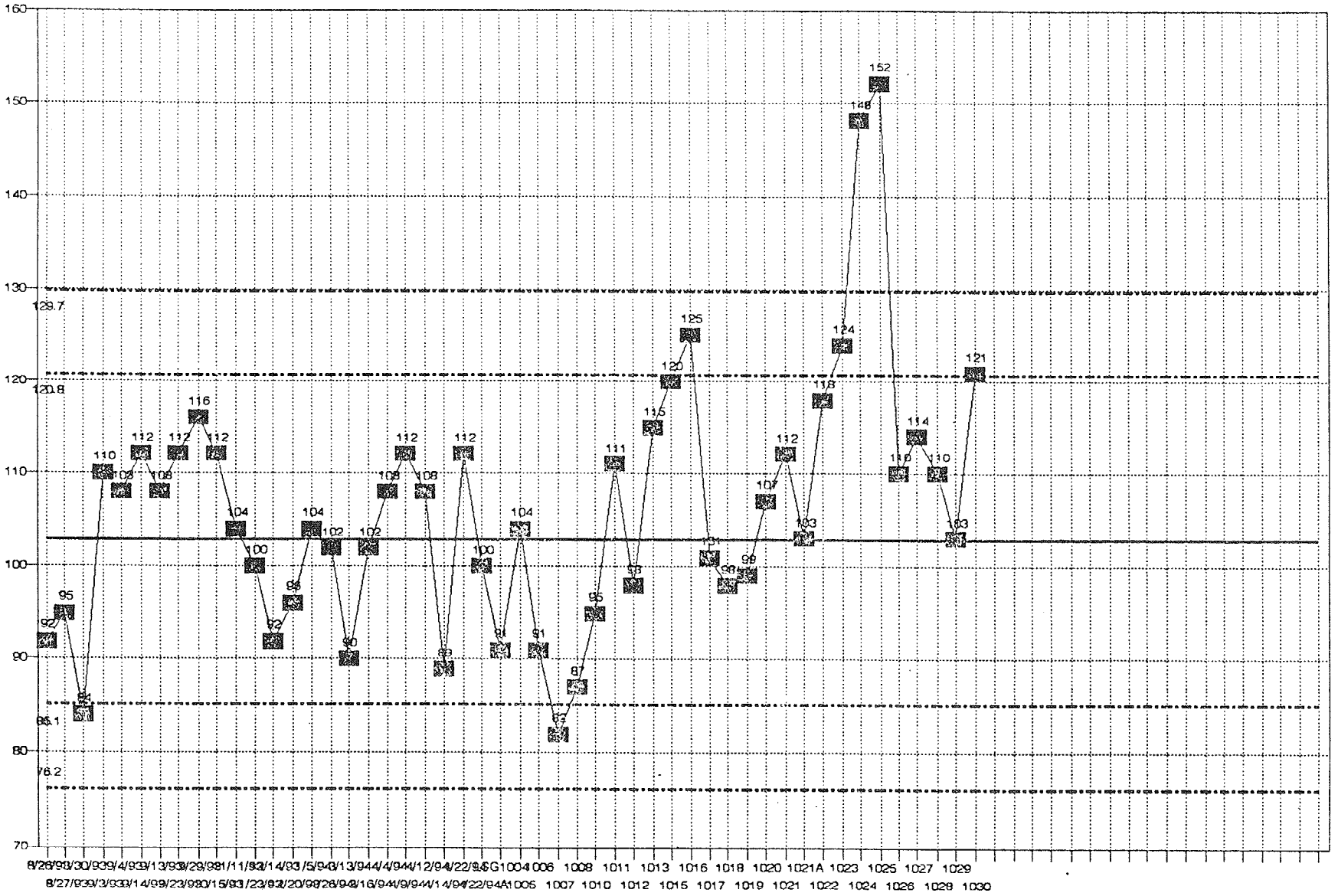
PACE, INCORPORATED
GC Instrument Run Log

Reviewed by _____ Date_____

Circle one:
CLP/PHC/OPP/HERB/P-P

Date	init	result file	Sample	MI	V	Method	column	Sequence
6/21/95	LS	G121101046	L4436-12 PRO-W	Y	Y	Diesel004	131	G120622
		047	Diesel 2500ppm P8883 84					
		048	44436-13 PRO-W					
		049	44438-16 ↓					
		050	Diesel 2000ppm P8883					
6/22/95		051	~~Bad injection~~ LS 6/22/95 Gas/lube 5042/5104/57ppm	N	N			
			LS 6/21/95 change liner, Septa					
6/22/95	LS	G121101052	Gas/lube 5042/5104/57 ppm P8883 105/112/99	N	N	Diesel004	131	G120622
		053	↓	Y	Y	Calib007A		
		054	BH1336 PHC-O					
		055	44412-1 PHC-O 1:10					
6/23/95	LS	G121101056	BH1335 PHC-W	Y	Y	Calib007A	131	G120627
		057	LSH1335 PHC-W					
		058	44438-16RE ENSAFE PHC-W					
		059	44455-10					
		060	-11					
		061	44495-19 RB BHW PHC-W					
		062	-20					
		063	-21					
		064	Gas/lube 5042/5104/57ppm 44438/121 P8883 102/108/100	Y	N			
		065	↓	Y	Y			
		066	BH1334 PHC-S					
		067	44431-1 PENTANE PHC-S					
		068	-2					
		069	-3					
		070	44432-1					
		071	-2					
		072	-3			↓		G120628
6/24/95	LS	073	BH1337 PHC-S			Calib007A	131	
		074	LSH1337					
		075	44497-4					

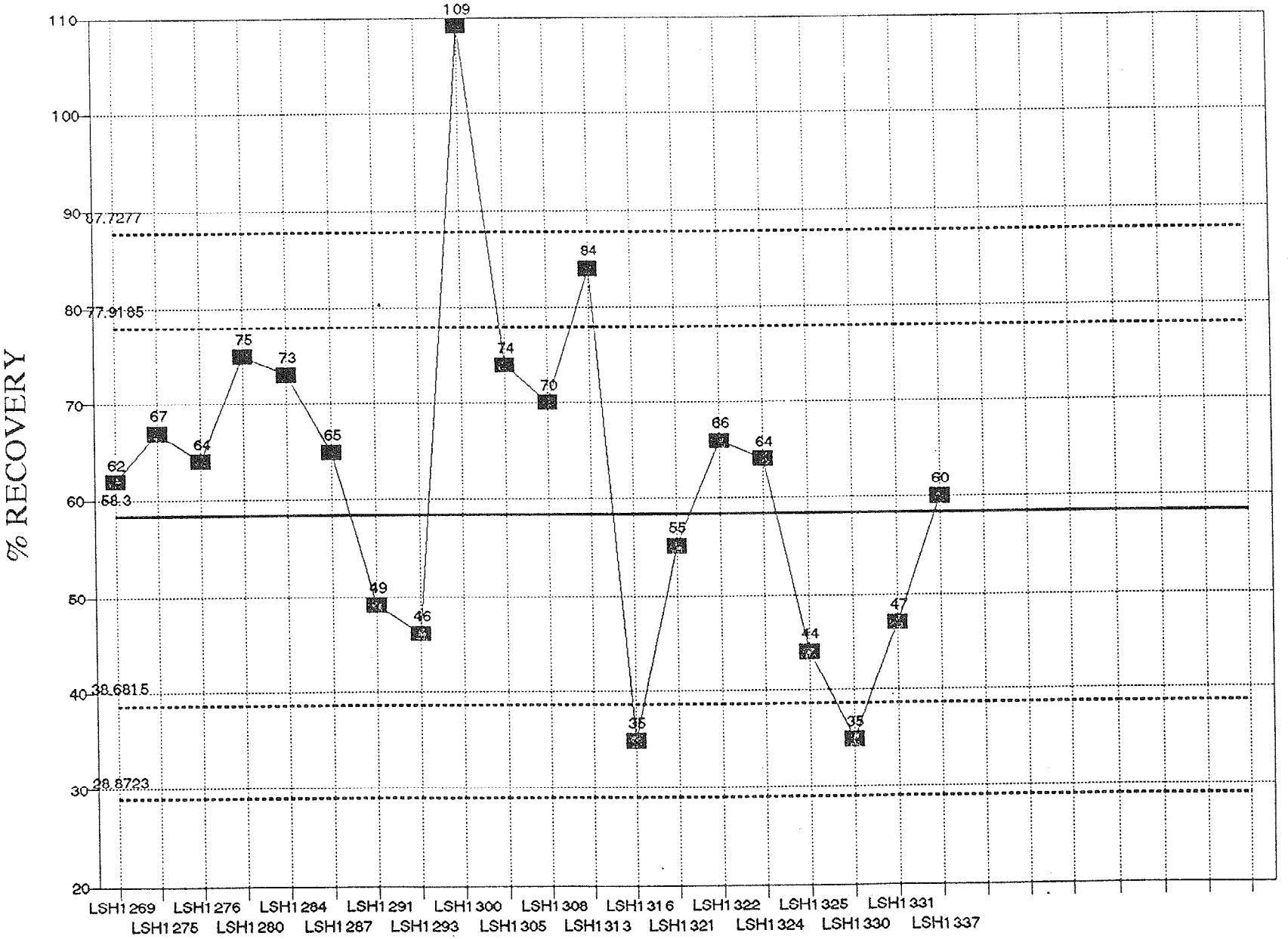
TOTAL GAS LCS RECOVERIES
LIMITS SET 4/13/94



STD DEV = 8.93 MEAN = 103

PHC LOW SOLIDS - DIESEL

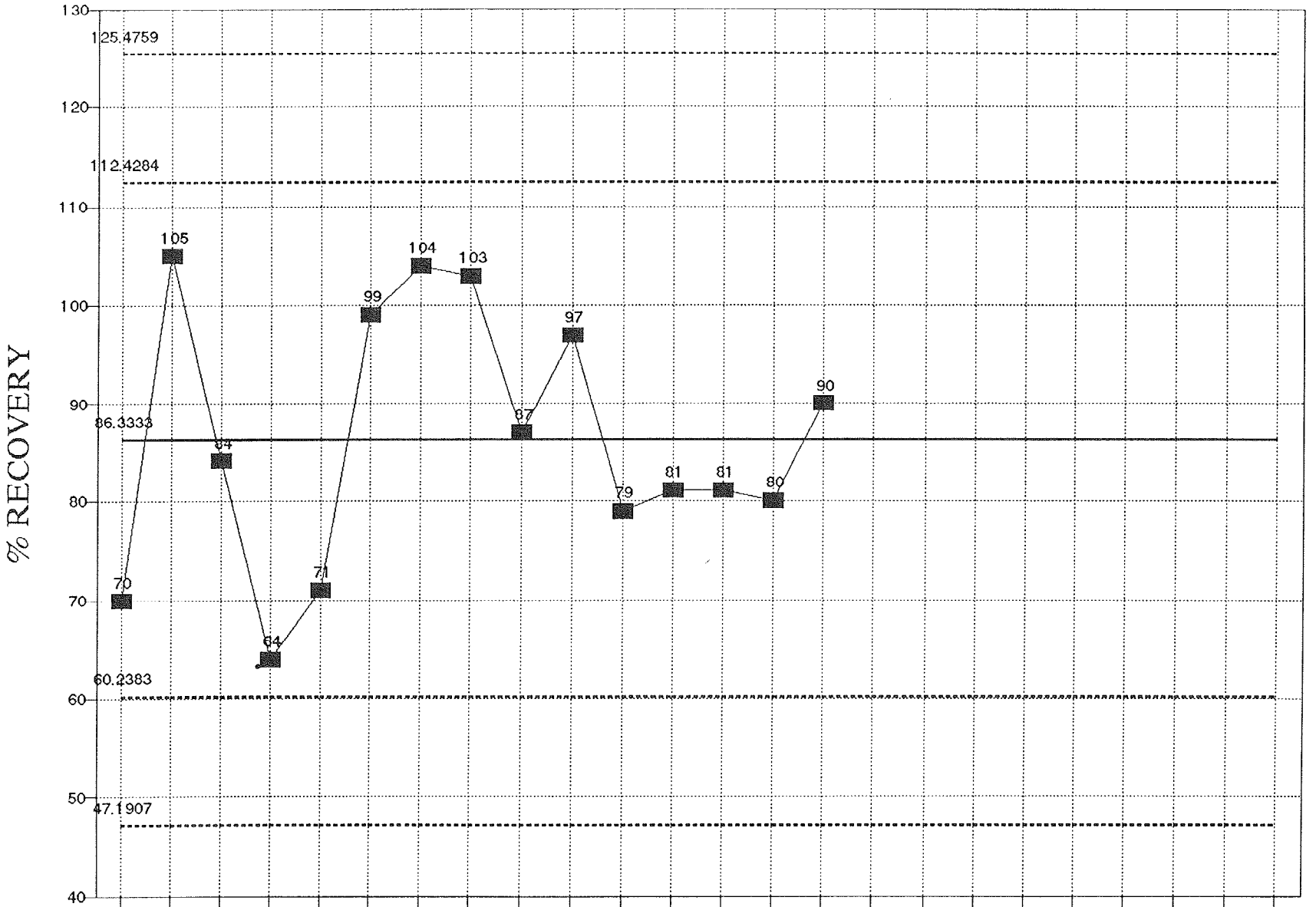
SPK REC LIMS SET6/6/95-PPCBCHT\PHCS1294



MEAN = 58.30 STD DEV =9.81

PHC WATERS BY SEPF - DIESEL

SPK REC LIMS SET0795-PPCBCHT\PHCWSF94



MEAN = 86.33 STD DEV = 13.05

00000036

LAB COPY

OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

144107

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune DO44	Camp Geiger

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
16487	Randy Smith	(910) 451-1809

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Jim Dunn

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) 5030/8015 TPH	3550/8015 TPH							44436 REMARKS
1	CLJ44-ACS-001	6/20	929		X	Soil sample from Area C	1	X	X	-1						
2	CLJ44-ACS-002	6/20	932		X	Soil Sample from Area C	1	X	X	-2						
3	CLJ44-ABS-003	6/20	951		X	Soil Sample from Area B	1	X	X	-3						
4	CLJ44-ABS-004	6/20	955		X	Soil Sample from Area B	1	X	X	-4						
5	CLJ44-AAS-005	6/20	1000		X	Soil Sample from Area A	1	X	X	-5						
6	CLJ44-AAS-006	6/20	1003		X	Soil Sample from Area A	1	X	X	-6						
7	CLJ44-AAS-007	6/20	1007		X	Soil Sample from Area A	1	X	X	-7						
8	CLJ44-AAS-008	6/20	1010		X	Soil Sample from Area A	1	X	X	-8						
9	CLJ44-AAS-009	6/20	1013		X	Soil Sample from Area A	1	X	X	-9						
10	CLJ44-AAS-009D	6/20	1013		X	Soil Sample from Area A	1	X	X	-10						

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10	[signature]		6/20	1600
2			Betty McMorrill PACE NH	6/21/95	10:00
3					
4					

REMARKS 48 hr. TAT

SAMPLER'S SIGNATURE [signature]

0000037

LAB COPY

OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

144108

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: Camp Lejeune DO 44	PROJECT LOCATION: Camp Geiger
PROJ. NO.: 16487	PROJECT CONTACT: Randy Smith
PROJECT TELEPHONE NO.: (910) 451-1809	
CLIENT'S REPRESENTATIVE:	PROJECT MANAGER/SUPERVISOR: Jim Dunn

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) 5030/8015 TPH	3550/8015 TPH		REMARKS 44436
1	CLJ44-AAS-010	6/20	1017		X	Soil Sample from Area A	1	X	X	-11	
2	CLJ44-RB	6/20	1019			Rinsate Blank	3	X	X	-12	
3	CLJ44-FB	6/20	1022			Field Blank	3	X	X	-13	
4	CLJ44-TB	6/20	1025			Trip Blank	1	X	X	-14	
5											
6											
7											
8											
9											
10											

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-4			6/20	1600
2			Betty McMorrell PACE NH	6/21/95	10:00
3					
4					

REMARKS: 48 hr. TAT

SAMPLER'S SIGNATURE

0000038

LAB COPY

OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

144108

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: Camp Lejeune DO 44	PROJECT LOCATION: Camp Geiger
PROJ. NO.: 16487	PROJECT CONTACT: Randy Smith
PROJECT TELEPHONE NO.: (910) 451-1809	
CLIENT'S REPRESENTATIVE:	PROJECT MANAGER/SUPERVISOR: Jim Dunn

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) 5030/8015 TPH	3550/8015 TPH		REMARKS 44436
1	CLJ44-AAS-010	6/20	1017		X	Soil Sample from Area A	1	X	X	-11	
2	CLJ44-RB	6/20	1019			Rinsate Blank	3	X	X	-12	
3	CLJ44-FB	6/20	1022			Field Blank	3	X	X	-13	
4	CLJ44-TB	6/20	1025			Trip Blank	1	X	X	-14	
5											
6											
7											
8											
9											
10											

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-4			6/20	1600
2			Betty McMorrell PACE NH	6/21/95	10:00
3					
4					

REMARKS: 48 hr TAT

SAMPLER'S SIGNATURE

00000039

LAB COPY

OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

144107

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune DO 44	Camp Greiger

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
16487	Randy Smith	(910) 451-1809

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Jim Dunn

ITEM NO	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) 5030/8015 TPH	3550/8015 TPH							REMARKS 44436
1	CLJ44-ACS-001	6/20	929		X	Soil Sample from Area C	1	X	X	-1						
2	CLJ44-ACS-002	6/20	932		X	Soil Sample from Area C	1	X	X	-2						
3	CLJ44-ABS-003	6/20	951		X	Soil Sample from Area B	1	X	X	-3						
4	CLJ44-ABS-004	6/20	955		X	Soil Sample from Area B	1	X	X	-4						
5	CLJ44-AAS-005	6/20	1000		X	Soil Sample from Area A	1	X	X	-5						
6	CLJ44-AAS-006	6/20	1003		X	Soil Sample from Area A	1	X	X	-6						
7	CLJ44-AAS-007	6/20	1007		X	Soil Sample from Area A	1	X	X	-7						
8	CLJ44-AAS-008	6/20	1010		X	Soil Sample from Area A	1	X	X	-8						
9	CLJ44-AAS-009	6/20	1013		X	Soil Sample from Area A	1	X	X	-9						
10	CLJ44-AAS-009D	6/20	1013		X	Soil Sample from Area A	1	X	X	-10						

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10			6/20	1600
2			Betty McMorrell PACE NH	6/21/95	10:00
3					
4					

REMARKS 48 hr. TAT

SAMPLER'S SIGNATURE

Final Page

00000040

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August 28, 1995

OHM Remediation Services Corporation
5335 Triangle Parkway
Suite 450
Norcross, GA 30092

SAMPLE DELIVERY GROUP NARRATIVE

Case: OHMRC
SDG: LJN09
Laboratory: PACE New England - New Hampshire of Hampton, NH
Lab Numbers: 44862/44897/44898
Protocol: SW846 Methods. NEESA C deliverables. No diskette.

Sample Receipt: These samples were received at PACE, Inc. between August 3rd and 5th, 1995. Laboratory sample numbers were assigned for test parameters as listed on the Sample Table which follows this narrative. Sample shipments were checked for custody seal integrity and cooler temperature. Samples were checked for appropriate preservation and accuracy against the Chains-of-Custody provided. Other than the exceptions noted below, samples were received between 2-6° C and in good condition. PACE Sample Receipt Condition Reports can be found with the Chains-of-Custody.

Shipment received 8/3/95 (44862): Samples were received in a cooler with a sample logged in under PACE# 44861. A temperature blank was not included with the shipment, therefore the cooler temperature could not be verified upon receipt of samples at PACE. The samples were received cool, and had been packed on ice. One of the two VOA vials received for the Field Blank was labeled "CLJ44-CU-007-RB". The other VOA vial was labeled as "CLJ44-CU-007-FB". The sampling dates and times on both vials were 8/2/95 and 0725, respectively. Per conversation with Rakesh Mishra (OHM), both VOA vials were to be analyzed as the field blank. Three containers were received for the Trip Blank. One of the VOA vials was analyzed for GRO and the remaining vials were analyzed for Volatiles by EPA Method 8240. The TCLP volatile target list is a subset of the Method 8240 list and is not reported or billed as a separate sample. Water samples requesting metals were subsampled and preserved upon receipt at PACE, since a separate preserved bottle was not provided by OHM.

Shipment received 8/5/95 (44897): Samples were received in coolers and assigned PACE Lab# 44897. A temperature blank was not included with the shipment, therefore the cooler temperature could not be verified upon receipt of samples at PACE. The samples were received cool, and had been packed on ice. One discrepancy was noted upon receipt at PACE: Field IDs listed on the bottle labels read "CC" rather than "CU" which was listed in the field IDs on the COC. Per conversation with Rakesh Mishra (OHM), the field IDs were listed incorrectly on the COC, and he requested that the samples be logged in the the "CC" as part of the field ID rather than "CU".

Shipment received 8/5/95 (44898): Samples were received in coolers and assigned PACE Lab# 44898. A temperature blank was not included with the shipment, therefore the cooler temperature could not be verified upon receipt of samples at PACE. The samples were received cool, and had been packed on ice. The TCLP volatile target list is a subset of the Method 8240 list and is not reported or billed as a separate sample. Water samples requesting metals were subsampled and preserved upon receipt at PACE, since a separate preserved bottle was not provided by OHM.

Volatiles Analysis: Samples were analyzed within holding time and in accordance with SW-846 methods with the following comments: The method 624 blanks "BC080495A1", "BC080795A1", "BV1117A" and "BV1117B" contained low levels of methylene chloride. The sample results for this analyte should be used with due consideration. Samples 44862-2, -16, -23 and 44898-10 were not at pH < 2 at time of analysis.

P.O. Box 2130
One Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
FAX: 603-926-7939

SDG Narrative
Case: OHMRC, SDG: LJN09

GRO Analysis: Samples were analyzed within holding time and in accordance with SW-846 methods with the following comments: The surrogate was not quantitated in diluted samples. Laboratory numbers 44897-10, -10MS and -10MSD were spiked at the normal level. The recovery could not be quantitated in the presence of high levels of targets. Surrogate was not added to 44898-4 at the instrument.

DRO Analysis: Samples were analyzed within holding time and in accordance with SW-846 methods with the following comments: The spike recoveries for diesel for the laboratory control samples LSH1361, LSH1355 and LSH1357 were outside the control limits. A corrective action report has been initiated and the problem is currently being investigated. The following samples (laboratory number 44862-10 through -15 for Diesel Range Organics contained petroleum hydrocarbon products which did not match diesel.

Conventional Chemistry Parameters: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Semivolatiles Analysis: Samples were analyzed within holding time and in accordance with SW-846 methods with the following comments: Control charts have been included but the lab is planning to reset the limits. There has been a slight change in procedure which requires that new limits be set once twenty points have been collected.

Oil and Grease Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

PCB Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Metals Analysis: Samples were analyzed within holding time and in accordance with SW846 methods for the TCLP list of eight metals (Ag, As, Ba, Cd, Cr, Hg, Pb, Se). Sample matrices consisted of waters, soils, and TCLP extracts run as waters. Soils without TCLP extraction required analysis for lead only. Sample QC analyses were performed on soil CLJ44-CC-025 (4CC025). Due to software restrictions, sample field identifications were shortened to six characters. The correct full identifications have been included as comments on the Form I sample data. NEESA control charts showed acceptable recoveries for laboratory control samples. One high trend was evident for cadmium, but the LCS of batch 12423 brought it back into control.

Samples were prepared in four ICP batches and one mercury batch. Analyses were conducted in four sequences on three instruments:

TJA01 08/09/95 for Ag, As, Ba, Cd, Cr, Pb, Se.
TJA01 08/14/95 for Ag, As, Ba, Cd, Cr, Pb, Se.
TJA02 08/09/95 for As, Pb, Se for non-TCLP samples.
PE02 08/10/95 for Hg.

The TJA02 instrument achieves lower detection limits for As, Pb, and Se than the TJA01. Therefore, non-TCLP samples were run on the TJA02 instrument for these elements. Forms have different detection limits depending on which instrument was used. Standards met all compliance criteria. Blanks were also acceptable, although they had low hits on the TJA01 instrument for arsenic, lead, and selenium. This should not affect the TCLP sample data for which the action limits are high. The soil spike and duplicate results were acceptable for lead. Laboratory control sample data were also acceptable for all analytes of this project. The soil LCS was a reference solid which also received laboratory spike due to analyst error. Recovery of lead was calculated accordingly.

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SDG Narrative
Case: OHMRC, SDG: LJN09

Statement of Compliancy and Data Authorization

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Richard Wellman, Operations Manager
PACE Incorporated, New England-New Hampshire

August 28, 1995

P.O. Box 2130
One Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
FAX: 603-926-7939

Case: _____

SDG: _____

TABLE 1: MANUAL INTEGRATIONS PERFORMED

EPA ID	LAB ID	FILE NUMBER	COMPOUNDS MANUALLY INTEGRATED
	VSTD010	1C9104	Acetone, 1,2-DCE (total) 4-methyl-2-pentanone
	VSTD050	1C9679	1,2-DCE (total)
	VSTD050	1C9698	1,2-DCE (total)
	VSTD050	1C9753	1,2-DCE (total) + trans-1,3-DCP

Manual Integrations were performed as required to correct faulty integrations made by the automated software. The manual integrations began and ended at the points where the peak intersected the baseline (unless otherwise indicated), in order that the entire peak and only the peak would be integrated. Hardcopies of the manually-integrated peaks have been provided with the data.

Angelina S. Richard
Analyst Signature, PACE Incorporated
PACE Incorporated

8/17/95
Date

ref: PACE SOP ALL-Q-013-A c:\document\manint.frm

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

44862

PAGE 1 of 1
COOLER ____ of ____
COC# ____
SDG# LJN09
CASE# OHmRC

CLIENT OHM Remediation
DATE/TIME RECEIVED 8/3/95 1025
DELIVERED BY FedEX
RECEIVED BY Gretchen Franchein

LIMS ENTRY BY Grf
TRANSCRIPTION REVIEW BY Grf
LIMS REVIEW BY/PM Grf

	NA	YES	EXCEPTION	COMMENT	RESOLUTION
1. CUSTODY SEALS PRESENT/INTACT	☑	☐	☐	Custody seals are on bottles + intact.	
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☑	☐		
3. CHAIN OF CUSTODY SIGNED	☐	☑	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES	☐	☑	☐		
5. SAMPLES RECEIVED AT 2° - 6° C Ice/Ice Packs Present? (Y) or N	☐	☐	☑	No Temp. Blank	
6. VOLATILES FREE OF HEAD SPACE	☑	☐	☐		
7. TRIP BLANK PRESENT IN THIS COOLER	☑	☐	☐		
8. PROPER SAMPLE CONTAINERS AND VOLUME	☐	☑	☐		
9. SAMPLES WITHIN HOLD TIME	☐	☑	☐		
10. SAMPLES PROPERLY PRESERVED	☐	☑	☐		

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other ____
12. NUMBER OF PACE FILTRATIONS: ____
13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes:

1 VOA received for the sample labeled "Field Blank" (44862-7) is ID'd "CLJ44-CU-007-RB" Sampled 8/2/95 at 0725. The other VOA vial is labeled "CLJ44-CU-007-FB" and was sampled at 8/2/95, 0725. ← 44862-16

-7 1 VOA vial } Field Blank
-16 1 VOA vial }

CLIENT AUTHORIZATION SIGNATURE ____ DATE ____

0000005

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

44897

PAGE ____ of ____
COOLER 1 of 1
COC# ____
SDG# LIN09
CASE# NHMRC

CLIENT OHM

DATE/TIME RECEIVED 8/5/95 1200
DELIVERED BY Fed Ex
RECEIVED BY [signature]

LIMS ENTRY BY GMF
TRANSCRIPTION REVIEW BY GMF
LIMS REVIEW BY/PM GMF

	NA	YES	EXCEPTION	COMMENT	RESOLUTION
1. CUSTODY SEALS PRESENT/INTACT	☐	☐	☒	Custody Seal not on cooler - on some bottles	
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☒	☐		
3. CHAIN OF CUSTODY SIGNED	☐	☒	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES	☐	☒	☐		
5. SAMPLES RECEIVED AT 2° - 6° C Ice/Ice Packs Present? (Y) or N	☐	☐	☑	No Temp Blank	
6. VOLATILES FREE OF HEAD SPACE	☐	☒	☐		
7. TRIP BLANK PRESENT IN THIS COOLER	☐	☒	☐		
8. PROPER SAMPLE CONTAINERS AND VOLUME	☐	☒	☐		
9. SAMPLES WITHIN HOLD TIME	☐	☒	☐		
10. SAMPLES PROPERLY PRESERVED	☐	☒	☐		

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other ____
12. NUMBER OF PACE FILTRATIONS: ____
13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes: Rec'd in this cooler 2 jars for each site (250ml. glass amber)
Bottle labels differ from COC: CH on COC is CC on bottle label
Per Rakesh Mishra, Samples labeled CH need to be logged in as "CC".

CLIENT AUTHORIZATION SIGNATURE ____ DATE ____

44897

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

PAGE ____ of ____
COOLER 2 of 2
COC# ____
SDG# LJN09
CASE# 01tmRc

CLIENT OHM
DATE/TIME RECEIVED 8/5/95 1200
DELIVERED BY Fed Ex
RECEIVED BY [signature]

LIMS ENTRY BY GMF
TRANSCRIPTION REVIEW BY GMF
LIMS REVIEW BY/PM GMF

	NA	YES	EXCEPTION	COMMENT	RESOLUTION
1. CUSTODY SEALS PRESENT/INTACT	☐	☐	☒		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☒	☐		
3. CHAIN OF CUSTODY SIGNED	☐	☒	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES	☐	☒	☐		
5. SAMPLES RECEIVED AT 2° - 6° C Ice/Ice Packs Present? (Y) or N	☐	☐	☑	No Temp Blank	
6. VOLATILES FREE OF HEAD SPACE	☐	☒	☐		
7. TRIP BLANK PRESENT IN THIS COOLER	☐	☒	☐		
8. PROPER SAMPLE CONTAINERS AND VOLUME	☐	☒	☐		
9. SAMPLES WITHIN HOLD TIME	☐	☒	☐		
10. SAMPLES PROPERLY PRESERVED	☐	☒	☐		

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other ____
NUMBER OF PACE FILTRATIONS: ____
13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes:

rec'd in this cooler one glass jar for each site except for item #10 on chain #16402 - rec'd 2 jars for this site

CLIENT AUTHORIZATION SIGNATURE ____ DATE ~~0000007~~

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

PAGE 1 of 1
COOLER ____ of ____
COC# ____
SDG# LJN09
CASE# OHMRC

CLIENT OHM

DATE/TIME RECEIVED 8/5/95 1200
DELIVERED BY Fed Ex
RECEIVED BY LAL

LIMS ENTRY BY GMC
TRANSCRIPTION REVIEW BY GMC
LIMS REVIEW BY/PM GMC

		NA	YES	EXCEPTION	COMMENT	RESOLUTION
1.	CUSTODY SEALS PRESENT/INTACT	☐	☐	☒	Custody seals not on cooler - present on bottle	
2.	CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☒	☐		
3.	CHAIN OF CUSTODY SIGNED	☐	☒	☐		
4.	CHAIN OF CUSTODY MATCHES SAMPLES	☐	☒	☐		
5.	SAMPLES RECEIVED AT 2° - 6° C Ice/Ice Packs Present? (Y) or N	☐	☐	☑	No Temp Blank	
6.	VOLATILES FREE OF HEAD SPACE	☐	☒	☐		
7.	TRIP BLANK PRESENT IN THIS COOLER	☐	☒	☐		
8.	PROPER SAMPLE CONTAINERS AND VOLUME	☐	☒	☐		
9.	SAMPLES WITHIN HOLD TIME	☐	☒	☐		
10.	SAMPLES PROPERLY PRESERVED	☐	☒	☐		

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other ____

NUMBER OF PACE FILTRATIONS: ____

13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes:

-3 1 Vial
-4 sampling date = 7/27/95 1700
-10 1 vials
-11 BNA (TCLP list)
-12 metals (TCLP list)
-13 RCRA Haz W Char.

Rinsate = -3, -7, -10, -11, 12, -13

CLIENT AUTHORIZATION SIGNATURE ____ DATE ____

00000008

SAMPLE TABLE

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-CC-001	SOLID	44862-001	GC/MS VOA
			TOTAL GASOLINE
		44862-009	TOTAL DIESEL
			CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
		44862-018	GC/MS VOA
			ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
			TCLP VOA EXTRACT
			TCLP ORGANICS EXTRACT
			TCLP METALS EXTRACTION
			Ba, Cd, Cr, Pb, Hg, Ag, As, Se
		44862-026	PCBS
			OIL & GREASE BY GRAVIMETRY
			Pb
CLJ44-CC-002-RB	WATER	44862-002	GC/MS VOA
			TOTAL GASOLINE
		44862-010	TOTAL DIESEL
		44862-019	ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
		44862-031	As, Ba, Cd, Cr, Pb, Hg, Se, Ag
		44862-032	CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
CLJ44-CU-003	SOLID	44862-003	TOTAL GASOLINE
		44832-011	TOTAL DIESEL
		44862-020	GC/MS VOA
			ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
			TCLP VOA EXTRACT
			TCLP ORGANICS EXTRACT
			TCLP METALS EXTRACTION
			Ba, Cd, Cr, Pb, Hg, Ag, As, Se
		44862-033	CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE

SAMPLE TABLE
(CONTINUED)

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-CU-003	SOLID	44862-033	RELEASABLE SULFIDE
CLJ44-CU-004	SOLID	44862-004	TOTAL GASOLINE
		44862-012	TOTAL DIESEL
		44862-021	GC/MS VOA
			ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
			TCLP VOA EXTRACT
			TCLP ORGANICS EXTRACT
			TCLP METALS EXTRACTION
			Ba, Cd, Cr, Pb, Hg, Ag, As, Se
		44862-034	CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
CLJ44-CU-005	SOLID	44862-005	TOTAL GASOLINE
		44862-013	TOTAL DIESEL
		44862-022	GC/MS VOA
			ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
			TCLP VOA EXTRACT
			TCLP ORGANICS EXTRACT
			TCLP METALS EXTRACTION
			Ba, Cd, Cr, Pb, Hg, Ag, As, Se
		44862-035	CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
CLJ44-CU-006-RB	WATER	44862-006	TOTAL GASOLINE
		44862-014	TOTAL DIESEL
		44862-023	GC/MS VOA
		44862-024	ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
		44862-036	CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
		44862-037	As, Ba, Cd, Cr, Pb, Hg, Se, Ag

SAMPLE TABLE
(CONTINUED)

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-007-FB	WATER	44862-007	TOTAL GASOLINE
		44862-015	TOTAL DIESEL
		44862-016	GC/MS VOA
		44862-025	ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
		44862-027	As, Ba, Cd, Cr, Pb, Hg, Se, Ag
		44862-028	OIL & GREASE BY GRAVIMETRY
		44862-029	PCBS
		44862-030	CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
CLJ44-008-TB	WATER	44862-008	TOTAL GASOLINE
		44862-017	GC/MS VOA

SAMPLE TABLE

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-CC-016	SOLID	44897-001	TOTAL GASOLINE
		44897-013	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-017	SOLID	44897-002	TOTAL GASOLINE
		44897-014	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-018	SOLID	44897-003	TOTAL GASOLINE
		44897-015	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-019	SOLID	44897-004	TOTAL GASOLINE
		44897-016	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-020	SOLID	44897-005	TOTAL GASOLINE
		44897-017	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-021	SOLID	44897-006	TOTAL GASOLINE
		44897-018	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-022	SOLID	44897-007	TOTAL GASOLINE
		44897-019	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-023	SOLID	44897-008	TOTAL GASOLINE
		44897-020	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-024	SOLID	44897-009	TOTAL GASOLINE
		44897-021	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-025	SOLID	44897-010	TOTAL GASOLINE
SQC		44897-022	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
		44897-025	GC/MS VOA
			ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
			TCLP VOA EXTRACT
			TCLP ORGANICS EXTRACT
			TCLP METALS EXTRACTION
			Ba, Cd, Cr, Pb, Hg, Ag, As, Se
		44897-026	PCBS
			CORROSIVITY

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SAMPLE TABLE
(CONTINUED)

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-CC-025	SOLID	44897-026	FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
			Pb
		44897-027	GC/MS VOA
CLJ44-CC-026	SOLID	44897-011	TOTAL GASOLINE
		44897-023	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-027	SOLID	44897-012	TOTAL GASOLINE
		44897-024	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL

SAMPLE TABLE

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-CU-012	SOLID	44898-001	TOTAL GASOLINE
		44898-005	TOTAL DIESEL
		44898-008	GC/MS VOA
			ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
			TCLP VOA EXTRACT
			TCLP ORGANICS EXTRACT
			CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
			TCLP METALS EXTRACTION
			Ba, Cd, Cr, Pb, Hg, Ag, As, Se
CLJ44-CU-013	SOLID	44898-002	TOTAL GASOLINE
		44898-006	TOTAL DIESEL
		44898-009	GC/MS VOA
			ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
			TCLP VOA EXTRACT
			TCLP ORGANICS EXTRACT
			CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
			TCLP METALS EXTRACTION
			Ba, Cd, Cr, Pb, Hg, Ag, As, Se
CLJ44-CU-014-RB	WATER	44898-003	TOTAL GASOLINE
		44898-007	TOTAL DIESEL
		44898-010	GC/MS VOA
		44898-011	ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
		44898-012	Ba, Cd, Cr, Pb, Hg, Ag, As, Se
		44898-013	CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
CLJ44-CU-015-TB	WATER	44898-004	GC/MS VOA
			TOTAL GASOLINE

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Laboratory number: 44862-001
Sample Designation: CLJ44-CC-001
Date Analyzed: 08/07/95
Matrix: SOLID

Instrument File Name: >C9693

Results are expressed on a dry (103 degrees C) basis.
Moisture content was 11 % , elevating the reporting limits
by a factor of 1.12 .

VOLATILE ORGANICS	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
Chloromethane	BDL	1.4
Bromomethane	BDL	1.4
Vinyl chloride	BDL	1.4
Chloroethane	BDL	0.7
Methylene chloride	0.9 JB	1.4
Acetone	BDL	3.5
Carbon disulfide	BDL	0.7
1,1-Dichloroethene	BDL	0.7
Tetrahydrofuran	BDL	3.5
1,1-Dichloroethane	BDL	0.7
1,2-Dichloroethene (total)	BDL	0.7
Chloroform	BDL	0.7
Methyl ethyl ketone	BDL	3.5
1,2-Dichloroethane	BDL	0.7
1,1,1-Trichloroethane	BDL	0.7
Carbon Tetrachloride	BDL	0.7
Vinyl acetate	BDL	1.4
Bromodichloromethane	BDL	0.7
cis-1,3-Dichloropropene	BDL	0.7
trans-1,3-Dichloropropene	BDL	0.7
Trichloroethene	BDL	0.7
Benzene	BDL	0.7
Dibromochloromethane	BDL	0.7
1,1,2-Trichloroethane	BDL	0.7
1,2-Dichloropropane	BDL	0.7
2-Chloroethyl vinyl ether	BDL	0.7
Bromoform	BDL	0.7
Methyl isobutyl ketone	BDL	3.5
2-Hexanone	BDL	3.5
1,1,2,2-Tetrachloroethane	BDL	0.7
Tetrachloroethene	BDL	0.7
Toluene	BDL	0.7
Chlorobenzene	BDL	0.7
Ethylbenzene	BDL	0.7
Xylene (total)	BDL	0.7
Styrene	BDL	0.7

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

BDL = Below reporting limit
J = Probable presence below listed detection limit

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THE ASSURANCE OF QUALITY

Laboratory number: 44862-002
Sample Designation: CLJ44-CC-002-RB
Date Analyzed: 08/07/95
Matrix: WATER

Instrument File Name: >C9688

VOLATILE ORGANICS	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5.0
Methylene chloride	3.2 JB	10
Acetone	BDL	25
Carbon disulfide	BDL	5.0
Trichlorofluoromethane	BDL	5.0
1,1-Dichloroethene	BDL	5.0
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5.0
1,2-Dichloroethene (total)	BDL	5.0
Chloroform	BDL	5.0
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5.0
1,1,1-Trichloroethane	BDL	5.0
Carbon Tetrachloride	BDL	5.0
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5.0
cis-1,3-Dichloropropene	BDL	5.0
trans-1,3-Dichloropropene	BDL	5.0
Trichloroethene	BDL	5.0
Benzene	BDL	5.0
Dibromochloromethane	BDL	5.0
1,1,2-Trichloroethane	BDL	5.0
1,2-Dichloropropane	BDL	5.0
2-Chloroethyl vinyl ether	BDL	5.0
Bromoform	BDL	5.0
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5.0
Tetrachloroethene	BDL	5.0
Toluene	BDL	5.0
Chlorobenzene	BDL	5.0
Ethylbenzene	BDL	5.0
Xylene (total)	BDL	5.0
Styrene	BDL	5.0

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624(MODIFIED)

BDL = Below reporting limit
J = Probable presence below listed detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: 44862-016
Sample Designation: CLJ44-007-FB
Date Analyzed: 08/07/95
Matrix: WATER

Instrument File Name: >C9689

VOLATILE ORGANICS	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5.0
Methylene chloride	BDL	10
Acetone	BDL	25
Carbon disulfide	BDL	5.0
Trichlorofluoromethane	BDL	5.0
1,1-Dichloroethene	BDL	5.0
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5.0
1,2-Dichloroethene (total)	BDL	5.0
Chloroform	BDL	5.0
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5.0
1,1,1-Trichloroethane	BDL	5.0
Carbon Tetrachloride	BDL	5.0
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5.0
cis-1,3-Dichloropropene	BDL	5.0
trans-1,3-Dichloropropene	BDL	5.0
Trichloroethene	BDL	5.0
Benzene	BDL	5.0
Dibromochloromethane	BDL	5.0
1,1,2-Trichloroethane	BDL	5.0
1,2-Dichloropropane	BDL	5.0
2-Chloroethyl vinyl ether	BDL	5.0
Bromoform	BDL	5.0
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5.0
Tetrachloroethene	BDL	5.0
Toluene	BDL	5.0
Chlorobenzene	BDL	5.0
Ethylbenzene	BDL	5.0
Xylene (total)	BDL	5.0
Styrene	BDL	5.0

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624 (MODIFIED)

BDL = Below reporting limit

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THE ASSURANCE OF QUALITY

Laboratory number: 44862-017
Sample Designation: CLJ44-008-TB
Date Analyzed: 08/04/95
Matrix: WATER

Instrument File Name: >C9660

VOLATILE ORGANICS	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5.0
Methylene chloride	3.9 JB	10
Acetone	BDL	25
Carbon disulfide	BDL	5.0
Trichlorofluoromethane	BDL	5.0
1,1-Dichloroethene	BDL	5.0
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5.0
1,2-Dichloroethene (total)	BDL	5.0
Chloroform	BDL	5.0
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5.0
1,1,1-Trichloroethane	BDL	5.0
Carbon Tetrachloride	BDL	5.0
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5.0
cis-1,3-Dichloropropene	BDL	5.0
trans-1,3-Dichloropropene	BDL	5.0
Trichloroethene	BDL	5.0
Benzene	BDL	5.0
Dibromochloromethane	BDL	5.0
1,1,2-Trichloroethane	BDL	5.0
1,2-Dichloropropane	BDL	5.0
2-Chloroethyl vinyl ether	BDL	5.0
Bromoform	BDL	5.0
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5.0
Tetrachloroethene	BDL	5.0
Toluene	BDL	5.0
Chlorobenzene	BDL	5.0
Ethylbenzene	BDL	5.0
Xylene (total)	BDL	5.0
Styrene	BDL	5.0

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624(MODIFIED)

BDL = Below reporting limit
J = Probable presence below listed detection limit

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THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44862-018
Field Identification : CLJ44-CC-001
Extraction Date : 08-07-95
TCLP Blank : 90,002-386

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

pace INCORPORATED THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44862-018
Sample Designation:CLJ44-CC-001
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/08/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44862-020
Field Identification : CLJ44-CU-003
Extraction Date : 08-07-95
TCLP Blank : 90,002-386

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44862-020
Sample Designation:CLJ44-CU-003
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/08/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44862-021
Field Identification : CLJ44-CU-004
Extraction Date : 08-07-95
TCLP Blank : 90,002-386

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44862-021
Sample Designation:CLJ44-CU-004
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/08/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

pace INCORPORATED
THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44862-022
Field Identification : CLJ44-CU-005
Extraction Date : 07/08/95
TCLP Blank : 90,002-386

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44862-022
Sample Designation: CLJ44-CU-005
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/08/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44862-023
Sample Designation: CLJ44-CU-006-RB
Matrix: WATER

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/07/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44897-025
Field Identification : CLJ44-CC-025
Extraction Date : 08-08-95
TCLP Blank : 90,002-387

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44897-025
Sample Designation: CLJ44-CC-025
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/09/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44897-025
Field Identification : CLJ44-CC-025
Extraction Date : 08-08-95
TCLP Blank : 90,002-387

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44897-025
Sample Designation:CLJ44-CC-025
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/09/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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Laboratory number: 44897-027
Sample Designation: CLJ44-CC-025
Date Analyzed: 08/11/95
Matrix: SOLID

Instrument File Name: >C9765

Results are expressed on a dry (103 degrees C) basis.
Moisture content was 21 % , elevating the reporting limits
by a factor of 1.26 .

VOLATILE ORGANICS	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
Chloromethane	BDL	3.2
Bromomethane	BDL	3.2
Vinyl chloride	BDL	3.2
Chloroethane	BDL	1.6
Methylene chloride	BDL	3.2
Acetone	BDL	8
Carbon disulfide	BDL	1.6
1,1-Dichloroethene	BDL	1.6
Tetrahydrofuran	BDL	8
1,1-Dichloroethane	BDL	1.6
1,2-Dichloroethene (total)	BDL	1.6
Chloroform	BDL	1.6
Methyl ethyl ketone	BDL	8
1,2-Dichloroethane	BDL	1.6
1,1,1-Trichloroethane	BDL	1.6
Carbon Tetrachloride	BDL	1.6
Vinyl acetate	BDL	3.2
Bromodichloromethane	BDL	1.6
cis-1,3-Dichloropropene	BDL	1.6
trans-1,3-Dichloropropene	BDL	1.6
Trichloroethene	BDL	1.6
Benzene	BDL	1.6
Dibromochloromethane	BDL	1.6
1,1,2-Trichloroethane	BDL	1.6
1,2-Dichloropropane	BDL	1.6
2-Chloroethyl vinyl ether	BDL	1.6
Bromoform	BDL	1.6
Methyl isobutyl ketone	BDL	8
2-Hexanone	BDL	8
1,1,2,2-Tetrachloroethane	BDL	1.6
Tetrachloroethene	BDL	1.6
Toluene	0.9 J	1.6
Chlorobenzene	1.1 J	1.6
Ethylbenzene	1.1 J	1.6
Xylene (total)	8	1.6
Styrene	BDL	1.6

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

BDL = Below reporting limit
J = Probable presence below listed detection limit

Detection limit raised by the presence of non-listed compounds.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44898-004
Sample Designation:CLJ44-CU-015-TB
Matrix: WATER

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/07/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number	:	44898-008
Field Identification	:	CLJ44-CU-012
Extraction Date	:	08/08/95
TCLP Blank	:	90,002-387

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44898-008
Sample Designation:CLJ44-CU-012
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/09/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44898-009
Field Identification : CLJ44-CU-013
Extraction Date : 08/08/95
TCLP Blank : 90,002-387

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44898-009
Sample Designation:CLJ44-CU-013
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/09/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44898-010
Sample Designation:CLJ44-CU-014-RB
Matrix: WATER

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/07/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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WATER VOLATILES SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44862
Project: CAMP LEJEUNE/16487

CLIENT SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	S4 (DBFM)#	OTHER	TOT OUT
CLJ44-CC-002-RB	96	96	101			0
CLJ44-007-FB	98	97	103			0
CLJ44-008-TB	96	97	94			0
CLJ44-CC-001	94	99	100			0
CLJ44-CU-003	93	96	103			0
CLJ44-CU-004	97	98	103			0
CLJ44-CU-005	95	99	100			0
CLJ44-CU-006-RB	95	98	102			0
BC080795A1	100	98	98			0
BC080495A1	96	98	96			0
TCLP BLANK #386	95	98	102			0
BC080895A1	98	103	99			0
BV1117A	92	96	103			0
BV1117B	97	102	97			0

		QC LIMITS
S1	(TOL) = Toluene-d8	86 - 114
S2	(BFB) = Bromofluorobenzene	72 - 132
S3	(DCE) = 1,2-Dichloroethane-d4	70 - 138
S4	(DBFM) = Dibromofluoromethane	80 - 120

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

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Laboratory Number: BV1117B
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/04/95
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	5.6 J	10
Acetone	BDL	25
Carbon disulfide	BDL	5
1,1-Dichloroethene	BDL	5
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (cis)	BDL	5
1,2-Dichloroethene (trans)	BDL	5
Chloroform	BDL	5
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Benzene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
1,2-Dichloropropane	BDL	5
2-Chloroethyl vinyl ether	BDL	5
Bromoform	BDL	5
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5
Tetrachloroethene	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
m-Xylene	BDL	5
o,p-Xylene	BDL	5
Styrene	BDL	5

METHOD REFERENCE: 40 CFR Part 136, Friday, October 26, 1984
METHOD 624

BDL = Below detection limit

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Laboratory Number: BC080495A1
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/04/95
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	4.8 J	10
Acetone	BDL	25
Carbon disulfide	BDL	5
1,1-Dichloroethene	BDL	5
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (cis)	BDL	5
1,2-Dichloroethene (trans)	BDL	5
Chloroform	BDL	5
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Benzene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
1,2-Dichloropropane	BDL	5
2-Chloroethyl vinyl ether	BDL	5
Bromoform	BDL	5
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5
Tetrachloroethene	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
m-Xylene	BDL	5
o,p-Xylene	BDL	5
Styrene	BDL	5

METHOD REFERENCE: 40 CFR Part 136, Friday, October 26, 1984
METHOD 624

BDL = Below detection limit

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MATRIX SPIKE RECOVERY
VOLATILE ORGANIC COMPOUNDS

Laboratory Number: LCC080495A1
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/04/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
1,1-DICHLOROETHENE	0	50	57	114
TRICHLOROETHYLENE	0	50	52	103
BENZENE	0	50	48	95
TOLUENE	0	50	48	96
CHLOROBENZENE	0	50	50	100

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624

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Laboratory Number: BC080795A1
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/07/95
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	3.5 J	10
Acetone	BDL	25
Carbon disulfide	BDL	5
1,1-Dichloroethene	BDL	5
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (cis)	BDL	5
1,2-Dichloroethene (trans)	BDL	5
Chloroform	BDL	5
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Benzene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
1,2-Dichloropropane	BDL	5
2-Chloroethyl vinyl ether	BDL	5
Bromoform	BDL	5
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5
Tetrachloroethene	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
m-Xylene	BDL	5
o,p-Xylene	BDL	5
Styrene	BDL	5

METHOD REFERENCE: 40 CFR Part 136, Friday, October 26, 1984
METHOD 624

BDL = Below detection limit

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MATRIX SPIKE RECOVERY
VOLATILE ORGANIC COMPOUNDS

Laboratory Number: LCC080795A1
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/07/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
1,1-DICHLOROETHENE	0	50	52	103
TRICHLOROETHYLENE	0	50	51	102
BENZENE	0	50	49	98
TOLUENE	0	50	51	102
CHLOROBENZENE	0	50	53	106

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: TCLP BLANK #386
Client ID: TCLP BLANK
Date Analyzed: 08/08/95
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Detection Limit (ug/L)
Vinyl chloride	BDL	200	10
1,1-Dichloroethene	BDL	700	5
1,2-Dichloroethane	BDL	500	5
Chloroform	BDL	6000	5
Methyl ethyl ketone	BDL	200000	25
Carbon Tetrachloride	BDL	500	5
Trichloroethene	BDL	500	5
Benzene	BDL	500	5
Tetrachloroethene	BDL	700	5
Chlorobenzene	BDL	100000	5

METHOD REFERENCE: EPA SW846 3rd EDITION
METHOD 8240

BDL = Below detection limit

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Laboratory number: BC080895A1
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/08/95
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	BDL	10
Acetone	BDL	25
Carbon disulfide	BDL	5
1,1-Dichloroethene	BDL	5
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (total)	BDL	5
Chloroform	BDL	5
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Benzene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
1,2-Dichloropropane	BDL	5
2-Chloroethyl vinyl ether	BDL	5
Bromoform	BDL	5
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5
Tetrachloroethene	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
m-Xylene	BDL	5
o,p-Xylene	BDL	5
Styrene	BDL	5

METHOD REFERENCE: EPA SW 846 3RD EDITION
METHOD 8240

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

MATRIX SPIKE RECOVERY
VOLATILE ORGANIC COMPOUNDS

Laboratory Number: LCC080895A1
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/08/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
1,1-DICHLOROETHENE	0	50	53	105
TRICHLOROETHYLENE	0	50	51	102
BENZENE	0	50	49	97
TOLUENE	0	50	49	98
CHLOROBENZENE	0	50	51	102

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8240

pace INCORPORATED
THE ASSURANCE OF QUALITY

SOIL VOLATILES SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44862
Project: CAMP LEJEUNE/16487
Level: Soil

CLIENT SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
CLJ44-CC-001	97	100	98		0

	QC LIMITS
S1 (TOL) = Toluene-d8	86 - 114
S2 (BFB) = Bromofluorobenzene	72 - 132
S3 (DCE) = 1,2-Dichloroethane-d4	70 - 138

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

SOIL VOLATILES SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44897
Project: CAMP LEJEUNE/16487
Level: Soil

CLIENT SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
CLJ44-CC-025MS	95	109	91		0
CLJ44-CC-025MSD	93	106	88		0
BV1118D	95	96	100		0

		QC LIMITS
S1	(TOL) = Toluene-d8	86 - 114
S2	(BFB) = Bromofluorobenzene	72 - 132
S3	(DCE) = 1,2-Dichloroethane-d4	70 - 138

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

Laboratory number: BV1118D
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/11/95
Matrix: SOLID

VOLATILE ORGANICS	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
Chloromethane	BDL	1.0
Bromomethane	BDL	1.0
Vinyl chloride	BDL	1.0
Chloroethane	BDL	0.5
Methylene chloride	BDL	1.0
Acetone	BDL	2.5
Carbon disulfide	BDL	0.5
1,1-Dichloroethene	BDL	0.5
Tetrahydrofuran	BDL	2.5
1,1-Dichloroethane	BDL	0.5
Chloroform	BDL	0.5
Methyl ethyl ketone	BDL	2.5
1,2-Dichloroethane	BDL	0.5
1,1,1-Trichloroethane	BDL	0.5
Carbon Tetrachloride	BDL	0.5
Vinyl acetate	BDL	1.0
Bromodichloromethane	BDL	0.5
cis-1,3-Dichloropropene	BDL	0.5
cis-1,3-Dichloropropene	BDL	0.5
trans-1,3-Dichloropropene	BDL	0.5
Trichloroethene	BDL	0.5
Benzene	BDL	0.5
Dibromochloromethane	BDL	0.5
1,1,2-Trichloroethane	BDL	0.5
1,2-Dichloropropane	BDL	0.5
2-Chloroethyl vinyl ether	BDL	0.5
Bromoform	BDL	0.5
Methyl isobutyl ketone	BDL	2.5
2-Hexanone	BDL	2.5
1,1,2,2-Tetrachloroethane	BDL	0.5
Tetrachloroethene	BDL	0.5
Toluene	BDL	0.5
Chlorobenzene	BDL	0.5
Ethylbenzene	BDL	0.5
m-Xylene	BDL	0.5
o,p-Xylene	BDL	0.5
Styrene	BDL	0.5

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8240

BDL = Below detection limit

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VOLATILE ORGANIC COMPOUNDS
MATRIX SPIKE RECOVERY

Laboratory Number: LS-V1118
Field Identification: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/08/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
1,1-DICHLOROETHENE	0.00	6.25	6.76	108
TRICHLOROETHYLENE	0.00	6.25	6.42	103
BENZENE	0.00	6.25	6.13	98
TOLUENE	0.00	6.25	6.04	97
CHLOROBENZENE	0.00	6.25	6.04	97

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8240

pace INCORPORATED
THE ASSURANCE OF QUALITY

WATER VOLATILES SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44897
Project: CAMP LEJEUNE/16487

CLIENT SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
CLJ44-CC-025	99	104	101		0

	QC LIMITS
S1 (TOL) = Toluene-d8	86 - 114
S2 (BFB) = Bromofluorobenzene	72 - 132
S3 (DCE) = 1,2-Dichloroethane-d4	70 - 138

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

WATER VOLATILES SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44898
Project: CAMP LEJEUNE/16487

CLIENT SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	S4 (DBFM)#	OTHER	TOT OUT
CLJ44-CU-015-TB	98	99	99			0
CLJ44-CU-012	103	104	103			0
CLJ44-CU-013	101	102	111			0
CLJ44-CU-014-RB	95	97	104			0
TCLP BLANK #387	105	106	105			0
BI080995A1	100	100	100			0

		QC LIMITS
S1	(TOL) = Toluene-d8	86 - 114
S2	(BFB) = Bromofluorobenzene	72 - 132
S3	(DCE) = 1,2-Dichloroethane-d4	70 - 138
S4	(DBFM) = Dibromofluoromethane	80 - 120

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: TCLP BLANK #387
Client ID: TCLP BLANK
Date Analyzed: 08/09/95
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Detection Limit (ug/L)
Vinyl chloride	BDL	200	10
1,1-Dichloroethene	BDL	700	5
1,2-Dichloroethane	BDL	500	5
Chloroform	BDL	6000	5
Methyl ethyl ketone	BDL	200000	25
Carbon Tetrachloride	BDL	500	5
Trichloroethene	BDL	500	5
Benzene	BDL	500	5
Tetrachloroethene	BDL	700	5
Chlorobenzene	BDL	100000	5

METHOD REFERENCE: EPA SW846 3rd EDITION
METHOD 8240

BDL = Below detection limit

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Laboratory number: BI080995A1
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	BDL	10
Acetone	BDL	25
Carbon disulfide	BDL	5
1,1-Dichloroethene	BDL	5
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (total)	BDL	5
Chloroform	BDL	5
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Benzene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
1,2-Dichloropropane	BDL	5
2-Chloroethyl vinyl ether	BDL	5
Bromoform	BDL	5
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5
Tetrachloroethene	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
m-Xylene	BDL	5
o,p-Xylene	BDL	5
Styrene	BDL	5

METHOD REFERENCE: EPA SW 846 3RD EDITION
METHOD 8240

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

VOLATILE ORGANIC COMPOUNDS
MATRIX SPIKE RECOVERY

Laboratory Number: LCI080995A1 5ML
Field Identification: LABORATORY CONTROL SAMPLE
Date Analyzed: 9 Aug 95 11:08 am
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
C045 1,1-Dichloroethene	0.00	50.00	50.44	101
C150 Trichloroethene	0.00	50.00	54.79	110
C165 Benzene	0.00	50.00	52.33	105
C230 Toluene	0.00	50.00	51.63	103
C235 Chlorobenzene	0.00	50.00	54.12	108

METHOD REFERENCE: EPA SW-846, 3RD EDITION
METHOD 8240

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PACE New England

Project:

Lab File ID: >C9099 BFB Injection Date: 06/23/95

Instrument ID: CMS BFB Injection Time: 16:33

ION ABUNDANCE CRITERIA for C9099 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
VSTD200	VSTD200	C9100	06/23/95	17:04
VSTD100	VSTD100	C9101	06/23/95	17:39
VSTD050	VSTD050	C9102	06/23/95	18:14
VSTD020	VSTD020	C9103	06/23/95	18:48
VSTD010	VSTD010	C9104	06/23/95	19:23

pace INCORPORATED THE ASSURANCE OF QUALITY

GC/MS PERFORMANCE STANDARD

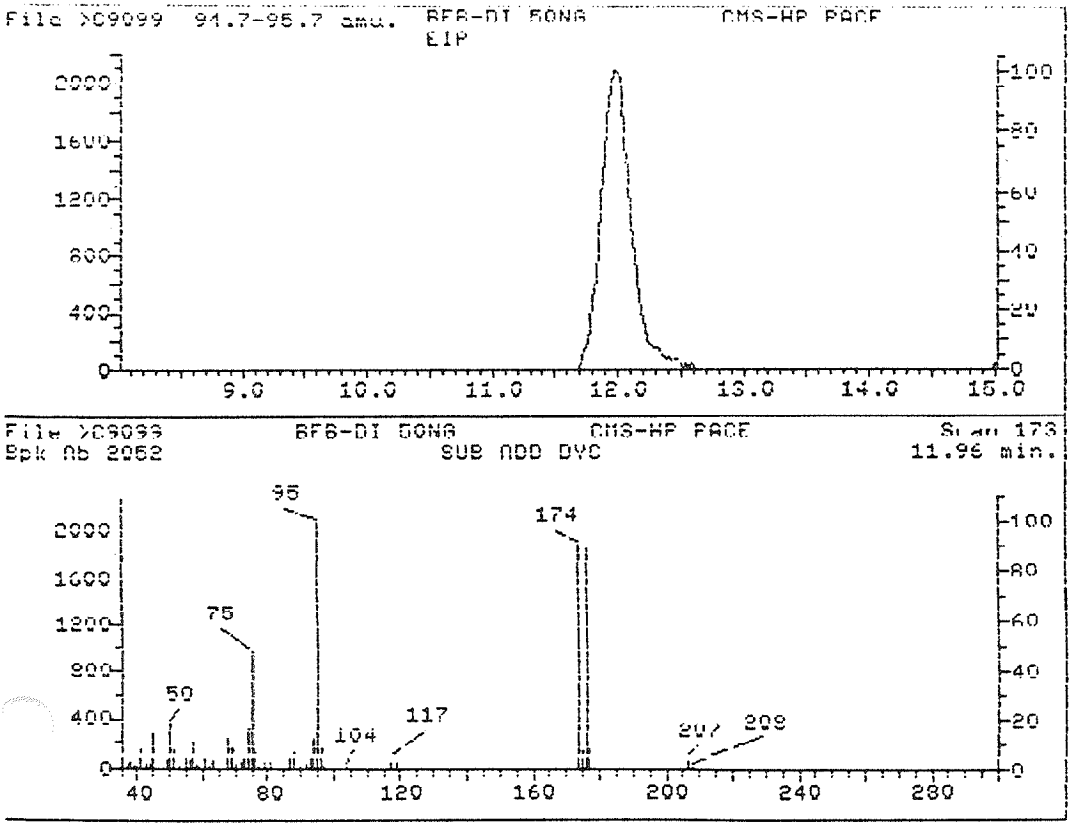
Bromofluorobenzene (BFB) 1SR

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	17.24	17.24	Ok
75	30-60% of mass 95	45.22	45.22	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.99	7.99	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	90.59	90.59	Ok
175	5-9% of mass 174	6.45	7.10	Ok
176	95-101% of mass 174	89.42	98.76	Ok
177	5-9% of mass 176	7.26	8.12	Ok

Injection Date: 06/23/95
Injection Time: 16:33
Data File: >C9099
Scan: 173

THIS IS THE RESULT OF AVERAGING	172.000	174.000	174.000
AND SUBTRACTING BACKGROUND SCAN	153.000		

6/18/95



5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID: >C9655 BFB Injection Date: 08/04/95

Instrument ID: CMS BFB Injection Time: 09:31

ION ABUNDANCE CRITERIA for C9655 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
VSTD050	VSTD050	C9657	08/04/95	10:30
BC080495A1	90182-059	C9658	08/04/95	11:04
LCC080495A1	90182-059MS	C9659	08/04/95	11:52
CLJ44-008-TB	44862-017	C9660	08/04/95	12:27
BV1117B	90186-045	C9746	08/10/95	20:57

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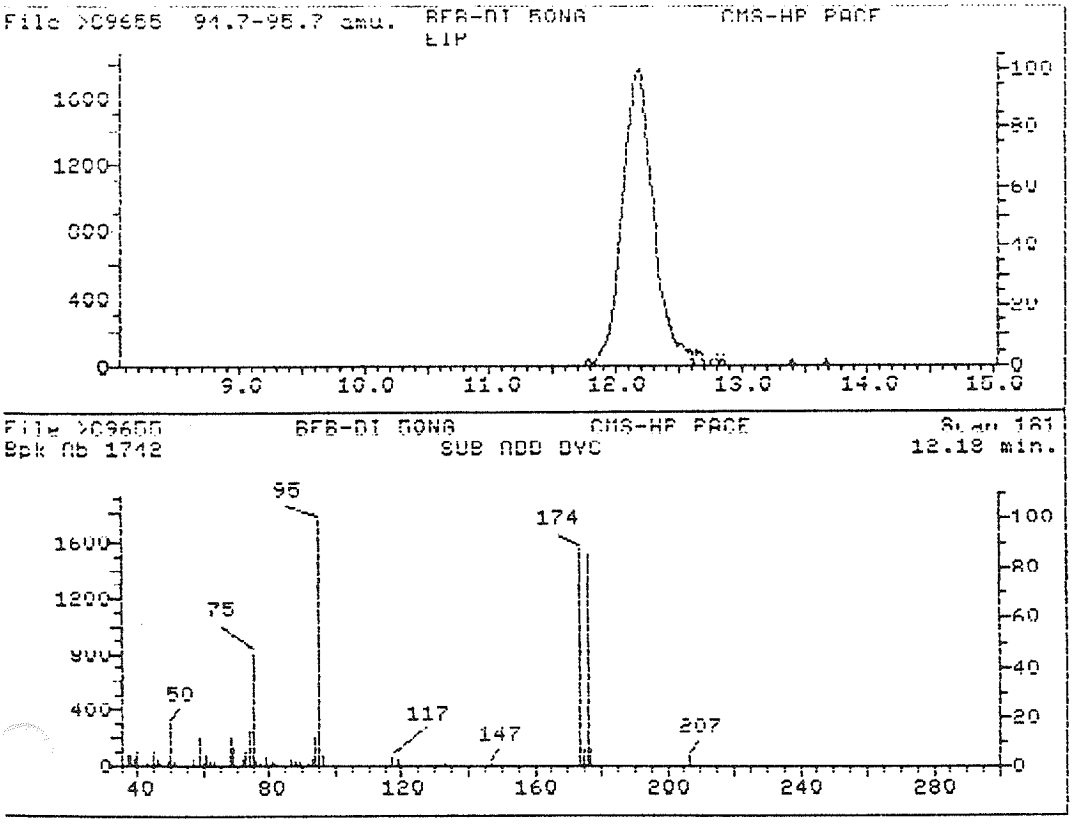
GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB) '88

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	12.12	12.12	Ok
75	30-60% of mass 95	45.90	45.90	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	5.28	5.28	Ok
173	Less than 2% of mass 174	0.000	0.000	Ok
174	Greater than 50% of mass 95	88.25	88.25	Ok
175	5-9% of mass 174	6.70	7.59	Ok
176	95-101% of mass 174	86.09	97.55	Ok
177	5-9% of mass 176	6.45	7.49	Ok

Injection Date: 08/04/95
Injection Time: 09:31
Data File: X09655
Scan: 181

THIS IS THE RESULT OF AVERAGING AND SUBTRACTING BACKGROUND SCAN	180.000 161.000	181.000	182.000



TN 8/8/95

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID: >C9678 BFB Injection Date: 08/07/95

Instrument ID: CMS BFB Injection Time: 12:17

ION ABUNDANCE CRITERIA for C9678 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
VSTD050	VSTD050	C9679	08/07/95	12:56
BC080795A1	90182-060	C9680	08/07/95	13:30
LCC080795A1	90182-060MS	C9681	08/07/95	14:19
CLJ44-CC-002-RB	44862-002	C9688	08/07/95	18:35
CLJ44-007-FB	44862-016	C9689	08/07/95	19:11
CLJ44-CU-006-RB	44862-023	C9690	08/07/95	19:46
CLJ44-CU-015-TB	44898-004	C9691	08/07/95	20:21
CLJ44-CU-014-RB	44898-010	C9692	08/07/95	20:56
CLJ44-CC-001	44862-001	C9693	08/07/95	21:31

GC/MS PERFORMANCE STANDARD

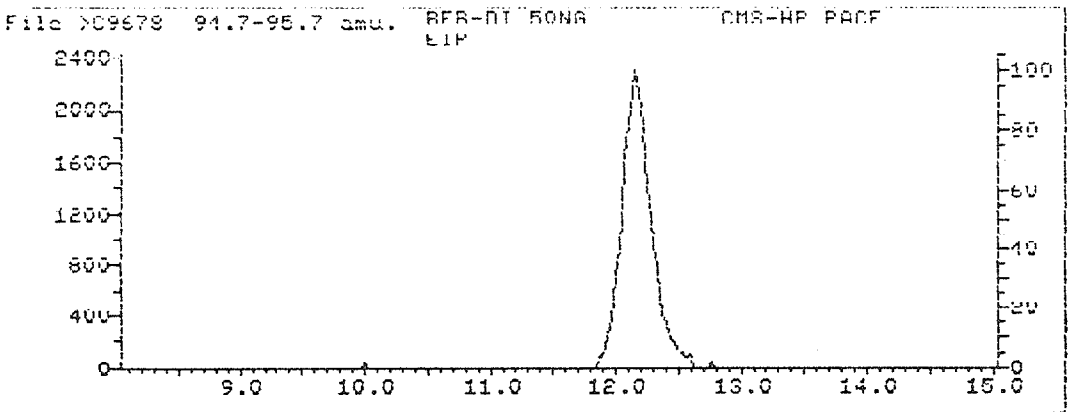
Bromofluorobenzene (BFB) 1988

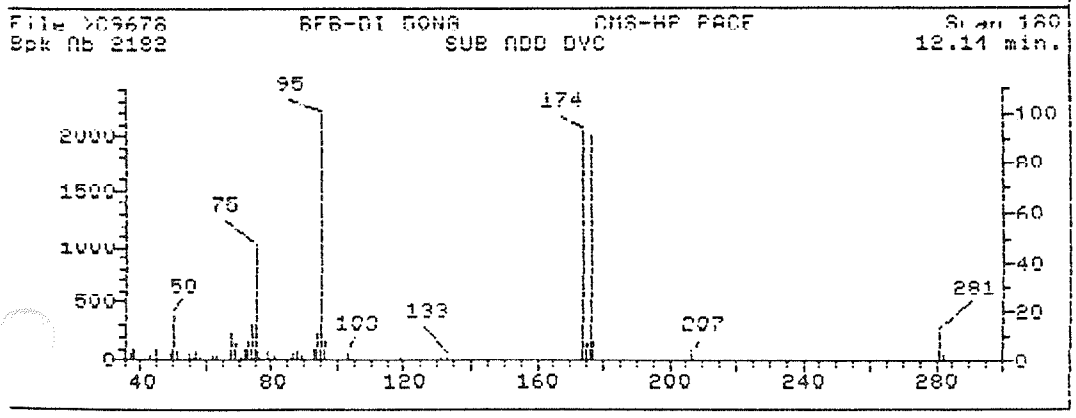
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	17.46	17.46	Ok
75	30-60% of mass 95	45.46	45.46	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.95	7.95	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	95.28	95.28	Ok
175	5-9% of mass 174	6.21	7.19	Ok
176	95-101% of mass 174	91.28	98.41	Ok
177	5-9% of mass 176	7.13	7.27	Ok

Injection Date: 08/11/95
Injection Time: 17:17
Data File: >1096/8
Scan: 1811

THIS IS THE RESULT OF AVERAGING AND SUBTRACTING BACKGROUND SCAN	129.00 161.00	180.00	181.00

TN 8/18/95





5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID: >C9696 BFB Injection Date: 08/08/95

Instrument ID: CMS BFB Injection Time: 12:43

ION ABUNDANCE CRITERIA for C9696 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
VSTD050	VSTD050	C9698	08/08/95	13:43
BC080895A1	90182-061	C9699	08/08/95	14:18
LCC080895A1	90182-061MS	C9700	08/08/95	15:04
BV1118A	90186-046	\I4366	08/09/95	16:23
LSV1118	90186-046MS	\I4386	08/10/95	16:09
CLJ44-CC-001	44862-018	C9710	08/08/95	20:54
CLJ44-CU-003	44862-020	C9711	08/08/95	21:29
CLJ44-CU-004	44862-021	C9712	08/08/95	22:04
CLJ44-CU-005	44862-022	C9713	08/08/95	22:39
BC082095A1	90182-069	C9714	08/08/95	23:13

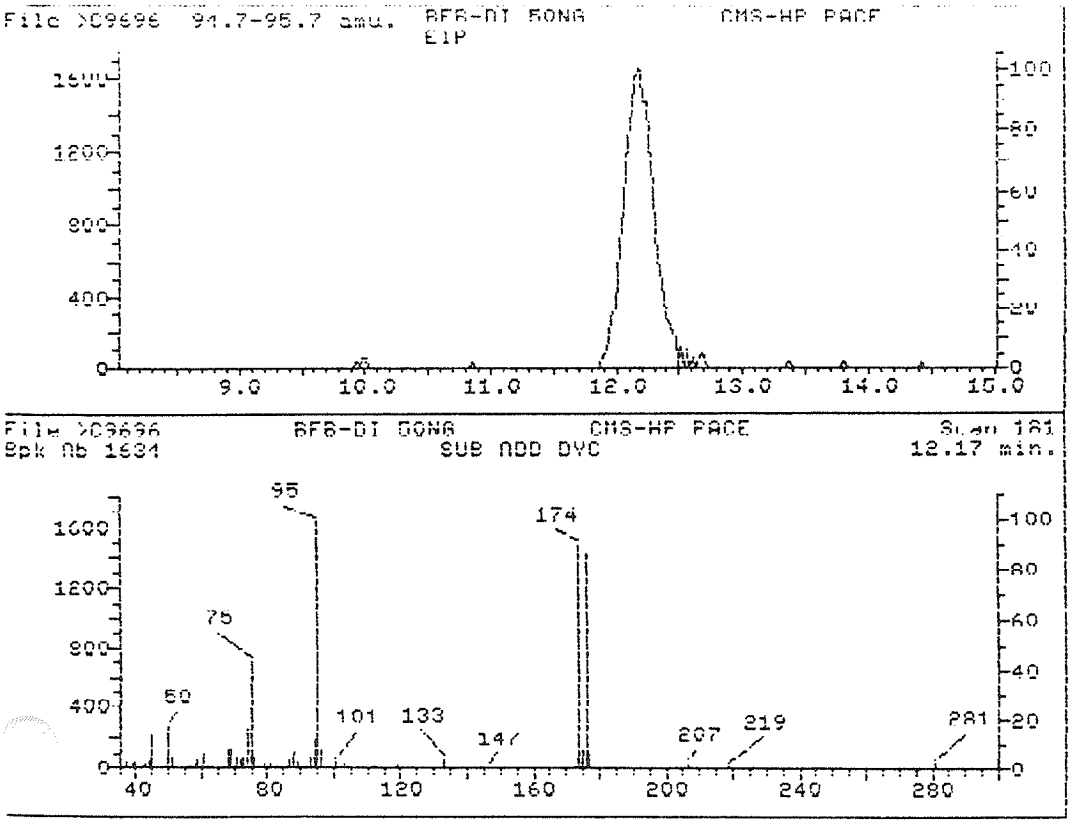
GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB) 188

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	16.34	16.34	Ok
75	30-60% of mass 95	43.21	43.21	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	2.56	2.56	Ok
173	Less than 2% of mass 174	.21	.29	Ok
174	Greater than 50% of mass 95	91.12	91.12	Ok
175	5-9% of mass 174	7.18	7.96	Ok
176	95-101% of mass 174	87.55	96.88	Ok
177	5-9% of mass 176	6.18	7.12	Ok

Injection Date: 08/08/95
Injection Time: 12:43
Data File: >09696
Scan: 181

THIS IS THE RESULT OF AVERAGING	180.00	181.00	182.00
AND SUBTRACTING BACKGROUND SCAN	161.00		



8/8/95

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: UNKNOWN

Lab File ID: >C9751 BFB Injection Date: 08/11/95

Instrument ID: CMS BFB Injection Time: 11:04

ION ABUNDANCE CRITERIA for C9751 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
VSTD050	VSTD050	C9753	08/11/95	12:30
BV1118D	90186-046	\I4366	08/09/95	16:23
CLJ44-CC-025	44897-027	C9765	08/11/95	19:41
CLJ44-CC-025MS	44897-027MS	C9766	08/11/95	20:31
CLJ44-CC-025MSD	44897-027MSD	C9768	08/11/95	21:56

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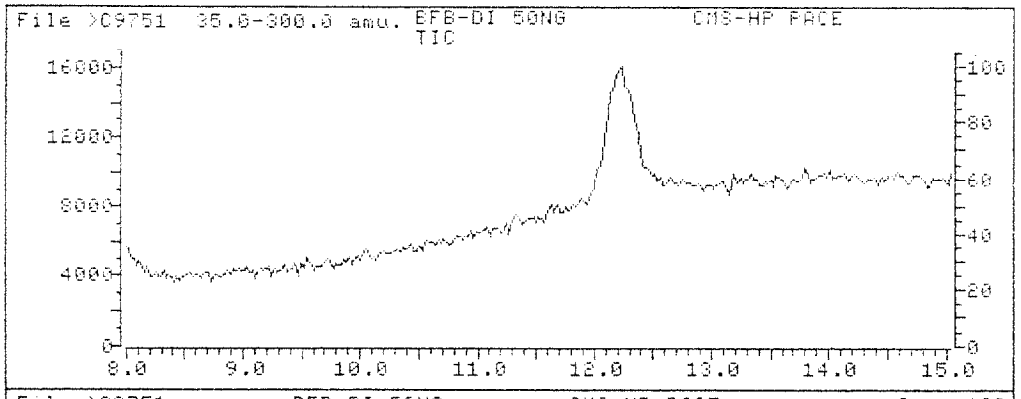
GC/MS PERFORMANCE STANDARD

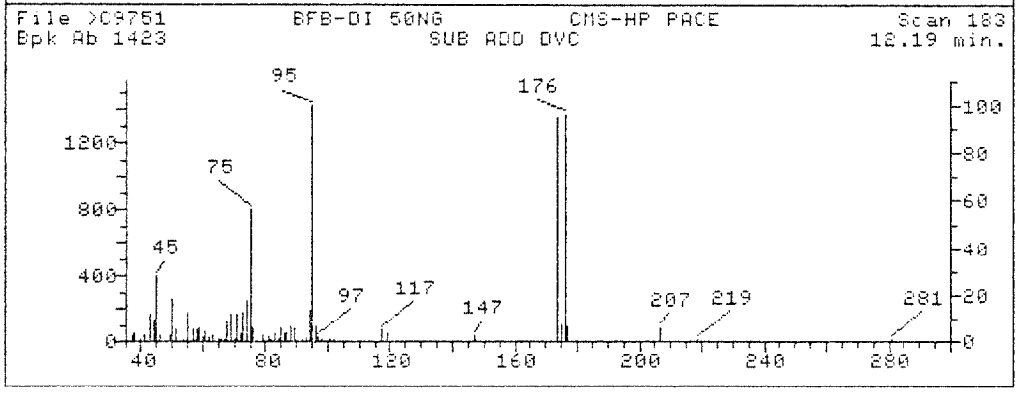
Bromofluorobenzene (BFB) '88

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	18.48	18.48	Ok
75	30-60% of mass 95	56.18	56.18	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.84	6.84	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	95.50	95.50	Ok
175	5-9% of mass 174	7.85	8.21	Ok
176	95-101% of mass 174	96.28	100.81	Ok
177	5-9% of mass 176	7.00	7.27	Ok

Injection Date: 08/11/95
Injection Time: 11:04
Data File: >C9751
Scan: 183 +184 → (85 - 138

8/22/95
@C9751





5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: UNKNOWN

Lab File ID: >I4328 BFB Injection Date: 08/07/95

Instrument ID: IMS BFB Injection Time: 10:16

ION ABUNDANCE CRITERIA for I4328 are reported on a separate sheet.

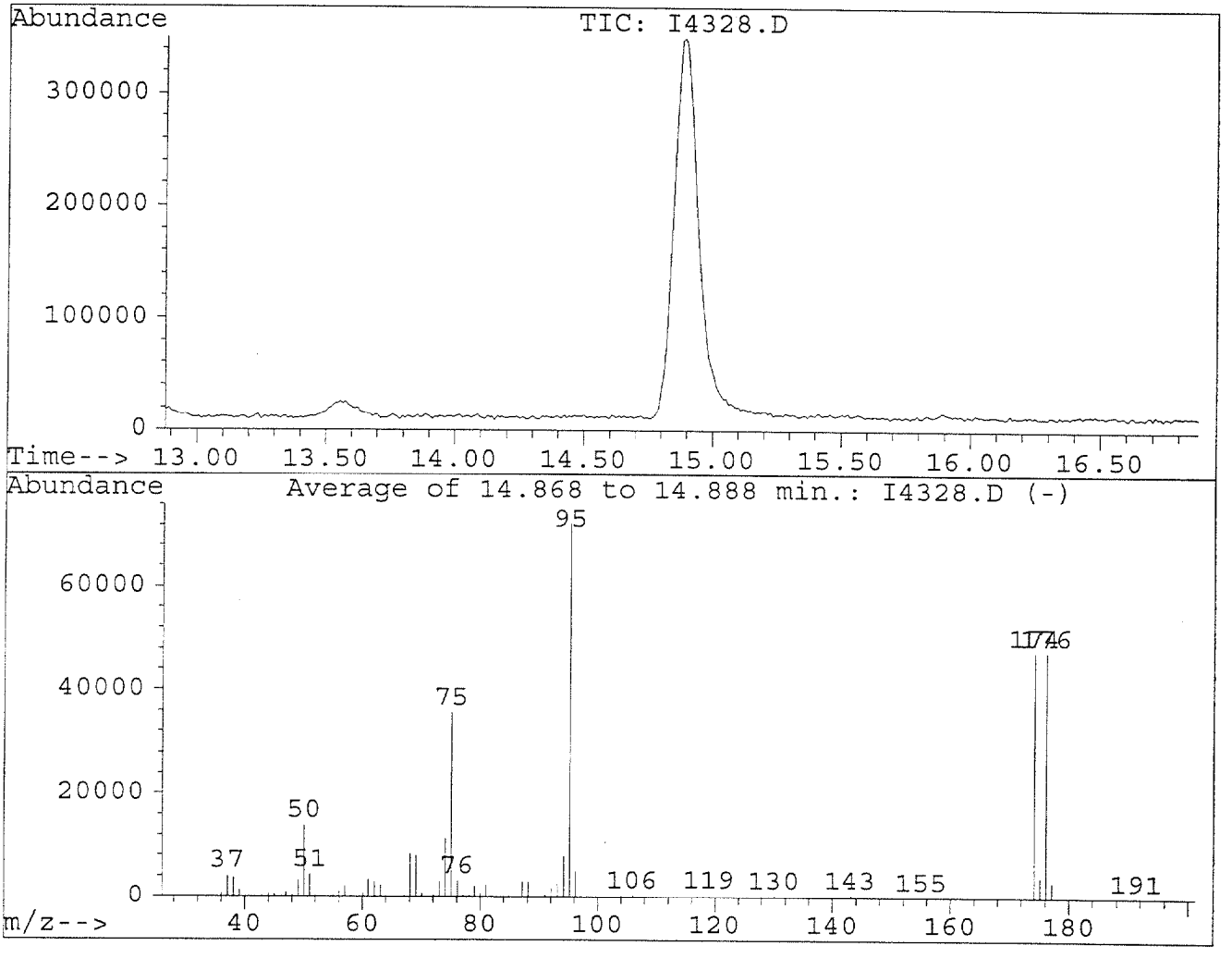
THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
VSTD200	VSTD200	I4331	08/07/95	13:03
VSTD100	VSTD100	I4332	08/07/95	13:40
VSTD050	VSTD050	I4333	08/07/95	14:18
VSTD020	VSTD020	I4334	08/07/95	14:56
VSTD010	VSTD010	I4335	08/07/95	15:34

GC/MS PERFORMANCE STANDARD -- 8/91 SOW
PACE, Inc
Bromofluorobenzene

Data File : C:\HPCHEM\1\DATA\I080795\I4328.D
Acq On : 7 Aug 95 10:16 am
Sample : BFB-DI 50NG/UL
Misc : IMS-HP, PACE

Vial: 2
Operator: LGM
Inst : 5970 - In
Multiplr: 1.00



Tune scans: 918 + 919 + 920 - 905

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.2	13876	PASS
75	95	30	66	49.2	35616	PASS
95	95	100	100	100.0	72429	PASS
96	95	5	9	7.0	5049	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	65.5	47459	PASS
175	174	4	9	8.2	3906	PASS
176	174	93	101	100.0	47437	PASS
177	176	5	9	6.4	3038	PASS

I4328.D MSIBFB91.M Tue Aug 15 11:39:57 1995 1

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: UNKNOWN

Lab File ID: >I4358 BFB Injection Date: 08/09/95

Instrument ID: IMS BFB Injection Time: 09:20

ION ABUNDANCE CRITERIA for I4358 are reported on a separate sheet.

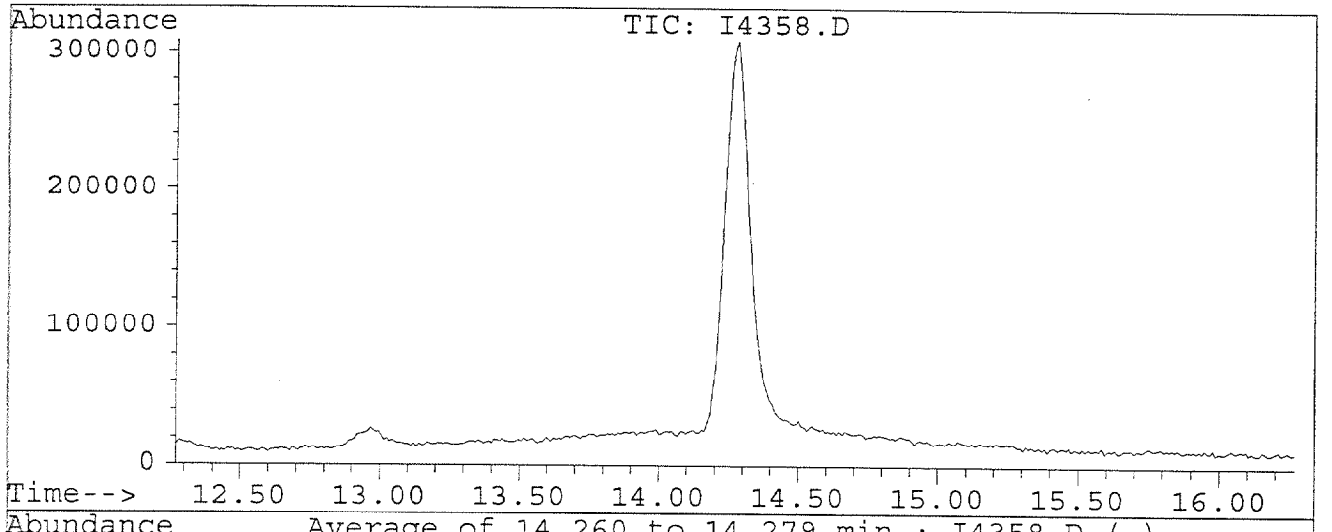
THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

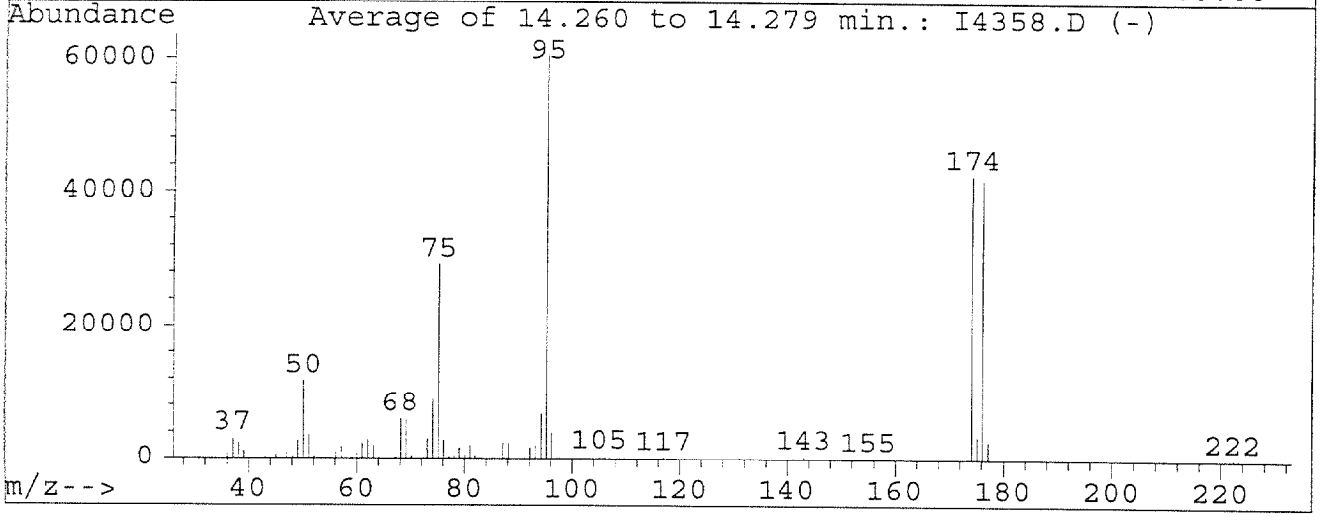
CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
VSTD050	VSTD050	I4359	08/09/95	09:50
BI080995A1	90185-055	\I4360	08/09/95	10:28
LCI080995A1	90185-055MS	\I4361	08/09/95	11:08
TCLP BLANK387	90185-065	\I4368	08/09/95	17:44
CLJ44-CU-012	44898-008	\I4370	08/09/95	19:06
CLJ44-CU-013	44898-009	\I4371	08/09/95	19:46
CLJ44-CC-025	44897-025	\I4372	08/09/95	20:26

GC/MS PERFORMANCE STANDARD -- 8/91 SOW
PACE, Inc
Bromofluorobenzene

Data File : C:\HPCHEM\1\DATA\I080995\I4358.D
Acq On : 9 Aug 95 9:20 am
Sample : BFB-DI 50NG/UL
Misc : IMS-HP, PACE

Vial: 1
Operator: LGM
Inst : 5970 - In
Multiplr: 1.00





Tune scans: 855 + 856 + 857 - 841

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	11611	PASS
75	95	30	60	48.1	29139	PASS
95	95	100	100	100.0	60597	PASS
96	95	5	9	6.4	3908	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	70.3	42592	PASS
175	174	5	9	8.0	3428	PASS
176	174	95	101	98.5	41960	PASS
177	176	5	9	6.3	2662	PASS

I4358.D MSIBFB88.M Mon Aug 14 11:03:53 1995 1

Initial Calibration Data
MSL Compounds

NR 6/26/95

Case No:

Instrument ID: CMS-HP

Contractor: RESRM

Calibration Date: ~~06/26/95~~ 6/23/95 NR 6/26/95 (35)

CC0623 / IC0623

Contract No: 68D20026

Minimum RF for SPCC is .30 Maximum % RSD for CCC is 30%

Laboratory ID:	>C9104	>C9103	>C9102	>C9101	>C9100					
Compound	RF 10.00	RF 20.00	RF 50.00	RF 100.00	RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
C010 CHLOROMETHANE	.44111	.47892	.43883	.44213	.42666	.214	.44553	4.414		**
C015 BROMOMETHANE	1.16219	1.20325	1.14649	1.21862	1.20167	.292	1.18644	2.575		
C020 VINYL CHLORIDE	.65743	.73678	.68291	.72002	.69786	.354	.69900	4.443	*	
C025 CHLOROETHANE	.37753	.44550	.40659	.44271	.44451	.435	.42337	7.177		
C030 METHYLENE CHLORIDE	1.28878	1.17373	1.01633	1.00839	.97652	.626	1.09275	12.231		
C035 ACETONE	.34619	.28698	.16263	.14432	.11643	.718	.21131	42.191	OK	
C040 CARBON DISULFIDE	2.60964	2.83092	2.69218	2.11613	2.72336	.832	2.59445	10.749		
C042 TRICHLOROFLUOROMETHANE	2.59125	2.79585	2.60479	2.64426	2.59431	.896	2.64609	3.263		
C045 1,1-DICHLOROETHENE	.89885	.94021	.91494	.92055	.90566	.980	.91605	1.734	*	
C058 TETRAHYDROFURAN	.02735	.02715	.05066	.05617	.05167	1.133	.04260	33.250	OK - non clp	
C050 1,1-DICHLOROETHANE	1.63841	1.75796	1.64674	1.66338	1.59399	1.128	1.66010	3.640		**
C053 1,2-DICHLOROETHENE(total)	1.03216	1.10286	1.06407	1.08872	1.05839	1.225	1.06924	2.573		(Conc=20.0,40.0,100.0,200
C060 CHLOROFORM	2.59660	2.72050	2.53178	2.55614	2.44103	1.278	2.56921	3.971	*	
C110 2-BUTANONE	.42552	.38522	.27731	.28076	.22415	1.405	.31859	26.227	OK	
C065 1,2-DICHLOROETHANE	1.54349	1.54943	1.53859	1.56006	1.45559	1.388	1.52943	2.749		
MTBE	1.81306	1.81258	1.70064	1.69466	1.51541	1.549	1.70727	7.132		
CS15 1,2-DICHLOROETHANE-d4	1.50326	1.39407	1.35789	1.36355	1.25332	1.375	1.37442	6.512		
C115 1,1,1-TRICHLOROETHANE	.69839	.72645	.69731	.69466	.69962	.639	.70329	1.859		
C120 CARBON TETRACHLORIDE	.72352	.74585	.71789	.70999	.72995	.660	.72544	1.870		
C125 VINYL ACETATE	.49945	.43341	.42886	.41222	.38742	.681	.43227	9.636		
C130 BROMODICHLOROMETHANE	.84039	.80884	.79241	.77807	.79210	.682	.80236	2.977		
C140 1,2-DICHLOROPROPANE	.29110	.29789	.27865	.28285	.27668	.768	.28543	3.117	*	
C143 CIS-1,3-DICHLOROPROPENE	.48081	.47282	.46907	.47801	.47853	.780	.47585	1.006		
C150 TRICHLOROETHENE	.47278	.48281	.48008	.45509	.45917	.818	.46999	2.634		
C155 DIBROMOCHLOROMETHANE	.82091	.79930	.77186	.77017	.76601	.836	.78565	3.016		
C160 1,1,2-TRICHLOROETHANE	.35577	.34425	.32595	.32092	.29906	.849	.32919	6.655		
C165 BENZENE	.74143	.73148	.70580	.70061	.68233	.854	.71233	3.362		
C172 TRANS-1,3-DICHLOROPROPENE	.45094	.44416	.43799	.44579	.44169	.853	.44411	1.085		
C176 2-CHLOROETHYLVINYLETHER	.11279	.11512	.11643	.12513	.12206	.920	.11831	4.325		
C180 BROMOFORM	.67840	.67970	.66705	.62931	.62601	.987	.65609	4.031		**

RF - Response Factor (Subscript is amount in ug/L)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
NSL Compounds

Case No:

Instrument ID: CMS-HP

Contractor: RESAN

Calibration Date: ~~06/26/95~~ 6/23/95

CC0623 / IC0623

Contract No: 68D20026

Minimum $\overline{RF}$ for SPCC is .30 Maximum % RSD for CCC is 30%

Compound	Laboratory ID: >C9104 RF 10.00	>C9103 RF 20.00	>C9102 RF 50.00	>C9101 RF 100.00	>C9100 RF 200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC	
CS05 TOLUENE-d8	1.03191	1.01040	.96869	.98472	.94411	.950	.98797	3.484			
C205 4-METHYL-2-PENTANONE	.31566	.27172	.23076	.23245	.20627	.814	.25137	17.068			
C210 2-HEXANONE	.19333	.19267	.16894	.15660	.13748	.884	.16980	14.111			
C220 TETRACHLOROETHENE	.55657	.60396	.56390	.57770	.56904	.895	.57423	3.189			
C225 1,1,2,2-TETRACHLOROETHANE	.61589	.59586	.56297	.57818	.54269	.883	.57912	4.900		**	✓
C230 TOLUENE	1.09937	1.12361	1.08256	1.09458	1.06627	.959	1.09328	1.942	*		✓
C235 CHLOROBENZENE	.95413	.99569	.94105	.92963	.92169	1.005	.94844	3.069		**	✓
C240 ETHYLBENZENE	.43746	.44906	.42847	.44287	.42954	1.088	.43748	2.004	*		✓
C245 STYRENE	.95027	.94350	.88876	.89022	.86434	1.207	.90742	4.137			
C251 XYLENE	.54129	.54229	.52494	.50758	.49606	1.216	.52243	3.914			
C250 XYLENE (total)	.55102	.55236	.52631	.51593	.50162	1.241	.52945	4.178			(Conc=20.0,40.0,100.0,200
CS10 BROMOFLUOROBENZENE	1.04312	.93476	.89359	.88607	.83735	1.164	.91898	8.438			

RF - Response Factor (Subscript is amount in ug/L)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 08/02/95

Contractor: RESAN Time: 14:44

Contract No: 68D20026 Laboratory ID: >C9615

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

IC0802

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C010 CHLOROMETHANE	.44553	.44616	.14		**	
C015 BROMOMETHANE	1.18644	1.14957	3.11			
C020 VINYL CHLORIDE	.69900	.67429	3.54	*		
C025 CHLOROETHANE	.42337	.41308	2.43			
C030 METHYLENE CHLORIDE	1.09275	1.05906	3.08			
C035 ACETONE	.21131	.15900	24.75			
C040 CARBON DISULFIDE	2.59445	1.76328	32.04			
C042 TRICHLOROFLUOROMETHANE	2.64609	2.40456	9.13			
C045 1,1-DICHLOROETHENE	.91605	.88447	3.45	*		
C058 TETRAHYDROFURAN	.04260	.06473	51.95			
C050 1,1-DICHLOROETHANE	1.66010	1.58815	4.33		**	
C053 1,2-DICHLOROETHENE(total)	1.06924	1.01696	4.89			(Conc=100.00)
C060 CHLOROFORM	2.56921	2.50360	2.55	*		
C110 2-BUTANONE	.31859	.32585	2.28			
C065 1,2-DICHLOROETHANE	1.52943	1.54137	.78			
MTBE	1.70727	1.78390	4.49			(Conc=50.00)
CS15 1,2-DICHLOROETHANE-d4	1.37442	1.32841	3.35			
C115 1,1,1-TRICHLOROETHANE	.70329	.67345	4.24			
C120 CARBON TETRACHLORIDE	.72544	.68109	6.11			
C125 VINYL ACETATE	.43227	.44642	3.27			
C130 BROMODICHLOROMETHANE	.80236	.79677	.70			
C140 1,2-DICHLOROPROPANE	.28543	.28324	.77	*		
C143 CIS-1,3-DICHLOROPROPENE	.47585	.47325	.55			(Conc=50.00)
C150 TRICHLOROETHENE	.46999	.45095	4.05			
C155 DIBROMOCHLOROMETHANE	.78565	.77785	.99			
C160 1,1,2-TRICHLOROETHANE	.32919	.33203	.86			
C165 BENZENE	.71233	.73219	2.79			
C172 TRANS-1,3-DICHLOROPROPENE	.44411	.45184	1.74			(Conc=50.00)
C176 2-CHLOROETHYLVINYLETHER	.11831	.14620	23.58			
C180 BROMOFORM	.65609	.64687	1.41		**	
CS05 TOLUENE-d8	.98797	.94529	4.32			
C205 4-METHYL-2-PENTANONE	.25137	.28149	11.98			

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/02/95

Contractor: RESAN Time: 14:44

Contract No: 68D20026 Laboratory ID: >C9615

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C210 2-HEXANONE	.16980	.19773	16.45			
C220 TETRACHLOROETHENE	.57423	.55813	2.80			
C225 1,1,2,2-TETRACHLOROETHANE	.57912	.61457	6.12		**	
C230 TOLUENE	1.09328	1.06597	2.50	*		
C235 CHLOROBENZENE	.94844	.93993	.90		**	
C240 ETHYLBENZENE	.43748	.42913	1.91	*		
C245 STYRENE	.90742	.88543	2.42			
C251 XYLENE	.52243	.48973	6.26			
C250 XYLENE (total)	.52945	.51800	2.16			(Conc=100.00)
CS10 BROMOFLUOROBENZENE	.91898	.91832	.07			

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/04/95

Contractor: RESAN Time: 10:30

Contract No: 68D20026 Laboratory ID: >C9657

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

ICO 804

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C010 CHLOROMETHANE	.44553	.46917	5.31		**	
C015 BROMOMETHANE	1.18644	1.16968	1.41			
C020 VINYL CHLORIDE	.69900	.71866	2.81	*		
C025 CHLOROETHANE	.42337	.41925	.97			
C030 METHYLENE CHLORIDE	1.09275	1.08458	.75			
C035 ACETONE	.21131	.22565	6.79			
C040 CARBON DISULFIDE	2.59445	2.35235	9.33			
C042 TRICHLOROFLUOROMETHANE	2.64609	2.73762	3.46			
C045 1,1-DICHLOROETHENE	.91605	.86971	5.06	*		
C058 TETRAHYDROFURAN	.04260	.05205	22.18		OK	
C050 1,1-DICHLOROETHANE	1.66010	1.69608	2.17		**	
C053 1,2-DICHLOROETHENE(total)	1.06924	1.02492	4.14			(Conc=100.00)
C060 CHLOROFORM	2.56921	2.70129	5.14	*		
C110 2-BUTANONE	.31859	.33862	6.29			
C065 1,2-DICHLOROETHANE	1.52943	1.70069	11.20			
MTBE	1.70727	1.69838	.52			(Conc=50.00)
CS15 1,2-DICHLOROETHANE-d4	1.37442	1.48928	8.36			
C115 1,1,1-TRICHLOROETHANE	.70329	.76780	9.17			
C120 CARBON TETRACHLORIDE	.72544	.76025	4.80			
C125 VINYL ACETATE	.43227	.45080	4.29			
C130 BROMODICHLOROMETHANE	.80236	.86268	7.52			
C140 1,2-DICHLOROPROPANE	.28543	.28751	.73	*		
C143 CIS-1,3-DICHLOROPROPENE	.47585	.47706	.25			(Conc=50.00)
C150 TRICHLOROETHENE	.46999	.47332	.71			
C155 DIBROMOCHLOROMETHANE	.78565	.80829	2.88			
C160 1,1,2-TRICHLOROETHANE	.32919	.34279	4.13			
C165 BENZENE	.71233	.75412	5.87			
C172 TRANS-1,3-DICHLOROPROPENE	.44411	.46390	4.46			(Conc=50.00)
C176 2-CHLOROETHYLVINYLETHER	.11831	.11083	6.32			
C180 BROMOFORM	.65609	.64852	1.16		**	
CS05 TOLUENE-d8	.98797	.91312	7.58			
CZ05 4-METHYL-2-PENTANONE	.25137	.25554	1.66			

OKAY 91 CLP 624 + 8240 TW 8/4/95

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/04/95

Contractor: RESAN Time: 10:30

Contract No: 68D20026 Laboratory ID: >C9657

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C210 2-HEXANONE	.16980	.17792	4.78			
C220 TETRACHLOROETHENE	.57423	.54659	4.81			
C225 1,1,2,2-TETRACHLOROETHANE	.57912	.58137	.39		**	
C230 TOLUENE	1.09328	1.04743	4.19	*		
C235 CHLOROBENZENE	.94844	.92865	2.09		**	
C240 ETHYLBENZENE	.43748	.42903	1.93	*		
C245 STYRENE	.90742	.89976	.84			
C251 XYLENE	.52243	.52327	.16			
C250 XYLENE (total)	.52945	.53921	1.84			(Conc=100.00)
CS10 BROMOFLUOROBENZENE	.91898	.89932	2.14			

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/07/95

Contractor: RESAN Time: 12:56

Contract No: 68D20026 Laboratory ID:)C9679

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

IC0807

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C010 CHLOROMETHANE	.44553	.43399	2.59		**	✓
C015 BROMOMETHANE	1.18644	1.18402	.20			
C020 VINYL CHLORIDE	.69900	.71167	1.81	*		✓
C025 CHLOROETHANE	.42337	.44623	5.40			
C030 METHYLENE CHLORIDE	1.09275	1.10289	.93			
C035 ACETONE	.21131	.21728	2.82			
C040 CARBON DISULFIDE	2.59445	2.49851	3.70			
C042 TRICHLOROFLUOROMETHANE	2.64609	2.74796	3.85			
C045 1,1-DICHLOROETHENE	.91605	.90812	.87	*		✓
C058 TETRAHYDROFURAN	.04260	.05422	27.27			
C050 1,1-DICHLOROETHANE	1.66010	1.68330	1.40		**	✓
C053 1,2-DICHLOROETHENE(total)	1.06924	1.04972	1.83			(Conc=100.00)
C060 CHLOROFORM	2.56921	2.64101	2.79	*		✓
C110 2-BUTANONE	.31859	.26050	18.23			
C065 1,2-DICHLOROETHANE	1.52943	1.65650	8.31			
MTBE	1.70727	1.72519	1.05			(Conc=50.00)
CS15 1,2-DICHLOROETHANE-d4	1.37442	1.43530	4.43			
C115 1,1,1-TRICHLOROETHANE	.70329	.75369	7.17			
C120 CARBON TETRACHLORIDE	.72544	.77124	6.31			
C125 VINYL ACETATE	.43227	.45073	4.27			
C130 BROMODICHLOROMETHANE	.80236	.85402	6.44			
C140 1,2-DICHLOROPROPANE	.28543	.28763	.77	*		✓
C143 CIS-1,3-DICHLOROPROPENE	.47585	.48610	2.16			(Conc=50.00)
C150 TRICHLOROETHENE	.46999	.48430	3.05			
C155 DIBROMOCHLOROMETHANE	.78565	.81336	3.53			
C160 1,1,2-TRICHLOROETHANE	.32919	.33961	3.17			
C165 BENZENE	.71233	.73196	2.76			
C172 TRANS-1,3-DICHLOROPROPENE	.44411	.45821	3.17			(Conc=50.00)
C176 2-CHLOROETHYLVINYLETHER	.11831	.10769	8.98			
C180 BROMOFORM	.65609	.67590	3.02		**	✓
CS05 TOLUENE-d8	.98797	.89843	9.06			
C205 4-METHYL-2-PENTANONE	.25137	.24716	1.67			

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/07/95

Contractor: RESRM Time: 12:56

Contract No: 68020026 Laboratory ID: >C9679

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C210 2-HEXANONE	.16980	.15422	9.17			
C220 TETRACHLOROETHENE	.57423	.54635	4.86			
C225 1,1,2,2-TETRACHLOROETHANE	.57912	.54498	5.89		**	✓
C230 TOLUENE	1.09328	1.01995	6.71	*		✓
C235 CHLOROBENZENE	.94844	.91564	3.46		**	✓
C240 ETHYLBENZENE	.43748	.41236	5.74	*		✓
C245 STYRENE	.90742	.83395	8.10			
C251 XYLENE	.52243	.48582	7.01			
C250 XYLENE (total)	.52945	.50214	5.16			(Conc=100.00)
CS10 BROMOFLUOROBENZENE	.91898	.90142	1.91			

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

IC0808

Case No: _____ Calibration Date: 08/08/95

Contractor: RESAN Time: 13:43

Contract No: 68020026 Laboratory ID: >C9698

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C010 CHLOROMETHANE	.44553	.51414	15.40		**	✓
C015 BROMOMETHANE	1.18644	1.26414	6.55			
C020 VINYL CHLORIDE	.69900	.76706	9.74	*	✓	
C025 CHLOROETHANE	.42337	.46994	11.00			
C030 METHYLENE CHLORIDE	1.09275	1.02055	6.61			
C035 ACETONE	.21131	.37848	79.11			
C040 CARBON DISULFIDE	2.59445	2.45694	5.30			
C042 TRICHLOROFLUOROMETHANE	2.64609	2.72290	2.90			
C045 1,1-DICHLOROETHENE	.91605	.92712	1.21	*	✓	
C058 TETRAHYDROFURAN	.04260	.05004	17.46			
C050 1,1-DICHLOROETHANE	1.66010	1.72023	3.62		**	✓
C053 1,2-DICHLOROETHENE(total)	1.06924	1.06987	.06			(Conc=100.00
C060 CHLOROFORM	2.56921	2.64058	2.78	*	✓	
C110 2-BUTANONE	.31859	.47724	49.80			
C065 1,2-DICHLOROETHANE	1.52943	1.63747	7.06			
MTBE	1.70727	1.80989	6.01			(Conc=50.00)
CS15 1,2-DICHLOROETHANE-d4	1.37442	1.44407	5.07			
C115 1,1,1-TRICHLOROETHANE	.70329	.74345	5.71			
C120 CARBON TETRACHLORIDE	.72544	.74778	3.08			
C125 VINYL ACETATE	.43227	.45251	4.68			
C130 BROMODICHLOROMETHANE	.80236	.84618	5.46			
C140 1,2-DICHLOROPROPANE	.28543	.29726	4.14	*	✓	
C143 CIS-1,3-DICHLOROPROPENE	.47585	.48272	1.44			(Conc=50.00)
C150 TRICHLOROETHENE	.46999	.46855	.31			
C155 DIBROMOCHLOROMETHANE	.78565	.79441	1.11			
C160 1,1,2-TRICHLOROETHANE	.32919	.33867	2.88			
C165 BENZENE	.71233	.73801	3.60			
C172 TRANS-1,3-DICHLOROPROPENE	.44411	.45833	3.20			(Conc=50.00)
C176 2-CHLOROETHYLVINYLETHER	.11831	.11090	6.26			
C180 BROMOFORM	.65609	.64286	2.02		**	✓
CS05 TOLUENE-d8	.98797	.91330	7.56			
C205 4-METHYL-2-PENTANONE	.25137	.25247	.44			

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 08/08/95

Contractor: RESAN Time: 13:43

Contract No: 68020026 Laboratory ID: >C9698

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C210 2-HEXANONE	.16980	.22851	34.58			
C220 TETRACHLOROETHENE	.57423	.54017	5.93			
C225 1,1,2,2-TETRACHLOROETHANE	.57912	.55383	4.37		**	
C230 TOLUENE	1.09328	1.01630	7.04	*		
C235 CHLOROBENZENE	.94844	.91359	3.67		**	
C240 ETHYLBENZENE	.43748	.41658	4.78	*		
C245 STYRENE	.90742	.85013	6.31			
C251 XYLENE	.52243	.48685	6.81			
C250 XYLENE (total)	.52945	.49758	6.02			(Conc=100.00
CS10 BROMOFLUOROBENZENE	.91898	.90133	1.92			

RF - Response Factor from daily standard file at 50.00

IC0811

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 08/11/95

Contractor: RESAN Time: 12:30

Contract No: 68020026 Laboratory ID: >C9753

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C010 CHLOROMETHANE	.44553	.40595	8.88		**	
C015 BROMOMETHANE	1.18644	1.05038	11.47			
C020 VINYL CHLORIDE	.69900	.62797	10.16	*		
C025 CHLOROETHANE	.42337	.40296	4.82			
C030 METHYLENE CHLORIDE	1.09275	1.03589	5.20			
C035 ACETONE	.21131	.18478	12.55			
C040 CARBON DISULFIDE	2.59445	1.98810	23.37			
C042 TRICHLOROFLUOROMETHANE	2.64609	2.34800	11.27			
C045 1,1-DICHLOROETHENE	.91605	.83468	8.88	*		
C058 TETRAHYDROFURAN	.04260	.05557	30.44			
C050 1,1-DICHLOROETHANE	1.66010	1.58238	4.68		**	
C053 1,2-DICHLOROETHENE(total)	1.06924	.96048	10.17			(Conc=100.00)
C060 CHLOROFORM	2.56921	2.47631	3.62	*		
C110 2-BUTANONE	.31859	.32136	.87			
C065 1,2-DICHLOROETHANE	1.52943	1.50147	1.83			
MTBE	1.70727	1.72217	.87			(Conc=50.00)
CS15 1,2-DICHLOROETHANE-d4	1.37442	1.40992	2.58			
C115 1,1,1-TRICHLOROETHANE	.70329	.67527	3.98			
C120 CARBON TETRACHLORIDE	.72544	.66744	7.99			
C125 VINYL ACETATE	.43227	.41241	4.59			
C130 BROMODICHLOROMETHANE	.80236	.78938	1.62			
C140 1,2-DICHLOROPROPANE	.28543	.27813	2.56	*		
C143 CIS-1,3-DICHLOROPROPENE	.47585	.46550	2.18			(Conc=50.00)
C150 TRICHLOROETHENE	.46999	.45227	3.77			
C155 DIBROMOCHLOROMETHANE	.78565	.76045	3.21			
C160 1,1,2-TRICHLOROETHANE	.32919	.33397	1.45			
C165 BENZENE	.71233	.70035	1.68			
C172 TRANS-1,3-DICHLOROPROPENE	.44411	.42695	3.86			(Conc=50.00)
C176 2-CHLOROETHYLVINYLETHER	.11831	.10557	10.77			
C180 BROMOFORM	.65609	.60099	8.40		**	
CS05 TOLUENE-d8	.98797	.91624	7.26			
C205 4-METHYL-2-PENTANONE	.25137	.24988	.59			

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Chec

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 08/11/95

Contractor: RESAN Time: 12:30

Contract No: 68020026 Laboratory ID: >C9753

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C210 2-HEXANONE	.16980	.14451	14.90			
C220 TETRACHLOROETHENE	.57423	.50101	12.75			
C225 1,1,2,2-TETRACHLOROETHANE	.57912	.52914	8.63		**	
C230 TOLUENE	1.09328	.96321	11.90	*		
C235 CHLOROBENZENE	.94844	.84785	10.61		**	
C240 ETHYLBENZENE	.43748	.39812	9.00	*		
C245 STYRENE	.90742	.79508	12.38			
C251 XYLENE	.52243	.46171	11.62			
C250 XYLENE (total)	.52945	.46892	11.43			(Conc=100.00
CS10 BROMOFLUOROBENZENE	.91898	.90400	1.63			

Response Factor Report 5970 - In

Method : C:\HPCHEM\1\METHODS\WIC0807.M
Title : 624 5 POINT WATER CALIBRATION, INST. IMS-HP
Last Update : Fri Aug 11 09:45:26 1995
Response via : Initial Calibration

Calibration Files
200 =I4331.D 100 =I4332.D 50 =I4333.D
20 =I4334.D 10 =I4335.D

			Compound	200	100	50	20	10	Avg	%RSD
1)	I	CI01	Bromochlorometha	ISTD						
2)	T	C010	Chloromethane	0.771	0.770	0.790	0.805	0.799	0.7867	2.01
3)	TCP	C015	Bromomethane	1.148	1.196	1.219	1.213	1.204	1.1962	2.35
4)	TCP	C020	Vinyl Chloride	0.823	0.844	0.871	0.888	0.882	0.8616	3.19
5)	T	C025	Chloroethane	0.619	0.627	0.625	0.615	0.616	0.6202	0.87
6)	T	C030	Methylene Chlori	1.536	1.559	1.602	1.642	1.756	1.6189	5.37
7)	T		Freon-113	2.724	2.738	2.781	2.785	3.053	2.8161	4.79
8)	T	C035	Acetone	0.205	0.215	0.267	0.334	0.343	0.2728	23.68
9)	T	C040	Carbon Disulfide	3.534	3.441	3.363	3.120	2.960	3.2836	7.22
10)	T	C042	Trichlorofluorom	3.113	3.088	3.086	3.055	2.987	3.0657	1.59
11)	MCP	C045	1,1-Dichloroethe	2.219	2.229	2.223	2.160	2.144	2.1948	1.81
12)		C058	Tetrahydrofuran	0.075	0.079	0.078	0.078	0.078	0.0777	1.86
13)	TCP	C050	1,1-Dichloroetha	2.386	2.393	2.447	2.381	2.399	2.4014	1.10
14)	T	C054	1,2-Dichloroethe	2.093	2.082	2.091	2.051	2.018	2.0672	1.55
15)	T	C053	1,2-Dichloroethe	2.093	2.082	2.091	2.051	2.018	2.0672	1.55
16)	TCP	C060	Chloroform	3.223	3.275	3.246	3.201	3.177	3.2244	1.18
17)	T	C110	2-Butanone	0.303	0.308	0.337	0.390	0.335	0.3348	10.33
18)	T	C065	1,2-Dichloroetha	2.020	2.054	2.058	2.063	2.007	2.0403	1.23
19)	T		MTBE	2.728	2.831	2.875	2.882	2.799	2.8230	2.22
20)	S	CS15	1,2-Dichloroetha	1.599	1.639	1.582	1.657	1.669	1.6291	2.29
21)	I	CI10	1,4-Difluorobenz	ISTD						
22)	TCP	C115	1,1,1-Trichloroe	0.664	0.684	0.676	0.668	0.653	0.6691	1.75
23)	TCP	C120	Carbon Tetrachlo	0.606	0.612	0.596	0.568	0.549	0.5861	4.52
24)	T	C125	Vinyl Acetate	0.387	0.402	0.392	0.378	0.360	0.3837	4.11
25)	TCP	C130	Bromodichloromet	0.755	0.772	0.746	0.716	0.705	0.7388	3.74
26)	T	C140	1,2-Dichloroprop	0.307	0.321	0.318	0.319	0.320	0.3170	1.87
27)	TCP	C143	cis-1,3-Dichloro	0.480	0.485	0.468	0.449	0.441	0.4648	4.08
28)	MTC	C150	Trichloroethene	0.422	0.429	0.422	0.421	0.419	0.4226	0.87
29)	TCP	C155	Dibromochloromet	0.580	0.606	0.597	0.551	0.547	0.5761	4.64
30)	TCP	C160	1,1,2-Trichloroe	0.293	0.313	0.315	0.314	0.315	0.3098	3.14
31)	MCP	C165	Benzene	0.815	0.843	0.834	0.827	0.828	0.8297	1.25
32)	TCP	C172	trans-1,3-Dichlo	0.382	0.392	0.382	0.354	0.341	0.3702	5.86
33)	T	C176	2-Chloroethylvin	0.090	0.083	0.072	0.062	0.052	0.0720	21.49
34)	TCP	C180	Bromoform	0.436	0.447	0.427	0.395	0.349	0.4108	9.58
35)	I	CI20	Chlorobenzene-d5	ISTD						
36)	S	CS05	Toluene-d8	1.085	1.092	1.053	1.093	1.137	1.0920	2.75
37)	T	C205	4-Methyl-2-Penta	0.326	0.337	0.337	0.339	0.315	0.3309	3.07
38)	T	C210	2-Hexanone	0.155	0.169	0.177	0.195	0.180	0.1752	8.32
39)	TCP	C220	Tetrachloroethen	0.600	0.618	0.617	0.629	0.627	0.6182	1.85
40)	TCP	C225	1,1,2,2-Tetrachl	0.676	0.717	0.734	0.745	0.725	0.7193	3.65
41)	MCP	C230	Toluene	1.328	1.379	1.365	1.385	1.376	1.3663	1.67

(#) = Out of Range

Data File : c:\h
Acq On : 9 A
Sample : VSTI
Method : C
Title : 6
Last Update : F
Response via : M

Min. RRF :
Max. RRF Dev :

		Compound
1	I	CI01 Bromocl
2	T	C010 Chloro
3	TCP	C015 Bromome
4	TCP	C020 Vinyl (
5	T	C025 Chloroe
6	T	C030 Methyle
7	T	Freon-113
8	T	C035 Acetone
9	T	C040 Carbon
10	T	C042 Trichlc
11	MCP	C045 1,1-Dic
12		C058 Tetrahy
13	TCP	C050 1,1-Dic
14	T	C054 1,2-Dic
15	T	C053 1,2-Dic
16	TCP	C060 Chlorof
17	T	C110 2-Butan
18	T	C065 1,2-Dic
19	T	MTBE
20	S	CS15 1,2-Dic
21	I	CI10 1,4-Dif
22	TCP	C115 1,1,1-T
23	TCP	C120 Carbon
24	T	C125 Vinyl Ac
25	TCP	C130 Bromodic
26	T	C140 1,2-Dich
27	TCP	C143 cis-1,3-
28	MTC	C150 Trichlor
29	TCP	C155 Dibromoc
30	TCP	C160 1,1,2-Tr
31	MCP	C165 Benzene
32	TCP	C172 trans-1,
33	T	C176 2-Chloro
34	TCP	C180 Bromofor
35	I	CI20 Chlorobe
36	S	CS05 Toluene-
37	T	C205 4-Methyl
38	T	C210 2-Hexano
39	TCP	C220 Tetrachl
40	TCP	C225 1,1,2,2-

(#) = Out of Range
i4359.d WIC0807.M

Method : C:\HPCHEM\1\METHODS\WIC0807.M
Title : 624 5 POINT WATER CALIBRATION, INST. I
Last Update : Fri Aug 11 09:45:26 1995
Response via : Initial Calibration

Calibration Files
200 =I4331.D 100 =I4332.D 50 =I433
20 =I4334.D 10 =I4335.D

		Compound	200	100	50	20	1
42)	MCP	C235 Chlorobenzene	0.989	1.022	1.026	1.041	1.
43)	TCP	C240 Ethylbenzene	1.608	1.616	1.642	1.619	1.
44)	TCP	C245 Styrene	0.909	0.926	0.931	0.866	0.
45)	TCP	C251 Xylene (o)	1.321	1.338	1.344	1.324	1.
46)	TCP	C250 Xylene (total)	1.274	1.308	1.306	1.311	1.
47)	S	CS10 Bromofluorobenze	0.885	0.890	0.851	0.859	0.

Evaluate Continuing Calibration Report

Data File : c:\hpchem\1\data\i080995\i4359.d Vial: 2
Acq On : 9 Aug 95 9:50 am Operator: LGM
Sample : VSTD050 5ML Inst : 5970 - In
Method : C:\HPCHEM\1\METHODS\WIC0807.M Multiplr: 1.00
Title : 624 5 POINT WATER CALIBRATION, INST. IMS-HP
Last Update : Fri Aug 11 09:45:26 1995
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 1% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 500%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
41	MCP	C230 Toluene	1.366	1.265	7.4	110	-0.33
42	MCP	C235 Chlorobenzene	1.025	0.962	6.2	111	-0.31
43	TCP	C240 Ethylbenzene	1.621	1.502	7.3	108	-0.31
44	TCP	C245 Styrene	0.896	0.859	4.1	109	-0.37
45	TCP	C251 Xylene (o)	1.324	1.231	7.0	108	-0.36
46	TCP	C250 Xylene (total)	1.300	1.204	7.4	109	-0.32
47	S	CS10 Bromofluorobenzene	0.866	0.843	2.7	117	-0.40

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID (Standard): >C9679 Date Analyzed: 08/07/95

Instrument ID: CMS Time Analyzed: 12:56

	IS1(BCM)		IS2(DFB)		IS3(CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	65497	7.25	217912	17.82	189386	22.61
UPPER LIMIT	130994	7.75	435824	18.32	378772	23.11
LOWER LIMIT	32749	6.75	108956	17.32	94693	22.11
CLIENT I.D.						
BC080795A1	62793	7.29	205585	17.82	180411	22.68
LCC080795A1	65185	7.28	215552	17.82	190946	22.63
CLJ44-CC-002-RB	61170	7.24	198564	17.82	181807	22.68
CLJ44-007-FB	59622	7.28	199052	17.81	180806	22.69
CLJ44-CU-006-RB	60595	7.30	198382	17.82	178954	22.67
CLJ44-CU-015-TB	60439	7.28	195178	17.81	181068	22.67
CLJ44-CU-014-RB	59080	7.26	194033	17.82	181072	22.67
CLJ44-CC-001	57514	7.19	186189	17.80	169419	22.63

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

pace INCORPORATED THE ASSURANCE OF QUALITY

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID (Standard): >C9698 Date Analyzed: 08/08/95

Instrument ID: CMS Time Analyzed: 13:43

	IS1(BCM)		IS2(DFB)		IS3(CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	65589	7.29	221843	17.83	195249	22.64
UPPER LIMIT	131178	7.79	443686	18.33	390498	23.14
LOWER LIMIT	32795	6.79	110922	17.33	97625	22.14
CLIENT I.D.						
BC080895A1	63164	7.31	215571	17.85	191040	22.68
LCC080895A1	62197	7.28	216340	17.84	191030	22.67
BV1118A	62159	7.21	201675	17.82	181713	22.67
LSV1118	60012	7.25	198282	17.83	181231	25.64
CLJ44-CC-001	54535	7.28	180191	17.82	167167	22.67
CLJ44-CU-003	59043	7.30	194632	17.83	182934	22.64
CLJ44-CU-004	56766	7.28	199524	17.84	181365	22.65
CLJ44-CU-005	61860	7.29	206588	17.80	188406	22.65
BC082095A1	59645	7.29	200897	17.85	185919	22.66

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: UNKNOWN

Lab File ID (Standard): >I4359 Date Analyzed: 08/09/95

Instrument ID: IMS Time Analyzed: 09:50

	IS1(BCM)		IS2(DFB)		IS3(CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1185983	15.03	5537506	17.24	4056545	25.45
UPPER LIMIT	2371966	15.53	11075012	17.74	8113090	25.95
LOWER LIMIT	592992	14.53	2768753	16.74	2028273	24.95
CLIENT I.D.						
BI080995A1	1130294	15.06	5109139	17.27	3856352	25.46
LCI080995A1	1042375	15.26	4747495	17.48	3525543	25.70
BI082095A1	1026454	15.19	4860958	17.37	3470498	25.56
CLJ44-CU-012	1103176	15.25	4944507	17.45	3635156	25.66
CLJ44-CU-013	1010199	15.24	4785352	17.45	3582681	25.68
CLJ44-CC-025	1075164	15.28	4759918	17.48	3606999	25.71

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

Voltage = 1625

6 x 5pt
160

PACE New England

061995TGN

GCMS/VOA Instr C MS-HP Analyst/Date TGN 6/23/95 STD Lot # V-6261A

FRN	Arcv	ID File	Tube	SAMPLE	AMT	COMMENTS	pH	A	R
>C9099	#	—	—	BFB-DI	50ng	m/e95 = 3512		y	
				scan: 172+173		OK '88 + '91			
				+174 - 153		V-6088			
				time: 1633					
>C9100		IC0623	1	VSTD200	5mls	IC0623/CC0623		y	
01			2	VSTD100	↓	OK '88 + '91		y	
02			3	VSTD050				y	
03			4	VSTD020				y	
04			5	VSTD010		m2=C7 m3=C13 m2=C36		y	
05		IC0423	6	BC062395A		VBLKCM		y	
06			7	LCC062395				y	
07			8	TCLPBlank381				y	
08			9	44,349-2		(R624TCLP)		y	✓
09			10	49,769-23		WP034		y	
10			1	-24		↓		y	
11			2	-25		re for DCBs		y	
12			3	-26	↓	↓		y	
13			/	BAKE					

TGN 6/23/95

CLP

VOLTAGE: 1725
MSCSAM
624/8240

15/55, V-6348

PACE New England

GCMS/VOA Instr C MS-HP Analyst/Date TN LCM 8/4/95 STD Lot # V-6350A 8/4/95 TGM

FRN	Arcv	ID File	Tube	SAMPLE	AMT	COMMENTS	pH	A	R
>C9655	$469	-	-	BFB - DI	50ng	MTH 1 M/E 95 = 39K		✓	✓
				TIME: 9:31		88 GOOD ALSO (180+181+182-161)			
				SCAN 180+181+182-161		'91 = $C9655			
>C9656		IC0823	1	VSTD 050	5ml	NOT USED			
57			2	VSTD 050	↓			✓	✓
58		IC0804	3	BC080495A1	↓	VBLKCU		✓	✓
>C9659			4	LCC080495A1	5ml	V-6349		✓	✓
60			5	44862-17	↓	CLJ44-008-TB LJM04	<2	✓	✓
61			6	BV1117B	100ME	(R8240MSMTBE)		✓	✓
62			7	44852-47	5ml	MW02A DUP (R91VOA) PRLOG	>2	✓	✓
63			8	44839-HB	↓	HOLDING BLANK ↓ PRINT XCALS3	<2	✓	
64			9	44842-2	100ME	(R8240)		✓	✓
65			10	-2MS				✓	
66			1	-2MD	↓	↓		✓	
67			2	44839-11	5ml	MW07A (R91VOA) PRLOG	<2	✓	✓
68			3	-12		MW07AF		✓	✓
69			4	44852-40		P865		✓	✓
70			5	-46		TB3		✓	✓
71			6	-48		MW05A		✓	✓
72			7	-49		MW04BR		✓	✓
73			8	-50		MW04A		✓	✓
74			9	-51		TB2	✓	✓	✓
75			10	44852-HB	↓	HOLDING BLANK ✓ ✓	✓	✓ 8/4	✓
76			1	44862-2	5ml	CLJ44-CC-002 RB LJM04			
77			2	-16	↓	CLJ44-007-FB			
78			3	BAKE		NOT RUN TN(3) 8/4/95			
>C9676				-BAKE-					

VOLTAGE : 1725
MSCSAM | MSCOIL
624/8240

PACE New England

GCMS/VOA

Instr C MS-HP Analyst/Date LGH/TGN 8/7/95 STD Lot # V-6350 8/1/95 TGN

FRN	Arcv	ID File	Tube	SAMPLE	AMT	COMMENTS	pH	A	R
C9677			\	BFB-DI 50ng/µl	1µl		\	N	N
78	DTF 3490		\	BFB-DI 50ng/µl	1µl	1/275 SCANS 91 INJ SCAN 88 / 37K 179+180+181-160 12:17 180		✓	✓
79		IC0623	2	VSTD050	5ml	C-13 (M3) TN 8/7/95		✓	✓
80		IC0807	3	BC080795A1	↓	VBLK CV		✓	✓
81			4	LCC080795A1	↓	cV-6349		✓	✓
82			5	44907-1	500µl	(R8240) SCREEN	>2		
83			6	44907-1	5ml	↓	>2	✓	✓
84			7	44857-1	100µl	(R8240 MS MOBE)		✓	✓
85			8	-2	↓	↓		✓	✓
86			9	-3				✓	✓
87			10	44858-1		(R8240 MS)		✓	✓
88			1	44862-2	5ml	CLJ44-CC-002-RB V-8/10 LJ H09 (R624)	>2	✓	✓
89			2	-16	↓	CLJ44-007-FB	↓	✓	✓
90			3	-23		CLJ44-CU-006-RB (R624TCLP)	↓	✓	✓
91			4	44898-4		CLJ44-CU-015-TB	<2	✓	✓
92			5	-10	↓	CLJ44-CU-014-RB	>2	✓	✓
93			6	44862-1	100µl	LR (R8240) CLJ44-CC-001		✓	✓
94			7	BLANK					
95			8	BAKE					
96			9			Not run TN 8/7/95			
			10			[illegible]			

0000094

CLP

VOLTAGE: 1725
MSCSAM
C24/8240

PACE New England

GCMS/VOA Instr C MS-HP Analyst/Date LGM TN 8/8/95 STD Lot # 8/4/95 TGN V-6350B

FRN	Arcv	ID File	Tube	SAMPLE	AMT	COMMENTS	pH	A	R
>C9696	$470	—	—	BFB DI	50ng	MTH 1 W/E 95 = 28075		✓	✓
				TIME: 12:43					
				SCAN: 180+181+182	-161	88 + 91			
>C9697		IC0623	1	VSTD050	5ml	NOT USED			
98			2	VSTD050	↓	C-13 M-S 7/8/95 KETONES ↑		✓	✓
99		IC0808	3	BC080895A1		VBLKCW		✓	✓
>C9700			4	LCC080895A1	5ml	V-6349		✓	✓
01			5	BV1118 A	100HE	(R8240)		✓	✓
02			6	LS1118	↓	↓		✓	✓
03			7	44869-1	5ml	MW12A PRL06 (R9100A)	<2	✓	✓
04			8	-2		MW01A		✓	✓
05			9	-3		MW01B		✓	✓
06			10	-4		MW14B		✓	✓
07			1	-5		P868		✓	✓
08			2	-6		TBS	↓	✓	✓
09			3	HB-44869	↓	HOLDING BLANK ↓	>2	✓	✓
10			4	44862-18	5ml	CLJ44-CC-001 (R624TCLP) LJW09		✓	✓
11			5	-20		CLJ44-CU-003		✓	✓
12			6	-21		CLJ44-CU-004		✓	✓
13			7	-22		CLJ44-CU-005		✓	✓
14			8	BLANK TCLP 386	↓	↓	↓	✓	✓
15			9	44913-3	50HE	(R8240) LR 24HR TAT OHK 12 HR WINDOW	\	✓	✓
16			10	44913-3	↓	↓ ↓ BACK UP ONLY	\	✓	N
17			1	44886-3	5ml	(R624 AMES)	<2	✓	✓
18			2	44887-3	↓	↓	<2	✓	✓
19			3	BAKE					

0000095

CLP

VOLTAGE = 1725
624/8240 + EDB
MSCSAM

PACE New England

GCMS/VOA Instr CMS-HP Analyst/Date TN 8/11/95 STD Lot # 8/11/95 V-6503

FRN	Arcv	ID File	Tube	SAMPLE	AMT	COMMENTS	pH	A	R
>C9749	B470	–	–	BFB - DI	50ng			N	
50		–	–	BFB - DI	50ng			N	
51		–	–	BFB - DI	50ng	MTU 1 MAE 91 = 79K		✓	
				TIME: 11:04		'91 +(88 · @C9751)			
				SCAN: 183 + 184	+185 -	138			
>C9752		☆ ICE623	1	VSTD 050 + EDB	5ml	MS USED		N	
53			2	VSTD 050 + EDB	↓	C-13 C-31 (M2) TN 8/11/95		✓	✓
54		IC0811	3	BC081195A1	↓	VBLK CZ		✓	✓
>C9755			4	LCC081195A1	5ml	V-6349		✓	
56			5	TCLP BLK 388	5ml	(R624TCLP)	>2	✓	✓
57			6	44913-9		CLJ44-CC-022 LJN10 V 8/11 *		✓	✓
58			7	44914-3		CLJ44-CU-016			
59			8	-7		CLJ44-CU-017 LIKO SIMR FILES			8/11/95
60			9	-10		CLJ44-CU-018-RB	↓		
61			10	-15		(R8240) CLJ44-CU-019-TB	<2		
62			1	44910-15MS		26169 (R9:VOA) 26122 V6349			
63			2	-15MSD	↓	↓ MD: C.26 ↓	↓		
64			3	BV1118 D	SOME	(R8240)			
65			4	44897-27	SOME	CLJ44-CU-025 LJN09LR Verbs 8/11/95			
66			5	-27 MS	↓	MS: C45 ↓			
67			6	BLANK	5ml				
68			7	44897-27MD	SOME	CLJ44-CU-025 LJN09			
69			8	BAKE					
ERR 70			9			NOT RUN			

☆ INCLUDES EDB + ACRYLONITRILE

IS/SS - V-6348   SS = V-6347
SPIKE - V-6349   Freon = V-6298

(624 / 8240)

PACE New England

GCMS/VOA   Instr I MS-HP   Analyst/Date LGM 8/7/95   STD Lot #

FRN	Arcv	ID File	Tube	SAMPLE	AMT	COMMENTS	pH	A	R
I4328		WSTBFB88	\	BFB-DI 50ng/µl	1µl	m/z95 72K SCANS (88-91) 918+919+920-905 INJ 10:16am	\	✓	
29		WICC063DF	1	VSTD050 + Freon	5mL			N	
30		WIC0807	3	VSTD200	5mL	DID NOT USE	\	✓	N
31		↓	4	VSTD200	↓	COMPLIANT 624/8240 / CLP	1 MI LGM	✓	✓
32			5	VSTD100		cis + TRANS 1,2 ENE RF's AVGD 8-11-95		✓	✓
33			6	VSTD050			1 MI LGM	✓	✓
34			7	VSTD020			1 MI LGM	✓	✓
35			8	VSTD010			2 MI LGM	✓	✓
36		↓	9	VSTD010	↓	DID NOT USE	\	✓	N
37		WC0807	10	BI080795A1	5mL			Y	✓
38		↓	11	LCI080795A1	↓			Y	✓
39			13	44876-4		(R624LW) (V 8/11)		Y	✓
40			14	-3	↓	↓ ↓		Y	✓
41		↓	15	-1	3.8mL	↓ ↓		Y	✓

LGM 8/8/95

8-11-95 PEL cis + trans 1,2 ENE RF averaged in continuing cal method WC08. PEL 8-7-95

WC0807 updated using VSTD050 (I4333) from 5-point.

PACE New England

GCMS/VOA Instr I MS-HP Analyst/Date PEL (LGM) 8-9-95 STD Lot # 081995TN

FRN	Arcv	ID File	Tube	SAMPLE	AMT	COMMENTS	pH	A	R
I 4358		MSBFB88	–	BFB-DI 50ng/µL	µL	scan 855+856+857-841 (188+91)		Y	
59		WIC0807	1	VSTD050 +EDB	5mL	V-6361		Y	
60		WC0809	2	BI080995A1	5mL	VBLKIB		Y	
61			3	LCI080995A1	5mL			Y	
62			4	44878-16	5mL	26128		Y	
63			5	44908-31	5mL	26193 (SDG 25906)		Y	
64			6	44909-13	5mL	26189 (SDG 26113)		Y	
65			7	-14	5mL	26171 ↓		Y	
66			8	BV1118B	100ME			Y	
67			9	44928-4	~~80ME~~ 100ME	(R8240) V-8/10		Y	Y
68			10	TCLPBLK 387	5mL			Y	
69			11	44936-1	5mL	(R624) V8/10		Y	Y
~~				~~44897-25~~					
70			12	44898-8	5mL	(R624TCLP) V 8/~~10~~ 11		Y	
71			13	-9	↓	↓ ↓		Y	
72			14	44897-25				Y	
73			15	BV1118A	100ME	CLEANOUT		N	
74			16	BV1118A	100ME			Y	
75			1	44903-1	↓	(R8240MS)		Y	Y

LGM 8/10/95

8-11-95 PEL: Cis + trans 1,2 ENE RF averaged in method WC0809. Cmpd lib not requested because neither cmpd found in samples.

Field Identification: CLJ44-CC-001 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	14	44862-001	08/04/95	BG1032A	8015(mod)/2
Total Diesel (ug/g)	920	37	44862-009	08/09/85		8015(mod),3350/2
Corrosivity (pH, units)	8.2		44862-009	08/04/95	345	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44862-009	08/04/95	288	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44862-009	08/07/95	288	7.3.3.2/2
Flash Point (degrees F)	>150	50	44862-009	08/07/95	315	1010/2
Oil and Grease by Gravimetry (ug/g)	1100	280	44862-026	08/09/95	BG1369	9071,503D/2,3

Field Identification: CLJ44-CC-002-RB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44862-002	08/04/95		8015(mod)/2
Total Diesel (ug/L)	110	110	44862-010	08/09/85		8015(mod),3350/2
Corrosivity (pH, units)	6.2		44862-032	08/04/95	345	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44862-032	08/04/95	288	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44862-032	08/07/95	288	7.3.3.2/2
Flash Point (degrees F)	>150	50	44862-032	08/04/95	314	1010/2

Field Identification: CLJ44-CU-003 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	13	44862-003	08/04/95	BG1032A	8015(mod)/2
Total Diesel (ug/g)	14	3.5	44862-011	08/05/95		8015(mod),3350/2
Corrosivity (pH, units)	8.3		44862-033	08/04/95	345	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44862-033	08/04/95	288	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44862-033	08/07/95	288	7.3.3.2/2
Flash Point (degrees F)	>150	50	44862-033	08/07/95	315	1010/2

Field Identification: CLJ44-CU-004 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	13	44862-004	08/04/95	BG1032A	8015(mod)/2
Total Diesel (ug/g)	100	3.6	44862-012	08/05/95		8015(mod),3350/2
Corrosivity (pH, units)	8.2		44862-034	08/04/95	345	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44862-034	08/04/95	288	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44862-034	08/07/95	288	7.3.3.2/2
Flash Point (degrees F)	>150	50	44862-034	08/07/95	315	1010/2

Solid results expressed on a dry weight basis with the exception of releasables, which are expressed on a weight as received basis.

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Field Identification: CLJ44-CU-005 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	13	44862-005	08/04/95	BG1032A	8015(mod)/2
Total Diesel (ug/g)	57	3.6	44862-013	08/05/95		8015(mod),3350/2
Corrosivity (pH, units)	8.4		44862-035	08/04/95	345	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44862-035	08/04/95	288	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44862-035	08/07/95	288	7.3.3.2/2
Flash Point (degrees F)	>150	50	44862-035	08/07/95	315	1010/2

Field Identification: CLJ44-CU-006-RB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44862-006	08/04/95		8015(mod)/2
Total Diesel (ug/L)	BDL	110	44862-014	08/09/95		8015(mod),3350/2
Corrosivity (pH, units)	6.1		44862-036	08/04/95	345	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44862-036	08/04/95	288	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44862-036	08/07/95	288	7.3.3.2/2
Flash Point (degrees F)	>150	50	44862-036	08/07/95	315	1010/2

Field Identification: CLJ44-007-FB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44862-007	08/04/95		8015(mod)/2
Total Diesel (ug/L)	BDL	110	44862-015	08/09/95		8015(mod),3350/2
Oil and Grease by Gravimetry (mg/L)	BDL	5.1	44862-028	08/09/95	BG1369	413.1,503A/1,3
Corrosivity (pH, units)	6.4		44862-030	08/04/95	345	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44862-030	08/04/95	288	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44862-030	08/07/95	288	7.3.3.2/2
Flash Point (degrees F)	>150	50	44862-030	08/07/95	315	1010/2

Field Identification: CLJ44-008-TB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44862-008	08/04/95		8015(mod)/2

Solid results expressed on a dry weight basis with the exception of releasables, which are expressed on a weight as received basis.

References: 1) 40 CFR Part 136, Friday, October 26, 1984
2) EPA SW 846, 3rd Edition
3) Standard Methods, 16th Edition

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Field Identification: CLJ44-CC-016 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	13	44897-001	08/09/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	320	3.7	44897-013	08/07/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	BDL	280	44897-013	08/10/95	BG1370	9071,503D/2,3

Field Identification: CLJ44-CC-017 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	13	44897-002	08/07/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	190	3.7	44897-014	08/07/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	1200	280	44897-014	08/10/95	BB1370	9071,503D/2,3

Field Identification: CLJ44-CC-018 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	480	64	44897-003	08/09/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	5200	360	44897-015	08/10/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	1900	280	44897-015	08/10/95	BG1370	9071,503D/2,3

Field Identification: CLJ44-CC-019 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	87	14	44897-004	08/09/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	1400	37	44897-016	08/08/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	850	290	44897-016	08/10/95	BB1370	9071,503D/2,3

Field Identification: CLJ44-CC-020 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	12	44897-005	08/07/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	870	35	44897-017	08/08/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	720	270	44897-017	08/10/95	BG1370	9071,503D/2,3

Results expressed on a dry weight basis.

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Field Identification: CLJ44-CC-021 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44897-006	08/07/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	1700	41	44897-018	08/08/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	1300	300	44897-018	08/10/95	BG1370	9071,503D/2,3

Field Identification: CLJ44-CC-022 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	15	44897-007	08/07/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	1000	40	44897-019	08/08/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	690	300	44897-019	08/10/95	BG1370	9071,503D/2,3

Field Identification: CLJ44-CC-023 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	380	49	44897-008	08/09/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	2100	39	44897-020	08/08/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	810	290	44897-020	08/10/95	BG1370	9071,503D/2,3

Field Identification: CLJ44-CC-024 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	950	74	44897-009	08/08/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	5300	390	44897-021	08/09/85		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	2000	290	44897-021	08/10/95	BG1370	9071,503D/2,3

Results expressed on a dry weight basis.

Field Identification: CLJ44-CC-025 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	960	77	44897-010	08/08/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	2100	42	44897-022	08/09/85		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	530	310	44897-022	08/10/95	BG1370	9071,503D/2,3
Corrosivity (pH, units)	7.5		44897-026	08/07/95	346	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44897-026	08/07/95	289	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44897-026	08/07/95	289	7.3.3.2/2
Flash Point (degrees F)	>150	50	44897-026	08/07/95	315	1010/2

Field Identification: CLJ44-CC-026 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	790	78	44897-011	08/08/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	2300	42	44897-023	08/09/85		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	1600	320	44897-023	08/10/95	BG1370	9071,503D/2,3

Field Identification: CLJ44-CC-027 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	330	37	44897-012	08/10/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	3100	40	44897-024	08/09/85		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	1200	310	44897-024	08/10/95	BG1370	9071,503D/2,3

Results expressed on a dry weight basis with the exception of releasables, which are expressed on a weight as received basis.

References: 1) 40 CFR Part 136, Friday, October 26, 1984
2) EPA SW 846, 3rd Edition
3) Standard Methods, 16th Edition

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Field Identification: CLJ44-CU-012 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	12	44898-001	08/11/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	85	3.5	44898-005	08/09/95		8015(mod),3350/2
Corrosivity (pH, units)	8.0		44898-008	08/08/95	347	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44898-008	08/08/95	290	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44898-008	08/08/95	290	7.3.3.2/2
Flash Point (degrees F)	>150	50	44898-008	08/08/95	316	1010/2

Field Identification: CLJ44-CU-013 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	13	44898-002	08/11/95	BG1032B	8015(mod)/2
Total Diesel (ug/g)	29	3.6	44898-006	08/09/95		8015(mod),3350/2
Corrosivity (pH, units)	8.1		44898-009	08/08/95	347	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44898-009	08/08/95	290	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44898-009	08/08/95	290	7.3.3.2/2
Flash Point (degrees F)	>150	50	44898-009	08/08/95	316	1010/2

Field Identification: CLJ44-CU-014-RB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44898-003	08/10/95		8015(mod)/2
Total Diesel (ug/L)	BDL	100	44898-007	08/10/95		8015(mod),3350/2
Corrosivity (pH, units)	6.1		44898-013	08/08/95	347	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44898-013	08/08/95	290	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44898-013	08/08/95	290	7.3.3.2/2
Flash Point (degrees F)	>150	50	44898-013	08/08/95	316	1010/2

Field Identification: CLJ44-CU-015-TB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44898-004	08/10/95		8015(mod)/2

Solid results expressed on a dry weight basis with the exception of releasables, which are expressed on a weight as received basis

References: 2) EPA SW 846, 3rd Edition

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CF 8/16/95

PACE New England
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TOTAL GASOLINE

Date/Init	Smpl Ct.	SAMPLE #	Prep Wt. (g)	Pan #	Pan Wt. (g)	Wet Wt. + Pan (g)	Dry Wt. + Pan (g)	% Solid	COMMENTS
									4ml MeOH 1ml VG529 Surr MeOH Lot# 134280
CF 7/26/95		BG1031A 7/20/95	open	batch					
		BG1031C	4.0						
	510	44751-5	4.1	C6	1.3	9.7	8.7	0.88	
									1ml VG529 Surr / 1ml VG529 Spike / 1ml 134280 MeOH
CF 8/4/95		BG1032A	4.0						1ml 9
		LS1032	4.0						1ml 8
	51	44862-1	4.1	C7	done				9
		-1ms	4.0						1ml 8
		-1msD	4.4						1ml 8
	52	44862-3	4.0	C8	1.3	8.7	8.3	0.94	9
	53	4	4.1	C9	1.3	7.3	6.8	0.92	1
	54	5	4.1	C10	1.3	7.3	6.7	0.90	
	55	44837-1	4.4	C11	1.3	6.8	6.1	0.87	
8/7/95		BG1032B	4.0						
		44897-1	4.3						
	57	2	4.2						
	58	3	4.4						
	59	4	4.1						
	510	5	4.5						
	511	6	4.0						
	512	7	4.0						
	513	8	4.0						
	514	9	4.1						
	515	10	4.1						
	516	10ms	4.0						1ml 8
	517	10msD	4.0						1ml 8
	518	11	4.1						9
	519	12	4.2						
	520	44898-1	4.4						
	521	-2	4.3						
				CF 8/8/95					

QUALITY CONTROL DATA
TOTAL GASOLINE

MATRIX SPIKE DUPLICATE RECOVERY

Laboratory Number: 44897-10 MS/MSD
Sample Designation: CLJ44-CC-025 MS/MSD
Date Analyzed 08/08/95
Matrix: SOLID

			REPLICATE 1	
COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
GASOLINE	762	50	730	0

		REPLICATE 2		RELATIVE
COMPOUND	ug/g SPIKE	ug/g FOUND	% REC-OVERY	DIFF. %
GASOLINE	50	726	0	0

METHOD REFERENCE: METHOD 8015 (MODIFIED)

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QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: B-G1032B
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/07/95
Matrix: SOLID

COMPOUND	CONCENTRATION ug/g	DETECTION LIMIT ug/g
GASOLINE	BDL	12

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1032
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/04/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
GASOLINE	0	50	52	105

METHOD REFERENCE: METHOD 8015 (MODIFIED)

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QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: B-G1032A
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/04/95
Matrix: SOLID

COMPOUND	CONCENTRATION ug/g	DETECTION LIMIT ug/g
GASOLINE	BDL	12

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1032
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/04/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
GASOLINE	0	50	52	105

METHOD REFERENCE: METHOD 8015 (MODIFIED)

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cf 8/10/95

Calibration Curve for total gas

Titles

Test: total gas
Date: 06/02/95
X-Axis: concntration
Y-Axis: area

	Conc.	Abs.	Calc-Abs.
1	100	1288696	1410739
2	200	1864627	2097020
3	500	4143123	4155865
4	1000	7583574	7587273
5	2000	14248965	14450089

Regression Output:

Constant	724456.9
Std Err of Y Est	305148.5
R Squared	0.997547
No. of Observations	5
Degrees of Freedom	3
X Coefficient(s)	6862.816
Std Err of Coef.	196.4819

Slope = 6862.816
Y-Intercept = 724456.9

CF 8/16/95

Calibration Curve for bromofluorobenzene

Titles
Test: bromofluorobenzene
Date: 06/08/95
X-Axis: concentration
Y-Axis: area

	Conc.	Abs.	Calc-Abs.
1	10	71195.62	74025.06
2	20	120801.1	132385.2
3	50	320496.9	307345.5
4	100	605433.7	598976.2
5	200	1177057	1182297

Regression Output:

Constant	15694.93
Std Err of Y Est	11300.24
R Squared	0.999533
No. of Observations	5
Degrees of Freedom	3
X Coefficient(s)	5833.012
Std Err of Coef.	72.76106

Slope = 5833.012
Y-Intercept = 15694.93

Instrument GC07 TOTAL GAS Logbook # 1
Reviewed by Date Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
	G7CF117359	5µl	.	BG080295TBA			CF 08/02/95 TBA 70802 TBA50612
	60	5µl	2	VSTD1000			5µl V6145
	61		3	44831-1	200µl		
	62		4	2	640µl		
	63		5	3	500µl		
	64		6	4	625µl		
	65		7	5	560µl		
	66		8	6	625µl		
	67			BAKE			
	68			BAKE			
	69	5µl	1	BG080495TBA	5ml		CF 08/04/95
	70	5µl	2	VSTD 1000	5ml		5µl V6145
	71		3	BG1032A	100ml		
	72		4	44862-1			
	73		5	44862-3			
	74		6	44862-4			
	75		7	44862-5			
	76		8	44837-1			
	77		9	LS1032			
	78		10	44862-1MS			
	79		1	44862-1MSD			
	80	5µl	2	44862-2	5ml		
	81		3	44862-6			
	82		4	44862-7			
	83		5	44862-8			
	84			BAKE			
	G7CF117385	5µl	1	BG080795TBA	5ml		CF 8/7/95 TBA50612
	86	5µl	2	VSTD1000	5ml		5µl V6145
	87		3	44897-1 BG1032B 8/11/95	100ml		
	88		4	44897-2			✓
	89		5	3			re 1ml
	90		6	4			re 1ml
	91		7	5			✓
	92		8	6			✓
	93		9	7			✓
	94		10	8			re 1ml
	95		1	44897-1	D	-	sum

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Instrument GC07 | TOTAL GAS | Logbook # 1

Reviewed by_____ Date_____ | Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
							CF 08/02/95TGA G7C902
	G7CF117359	5µl	1	BG080295TGA			TLA50612
	60	5µl	2	VSTD1000			5µl V6145 CF 08/02/95
	61		3	44831-1	200µl		
	62		4	2	640µl		
	63		5	3	500µl		
	64		6	4	625µl		
	65		7	5	560µl		
	66		8	6	625µl		
	67			BAKE			
	68			BAKE			
	69	5µl	1	BG080495TGA	5ml		CF 08/04/95
	70	5µl	2	VSTD 1000	5ml		5µl V6145
	71		3	BG1032A	100ml		
	72		4	44862-1			
	73		5	44862-3			
	74		6	44862-4			
	75		7	44862-5			
	76		8	44837-1			
	77		9	LS1032			
	78		10	44862-1ms			
	79		1	44862-1msD			
	80	5µl	2	44862-2	5ml		
	81		3	44862-6			
	82		4	44862-7			
	83		5	44862-8			
	84			BAKE			
	G7CF117385	5µl	1	BG080795TGA	5ml		CF 8/7/95 TLA50612
	86	5µl	2	VSTD1000	5ml		5µl V6145
	87		3	~~44897-1~~ BG1032B CF 08/7/95	100ml		
	88		4	44897-2			✓
	89		5	3			re 1ml
	90		6	4			re 1ml
	91		7	5			✓
	92		8	6			✓
	93		9	7			✓
	94		10	8			re 1ml
	95		1	44897-1			sum

CF 8/14/95

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Instrument GC07 TOTAL GAS Logbook # 1

Reviewed by_____ Date___________ Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
	0708117396		2	44897-9	100mL		rc 1ml
	97		3	-10	↓		rc 1ml
	98		4	-11	↓		rc 1ml
	99		5	-12	↓		rc 1ml
	400		6	BAKE			
			7				0170808 CF 8/8/95
			8				[illegible]
			9				
			10				
	401		1	BG080895IBA			
	2		2	VSTD1000			
	3		3	44897-3	1ml		20mL
	4		4	-4	1ml		↓
	5		5	-8	1ml		↓
	6		6	44897-1	5ml	6	100mL
	7		7	-9	1ml	CF 8/8/95	20mL
	8		8	-10	1ml		↓
	9		9	-11	1ml		↓
	10		10	-12	1ml		↓
	11		1	44897-10MS	20mL		
	12		2	-10MSD	20mL		
	13		3	tube Blanks			BDL
	14		4	↓			BDL
	15		5	↓			BDL
	16		6	↓			BDL
	17		7	↓			>100
	18		8	↓			BDL
	19		9	↓			BDL
	20		10	↓			BDL
	21		1	↓			BDL
	22		2	↓			BDL
	23		3	↓			BDL
	24		4	↓			BDL
	25		5	↓			BDL
	26		6	↓			BDL
	27		7	↓			BDL

CF 8/16/95

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000049

Instrument GC07 TOTAL GAS Logbook # 1

Reviewed by_____ Date_____ Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
							CF 09/09/95 TGA TGAS0012
	G7CK117429		1	BG080995TGA	5ml		copy TGAS0808
	30		2	VSTD 1000	5ml		
	31		3	BG1033A	100mE		
	32		4	44913-1	10mE		Screens
	33		5	2	↓		↓
	34		6	3	↓		↓
	35		7	4	↓		↓
	36		8	LS1033	100mE		
	37		9	44913-1	50mE		
	38		10	2	100mE		
	39		1	3	20mE		
	40		2	4	100mE		
	41		3	BG1033B	100mE		
	42		4	44928-1	10mE		
	43		5	-2	10mE		
	44		6	-3	10mE		
	45		7	-4	10mE		
	46		8	-5	10mE		
	47		9	-6	~~10mE~~ 8ml	CF 9/11/95	
	48		10	44897-3	20mE		
	49		1	-4	100mE		
	50		2	-8	30mE		
	51		3	-1	100mE		
	52		4	TUBE Blanks			BDL
	53		5	↓			BDL
	54		6	↓			BDL
	55		7	↓			BDL
	56		8	↓			BDL
	57		9	↓			BDL
	58			BAKE			
				CF 9/10/95			

CF 9/11/95

PACE, Incorporated New England - New Hampshire Laboratory 0000050

Instrument GC07 TOTAL GAS Logbook # 2

Reviewed by ____ Date ____ Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
	CHK117459		1	BG08/0915-10A	5ml		
	60		2	VSTD1000	5ml		
	61		3	44928-1	35ml		
	62		4	2	100ml		
	63		5	3	100ml		
	64		6	4	100ml		
	65		7	5	100ml		
	67		8	44897-12	40ml		
	68		9	44898-3	5ml		
	69		10	4	5ml		
	70		1	44914-1	10ml		
	71		2	5	10ml		
	72		3	9	5ml		
	73		4	15	5ml		
	74		5	44881-3	5ml		
	75		6	4	5ml		
	76		7	5	5ml		
	77		8	LW08/0915-1A	5ml		
	78		9	TUBE blanks			
	79		10				
	80		1				
	81		2				
	82		3				
	83		4				
	84		5				
	85		6				
	86		7				
	87		8	BLANK			
						-	

0000115

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0000051

Instrument GC07 TOTAL GAS Logbook # 2

Reviewed by ____ Date ____ Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
	67CF117488	1		BG0811 9516A	5ml		
	89	2		VSTD 1000	5ml		
	90	3		BG1034A	100ml		
	91	4		44959-1			
	92	5		2			
	93	6		3			
	94	7		4			
	95	8		5			
	96	9		6			
		~~10~~		~~7~~			
		~~1~~		8			
		~~2~~		~~9~~			
	97	3		44878-1	100ml		
	98	4		44878-2	100ml		
	99	5		43939-10	100ml		
	100	6		-11	100ml		
	1	7		44881-3	800µl		
	2	8		4			
	3	9		5			
	4	10		44939-7	100ml		
	5	1		44939-8	100ml		
	6	2		44939-9	100ml		
	7	3		44914-1	100ml		
	8	4		5	100ml		
	9	5		BG1034	100ml		
	10	6		44951-1	20ml		
	11	7		-2	20ml		
	12	8		-3	20ml		
	13	9		44939-1ms	100ml		
	14	10		-1msD			
	~~15~~	1		LS1034			

0000116

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

MATRIX SPIKE RECOVERY

Laboratory Number: 44897-022 MS/MSD
Sample Designation: CLJ44-CC-025 MS/MSD
Date Analyzed 04/06/95
Matrix: SOLID

		REPLICATE 1			
	ug/g	ug/g	ug/g	%	
COMPOUND	SAMPLE	SPIKE	FOUND	RECOVERY	
DIESEL	2100	42.05	2568	1113	
		REPLICATE 2			REL
	ug/g	ug/g	ug/g	%	%
DIESEL	SAMPLE	SPIKE	FOUND	RECOVERY	DIFF
	2100	42.12	2752	1548	33

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8100 (MODIFIED)
AND ASTM D 3328-78

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QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1355
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/05/95
Matrix: SOLID

HYDROCARBON TYPE	CONCENTRATION ug/g	DETECTION LIMIT ug/g
DIESEL	BDL	3

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1355
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/05/95
Matrix: SOLID

COMPOUND	ug/g SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
DIESEL	0	33.46	32.78	98

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8100 (MODIFIED) AND ASTM D 3328-78

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QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1357
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/07/95
Matrix: SOLID

HYDROCARBON TYPE	CONCENTRATION ug/g	DETECTION LIMIT ug/g
DIESEL	BDL	3

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1357
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/07/95
Matrix: SOLID

COMPOUND	ug/g SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
DIESEL	0	33.46	34.50	103

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8100 (MODIFIED)
AND ASTM D 3328-78

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1358
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: SOLID

HYDROCARBON TYPE	CONCENTRATION ug/g	DETECTION LIMIT ug/g
DIESEL	BDL	3

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1358
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: SOLID

COMPOUND	ug/g SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
DIESEL	0	33.46	25.05	75

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8100 (MODIFIED) AND ASTM D 3328-78

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1356
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: WATER

HYDROCARBON TYPE	CONCENTRATION ug/L	DETECTION LIMIT ug/L
Total Diesel	BDL	100

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1356
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	% RECOVERY
DIESEL	0	1003.8	1072.0	107

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8100 (MODIFIED)
AND ASTM D 3328-78

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1361
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/10/95
Matrix: WATER

HYDROCARBON TYPE	CONCENTRATION ug/L	DETECTION LIMIT ug/L
Total Diesel	BDL	100

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1361
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/10/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	% RECOVERY
DIESEL	0	1003.8	1337.3	133

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8100 (MODIFIED) AND ASTM D 3328-78

pace INCORPORATED
THE ASSURANCE OF QUALITY

PACE, INC. NEW ENGLAND - NEW HAMPSHIRE LAB
Organic Extractions
AQUEOUS PREP LOG

PROTOCOL: EPA SW846 LOGBOOK NO: 2

SOP: PACE NE-NH SOP 5501 METHOD: CONT/3520 SEPF/3510

MATRIX: AQUEOUS TEST/LEVEL: PHC /

COUNT	DATE/ INIT	CONT #	BLANK/ SPIKE/ SAMPLE #	INIT VOL (L)	SURR AMT/ CONC	LCS MS/MSD	SPIKE # AMT/CONC	INTER VOL (mL)	ALIQUOT VOL (mL)	FINAL VOL (mL)
—	pm		B H 1361	1.0	E1364 0.5 ml	—	LSH1361 no QC	10.0	10.0	1.0
—	8-10-95		LS H1361	1.0	101 ppm	E1383 200 ul 5019 ppm	ms/msd assigned @ this point			
LS			44898-7	1.0		N/A				
16			44932-1	.720						
17			(E10) -2	.720						
18			-3	.720						
19			44914-11	1.0						

Quatro Raf ollutes

pm JEH ③ 8-10-95

COMMENTS: (E10) - May have double surrogated 44932-2 - pm 8-10-95

PACE INCORPORATED
Organics Extraction
SOLIDS PREP LOG

PROTOCOL: EPA SW846

SOP #: _____ METHOD: SONC/3550

MATRIX: SOLID TEST / LEVEL: PHC /

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	INIT WT (g)	SURR # AMT/CONC.	LCS MS/MSD	SPIKE # AMT/CONC.	NA2SO4 (g)	INTER VOL (ml)	ALIQUOT VOL (ml)	FINAL VOL (ml)
-	AC 8/4/95	BH1355	30.0	E1363 500ml	LSM1355	E1319 500g	60.0	10.0	10.0	1.0
-		LSM1355	30.0	101 ppm	-	ppm				
4		44857-[illegible]	30.40		44820-3 MS/MSD	200ml N/A				
5		44962-9	30.25			N/A				
6		-11	30.15							
7		-12	30.37							
8		-13	30.44 30.04							

Sent 8/4/95 MC

MC 8/4/95

MC 8/4/95

COMMENTS: Associated QC : 44820-3 MSI / MSDI

PACE, INC. NEW ENGLAND - NEW HAMPSHIRE LAB
Organic Extractions
AQUEOUS PREP LOG

PROTOCOL: EPA SW846

LOGBOOK NO: 2

SOP: PACE NE-NH SOP 5501

METHOD: CONT/3520 SEPF/3510

MATRIX: AQUEOUS

TEST/LEVEL: PHC /

COUNT	DATE/ INIT	CONT #	BLANK/ SPIKE/ SAMPLE #	INIT VOL (L)	SURR AMT/ CONC	LCS MS/MSD	SPIKE # AMT/CONC	INTER VOL (mL)	ALIQUOT VOL (mL)	FINAL VOL (mL)
	Am 8/4/95	N/A	BH 1356	1.0	VE1363 0.5ml		N/A	10.0	10.0	1.0
	↓	↓	LSH1356	1.0	101 ppm	LSH1356	VE1819 200ul 5019 ppm	↓	↓	↓
10	↓	↓	44862-10	.900	✓	↓	N/A	↓	↓	↓
11	↓	↓	-14	.920	✓	↓	↓	↓	↓	↓
12	↓	↓	-15	.910	✓	↓	↓	↓	↓	↓

Am Sud 8/3/95

Am 8/4/95

Am MC

COMMENTS:

PACE INCORPORATED
Organics Extraction
SOLIDS PREP LOG

PROTOCOL: EPA SW846

SOP #: QA 554T

METHOD: SONC/3550

MATRIX: SOLID

TEST / LEVEL: PHC /

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	INIT WT (g)	SURR # AMT/CONC.	LCS MS/MSD	SPIKE # AMT/CONC.	NA2SO4 (g)	INTER VOL (ml)	ALIQUOT VOL (ml)	FINAL VOL (ml)
—	mC 8/8/95	BH1358	30.0	✓ E1363 0.5ml	N/A	N/A	60.0	10.0	10.0	1.0
—		LSH1358	30.0	✓ 101ppm	LSH1358	E1319 200ml				
5		44898-5	30.08	✓	44877-1	5019ppm N/A				
6		-6	30.04	✓	MS/MSD	N/A				
7		44913-5	30.69	✓						
8		-6	30.65	✓						
9		-7	30.74	✓						
10		-8	30.23	✓						
11		44914-2	30.08							
12		-3	30.55							
13		-6	30.38							
14		-7	30.09							

Sent mC 8/8/95

mC 8/8/95

mC NA

COMMENTS: Ass. QC 44877-1 MS/MSD

PACE INCORPORATED
Organics Extraction
SOLIDS PREP LOG

PROTOCOL: EPA SW846
SOP #: QA5547
METHOD: SONC/3550
MATRIX: SOLID
TEST / LEVEL: PHC / LOW

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	INIT WT (g)	SURR # AMT/CONC.	LCS MS/MSD	SPIKE # AMT/CONC.	NA2SO4 (g)	INTER VOL (ml)	ALIQUOT VOL (ml)	FINAL VOL (ml)
-	MC 9/7/95	BH1357	30.0	E1363 500ml	N/A	E1319 2019	60.0	10.0	10.0	1.0
-		LSH1357	30.0	10 ppm	LSH1357	ppm				
9		44897-15	30.78	✓	44820-3 MS/MSD	200ml N/A				
10		-16	30.94	✓						
11		-17	30.62	✓						
12		-18	30.39	✓						
13		-19	30.56	✓						
14		-20	30.15	✓						
15		-21	30.62	✓						
16		-22	30.31	✓						
17		-23	30.23	✓						
18		-24	30.94	✓						
19		-13	30.70	✓						
20		-14	30.07	✓						
1		44877-1	30.89							
-		-1MSI	30.94			9/13/95 50ml				
-		-1MSDI	30.39			✓				
2		-2	30.15			N/A				
3		44898-1	30.66							
4		-2	30.48							
-		44897-22MS	30.06							
-		-22MSD	30.01							
				MC 9/7/95						
				MC ALK						

COMMENTS: Associated QC. 44820-3 MSI/MSDI

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC09/METHOD/DIESEL014.MTH
Method created: 08/09/95 10:13:23
Method updated: 08/09/95 10:39:51

Result files used for Calibration data:
Level 1 /DATA/GC09/RESULT/G9H18839.RES
Level 2 /DATA/GC09/RESULT/G9H18840.RES
Level 3 /DATA/GC09/RESULT/G9H18841.RES
Level 4 /DATA/GC09/RESULT/G9H18842.RES
Level 5 /DATA/GC09/RESULT/G9H18843.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	3.73	SOLVENT PEAK	.00000	0.00	**********	**********
2	20.45	DIESEL FUEL	.99999	-73944.00	7117.42	.18

$R = B0 + B1X + B2X^2$

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC12/METHOD/DIESEL006.MTH
Method created: 08/07/95 11:04:44
Method updated: 08/07/95 11:34:29

Result files used for Calibration data:
Level 1 /DATA/GC12/RESULT/G12H01296.RES
Level 2 /DATA/GC12/RESULT/G12H01297.RES
Level 3 /DATA/GC12/RESULT/G12H01298.RES
Level 4 /DATA/GC12/RESULT/G12H01299.RES
Level 5 /DATA/GC12/RESULT/G12H01300.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	3.72	SOLVENT PEAK	.00000	0.00	**********	**********
2	21.89	DIESEL FUEL	.99999	-22114.00	2942.53	.12

$$R = B_0 + B_1X + B_2X^2$$

PACE, Incorporated
Continuing Calibration Report Tue Aug 22, 1995 2:51:44 pm

/DATA/GC12/RESULT/G12H01312.RES
/DATA/GC12/METHOD/DIESEL006.MTH

Sample: DIESEL 2500 PPM P8722
Injected: Mon Aug 7, 1995 11:02:41 am

RetTime	Analyte	Found	Nominal	%D	Recovery
20.37	DIESEL FUEL	2436.15	2500.000	2.6	97.4

PACE, Incorporated
Continuing Calibration Report

Tue Aug 22, 1995 2:52:05 pm

/DATA/GC12/RESULT/G12H01324.RES
/DATA/GC12/METHOD/DIESEL006.MTH

Sample: DRO 2500PPM P8722
Injected: Tue Aug 8, 1995 3:56:04 am

RetTime	Analyte	Found	Nominal	%D	Recovery
20.33	DIESEL FUEL	2719.56	2500.000	8.8	108.8

PACE, Incorporated
Continuing Calibration Report

Tue Aug 22, 1995 2:52:23 pm

/DATA/GC12/RESULT/G12H01336.RES
/DATA/GC12/METHOD/DIESEL006.MTH

Sample: DRO 2500 PPM P8710
Injected: Tue Aug 8, 1995 8:34:46 pm

RetTime	Analyte	Found	Nominal	%D	Recovery
20.30	DIESEL FUEL	2372.85	2500.000	5.1	94.9

PACE, Incorporated
Continuing Calibration Report

Tue Aug 22, 1995 2:52:40 pm

/DATA/GC12/RESULT/G12H01347.RES
/DATA/GC12/METHOD/DIESEL006.MTH

Sample: DRO 2500PPM P8710
Injected: Wed Aug 9, 1995 8:33:55 am

RetTime	Analyte	Found	Nominal	%D	Recovery
18.67	DIESEL FUEL	2725.51	2500.000	9.0	109.0

PACE, Incorporated
Continuing Calibration Report Tue Aug 22, 1995 2:52:57 pm

/DATA/GC12/RESULT/G12H01359.RES
/DATA/GC12/METHOD/DIESEL006.MTH

Sample: DRO 2500PPM P8710
Injected: Thu Aug 10, 1995 12:20:09 am

RetTime	Analyte	Found	Nominal	%D	Recovery
18.67	DIESEL FUEL	2647.61	2500.000	5.9	105.9

PACE, INCORPORATED
GC Instrument Run Log

0000070

Circle one:
CLP/PHC/OPP/HERB/P-P

Reviewed by _____ Date _____

Date	init	result file	Sample	MI	V	Method	column	Sequence
8/3/95	MS	G9H18834	p8609 MSP/HYDR 2546/5159ppm	Y	Y	Calib 231	154	G90808
		835	p8578 #6 Fuel Oil 10000ppm					
		836	p8611 MODF 5061 ppm					
		837	p8429 102000 ppm C-range					
		838	118591 JP4/C18 501/24ppm					
		839	DRO 50ppm p8585			Diesel 014		
		840	DRO 500ppm p8584					
		841	DRO 2500ppm p8710					
		842	DRO 5000ppm p8582					
		843	DRO 10000ppm p8581					
		844	BLT1358 PHC-LS LJN10					
		845	LSLT1358 PHC-LS					
		846	44898-5 DRO-LS LJN09					
		847	-6 ↓ ↓					
		848	44913-5 LJN10		N	need Dilut		
		849	-6					
		850	-7					
		851	-8					
		852	44914-2	Y	Y			
		853	-3					
8/4/95	MS	G9H18854	p8722 Gas/Lube/JP8P	Y	Y*	Calib 231	154	G90809
		855	DRO 2500ppm p8710			Diesel 014		
		856	44913-5 DRO-LS LJN10 1:10					
		857	-6					
		858	-7					
		859	-8					
		860	44914-6					
		861	-7					
		862	44877-1 PHC-S Shell.					
		863	-1MS					
		864	-1MSD					

PACE, INCORPORATED
GC Instrument Run Log

Reviewed by ____________ Date _________

Circle one
CLP/(PHC)/OPP/HERB/P-

Date	init	result file	Sample	MI	√	Method	column	Sequence
8/4/95	HS	GT2H01289	P8722 Gas/Lube/2 FBP 5042/5104/5159	Y	Y	Calib008	131	GT20804
		290	P8610 Kerosene 5219 ppm					
		291	P8609 MSP/HYDR 2546/5159 ppm					
		292	P8578 #6 Fuel oil 10000 ppm					
		293	P8611 MODF 5061 ppm					
		294	P8429 10200 ppm Orange					
		295	P8591 JP4/C18 504/24 ppm					
		296	DRO 50 ppm P8585			Diesel006		
		297	DRO 500 ppm P8584					
		298	DRO 2500 ppm P8710					
		299	DRO 5000 ppm P8582					
		300	DRO 10000 ppm P8581					
		301	BH1354 DRO-S					
		302	LSH1354					
		303	44837-2 PACENJ					
		304	BH1355 PHC-LS			Calib008		
		305	LSH1355					
		306	44837-3 Shell					
		307	44862-9 LJN09			Diesel006		
		308	-11					
		309	-12					
		310	-13					
		311	Gas/Lube 5042/5104/5159 ppm P8722		N	Calib008		
		312	Diesel 2500 ppm P8710	Y	Y	Diesel006		
		313	Gas/Lube 5042/5104/5159 ppm P8722			Calib008	131	GT20807
8/7/95	HS	GT2H0314	BH1357 PHC-LS			Diesel006		
		315	LSH1357 PHC-LS					
		316	44897-13 DRO-LS LJN09					
		317	-14					
		318	-15 need dilu		N			
		319	-16					

PACE, INCORPORATED
GC Instrument Run Log

Reviewed by ____________ Date __________

Circle on CLP/PHO/OPP/HERB/P

Date	init	result file	Sample	MI	√	Method	column	Sequence
8/7/95	JJS	G12H01 320	44897-17 DRO-LS LJN09 Need Dilu	Y	N	Dieselomb	131	G120807
		321	-18					
		322	-19					
		323	-20					
		324	DRO 2500ppm P8722	Y	Y			
		325	Gas/lube 5042/5704/57ppm P8722					
		326	44897-21 DRO-LS LJN09	Y	N	Need Dilu		
		327	-22					
		328	-23					
		329	-24					
		330	44898-1	Y	Y			
		331	-2					
8/8/95	JJS	G12H01 332	44897-15 DRO-LS LJN09 1:10	Y	Y	Dieselomb	131	G120808
		333	-16					
		334	-17					
		335	-18					
		336	DRO 2500ppm P8710 98					
		337	44897-19 DRO-LS LJN09 1:10					
		338	-20					
		339	-21		N			
		340	-22		Y			
		341	-23					
		342	-24					
		343	44862-9 ~~22MS~~ (3)					
		344	44897-22MSD (3)					
		345	-22MSD					
		346	BH1356 DRO-W LJN09					
		347	DRO 2500ppm P8710 109					
		348	LSH1356 DRO-W LJN09					
		349	44862-10 DRO-W LJN09					
		350	-14					

Reviewed by _____ Date _____

GC Instrument Run Log

00000

CLP / PHC / O

Date	init	result file	Sample	MI	V	Method	column	S
8/9/95	HS	G12H0352	44862-15 DRO-W LJN09	Y	Y	Diesel06	13(	G
8/9/95	HS	G12H0353	44897-21 DRO-LS LJN09 1:100					
		G12H0353	BLH1360					G1
		354	LSLH1360					
		355	44928-8					
		356	-9					
		357	-10					
		358	-11					
		359	DRO 2500ppm P8710 10b	Y	Y			
		360	44928-13 DRO-LS LJN P10					
		361	BLH1359 DRO-W					
		362	LSLH1359					
		363	44881-1					
		364	-2-					
		365	44897-15 1:100					
8/10/95	HS	G12H0366	BLH1361 PHC-W					
		367	CSLH1361 ↓			Diesel06	131	G12081
		368	44898-7 DRO-W					
		369	44932-1 ↓					
		370	DRO 2500ppm P8710	Y	Y			
		371	44932-2 DRO-W					
		372	-3 ↓					
		373	44914-11 ↓					
		374	Diesel 2500 ppm P8710	Y	Y			
8/11/95	HS	G12H0375	BLH1364 PHC-S			Diesel06	131	G12081
		376	CSLH1364 ↓					
		377	44951-5 DRO-S 1:10					
		378	-6					
		379	-7					
		380	BLH1362 DRO-S					
		381	LSLH1362 ↓					

QUALITY CONTROL
Corrosivity
Method: 7.2 SW846 3rd Edition

QC Batch: 345 For: 44862
Matrix: Solid

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
LCS1	7.0	7.01

QUALITY CONTROL
Corrosivity
Method: 7.2 SW846 3rd Edition

QC Batch: 346
Matrix: Solid

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
LCS1	7.0	7.02

FIELD SAMPLE:

Precision

Lab No.	Replicate 1 Units	Replicate 2 Units
44897-26	7.51	7.48

QUALITY CONTROL
Corrosivity
Method: 7.2 SW846 3rd Edition

QC Batch: 347 For: 44898
Matrix: SOLID

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
LCS1	7.0	7.02

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL
Flashpoint
Method: D93-80, ASTM

QC Batch: 314 For: 44862
Matrix: Water

LABORATORY CONTROL SAMPLES:

	True Value Deg F	Observed Value Deg F
LCS1	81.0	81.00

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL
Flashpoint
Method: D93-80, ASTM

QC Batch: 315 For: 44862
Matrix: Solid

LABORATORY CONTROL SAMPLES:

	True Value Deg F	Observed Value Deg F
LCS1	81.0	82.00

FIELD SAMPLE:

Precision

Lab No.	Replicate 1 Deg F	Replicate 2 Deg F
44897-26	> 150.00	> 150.00

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL
Flashpoint
Method: D93-80, ASTM

QC Batch: 316 For: 44898
Matrix: SOIL

LABORATORY CONTROL SAMPLES:

	True Value Deg F	Observed Value Deg F
LCS1	81.0	81.00

pace INCORPORATED
THE ASSURANCE OF QUALITY

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Cyanide
Method: 7.3.3.2 SW846, 3rd Edition

QC Batch: 288 For: 44862
Matrix: SOIL

METHOD BLANK:

	Result ug/g
	< 1.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	40.0	6.7	16.8

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Cyanide
Method: 7.3.3.2 SW846, 3rd Edition

QC Batch: 289
Matrix: SOIL

METHOD BLANK:

	Result ug/g
	< 1.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	40.0	3.850	9.6

FIELD SAMPLE:

Precision

Lab No.	Replicate 1 ug/g	Replicate 2 ug/g	Average ug/g	Relative Percent Difference %
44897-26	< 1.00	< 1.00	NC	NC

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

NC = Not calculable due to result below detection limit.

pace INCORPORATED
THE ASSURANCE OF QUALITY

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Cyanide
Method: 7.3.3.2 SW846, 3rd Edition

QC Batch: 290 For: 44898
Matrix: SOLID

METHOD BLANK:

	Result ug/g
	< 1.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	40.0	6.200	15.5

FIELD SAMPLE:

Precision Lab No.	Replicate 1 ug/g	Replicate 2 ug/g	Average ug/g	Relative Percent Difference %
44829-1	< 1.00	< 1.00	NC	NC

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

NC = Not calculable due to result below detection limit.

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Sulfide
Method: 7.3.4.2 EPA SW846, 3rd Edition

QC Batch: 288 For: 44862
Matrix: SOLID

METHOD BLANK:

	Result ug/g
	< 50.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	1473.6	1515.5	102.8

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

pace INCORPORATED
THE ASSURANCE OF QUALITY

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Sulfide
Method: 7.3.4.2 EPA SW846, 3rd Edition

QC Batch: 289
Matrix: SOLID

METHOD BLANK:

	Result ug/g
	< 50.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	1453.4	1537.4	105.8

FIELD SAMPLE:

Lab No.	Replicate 1 ug/g	Replicate 2 ug/g	Average ug/g	Precision Relative Percent Difference %
44897-26	< 50.00	< 50.00	NC	NC

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

NC = Not calculable due to result below detection limit.

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PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Sulfide
Method: 7.3.4.2 EPA SW846, 3rd Edition

QC Batch: 290 For: 44898
Matrix: SOLID

METHOD BLANK:

	Result ug/g
	< 50.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	1403.0	1480.3	105.5

FIELD SAMPLE:

Precision

Lab No.	Replicate 1 ug/g	Replicate 2 ug/g	Average ug/g	Relative Percent Difference %
44829-1	< 50.00	< 50.00	NC	NC

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

NC = Not calculable due to result below detection limit.

QUALITY CONTROL
OIL & GREASE

BLANK DATA

Laboratory Number: B-G1370
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/10/95
Matrix: SOLID

PARAMETER	CONCENTRATION ug/g	DETECTION LIMIT ug/g
OIL & GREASE	BDL	250

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1370
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/10/95
Matrix: SOLID

PARAMETER	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
OIL & GREASE	0	1300	1000	77

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHOD 9071
STANDARD METHODS, 16TH EDITION, METHOD 503D

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QUALITY CONTROL
OIL & GREASE

BLANK DATA

Laboratory Number: B-G1368
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: SOLID

PARAMETER	CONCENTRATION ug/g	DETECTION LIMIT ug/g
OIL & GREASE	BDL	250

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1368
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/09/95
Matrix: SOLID

PARAMETER	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
OIL & GREASE	0	1275	1100	86

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHOD 9071
STANDARD METHODS, 16TH EDITION, METHOD 503D

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QUALITY CONTROL
OIL & GREASE

BLANK DATA

Laboratory Number: B-G1369
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: WATER

PARAMETER	CONCENTRATION mg/L	DETECTION LIMIT mg/L
OIL & GREASE	BDL	5

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1369
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: WATER

PARAMETER	mg/L IN SAMPLE	mg/L SPIKE	mg/L FOUND	%REC-OVERY
OIL & GREASE	0.0	25.5	23	92

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984, METHOD 413.1
STANDARD METHODS, 16TH EDITION, METHOD 503A

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INCORPORATED
Oil and Grease - Grav. Extractions

OIL & GREASE - EXTRACTIONS

BATCH: 1370
SOP #: QA5506
MATRIX: SOLID

LOG BOOK NO: 1
METHOD: 413.1
REVIEWED BY:

Date/ Init	Blank Count	PACE Sample# LCS, MS/MSD	Sample Wt. (g)	% Solid	Calc. Dry Wt.	Flask Used	Tare Wt. (g)	Gross Wt. (g)	Residue (mg)	Reported Value (ug/g)	Blank Pass?	Date Analyzed	Date Reported
dd/95	BG-1370	BG-1370	20.00	1.0	20.00	D5	8.1273	8.1295	2.2	110	yes	8/10/95	8/10/95
GA		LSC-1370	20.00	1.0	20.00	J2	2.1899	2.2117	21.8	1000		GA	GA
	1	44897-13	20.10	.8866	17.82	E7	7.3887	7.3935	4.8	270			
	2	14	20.11	.8868	17.87	E1	9.6938	9.7160	22.2	1200			
	3	15	20.13	.8905	17.93	F2	4.5371	4.5705	33.4	1900 1900			
	4	16	20.02	.8692	17.40	K4	9.4299	9.4547	14.8	850			
	5	17	20.27	.9707	18.87	K5	3.3568	3.3704	13.6	720			
	6	18	20.43	.8590	16.53	K2	2.5126	2.5345	21.9	1300			
	7	19	20.31	.8091	16.43	K1	1.7852	1.7965	11.3	690			
	8	20	20.03	.8481	16.99	K3	6.0625	6.0763	13.8	810			
	9	21	20.50	.8287	16.99	L4	5.3854	5.4202	34.8	2000 2200			
	10	22	20.38	.3936	16.17	L5	2.8811	2.8896	8.5	530			
		22MS	20.19	.3936	16.02	I3	4.5730	4.6289	35.9	2200			
		22MSD	20.64	.3936	16.38	L1	8.5798	8.6166	36.8	2200			
	11	23	20.30	.7801	15.84	I2	4.6931	4.7180	24.9	1600			
	12	24	20.19	.8014	16.18	O0	6.8634	6.8831	19.7	1200			
	13	44913-5	20.43	.8478	17.36	H1	7.3023	7.3148	12.5	720			
	14	6	20.35	.8577	17.45	H2	4.0299	4.0437	13.8	790			
	15	7	20.60	.8382	17.21	G5	9.6512	9.6735	22.3	1300			
↓	↓ 16	8	20.81	.8472	17.63	G1	2.5357	2.5476	11.9	670	↓	↓	↓

COMMENTS

MDL - 250 ug/g

Reported Value = Residue (1000) ug / Calc. Dry Wt. g

Spike number	Amount (ml)
OG317	5.0

Conc. - 5.2 mg/ml

Blank correct 0.0 mg/L Lot # BG-157

RECOVERIES:

Sample #	Conc. Added (ug/g)	Conc. Found (ug/g)	Sample Conc. (ug/g)	% Rec	RPD
LSC 1370	1300	1000	—	77%	
44897					
22MS	1622	2200	530	103%	3.9
22MSD	1587	2200	530	105%	

00001154

PACE INCORPORATED
Oil and Grease - Grav. Extractions

OIL & GREASE - EXTRACTIONS

BATCH: 1368
SOP #: QA5506
MATRIX: SOLID

LOG BOOK NO: 1
METHOD: 413.1
REVIEWED BY:

Date/ Init	Blank Count	PACE Sample# LCS, MS/MSD	Sample Wt. (g)	% Solid	Calc. Dry Wt.	Flask Used	Tare Wt. (g)	Gross Wt. (g)	Residue (mg)	Reported Value (ug/g)	Blank Pass?	Date Analyzed	Date Reported
8/3/95	BG1368	BG1368	20.00	1.0	20.00	J3	1.4267	1.4296	2.9	(BDL) 145	yes	8/9/95	8/9/95
		LSC1368	20.00	1.0	20.00	J4	4.4520	4.4746 4.4732	22.6 21.2	1100			
	1	44862-26	20.02g	.8962	17.89	F3	0.5579	0.5767	18.8	1100			
		26MS	20.10	.8962	17.89 17.83	E5	3.1107	3.1509	40.2	2300 2200			
		26MSD	20.02	.8962	17.82	B4	1.3936	1.4314	37.8	2100			

COMMENTS

MDL - 250 ug/g

Reported Value = Residue (1000) / Calc. Dry wt. ug/g

Spike number: 0G307
Amount (ml): 5.0
Conc. - 5.1 mg/ml

Blank correct 0.0 mg/l Lot# BJ159

RECOVERIES:

Sample #	Conc. Added (ug/g)	Conc. Found (ug/g)	Sample Conc. (ug/g)	% Rec	RPD
LSC1368	1275	1100	—	86%	
44862-					
26MS	~~1425~~ 1430/1430	~~2100~~ 2300 ~~2200~~	1100	84 ~~77~~	18% ~~9.5~~
26MSD	1430	2100	1100	70	

0000155

0000012

PACE INCORPORATED
Oil and Grease - Grav. Extractions

OIL & GREASE - EXTRACTIONS

LOG BOOK NO: 1

BATCH: 1369
SOP #: OA5504
MATRIX: WATER

METHOD: 413.1

REVIEWED BY: _____

Date/Init	Blank Count	PACE Sample # LCS, MS/MSD	Sample Vol. (L)	Flask Used	Tare Wt. (g)	Gross Wt. (g)	Residue (mg)	Reported Value (mg/L)	Blank Pass?	Date Analyzed	Date Reported
8/7/95	BG1369	BG 1369	1.0	A1	7.4975	7.4987	1.2	(BDL) 1.2	yes	8/9/95	8/9/95
GA		LSG 1369	1.0	A5	6.7331	6.7563	23.2	23		GA	GA
	13	44862-28	.990	B3	3.5091	3.5107	1.6	(BDL) 1.6			
	14	44880-3	.950	C1	2.7691	2.7726	3.5	(BDL) 3.7			
	15	44885-5	.900	C3	5.9729	5.9749	2.0	(BDL) 2.0			
	16	6	.860	C5	7.2560	7.2585	2.5	(BDL) 2.9			
	17	7	.860	C2	3.6033	3.6056	2.3	(BDL) 2.7			
E3	18	8	.930 .960	C4	4.4599	4.4627	2.8	(BDL) 3.0			
E3 check	19	44886-1	.935	D3	3.8896	3.9100	21.4	23 26			
		E3 GA									

COMMENTS

MDL - 5.0 mg/L

Reported Value = Residue (mg) / Sample vol. (L)

Spike number	Amount (ml)
OG-307	5.0

Conc. - 5.1 mg/L

Blank correct - 0.0 mg/L Lot # BJ154

RECOVERIES:

Sample #	Conc. Added (mg/L)	Conc. Found (mg/L)	Sample Conc. (mg/L)	% Rec	RPD
LSG 1369	25.5	23	—	92%	
E3					
GA					

00000156

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44862-018
Field Identification : CLJ44-CC-001
Extraction Date : 08/03/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.47. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.74, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 18.00 hrs

Final pH : 5.40

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

Laboratory number: 44862-018
Sample Designation: CLJ44-CC-001
Date Extracted: 08/04/95
Date Analyzed: 08/08/95
Matrix: TCLP EXTRACT

Instrument File Name: >F2299

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

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Laboratory number: 44862-019
Sample Designation: CLJ44-CC-002-RB
Date Extracted: 08/04/95
Date Analyzed: 08/08/95
Matrix: WATER

Instrument File Name: >F2300

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44862-020
Field Identification : CLJ44-CU-003
Extraction Date : 08/03/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.70. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.71, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 18.00 hrs

Final pH : 4.57

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

Laboratory number: 44862-020
Sample Designation: CLJ44-CU-003
Date Extracted: 08/04/95
Date Analyzed: 08/08/95
Matrix: TCLP EXTRACT

Instrument File Name: >F2301

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44862-021
Field Identification : CLJ44-CU-004
Extraction Date : 08/03/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.70. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.79, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 18.00 hrs

Final pH : 5.45

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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Laboratory number: 44862-021
Sample Designation: CLJ44-CU-004
Date Extracted: 08/04/95
Date Analyzed: 08/08/95
Matrix: TCLP EXTRACT

Instrument File Name: >F2302

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44862-022
Field Identification : CLJ44-CU-005
Extraction Date : 08/03/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.72. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.88, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 18.00 hrs

Final pH : 5.26

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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Laboratory number: 44862-022
Sample Designation: CLJ44-CU-005
Date Extracted: 08/04/95
Date Analyzed: 08/08/95
Matrix: TCLP EXTRACT

Instrument File Name: >F2303

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

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Laboratory number: 44862-024
Sample Designation: CLJ44-CU-006-RB
Date Extracted: 08/04/95
Date Analyzed: 08/08/95
Matrix: WATER

Instrument File Name: >F2304

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44897-025
Field Identification : CLJ44-CC-025
Extraction Date : 08/08/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 8.18. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.64, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17.00 hrs

Final pH : 4.98

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

Laboratory number: 44862-025
Sample Designation: CLJ44-007-FB
Date Extracted: 08/04/95
Date Analyzed: 08/08/95
Matrix: TCLP EXTRACT

Instrument File Name: >F2305

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44897-025
Field Identification : CLJ44-CC-025
Extraction Date : 08/08/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 8.18. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.69, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17:00 hrs

Final pH : 4.98

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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Laboratory number: 44897-025
Sample Designation: CLJ44-CC-025
Date Extracted: 08/09/95
Date Analyzed: 08/11/95
Matrix: TCLP EXTRACT

Instrument File Name: >H8776

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44898-008
Field Identification : CLJ44-CU-012
Extraction Date : 08/08/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 8.12. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.70, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17.00 hrs

Final pH : 5.12

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

pace INCORPORATED
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Laboratory number: 44898-008
Sample Designation: CLJ44-CU-012
Date Extracted: 08/09/95
Date Analyzed: 08/11/95
Matrix: TCLP EXTRACT

Instrument File Name: >H8777

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44898-009
Field Identification : CLJ44-CU-013
Extraction Date : 08/08/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 8.31. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.54, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17.00 hrs

Final pH : 5.69

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: 44898-009
Sample Designation: CLJ44-CU-013
Date Extracted: 08/09/95
Date Analyzed: 08/11/95
Matrix: TCLP EXTRACT

Instrument File Name: >H8778

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: 44898-011
Sample Designation: CLJ44-CU-014-RB
Date Extracted: 08/10/95
Date Analyzed: 08/11/95
Matrix: WATER

Instrument File Name: >H8781

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

WATER SEMIVOLATILES SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44862
Project: CAMP LEJEUNE/16487

CLIENT SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
CLJ44-CC-001	64	75	50	55	42	75		0
CLJ44-CC-002-RB	75	87	54	61	60	76		0
CLJ44-CU-003	68	76	57	59	56	79		0
CLJ44-CU-004	62	77	63	51	47	64		0
CLJ44-CU-005	67	78	56	57	47	73		0
CLJ44-CU-006-RB	76	86	31*	64	63	77		1
CLJ44-007-FB	73	84	35	54	58	78		0
B-A2284	63	65	34	55	52	46		0
B-A2290	81	83	31*	75	73	79		1
B-A2398	62	68	59	59	55	63		0
TCLP BLANK #273	74	85	43	56	57	78		0

		QC LIMITS
S1	(NBZ) = Nitrobenzene-d5	35 - 114
S2	(FBP) = 2-Fluorobiphenyl	43 - 116
S3	(TPH) = Terphenyl-d14	33 - 141
S4	(PHL) = Phenol-d5	10 - 110
S5	(2FP) = 2-Fluorophenol	21 - 110
S6	(TBP) = 2,4,6-Tribromophenol	10 - 123

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

pace INCORPORATED THE ASSURANCE OF QUALITY

WATER SEMIVOLATILES SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44897
Project: CAMP LEJEUNE/16487

CLIENT SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
CLJ44-CC-025	68	67	51	70	65	76		0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	35 - 114
S2 (FBP) = 2-Fluorobiphenyl	43 - 116
S3 (TPH) = Terphenyl-d14	33 - 141
S4 (PHL) = Phenol-d5	10 - 110
S5 (2FP) = 2-Fluorophenol	21 - 110
S6 (TBP) = 2,4,6-Tribromophenol	10 - 123

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

pace INCORPORATED THE ASSURANCE OF QUALITY

WATER SEMIVOLATILES SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44898
Project: CAMP LEJEUNE/16487

CLIENT SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
CLJ44-CU-012	63	63	49	61	56	68		0
CLJ44-CU-013	68	71	49	65	60	77		0
CLJ44-CU-014-RB	64	70	61	62	59	64		0

		QC LIMITS
S1	(NBZ) = Nitrobenzene-d5	35 - 114
S2	(FBP) = 2-Fluorobiphenyl	43 - 116
S3	(TPH) = Terphenyl-d14	33 - 141
S4	(PHL) = Phenol-d5	10 - 110
S5	(2FP) = 2-Fluorophenol	21 - 110
S6	(TBP) = 2,4,6-Tribromophenol	10 - 123

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: B-A2284
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/08/95
Matrix: WATER

ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)	ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
N-Nitrosodimethylamine	BDL	10			
Phenol	BDL	10	3-Nitroaniline	BDL	50
Aniline	BDL	10	Acenaphthene	BDL	10
Bis(2-chloroethyl)ether	BDL	10	2,4-Dintrophenol	BDL	50
2-Chlorophenol	BDL	10	4-Nitrophenol	BDL	50
1,3-Dichlorobenzene	BDL	10	Dibenzofuran	BDL	10
1,4-Dichlorobenzene	BDL	10	2,4-Dinitrotoluene	BDL	10
Benzylalcohol	BDL	10	Diethylphthalate	BDL	10
1,2-Dichlorobenzene	BDL	10	4-Chlorophenyl-phenylether	BDL	10
2-Methylphenol	BDL	10	Fluorene	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10	4-Nitroaniline	BDL	50
4-Methylphenol	BDL	10	4,6-Dinitro-2-methylphenol	BDL	50
N-Nitroso-di-N-propylamine	BDL	10	N-Nitrosodiphenylamine	BDL	10
Hexachloroethane	BDL	10	Azobenzene	BDL	10
Nitrobenzene	BDL	10	4-Bromophenyl-phenylether	BDL	10
Isophorone	BDL	10	Hexachlorobenzene	BDL	10
2-Nitrophenol	BDL	10	Pentachlorophenol	BDL	10
2,4-Dimethylphenol	BDL	10	Phenanthrene	BDL	10
Benzoic acid	BDL	50	Anthracene	BDL	10
Bis(2-chloroethoxy)methane	BDL	10	Di-N-butylphthalate	BDL	10
2,4-Dichlorophenol	BDL	10	Fluoranthene	BDL	10
1,2,4-Trichlorobenzene	BDL	10	Benzidine	BDL	50
Naphthalene	BDL	10	Pyrene	BDL	10
4-Chloroaniline	BDL	10	Butylbenzylpthalate	BDL	10
Hexachlorobutadiene	BDL	10	3,3'-Dichlorobenzidine	BDL	20
4-Chloro-3-methylphenol	BDL	10	Benzo(A)anthracene	BDL	10
2-Methylnaphthalene	BDL	10	Chrysene	BDL	10
Hexachlorocyclopentadiene	BDL	10	Bis(2-ethylhexyl)phthalate	BDL	10
2,4,6-Trichlorophenol	BDL	10	Di-N-octylphthalate	BDL	10
2,4,5-Trichlorophenol	BDL	50	Benzo(B)fluoranthene	BDL	10
2-Chloronaphthalene	BDL	10	Benzo(K)fluoranthene	BDL	10
2-Nitroaniline	BDL	50	Benzo(A)pyrene	BDL	10
Dimethylpthalate	BDL	10	Ideno(1,2,3,-CD)pyrene	BDL	10
Acenaphthylene	BDL	10	Dibenz(A,H)anthracene	BDL	10
2,6-Dinitrotoluene	BDL	10	Benzo(G,H,I)perylene	BDL	10

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8270

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: B-A2290
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/11/95
Matrix: WATER

ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
N-Nitrosodimethylamine	BDL	10
Phenol	BDL	10
Aniline	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzylalcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitroso-di-N-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	50
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	50
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	50
Dimethylpthalate	BDL	10
Acenaphthylene	BDL	10
2,6-Dinitrotoluene	BDL	10
3-Nitroaniline	BDL	50
Acenaphthene	BDL	10
2,4-Dintrophenol	BDL	50
4-Nitrophenol	BDL	50
Dibenzofuran	BDL	10
2,4-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10
4-Chlorophenyl-phenylether	BDL	10
Fluorene	BDL	10
4-Nitroaniline	BDL	50
4,6-Dinitro-2-methylphenol	BDL	50
N-Nitrosodiphenylamine	BDL	10
Azobenzene	BDL	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	BDL	10
Di-N-butylphthalate	BDL	10
Fluoranthene	BDL	10
Benzidine	BDL	50
Pyrene	BDL	10
Butylbenzylpthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	20
Benzo(A)anthracene	BDL	10
Chrysene	BDL	10
Bis(2-ethylhexyl)phthalate	BDL	10
Di-N-octylphthalate	BDL	10
Benzo(B)fluoranthene	BDL	10
Benzo(K)fluoranthene	BDL	10
Benzo(A)pyrene	BDL	10
Ideno(1,2,3,-CD)pyrene	BDL	10
Dibenz(A,H)anthracene	BDL	10
Benzo(G,H,I)perylene	BDL	10

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8270

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: B-A2398
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/11/95
Matrix: WATER

ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
N-Nitrosodimethylamine	BDL	10
Phenol	BDL	10
Aniline	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzylalcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitroso-di-N-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	50
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	50
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	50
Dimethylpthalate	BDL	10
Acenaphthylene	BDL	10
2,6-Dinitrotoluene	BDL	10

ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
3-Nitroaniline	BDL	50
Acenaphthene	BDL	10
2,4-Dintrophenol	BDL	50
4-Nitrophenol	BDL	50
Dibenzofuran	BDL	10
2,4-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10
4-Chlorophenyl-phenylether	BDL	10
Fluorene	BDL	10
4-Nitroaniline	BDL	50
4,6-Dinitro-2-methylphenol	BDL	50
N-Nitrosodiphenylamine	BDL	10
Azobenzene	BDL	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	BDL	10
Di-N-butylphthalate	BDL	10
Fluoranthene	BDL	10
Benzidine	BDL	50
Pyrene	BDL	10
Butylbenzylpthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	20
Benzo(A)anthracene	BDL	10
Chrysene	BDL	10
Bis(2-ethylhexyl)phthalate	BDL	10
Di-N-octylphthalate	BDL	10
Benzo(B)fluoranthene	BDL	10
Benzo(K)fluoranthene	BDL	10
Benzo(A)pyrene	BDL	10
Ideno(1,2,3,-CD)pyrene	BDL	10
Dibenz(A,H)anthracene	BDL	10
Benzo(G,H,I)perylene	BDL	10

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8270

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: TCLP BLANK #273
Sample Designation: TCLP BLANK
Date Analyzed: 07/25/95
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Detection Limit (ug/L)
Pyridine	BDL	5000	56
1,4-Dichlorobenzene	BDL	7500	56
2,4-Dinitrotoluene	BDL	130	56
2-Methylphenol	BDL	200000	56
3,4-Methylphenols	BDL	200000	56
Hexachloroethane	BDL	3000	56
Nitrobenzene	BDL	2000	56
Hexachlorobenzene	BDL	130	56
Pentachlorophenol	BDL	100000	56
Hexachlorobutadiene	BDL	500	56
2,4,6-Trichlorophenol	BDL	2000	56
2,4,5-Trichlorophenol	BDL	400000	56

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8270

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

MATRIX SPIKE RECOVERY
ACID/BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS

Laboratory Number: LS-A2284
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/08/9
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
PHENOL	0	200	84	42
2-CHLOROPHENOL	0	200	95	48
1,4-DICHLOROBENZENE	0	100	51	51
N-NITROSO-DI-N-PROPYLAMINE	0	100	63	63
1,2,4-TRICHLOROBENZENE	0	100	56	56
4-CHLORO-3-METHYLPHENOL	0	200	110	55
ACENAPHTHENE	0	100	65	65
4-NITROPHENOL	0	200	136	68
2,4-DINITROTOLUENE	0	100	85	85
PENTACHLOROPHENOL	0	200	131	65
PYRENE	0	100	66	66

METHOD REFERENCE: EPA SW 846,3rd Edition
METHOD 8270

pace INCORPORATED
THE ASSURANCE OF QUALITY

MATRIX SPIKE RECOVERY
ACID/BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS

Laboratory Number: LS-A2290
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/11/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
PHENOL	0	200	134	67
2-CHLOROPHENOL	0	200	139	69
1,4-DICHLOROBENZENE	0	100	56	56
N-NITROSO-DI-N-PROPYLAMINE	0	100	75	76
1,2,4-TRICHLOROBENZENE	0	100	66	66
4-CHLORO-3-METHYLPHENOL	0	200	156	78
ACENAPHTHENE	0	100	76	76
4-NITROPHENOL	0	200	155	78
2,4-DINITROTOLUENE	0	100	77	77
PENTACHLOROPHENOL	0	200	135	67
PYRENE	0	100	74	74

METHOD REFERENCE: EPA SW 846,3rd Edition
METHOD 8270

pace INCORPORATED
THE ASSURANCE OF QUALITY

REVIEWED BY
JSH 08/21/95

PACE INCORPORATED
Organics Extraction
AQUEOUS PREP LOG

PROTOCOL: EPA SW846

LOG BOOK NO: 3

SOP #: QA5514

TCIP

METHOD: CONT/3520 SEPF/3510

MATRIX: AQUEOUS

TEST / LEVEL: ABN /

(E3) Ann

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	LCS MS/MSD	SURR # AMT/CONC	INIT VOL (L)	SPIKE # AMT/CONC	INTER VOL (ml)	ALIQ VOL (ml)	FINAL VOL (mL)	* SPECIAL CLEAN-UP	QUATTRO DATE/INIT
	Ann 8/4/95	BA2284	1.0	E1362 0.5mL	LSA2284 1L	N/A	10.0	10.0	1.0	N/A	Ann
		LSA2284	1.0	80 fraction		E1316 1.0mL 100 fraction					8-9
18		44862-18	.200mL			N/A					
19		-20									
20		-21									
1		-22									
2		-19									
3		-24									
4		-25									

COMMENTS: * F = Florisil; G = GPC; S = Sulfur

REVIEWED BY
Jeb 01/21/

PACE INCORPORATED
Organics Extraction
AQUEOUS PREP LOG

PROTOCOL: EPA SW846

LOG BOOK NO: 3

SOP #: QA5514

METHOD: CONT/3520 SEPF/3510

MATRIX: AQUEOUS

TEST / LEVEL: ABN /

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	LCS ~~MS/MSD~~	SURR # AMT/CONC	INIT VOL (L)	SPIKE # AMT/CONC	INTER VOL (ml)	ALIQ VOL (ml)	FINAL VOL (mL)	* SPECIAL CLEAN-UP	QUATTRO DATE/INIT
	Ann 8/9/95	BA2290	1.0	VE1362 0.5mL	LSA2290	N/A	10.0	10.0	1.0	N/A	
		LSA2290	1.0	400 1200 Ann		VE1316 1.0mL 100 1200 Ann					
9		44853-1	.200mL	✓		N/A					
10		44897-25		✓							
11		44898-8		✓							
12		-9		✓							
~~13~~ (E10)		44853-2									

COMMENTS: * F = Florisil; G = , S = Sulfur

(E10) SAMPLE WAS NOT TUMBLED / % SOLIDS COMPLETED TO DATE. (Ann)

REVIEWED BY
JEA 08/21/95

PACE INCORPORATED
Organics Extraction
AQUEOUS PREP LOG

PROTOCOL: EPA SW846

LOG BOOK NO: 3

SOP #: QA5514

METHOD: CONT/3520 SEPF/3510

MATRIX: AQUEOUS

TCLP Neutral

TEST / LEVEL: ABN /

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	LCS MS/MSD	SURR # AMT/CONC	INIT VOL (L)	SPIKE # AMT/CONC	INTER VOL (ml)	ALIQ VOL (ml)	FINAL VOL (mL)	* SPECIAL CLEAN-UP	QUATTRO DATE/INIT
/	Amc 8/10/95	BA 2398	1.0	E1362 .500ml		N/A	10.0	10.0	1.0	N/A	JGW JEL
/	↓	LSA 2398	1.0	1000ppm 2000ppm	LSA2398	E1316 1.0ml					08/11/95
13		44913-9	200ml			N/A					
14		44914-3									
15		-7									
16		44853-2									
17		44898-11									
18	↓	44914-12	↓	↓	↓	↓	↓	↓	↓	↓	↓

3 pm 8-11-95

COMMENTS: * F = Florisil; G = GPC; S = Sulfur

MATRIX SPIKE RECOVERY
ACID/BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS

Laboratory Number: LS-A2398
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/11/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
PHENOL	0	200	112	56
2-CHLOROPHENOL	0	200	126	63
1,4-DICHLOROBENZENE	0	100	55	55
N-NITROSO-DI-N-PROPYLAMINE	0	100	64	64
1,2,4-TRICHLOROBENZENE	0	100	62	62
4-CHLORO-3-METHYLPHENOL	0	200	133	67
ACENAPHTHENE	0	100	67	67
4-NITROPHENOL	0	200	125	63
2,4-DINITROTOLUENE	0	100	66	66
PENTACHLOROPHENOL	0	200	130	65
PYRENE	0	100	59	59

METHOD REFERENCE: EPA SW 846,3rd Edition
METHOD 8270

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5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID: >F1700 DFTPP Injection Date: 04/19/95

Instrument ID: FMS DFTPP Injection Time: 13:16

ION ABUNDANCE CRITERIA for F1700 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

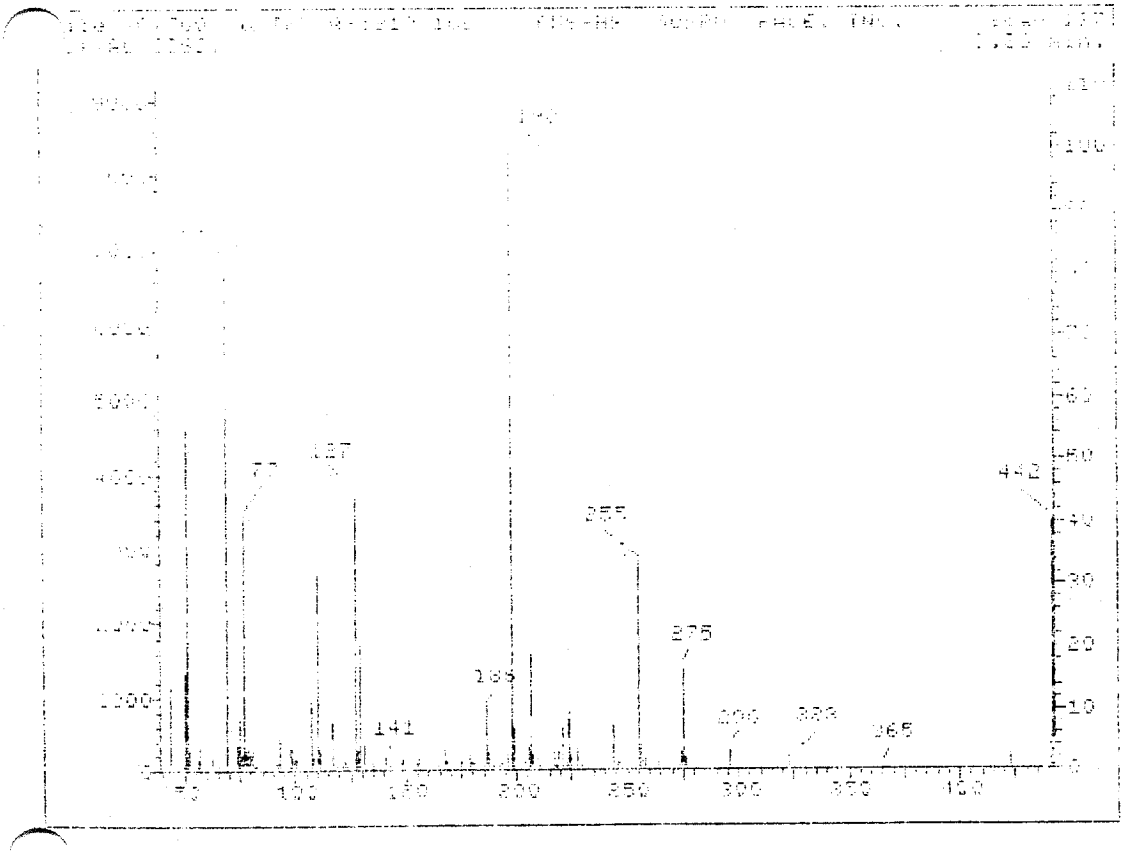
CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
ABNSTD160	ABNSTD160	F1702	04/19/95	15:15
ABNSTD120	ABNSTD120	F1703	04/19/95	16:02
ABNSTD080	ABNSTD080	F1704	04/19/95	16:48
ABNSTD050	ABNSTD050	F1705	04/19/95	17:35
ABNSTD020	ABNSTD020	F1706	04/19/95	18:21

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphosphine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	54.80	54.80	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	79.39	79.39	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	44.27	44.27	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.88	6.88	Ok
275	10-30% of mass 198	17.02	17.02	Ok
365	Greater than 1% of mass 198	1.08	1.08	Ok
441	0-100% of mass 443	5.49	75.37	Ok
442	Greater than 40% of mass 198	40.18	40.18	Ok
443	17-23% of mass 442	7.28	18.13	Ok

Injection Date: 04/19/95
Injection Time: 13:16
Data File: >F1700
Scan: 127



5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID: >F2174 DFTPP Injection Date: 07/25/95

Instrument ID: FMS DFTPP Injection Time: 08:33

ION ABUNDANCE CRITERIA for F2174 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

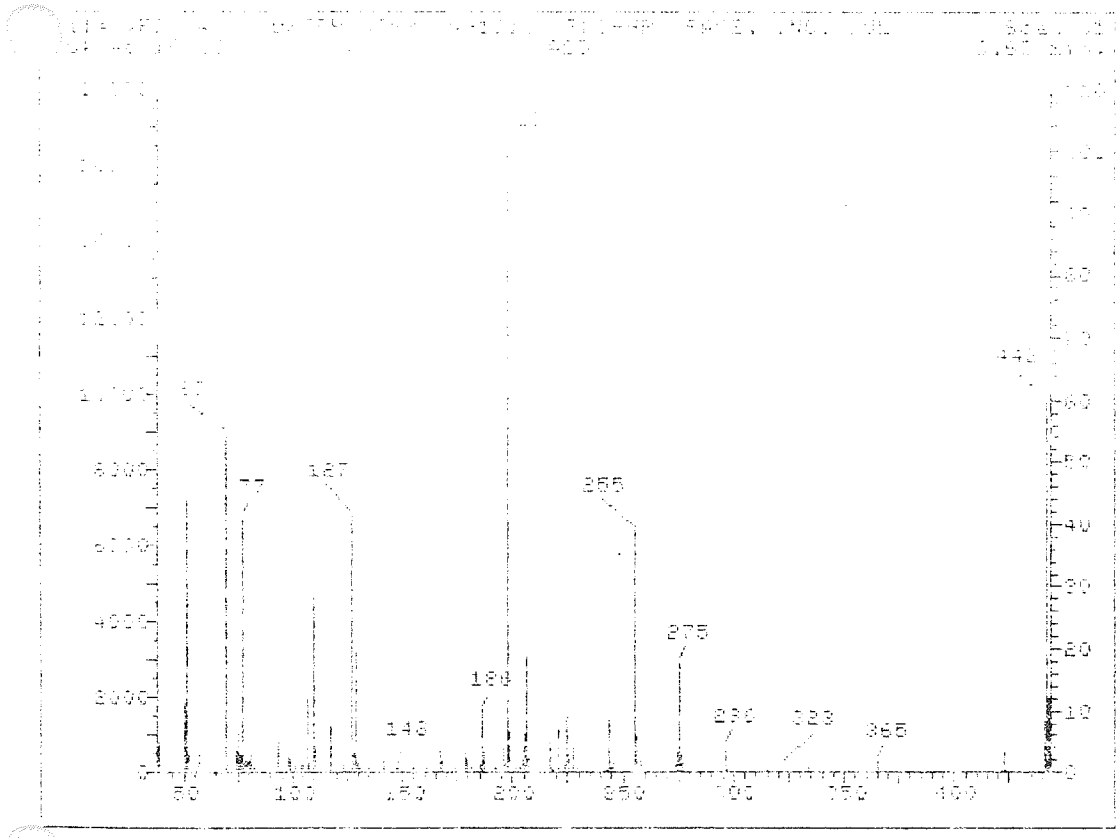
CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
ABNSTD050	ABNSTD050	F2175	07/25/95	08:49
90001-273	90001-273	F2178	07/25/95	10:42

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphosphine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	43.78	43.78	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	54.22	54.22	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	41.29	41.29	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.46	6.46	Ok
275	10-30% of mass 198	17.70	17.70	Ok
365	Greater than 1% of mass 198	1.87	1.87	Ok
441	0-100% of mass 443	8.32	70.27	Ok
442	Greater than 40% of mass 198	59.71	59.71	Ok
443	17-23% of mass 442	11.84	19.83	Ok

Injection Date: 07/25/95
Injection Time: 08:36
Data File: >F2174
Scan: 61



5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID: >F2292 DFTPP Injection Date: 08/08/95

Instrument ID: FMS DFTPP Injection Time: 08:21

ION ABUNDANCE CRITERIA for F2292 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

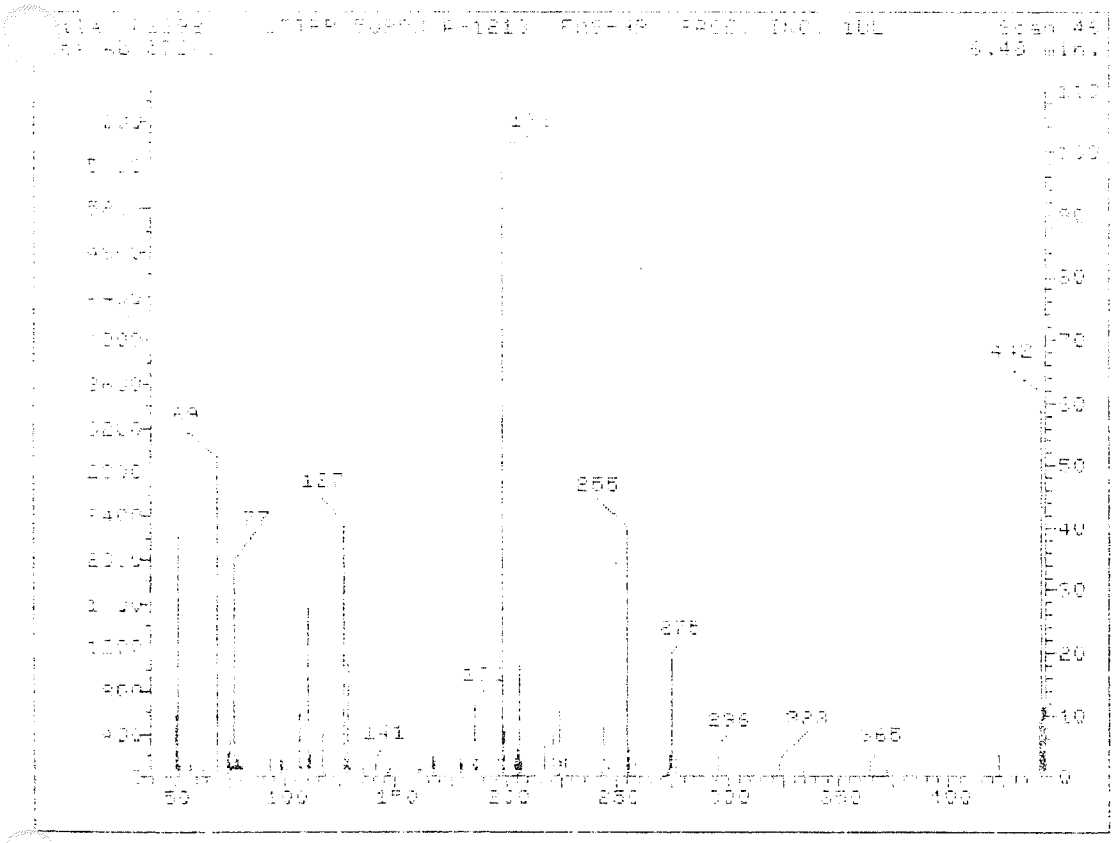
CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
ABNSTD050	ABNSTD050	F2293	08/08/95	08:36
BA2284	90176-055	F2296	08/08/95	10:18
LSA2284	90176-055MS	F2297	08/08/95	10:50
CLJ44-CC-001	44862-018	F2299	08/08/95	11:55
CLJ44-CC-002-RB	44862-019	F2300	08/08/95	12:27
CLJ44-CU-003	44862-020	F2301	08/08/95	12:59
CLJ44-CU-004	44862-021	F2302	08/08/95	13:31
CLJ44-CU-005	44862-022	F2303	08/08/95	14:04
CLJ44-CU-006-RB	44862-024	F2304	08/08/95	14:36
CLJ44-007-FB	44862-025	F2305	08/08/95	15:08

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphosphine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	38.89	38.89	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	50.63	50.63	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	40.15	40.15	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	7.23	7.23	Ok
275	10-30% of mass 198	19.15	19.15	Ok
365	Greater than 1% of mass 198	1.62	1.62	Ok
441	0-100% of mass 443	8.79	78.84	Ok
442	Greater than 40% of mass 198	60.73	60.73	Ok
443	17-23% of mass 442	11.15	18.35	Ok

Injection Date: 08/08/95
Injection Time: 08:21
Data File: >F2292
Scan: 46



5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID: >H8752 DFTPP Injection Date: 08/10/95

Instrument ID: HMS DFTPP Injection Time: 08:39

ION ABUNDANCE CRITERIA for H8752 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

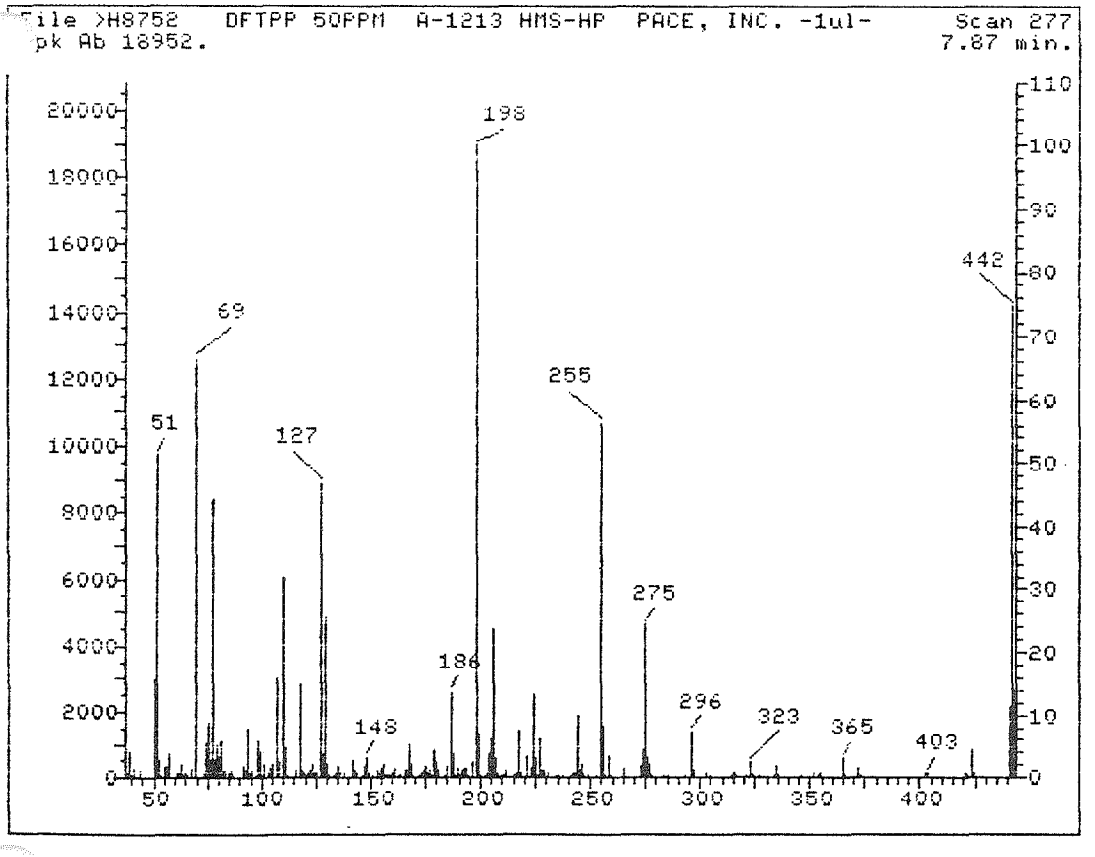
CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
ABNSTD160	ABNSTD160	H8754	08/10/95	08:55
ABNSTD120	ABNSTD120	H8755	08/10/95	09:30
ABNSTD080	ABNSTD080	H8756	08/10/95	10:05
ABNSTD050	ABNSTD050	H8757	08/10/95	10:39
ABNSTD020	ABNSTD020	H8758	08/10/95	11:14

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	51.41	51.41	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	66.36	66.36	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	46.88	46.88	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.76	6.76	Ok
275	10-30% of mass 198	24.36	24.36	Ok
365	Greater than 1% of mass 198	3.04	3.04	Ok
441	0-100% of mass 443	11.33	82.14	Ok
442	Greater than 40% of mass 198	74.66	74.66	Ok
443	17-23% of mass 442	13.80	18.48	Ok

Injection Date: 08/10/95
Injection Time: 08:39
Data File: >H8752
Scan: 277



5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID: >H8773 DFTPP Injection Date: 08/11/95

Instrument ID: HMS DFTPP Injection Time: 07:17

ION ABUNDANCE CRITERIA for H8773 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

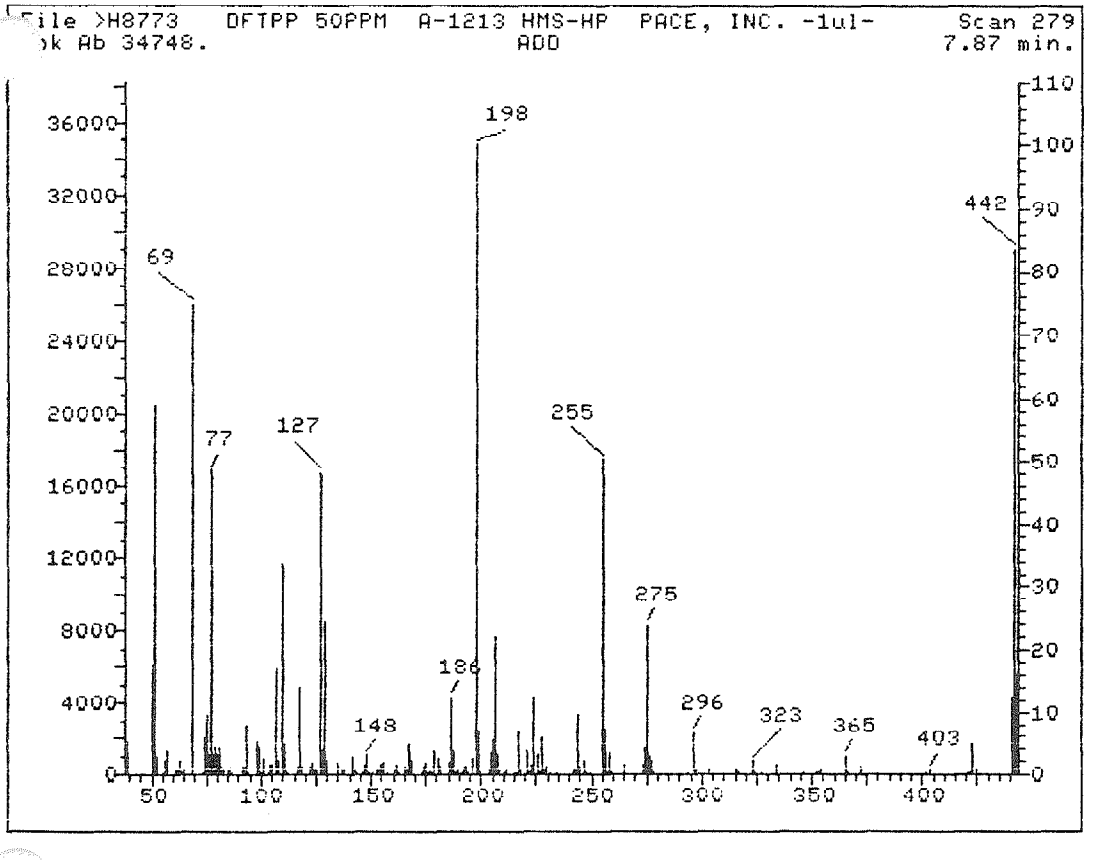
CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
ABNSTD050	ABNSTD050	H8775	08/11/95	07:35
CLJ44-CC-025	44897-025	H8776	08/11/95	08:15
CLJ44-CU-012	44898-008	H8777	08/11/95	08:50
CLJ44-CU-013	44898-009	H8778	08/11/95	09:25
BA2290	90176-063	H8779	08/11/95	10:13
LSA2290	90176-063MS	H8780	08/11/95	10:48
CLJ44-CU-014-RB	44898-011	H8781	08/11/95	12:57
BA2398	90176-065	H8782	08/11/95	13:32
LSA2398	90176-065MS	H8783	08/11/95	16:03

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	58.80	58.80	Ok
68	Less than 2% of mass 69	.09	.12	Ok
69	(reference only)	74.82	74.82	Ok
70	Less than 2% of mass 69	.16	.21	Ok
127	40-60% of mass 198	48.24	48.24	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.78	6.78	Ok
275	10-30% of mass 198	23.83	23.83	Ok
365	Greater than 1% of mass 198	2.89	2.89	Ok
441	0-100% of mass 443	12.39	77.22	Ok
442	Greater than 40% of mass 198	83.55	83.55	Ok
443	17-23% of mass 442	16.04	19.20	Ok

Injection Date: 08/11/95
Injection Time: 07:17
Data File: >H8773
Scan: 279



8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID (Standard): >F1702 Date Analyzed: 04/19/95

Instrument ID: FMS Time Analyzed: 15:15

	IS1(DCB)		IS2(NPT)		IS3(ANT)		IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	28007	8.15	106956	10.37	62522	13.54	96535	16.20	90322	21.57	70369	27.20
UPPER LIMIT	56014	8.65	213912	10.87	125044	14.04	193070	16.70	180644	22.07	140738	27.70
LOWER LIMIT	14004	7.65	53478	9.87	31261	13.04	48268	15.70	45161	21.07	35185	26.70
CLIENT I.D.												

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

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8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID (Standard): >F2175 Date Analyzed: 07/25/95

Instrument ID: FMS Time Analyzed: 08:49

	IS1(DCB)		IS2(NPT)		IS3(ANT)		IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	46987	5.24	187576	7.30	108366	10.25	175045	12.74	148891	17.28	149632	19.65
UPPER LIMIT	93974	5.74	375152	7.80	216732	10.75	350090	13.24	297782	17.78	299264	20.15
LOWER LIMIT	23494	4.74	93788	6.80	54183	9.75	87523	12.24	74446	16.78	74816	19.15
CLIENT I.D.												
90001-273	52918	5.24	177892	7.30	102493	10.25	168529	12.72	191565	17.24	151016	19.61

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

pace INCORPORATED THE ASSURANCE OF QUALITY

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID (Standard): >F2293 Date Analyzed: 08/08/95

Instrument ID: FMS Time Analyzed: 08:36

	IS1(DCB)		IS2(NPT)		IS3(ANT)		IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	27330	5.10	105065	7.15	60524	10.10	101684	12.56	83039	17.09	78678	19.40
UPPER LIMIT	54660	5.60	210130	7.65	121048	10.60	203368	13.06	166078	17.59	157356	19.90
LOWER LIMIT	13665	4.60	52533	6.65	30262	9.60	50842	12.06	41520	16.59	39339	18.90
CLIENT I.D.												
BA2284	29625	5.09	102544	7.13	58041	10.09	90626	12.55	92984	17.06	67914	19.38
LSA2284	28207	5.10	100086	7.14	59593	10.09	97065	12.56	98947	17.06	73721	19.37
CLJ44-CC-001	29968	5.09	102386	7.14	60207	10.09	95614	12.55	103868	17.06	72458	19.38
CLJ44-CC-002-RB	29710	5.09	103059	7.13	59288	10.09	96079	12.56	99167	17.06	69995	19.37
CLJ44-CU-003	28952	5.09	100403	7.13	57397	10.09	92692	12.55	96625	17.06	66712	19.37
CLJ44-CU-004	31109	5.09	104920	7.13	61421	10.09	100521	12.55	102244	17.06	72902	19.38
CLJ44-CU-005	30021	5.09	103758	7.14	60128	10.09	96137	12.56	97015	17.06	70167	19.38
CLJ44-CU-006-RB	28283	5.09	98495	7.13	56821	10.09	91720	12.55	91337	17.06	61263	19.37
CLJ44-007-FB	27556	5.09	95771	7.13	54655	10.09	89437	12.55	89712	17.06	62389	19.38

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID (Standard): >H8754 Date Analyzed: 08/10/95

Instrument ID: HMS Time Analyzed: 08:55

	IS1(DCB)		IS2(NPT)		IS3(ANT)		IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	30924	7.22	112096	9.23	59703	12.09	107344	14.51	86272	18.89	101061	22.06
UPPER LIMIT	61848	7.72	224192	9.73	119406	12.59	214688	15.01	172544	19.39	202122	22.56
LOWER LIMIT	15462	6.72	56048	8.73	29852	11.59	53672	14.01	43136	18.39	50531	21.56
CLIENT I.D.												

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

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8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN09

Lab File ID (Standard): >H8775 Date Analyzed: 08/11/95

Instrument ID: HMS Time Analyzed: 07:35

	IS1(DCB)		IS2(NPT)		IS3(ANT)		IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	34032	7.20	117385	9.20	64043	12.07	104190	14.48	104059	18.86	86420	21.99
UPPER LIMIT	68064	7.70	234770	9.70	128086	12.57	208380	14.98	208118	19.36	172840	22.49
LOWER LIMIT	17016	6.70	58693	8.70	32022	11.57	52095	13.98	52030	18.36	43210	21.49
CLIENT I.D.												
CLJ44-CC-025	29170	7.20	100285	9.20	52119	12.06	81947	14.47	86070	18.83	67097	21.95
CLJ44-CU-012	29795	7.20	97429	9.21	50313	12.07	81223	14.48	88095	18.84	68259	21.96
CLJ44-CU-013	28215	7.21	93959	9.20	49764	12.08	80658	14.47	86255	18.84	67224	21.96
BA2290	28692	7.19	93888	9.19	48460	12.06	79417	14.47	87136	18.83	69266	21.95
LSA2290	28520	7.22	96886	9.21	51850	12.09	84236	14.50	89751	18.86	73078	21.98
CLJ44-CU-014-RB	29880	7.20	101607	9.20	52117	12.07	80961	14.48	85582	18.84	67837	21.96
BA2398	29996	7.19	99045	9.19	52907	12.07	86176	14.47	90731	18.84	72497	21.96
LSA2398	29825	7.20	101083	9.19	53836	12.07	87055	14.48	89888	18.83	72312	21.96

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: FMS-HP

Contractor: PES-W PALE, INC. Calibration Date: 04/20/95

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30%

Compound	Laboratory ID: >F1706 RF 20.00	>F1705 RF 50.00	>F1704 RF 80.00	>F1703 RF 120.00	>F1702 RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
C310 N-NITROSODIMETHYLAMINE	1.01764	.97949	.99841	1.03888	1.00652	.509	1.00819	2.192		
C550 2-FLUOROPHENOL	1.52563	1.45108	1.47297	1.52384	1.46501	.750	1.48572	2.463		
C545 PHENOL-d5	1.90762	1.78432	1.78655	1.80839	1.69409	.925	1.79619	4.242		
C570 2-CHLOROPHENOL-d4	1.65089	1.54524	1.50488	1.49522	1.40958	.960	1.52116	5.768		
C575 1,2-DICHLOROBENZENE-d4	1.06749	.96281	.91001	.90651	.79660	1.040	.92864	10.596		
C315 PHENOL	1.95791	1.80227	1.84370	1.86944	1.74119	.928	1.85490	4.170	*	
C320 ANILINE	2.25480	2.04616	2.10870	2.12646	2.28754	.937	2.14435	5.578		
C325 BIS(2-CHLOROETHYL)ETHER	1.78999	1.73988	1.66807	1.61544	1.51416	.947	1.64384	7.689		
C330 2-CHLOROPHENOL	1.63489	1.52757	1.50260	1.49044	1.38428	.964	1.50795	5.944		
C335 1,3-DICHLOROBENZENE	1.81971	1.69799	1.68691	1.70929	1.56896	.993	1.69577	5.250		
C340 1,4-DICHLOROBENZENE	1.79747	1.68553	1.61158	1.59745	1.45418	1.005	1.62574	8.147	*	
C345 BENZYL ALCOHOL	.95895	.90078	.90572	.93797	.88772	1.027	.91821	3.273		
C350 1,2-DICHLOROBENZENE	1.71844	1.54648	1.47025	1.44366	1.31516	1.043	1.47667	9.906		
C355 2-METHYLPHENOL	1.41529	1.31107	1.29398	1.30042	1.24578	1.049	1.31779	4.688		
C360 BIS(2-CHLOROISOPROPYL)ETHER	2.48081	2.41007	2.50086	2.66256	2.57759	1.060	2.52510	3.736		
C365 4-METHYLPHENOL	1.36539	1.40440	1.38460	1.45142	1.36584	1.079	1.47221	5.964		
C370 N-NITROSO-DI-N-PROPYLAMINE	1.12456	1.07252	1.11258	1.11852	1.08651	1.090	1.10362	2.158		**
C375 HEXACHLOROETHANE	.73306	.72530	.71859	.73425	.67550	1.109	.72168	4.010		
C410 NITROBENZENE	.49756	.46092	.45737	.44232	.42270	.883	.45619	6.055		
C415 ISOPHORONE	1.69604	.99373	.98187	.98056	.95122	.922	1.00068	5.552		
C510 NITROBENZENE-d5	.46105	.44510	.44284	.45165	.41519	.980	.45871	3.841		
C420 2-NITROPHENOL	.25204	.23827	.22772	.22391	.20291	.936	.23017	7.069	*	
C425 2,4-DIMETHYLPHENOL	.47190	.41347	.40034	.38389	.36352	.937	.40681	10.127		
C430 BENZOIC ACID	.17553	.19750	.20067	.20911	.20776	.959	.15069	7.394		
C435 BIS(2-CHLOROETHOXY)METHANE	.63615	.57525	.58574	.55119	.50948	.994	.56556	8.162		
C440 2,4-DICHLOROPHENOL	.38069	.35872	.35162	.34531	.33061	.975	.35343	5.202	*	
C445 1,2,4-TRICHLOROBENZENE	.41166	.39066	.37873	.36260	.34166	.992	.38110	8.844		
C450 NAPHTHALENE	1.27557	1.13882	1.07331	1.02032	.96434	1.004	1.09445	10.962		
C455 4-CHLOROANILINE	.55223	.50079	.48993	.48406	.45820	1.010	.49704	6.961		
C460 HEXACHLOROBUTADIENE	.23955	.21287	.21299	.19565	.18626	1.033	.20950	9.702	*	

RF - Response Factor (Subscript is amount in ug/mL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
BNA Compounds

Case No: Instrument ID: TMS-5P

Contractor: [illegible], INC. Calibration Date: 04/20/95

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30%

Compound	Laboratory ID: F1706 RF 20.00	F1705 RF 50.00	F1704 RF 80.00	F1703 RF 120.00	F1702 RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
C480 4-CHLORO-3-METHYLPHENOL	.42373	.39834	.39162	.38677	.36889	1.039	.39478	5.512	*	
C490 2-METHYLNAPHTHALENE	.81208	.71540	.68157	.64391	.59506	1.121	.68930	11.824		
C505 2,4,6-TRIBROMOPHENOL	.23933	.23507	.22758	.23432	.22613	1.105	.23249	2.368		
C520 2-FLUOROBIPHENYL	1.61430	1.44490	1.34279	1.23720	1.11396	.907	1.35621	13.875		
C510 HEXACHLOROCYCLOPENTADIENE	.31600	.39840	.33619	.35147	.33186	.878	.34669	6.392		**
C515 2,4,6-TRICHLOROPHENOL	.50311	.49111	.47754	.47070	.44020	.897	.47677	5.317	*	
C520 2,4,5-TRICHLOROPHENOL	.52712	.50920	.47956	.48076	.44921	.902	.48743	8.403		
C525 2-CHLORONAPHTHALENE	1.44140	1.28077	1.20259	1.16234	1.04512	.923	1.22793	12.076		
C530 2-NITROANILINE	.59521	.59791	.57062	.55450	.53756	.937	.56074	1.610		
C535 DIMETHYL PHTHALATE	1.70522	1.68010	1.63767	1.55816	1.45136	.962	1.60378	6.614		
C540 ACENAPHTHYLENE	2.07447	2.06991	1.90522	1.87573	1.66510	.980	1.94701	11.114		
C545 3-NITROANILINE	.45429	.45447	.44397	.44360	.42591	.992	.44563	2.545		
C550 ACENAPHTHENE	1.37713	1.19352	1.12987	1.05738	.92387	1.004	1.13513	15.679	*	
C555 2,4-DINITROPHENOL	.19119	.17678	.19260	.17741	.16374	1.005	.17621	14.613		**
C560 4-NITROPHENOL	.21704	.20737	.20794	.21401	.19464	1.008	.20831	4.693		**
C565 DIBENZOFURAN	1.87222	1.76801	1.69391	1.56409	1.59717	1.025	1.70700	7.060		
C570 2,6-DINITROTOLUENE	.41355	.42103	.41944	.42142	.39437	.972	.41[illegible]	2.641		
C575 2,4-DINITROTOLUENE	.53766	.52291	.50338	.45524	.42578	1.003	.49200	[illegible]		
C580 DIETHYLPHTHALATE	1.97018	1.81951	1.72960	1.67762	1.48612	1.056	1.73[illegible]05	10.317		
C585 4-CHLOROPHENYL-PHENYLETHER	.82130	.77119	.68073	.60799	.59102	1.067	.69[illegible]	14.549		
C590 FLUORENE	1.60116	1.40477	1.27417	1.27927	1.11071	1.071	1.33302	13.674		
C595 4-NITROANILINE	.47512	.45211	.4611	.45667	.43577	1.075	.45574	[illegible]		
C610 4,6-DINITRO-2-METHYLPHENOL	.17818	.19927	.21761	.21701	.19544	.997	.19[illegible]07	11.979		
C615 N-NITROSODIPHENYLAMINE	.69346	.65704	.60426	.57746	.52463	.956	.61137	10.834	*	
C620 AZOBENZENE	.24593	.23179	.22045	.21604	.17955	.910	.22747	8.709		
C625 4-BROMOPHENYL-PHENYLETHER	.26331	.25028	.24271	.24180	.22125	.946	.24391	5.897		
C630 HEXACHLOROBENZENE	.35143	.34391	.33255	.31675	.30373	.956	.33274	6.277		
C635 PENTACHLOROPHENOL	.17967	.18918	.19344	.20014	.19109	.984	.19072	5.913	*	
C640 PHENANTHRENE	1.35896	1.29252	1.23909	1.18432	1.09614	1.005	1.24217	9.159		
C645 ANTHRACENE	1.42970	1.32385	1.24930	1.19263	1.08792	1.008	1.25668	10.305		

RF - Response Factor (Subscript is amount in ug/mL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Ists)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: FMS-HP

Contractor: NESA PACE, INC. Calibration Date: 04/20/95

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30%

Laboratory ID: >F1706 >F1705 >F1704 >F1703 >F1702

Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
C650 DI-N-BUTYLPHTHALATE	2.08229	1.98518	1.83744	1.77921	1.61915	1.060	1.86065	9.694		
C655 FLUORANTHENE	1.52143	1.43066	1.34339	1.26458	1.20161	1.136	1.35233	9.443	*	
C660 BENZIDINE	.28828	.30499	.29944	.32164	.29674	1.145	.30222	4.109		
C530 TERPHENYL-d14	1.04000	.91918	.90909	.86200	.81167	.882	.90639	9.365		
C715 PYRENE	1.66812	1.47607	1.41391	1.33872	1.30256	.874	1.43987	10.014		
C720 BUTYLBENZYLPHTHALATE	1.07573	.99121	.94311	.92587	.86717	.927	.96061	8.138		
C725 3,3'-DICHLOROBENZIDINE	.52652	.50299	.50102	.47868	.45127	.990	.49236	5.767		
C735 BENZO(A)ANTHRACENE	1.39773	1.35119	1.29934	1.26525	1.25748	.597	1.31461	4.532		
C740 BIS(2-ETHYLHEXYL PHTHALATE	1.32219	1.18559	1.14365	1.04532	.91096	.992	1.12267	13.890		
C745 CHRYSENE	1.40515	1.36547	1.33707	1.20495	1.12485	1.084	1.24761	8.231		
C760 DI-N-OCTYLPHTHALATE	3.37936	3.20195	3.23963	3.15406	2.87452	.859	3.16186	5.521	*	
C765 BENZO(B)FLUORANTHENE	2.15369	1.96059	1.85129	1.83074	1.66840	.936	1.89142	9.250		
C770 BENZO(K)FLUORANTHENE	1.45387	1.45613	1.52481	1.44956	1.43123	.937	1.44289	2.446		
C775 BENZO(A)PYRENE	1.55636	1.55809	1.55727	1.52746	1.46068	.990	1.52398	2.423	*	
C780 INDENO(1,2,3-CD)PYRENE	1.65748	1.67221	1.63172	1.65999	1.57293	1.259	1.63886	2.421		
C785 DIBENZ(A,H)ANTHRACENE	1.52159	1.54253	1.51792	1.55046	1.29059	1.266	1.52457	7.771		
C790 BENZO(G,H,I)PERYLENE	1.35992	1.37477	1.51481	1.55048	1.43148	1.344	1.55511	2.776		

RF - Response Factor (Subscript is amount in ug/mL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: HMS-HF

Contractor: PACE, INC. Calibration Date: 08/10/95

Contract No:

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:	>H8758	>H8757	>H8756	>H8755	>H8754					
	RF	RF	RF	RF	RF					
Compound	20.00	50.00	80.00	120.00	160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
C310 N-NITROSODIMETHYLAMINE	.78952	.82818	.81636	.82583	.84814	.501	.82161	2.598		
C550 2-FLUOROPHENOL	1.32477	1.36126	1.34128	1.36827	1.36689	.749	1.35249	1.397		
C545 PHENOL-d5	1.61943	1.66316	1.62659	1.65894	1.63747	.934	1.64112	1.179		
C570 2-CHLOROPHENOL-d4	1.42596	1.42674	1.40202	1.39882	1.39802	.962	1.41031	1.044		
C575 1,2-DICHLOROBENZENE-d4	.92085	.89987	.86056	.84000	.81430	1.041	.86712	5.003		
C315 PHENOL	1.72486	1.71988	1.69397	1.71078	1.72246	.937	1.71439	.735	*	
C320 ANILINE	1.42590	1.45993	1.40253	1.35110	1.22789	.939	1.37347	6.589		
C325 BIS(2-CHLOROETHYL)ETHER	1.45777	1.44561	1.46596	1.60539	1.72295	.951	1.53954	7.882		
C330 2-CHLOROPHENOL	1.43133	1.43881	1.38991	1.39536	1.37139	.965	1.40536	2.039		
C335 1,3-DICHLOROBENZENE	1.58642	1.58049	1.52211	1.50250	1.46970	.993	1.53224	3.290		
C340 1,4-DICHLOROBENZENE	1.56843	1.54708	1.47243	1.46028	1.43978	1.003	1.49760	3.782	*	
C345 BENZYL ALCOHOL	.82435	.85139	.84324	.85173	.83499	1.034	.84114	1.383		
C350 1,2-DICHLOROBENZENE	1.48992	1.45968	1.36086	1.34383	1.32861	1.044	1.39658	5.234		
C355 2-METHYLPHENOL	1.14143	1.17212	1.14948	1.14758	1.13040	1.058	1.14820	1.333		
C360 BIS(2-CHLOROISOPROPYL)ETH	1.87015	1.85922	1.81233	1.79993	1.79160	1.064	1.82665	1.955		
C365 4-METHYLPHENOL	1.23357	1.25934	1.23262	1.27525	1.28665	1.091	1.25749	1.932		
C370 N-NITROSO-DI-N-PROPYLAMIN	1.02963	1.06867	1.07902	1.07674	1.11469	1.099	1.07375	2.827		**
C375 HEXACHLOROETHANE	.80925	.80701	.77767	.77882	.77281	1.110	.78911	2.220		
C410 NITROBENZENE	.49760	.50072	.47503	.48714	.48522	.683	.48916	2.109		
C415 ISOPHORONE	.93000	.92974	.89797	.92836	.91886	.925	.92099	1.483		
C520 NITROBENZENE-d5	.49564	.50297	.47815	.49228	.48915	.680	.49164	1.856		
C420 2-NITROPHENOL	.23296	.24014	.22955	.23439	.22715	.937	.23284	2.135	*	
C425 2,4-DIMETHYLPHENOL	.50348	.49324	.46723	.47252	.47559	.944	.48241	3.170		
C430 BENZOIC ACID	.19665	.21361	.20249	.20441	.19728	.972	.20289	3.376		
C435 BIS(2-CHLOROETHOXY)METHAN	.55458	.55438	.53110	.54427	.53725	.959	.54432	1.907		
C440 2,4-DICHLOROPHENOL	.35021	.34749	.32233	.31795	.31485	.978	.33097	5.271	*	
C445 1,2,4-TRICHLOROBENZENE	.38829	.37597	.35636	.34524	.33843	.992	.36086	5.794		
C450 NAPHTHALENE	1.12174	1.08572	1.04297	1.04193	.97750	1.004	1.05397	5.135		
C455 4-CHLOROANILINE	.42985	.42790	.41831	.42117	.41800	1.014	.42305	1.301		
C460 HEXACHLOROBUTADIENE	.29169	.27260	.24401	.22773	.22265	1.034	.25174	11.774	*	

RF - Response Factor (Subscript is amount in ug/ml)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: HMS-HP

Contractor: PACE, INC. Calibration Date: 08/10/95

Contract No:

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:	>H8758	>H8757	>H8756	>H8755	>H8754					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
C465 4-CHLORO-3-METHYLPHENOL	.44723	.43717	.41067	.40798	.40801	1.098	.42221	4.410	*	
C470 2-METHYLNAPHTHALENE	.68119	.65400	.62447	.60669	.60565	1.124	.63440	5.148		
C555 2,4,6-TRIBROMOPHENOL	.38696	.37960	.38125	.37089	.37175	1.108	.37809	1.789		
C525 2-FLUOROBIPHENYL	1.48494	1.39867	1.28884	1.23542	1.24291	.908	1.33016	8.144		
C510 HEXACHLOROCYCLOPENTADIENE	.29497	.36752	.37756	.37516	.38834	.887	.36071	10.396		**
C515 2,4,6-TRICHLOROPHENOL	.50295	.48534	.45878	.44355	.43589	.898	.46530	6.078	*	
C520 2,4,5-TRICHLOROPHENOL	.56154	.53700	.50666	.48948	.46875	.904	.51269	7.221		
C525 2-CHLORONAPHTHALENE	1.31139	1.24220	1.16172	1.14035	1.11852	.923	1.19484	6.711		
C530 2-NITROANILINE	.64039	.63980	.62574	.63665	.64582	.939	.63768	1.168		
C535 DIMETHYLPHTHALATE	1.82843	1.73487	1.66252	1.62587	1.64392	.967	1.69912	4.902		
C540 ACENAPHTHYLENE	2.07039	1.99434	1.89359	1.82694	1.80238	.980	1.91753	5.906		
C545 3-NITROANILINE	.42056	.42761	.41908	.42707	.42177	.996	.42322	.918		
C550 ACENAPHTHENE	1.35710	1.26713	1.21880	1.16570	1.18532	1.005	1.23881	6.174	*	
C555 2,4-DINITROPHENOL	.16937	.24387	.26177	.26854	.27012	1.009	.24273	17.432		**
C560 4-NITROPHENOL	.40781	.42096	.41688	.42541	.46914	1.019	.42804	5.578		**
C565 DIBENZOFURAN	1.92874	1.78039	1.72186	1.69630	1.70718	1.027	1.76689	5.440		
C543 2,6-DINITROTOLUENE	.41225	.41794	.40162	.37485	.37178	.977	.39569	5.376		
C570 2,4-DINITROTOLUENE	.59168	.59648	.58725	.60268	.60768	1.030	.59715	1.375		
C580 DIETHYLPHTHALATE	2.14272	1.99271	1.90195	1.87447	1.92349	1.064	1.96707	5.465		
C585 4-CHLOROPHENYL-PHENYLETHE	.75441	.65511	.58978	.54436	.51046	1.072	.61082	15.854		
C590 FLUORENE	1.45597	1.30402	1.23312	1.17754	1.21006	1.074	1.27614	8.678		
C595 4-NITROANILINE	.40420	.42887	.45624	.45744	.46971	1.083	.44329	5.971		
C610 4,6-DINITRO-2-METHYLPHENO	.17702	.20566	.20266	.19392	.16608	.907	.18907	8.996		
C615 N-NITROSODIPHENYLAMINE	.59931	.56304	.53702	.51285	.49584	.908	.54161	7.575	*	
C620 AZOBENZENE	.23072	.21988	.20782	.19360	.16492	.912	.20339	12.569		
C625 4-BROMOPHENYL-PHENYLETHER	.27717	.25936	.24407	.23601	.22363	.948	.24805	8.392		
C630 HEXACHLOROBENZENE	.42468	.39634	.37265	.34970	.34505	.966	.37768	8.812		
C635 PENTACHLOROPHENOL	.26208	.26869	.26349	.26188	.25808	.986	.26284	1.458	*	
C640 PHENANTHRENE	1.26437	1.17967	1.11818	1.07759	1.06656	1.003	1.14127	7.172		
C645 ANTHRACENE	1.26256	1.18069	1.11580	1.05482	1.03232	1.008	1.12924	8.347		

RF - Response Factor (Subscript is amount in ug/ml)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: HMS-HP

Contractor: PACE, INC. Calibration Date: 08/10/95

Contract No:

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:	>H8758	>H8757	>H8756	>H8755	>H8754				
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC SPCC
C650 DI-N-BUTYLPHTHALATE	2.08964	1.95774	1.83242	1.55975	1.50596	1.069	1.78910	14.068	
C655 FLUORANTHENE	1.42196	1.31925	1.24199	1.14425	1.16702	1.138	1.25890	9.066	*
C660 BENZIDINE	.12899	.14550	.15186	.15872	.13931	1.150	.14487	7.901	
CS30 TERPHENYL-d14	.93665	.86989	.88597	.90250	.95891	.907	.91078	4.012	
C715 PYRENE	1.29814	1.25145	1.26392	1.34911	1.47191	.894	1.32691	6.742	
C720 BUTYLBENZYLPHTHALATE	.94955	.89635	.92238	.97282	1.05611	.951	.95944	6.378	
C725 3,3'-DICHLOROBENZIDINE	.53313	.52963	.50222	.50296	.48635	.997	.51086	3.897	
C730 BENZO(A)ANTHRACENE	1.26293	1.22516	1.17202	1.17766	1.24897	.999	1.21735	3.379	
C745 BIS(2-ETHYLHEXYL)PHTHALAT	1.17932	1.13910	1.06921	1.08969	1.20268	1.002	1.13600	5.006	
C740 CHRYSENE	1.15355	1.07701	1.06484	1.12623	1.21815	1.003	1.12796	5.496	
C760 DI-N-OCTYLPHTHALATE	2.92894	2.71411	2.58821	2.37744	2.28748	.910	2.57923	10.006	*
C765 BENZO(B)FLUORANTHENE	1.64726	1.53698	1.97354	1.94591	1.95653	.956	1.81204	11.299	
C770 BENZO(K)FLUORANTHENE	1.42049	1.39546	.81647	.72613	.67327	.959	1.00636	36.794	
C775 BENZO(A)PYRENE	1.34734	1.32355	1.28587	1.27580	1.26465	.994	1.29944	2.674	*
C780 INDENO(1,2,3-CD)PYRENE	1.75329	1.75579	1.77747	1.78777	1.73666	1.172	1.76219	1.156	
C785 DIBENZ(A,H)ANTHRACENE	-	1.42549	1.43882	1.45538	1.43663	1.176	1.43908	.857	
C790 BENZO(G,H,I)PERYLENE	1.41428	1.42961	1.47130	1.49151	1.45369	1.222	1.45208	2.139	

RF - Response Factor (Subscript is amount in ug/ml)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
BNL Compounds

Case No: Calibration Date: 07/25/95

Contractor: NESEN PACE, INC. Time: 08:49

Contract No: Laboratory ID: XF2175

Instrument ID: FMS-MP Initial Calibration Date: 04/20/95

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 30%

	Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
C310	N-NITROSODIMETHYLAMINE	1.00819	.92558	8.19		
C550	2-FLUOROPHENOL	1.48572	1.65673	11.51		
C545	PHENOL-d5	1.79619	1.95492	8.84		
C570	2-CHLOROPHENOL-d4	1.52116	1.43224	5.85		
C575	1,2-DICHLOROBENZENE-d4	.92864	.91564	1.40		
C315	PHENOL	1.85499	1.87105	.91	*	
C320	ANILINE	2.14433	1.97423	10.26		
C325	BIS(2-CHLOROETHYL)ETHER	1.64584	2.11870	28.95		
C330	2-CHLOROPHENOL	1.58795	1.56213	3.59		
C335	1,3-DICHLOROBENZENE	1.66577	1.62983	3.89		
C340	1,4-DICHLOROBENZENE	1.62874	1.71743	6.64	*	
C345	BENZYL ALCOHOL	.91821	.96501	4.88		
C350	1,2-DICHLOROBENZENE	1.49867	1.52137	1.51		
C355	2-METHYLPHENOL	1.31279	1.55452	18.40		
C360	BIS(2-CHLOROISOPROPYL)ETH	2.92310	3.35730	37.27		
C365	4-METHYLPHENOL	1.42221	1.65423	16.31		
C370	N-NITROSO-DI-N-PROPYLAMIN	1.10302	1.11347	.89		**
C375	HEXACHLOROETHANE	.72168	.77470	7.35		
C410	NITROBENZENE	.45529	.43030	5.70		
C415	ISOPHORONE	1.02066	.91597	7.47		
C520	NITROBENZENE-d5	.43871	.45986	1.11		
C420	2-NITROPHENOL	.23017	.27140	17.91	*	
C425	2,4-DIMETHYLPHENOL	.40861	.39956	1.78		
C430	BENZOIC ACID	.19669	.09780	50.28		
C435	BIS(2-CHLOROETHOXY)METHAN	.56556	.53683	5.75		
C440	2,4-DICHLOROPHENOL	.35545	.33272	6.86	*	
C445	1,2,4-TRICHLOROBENZENE	.36110	.33497	11.58		
C450	NAPHTHALENE	1.09443	1.03571	5.37		
C455	4-CHLOROANILINE	.49704	.48072	3.28		
C460	HEXACHLOROBUTADIENE	.20950	.16261	22.29	*	
C465	4-CHLORO-3-METHYLPHENOL	.39478	.36535	7.46	*	
C470	2-METHYLNAPHTHALENE	.68980	.94732	37.33		

RF - Response Factor from daily standard file at 50.00 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
[illegible] Compounds

Case No: Calibration Date: 07/25/95

Contractor: CESAR FREE, INC Time: 08:49

Contract No: Laboratory ID: >F2175

Instrument ID: FMS-HP Initial Calibration Date: 04/20/95

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 30%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
C555 2,4,6-TRIBROMOPHENOL	.23249	.19953	14.17		
C[illegible] 2-FLUOROBIPHENYL	1.35621	1.15061	15.15		
C[illegible]0 HEXACHLOROCYCLOPENTADIENE	.34669	.25134	27.50		**
[illegible] 2,4,6-TRICHLOROPHENOL	.47675	.39877	16.36	*	
[illegible] 2,4,5-TRICHLOROPHENOL	.49747	.37740	24.11		
[illegible] 2-CHLORONAPHTHALENE	1.33[illegible]	1.28[illegible]	3.86		
[illegible] 2-NITROANILINE	[illegible]	[illegible]	[illegible]		
[illegible] DIMETHYLPHTHALATE	1.6[illegible]	1.4[illegible]	[illegible]		
[illegible] ACENAPHTHYLENE	1.[illegible]	[illegible]	11.49		
[illegible] 3-NITROANILINE	[illegible]	[illegible]	[illegible]		
[illegible] ACENAPHTHENE	[illegible]	[illegible]	[illegible]	*	
[illegible] 2,4-DINITROPHENOL	[illegible]	[illegible]	-4[illegible]		**
[illegible] 4-NITROPHENOL	[illegible]	[illegible]	2.51		**
[illegible] DIBENZOFURAN	1.70[illegible]	1.[illegible]	[illegible]		
C540 2,4-DINITROTOLUENE	.4[illegible]	[illegible]	[illegible]		
[illegible] 2,6-DINITROTOLUENE	[illegible]	[illegible]	27.[illegible]		
[illegible] DIETHYLPHTHALATE	1.[illegible]	1.[illegible]	[illegible]		
[illegible] 4-CHLOROPHENYL-PHENYLETHER	.[illegible]	.[illegible]	[illegible]		
C555 FLUORENE	1.32301	1.56034	17.94		
[illegible] 4-NITROANILINE	.46534	.51636	11.07		
C610 4,6-DINITRO-2-METHYLPHENOL	.17651	.22[illegible]	13.16		
C615 N-NITROSODIPHENYLAMINE	[illegible]	[illegible]	[illegible]	*	
C620 [illegible]BENZENE	.20547	.1640[illegible]	[illegible]		
C625 4-BROMOPHENYL-PHENYLETHER	.24[illegible]	.20[illegible]	15.[illegible]		
C630 HEXACHLOROBENZENE	.[illegible]	.27[illegible]	[illegible].45		
C635 PENTACHLOROPHENOL	.1[illegible]	.15770	17.42	*	
C640 PHENANTHRENE	1.24217	1.21510	2.13		
C645 ANTHRACENE	1.25[illegible]	1.17189	[illegible]		
C650 DI-N-BUTYLPHTHALATE	1.86065	1.79405	3.52		
C655 FLUORANTHENE	1.35235	1.37500	1.68	*	
C660 BENZIDINE	.30222	.13479	55.40		
C530 TERPHENYL-d14	.90839	1.01142	11.45		

RF - Response Factor from daily standard file at 50.00 ug/mL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 07/25/95

Contractor: RESEARCH PACIFIC, INC. Time: 08:49

Contract No: Laboratory ID: >F2175

Instrument ID: FMS-HP Initial Calibration Date: 04/20/95

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 30%

	Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
0715	PYRENE	1.43987	1.63638	13.65		
0720	BUTYLBENZYLPHTHALATE	.96061	1.07477	11.88		
0725	3,3'-DICHLOROBENZIDINE	.49236	.46696	5.16		
0730	BENZO(A)ANTHRACENE	1.31421	1.36962	4.22		
0745	BIS(2-ETHYLHEXYL)PHTHALAT	1.12767	1.34195	19.53		
0740	CHRYSENE	1.24751	1.41034	13.05		
0760	DI-N-OCTYLPHTHALATE	5.16186	7.62885	16.86	*	
0765	BENZO(B)FLUORANTHENE	1.49242	1.85550	1.96		
0770	BENZO(K)FLUORANTHENE	1.46239	1.13535	22.39		
0775	BENZO(A)PYRENE	1.52358	1.43540	5.81	*	
0780	INDENO(1,2,3-CD)PYRENE	1.68865	1.56963	1.88		
0785	DIBENZ(A,H)ANTHRACENE	1.38457	1.34815	3.77		
0790	BENZO(G,H,I)PERYLENE	1.55511	1.44912	8.54		

$\overline{RF}$ - Response Factor from daily standard file at 50.00 ug/mL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
MSL Compounds

Case No: Calibration Date: 03/08/95

Contractor: RESNA PACE, INC Time: 08:36

Contract No: Laboratory ID: >F2295

Instrument ID: FMS-HF Initial Calibration Date: 04/20/95

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 30%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
C310 N-NITROSODIMETHYLAMINE	1.00819	.92540	8.21		
C560 2-FLUOROPHENOL	1.48572	1.54169	3.77		
C545 PHENOL-d5	1.79619	1.80607	.55		
C570 2-CHLOROPHENOL-d4	1.52116	1.41867	6.72		
C575 1,2-DICHLOROBENZENE-d4	.92864	.88386	4.82		
C315 PHENOL	1.85490	1.73076	6.72	*	
C320 ANILINE	2.14433	1.64751	23.17		
C325 BIS(2-CHLOROETHYL)ETHER	[illegible]	[illegible]	22.69		
C330 2-CHLOROPHENOL	1.50791	1.46632	2.76		
C335 1,3-DICHLOROBENZENE	1.69577	1.65391	2.47		
C340 1,4-DICHLOROBENZENE	1.67574	1.65966	1.10	*	
C345 BENZYL ALCOHOL	.91821	[illegible]	1.72		
C350 1,2-DICHLOROBENZENE	1.45857	[illegible]	.55		
C355 2-METHYLPHENOL	[illegible]	[illegible]	15.64		
C360 BIS(2-CHLOROISOPROPYL)ETHER	[illegible]	[illegible]	24.85		
C365 4-METHYLPHENOL	1.42121	1.48727	4.57		
C370 N-NITROSO-DI-N-PROPYLAMINE	1.10961	[illegible]	5.76		**
C375 HEXACHLOROETHANE	.72163	[illegible]	7.11		
C410 NITROBENZENE	[illegible]	[illegible]	11.55		
C415 ISOPHORONE	[illegible]	[illegible]	11.67		
C580 NITROBENZENE-d5	[illegible]	[illegible]	5.54		
C420 2-NITROPHENOL	.23017	.27331	18.74	*	
C425 2,4-DIMETHYLPHENOL	.40681	.38159	6.20		
C430 BENZOIC ACID	.19667	[illegible]	33.80		
C435 BIS(2-CHLOROETHOXY)METHANE	[illegible]	[illegible]	.58		
C440 2,4-DICHLOROPHENOL	.55545	.52118	5.12	*	
C445 1,2,4-TRICHLOROBENZENE	.58118	[illegible]	13.25		
C450 NAPHTHALENE	1.09443	1.01561	7.20		
C455 4-CHLOROANILINE	.49704	.43674	12.13		
C460 HEXACHLOROBUTADIENE	.20950	.15526	25.89	*	
C465 4-CHLORO-3-METHYLPHENOL	.39478	.32202	18.43	*	
C470 2-METHYLNAPHTHALENE	.68980	.89330	29.50		

RF - Response Factor from daily standard file at 50.00 ug/mL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: ____________________ Calibration Date: 08/08/95

Contractor: TESLA FACC, INC Time: 08:36

Contract No: ____________________ Laboratory ID: >F2293

Instrument ID: F15-HP Initial Calibration Date: 04/20/95

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 30%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
[illegible] 2,4,6-TRIBROMOPHENOL	.25247	.18103	22.13		
[illegible] 2-FLUOROBIPHENYL	1.35621	1.10159	18.77		
[illegible] HEXACHLOROCYCLOPENTADIENE	.34669	.22112	36.22		**
[illegible] 2,4,6-TRICHLOROPHENOL	.47675	.39522	17.10	*	
[illegible] 2,4,5-TRICHLOROPHENOL	.49743	.36850	25.92		
[illegible] 2-CHLORONAPHTHALENE	1.22798	1.1[illegible]	5.78		
[illegible] 2-NITROANILINE	.55[illegible]4	[illegible]	[illegible]		
[illegible] DIMETHYLPHTHALATE	[illegible]	[illegible]	[illegible]		
[illegible] ACENAPHTHYLENE	[illegible]	[illegible]	[illegible]		
[illegible] 3-NITROANILINE	[illegible]	[illegible]	[illegible]		
[illegible] ACENAPHTHENE	[illegible]	[illegible]	[illegible]	*	
[illegible] 2,4-DINITROPHENOL	[illegible]	[illegible]	[illegible]		**
[illegible] 4-NITROPHENOL	.20611	[illegible]	[illegible]		**
[illegible] DIBENZOFURAN	1.70[illegible]	[illegible]	[illegible]		
[illegible] 2,6-DINITROTOLUENE	[illegible]	[illegible]	[illegible]		
[illegible] 2,4-DINITROTOLUENE	.48[illegible]	[illegible]	11.7[illegible]		
[illegible] DIETHYLPHTHALATE	[illegible]	[illegible]	[illegible]		
[illegible] 4-CHLOROPHENYL PHENYLETHER	[illegible]	[illegible]	[illegible]		
[illegible] FLUORENE	[illegible]	[illegible]	[illegible]		
[illegible] 4-NITROANILINE	.46[illegible]4	.50344	[illegible]		
[illegible] 4,6-DINITRO-2-METHYLPHENOL	.19637	.19197	[illegible]		
[illegible] N-NITROSODIPHENYLAMINE	[illegible]	[illegible]	[illegible]	*	
[illegible] AZOBENZENE	[illegible]	[illegible]	9.04		
[illegible] 4-BROMOPHENYL-PHENYLETHER	[illegible]	[illegible]	[illegible]		
[illegible] HEXACHLOROBENZENE	[illegible]	[illegible]	13.1[illegible]		
[illegible] PENTACHLOROPHENOL	[illegible]	.17407	[illegible]	*	
C640 PHENANTHRENE	1.24217	[illegible]	[illegible]		
C645 ANTHRACENE	[illegible]	1.13250	9.83		
C650 DI-N-BUTYLPHTHALATE	1.86065	1.75267	5.80		
C655 FLUORANTHENE	1.35253	1.28033	5.32	*	
C660 BENZIDINE	.30222	.06960	76.97		
C950 TERPHENYL-d14	.90839	.96011	5.69		

RF - Response Factor from daily standard file at 50.00 ug/mL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/08/95

Contractor: RESAN PACE, INC. Time: 08:36

Contract No: Laboratory ID: >F2293

Instrument ID: FMS-HP Initial Calibration Date: 04/20/95

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 30%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
0715 PYRENE	1.43987	1.65530	14.96		
0720 BUTYLBENZYLPHTHALATE	.96061	1.02323	6.52		
0725 3,3'-DICHLOROBENZIDINE	.49236	.43631	11.38		
0730 BENZO(A)ANTHRACENE	1.31421	1.44970	10.31		
0745 BIS(2-ETHYLHEXYL)PHTHALAT	1.12267	1.24176	10.61		
0740 CHRYSENE	1.29751	1.40912	12.95		
0760 DI-N-OCTYLPHTHALATE	3.16166	2.79261	11.70	*	
0765 BENZO(B)FLUORANTHENE	1.85642	1.74816	7.52		
0770 BENZO(K)FLUORANTHENE	1.44739	1.07996	26.18		
0 5 BENZO(A)PYRENE	1.52398	1.30248	14.54	*	
0780 INDENO(1,2,3-CD)PYRENE	1.67699	1.35741	17.17		
0785 DIBENZ(A,H)ANTHRACENE	1.52497	1.06774	29.99		
0790 BENZO(G,H,I)PERYLENE	1.55711	1.09212	29.20		

RF - Response Factor from daily standard file at 50.00 ug/mL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/11/95

Contractor: PACE, INC. Time: 07:35

Contract No: Laboratory ID: >H8775

Instrument ID: HMS-HP Initial Calibration Date: 08/10/95

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
C310 N-NITROSODIMETHYLAMINE	.82161	.81497	.81		
CS50 2-FLUOROPHENOL	1.35249	1.36535	.95		
CS45 PHENOL-d5	1.64112	1.63322	.48		
CS70 2-CHLOROPHENOL-d4	1.41031	1.42553	1.08		
CS75 1,2-DICHLOROBENZENE-d4	.86712	.90804	4.72		
C315 PHENOL	1.71439	1.72287	.49	*	
C320 ANILINE	1.37347	1.48206	7.91		
C325 BIS(2-CHLOROETHYL)ETHER	1.53954	1.46650	4.74		
C330 2-CHLOROPHENOL	1.40536	1.42616	1.48		
C335 1,3-DICHLOROBENZENE	1.53224	1.57955	3.09		
C340 1,4-DICHLOROBENZENE	1.49760	1.55080	3.55	*	
C345 BENZYL ALCOHOL	.84114	.78585	6.57		
C350 1,2-DICHLOROBENZENE	1.39658	1.46121	4.63		
C355 2-METHYLPHENOL	1.14820	1.23458	7.52		
C360 BIS(2-CHLORDISOPROPYL)ETH	1.82665	1.87461	2.63		
C365 4-METHYLPHENOL	1.25749	1.27040	1.03		
370 N-NITROSO-DI-N-PROPYLAMIN	1.07375	1.06483	.83		**
C375 HEXACHLOROETHANE	.78911	.83007	5.19		
C410 NITROBENZENE	.48916	.50400	3.03		
C415 ISOPHORONE	.92099	.92723	.68		
CS20 NITROBENZENE-d5	.49164	.50070	1.84		
C420 2-NITROPHENOL	.23284	.23915	2.71	*	
C425 2,4-DIMETHYLPHENOL	.48241	.50068	3.79		
C430 BENZOIC ACID	.20289	.20653	1.79		
C435 BIS(2-CHLOROETHOXY)METHAN	.54432	.54663	.42		
C440 2,4-DICHLOROPHENOL	.33097	.34642	4.67	*	
C445 1,2,4-TRICHLOROBENZENE	.36086	.38042	5.42		
C450 NAPHTHALENE	1.05397	1.10180	4.54		
C455 4-CHLORDANILINE	.42305	.44079	4.19		
C460 HEXACHLOROBUTADIENE	.25174	.28145	11.80	*	
C465 4-CHLORO-3-METHYLPHENOL	.42221	.43974	4.15	*	
C470 2-METHYLNAPHTHALENE	.63440	.66768	5.25		

RF - Response Factor from daily standard file at 50.00 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/11/95

Contractor: PACE, INC. Time: 07:35

Contract No: Laboratory ID: >H8775

Instrument ID: HMS-HP Initial Calibration Date: 08/10/95

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
CS55 2,4,6-TRIBROMOPHENOL	.37809	.37094	1.89		
CS25 2-FLUOROBIPHENYL	1.33016	1.36667	2.74		
C510 HEXACHLOROCYCLOPENTADIENE	.36071	.41440	14.88		**
C515 2,4,6-TRICHLOROPHENOL	.46530	.46271	.56	*	
C520 2,4,5-TRICHLOROPHENOL	.51269	.54447	6.20		
C525 2-CHLORONAPHTHALENE	1.19484	1.22624	2.63		
C530 2-NITROANILINE	.63768	.61927	2.89		
C535 DIMETHYLPHTHALATE	1.69912	1.71159	.73		
C540 ACENAPHTHYLENE	1.91753	1.94550	1.46		
C545 3-NITROANILINE	.42322	.42287	.08		
C550 ACENAPHTHENE	1.23881	1.25952	1.67	*	
C555 2,4-DINITROPHENOL	.24273	.23504	3.17		**
C560 4-NITROPHENOL	.42804	.41939	2.02		**
C565 DIBENZOFURAN	1.76689	1.83538	3.88		
C543 2,6-DINITROTOLUENE	.39569	.42135	6.49		
C570 2,4-DINITROTOLUENE	.59715	.60562	1.42		
C580 DIETHYLPHTHALATE	1.96707	2.02765	3.08		
C585 4-CHLOROPHENYL-PHENYLETHE	.61082	.68701	12.47		
C590 FLUORENE	1.27614	1.33923	4.94		
C595 4-NITROANILINE	.44329	.42807	3.43		
C610 4,6-DINITRO-2-METHYLPHENO	.18907	.21328	12.81		
C615 N-NITROSODIPHENYLAMINE	.54161	.60209	11.17	*	
C620 AZOBENZENE	.20339	.21988	8.11		
C625 4-BROMOPHENYL-PHENYLETHER	.24805	.26641	7.40		
C630 HEXACHLOROBENZENE	.37768	.40852	8.17		
C635 PENTACHLOROPHENOL	.26284	.27783	5.70	*	
C640 PHENANTHRENE	1.14127	1.20217	5.34		
C645 ANTHRACENE	1.12924	1.19294	5.64		
C650 DI-N-BUTYLPHTHALATE	1.78910	1.97739	10.52		
C655 FLUORANTHENE	1.25890	1.29401	2.79	*	
C660 BENZIDINE	.14487	.14054	3.00		
CS30 TERPHENYL-d14	.91078	.92989	2.10		

RF - Response Factor from daily standard file at 50.00 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/11/95

Contractor: PACE, INC. Time: 07:35

Contract No: Laboratory ID: >H8775

Instrument ID: HMS-HP Initial Calibration Date: 08/10/95

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
C715 PYRENE	1.32691	1.31035	1.25		
C720 BUTYLBENZYLPHTHALATE	.95944	.95404	.56		
C725 3,3'-DICHLOROBENZIDINE	.51086	.50557	1.03		
C730 BENZO(A)ANTHRACENE	1.21735	1.22549	.67		
C745 BIS(2-ETHYLHEXYL)PHTHALAT	1.13600	1.14132	.47		
C740 CHRYSENE	1.12796	1.11203	1.41		
C760 DI-N-OCTYLPHTHALATE	2.57923	2.88457	11.84	*	
C765 BENZO(B)FLUORANTHENE	1.81204	1.63434	9.81		
C770 BENZO(K)FLUORANTHENE	1.00636	1.35465	34.61		
C775 BENZO(A)PYRENE	1.29944	1.33635	2.84	*	
C780 INDENO(1,2,3-CD)PYRENE	1.76219	1.70011	3.52		
C785 DIBENZ(A,H)ANTHRACENE	1.43908	1.38010	4.10		
C790 BENZO(G,H,I)PERYLENE	1.45208	1.37452	5.34		

RF - Response Factor from daily standard file at 50.00 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

PACE New England

GCMS Semi Volatiles
RUN LOG

Voltage 1600 | Tune Meth MSFTUN | Initial Cal 4/19/95 | Date 4/19/95
Threshold 30 | Sample Meth MSFFST | Batch File FAP19B | Analyst [illegible]
QASOP 5200 | Volume Inj 1ul | Int Std ~~A-1340~~ A-1402 | Instr F MS-HP

Maintenance: Septum ✓ Liner ✓ Inlet Disk ✓ Column Clip ✓ Other cleaned source, [illegible] filaments [illegible]

Btl #	File #	Sample	Matrix	ID File	Dil	SDG	Comments	MI	A	R	Arcv	P
✓	7F1700	DFTPP 50	A-1213				m/e 198 = 16K inj 1316 scan 127		✓	✓	M/519	
✓	02	ABN STD 160	A-1404	IFAP19			SSTD160 initial 5pt cal	[illegible]	✓	✓		
✓	03	120	A-1405	|			SSTD120 compliant E270	|	✓	✓		
✓	04	80	A-1406	|			SSTD080	|	✓	✓		
✓	05	50	A-1407	|			SSTD050	|	✓	✓		
✓	06	20	A-1408	✓			SSTD020	✓	✓	✓		

4/20/95 NF

PACE New England

GCMS Semi Volatiles
RUN LOG

Voltage 1700 | Tune Meth MSFTUN | Initial Cal 4/19/95 | Date 7/25/95

Threshold 30 | Sample Meth MSFFST | Batch File FJL25A | Analyst NA

OASOP 5200 | Volume Inj 1 ul | Int Std A-1427 | Instr F MS-HP

Maintenance: Septum ✓ Liner ✓ Inlet Disk ✓ Column Clip ✓ Other

Btl #	File #	Sample	Matrix	ID File	Dil	SDG	Comments	MI	A	R	Arcv	P
	7F2173	DFTPP 50	A-1213				m/e 198 = 23K inj 0833				A1/322	
✓	74	DFTPP 50	A-1213				scan 61+62		✓	✓		
✓	75	ABN STD 50	A-1479	1FAP19			compliant 8270		✓	✓		
	76	BA2377	ABNL	1F0725	1/1				✓	✓		
	77	LSA2377	↓	↓	↓				✓	✓		
✓	78	90001-273	↓	1FTCLP	↓				✓	✓		
	79	BA2373	↓	1F0725	↓				✓	✓		
	80	LSA2373	↓	↓	↓				✓	✓		
	81	44582-1	↓	1FTCLP	1/200				✓	✓		
	82	44673-1	↓	↓	1/1				✓	✓		
	83	44674-1	↓	↓	↓				✓	✓		
	84	44637-1	↓	↓	↓				✓	✓		
	85	44641-1	↓	1F0725	1/10				✓	✓		
	86	BA2374	ABNS	↓	1/1		meth test Cowsun's					
	87	LSA2374A	↓	↓	↓		↓		✓	✓		
	88	LSA2374B	↓	↓	↓		↓		✓	✓		
	89	LSA2374C	↓	↓	↓		↓		✓	✓		
	90	BK110	ABNL	↓	↓		solv. bk		✓	✓		
	91	BK459	↓	↓	↓		↓		✓	✓		
	92	44637-1RE	ABNL	↓	1/10		Screen 7/26/95		NA	03	A1/323 NA	

7/26/95 NA

PACE New England

GCMS Semi Volatiles
RUN LOG

0000087

Voltage 1600 Tune Meth MSFTUN Initial Cal 4/19/95 Date 8/8/95

Threshold 30 Sample Meth MSFFST Batch File FAU08A Analyst MK

QASOP 52a Volume Inj 1 ul Int Std ~~A-1432~~ A-1441 @3/MK Instr F MS-HP

Maintenance: Septum _____ Liner _____ Inlet Disk _____ Column Clip _____ Other none

Btl #	File #	Sample	Matrix	ID File	Dil	SDG	Comments	MI	A	R	Arcv	P
✓	7F2291	DFTPP50	A-RB				m/e 198 = 15K inj CE21		✓	✓	A1323	
✓	92	DFTPP50	A-1213				scan 46					
✓	93	ABNSTD50	A-1439	1FAPA			compliant 8270	NA	✓	✓		
	94	BA2282	ABNS	1F0808	1/1				✓	✓	A1324	
	95	LSA2282	↓						✓	✓		
✓	96	BA2284	ABNL			OHM			✓	✓		
✓	97	LSA2284	↓			↓			✓	✓		
	98	44764-1RE	ABNS	↓				NA	✓	✓		
	99	44862-18	ABNL	1FTCLP		KJW89 OHM	CLJ44-CC-001		✓	✓		
	>F2300	-19					-CC-002-RB		✓	✓		
	01	-20					-CU-003		✓	✓		
	02	-21					-CU-004		✓	✓		
	03	-22					-CU-005		✓	✓		
	04	-24					-CU-006-RB		✓	✓		
	05	-25		↓	↓	↓	-007-FB			✓		
	06	44730-30RE	ABNS	1F0809	1/200		RE INS 1/20					
	07	44743-31RE			1/40				✓	✓		
	08	44712-31RE			1/4			NA	✓	✓		
	09	44735-2RE			1/200				✓	✓		
	7F2310	LCS					screen					
							8/9/95					

0000221

PACE New England

GCMS Semi Volatiles
RUN LOG

Voltage 1450 | Tune Meth MSHDFT | Initial Cal 8/10/95 | Date 8/10/95

Threshold 20 | Sample Meth MSHTST | Batch File HAU10A, B, C | Analyst NS

OASOP 5200 | Volume Inj 1ul | Int Std A-1441 | Instr 1# MS-HP

Maintenance: Septum ✓ Liner ✓ Inlet Disk ✓ Column Clip ✓ Other

Btl #	File #	Sample	Matrix	ID File	Dil	SDG	Comments	MI	A	R	Arcv	P
	7H8752	~~7H8752~~ 63K DFTPP50	A-1213				m/e 198 = 20K inj 0831 scan 277		✓	✓	A2/333	
	54	~~ABNSTD60~~ 54	A-1442	1HAU10			initial cal compliant 8270	NA	✓	✓		
	55	ABNSTD120	A-1443						✓	✓		
	56	ABNSTD080	A-1444						✓	✓		
	57	ABNSTD050	A-1445						✓	✓		
	58	ABNSTD020	A-1446						✓	✓		
	59	44686-23	ABWL	1HOE10	1/1	NYPE	3325		✓	✓		
	60	-24			1/1		3326		✓	✓		
	61	-25			1/2		3327 RE 1/4					
	62	-26			1/4		3328		✓	✓		
	63	-23R			1/1		3325		✓	✓		
	64	-24R			1/1		3326		✓	✓		
	65	-25R			1/2		3327 RE 1/4					
	66	-26R			1/4		3328		✓	✓		
	67	-25			1/4		3327		✓	✓		
	68	-25R			1/4		3327		✓	✓		
	69	BA2389			1/1				✓	✓		
	70	LSA2389							✓	✓		
	71	BA2286							✓	✓		
	72	LSA2286							✓	✓		

8/11/95 K

PACE New England

GCMS Semi Volatiles
RUN LOG

Voltage 1750 | Tune Meth MSHDFT | Initial Cal 8/10/95 | Date 8/11/95
Threshold 20 | Sample Meth MSHTST | Batch File HHAU11A | Analyst MT
QASOP 5206 | Volume Inj 1 µl | Int Std A-1441 | Instr H MS-HP

Maintenance: Septum _____ Liner _____ Inlet Disk _____ Column Clip _____ Other none

Btl #	File #	Sample	Matrix	ID File	Dil	SDG	Comments	MI	A	R	Arcv	P
	7HH8773	DFTPP 50	A-1213				m/e 198 = 22 K inj 0717 scan 278+279+280		✓	✓	A2/333	
	75	ABN STD 50	A-1445	1HAU10			compliant 8270	✓	✓	✓		
6	76	44897-25	ABNL	1HTCLP 1HPOST	1/1				✓	✓		
7	77	44898-8							✓	✓		
8	78	-9							✓	✓		
9	79	BA2290		1HOE11					✓	✓		
10	80	LSA2290							✓	✓		
11	81	44898-11		1HTCLP					✓	✓		
12	82	BA2398		1HOE11					✓	✓		
13	83	LSA2398							✓	✓		
14	84	44913-9		1HTCLP					✓	✓		
15	85	44914-3							✓	✓		
16	86	-7							✓	✓		
17	87	-12			✓				✓	✓		
18	88	44853-1			1/5				✓	✓		
19	89	-2			1/10			✓	✓	✓		
20	90	G-161 pre		1HAU10 1HJL05 1HPOST			pre/post after H8782		✓	✓		
21	91	G-161 post		1HGFC			post 80R's low		N	✓		

8/14/95

Laboratory number: 44862-026
Sample Designation: CLJ44-CC-001
Date Extracted: 08/04/95
Date Analyzed: 08/04/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.
Moisture content was 11 % , elevating the reporting limits
by a factor of 1.12 .

PCB'S	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
PCB-1242 (Arochlor 1242)	BDL	0.1
PCB-1254 (Arochlor 1254)	BDL	0.1
PCB-1221 (Arochlor 1221)	BDL	0.1
PCB-1232 (Arochlor 1232)	BDL	0.1
PCB-1248 (Arochlor 1248)	BDL	0.1
PCB-1260 (Arochlor 1260)	BDL	0.1
PCB-1016 (Arochlor 1016)	BDL	0.1

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHODS 3550 AND 8080

BDL = Below reporting limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: 44862-029
Sample Designation: CLJ44-007-FB
Date Extracted: 08/08/95
Date Analyzed: 08/09/95
Matrix: WATER

PCB'S	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
PCB-1242 (Arochlor 1242)	BDL	0.5
PCB-1254 (Arochlor 1254)	BDL	0.5
PCB-1221 (Arochlor 1221)	BDL	0.5
PCB-1232 (Arochlor 1232)	BDL	0.5
PCB-1248 (Arochlor 1248)	BDL	0.5
PCB-1260 (Arochlor 1260)	BDL	0.5
PCB-1016 (Arochlor 1016)	BDL	0.5

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 608

BDL = Below reporting limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: 44897-026
Sample Designation: CLJ44-CC-025
Date Extracted: 08/07/95
Date Analyzed: 08/08/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.
Moisture content was 21 % , elevating the reporting limits
by a factor of 1.26 .

PCB'S	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
PCB-1242 (Arochlor 1242)	BDL	0.1
PCB-1254 (Arochlor 1254)	BDL	0.1
PCB-1221 (Arochlor 1221)	BDL	0.1
PCB-1232 (Arochlor 1232)	BDL	0.1
PCB-1248 (Arochlor 1248)	BDL	0.1
PCB-1260 (Arochlor 1260)	BDL	0.1
PCB-1016 (Arochlor 1016)	BDL	0.1

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHODS 3550 AND 8080

BDL = Below reporting limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

SOIL PESTICIDE SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44862
Project: CAMP LEJEUNE/16487
Level: Soil

CLIENT SAMPLE NO.	S1 (TCX) #	S2 (DCB) #	OTHER	TOT OUT
CLJ44-CC-001	65	68		0
B-P4388	101	94		0
B-P4393	103	92		0

	QC LIMITS
S1 (TCX) = Tetrachloro-m-xylene	20 - 150
S2 (DCB) = Decachlorobiphenyl	20 - 150

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

2E

WATER PESTICIDE SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44862
Project: CAMP LEJEUNE/16487

CLIENT SAMPLE NO.	S1 (TCX) #	S2 (DCB) #	OTHER	TOT OUT
CLJ44-007-FB	66	74		0
B-P4396	72	39		0

	QC LIMITS
S1 (TCX) = Tetrachloro-m-xylene	20 - 150
S2 (DCB) = Decachlorobiphenyl	20 - 150

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

pace INCORPORATED THE ASSURANCE OF QUALITY

SOIL PESTICIDE SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44897
Project: CAMP LEJEUNE/16487
Level: Soil

CLIENT SAMPLE NO.	S1 (TCX) #	S2 (DCB) #	OTHER	TOT OUT
CLJ44-CC-025	60	70		0

	QC LIMITS
S1 (TCX) = Tetrachloro-m-xylene	20 - 150
S2 (DCB) = Decachlorobiphenyl	20 - 150

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: B-P4388
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/04/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.

PCB'S	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
PCB-1242	BDL	0.1
PCB-1254	BDL	0.1
PCB-1221	BDL	0.1
PCB-1232	BDL	0.1
PCB-1248	BDL	0.1
PCB-1260	BDL	0.1
PCB-1016	BDL	0.1

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHODS 3550 AND 8080

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: B-P4393
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/08/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.

PCB'S	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
PCB-1242	BDL	0.1
PCB-1254	BDL	0.1
PCB-1221	BDL	0.1
PCB-1232	BDL	0.1
PCB-1248	BDL	0.1
PCB-1260	BDL	0.1
PCB-1016	BDL	0.1

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHODS 3550 AND 8080

BDL = Below detection limit

Laboratory number: B-P4396
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/08/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.

PCB'S	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
PCB-1242	BDL	0.1
PCB-1254	BDL	0.1
PCB-1221	BDL	0.1
PCB-1232	BDL	0.1
PCB-1248	BDL	0.1
PCB-1260	BDL	0.1
PCB-1016	BDL	0.1

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHODS 3550 AND 8080

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: B-P4396
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/08/95
Matrix: WATER

PCB'S	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
PCB-1242	BDL	0.5
PCB-1254	BDL	0.5
PCB-1221	BDL	0.5
PCB-1232	BDL	0.5
PCB-1248	BDL	0.5
PCB-1260	BDL	0.5
PCB-1016	BDL	0.5

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26,1984
METHODS 608

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

PCB'S

MATRIX SPIKE DUPLICATE RECOVERY

Laboratory Number: 44897-26 MS/MSD
Sample Designation: CLJ44-CC-025 MS/MSD
Date Analyzed 08/08/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	REPLICATE 1 ug/g FOUND	REPLICATE 1 %REC-OVERY	REPLICATE 2 ug/g FOUND	REPLICATE 2 % REC-OVERY	RELATIVE RANGE %
AR-1254	0	1.20 MS & 1.14 MSD	1.17	98	1.14	100	2

METHOD REFERENCE: EPA SW846, 2ND EDITION
METHODS 3550 AND 8080

pace INCORPORATED
THE ASSURANCE OF QUALITY

PCB'S

MATRIX SPIKE RECOVERY

Laboratory Number: LS-P4388
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/04/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
AR-1254	0	1.01	1.12	111

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHODS 3550 AND 8080

pace INCORPORATED
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PCB'S

MATRIX SPIKE RECOVERY

Laboratory Number: LS-P4393
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/08/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
AR-1254	0	1.01	1.14	113

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHODS 3550 AND 8080

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PCB's

MATRIX SPIKE RECOVERY

Laboratory Number: LS-P4396
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: WATER

COMPOUND	ug/L SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
AR-1254	0	5.01	5.11	102

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHODS 608

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PACE INCORPORATED
Organics Extraction
AQUEOUS PREP LOG

PROTOCOL: EPA SW846 3510

SOP #: QA ~~5528~~ (E3) ~~JEH~~ 08/05/95

MATRIX: AQUEOUS

② pr 8-22-95

PCB ONLY

LOG BOOK NO: 2

METHOD: CONT/3520 (SEPF/3510)

TEST / LEVEL: (PCB) /

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	INIT VOL (L)	SURR # AMT/CONC INITIALS	LCS MS/MSD	SPIKE # AMT/CONC.	INTER VOL (ml)	ALIQUOT VOL (ml)	FINAL VOL (ml)	SENT LABUX
	JEH	BP4396	1.0	E1359 0.5ml	N/A	N/A	10.0	1.0	1.0	JEH
(E3)	08/08/95	1SP4396	1.0	20ppm	~~E1351~~ 1318 100ml ~~10.0ppm~~ (50.4)	~~E1351 10ml 10.0ppm~~	↓	↓	↓	08/08/95
15 JEH	↓	44862-79	.970	↓	N/A	N/A	↓	↓	↓	↓
08/08/95										
					JEH					
					pr					

no ms/msd assigned at this point

JEH 08/08/95

COMMENTS:

PACE, INC. NEW ENGLAND - NEW HAMPSHIRE LAB
Organics Extraction
SOLIDS PREP LOG

PROTOCOL: EPA SW846 LOG BOOK NO: 4

SOP #: QA5517, QA5526, QA5500, QA5520 STEAMBATH TEMP: N/A (Range 80-90°C) METHOD: SONC/3550

MATRIX: SOLIDS REVIEWED BY/DATE: JCH 05/21/95 TEST/LEVEL: PCB/ Med

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	INIT WT (g)	Na_2SO_4 (g)	LCS MS/MSD	SURR # AMT/CONC INITIALS	SPIKE # AMT/CONC.	INTER VOL (ml)	ALIQUOT VOL (ml)	FINAL VOL (ml)	SPECIAL CLEANUP (F,G,S,SA)	QUATTRO init/ date
–	MC 9/4/95	BP4388	5.0	10.0	LSM4388	E1359 500 ml	N/A	10.0	1.0	1.0	N/A	
–		LSP4388 ~~LSP4388~~ E3	5.0			30 ppm	E1318 100 ml 50.4 ppm					
6		44858-1	5.06				N/A					
7		44862-26	5.01				N/A					

COMMENTS: F = Florisil, G = GPC, S = Sulfur using copper powder, SA = Sulfuric acid

Associated QC: 44820-1 MS/MSD

F:\APPS\WP51\NANCY\EXLBSPCB

PACE, INC. NEW ENGLAND - NEW HAMPSHIRE LAB
Organics Extraction
SOLIDS PREP LOG

PROTOCOL: EPA SW846 LOG BOOK NO: 4

SOP #: QA5517,QA5526,QA5500,QA5520 STEAMBATH TEMP: N/A (Range 80-90°C) METHOD: SONC/3550

MATRIX: SOLIDS REVIEWED BY/DATE: JEN 08/21/95 TEST/LEVEL: PCB/ Med

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	INIT WT (g)	Na_2SO_4 (g)	LCS MS/MSD	SURR # AMT/CONC INITIALS	SPIKE # AMT/CONC.	INTER VOL (ml)	ALIQUOT VOL (ml)	FINAL VOL (ml)	SPECIAL CLEANUP (F,G,S,SA)	QUATTRO init/ date
~	MC	BP4393	5.0	10.0	—	E1359 0.5ml	N/A	10.0	1.0	1.0	N/A	PM
-	8/7/95	LSP4393	5.0	↓	LSP 4393	2.0 ppm	E1319 20ml 10.4ppm	↓	↓	↓	↓	8-9
-	↓	44897-26	5.61	↓	44897-	↓	~~N/A~~ (E3)	↓	↓	↓	↓	↓
-	↓	-26MS	5.30	↓	26 MS	↓	E1318	↓	↓	↓	↓	↓
-	↓	(E3) -26MSD	5.57	↓	MSD	↓	E1318	↓	↓	↓	↓	↓
		PM 8-8-95										

COMMENTS: F = Florisil, G = GPC, S = Sulfur using copper powder, SA = Sulfuric acid

(E3) MS/MSD is external

F:\APPS\WP51\NANCY\EXLBSPCB

0000240
0000004

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC18/METHOD/PCB1242021.MTH
Method created: 07/24/95 10:26:20
Method updated: 07/24/95 11:09:19

Result files used for Calibration data:
Level 1 /DATA/GC18/RESULT/G18H18188.RES
Level 2 /DATA/GC18/RESULT/G18H18189.RES
Level 3 /DATA/GC18/RESULT/G18H18190.RES
Level 4 /DATA/GC18/RESULT/G18H18191.RES
Level 5 /DATA/GC18/RESULT/G18H18192.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	4.53	TCX	.99974	-2406.75	1015412.50	-405673.13
2	5.47	AR1242	.99884	-235.53	18057.74	-703.34
3	6.68	AR1242	.99952	-105.33	20741.63	-1413.81
4	7.27	AR1242	.99948	-185.92	19247.86	-899.39
5	8.17	AR1242	.99974	-237.36	39368.91	-2166.43
6	8.53	AR1242	.99968	-153.09	21784.99	-1298.31
7	33.44	DCB	.99991	246.14	838414.37	-385523.75

$$R = B0 + B1X + B2X^2$$

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC19/METHOD/PCB1242021.MTH
Method created: 07/24/95 12:21:47
Method updated: 07/24/95 16:19:04

Result files used for Calibration data:
Level 1 /DATA/GC19/RESULT/G19H18188.RES
Level 2 /DATA/GC19/RESULT/G19H18189.RES
Level 3 /DATA/GC19/RESULT/G19H18190.RES
Level 4 /DATA/GC19/RESULT/G19H18191.RES
Level 5 /DATA/GC19/RESULT/G19H18192.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	4.27	TCX	.99982	-1106.66	510715.19	-177764.34
2	5.77	AR1242	.99988	-12.17	7981.39	-657.79
3	7.03	AR1242	.99987	25.34	13119.28	-1358.06
4	8.60	AR1242	.99987	-44.23	23800.17	-1708.02
5	9.11	AR1242	.99990	3.71	9170.59	-586.88
6	11.11	AR1242	.99987	-10.49	7681.31	-491.48
7	33.09	DCB	.99988	116.87	363477.19	-150394.66

$$R = B0 + B1X + B2X^2$$

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC18/METHOD/PCB1248016.MTH
Method created: 07/24/95 10:27:02
Method updated: 07/24/95 12:12:13

Result files used for Calibration data:
Level 1 /DATA/GC18/RESULT/G18H18193.RES
Level 2 /DATA/GC18/RESULT/G18H18194.RES
Level 3 /DATA/GC18/RESULT/G18H18195.RES
Level 4 /DATA/GC18/RESULT/G18H18196.RES
Level 5 /DATA/GC18/RESULT/G18H18197.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	4.57	TCX	.99997	-1228.58	986594.50	-514864.00
2	8.22	AR1248	.99998	61.82	23813.14	-516.67
3	10.33	AR1248	.99999	77.12	21988.58	-1290.49
4	10.86	AR1248	.99998	-45.70	21138.87	-956.14
5	12.23	AR1248	1.0000	34.54	22879.49	-1322.24
6	12.43	AR1248	.99999	17.03	23706.26	-993.17
7	33.50	DCB	.99995	1268.14	824966.37	-332606.88

$$R = B_0 + B_1X + B_2X^2$$

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC19/METHOD/PCB1248016.MTH
Method created: 07/24/95 12:22:27
Method updated: 07/24/95 16:50:34

Result files used for Calibration data:
Level 1 /DATA/GC19/RESULT/G19H18193.RES
Level 2 /DATA/GC19/RESULT/G19H18194.RES
Level 3 /DATA/GC19/RESULT/G19H18195.RES
Level 4 /DATA/GC19/RESULT/G19H18196.RES
Level 5 /DATA/GC19/RESULT/G19H18197.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	4.31	TCX	.99980	-791.12	504576.50	-227958.28
2	8.65	AR1248	.99987	23.50	14954.46	-724.67
3	10.04	AR1248	.99985	94.19	10785.66	-964.85
4	11.17	AR1248	.99998	65.87	11713.23	-849.74
5	11.60	AR1248	.99994	94.61	10320.70	-607.42
6	13.45	AR1248	.99999	35.40	11731.58	-664.34
7	33.16	DCB	.99994	555.17	357483.44	-136452.25

$$R = B_0 + B_1X + B_2X^2$$

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC18/METHOD/PCB1254021.MTH
Method created: 07/24/95 10:27:35
Method updated: 07/24/95 11:55:25

Result files used for Calibration data:
Level 1 /DATA/GC18/RESULT/G18H18198.RES
Level 2 /DATA/GC18/RESULT/G18H18199.RES
Level 3 /DATA/GC18/RESULT/G18H18200.RES
Level 4 /DATA/GC18/RESULT/G18H18201.RES
Level 5 /DATA/GC18/RESULT/G18H18202.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	4.56	TCX	.99996	-1320.06	917136.50	-416666.75
2	12.46	AR1254	.99995	170.77	21230.15	-1632.36
3	13.89	AR1254	.99992	230.99	23918.08	-2080.58
4	16.36	AR1254	.99998	101.42	34281.20	-1731.26
5	18.07	AR1254	.99995	246.94	26564.98	-1225.21
6	21.19	AR1254	1.0000	77.08	31220.91	-1335.48
7	33.48	DCB	.99993	1586.83	832233.63	-368193.19

$$R = B0 + B1X + B2X^2$$

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC19/METHOD/PCB1254021.MTH
Method created: 07/24/95 12:22:55
Method updated: 07/25/95 15:42:56

Result files used for Calibration data:
Level 1 /DATA/GC19/RESULT/G19H18198.RES
Level 2 /DATA/GC19/RESULT/G19H18199.RES
Level 3 /DATA/GC19/RESULT/G19H18200.RES
Level 4 /DATA/GC19/RESULT/G19H18201.RES
Level 5 /DATA/GC19/RESULT/G19H18202.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	4.30	TCX	.99997	-635.94	480493.56	-215858.44
2	10.01	AR1254	.99991	82.21	8096.19	-819.15
3	13.43	AR1254	.99992	98.39	9984.12	-718.18
4	14.70	AR1254	.99992	99.50	10618.61	-949.53
5	17.74	AR1254	.99999	62.17	16462.23	-858.41
6	19.28	AR1254	.99996	91.43	12357.13	-653.52
7	33.14	DCB	.99992	733.73	364348.69	-159780.88

$$R = B0 + B1X + B2X^2$$

FACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC18/METHOD/PCB1660018.MTH
Method created: 07/24/95 10:28:12
Method updated: 07/24/95 12:09:13

Result files used for Calibration data:
Level 1 /DATA/GC18/RESULT/G18H18203.RES
Level 2 /DATA/GC18/RESULT/G18H18204.RES
Level 3 /DATA/GC18/RESULT/G18H18205.RES
Level 4 /DATA/GC18/RESULT/G18H18206.RES
Level 5 /DATA/GC18/RESULT/G18H18207.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	4.56	TCX	.99931	-1652.23	932374.63	-257207.66
2	5.49	AR1016	.99617	-473.68	24879.87	-3547.63
3	6.71	AR1016	.99922	-172.05	28236.80	-3726.21
4	7.30	AR1016	.99956	-175.56	25825.02	-2532.47
5	8.20	AR1016	.99981	-112.09	52580.82	-3415.18
6	8.57	AR1016	.99983	-30.46	28591.92	-1665.91
7	22.22	AR1260	.99992	132.21	23217.82	-1206.27
8	23.54	AR1260	.99996	61.61	22954.80	-397.82
9	25.15	AR1260	.99997	114.64	58492.76	-900.97
10	26.72	AR1260	.99989	-131.94	31132.06	284.39
11	30.12	AR1260	.99995	-3.03	18301.70	507.00
12	33.48	DCB	.99988	2062.66	808091.00	-235399.84

$$R = B0 + B1X + B2X^2$$

PACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC19/METHOD/PCB1660018.MTH
Method created: 07/24/95 12:23:23
Method updated: 07/25/95 15:57:48

Result files used for Calibration data:
Level 1 /DATA/GC19/RESULT/G19H18203.RES
Level 2 /DATA/GC19/RESULT/G19H18204.RES
Level 3 /DATA/GC19/RESULT/G19H18205.RES
Level 4 /DATA/GC19/RESULT/G19H18206.RES
Level 5 /DATA/GC19/RESULT/G19H18207.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	4.29	TCX	.99967	-354.80	461759.50	-35691.48
2	5.80	AR1016	.99991	81.60	9217.97	-463.27
3	8.64	AR1016	.99992	277.65	29121.18	-1349.90
4	9.15	AR1016	.99990	64.91	12017.07	-668.81
5	10.07	AR1016	.99994	60.48	9104.93	-799.41
6	11.16	AR1016	.99992	40.13	9499.28	-462.68
7	18.79	AR1260	.99991	117.03	12468.04	-782.78
8	20.22	AR1260	.99991	154.02	16077.76	-1133.88
9	22.24	AR1260	.99996	49.13	18575.73	-644.15
10	25.97	AR1260	.99997	87.25	28476.87	-942.21
11	27.85	AR1260	.99864	-659.63	17068.91	-177.07
12	33.14	DCB	.99993	663.25	361495.06	-132412.78

$$R = B0 + B1X + B2X^2$$

PACE, Incorporated
Continuing Calibration Report Tue Aug 22, 1995 1:45:37 pm

/DATA/GC18/RESULT/G18H18331.RES
/DATA/GC18/METHOD/PCB1254021.MTH

Sample: AR1254 0.5PPM P8709
Injected: Fri Aug 4, 1995 6:12:54 pm

RetTime	Analyte	Found	Nominal	%D	Recovery
4.55	TCX	.095	.100	5.2	94.8
12.41	AR1254	.542	.500	8.5	108.5
13.83	AR1254	.550	.500	9.9	109.9
16.30	AR1254	.522	.500	4.4	104.4
18.01	AR1254	.530	.500	6.0	106.0
21.14	AR1254	.531	.500	6.2	106.2
33.44	DCB	.100	.100	.1	99.9

PACE, Incorporated
Continuing Calibration Report Tue Aug 22, 1995 1:47:09 pm

/DATA/GC19/RESULT/G19H18331.RES
/DATA/GC19/METHOD/PCB1254021.MTH

Sample: AR1254 0.5PPM P8709
Injected: Fri Aug 4, 1995 6:12:54 pm

RetTime	Analyte	Found	Nominal	%D	Recovery
4.29	TCX	.094	.100	6.2	93.8
9.97	AR1254	.552	.500	10.4	110.4
13.37	AR1254	.547	.500	9.5	109.5
14.63	AR1254	.541	.500	8.3	108.3
17.67	AR1254	.531	.500	6.2	106.2
19.22	AR1254	.537	.500	7.4	107.4
33.09	DCB	.102	.100	2.0	102.0

PACE, Incorporated
Continuing Calibration Report Tue Aug 22, 1995 1:46:05 pm

/DATA/GC18/RESULT/G18H18341.RES
/DATA/GC18/METHOD/PCB1254021.MTH

Sample: AR1254 0.5PPM P8709
Injected: Tue Aug 8, 1995 8:56:23 am

RetTime	Analyte	Found	Nominal	%D	Recovery
4.59	TCX	.100	.100	.1	100.1
12.49	AR1254	.547	.500	9.5	109.5
13.92	AR1254	.544	.500	8.8	108.8
16.39	AR1254	.524	.500	4.7	104.7
18.10	AR1254	.535	.500	7.0	107.0
21.21	AR1254	.533	.500	6.6	106.6
33.49	DCB	.100	.100	.0	100.0

PACE, Incorporated
Continuing Calibration Report Tue Aug 22, 1995 1:47:27 pm

/DATA/GC19/RESULT/G19H18341.RES
/DATA/GC19/METHOD/PCB1254021.MTH

Sample: AR1254 0.5PPM P8709
Injected: Tue Aug 8, 1995 8:56:23 am

RetTime	Analyte	Found	Nominal	%D	Recovery
4.32	TCX	.097	.100	3.1	96.9
10.03	AR1254	.545	.500	8.9	108.9
13.46	AR1254	.552	.500	10.3	110.3
14.72	AR1254	.543	.500	8.5	108.5
17.76	AR1254	.528	.500	5.6	105.6
19.30	AR1254	.535	.500	6.9	106.9
33.14	DCB	.102	.100	2.5	102.5

PACE, Incorporated
Continuing Calibration Report

Tue Aug 22, 1995 1:46:29 pm

/DATA/GC18/RESULT/G18H18370.RES
/DATA/GC18/METHOD/PCB1254021.MTH

Sample: AR1254 0.5PPM P8709
Injected: Wed Aug 9, 1995 8:21:09 am

RetTime	Analyte	Found	Nominal	%D	Recovery
4.57	TCX	.114	.100	13.8	113.8
12.45	AR1254	.551	.500	10.2	110.2
13.87	AR1254	.555	.500	10.9	110.9
16.34	AR1254	.533	.500	6.5	106.5
18.06	AR1254	.551	.500	10.3	110.3
21.18	AR1254	.540	.500	8.0	108.0
33.48	DCB	.102	.100	2.2	102.2

PACE, Incorporated
Continuing Calibration Report Tue Aug 22, 1995 1:47:47 pm

/DATA/GC19/RESULT/G19H18370.RES
/DATA/GC19/METHOD/PCB1254021.MTH

Sample: AR1254 0.5PPM P8709
Injected: Wed Aug 9, 1995 8:21:09 am

RetTime	Analyte	Found	Nominal	%D	Recovery
4.30	TCX	.112	.100	12.4	112.4
10.00	AR1254	.543	.500	8.6	108.6
13.41	AR1254	.546	.500	9.3	109.3
14.67	AR1254	.553	.500	10.6	110.6
17.71	AR1254	.534	.500	6.7	106.7
19.26	AR1254	.547	.500	9.5	109.5
33.13	DCB	.106	.100	6.1	106.1

PACE, INCORPORATED
GC Instrument Run Log

Reviewed by ____________ Date ________

Circle one: CLP/PHC/OPP/HERB/(P-P)

Date	init	result file	Sample	MI	√	Method	column	Sequence
7/7/95	HS	G18/1911818165	IND2AB Testing	N	N	PCB1784020A	146/147	G18/190705
↓	↓	166	↓	↓	↓	↓	↓	↓
↓	↓	167	↓	↓	↓	↓	↓	↓
7/12/95	↓	168	↓	↓	↓	↓	↓	↓
↓	↓	169	↓	↓	↓	↓	↓	↓
7/12/95	HS	Temp. Program: 160°C $\xrightarrow{3.2°/m}$ 190°C(5) $\xrightarrow{3.2°/m}$ 260°C (0). Run time 35 min.						
7/12/95	HS	G18/1911818170	EVAL Finding B.D high	N	N	pest003	146/147	G18/190712
↓	↓	171	IND0.5AB	↓	↓	↓	↓	↓
↓	↓	172	IND1.0AB	↓	↓	↓	↓	↓
7/12/95	HS/ML	High B.D on EVAL for both columns						
		Change Septa Liner Adapter.						
		Signal high on both columns						
7/12/95	HS	G18/1911818173	IND2AB Testing	N	N	pest003	146/147	G18/190712
↓	↓	174	↓	↓	↓	↓	↓	↓
↓	↓	175	↓	↓	↓	↓	↓	↓
↓	↓	176	↓	↓	↓	↓	↓	↓
↓	↓	177	↓	↓	↓	↓	↓	↓
↓	↓	178	↓	↓	↓	↓	↓	↓
↓	↓	179	↓	↓	↓	↓	↓	↓
↓	↓	180	↓	↓	↓	↓	↓	↓
7/13/95	HS	G18/1911818181	EVAL 0.1PPM P8556	N	Y	pest004	146/147	G18/190712
↓	↓	182	IND0.5AB P8677	N		↓	↓	G18/190713
↓	↓	183	IND1AB P8678	↓		↓	↓	↓
↓	↓	184	IND2AB P8188	↓		↓	↓	↓
↓	↓	185	IND3AB P8679	↓		↓	↓	↓
↓	↓	186	IND5AB P8680	↓		↓	↓	↓
↓	↓	187	TOXAPH 0.5PPM P8567	↓		↓	↓	↓
↓	↓	188	AR1242 0.05 PPM P8567	N	Y	PCB1242	↓	↓
↓	↓	189	AR1242 0.2 PPM P8487	↓	↓	↓	↓	↓
↓	↓	190	AR1242 0.5 PPM P8489	↓	↓	↓	↓	↓
↓	↓	191	AR1242 1.0 PPM P8685	↓	↓	↓	↓	↓

PACE, INCORPORATED
GC Instrument Run Log

Circle one: CLP/PHC/OPP/HERB/(P-P)

Reviewed by ____________ Date ________

Date	init	result file	Sample	MI	√	Method	column	Sequence
7/13/95	183	G18/19118192	AR1242 20ppm P8498	N	Y	PUBAR2021	146/147	G18/190713
↓	↓	193	AR1248 0.05 PPM P8493	↓	↓	PUB1248016	↓	↓
		194	AR1248 0.2 ppm P8494			↓		
		195	AR1248 0.5 ppm P8686					
		196	AR1248 1.0 ppm P8497					
		197	AR1248 2.0 ppm P8498					
		198	AR1254 0.05 ppm P8499	N	Y	PUB1254021		
		199	AR1254 0.2 PPM P8501	↓	↓	↓		
		200	AR1254 0.5 ppm P8687					
		201	AR1254 1.0 ppm P8503					
		202	AR1254 2.0 ppm P8504					
		203	AR1660 0.05 ppm P8505	N	Y	PUB1660018		
		204	AR1660 0.2 ppm P8507	↓	↓	↓		
		205	AR1660 0.5 ppm P8693					
		206	AR1660 1.0 ppm P8509					
		207	AR1660 2.0 ppm P8510					
		208	AR1221 0.05 ppm P8483			pest004		
		209	AR1232 0.05 ppm P8485			↓	↓	↓
7/18/95 -	Signal 1 = 14.4		Signal 2 - 13.7					
7/18/95	(initials circled)	G10/19 W10210	IND2AB	GC10 N	Y	Pest004	146/147	S.S.
↓	↓	↓ 211	PRE-GPC GPC5635A	↓	↓	GPC001	↓	↓
		212	Post GPC GPC5635B			↓		
7/21/95	183	213	IND2AB Testing	N	N	pest004	146/147	S.S.
↓	↓	214	↓	↓	↓	↓	↓	↓
		215						
		216						
		217						
		218						
		219	PIBLK Testing					
		220	↓					
		221						

PACE, INCORPORATED
GC Instrument Run Log

Circle one: CLP/PHC/OPP/HERB/(P-P)

Reviewed by ____________ Date ________

Date	init	result file	Sample	MI	√	Method	column	Sequence
8/3/95	HS	G18/19H8315	LSP4385 P/P-W	N	N	Pest004A	146/147	G18/190803
		316	44780-1 P/P-W TCLP V8/4		Y			
		317	BP4382 P/P-W					
		318	LSP4382 P/P-W		N			
		319	44773-27 P/P-W		Y			
		320	BP4386 PCB-MS					
		321	LSP4386			PCB1254021		
		322	44823-2			Pest004A		
		323	AR1254 0.5PPM P8709			PCB1254021		
	HS	324	BP4366 Test	N	Y	Pest004A		
		325	LSP4366A					
		326	B					
		327	C					
		328	D					
[illegible]	HS	G18/19H83 29	AR1242 0.5PPM P8715	N	Y	PCB1254021	146/147	G18/190804
		330	AR1248 0.5PPM P8716					
		331	AR1254 0.5PPM P8709					
		332	AR1260 0.5PPM P8693					
		333	BP4388 PCB-MS					
		334	LSP4388					
		335	44858-1					
		336	44862-26					
		337	AR1242 0.5PPM P8715					
		338	IND2AB	N	Y	Pest004	146/147	G18/190807
[illegible]	HS	G18/19H8339	AR1242 0.5PPM P8715	N	Y	PCB1254021		
8/8/95		340	AR1248 0.5PPM P8716					
		341	AR1254 0.5PPM P8709					
		342	AR1260 0.5PPM P8693					
		343	44897-26 PCB-MS					
		344	LSP4393					
		345	BP4393					

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PACE, INCORPORATED
GC Instrument Run Log

Circle one: CLP/PHC/OPP/HERB/P-P (circled: P-P)

Reviewed by ____________ Date _________

Date	init	result file	Sample	MI	V	Method	column	Sequence
8/8/95	AS	G18/918 18346	44897-26MS PCB MS	N	Y	PCB1254021	146/147	G120807
|	|	347	-26MSD ↓				↓	↓
8/9/95	AS	G18/9118348	BP4395 PCB-MS				146/147	G120808
		349	LSP4395					
		350	44913-7 ↓ LJN10					
		351	44903-1 ↓					
		352	PIBLK 0.02ppm P8691					
		353	AR1242 0.5ppm P8715					
		354	AR1248 0.5ppm P8716					
		355	AR1254 0.5ppm P8709					
		356	AR1660 0.5ppm P8693			PCB1660018		
		357	BP 4381 PCB-W			PCB1254021		
		358	LSP4381					
		359	44795-6					
		360	-7					
		361	-8					
		362	-9					
		363	44802-6					
		364	-7			PCB1660018		
		365	-8			PCB1254021		
		366	-9 ↓		N			
		367	PIBLK 0.02ppm P8691		Y			
		368	AR1242 0.5ppm P8715			PCB1242021		
		369	AR1248 0.5ppm P8716			PCB1254021		
		370	AR1254 0.5ppm P8709			PCB1254021		
		371	AR1660 0.5ppm P8693			PCB1660018		
8/9/95	AS	G18/9118372	44802-9 PCB 1:100	N		PCB1254021	146/147	G120809
		373	BP4399 PCB-MS			PCB1254021		
		374	LSP4399					
		375	44928-11 ↓					
↓	↓	376	BP4396 PCB-W				↓	↓

PACE, INCORPORATED
GC Instrument Run Log

Reviewed by ____________ Date _________

Circle one
CLP/PHC/OPP/HERB/P

Date	init	result file	Sample	MI	√	Method	column	Sequence
8/11/95	1B	G18/19/18 377	LSP4396 PCB-W	N	Y	PCB1260021	146/147	G120809
		378	44862-29 ↓					
		379	PIBUC 0.02ppm P8691					
		380	AR1242 0.5ppm P8715			PCB1242021		
		381	AR1248 0.5ppm P8716			PCB1248021		
		382	AR1254 0.5ppm P8709			↓		
		383	AR1660 0.5ppm P8693			PCB1660018		
		384	44928-13 PCB-MS			PCB1254021		
		385	AR1254 0.5ppm P8709					
		386	BH4401 PCB-MS					
		387	LSH4401 ↓					
8/14/95	1B	G18/19/18 388	AR1242 0.5ppm P8715	N	Y	PCB1242021	146/147	G120874
		389	AR1248 0.5ppm P8716					
		390	AR1254 0.5ppm P8709					
		391	AR1660 0.5ppm P8693			PCB1660018		
		392	44915-1 pace-ME PCB-S			PCB1254021		
		393	-2 1:100			PCB1660018		
		394	-1MS			PCB1254061		
		395	-1MSD					
		396	BP4406					
		397	LSP4406					
		398	BP4410 PCB-MS					
		399	44937-1					
		400	BP4408					
		401	AR1242 0.5ppm P8715					
		402	AR1248 0.5ppm P8716					
		403	AR1254 0.5ppm P8709					
		404	AR1660 0.5ppm P8748			PCB1660018		
		405	LSP 4408 PCB-MS			PCB1254021		
		406	44959-1					
		407	-3 ↓					

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

SOW No.: 3/90

EPA Sample No.	Lab Sample ID.
4007FB	44862-027
4CC001	44862-026
4CC025	44897-026
4CC025D	44897-026D
4CC025S	44897-026S
4CU003	44862-020
4CU004	44862-021
4CU005	44862-022
4CU012	44898-008
4CU013	44898-009
C002RB	44862-031
CC001T	44862-018
CC025T	44897-025
U006RB	44862-037
U014RB	44898-012

Were ICP interelement corrections applied? Yes/No Y

Were ICP background corrections applied? Yes/No Y
If yes-were raw data generated before application of background corrections? Yes/No N

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: R L Wellman Name: Richard L Wellman

Date: 8/28/95 Title: Opns Mgr

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EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

4007FB

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44862-027

Level (low/med): LOW Date Received: 08/03/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.9	U		P
7440-39-3	Barium	2.7	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.4	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-007-FB

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

4CC001

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): SOIL Lab Sample ID: 44862-026

Level (low/med): LOW Date Received: 08/03/95

% Solids: 89.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				
7440-70-2	Calcium				NR
7440-47-3	Chromium				
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	8.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CC-001

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

4CC025

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): SOIL Lab Sample ID: 44897-026

Level (low/med): LOW Date Received: 08/05/95

% Solids: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				
7440-70-2	Calcium				NR
7440-47-3	Chromium				
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CC-025

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

4CU003

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44862-020

Level (low/med): LOW Date Received: 08/03/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	20.4			P
7440-39-3	Barium	526			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	18.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.46			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	23.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CU-003. TCLP EXTRACT.

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

4CU004

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44862-021

Level (low/med): LOW Date Received: 08/03/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	17.8	U		P
7440-39-3	Barium	290			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	24.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	23.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CU-004. TCLP EXTRACT.

U.S. EPA - CLP

EPA SAMPLE NO.

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INORGANIC ANALYSIS DATA SHEET

4CU005

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44862-022

Level (low/med): LOW Date Received: 08/03/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	17.8	U		P
7440-39-3	Barium	188	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	2.9	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.8	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	23.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CU-005. TCLP EXTRACT.

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

4CU012

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44898-008

Level (low/med): LOW Date Received: 08/05/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	17.8	U		P
7440-39-3	Barium	203			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	39.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	23.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CU-012. TCLP EXTRACT.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

4CU013

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44898-009

Level (low/med): LOW Date Received: 08/05/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	17.8	U		P
7440-39-3	Barium	182	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	13.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	23.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CU-013. TCLP EXTRACT.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

C002RB

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44862-031

Level (low/med): LOW Date Received: 08/03/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.9	U		P
7440-39-3	Barium	2.7	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.4	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CC-002-RB

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

CC001T

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44862-018

Level (low/med): LOW Date Received: 08/03/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	17.8	U		P
7440-39-3	Barium	170	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	13.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	23.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CC-001. TCLP EXTRACT.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CC025T

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44897-025

Level (low/med): LOW Date Received: 08/05/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	17.8	U		P
7440-39-3	Barium	133	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	21.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	23.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CC-025. TCLP EXTRACT.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

U006RB

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44862-037

Level (low/med): LOW Date Received: 08/03/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.9	U		P
7440-39-3	Barium	2.7	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.4	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	2.2	B		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CU-006-RB.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

U014RB

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): WATER Lab Sample ID: 44898-012

Level (low/med): LOW Date Received: 08/05/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.9	U		P
7440-39-3	Barium	2.7	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.4	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
ORIGINAL CLIENT ID = CLJ44-CU-014-RB.

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic	1000.0	998.71	99.9	10000.0	9606.63	96.1	9723.89	97.2	P
Barium	1000.0	982.30	98.2	40000.0	39864.07	99.7	40225.84	100.6	P
Beryllium									NR
Cadmium	500.0	483.22	96.6	1000.0	982.67	98.3	989.11	98.9	P
Calcium									NR
Chromium	1000.0	955.52	95.6	4000.0	3787.34	94.7	3792.81	94.8	P
Cobalt									NR
Copper									NR
Iron									NR
Lead	1000.0	985.42	98.5	10000.0	9795.37	98.0	9809.48	98.1	P
Magnesium									NR
Manganese									NR
Mercury	4.0	3.39	84.8	5.0	4.83	96.6	4.85	97.0	CV
Nickel									NR
Potassium									NR
Selenium	1000.0	1007.06	100.7	10000.0	9890.48	98.9	9933.47	99.3	P
Silver	200.0	198.41	99.2	1000.0	1005.42	100.5	1009.93	101.0	P
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				10000.0	9818.40	98.2	9819.78	98.2	P
Barium				40000.0	40401.79	101.0	40749.20	101.9	P
Beryllium									NR
Cadmium				1000.0	996.76	99.7	994.32	99.4	P
Calcium									NR
Chromium				4000.0	3814.65	95.4	3828.52	95.7	P
Cobalt									NR
Copper									NR
Iron									NR
Lead				10000.0	9908.65	99.1	9905.40	99.1	P
Magnesium									NR
Manganese									NR
Mercury				5.0	5.01	100.2			CV
Nickel									NR
Potassium									NR
Selenium				10000.0	10037.13	100.4	10066.11	100.7	P
Silver				1000.0	1018.49	101.8	1016.63	101.7	P
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				10000.0	9830.01	98.3	9653.47	96.5	P
Barium				40000.0	41156.58	102.9	40042.33	100.1	P
Beryllium									NR
Cadmium				1000.0	1008.48	100.8	982.84	98.3	P
Calcium									NR
Chromium				4000.0	3870.86	96.8	3769.96	94.2	P
Cobalt									NR
Copper									NR
Iron									NR
Lead				10000.0	9988.79	99.9	9786.31	97.9	P
Magnesium									NR
Manganese									NR
Mercury									
Nickel									NR
Potassium									NR
Selenium				10000.0	10133.94	101.3	9892.55	98.9	P
Silver				1000.0	1026.25	102.6	1007.90	100.8	P
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				10000.0	9699.66	97.0	9791.68	97.9	P
Barium				40000.0	40274.49	100.7	41520.64	103.8	P
Beryllium									NR
Cadmium				1000.0	996.48	99.6	1005.13	100.5	P
Calcium									NR
Chromium				4000.0	3806.13	95.2	3889.34	97.2	P
Cobalt									NR
Copper									NR
Iron									NR
Lead				10000.0	9864.41	98.6	10040.93	100.4	P
Magnesium									NR
Manganese									NR
Mercury									
Nickel									NR
Potassium									NR
Selenium				10000.0	9914.45	99.1	10308.72	103.1	P
Silver				1000.0	1018.26	101.8	1041.09	104.1	P
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				10000.0	10031.69	100.3	9805.79	98.1	P
Barium				40000.0	42742.45	106.9	42420.21	106.1	P
Beryllium									NR
Cadmium				1000.0	1023.84	102.4	1013.21	101.3	P
Calcium									NR
Chromium				4000.0	3962.99	99.1	3924.65	98.1	P
Cobalt									NR
Copper									NR
Iron									NR
Lead				10000.0	10213.54	102.1	10122.22	101.2	P
Magnesium									NR
Manganese									NR
Mercury									
Nickel									NR
Potassium									NR
Selenium				10000.0	10608.49	106.1	10359.68	103.6	P
Silver				1000.0	1063.30	106.3	1051.87	105.2	P
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic	1000.0	1039.50	104.0	10000.0	9644.50	96.4	9585.02	95.9	P
Barium	1000.0	1002.64	100.3	40000.0	40398.08	101.0	40706.41	101.8	P
Beryllium									NR
Cadmium	500.0	500.98	100.2	1000.0	983.82	98.4	986.09	98.6	P
Calcium									NR
Chromium	1000.0	1043.97	104.4	4000.0	4074.37	101.9	4116.65	102.9	P
Cobalt									NR
Copper									NR
Iron									NR
Lead	1000.0	997.58	99.8	10000.0	9834.90	98.3	9853.09	98.5	P
Magnesium									NR
Manganese									NR
Mercury									
Nickel									NR
Potassium									NR
Selenium	1000.0	1041.29	104.1	10000.0	9931.38	99.3	10086.31	100.9	P
Silver	200.0	210.87	105.4	1000.0	1057.57	105.8	1052.80	105.3	P
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				10000.0	9369.98	93.7	9820.48	98.2	P
Barium				40000.0	39319.49	98.3	40618.09	101.5	P
Beryllium									NR
Cadmium				1000.0	966.82	96.7	1003.62	100.4	P
Calcium									NR
Chromium				4000.0	3997.20	99.9	4128.70	103.2	P
Cobalt									NR
Copper									NR
Iron									NR
Lead				10000.0	9588.10	95.9	9919.49	99.2	P
Magnesium									NR
Manganese									NR
Mercury									
Nickel									NR
Potassium									NR
Selenium				10000.0	9572.23	95.7	9970.26	99.7	P
Silver				1000.0	1040.41	104.0	1082.08	108.2	P
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				10000.0	9490.00	94.9	9161.31	91.6	P
Barium				40000.0	39159.04	97.9	38872.54	97.2	P
Beryllium									NR
Cadmium				1000.0	973.78	97.4	964.73	96.5	P
Calcium									NR
Chromium				4000.0	3991.28	99.8	3938.38	98.5	P
Cobalt									NR
Copper									NR
Iron									NR
Lead				10000.0	9596.05	96.0	9469.23	94.7	P
Magnesium									NR
Manganese									NR
Mercury									
Nickel									NR
Potassium									NR
Selenium				10000.0	9613.80	96.1	9373.04	93.7	P
Silver				1000.0	1048.41	104.8	1033.47	103.3	P
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				10000.0	10141.98	101.4			P
Barium				40000.0	44044.29	110.1			P
Beryllium									NR
Cadmium				1000.0	1030.24	103.0			P
Calcium									NR
Chromium				4000.0	4296.81	107.4			P
Cobalt									NR
Copper									NR
Iron									NR
Lead				10000.0	10219.96	102.2			P
Magnesium									NR
Manganese									NR
Mercury									
Nickel									NR
Potassium									NR
Selenium				10000.0	10506.60	105.1			P
Silver				1000.0	1128.31	112.8			P
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic	1000.0	966.92	96.7	1000.0	975.55	97.6	959.35	95.9	P
Barium									
Beryllium									NR
Cadmium									
Calcium									NR
Chromium									
Cobalt									NR
Copper									NR
Iron									NR
Lead	1000.0	954.82	95.5	1000.0	973.85	97.4	955.22	95.5	P
Magnesium									NR
Manganese									NR
Mercury									
Nickel									NR
Potassium									NR
Selenium	1000.0	986.89	98.7	1000.0	1002.53	100.3	982.98	98.3	P
Silver									
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				1000.0	955.78	95.6	947.99	94.8	P
Barium									
Beryllium									NR
Cadmium									
Calcium									NR
Chromium									
Cobalt									NR
Copper									NR
Iron									NR
Lead				1000.0	939.41	93.9	934.54	93.5	P
Magnesium									NR
Manganese									NR
Mercury									
Nickel									NR
Potassium									NR
Selenium				1000.0	973.46	97.3	967.29	96.7	P
Silver									
Sodium									NR
Thallium									
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	17.8	U	20.6		28.4		17.8	U	17.800	U	P
Barium	2.7	U	11.8	B	17.8	B	16.4	B	2.700	U	P
Beryllium											NR
Cadmium	1.5	U	1.5	U	1.5	U	1.5	U	1.500	U	P
Calcium											NR
Chromium	3.7	U	3.7	U	3.7	U	3.7	U	3.700	U	P
Cobalt											NR
Copper											NR
Iron											NR
Lead	10.8	U	11.0		10.8	U	20.1		10.800	U	P
Magnesium											NR
Manganese											NR
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	CV
Nickel											NR
Potassium											NR
Selenium	23.7	U	23.7	U	23.7	U	23.7	U	23.700	U	P
Silver	1.9	U	1.9	U	2.0	B	2.1	B	1.900	U	P
Sodium											NR
Thallium											
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			24.0		17.8	U	28.2		17.800	U	P
Barium			16.6	B	16.2	B	7.9	B	2.700	U	P
Beryllium											NR
Cadmium			1.5	U	1.5	U	1.5	U	1.500	U	P
Calcium											NR
Chromium			3.7	U	3.7	U	3.7	U	3.700	U	P
Cobalt											NR
Copper											NR
Iron											NR
Lead			17.5		10.8	U	14.9		14.030		P
Magnesium											NR
Manganese											NR
Mercury											
Nickel											NR
Potassium											NR
Selenium			23.7	U	23.7	U	23.7	U	23.700	U	P
Silver			1.9	U	1.9	U	1.9	U	4.740	B	P
Sodium											NR
Thallium											
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			32.0		17.8	U	22.0				P
Barium			11.5	B	18.3	B	19.0	B			P
Beryllium											NR
Cadmium			1.5	U	1.5	U	1.5	U			P
Calcium											NR
Chromium			3.7	U	3.7	U	3.7	U			P
Cobalt											NR
Copper											NR
Iron											NR
Lead			15.6		10.8	U	10.8	U			P
Magnesium											NR
Manganese											NR
Mercury											
Nickel											NR
Potassium											NR
Selenium			23.7	U	23.7	U	23.7	U			P
Silver			1.9	U	1.9	U	1.9	U			P
Sodium											NR
Thallium											
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			26.8								P
Barium			16.9	B							P
Beryllium											NR
Cadmium			1.5	U							P
Calcium											NR
Chromium			3.7	U							P
Cobalt											NR
Copper											NR
Iron											NR
Lead			10.8	U							P
Magnesium											NR
Manganese											NR
Mercury											
Nickel											NR
Potassium											NR
Selenium			23.7	U							P
Silver			2.0	B							P
Sodium											NR
Thallium											
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	17.8	U	17.8	U	17.8	U	17.8	U			P
Barium	-7.0	B	2.7	U	6.5	B	6.2	B			P
Beryllium											NR
Cadmium	-1.6	B	1.5	U	1.5	U	1.5	U			P
Calcium											NR
Chromium	3.7	U	3.7	U	3.7	U	3.7	U			P
Cobalt											NR
Copper											NR
Iron											NR
Lead	10.8	U	10.8	U	10.8	U	10.8	U			P
Magnesium											NR
Manganese											NR
Mercury											
Nickel											NR
Potassium											NR
Selenium	23.7	U	23.7	U	23.7	U	23.7	U			P
Silver	1.9	U	1.9	U	1.9	U	1.9	U			P
Sodium											NR
Thallium											
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			27.2		17.8	U	17.8	U			P
Barium			23.7	B	21.9	B	21.5	B			P
Beryllium											NR
Cadmium			1.8	B	1.5	U	1.5	U			P
Calcium											NR
Chromium			3.7	U	3.8	B	3.7	U			P
Cobalt											NR
Copper											NR
Iron											NR
Lead			10.8	U	10.8	U	10.8	U			P
Magnesium											NR
Manganese											NR
Mercury											
Nickel											NR
Potassium											NR
Selenium			23.7	U	23.7	U	23.7	U			P
Silver			2.0	B	1.9	U	1.9	U			P
Sodium											NR
Thallium											
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			17.8	U							P
Barium			8.8	B							P
Beryllium											NR
Cadmium			1.5	U							P
Calcium											NR
Chromium			3.7	U							P
Cobalt											NR
Copper											NR
Iron											NR
Lead			10.8	U							P
Magnesium											NR
Manganese											NR
Mercury											
Nickel											NR
Potassium											NR
Selenium			23.7	U							P
Silver			3.6	B							P
Sodium											NR
Thallium											
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	1.9	B	3.0	B	2.0	B	1.9	U	2.070	B	P
Barium									2.700	U	P
Beryllium											NR
Cadmium									1.500	U	P
Calcium											NR
Chromium									3.700	U	P
Cobalt											NR
Copper											NR
Iron											NR
Lead	1.4	U	1.4	U	1.4	U	1.4	U	1.410	B	P
Magnesium											NR
Manganese											NR
Mercury											
Nickel											NR
Potassium											NR
Selenium	1.7	U	-1.8	B	1.7	U	1.7	U	1.700	U	P
Silver									2.270	B	P
Sodium											NR
Thallium											
Vanadium											NR
Zinc											NR
Cyanide											NR

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3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			1.9	U							P
Barium											
Beryllium											NR
Cadmium											
Calcium											NR
Chromium											
Cobalt											NR
Copper											NR
Iron											NR
Lead			1.4	U					0.244	B	P
Magnesium											NR
Manganese											NR
Mercury											
Nickel											NR
Potassium											NR
Selenium			1.7	U							P
Silver											
Sodium											NR
Thallium											
Vanadium											NR
Zinc											NR
Cyanide											NR

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ICP INTERFERENCE CHECK SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

ICP ID Number: TJA01 ICS Source: VHG\SOLNS+

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	502059	506963.4	101.4	529885	540076.7	108.0
Antimony								
Arsenic			59	19.7		-45	39.1	
Barium		500	-3	474.0	94.8	-3	512.5	102.5
Beryllium								
Cadmium		1000	3	903.2	90.3	2	927.9	92.8
Calcium	500000	500000	487470	492674.4	98.5	503549	512246.2	102.4
Chromium		500	-5	424.2	84.8	-2	446.0	89.2
Cobalt								
Copper								
Iron	200000	200000	183509	185785.6	92.9	192089	196026.6	98.0
Lead		1000	21	930.1	93.0	14	944.6	94.5
Magnesium	500000	500000	488928	493927.7	98.8	517081	526874.9	105.4
Manganese								
Mercury								
Nickel								
Potassium								
Selenium			-47	8.4		-99	-138.2	
Silver		1000	1	919.7	92.0	1	964.6	96.5
Sodium								
Thallium								
Vanadium								
Zinc								

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ICP INTERFERENCE CHECK SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

ICP ID Number: TJA01 ICS Source: VHG\SOLNS+

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	503004	502390.3	100.5	494705	496815.1	99.4
Antimony								
Arsenic			75	23.9		33	21.9	
Barium		500	-10	471.5	94.3	-11	477.6	95.5
Beryllium								
Cadmium		1000	2	904.5	90.4	4	903.2	90.3
Calcium	500000	500000	492751	492221.5	98.4	493844	497825.6	99.6
Chromium		500	-2	456.7	91.3	-2	469.1	93.8
Cobalt								
Copper								
Iron	200000	200000	184276	184332.4	92.2	186188	188187.4	94.1
Lead		1000	2	905.1	90.5	-2	925.7	92.6
Magnesium	500000	500000	489833	489733.0	97.9	484537	486963.4	97.4
Manganese								
Mercury								
Nickel								
Potassium								
Selenium			76	10.8		92	24.3	
Silver		1000	2	980.2	98.0	1	979.4	97.9
Sodium								
Thallium								
Vanadium								
Zinc								

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ICP INTERFERENCE CHECK SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

ICP ID Number: TJA01 ICS Source: VHG\SOLNS+

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000				555628	546210.0	109.2
Antimony								
Arsenic						-138	-257.2	
Barium		500				-4	535.5	107.1
Beryllium								
Cadmium		1000				7	941.4	94.1
Calcium	500000	500000				526156	518839.5	103.8
Chromium		500				-4	487.2	97.4
Cobalt								
Copper								
Iron	200000	200000				200604	199624.8	99.8
Lead		1000				-61	907.4	90.7
Magnesium	500000	500000				538725	531466.9	106.3
Manganese								
Mercury								
Nickel								
Potassium								
Selenium						-10	10.2	
Silver		1000				-1	1050.5	105.0
Sodium								
Thallium								
Vanadium								
Zinc								

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

ICP ID Number: TJA02 ICS Source: VHG\SOLNS+

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	455893	449628.8	89.9	430204	428654.2	85.7
Antimony								
Arsenic			1	-2.3		1	-2.7	
Barium								
Beryllium								
Cadmium								
Calcium	500000	500000	437484	431163.6	86.2	415213	409992.1	82.0
Chromium								
Cobalt								
Copper								
Iron	200000	200000	178498	176978.2	88.5	169157	168120.4	84.1
Lead		1000	-2	874.8	87.5	-3	845.2	84.5
Magnesium	500000	500000	468186	462710.4	92.5	444643	439661.6	87.9
Manganese								
Mercury								
Nickel								
Potassium								
Selenium			-1	-1.6		-5	-5.9	
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

4CC025S

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): SOIL Level (low/med): LOW
% Solids for Sample: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead	75-125	51.4429		2.9714		55.80	86.9		P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

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6
DUPLICATES

EPA SAMPLE NO.

4CC025D

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 87.0 % Solids for Duplicate: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								
Barium								
Beryllium								NR
Cadmium								
Calcium								NR
Chromium								
Cobalt								NR
Copper								NR
Iron								NR
Lead		2.9714		3.3287		11.3		P
Magnesium								NR
Manganese								NR
Mercury								
Nickel								NR
Potassium								NR
Selenium								
Silver								
Sodium								NR
Thallium								
Vanadium								NR
Zinc								NR
Cyanide								NR

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7

LABORATORY CONTROL SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Solid LCS Source: ERA LOT #219

Aqueous LCS Source: SOL+\LL\MALL

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic	2000.0	2036.18	101.8						
Barium	2000.0	2101.58	105.1						
Beryllium									
Cadmium	50.0	56.98	114.0						
Calcium									
Chromium	200.0	197.33	98.7						
Cobalt									
Copper									
Iron									
Lead	500.0	497.01	99.4	100.9	88.7		67.0	131.0	87.9
Magnesium									
Manganese									
Mercury	8.0	7.85	98.1						
Nickel									
Potassium									
Selenium	2000.0	1997.20	99.9						
Silver	50.0	52.24	104.5						
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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LABORATORY CONTROL SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Solid LCS Source:

Aqueous LCS Source: SOL+\LL\MALL

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic	2000.0	1922.28	96.1						
Barium	2000.0	1949.15	97.5						
Beryllium									
Cadmium	50.0	53.72	107.4						
Calcium									
Chromium	200.0	202.25	101.1						
Cobalt									
Copper									
Iron									
Lead	500.0	460.39	92.1						
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	2000.0	1879.67	94.0						
Silver	50.0	52.42	104.8						
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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LABORATORY CONTROL SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

Solid LCS Source:

Aqueous LCS Source: SOL+\LL\MALL

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic	2000.0	1846.25	92.3						
Barium	2000.0	2076.60	103.8						
Beryllium									
Cadmium	50.0	57.51	115.0						
Calcium									
Chromium	200.0	194.96	97.5						
Cobalt									
Copper									
Iron									
Lead	500.0	466.75	93.4						
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	2000.0	1796.17	89.8						
Silver	50.0	52.09	104.2						
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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10.
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

ICP ID Number: TJA01 Date: 07/25/95

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200.0	10.5	P
Antimony	206.84		60.0	10.5	P
Arsenic	193.70		10.0	17.8	P
Barium	493.41		200.0	2.7	P
Beryllium	313.04		5.0	0.3	P
Cadmium	228.80		5.0	1.5	P
Calcium	317.93		5000.0	10.7	P
Chromium	267.72		10.0	3.7	P
Cobalt	228.62		50.0	1.2	P
Copper	324.75		25.0	2.5	P
Iron	259.94		100.0	9.4	P
Lead	220.35		3.0	10.8	P
Magnesium	279.08		5000.0	15.5	P
Manganese	257.61		15.0	0.8	P
Mercury			0.2		
Nickel	231.60		40.0	6.1	P
Potassium	766.49		5000.0	365.9	P
Selenium	196.03		5.0	23.7	P
Silver	328.07		10.0	1.9	P
Sodium	589.00		5000.0	6.4	P
Thallium			10.0		
Vanadium	292.40		50.0	3.5	P
Zinc	213.86		20.0	3.2	P

Comments:

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

ICP ID Number: TJA02 Date: 06/26/95

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic	189.04		10.0	1.9	P
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead	220.35		3.0	1.4	P
Magnesium			5000.0		
Manganese			15.0		
Mercury			0.2		
Nickel			40.0		
Potassium			5000.0		
Selenium	196.02		5.0	1.7	P
Silver			10.0		
Sodium			5000.0		
Thallium	190.86		10.0	3.2	P
Vanadium			50.0		
Zinc			20.0		

Comments:

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN09

ICP ID Number: Date: 05/23/95

Flame AA ID Number: PE02

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic			10.0		
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead			3.0		
Magnesium			5000.0		
Manganese			15.0		
Mercury	253.70		0.2	0.1	CV
Nickel			40.0		
Potassium			5000.0		
Selenium			5.0		
Silver			10.0		
Sodium			5000.0		
Thallium			10.0		
Vanadium			50.0		
Zinc			20.0		

Comments:
PE02 IS A MERCURY COLD VAPOR INSTRUMENT.
CALCULATED IDL IS 0.08ug/L

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44862-018
Field Identification : CLJ44-CC-001
Extraction Date : 08/03/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.47. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.74, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 18.00 hrs

Final pH : 5.40

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44862-020
Field Identification : CLJ44-CU-003
Extraction Date : 08/03/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.70. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.71, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 18.00 hrs

Final pH : 4.57

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44862-021
Field Identification : CLJ44-CU-004
Extraction Date : 08/03/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.70. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.79, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 18.00 hrs

Final pH : 5.45

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44862-022
Field Identification : CLJ44-CU-005
Extraction Date : 08/03/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.72. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.88, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 18.00 hrs

Final pH : 5.26

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44897-025
Field Identification : CLJ44-CC-025
Extraction Date : 08/08/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 8.18. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.69, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17:00 hrs

Final pH : 4.98

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44898-008
Field Identification : CLJ44-CU-012
Extraction Date : 08/08/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 8.12. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.70, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17.00 hrs

Final pH : 5.12

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44898-009
Field Identification : CLJ44-CU-013
Extraction Date : 08/08/95
TCLP Blank : 90,001-273

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 8.31. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.54, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17.00 hrs

Final pH : 5.69

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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THE ASSURANCE OF QUALITY

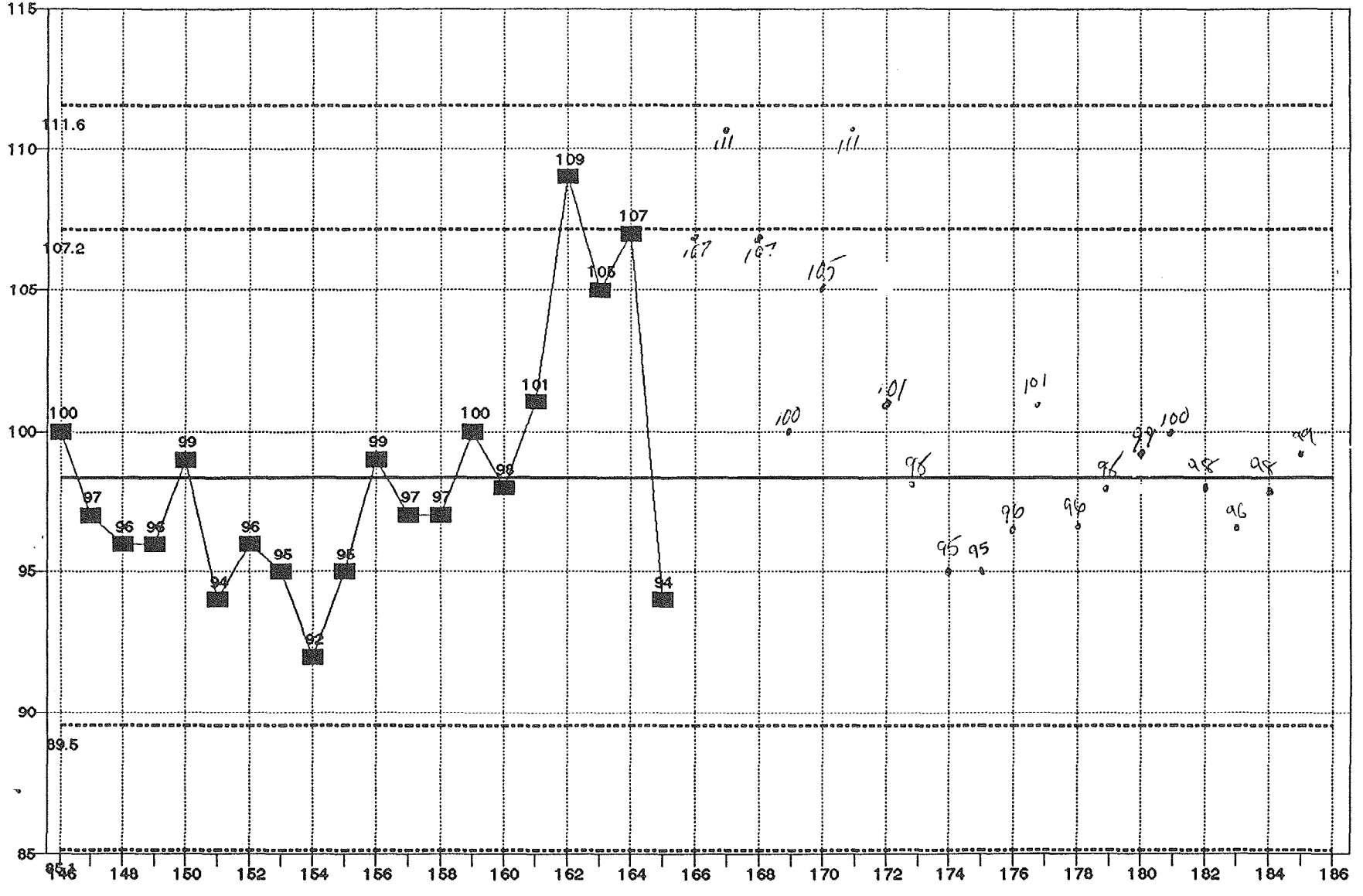
PACE New England, Inc.

Metals Results for TCLP Blank 273

ELEMENT	BLANK RESULT	
Arsenic	< 0.20	mg/L
Barium	1.35	mg/L
Cadmium	< 0.005	mg/L
Chromium	< 0.01	mg/L
Lead	< 0.05	mg/L
Mercury	<0.0003	mg/L
Selenium	< 0.20	mg/L
Silver	< 0.02	mg/L

All results are methods 3010 and 6010, except mercury (method 7470).

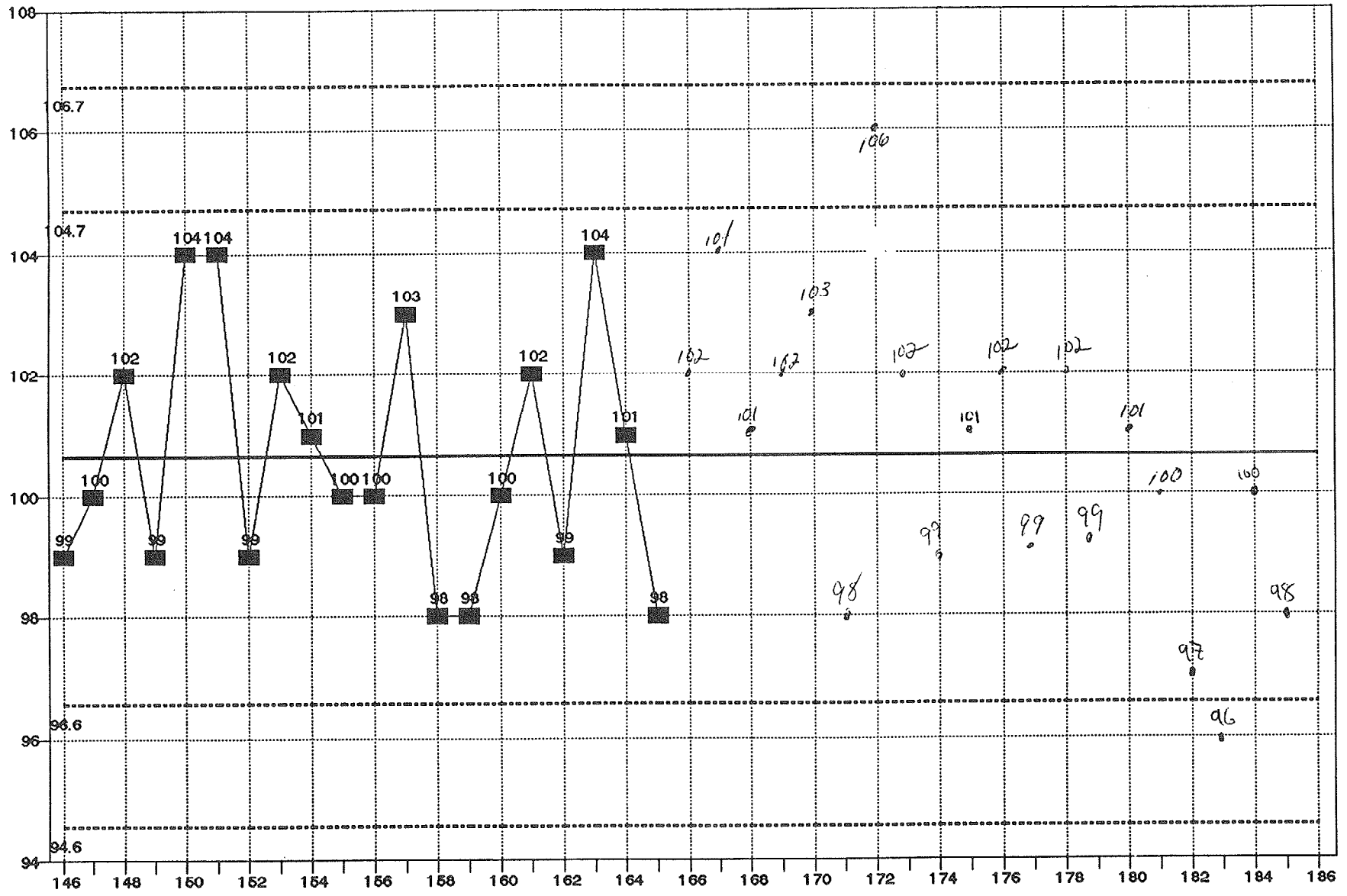
VOA WATERS - SURR DCE
LIMITS SET 4/95



STD DEV = 4.40 MEAN = 98.4

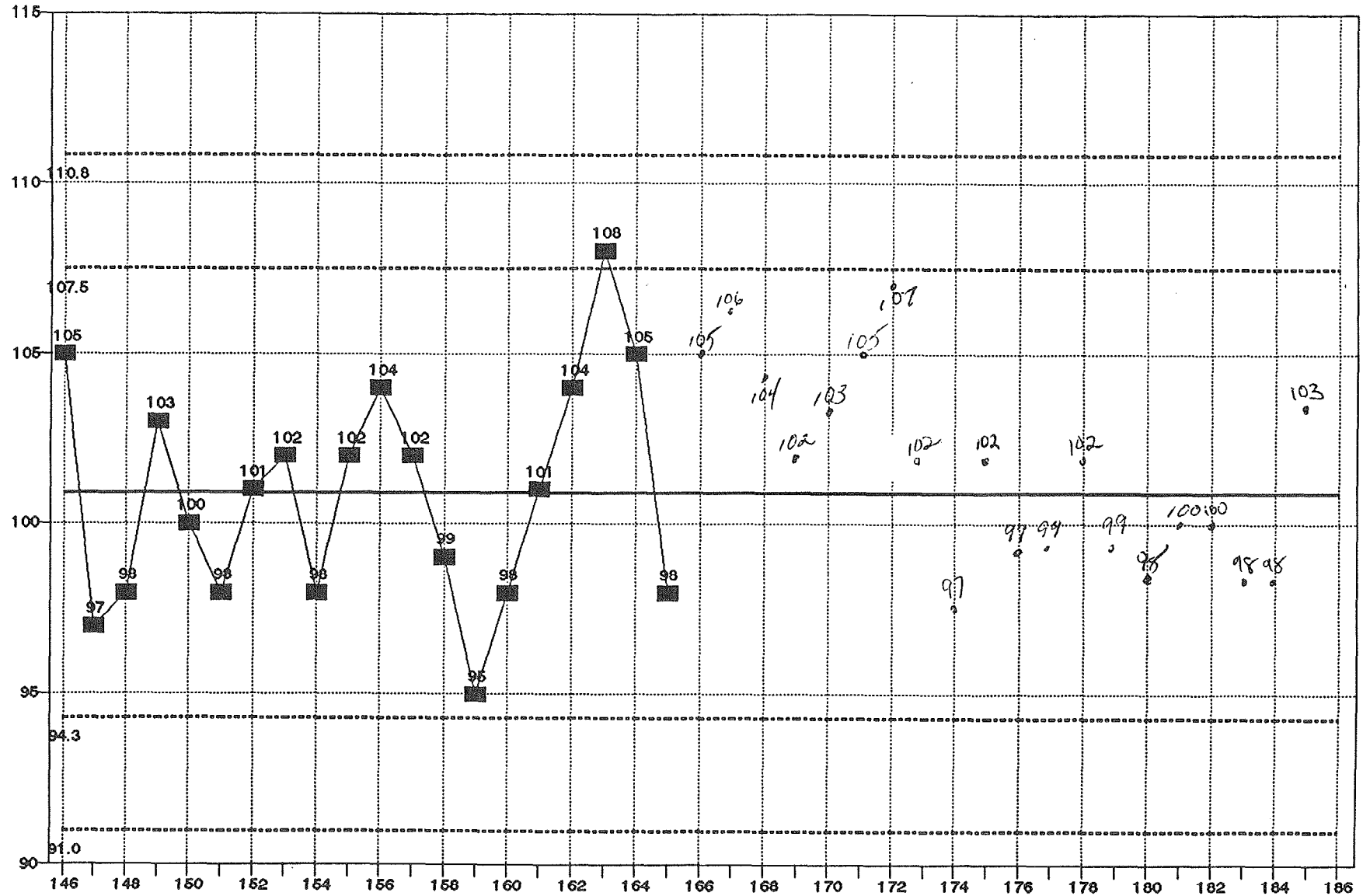
0000313

VOA WATERS - SURR TOL
LIMIT SET 4/95



STD DEV = 2.03 MEAN = 100.6

VOA WATERS - SURR BFB
LIMIT SET 4/95



STD DEV =3.31 MEAN = 100.9

VOLATILES -- WATER SURROGATE CONTROL CHARTS

POINT / BLANK

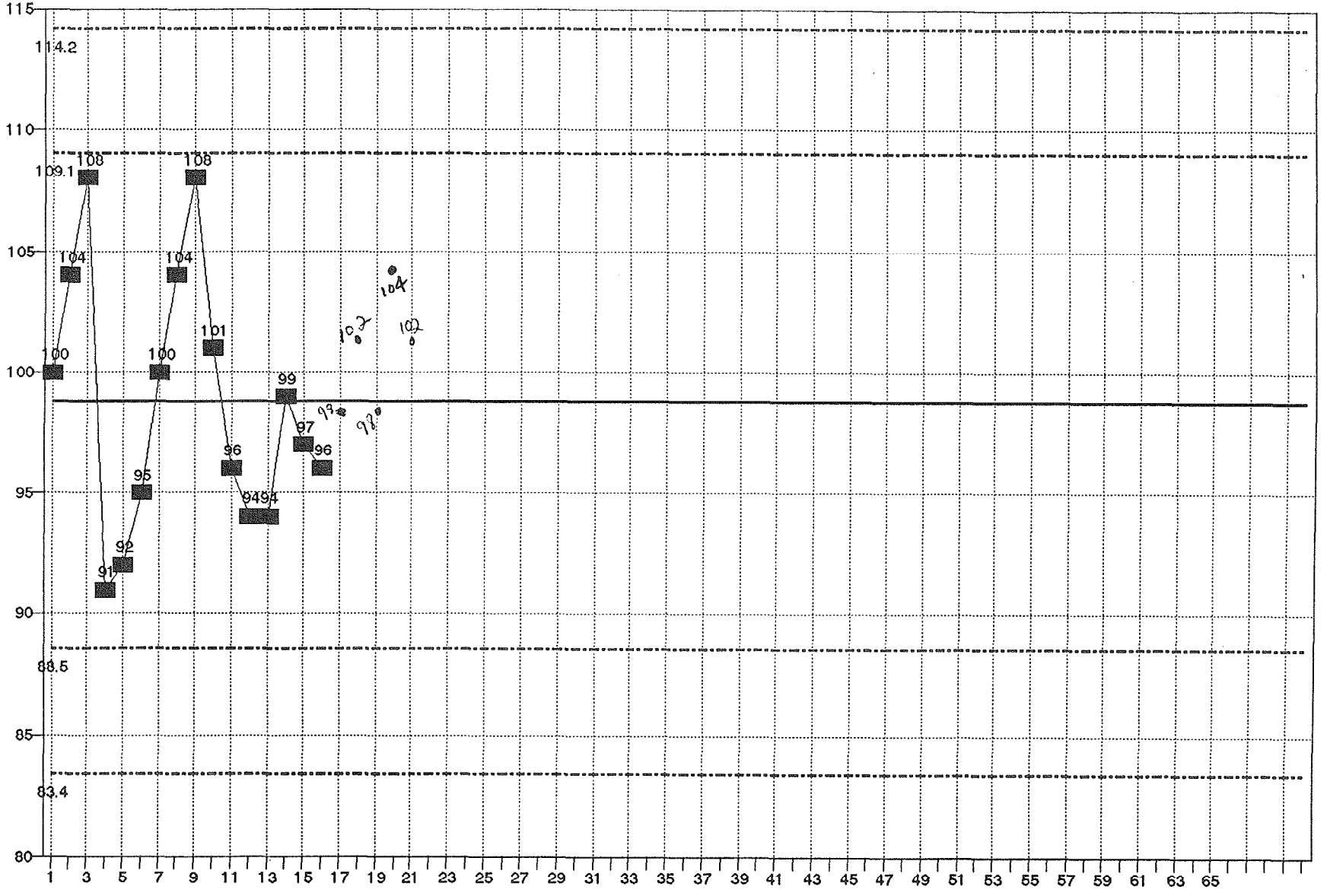
21 BE081892A	69 BC041493A	117 BE070794A	165 BC041295A
22 BC082192A	70 BE052593B	118 BE070894A	166 BI042095B
23 BE082092A	71 BE060193A	119 BC063094A	167 BI042195A
24 BC082592A	72 BE060393A	120 BC072794A	168 BI042495A
25 BC082692A	73 BC062193A	121 BD072794A	169 BC042595B
26 BE082792A	74 BE051393A	122 BD072894A	170 BE042595A
27 BE082892B	75 BC062493A	123 BD072994A	171 BE042795A
28 BE083092A	76 BD051993A	124 BE081194A	172 BE050195A
29 BD101492A	77 BD052093B	125 BC081994A	173 BC050595A
30 BC100992A	78 BC063093A	126 BE101194A	174 BC050695A
31 BC110692A	79 BC061093A	127 BE101294B	175 BG050295B
32 BC111992A	80 BE051393A	128 BG101494A	176 BC042995B1
33 BE112092A	81 BD072293A	129 BC110294B	177 BC043095B1
34 BC112392A	82 BD072393A	130 BC110394B	178 BC072495A1
35 BG113092B	83 BD072693A	131 BC110794B	179 BC072695A1
36 BG120192A	84 BD072793A	132 BC110894B	180 BI080895A1
37 BC122292A	85 BD073093A	133 BC110994A	181 BI080995A1
38 BG013093B	86 BC080493A	134 BC111594B	182 BC080295A1
39 BC012193A	87 BC080593A	135 BC111794B	183 BC080495A1
40 BD021693A	88 BE091793A	136 BC111894B	184 BC080795A1
41 BD021793A	89 BC092093B	137 BG111094A	185 BC080895A1
42 BD021893A	90 BC093093B	138 BC120194B	186
43 BD021993A	91 BG093093A	139 BC120294B	187
44 BD022293A	92 BE120693A	140 BC120594B	188
45 BD022393A	93 BE120793A	141 BC120694B	189
46 BD022493A	94 BE121793A	142 BC120794B	190
47 BG030293A	95 BC122793B	143 BC121594B	191
48 BC030193B	96 BC122893A	144 BG120394B	192
49 BG030393A	97 BG021094A	145 BC122294B	193
50 BG030493A	98 BG021194A	146 BC122994B	194
51 BG031593A	99 BG021494A	147 BE121694A	195
52 BG031693A	100 BG021594A	148 BE020995B	196
53 BD031893A	101 BC022394B	149 BE021395A	197
54 BD031993A	102 BC022494C	150 BE021595A	198
55 BC032293B	103 BC022594B	151 BE021695A	199
56 BC032393A	104 BG022594B	152 BC032295A	200
57 BC041293A	105 BG022894A	153 BC032395A	201
58 BC041393A	106 BG030394A	154 BC032495A	202
59 BC041993A	107 BD022194A	155 BC032795A	203
60 BE042893A	108 BC031194A	156 BC040695A	204
61 BE042993A	109 BC031594B	157 BC041195B	205
62 BE043093A	110 BG040794A	158 BC041395A	206
63 BE050393A	111 BC041294B	159 BC041495A	207
64 BE050493A	112 BG042894A	160 BG041095B	208
65 BE050593A	113 BG042994A	161 BG041495B	209
66 BE050693A	114 BC050994C	162 BI041395A	210
67 BE051093A	115 BG060394A	163 BI041895B	211
68 BE051193A	116 BC050394B	164 BI041995A	212

DCE, TOL, BFB

166 BI042095B (107, 102, 105)
167 BI042195A (111, 104, 106)
168 BI042495A (107, 101, 104)
169 BC042595B (100, 102, 102)
170 BE042595A (105, 103, 103)
171 BE042795A (111, 98, 105)
172 BE050195A (101, 106, 107)
173 BC050595A (98, 102, 102)
174 BC050695A (95, 99, 97)
175 BG050295B (95, 101, 102)
176 BC042995B1 (94, 102, 96)
177 BC043095B1 (101, 99, 99)
178 BC072495A1 (96, 102, 102)
179 BC072695A1 (98, 99, 99)
180 BI080895A1 (99, 101, 98)
181 BI080995A1 (100, 100, 100)
182 BC080295A1 (98, 97, 102)
183 BC080495A1 (96, 96, 98)
184 BC080795A1 (98, 100, 98)
185 BC080895A1 (99, 98, 103)

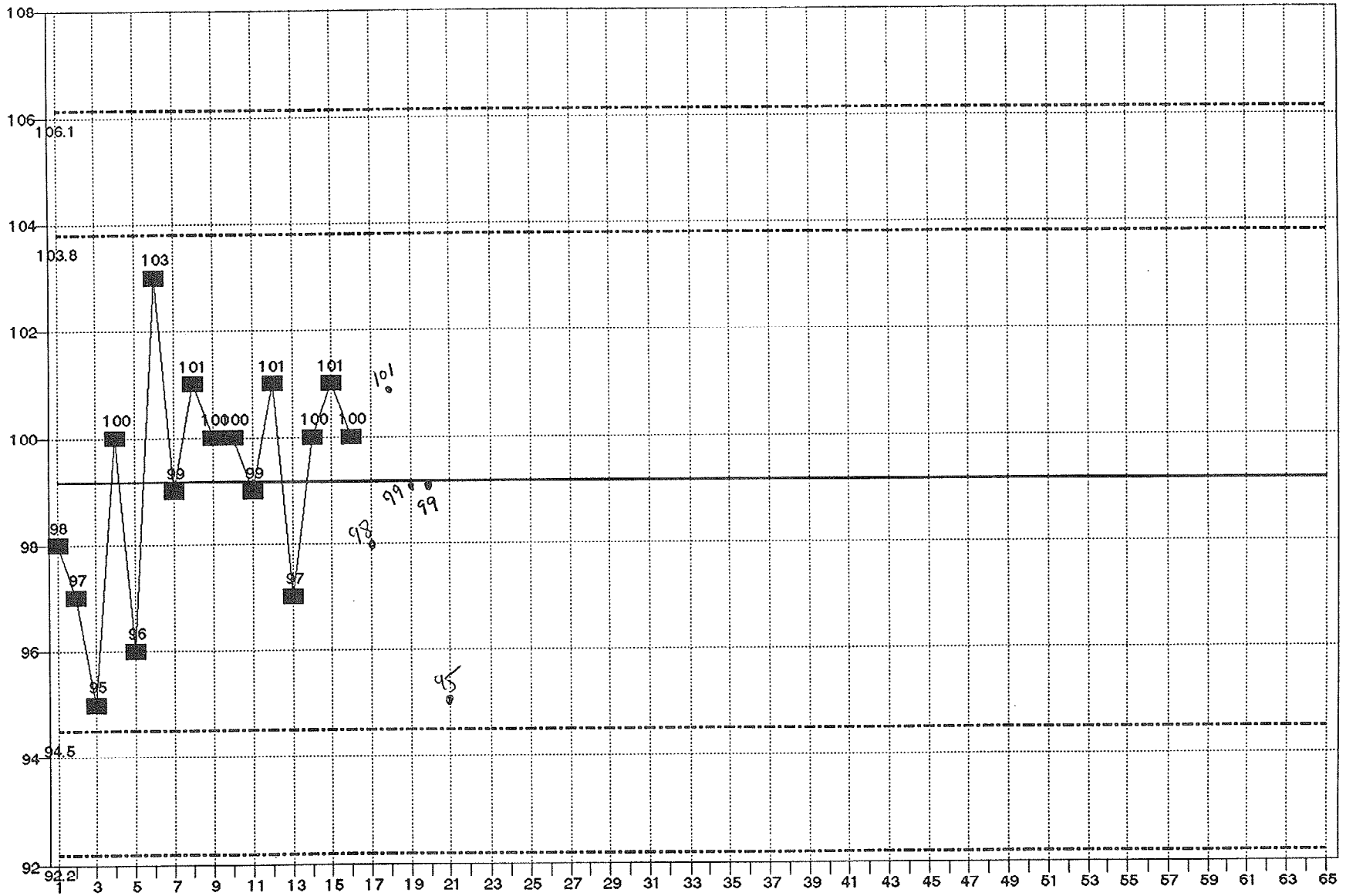
pace INCORPORATED THE ASSURANCE OF QUALITY

VOA TCLP - SURR DCE
LIMIT SET 7/93



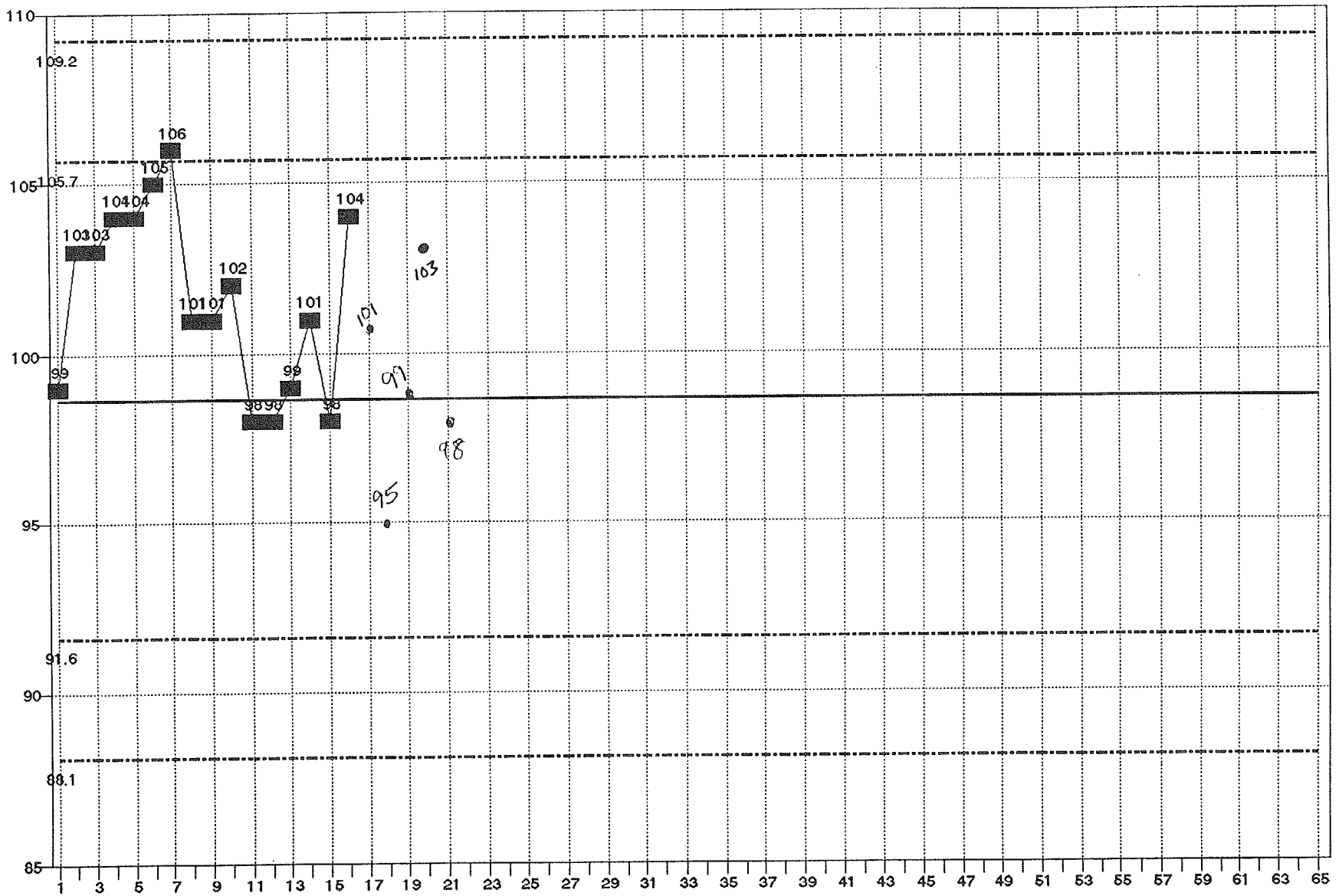
STD DEV = 5.13 MEAN = 98.8

VOA TCLP - SURR TOL
LIMIT SET 7/93



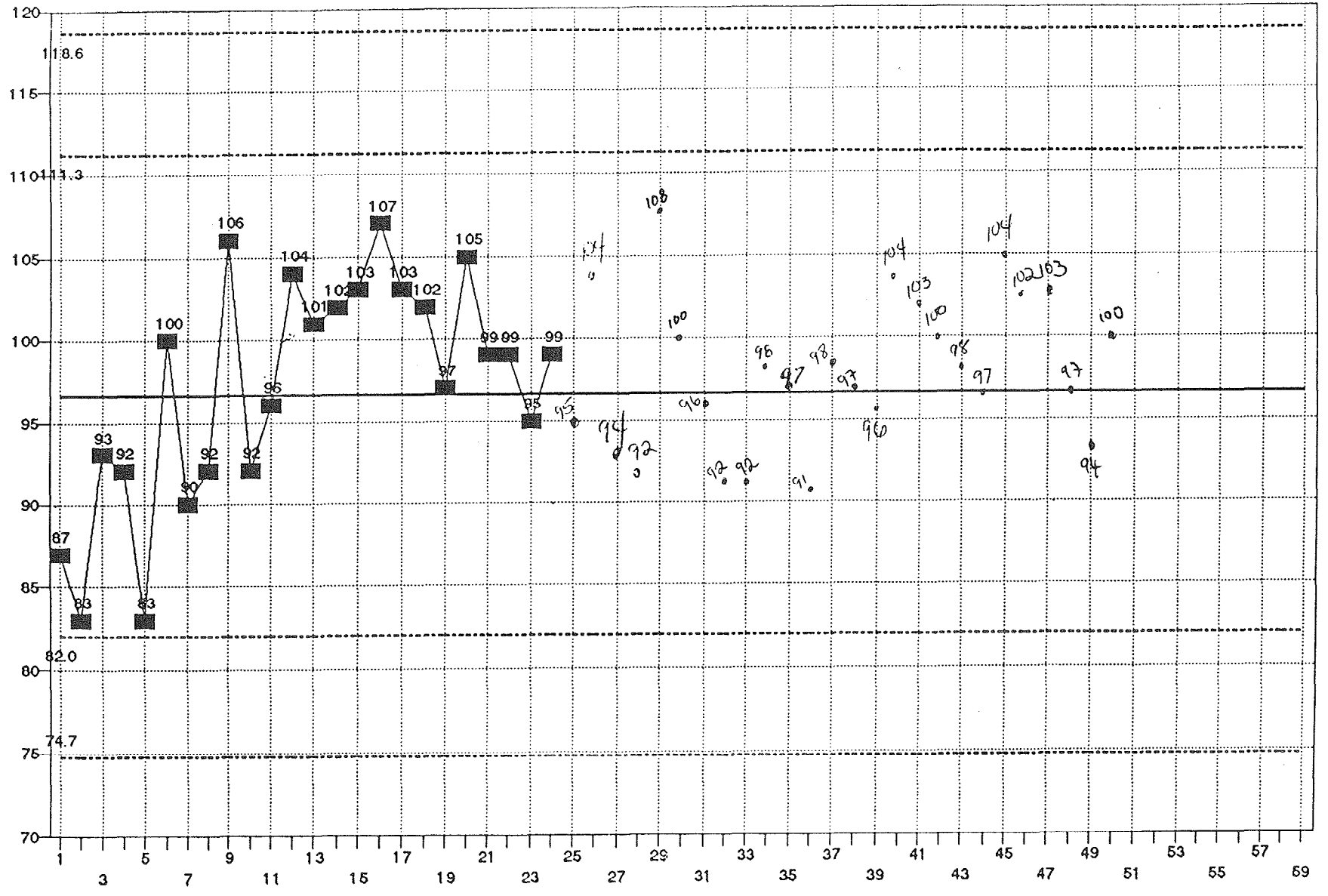
STD DEV = 2.32 MEAN = 99.1

VOA TCLP - SURR BFB
LIMIT SET 7/93



STD DEV =3.51 MEAN = 98.6

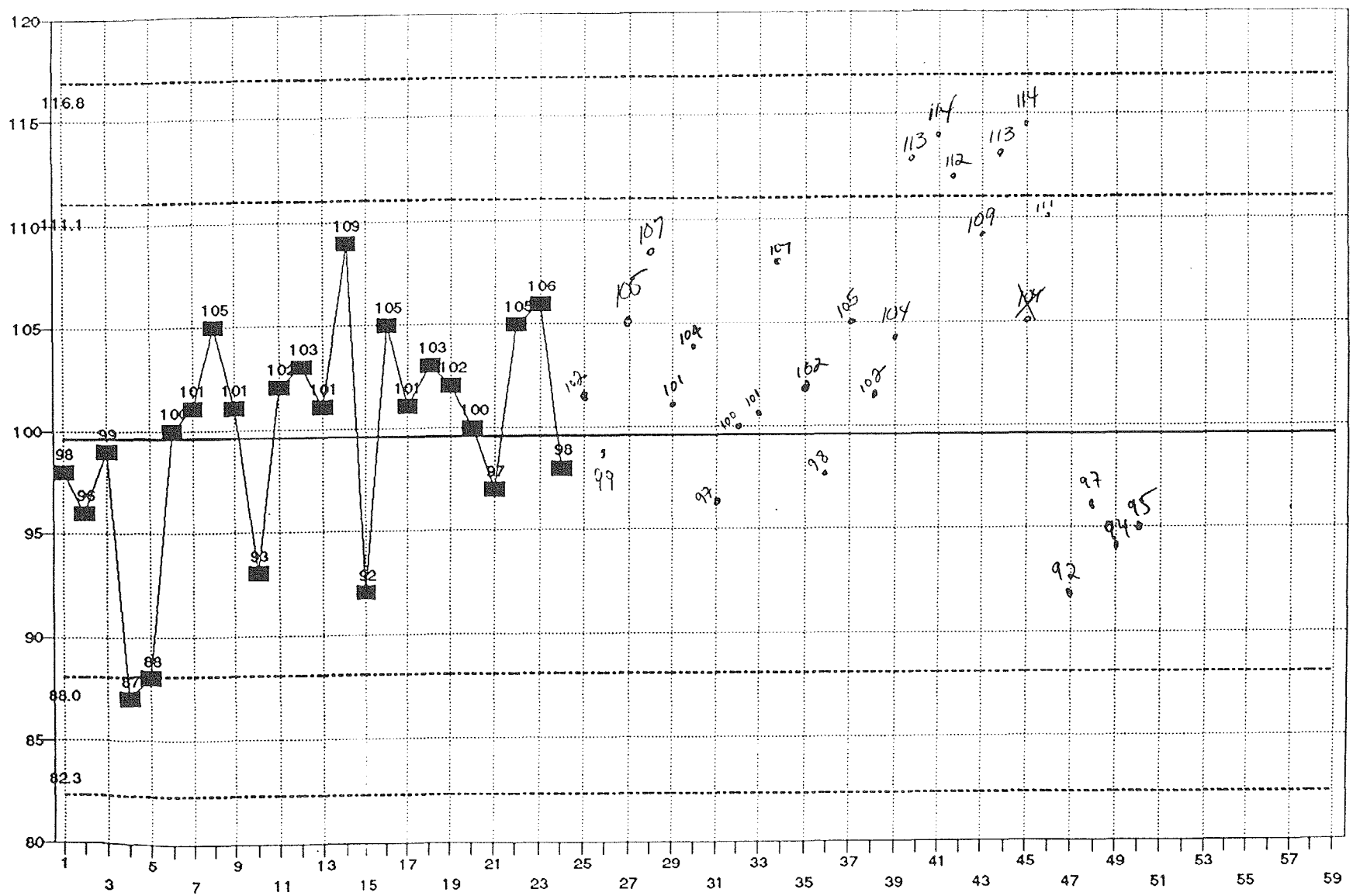
VOA MED SOLIDS - SURR DCE
LIMIT SET 2/94



STD DEV = 7.31 MEAN = 96.6

00000320

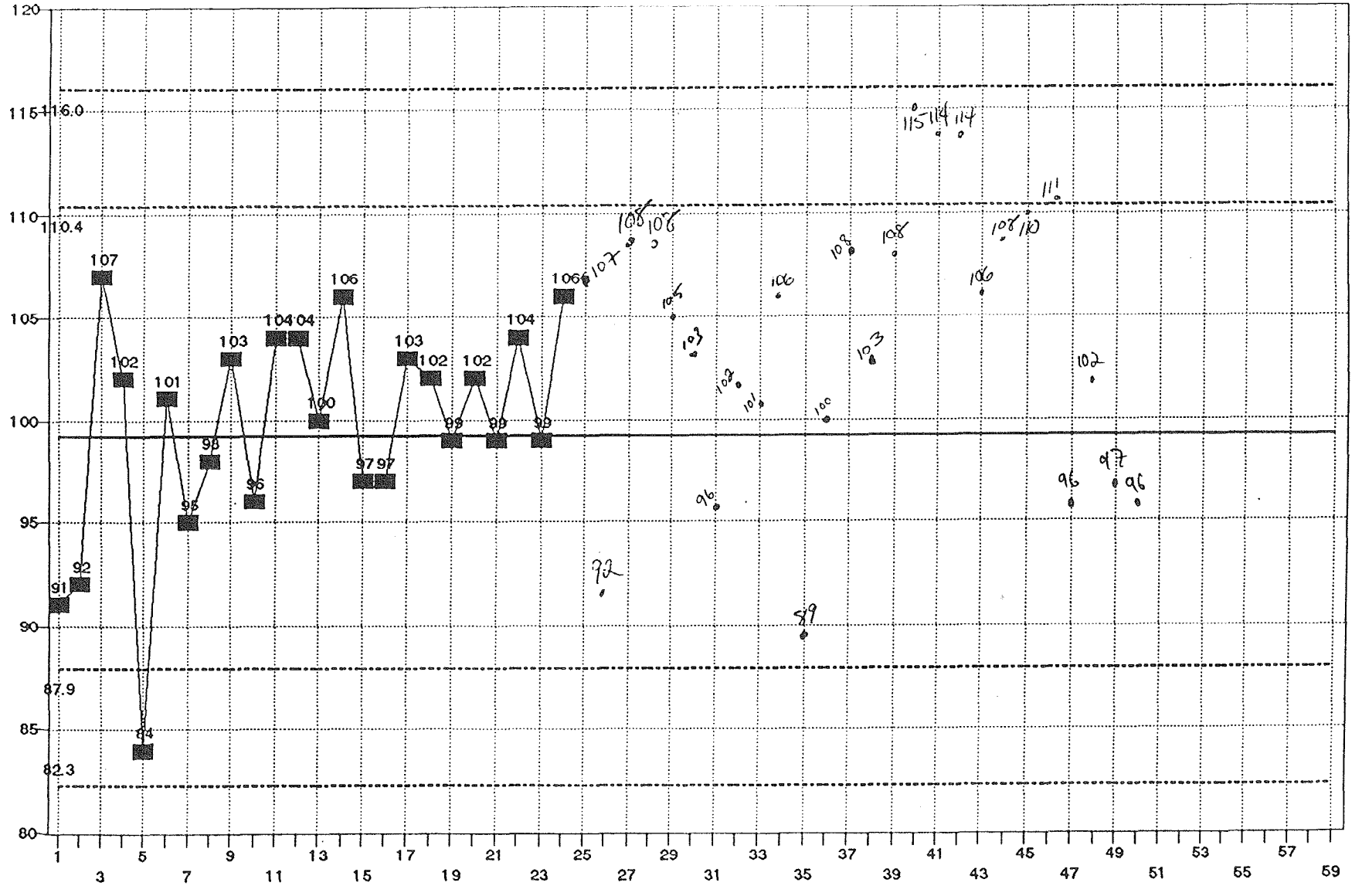
VOA MED SOLIDS - SURR TOL
LIMIT SET 2/94



STD DEV = 5.75 MEAN = 99.6

0000321

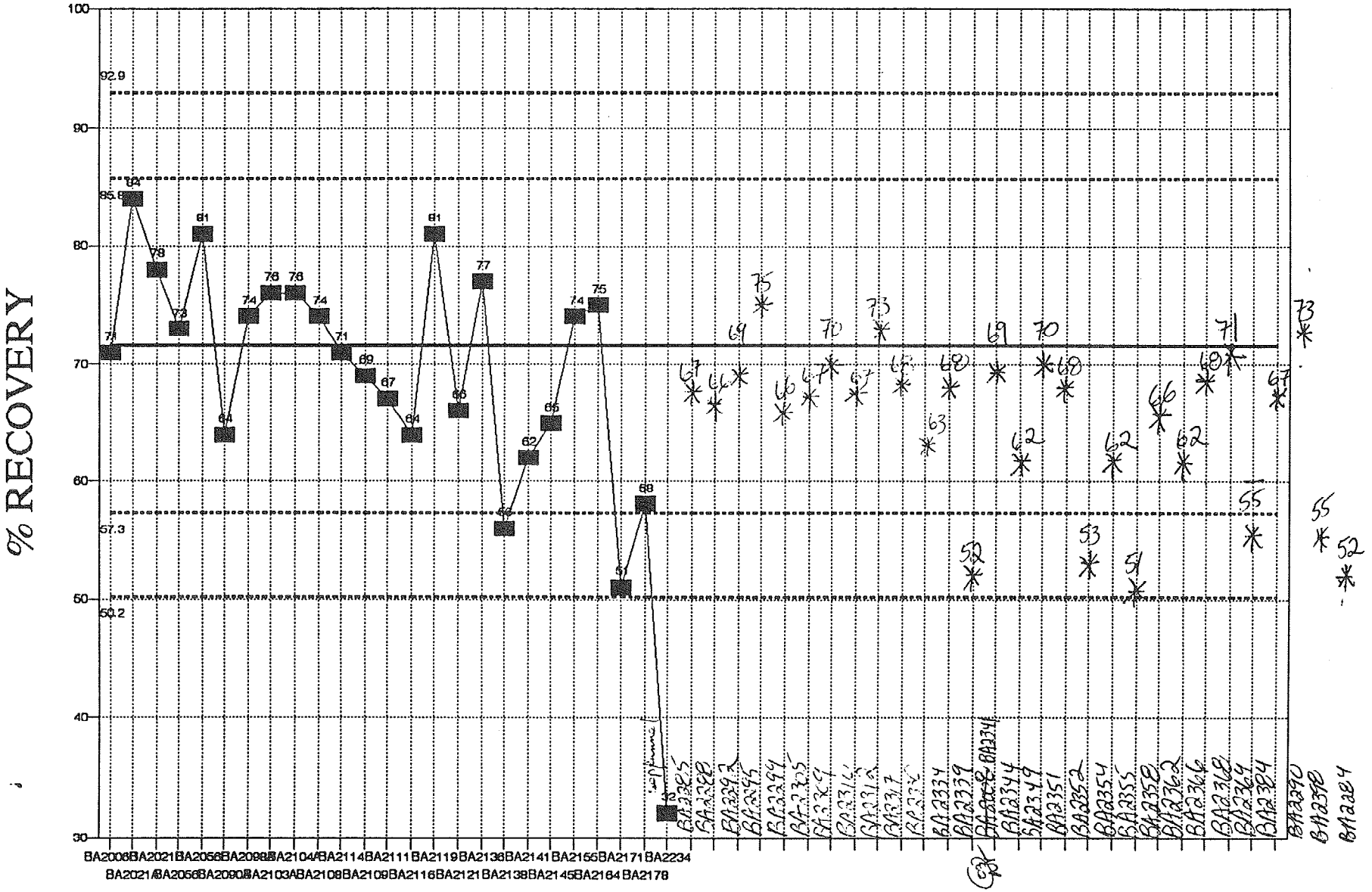
VOA MED SOLIDS - SURR BFB
LIMIT SET 2/94



STD DEV = 5.61 MEAN = 99.2

0000322

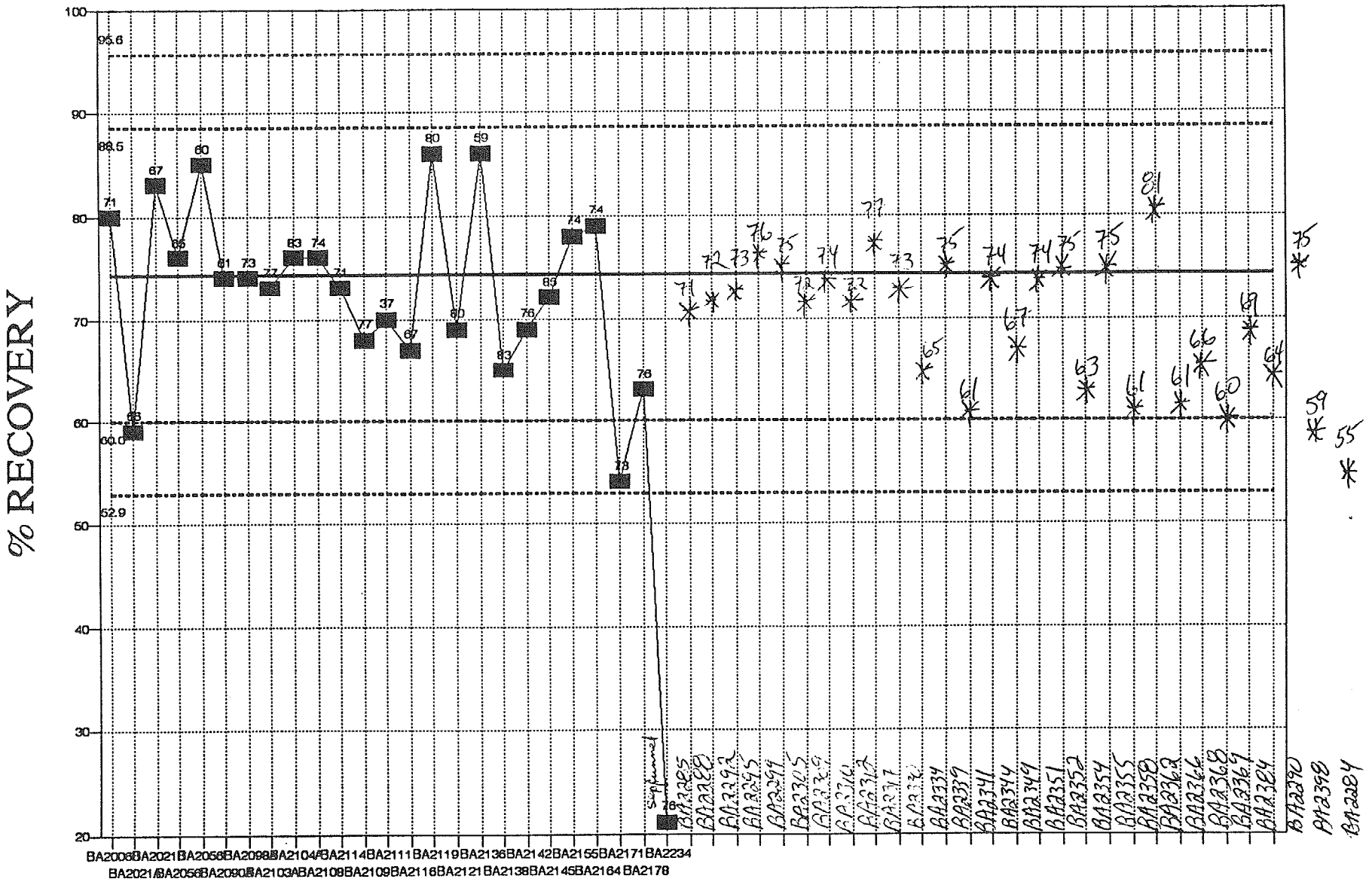
ABN WATER 3520/8270, 2-FLUOROPHENOL SURR, LIMITS SET 2/95



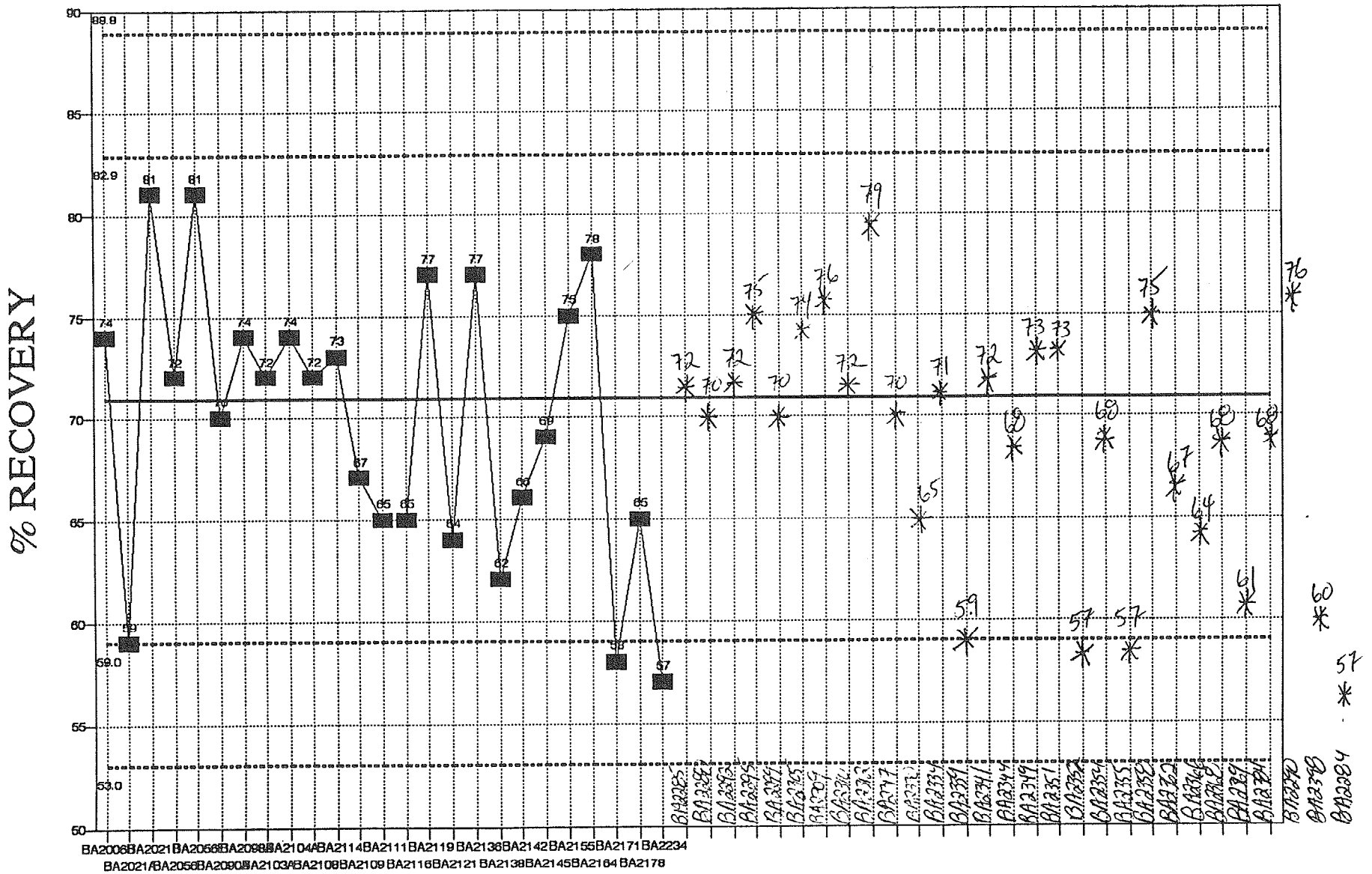
STD DEV = 7.12 MEAN = 71.6

0000323

ABN WATER 3520/8270, PHENOL-D5
SURR, LIMITS SET 2/95



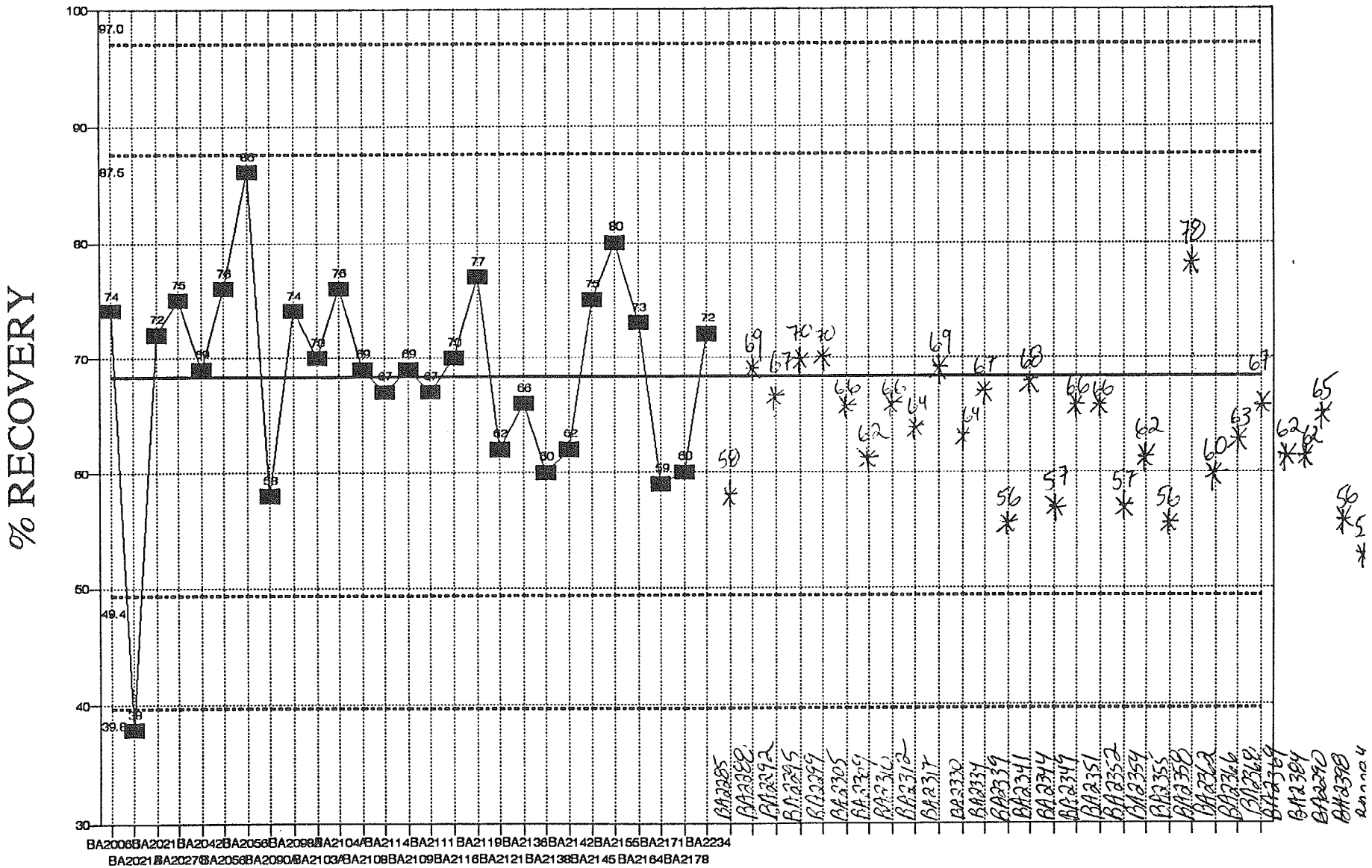
ABN WATER 3520/8270, 2-CHLOROPHENOL-D4
SURR, LIMITS SET 2/95



STD DEV = 5.97 MEAN = 70.9

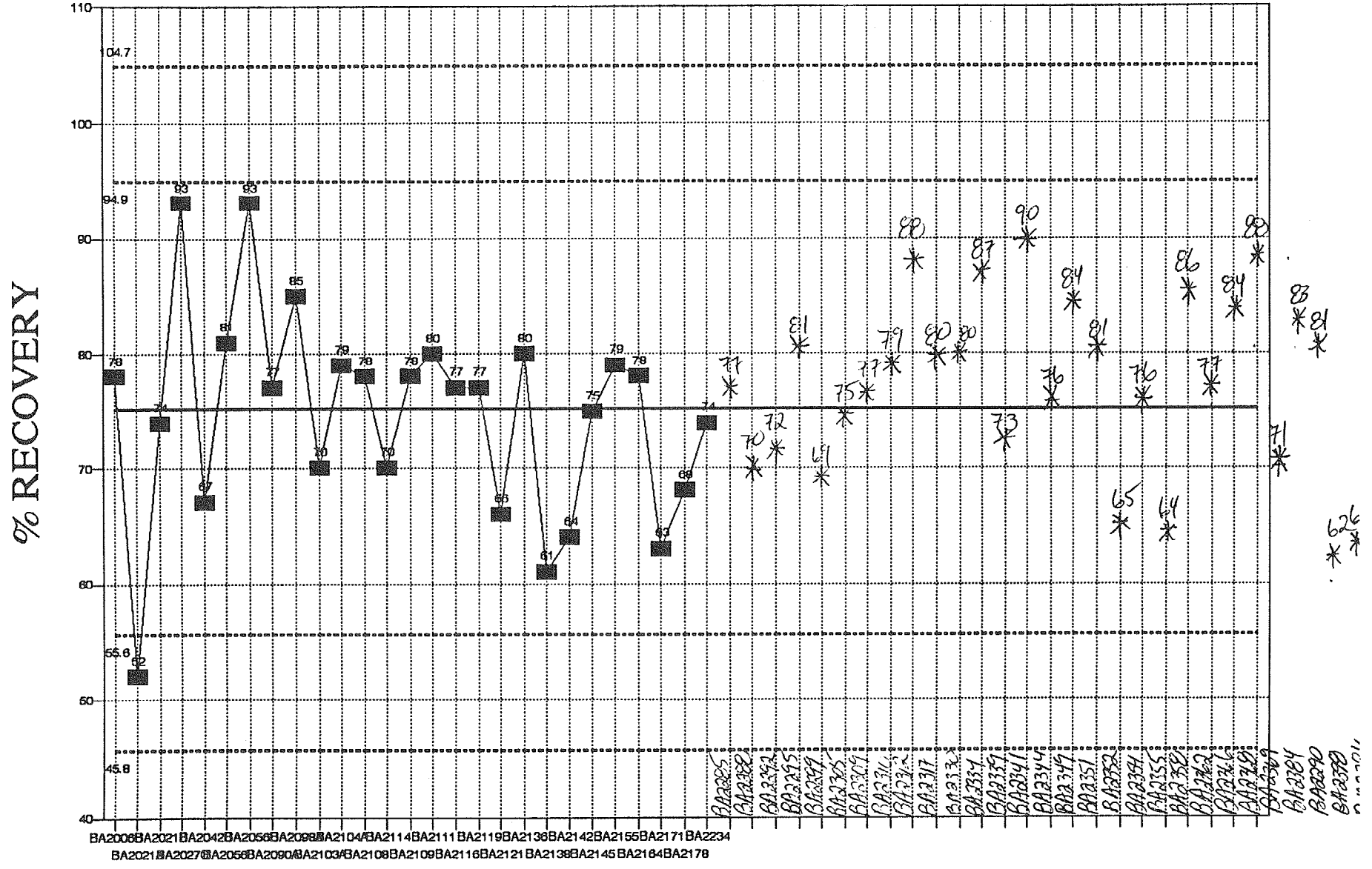
0000325

ABN H2O 3520/8270, 1,2-DICHLOROBENZENE-SURR, LIMITS SET 2/95



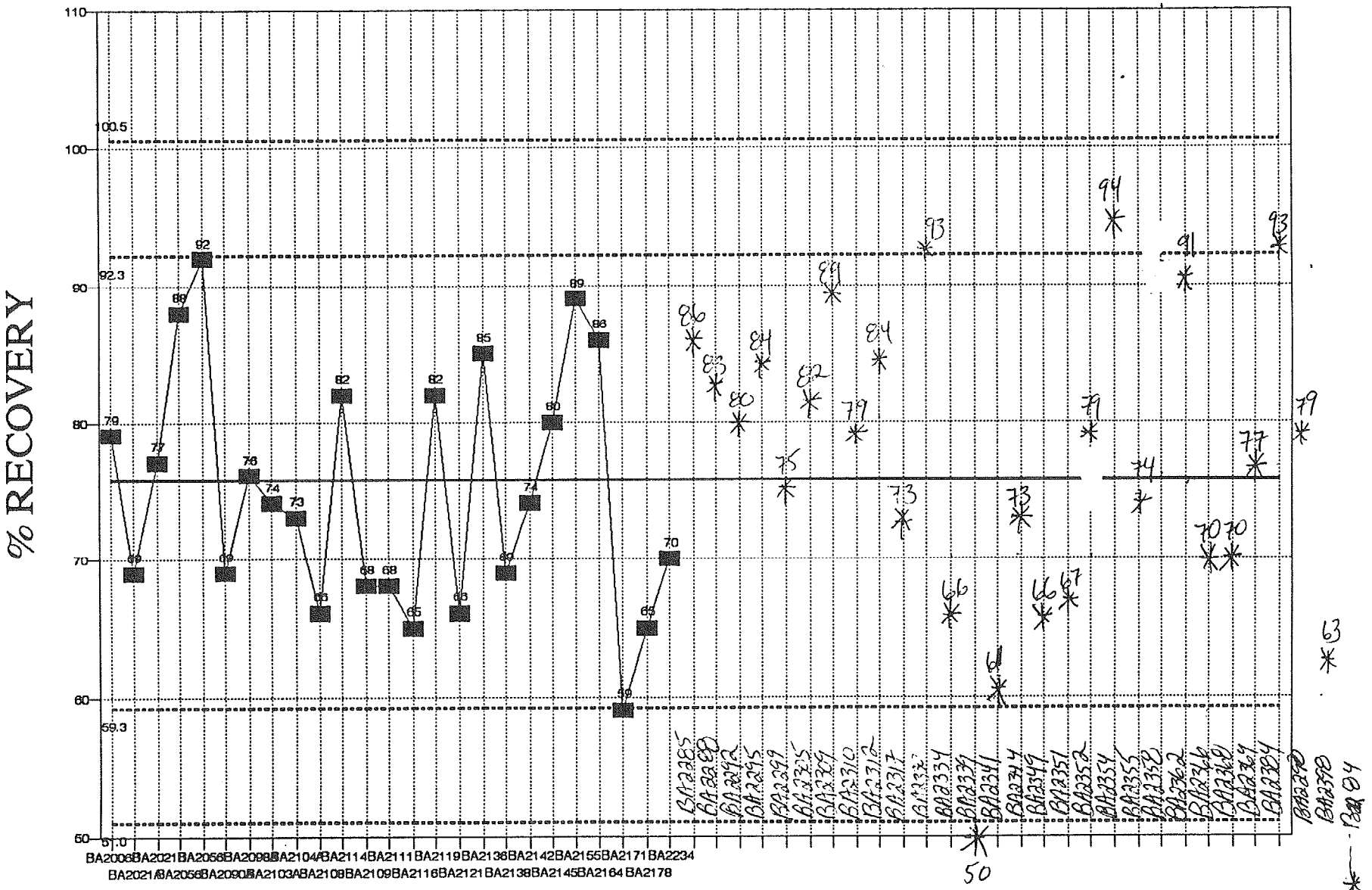
STD DEV = 9.54 MEAN = 68.4

ABN H2O 3520/8270, NITROBENZENE-D5
SURR, LIMITS SET 2/95



STD DEV = 9.82 MEAN = 75.2

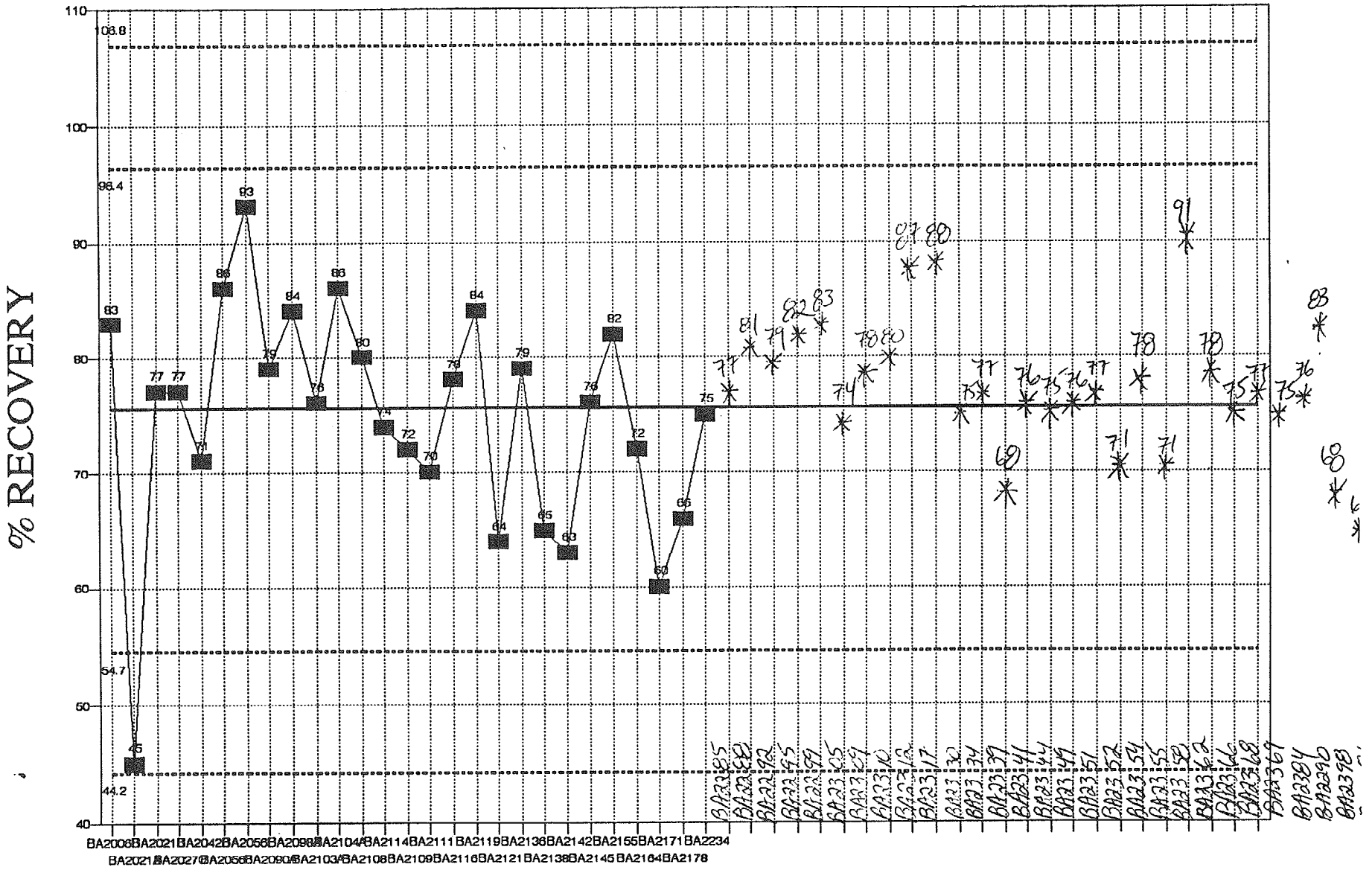
ABN H2O 3520/8270, 2,4,6-TRIBROMOPHENOL SURR, LIMITS SET 2/95



STD DEV = 8.24 MEAN = 75.8

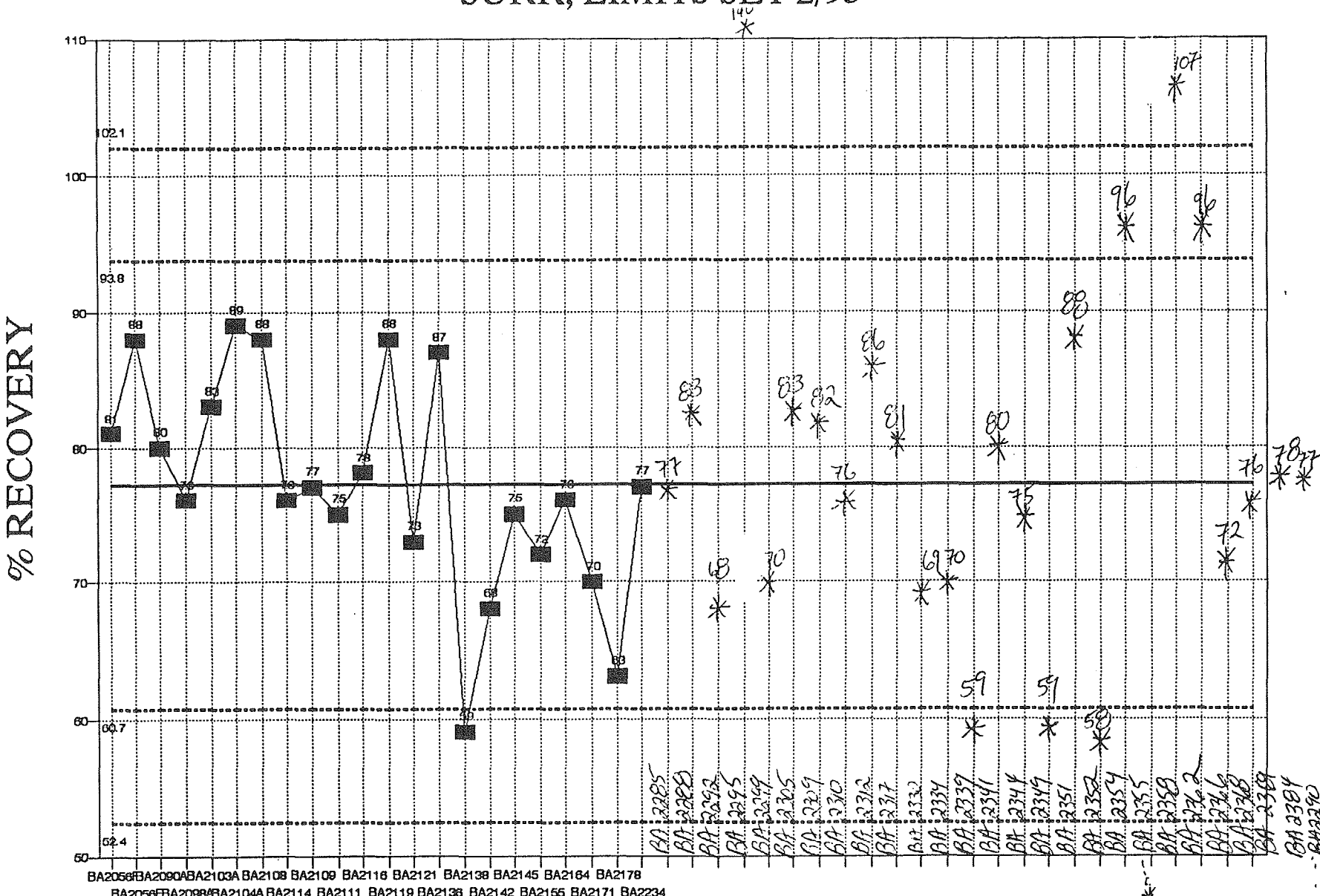
0000328

ABN H2O 3520/8270, 2-FLUOROBIPHENYL
SURR, LIMITS SET 2/95



STD DEV = 10.4 MEAN = 75.5

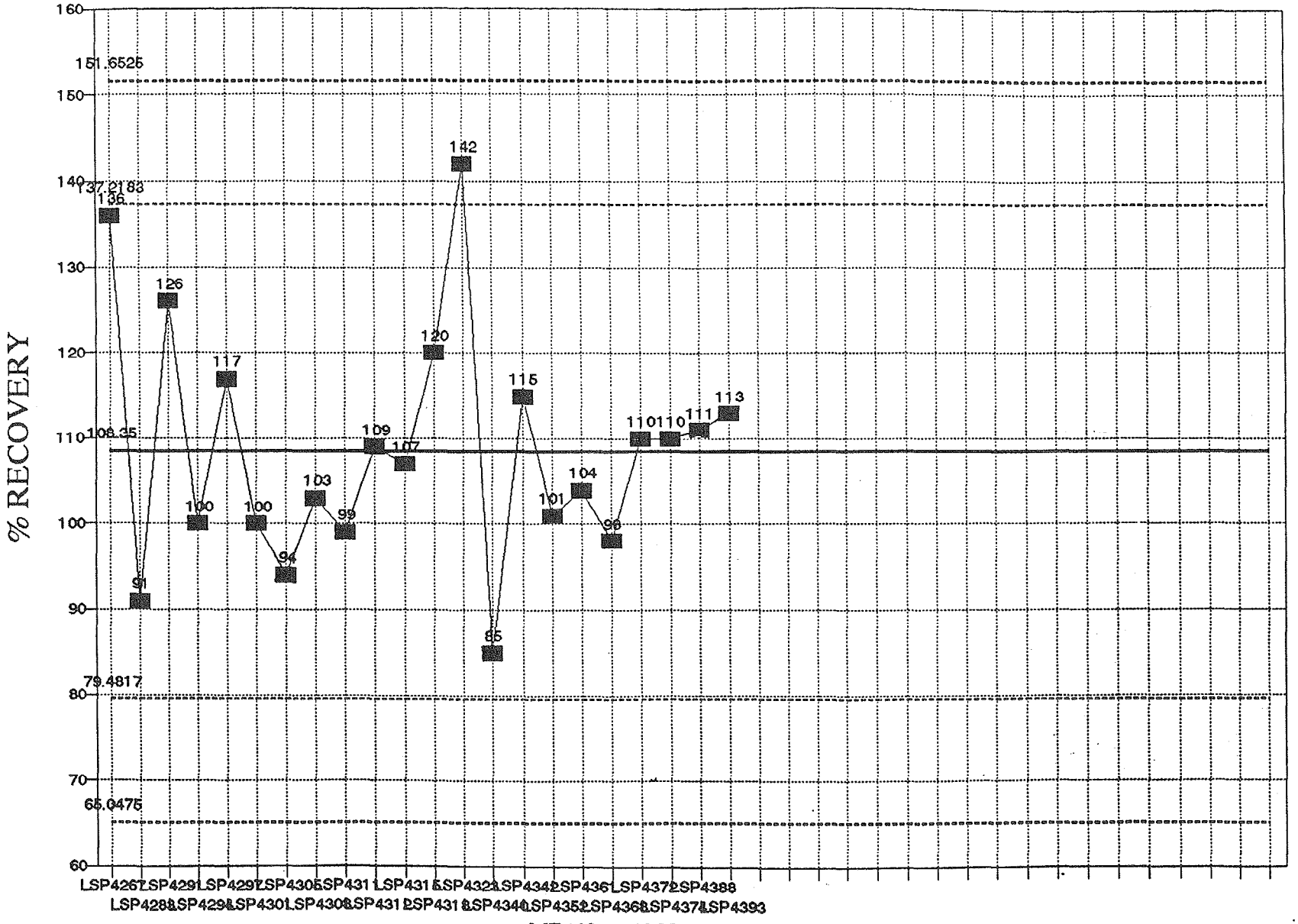
ABN H2O 3520/8270, TERPHENYL-D14
SURR, LIMITS SET 2/95



STD DEV = 8.78 MEAN = 77.2

PCB MEDIUM SOLIDS AROCHLOR 1254

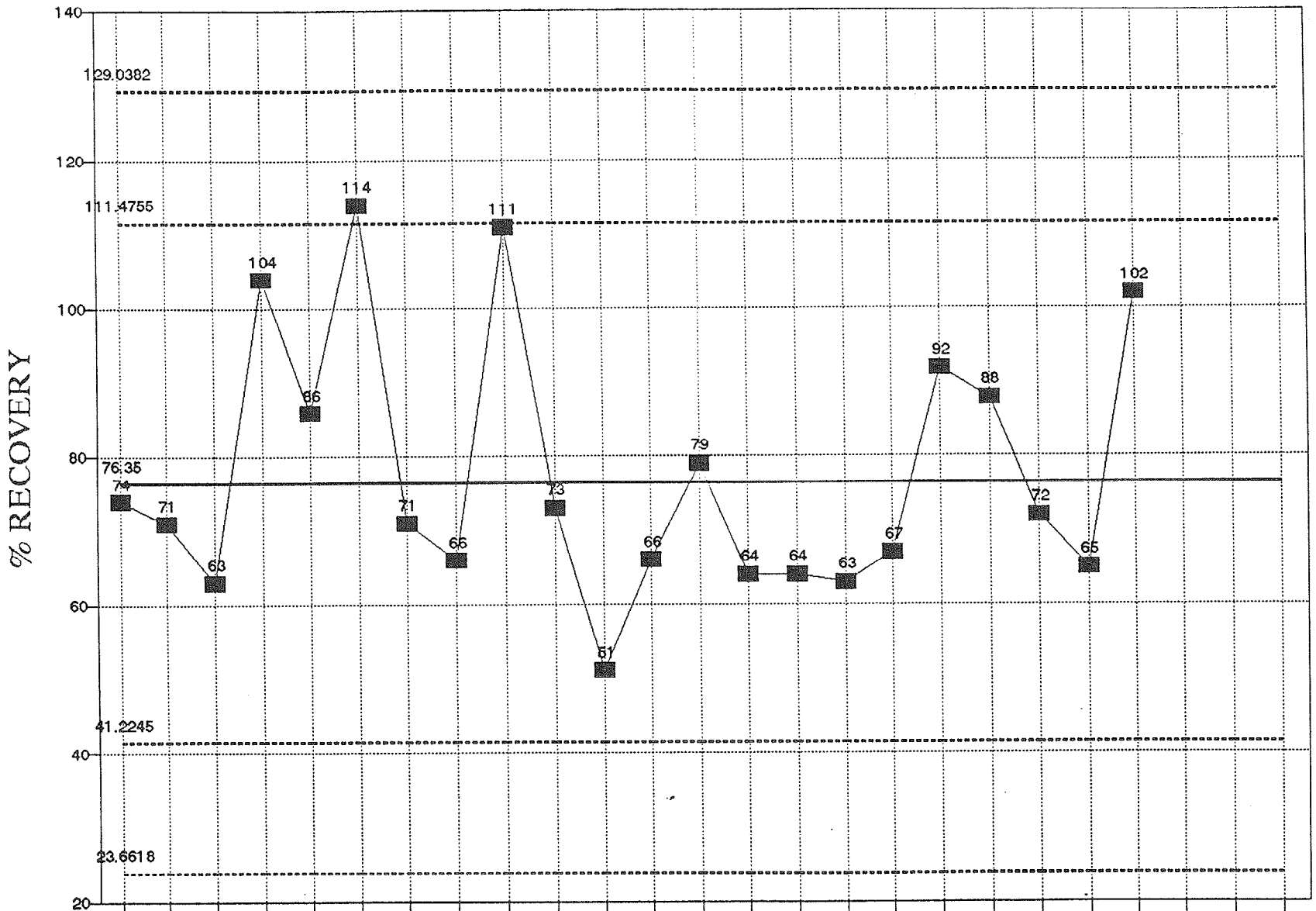
SPK LIMITS SET 8/95-PPCBCHT\AR1254S



MEAN = 108.35 STD DEV = 14.43

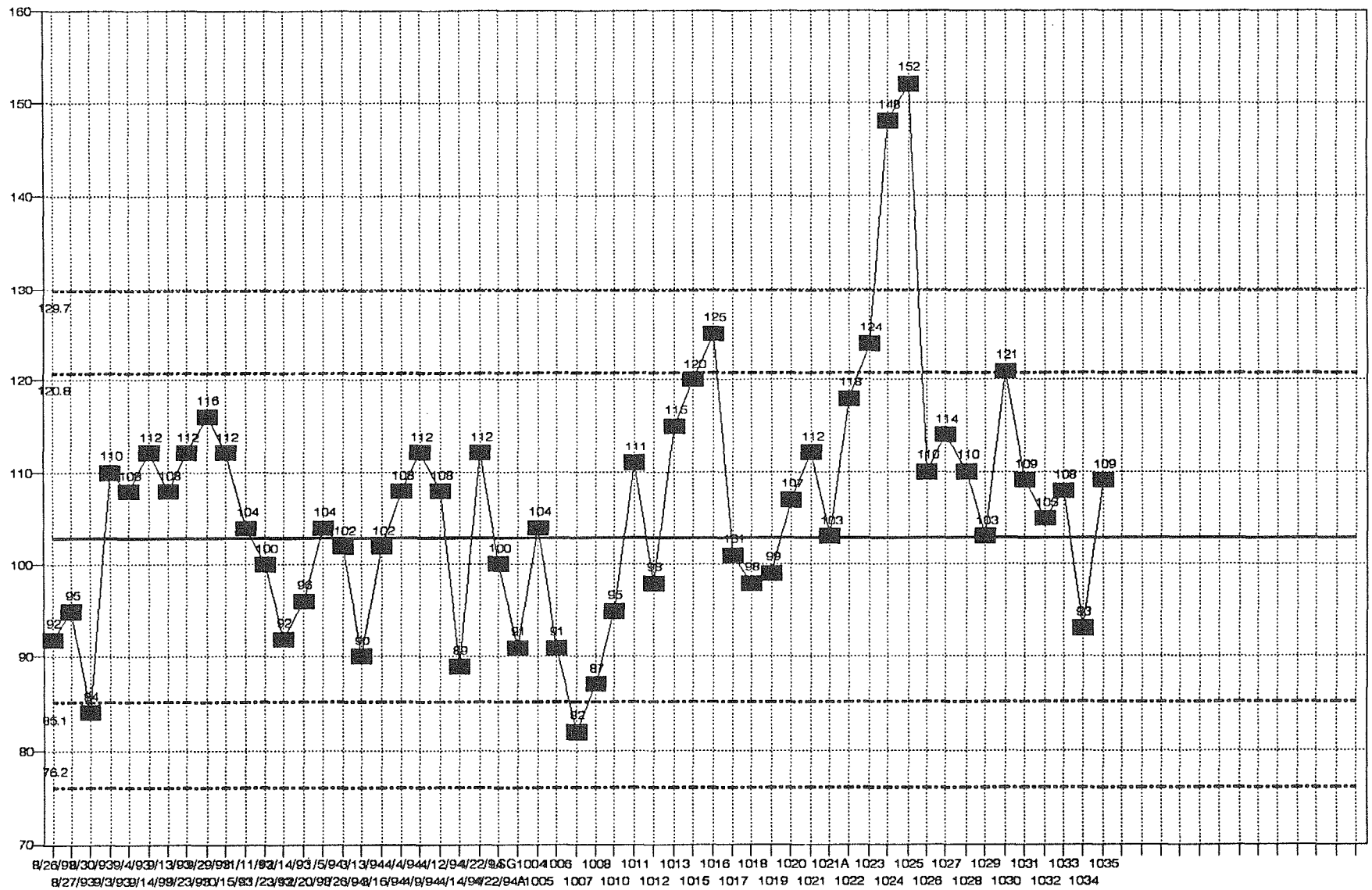
PCB SEPF WATER AROCHLOR1254

SPK REC LIM SET4/94 -PPCBCHT\1254SW94



MEAN = 76.35 STD DEV = 17.56

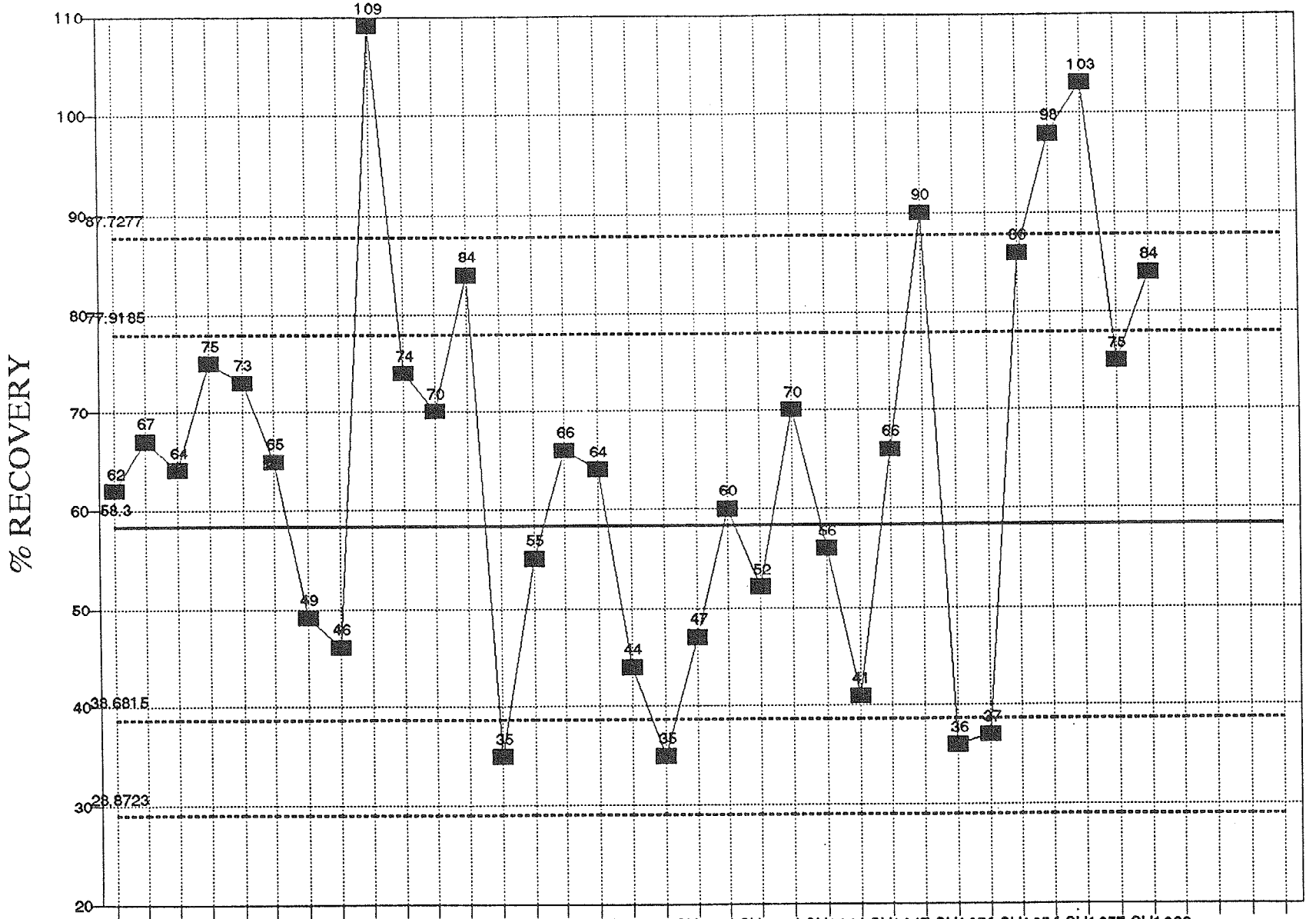
TOTAL GAS LCS RECOVERIES
LIMITS SET 4/13/94



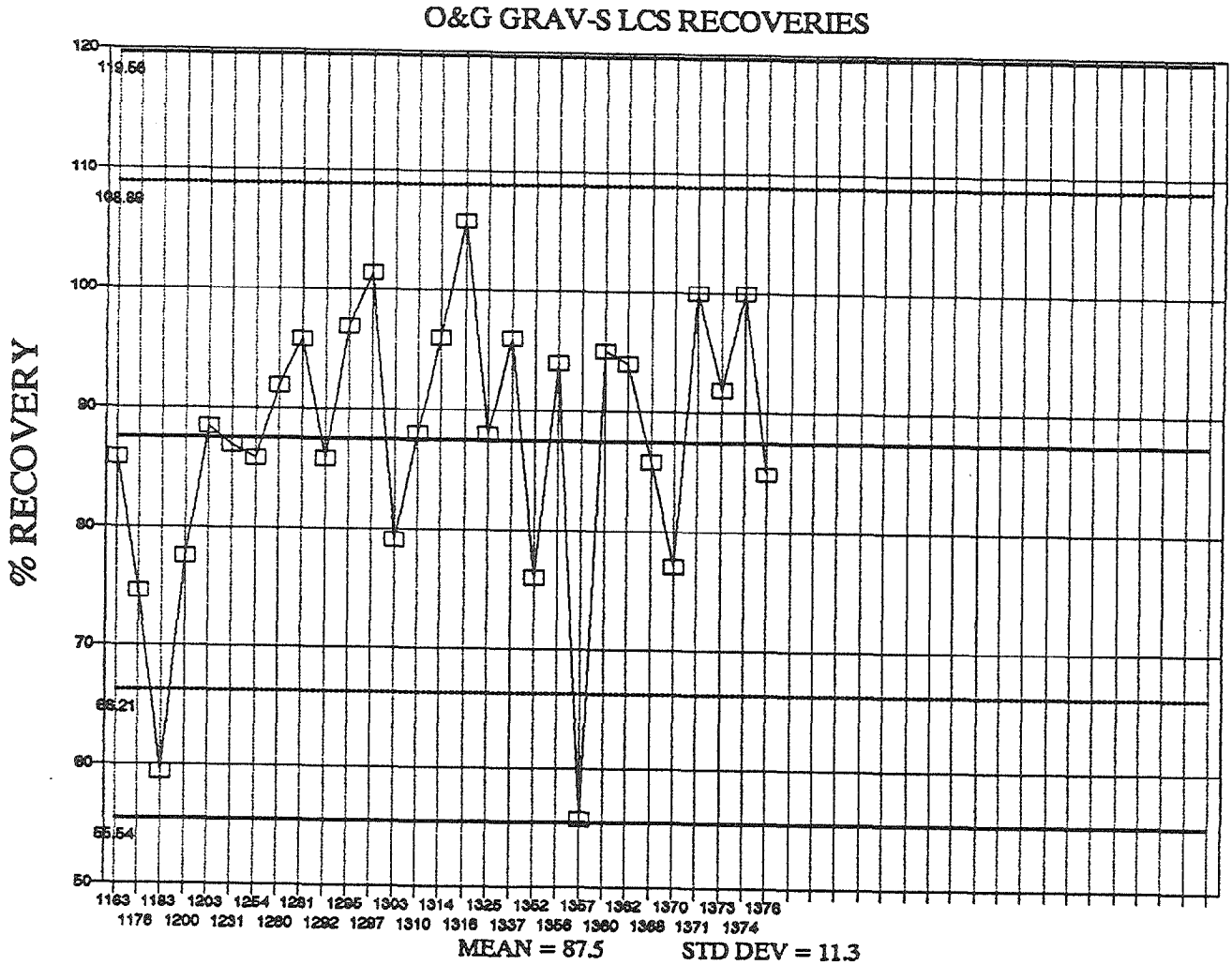
STD DEV = 8.93 MEAN = 103

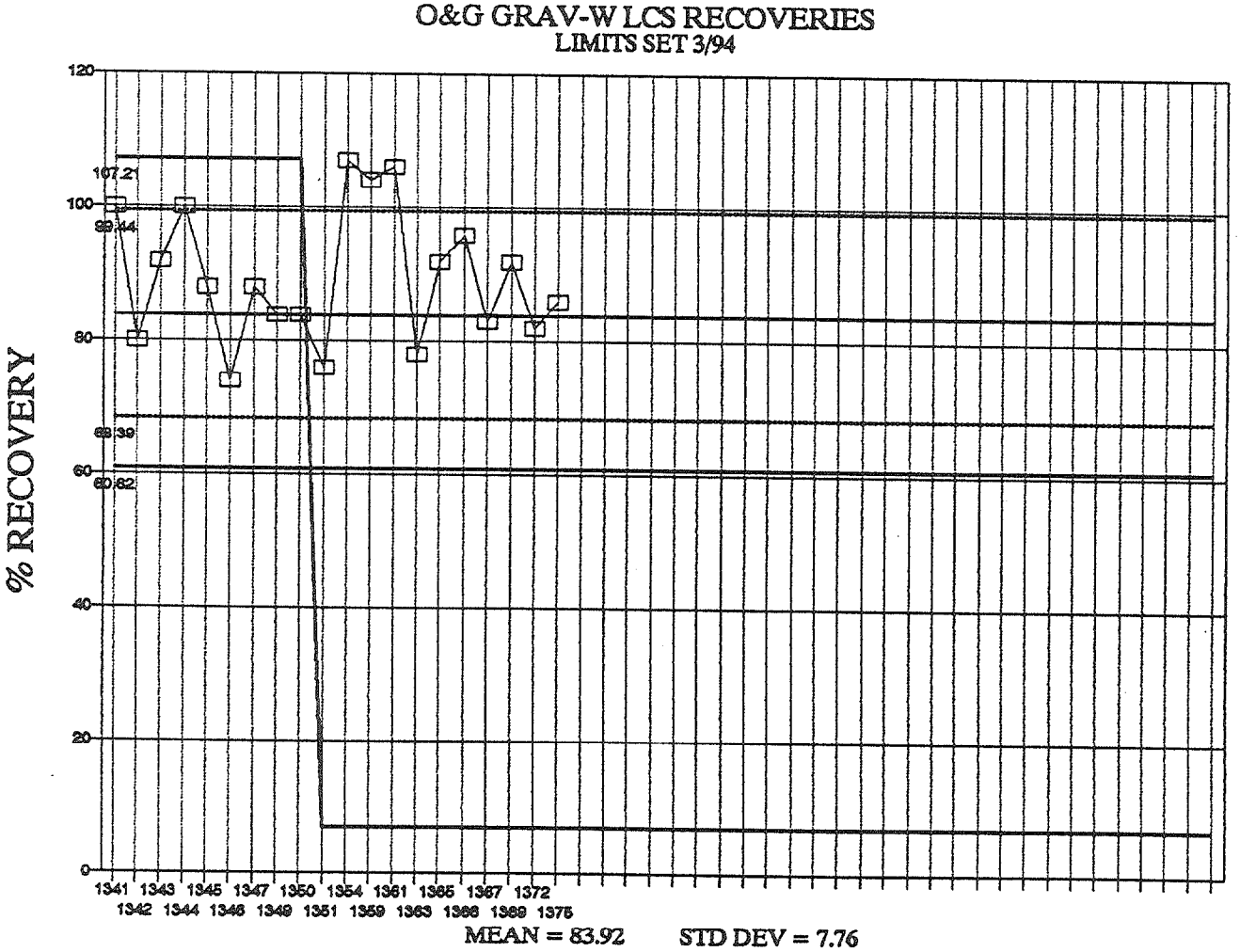
PHC LOW SOLIDS - DIESEL

SPK REC LIMS SET6/6/95-PPCBCHT\PHCS1294



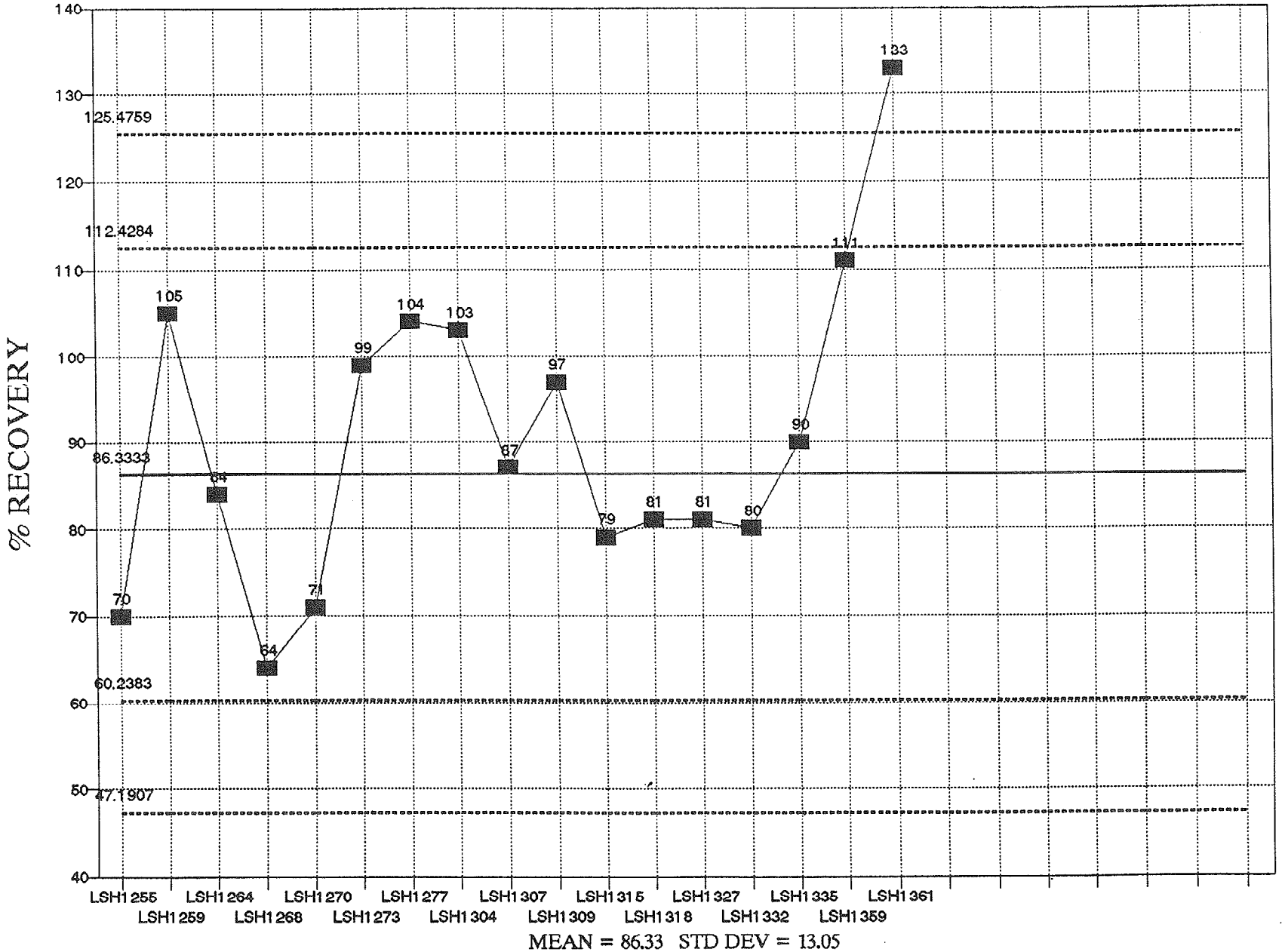
MEAN = 58.30 STD DEV =9.81


O&G GRAV-S LCS RECOVERIES
% RECOVERY
120
110
100
90
80
70
60
50
119.56
108.88
66.21
55.54
1163 1176 1183 1200 1203 1231 1254 1260 1281 1292 1295 1297 1303 1310 1314 1316 1325 1337 1352 1356 1357 1360 1362 1368 1370 1371 1373 1374 1376
MEAN = 87.5
STD DEV = 11.3


O&G GRAV-W LCS RECOVERIES
LIMITS SET 3/94
% RECOVERY
120
100
80
60
40
20
0
107.21
99.44
89.39
80.82
1341 1343 1345 1347 1350 1354 1361 1365 1367 1372
1342 1344 1346 1349 1351 1359 1363 1366 1369 1375
MEAN = 83.92
STD DEV = 7.76

PHC WATERS BY SEPF - DIESEL

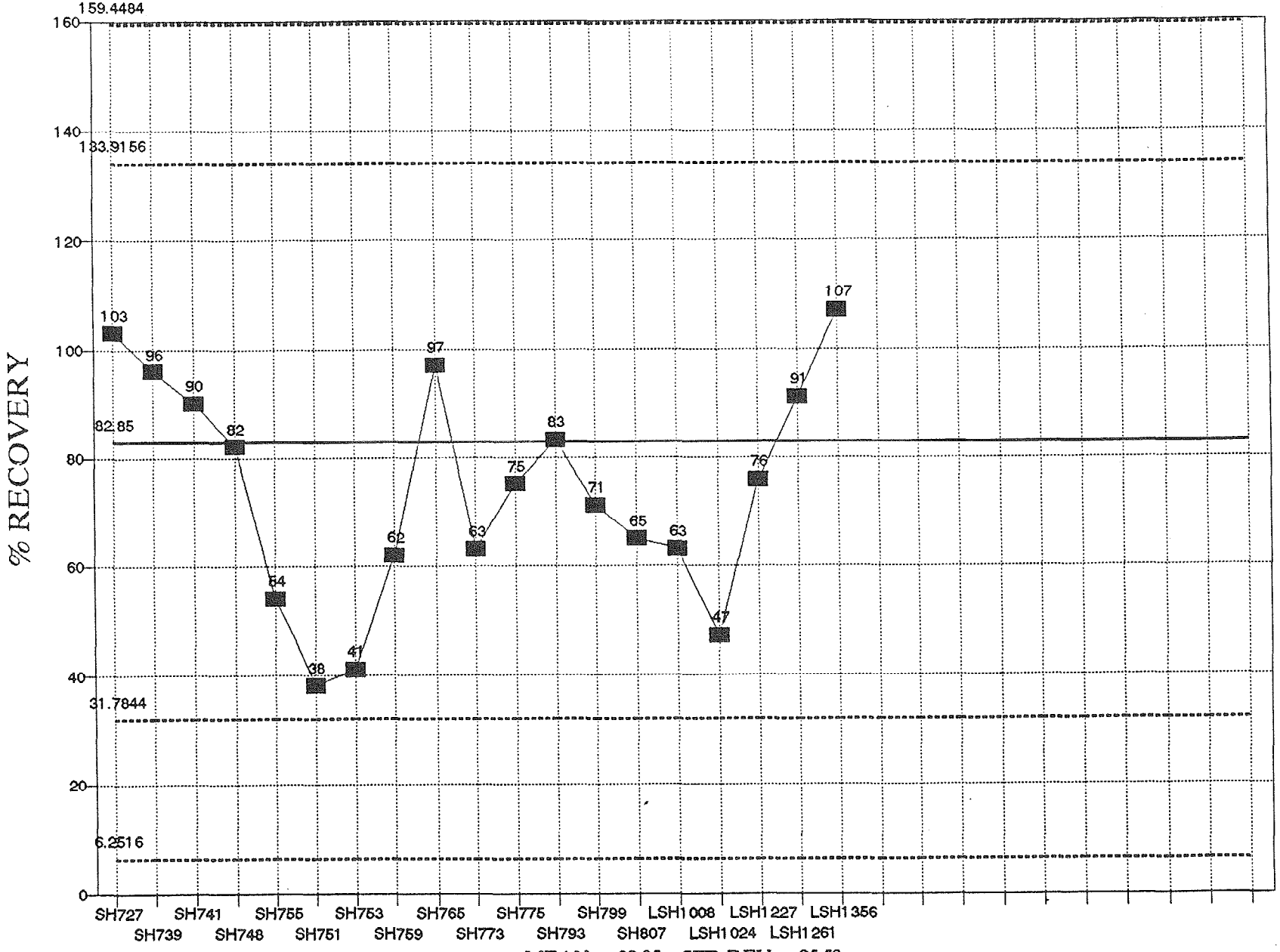
SPK REC LIMS SET0795-PPCBCHT\PHCWSF94



MEAN = 86.33 STD DEV = 13.05

PHC WATERS CONT. EXT.- DIESEL

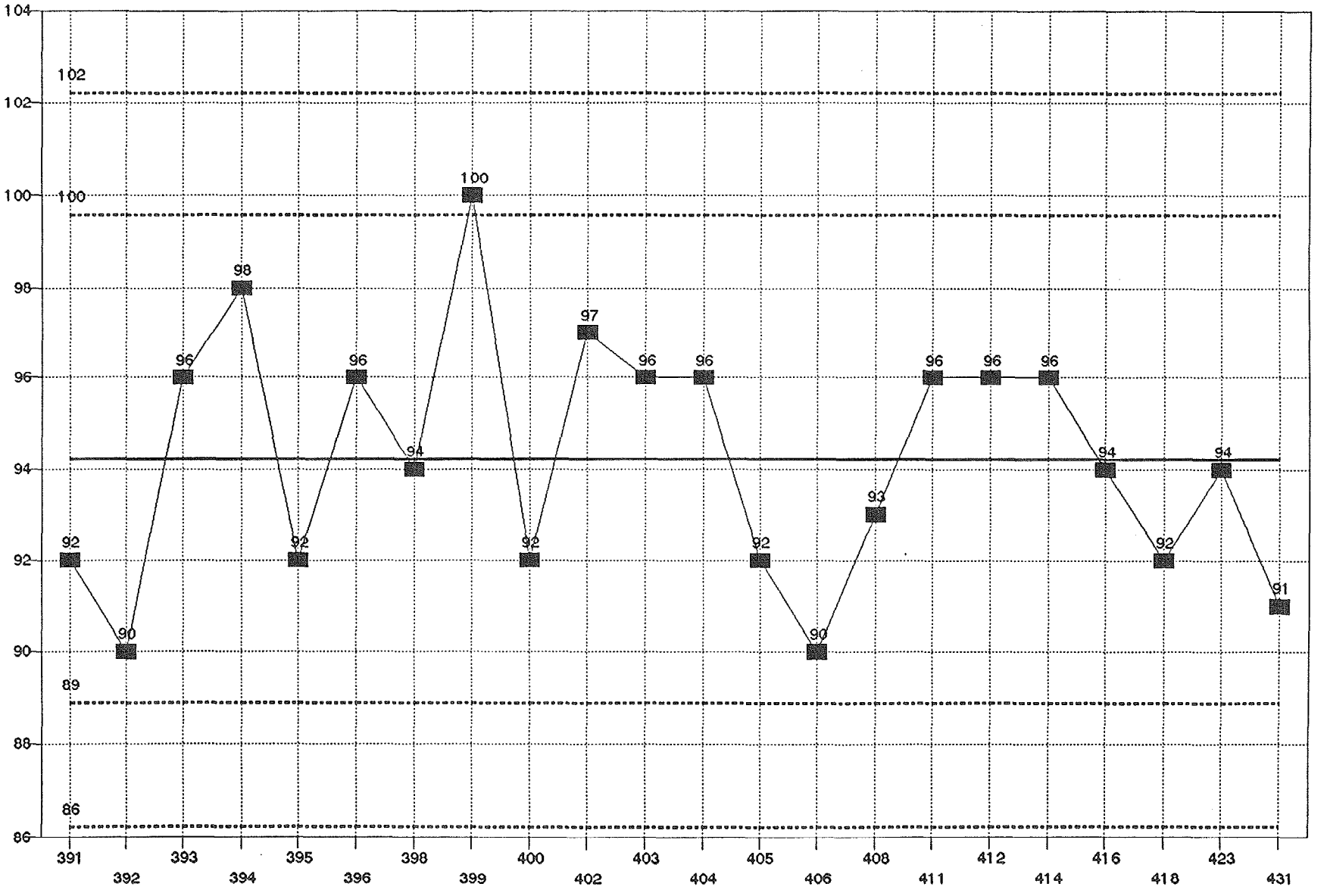
SPK REC LIMITS SET3/94-PPCBCHT\PHCWC394



MEAN = 82.85 STD DEV = 25.53

0000338

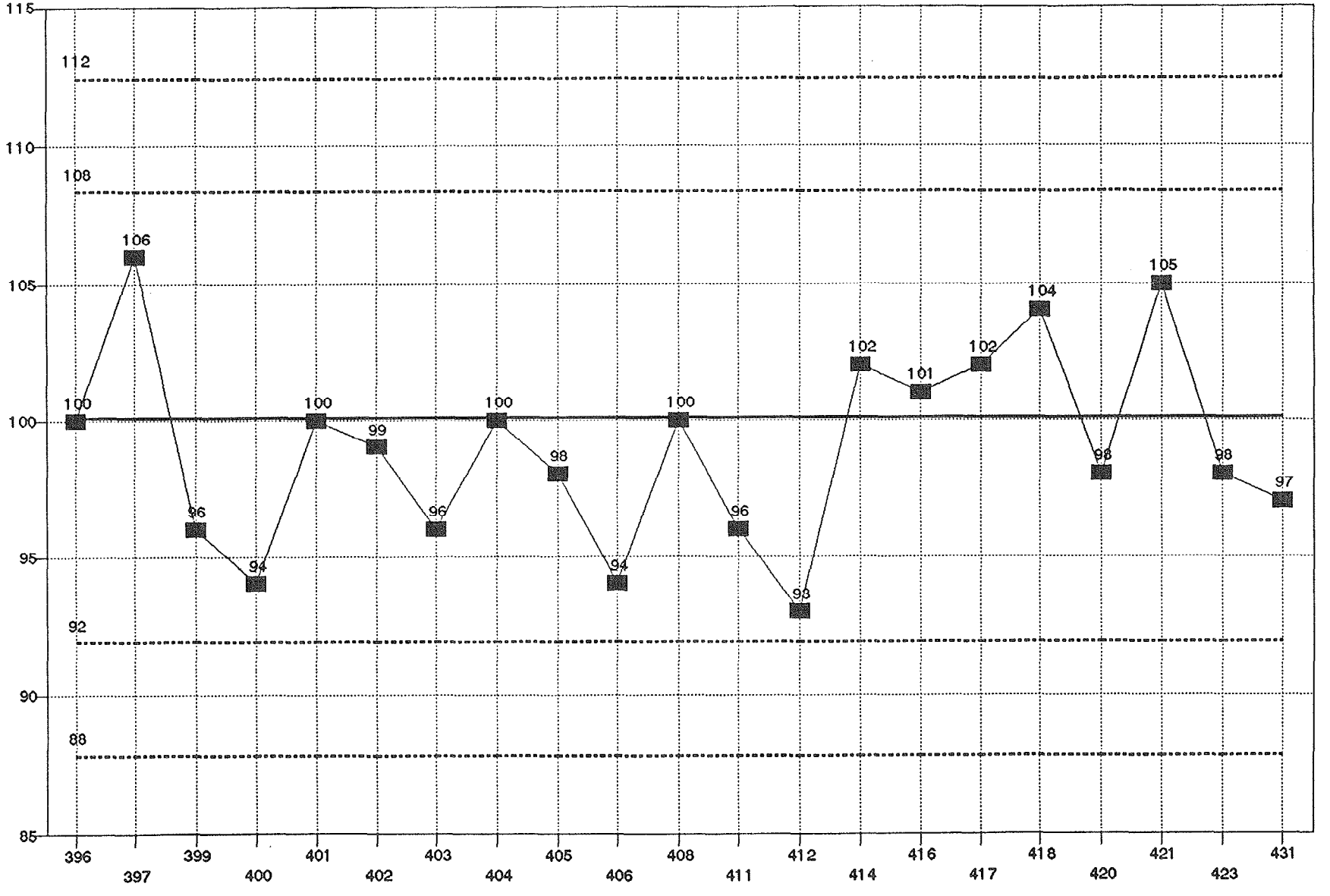
AS TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 8/95



STD DEV = 2.67 MEAN = 94.2

0000339

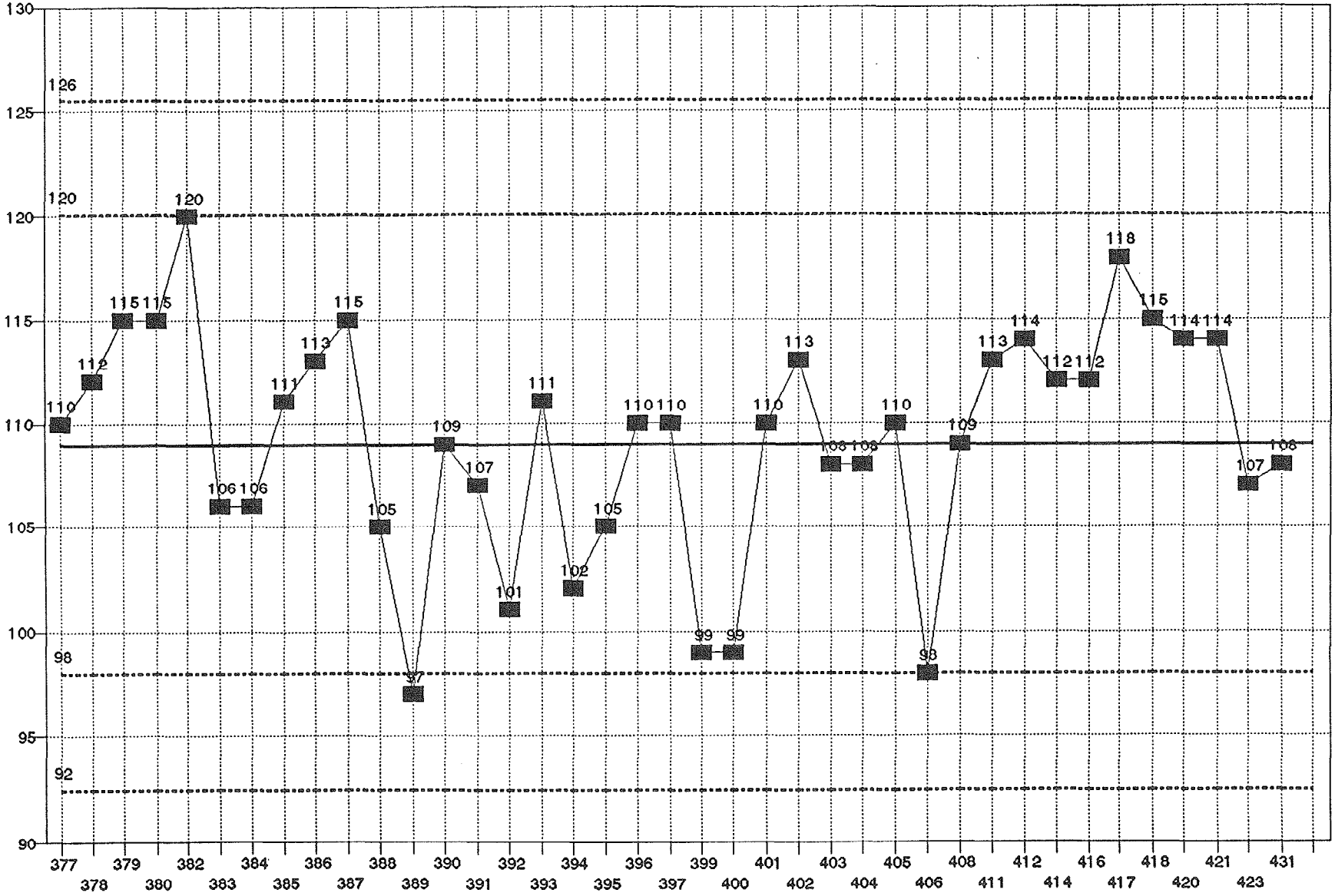
Ba COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.10 MEAN = 100.1

0000340

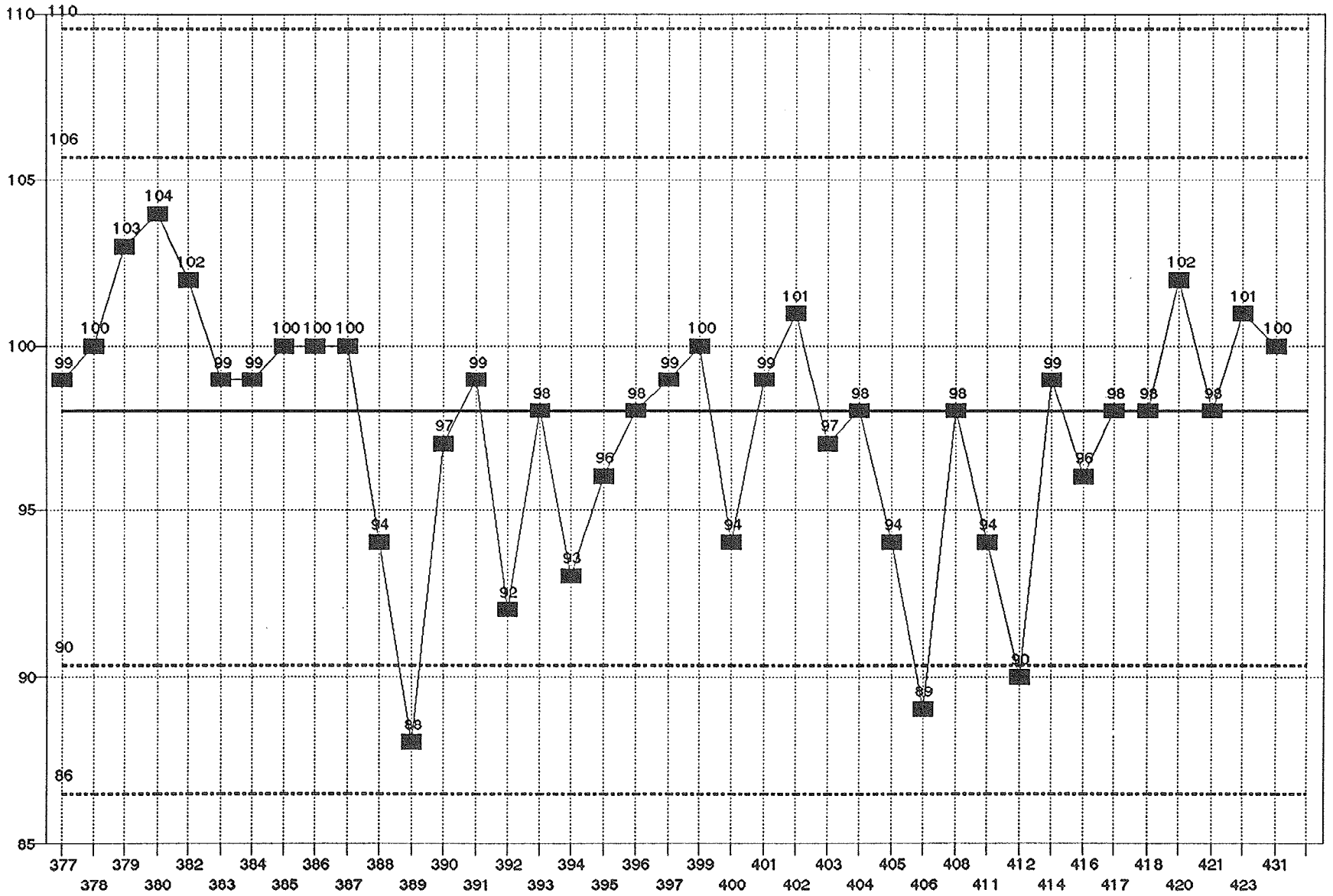
Cd COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 5.51 MEAN = 109

0000341

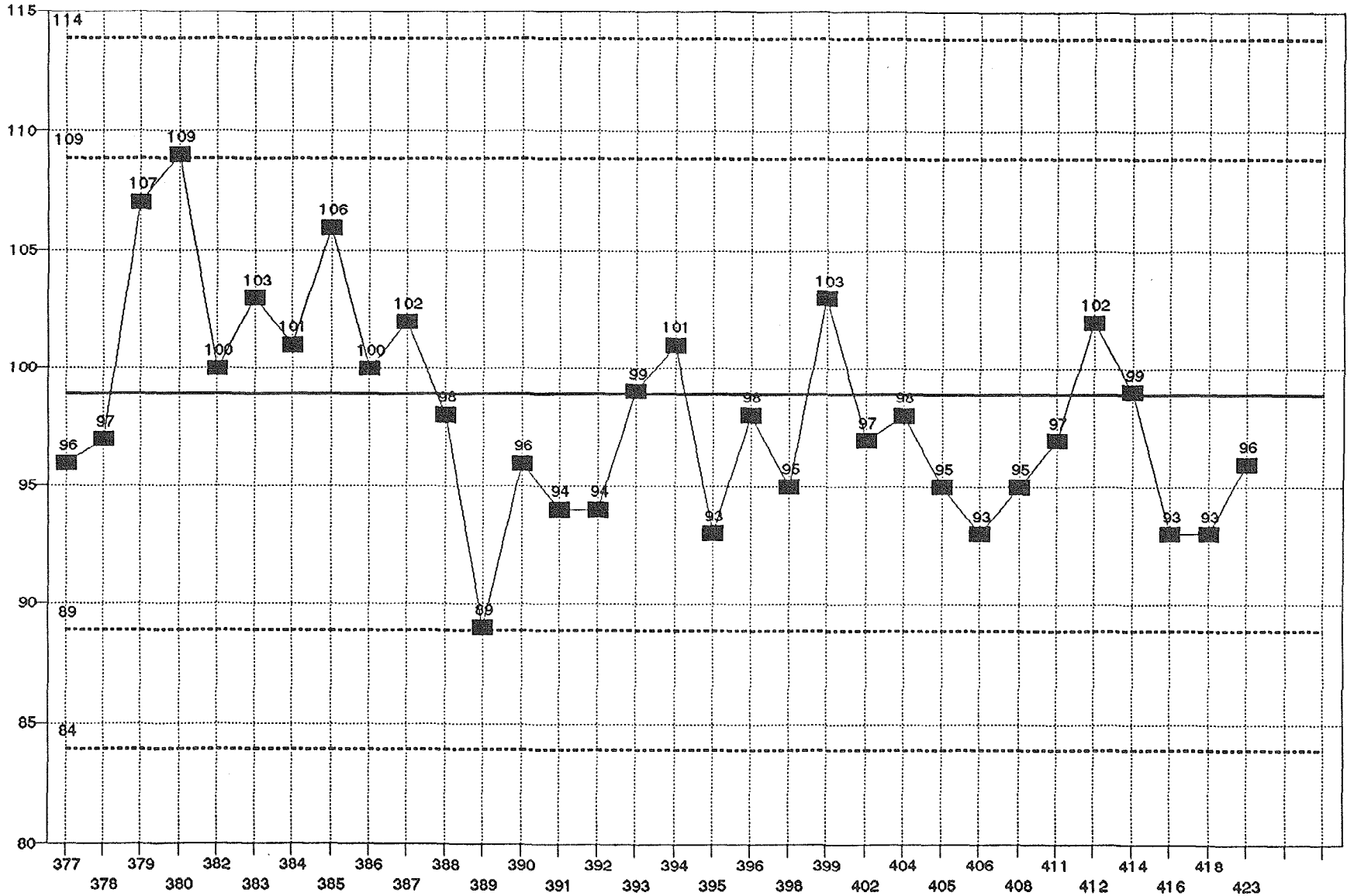
Cr COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 3.84 MEAN = 98.0

0000342

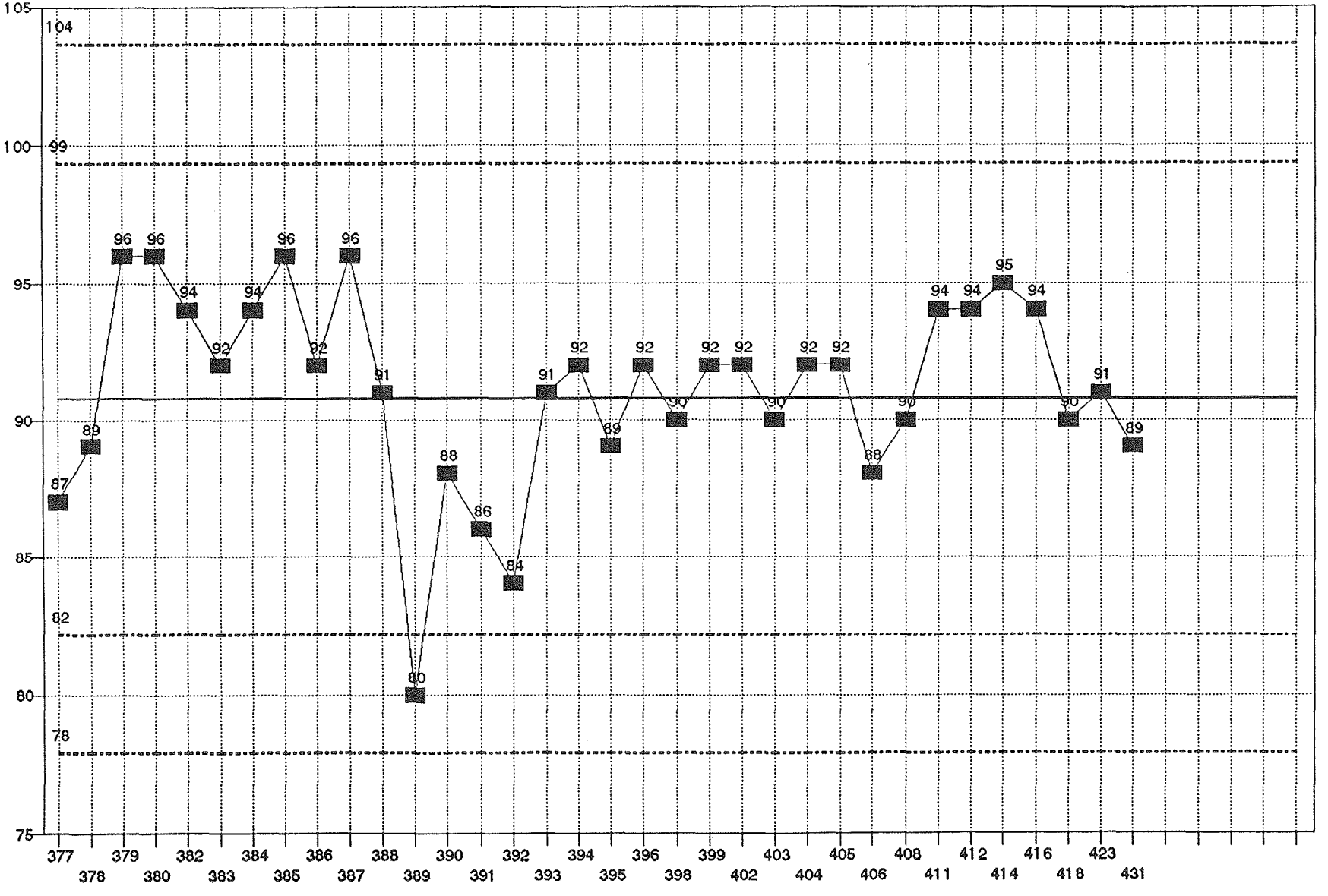
Pb TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.99 MEAN = 98.9

00000343

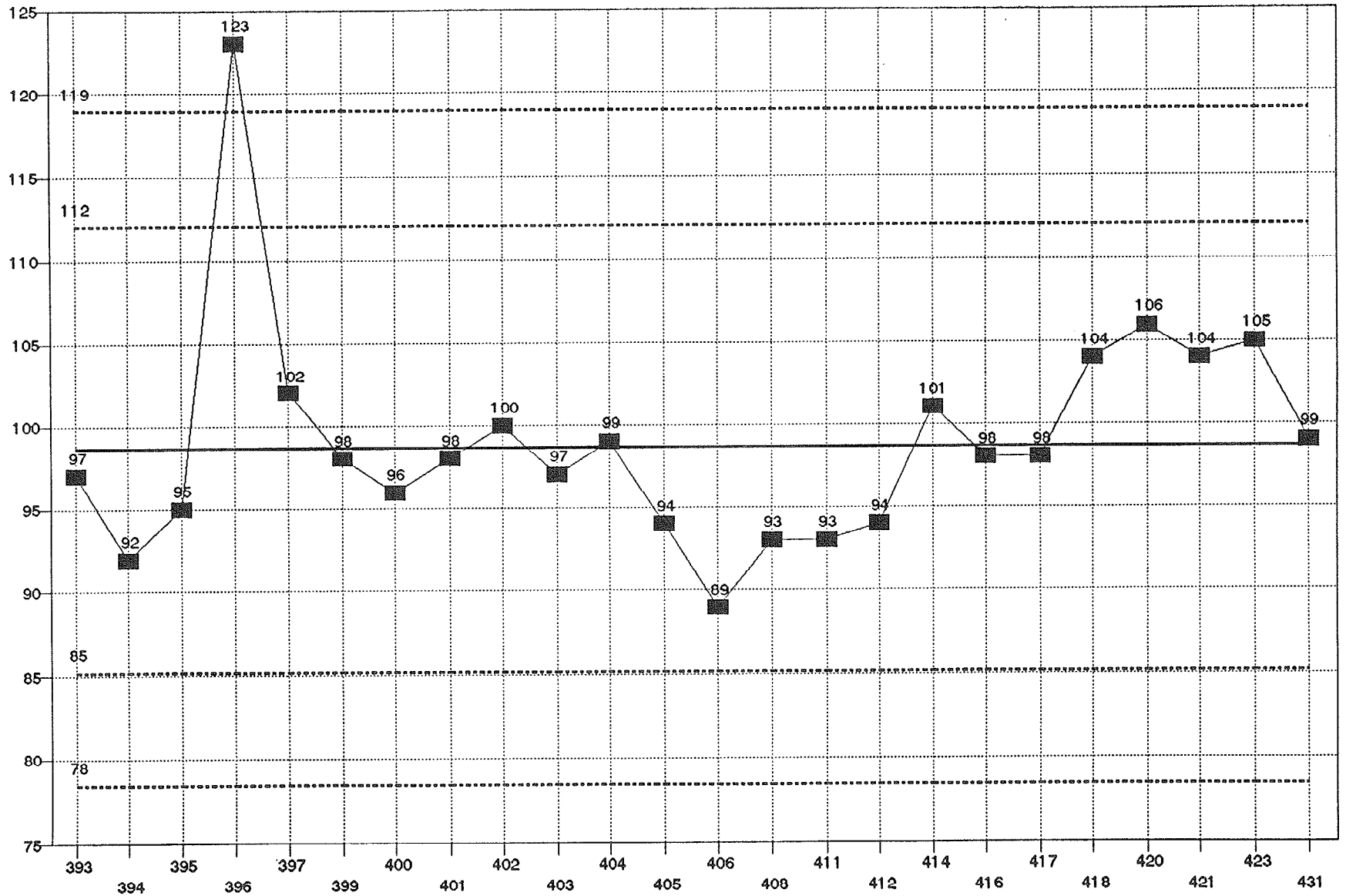
Se TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.29 MEAN = 90.8

0000344

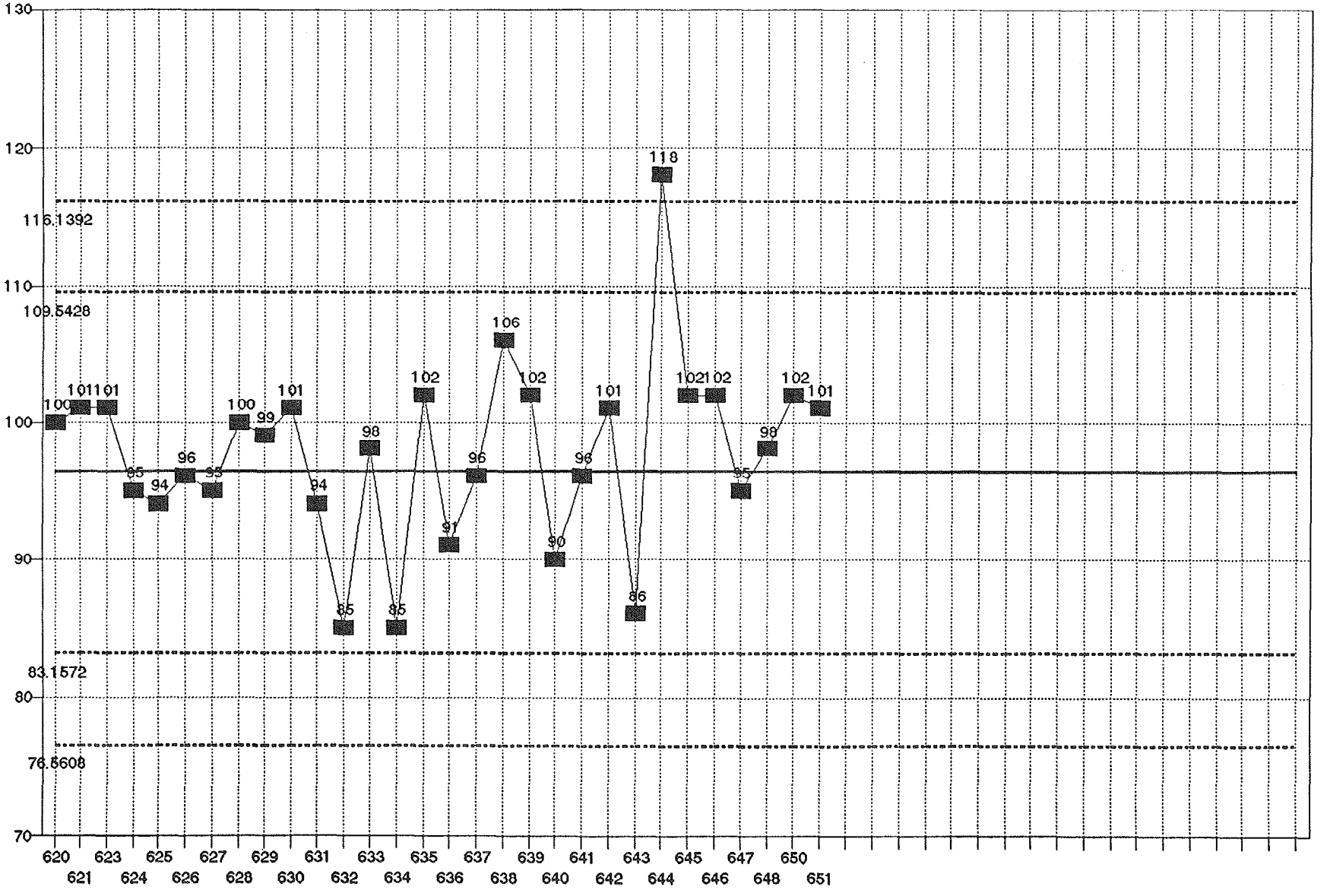
Ag COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 8/95



STD DEV = 6.75 MEAN = 98.6

0000345

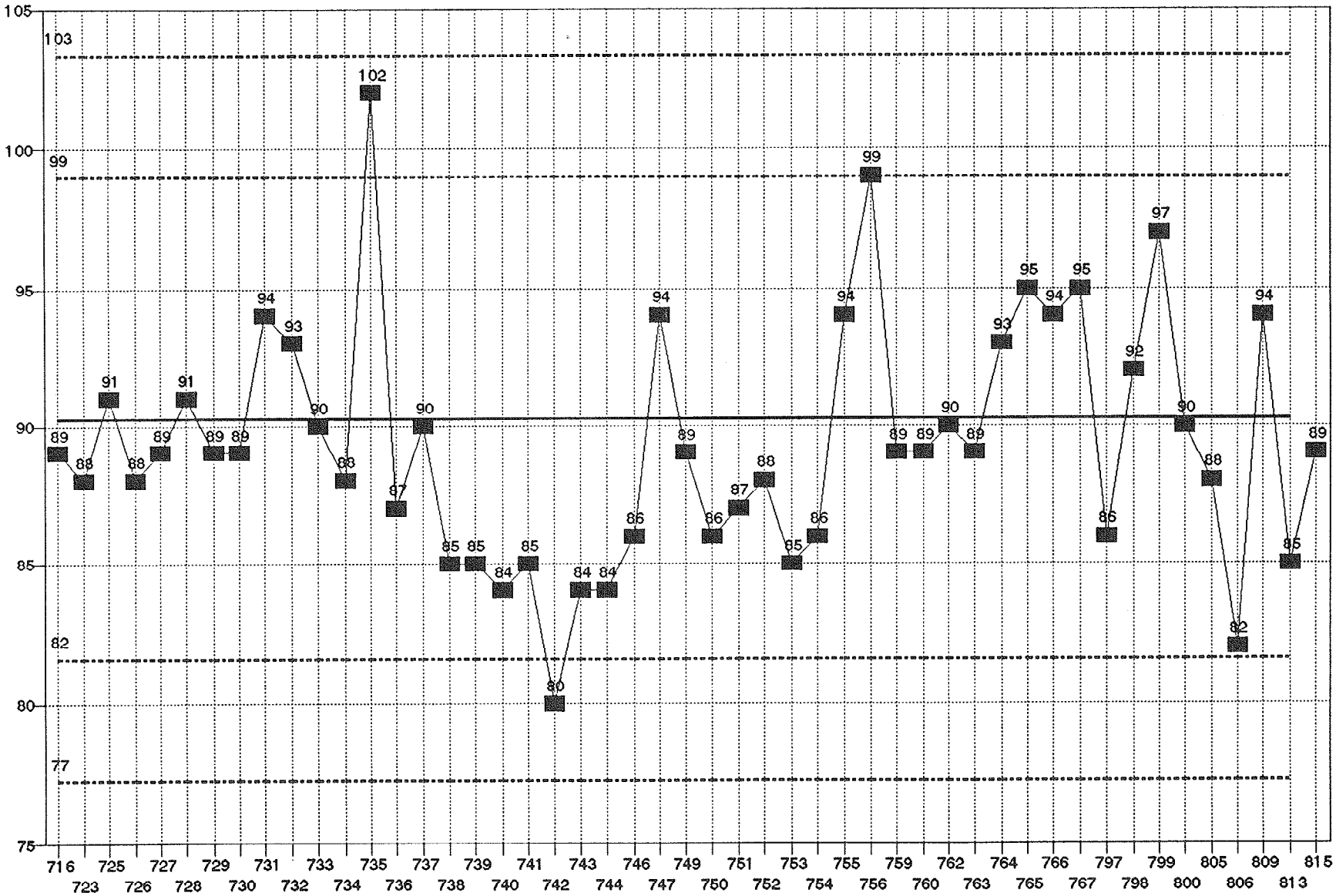
Hg COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 5.43 MEAN = 96.35

0000346

Pb COMMERCIAL LCS SOLID RECOVERIES
LIMITS SET 4/95



STD DEV = 4.35 MEAN = 90.25

00003447

LAB COPY

Form 0019
Field Technical Services
Rev. 08/89

144099

CHAIN-OF-CUSTODY RECORD

HM Corporation

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune D.O. 44	Camp Geiger, NC
PROJ. NO. / PROJECT CONTACT	PROJECT TELEPHONE NO.
.6487 Rakesh Mishra	910-451-2599
CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Jim Dunn / Randy Smith

H4862

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TPH-GRO	TPH-DRO	TCLP Metals	TCLP Volatile	TCLP Semi-Volatile	RCRA Haz Waste Char.	D&G + PCBs	Total Lead	Volatile + BTEX (8240)	REMARKS
CLJ44-CC-001	8/2	0645	X		Composite of Contaminated Soil from Pile 1-5 of Area C.	4	-1 X	-9 X	-18 X	-18 X	-9 X	-20 X	-1 X			On Trip Blank TCLP Volatile
CLJ44-CC-002-RB	8/2	0652	X		Rinsate Blank of Contaminated Soil of Area C	5	-2 X	-10 X	-19 X -31		-32 X		-2 X			8240-1311 Volatile Constituents
CLJ44-CU-003	8/2	0702	X		Composite of Clean Soil from Pile 1 of Area C	4	-3 X	-11 X	-20 X	-20 X	-33 X					only.
CLJ44-CU-004	8/2	0706	X		Composite of Clean Soil from Pile 2 of Area C.	4	-4 X	-12 X	-21 X	-21 X	-34 X					
CLJ44-CU-005	8/2	0711	X		Composite of Clean Soil from Pile 3 of Area C	4	-5 X	-13 X	-22 X	-22 X	-35 X					
CLJ44-CU-006-RB	8/2	0718	X		Rinsate Blank of Clean Soil after Area C	5	-6 X	-14 X	-23 X -24	-23 X	-36 X					
CLJ44-007-FB	8/2	0728		X	Field Blank	8	-7 X	-15 X	-24 X -27		-35 X	-29 X -28	-16 X			
CLJ44-008-TB					Trip Blank	3	-8 X			-17 X			-17 X			

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-1			8/2	1325
2			Betty M'Morrill	8/3/95	1025
3					
4					

REMARKS Send sample to Pace Lab

7 day TAT

SAMPLER'S SIGNATURE

0000348

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

LAB COPY

Form 0019
Field Technical Services
Rev. 08/89

166402

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

OJECT NAME	PROJECT LOCATION
Camp Lejeune D.U.49	Camp Geiger, NC
OJ. NO. / PROJECT CONTACT	PROJECT TELEPHONE NO.
6487 Rakesh Mishra	910-451-2599
IENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Jim Dunn / Randy Smith

44897

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TPH-GRO	TPH-DRO	TCLP Metals, TCLP Semi-Volatile	RCRA Haz Waste Char.	OEG	PCBs, Total Lead	TCLP Volatile	Volatile + BTEX (8240)	REMARKS
CLJ44-CU-016	8/4	1030	X		Composite of contaminated soil From Pile 1 of Area C	3	-1 X	-13 X			-13 X				
CLJ44-CU-017	8/4	1040	X		Contaminated Soil of Pile 2 From Area C	3	-2 X	-14 X			-14 X				
CLJ44-CU-018	8/4	1050	X		Contaminated Soil of Pile 3 From Area C	3	X -3	-15 X			-15 X				
CLJ44-CU-019	8/4	1100	X		Contaminated Soil of Pile 4 From Area C	3	-4 X	-16 X			-16 X				
CLJ44-CU-020	8/4	1110	X		Contaminated soil of Pile 5 From Area C	3	-5 X	-17 X			-17 X				
CLJ44-CU-021	8/4	1120	X		Contaminated Soil of Pile 6 From Area C	3	-6 X	-18 X			-18 X				
CLJ44-CU-022	8/4	1130	X		Contaminated soil of Pile 7 From Area C	3	-7 X	-19 X			-19 X				
CLJ44-CU023	8/4	1140	X		Contaminated Soil of Pile 8 from Area C	3	-8 X	-20 X			-20 X				
CLJ44-CU-024	8/4	1200	X		Contaminated soil of Pile 9 From Area C	3	-9 X	-21 X			-21 X			Grab	e3 8/27/95 -27
CLJ44-CU-025	8/4	1210	X		Contaminated Soil of Pile 10 From Area C.	4	-10 X	-22 X	-25 Y	-24 X	-22 X	-26 X	-25 X	-23 X	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10			8/4	1400
2			K. Hawsey / Pace NH	8/5/95	1320
3					
4					

REMARKS Please send samples to Pace lab

24 hr TAT

SAMPLER'S SIGNATURE

0000349

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

LAB COPY

Form 0019
Field Technical Services
Rev. 08/89

166403

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune D.O. 44	Camp Geiger NC

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
6482	Rakesh Mishra	910-451-2579

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Jim Dunn / Randy Smith

44897

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TPH-GRO / TPH-DRO / OEG	REMARKS
CLJ44-CU-026	1220 8/4		X		Contaminated Soil of Pile 11 From Area C	3	X-11 / X-23 / X-13	
CLJ44-CU-027	1230	8/4	X		Contaminated Soil of Pile 12 From Area C.	3	X-12 / X-24 / X-24	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-2			8/4	1400
2			K. Lawson / Pace LIH	8/5/95	1200
3					
4					

REMARKS: Send Samples to Pace Lab

24 hr TAT

SAMPLER'S SIGNATURE

0000350

OHM Remediation Services Corp.

LAB COPY

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

166404

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune DO 44	Camp Geiger, NC

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
6487	Rakesh Mishra	910451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Tim Dunn / Randy Smith

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TPH-GRO	TPH-DRO	TCL Metals, TCLP Semi-Volatile	TCLP Volatile	RCRA Haz Waste Char				REMARKS 44898
CLJ44-CU-012	8/4	0630	X		Clean Soil from Piles of Area C.	4	X1	X5	X	X8	X				
CLJ44-CU-013	8/4	0636	X		Clean Soil from Pile 6 of Area C.	4	X2	X6	X	X9	X				
CLJ44-CU-014 -RB	8/4	0644	X		Rinsate Blank	5	X3	X7	X	X10	X13				
CLJ44-CU-015 -TB	8/4				Trip Blank	2	X4			X14					
									-12						

-11

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-4			8/4	1400
2			K. Lawson-Hart NH	8/5/95	1200
3					
4					

REMARKS Send Samples to Pace Lab
7 days TAT

SAMPLER'S SIGNATURE

0000351

August 28, 1995

OHM Remediation Services Corporation
5335 Triangle Parkway
Suite 450
Norcross, GA 30092

SAMPLE DELIVERY GROUP NARRATIVE

Case: OHMRC
SDG: LJN10
Laboratory: PACE New England - New Hampshire of Hampton, NH
Lab Numbers: 44913
Protocol: SW846 Methods. NEESA E deliverables. No diskette.

Sample Receipt: These samples were received at PACE, Inc. on August 8, 1995. Laboratory sample numbers were assigned for test parameters as listed on the Sample Table which follows this narrative. The sample shipment was checked for custody seal integrity and cooler temperature. Samples were checked for appropriate preservation and accuracy against the Chains-of-Custody provided. Other than the exceptions noted below, samples were received between 2-6° C and in good condition. PACE Sample Receipt Condition Reports can be found with the Chains-of-Custody.

Shipment received 8/8/95 (44913): These samples were received and samples were logged in under PACE Lab Numbers 44913 and 44914. A temperature blank was not included with the shipment, therefore the cooler temperature could not be verified upon receipt of samples at PACE. The samples were received cool, and had been packed on ice. Samples listed as Items 1-4 on the COC were logged in under PACE# 44914 for seven day turnaround. Samples listed as Items 5-8 on the COC were logged in under PACE# 44913 for 24 hour turnaround. No problems were encountered with the shipment of these samples.

GRO Analysis: Sample 44913-1 and -4 for gasoline had no recovery for the surrogate. This was a probable matrix effect.

DRO Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Oil and Grease Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Volatiles Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

PCB Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Lead Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

TCLP Metals Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Conventional Chemistry Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Semi Volatile Analysis: Limits for ABN TCLP analysis have not been re-established since a change in the method, since less than 20 points are available.

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

Statement of Compliancy and Data Authorization

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Richard L Wellman — 8/28/95

PACE Incorporated, New England-New Hampshire — August 28, 1995

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

44913

PAGE 1 of 1
COOLER ____ of ____
COC# ____
SDG# LJN1C
CASE# OHMRC

CLIENT OH/M
DATE/TIME RECEIVED 8/8/95 0915
DELIVERED BY Fed Ex
RECEIVED BY [signature]
LIMS ENTRY BY Gnf
TRANSCRIPTION REVIEW BY Gnf
LIMS REVIEW BY/PM Gnf

	NA	YES	EXCEPTION	COMMENT	RESOLUTION
1. CUSTODY SEALS PRESENT/INTACT	☑	☐	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☑	☐		
3. CHAIN OF CUSTODY SIGNED	☐	☑	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES	☐	☐	☑	no time on Pace # 44913-7	
5. SAMPLES RECEIVED AT 2° - 6° C Ice/Ice Packs Present? (Y) or N	☐	☐	☑	No Temp Blank	
6. VOLATILES FREE OF HEAD SPACE	☐	☑	☐		
7. TRIP BLANK PRESENT IN THIS COOLER	☐	☑	☐		
8. PROPER SAMPLE CONTAINERS AND VOLUME	☐	☑	☐		
9. SAMPLES WITHIN HOLD TIME	☐	☑	☐		
10. SAMPLES PROPERLY PRESERVED	☑	☐	☐	Solids	

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other ____
12. NUMBER OF PACE FILTRATIONS: ____
13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes: 24-TAT

CLIENT AUTHORIZATION SIGNATURE ____ DATE ____

0000003

SAMPLE TABLE

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-CC-020	SOLID	44913-001	TOTAL GASOLINE
		44913-005	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-021	SOLID	44913-002	TOTAL GASOLINE
		44913-006	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-022	SOLID	44913-003	GC/MS VOA
			TOTAL GASOLINE
		44913-007	PCBS
			OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
			Pb
		44913-009	GC/MS VOA
			ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
			TCLP VOA EXTRACT
			TCLP ORGANICS EXTRACT
			CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
			TCLP METALS EXTRACTION
			Ba, Cd, Cr, Pb, Hg, Ag, As, Se
CLJ44-CC-023	SOLID	44913-004	TOTAL GASOLINE
		44913-008	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL

pace INCORPORATED
THE ASSURANCE OF QUALITY

Field Identification: CLJ44-CC-020 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	420	27	44913-001	08/09/95	BG1033A	8015(mod)/2
Total Diesel (ug/g)	2400	38	44913-005	08/09/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	720	290	44913-005	08/10/95	BG1370	9071,503D/2,3

Field Identification: CLJ44-CC-021 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	160	14	44913-002	08/09/95	BG1033A	8015(mod)/2
Total Diesel (ug/g)	1600	38	44913-006	08/09/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	790	290	44913-006	08/10/95	BG1370	9071,503D/2,3

Field Identification: CLJ44-CC-022 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	870	75	44913-003	08/09/95	BG1033A	8015(mod)/2
Total Diesel (ug/g)	2500	39	44913-007	08/09/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	1300	290	44913-007	08/10/95	BG1370	9071,503D/2,3
Lead, total (ug/g)	6	5	44913-007	08/09/95	21806	3050,6010/2
Corrosivity (pH, units)	6.4		44913-009	08/08/95	347	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44913-009	08/08/95	290	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44913-009	08/08/95	290	7.3.3.2/2
Flash Point (degrees F)	>150	50	44913-009	08/08/95	316	1010/2

Field Identification: CLJ44-CC-023 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	210	14	44913-004	08/09/95	BG1033A	8015(mod)/2
Total Diesel (ug/g)	1800	39	44913-008	08/09/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	680	280	44913-008	08/10/95	BB1370	9071,503D/2,3

Results expressed on a dry weight basis with the exception of releasables, which are expressed on a weight as received basis.

References: 1) 40 CFR Part 136, Friday, October 26, 1984
2) EPA SW 846, 3rd Edition
3) Standard Methods, 16th Edition

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: 44913-003
Sample Designation: CLJ44-CC-022
Date Analyzed: 08/08/95
Matrix: SOLID

Instrument File Name: >C9715

Results are expressed on a dry (103 degrees C) basis.
Moisture content was 17 % , elevating the reporting limits
by a factor of 1.2 .

VOLATILE ORGANICS	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
Chloromethane	BDL	2.9
Bromomethane	BDL	2.9
Vinyl chloride	BDL	2.9
Chloroethane	BDL	1.5
Methylene chloride	BDL	2.9
Acetone	BDL	7
Carbon disulfide	BDL	1.5
1,1-Dichloroethene	BDL	1.5
Tetrahydrofuran	BDL	7
1,1-Dichloroethane	BDL	1.5
1,2-Dichloroethene (total)	BDL	1.5
Chloroform	BDL	1.5
Methyl ethyl ketone	BDL	7
1,2-Dichloroethane	BDL	1.5
1,1,1-Trichloroethane	BDL	1.5
Carbon Tetrachloride	BDL	1.5
Vinyl acetate	BDL	2.9
Bromodichloromethane	BDL	1.5
cis-1,3-Dichloropropene	BDL	1.5
trans-1,3-Dichloropropene	BDL	1.5
Trichloroethene	BDL	1.5
Benzene	BDL	1.5
Dibromochloromethane	BDL	1.5
1,1,2-Trichloroethane	BDL	1.5
1,2-Dichloropropane	BDL	1.5
2-Chloroethyl vinyl ether	BDL	1.5
Bromoform	BDL	1.5
Methyl isobutyl ketone	BDL	7
2-Hexanone	BDL	7
1,1,2,2-Tetrachloroethane	BDL	1.5
Tetrachloroethene	BDL	1.5
Toluene	BDL	1.5
Chlorobenzene	BDL	1.5
Ethylbenzene	2.8	1.5
Xylene (total)	19	1.5
Styrene	BDL	1.5

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

BDL = Below reporting limit

Detection limit raised by the presence of non-listed compounds.

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: 44913-007
Sample Designation: CLJ44-CC-022
Date Extracted: 08/08/95
Date Analyzed: 08/09/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.
Moisture content was 16 % , elevating the reporting limits
by a factor of 1.2 .

PCB'S	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
PCB-1242 (Arochlor 1242)	BDL	0.1
PCB-1254 (Arochlor 1254)	BDL	0.1
PCB-1221 (Arochlor 1221)	BDL	0.1
PCB-1232 (Arochlor 1232)	BDL	0.1
PCB-1248 (Arochlor 1248)	BDL	0.1
PCB-1260 (Arochlor 1260)	BDL	0.1
PCB-1016 (Arochlor 1016)	BDL	0.1

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHODS 3550 AND 8080

BDL = Below reporting limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44913-009
Field Identification : CLJ44-CC-022
Extraction Date : 08/09/95
TCLP Blank : 90,002-388

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44913-009
Sample Designation:CLJ44-CC-022
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/11/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	.007	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

pace INCORPORATED
THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44913-009
Field Identification : CLJ44-CC-022
Extraction Date : 08-09-95
TCLP Blank : 90,001-274

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.37. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.61, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17.00 hrs

Final pH : 4.87

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: 44913-009
Sample Designation: CLJ44-CC-022
Date Extracted: 08/10/95
Date Analyzed: 08/11/95
Matrix: TCLP EXTRACT

Instrument File Name: >H8784

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR METALS CONSTITUENTS

Laboratory number: 44913 -009
Sample Designation: CLJ44-CC-022
Matrix: TCLP EXTRACT

Parameter		Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
METALS	Date Analyzed			
Arsenic	08/16/95 13:25	BDL	5.0	.05
Barium	08/16/95 13:25	BDL	100	.5
Cadmium	08/16/95 13:25	BDL	1.0	.03
Chromium	08/16/95 13:25	BDL	5.0	.05
Lead	08/16/95 13:25	.05	5.0	.03
Mercury	08/17/95 11:51	BDL	0.2	.0003
Selenium	08/16/95 13:25	BDL	1.0	.05
Silver	08/16/95 13:25	BDL	5.0	.1

Results uncorrected for matrix spike recovery.

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TCLP METHOD SUMMARY

PARAMETER		METHOD/REF.
TCLP Extract Generation		1311/1
Volatile organic compounds		8240/2
Semivolatile organic compounds		8270/2
Pesticides		8080/2
Herbicides		8150/2
Metals:	Arsenic	6010/2
	Barium	6010/2
	Cadmium	6010/2
	Chromium	6010/2
	Lead	6010/2
	Mercury	7470/2
	Selenium	6010/2
	Silver	6010/2

References:
1) 40 CFR Part 261, Appendix II, Nov. 24, 1992
2) EPA SW 846, 3rd Edition

QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: B-G1033A
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: SOLID

COMPOUND	CONCENTRATION ug/g	DETECTION LIMIT ug/g
GASOLINE	BDL	12

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1033
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
GASOLINE	0	50	54	108

METHOD REFERENCE: METHOD 8015 (MODIFIED)

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: BV1118A
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/08/95
Matrix: SOLID

VOLATILE ORGANICS	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
Chloromethane	BDL	1.0
Bromomethane	BDL	1.0
Vinyl chloride	BDL	1.0
Chloroethane	BDL	0.5
Methylene chloride	BDL	1.0
Acetone	BDL	2.5
Carbon disulfide	BDL	0.5
1,1-Dichloroethene	BDL	0.5
Tetrahydrofuran	BDL	2.5
1,1-Dichloroethane	BDL	0.5
Chloroform	BDL	0.5
Methyl ethyl ketone	BDL	2.5
1,2-Dichloroethane	BDL	0.5
1,1,1-Trichloroethane	BDL	0.5
Carbon Tetrachloride	BDL	0.5
Vinyl acetate	BDL	1.0
Bromodichloromethane	BDL	0.5
cis-1,3-Dichloropropene	BDL	0.5
cis-1,3-Dichloropropene	BDL	0.5
trans-1,3-Dichloropropene	BDL	0.5
Trichloroethene	BDL	0.5
Benzene	BDL	0.5
Dibromochloromethane	BDL	0.5
1,1,2-Trichloroethane	BDL	0.5
1,2-Dichloropropane	BDL	0.5
2-Chloroethyl vinyl ether	BDL	0.5
Bromoform	BDL	0.5
Methyl isobutyl ketone	BDL	2.5
2-Hexanone	BDL	2.5
1,1,2,2-Tetrachloroethane	BDL	0.5
Tetrachloroethene	BDL	0.5
Toluene	BDL	0.5
Chlorobenzene	BDL	0.5
Ethylbenzene	BDL	0.5
m-Xylene	BDL	0.5
o,p-Xylene	BDL	0.5
Styrene	BDL	0.5

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8240

BDL = Below detection limit

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MATRIX SPIKE RECOVERY
VOLATILE ORGANIC COMPOUNDS

Laboratory Number: LS1118
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/08/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
1,1-DICHLOROETHENE	0	6.25	6.76	108
TRICHLOROETHYLENE	0	6.25	6.42	103
BENZENE	0	6.25	6.13	98
TOLUENE	0	6.25	6.04	97
CHLOROBENZENE	0	6.25	6.04	97

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8240

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QUALITY CONTROL
OIL & GREASE

BLANK DATA

Laboratory Number: B-G1370
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/10/95
Matrix: SOLID

PARAMETER	CONCENTRATION ug/g	DETECTION LIMIT ug/g
OIL & GREASE	BDL	250

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1370
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/10/95
Matrix: SOLID

PARAMETER	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
OIL & GREASE	0	1300	1000	77

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHOD 9071
STANDARD METHODS, 16TH EDITION, METHOD 503D

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QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1358
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: SOLID

HYDROCARBON TYPE	CONCENTRATION ug/g	DETECTION LIMIT ug/g
DIESEL	BDL	3

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1358
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: SOLID

COMPOUND	ug/g *SAMPLE*	ug/g *SPIKE*	ug/g *FOUND*	%REC-*OVERY*
DIESEL	0	33.46	25.05	75

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8100 (MODIFIED) AND ASTM D 3328-78

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: B-P4401
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/10/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.

PCB'S	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
PCB-1242	BDL	0.1
PCB-1254	BDL	0.1
PCB-1221	BDL	0.1
PCB-1232	BDL	0.1
PCB-1248	BDL	0.1
PCB-1260	BDL	0.1
PCB-1016	BDL	0.1

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHODS 3550 AND 8080

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

PCB'S

MATRIX SPIKE RECOVERY

Laboratory Number: LS-P4401
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/10/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
AR-1254	0	1.01	1.16	115

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHODS 3550 AND 8080

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: BC081195A1
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/11/95
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	BDL	10
Acetone	BDL	25
Carbon disulfide	BDL	5
1,1-Dichloroethene	BDL	5
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (total)	BDL	5
Chloroform	BDL	5
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Benzene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
1,2-Dichloropropane	BDL	5
2-Chloroethyl vinyl ether	BDL	5
Bromoform	BDL	5
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5
Tetrachloroethene	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
m-Xylene	BDL	5
o,p-Xylene	BDL	5
Styrene	BDL	5

METHOD REFERENCE: EPA SW 846 3RD EDITION
METHOD 8240

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: TCLP BLANK #388
Client ID: TCLP BLANK
Date Analyzed: 08/11/95
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Detection Limit (ug/L)
Vinyl chloride	BDL	200	10
1,1-Dichloroethene	BDL	700	5
1,2-Dichloroethane	BDL	500	5
Chloroform	BDL	6000	5
Methyl ethyl ketone	BDL	200000	25
Carbon Tetrachloride	BDL	500	5
Trichloroethene	BDL	500	5
Benzene	BDL	500	5
Tetrachloroethene	BDL	700	5
Chlorobenzene	BDL	100000	5

METHOD REFERENCE: EPA SW846 3rd EDITION
METHOD 8240

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

MATRIX SPIKE RECOVERY
VOLATILE ORGANIC COMPOUNDS

Laboratory Number: LCC081195A1
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/11/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
1,1-DICHLOROETHENE	0	50	64	128
TRICHLOROETHYLENE	0	50	58	116
BENZENE	0	50	56	112
TOLUENE	0	50	58	115
CHLOROBENZENE	0	50	61	122

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8240

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: B-A2398
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/11/95
Matrix: WATER

ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
N-Nitrosodimethylamine	BDL	10
Phenol	BDL	10
Aniline	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzylalcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitroso-di-N-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	50
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	50
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	50
Dimethylpthalate	BDL	10
Acenaphthylene	BDL	10
2,6-Dinitrotoluene	BDL	10

ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
3-Nitroaniline	BDL	50
Acenaphthene	BDL	10
2,4-Dintrophenol	BDL	50
4-Nitrophenol	BDL	50
Dibenzofuran	BDL	10
2,4-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10
4-Chlorophenyl-phenylether	BDL	10
Fluorene	BDL	10
4-Nitroaniline	BDL	50
4,6-Dinitro-2-methylphenol	BDL	50
N-Nitrosodiphenylamine	BDL	10
Azobenzene	BDL	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	BDL	10
Di-N-butylphthalate	BDL	10
Fluoranthene	BDL	10
Benzidine	BDL	50
Pyrene	BDL	10
Butylbenzylpthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	20
Benzo(A)anthracene	BDL	10
Chrysene	BDL	10
Bis(2-ethylhexyl)phthalate	BDL	10
Di-N-octylphthalate	BDL	10
Benzo(B)fluoranthene	BDL	10
Benzo(K)fluoranthene	BDL	10
Benzo(A)pyrene	BDL	10
Ideno(1,2,3,-CD)pyrene	BDL	10
Dibenz(A,H)anthracene	BDL	10
Benzo(G,H,I)perylene	BDL	10

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8270

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: TCLP BLANK #274
Sample Designation: TCLP BLANK
Date Analyzed: 08/18/95
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Detection Limit (ug/L)
Pyridine	BDL	5000	56
1,4-Dichlorobenzene	BDL	7500	56
2,4-Dinitrotoluene	BDL	130	56
2-Methylphenol	BDL	200000	56
3,4-Methylphenols	BDL	200000	56
Hexachloroethane	BDL	3000	56
Nitrobenzene	BDL	2000	56
Hexachlorobenzene	BDL	130	56
Pentachlorophenol	BDL	100000	56
Hexachlorobutadiene	BDL	500	56
2,4,6-Trichlorophenol	BDL	2000	56
2,4,5-Trichlorophenol	BDL	400000	56

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8270

BDL = Below detection limit

MATRIX SPIKE RECOVERY
ACID/BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS

Laboratory Number: LS-A2398
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/11/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
PHENOL	0	200	112	56
2-CHLOROPHENOL	0	200	126	63
1,4-DICHLOROBENZENE	0	100	55	55
N-NITROSO-DI-N-PROPYLAMINE	0	100	64	64
1,2,4-TRICHLOROBENZENE	0	100	62	62
4-CHLORO-3-METHYLPHENOL	0	200	133	67
ACENAPHTHENE	0	100	67	67
4-NITROPHENOL	0	200	125	63
2,4-DINITROTOLUENE	0	100	66	66
PENTACHLOROPHENOL	0	200	130	65
PYRENE	0	100	59	59

METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 625

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL
Corrosivity
Method: 7.2 SW846 3rd Edition

QC Batch: 347 For: 44913
Matrix: SOLID

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
LCS1	7.0	7.02

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL
Flashpoint
Method: D93-80, ASTM

QC Batch: 316 For: 44913
Matrix: SOIL

LABORATORY CONTROL SAMPLES:

	True Value Deg F	Observed Value Deg F
LCS1	81.0	81.00

pace INCORPORATED
THE ASSURANCE OF QUALITY

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Sulfide
Method: 7.3.4.2 EPA SW846, 3rd Edition

QC Batch: 290 For: 44913
Matrix: SOLID

METHOD BLANK:

	Result ug/g
	< 50.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	1403.0	1480.3	105.5

FIELD SAMPLE:

Precision

Lab No.	Replicate 1 ug/g	Replicate 2 ug/g	Average ug/g	Relative Percent Difference %
44829-1	< 50.00	< 50.00	NC	NC

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

NC = Not calculable due to result below detection limit.

pace INCORPORATED
THE ASSURANCE OF QUALITY

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Cyanide
Method: 7.3.3.2 SW846, 3rd Edition

QC Batch: 290 For: 44913
Matrix: SOLID

METHOD BLANK:

	Result ug/g
	< 1.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	40.0	6.200	15.5

FIELD SAMPLE:

Precision Lab No.	Replicate 1 ug/g	Replicate 2 ug/g	Average ug/g	Relative Percent Difference %
44829-1	< 1.00	< 1.00	NC	NC

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

NC = Not calculable due to result below detection limit.

pace INCORPORATED
THE ASSURANCE OF QUALITY

PACE New England, Inc.

Metals Results for TCLP Blank 274

ELEMENT	BLANK RESULT	
Arsenic	< 0.20	mg/L
Barium	< 0.10	mg/L
Cadmium	< 0.005	mg/L
Chromium	< 0.01	mg/L
Lead	< 0.05	mg/L
Mercury	< 0.0003	mg/L
Selenium	< 0.20	mg/L
Silver	< 0.02	mg/L

All results are methods 3010 and 6010, except mercury (method 7470).

PACE New England, Inc.

Metals QC Results for : 44913

QC BATCH: 12423
MATRIX: WATER
CONCENTRATION UNITS: UG/L

ELEMENT	LCS TRUE VALUE	LCS RESULT	LCS % RECOVERY	METHOD BLANK	
Aluminum	2000.00	2070.00	103.5	U	15.4
Antimony	500.00	486.00	97.2	U	11.9
Arsenic	2000.00	1920.00	96.0	U	22.4
Arsenic -	2000.00	1890.00	94.5	U	2.6
Barium	2000.00	1950.00	97.5	U	0.8
Beryllium	50.00	47.40	94.8	U	0.2
Boron	1000.00	1000.00	100.0	U	34.6
Cadmium	50.00	53.70	107.4	U	1.4
Calcium	10000.00	10100.00	101.0	U	7.3
Chromium	200.00	202.00	101.0	U	2.0
Cobalt	500.00	504.00	100.8	U	2.4
Copper	250.00	247.00	98.8	U	5.6
Iron	1000.00	1010.00	101.0	U	11.0
Lead	500.00	460.00	92.0	U	15.4
Lead -	500.00	481.00	96.2	U	1.0
Magnesium	10000.00	9850.00	98.5	B	28.0
Manganese	500.00	496.00	99.2	U	0.5
Molybdenum	1000.00	1040.00	104.0	U	1.5
Nickel	500.00	511.00	102.2	U	5.5
Potassium	10000.00	9920.00	99.2	U	500.0
Selenium	2000.00	1880.00	94.0	U	25.3
Selenium -	2000.00	1820.00	91.0	U	3.5
Silver	50.00	52.40	104.8	B	4.7
Sodium	10000.00	9700.00	97.0	B	100.0
Thallium	2000.00	1830.00	91.5	U	21.7
Thallium -	2000.00	1860.00	93.0	U	3.7
Tin	1000.00	1050.00	105.0	U	5.3
Titanium	1000.00	970.00	97.0	U	0.2
Vanadium	500.00	488.00	97.6	U	2.5
Zinc	500.00	478.00	95.6	U	5.8

B = Result between instrument detection limit and reporting limit.
U = Result below instrument detection limit.
N = LCS recovery not within advisory QC limits (80% - 120%)
with the exception of Silver QC limits (52% - 136%).

PACE New England, Inc.

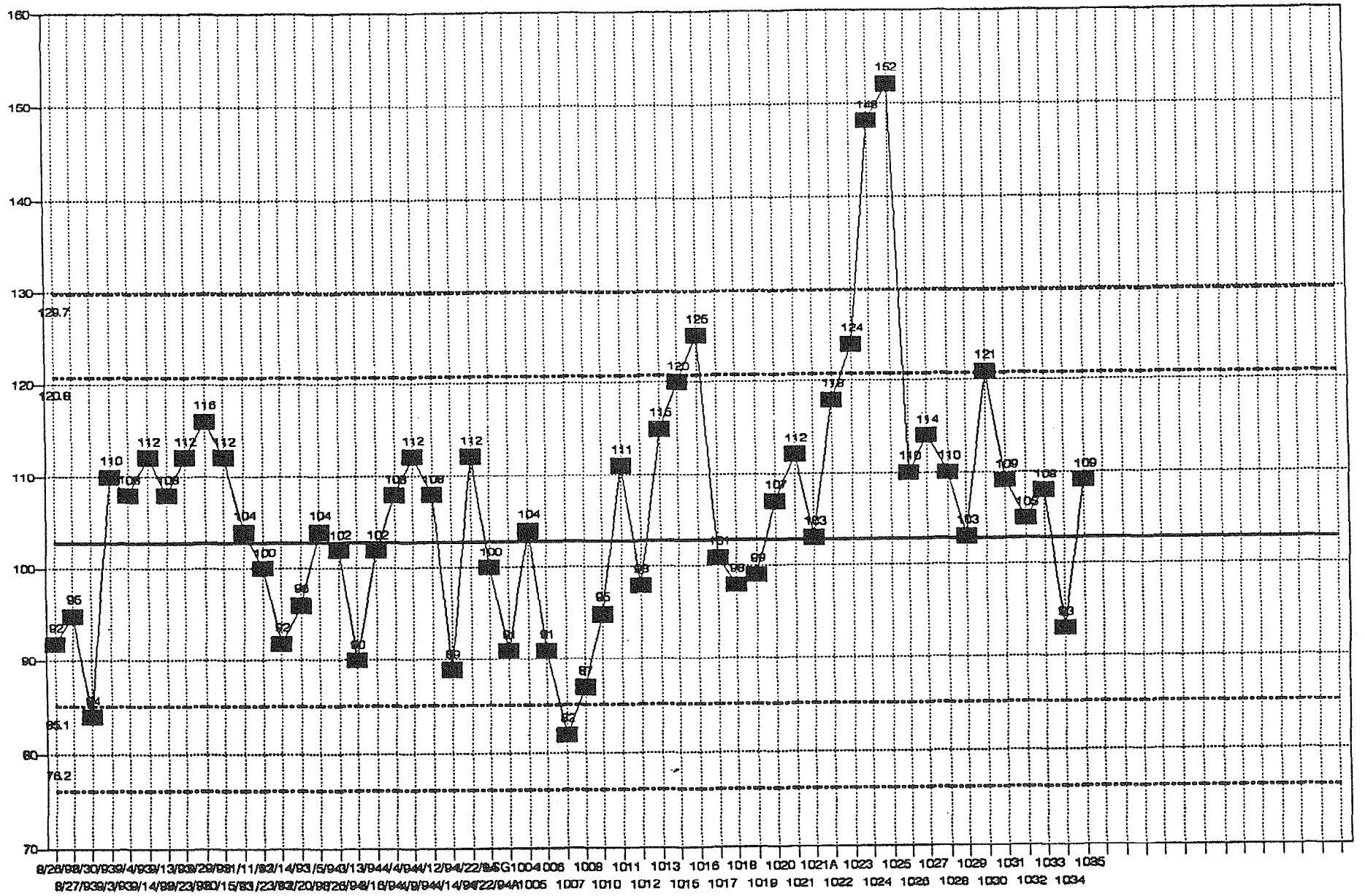
Metals QC Results for : 44913

QC BATCH: 6175B
MATRIX: WATER
CONCENTRATION UNITS: UG/L

ELEMENT	LCS TRUE VALUE	LCS RESULT	LCS % RECOVERY	METHOD BLANK
Mercury	8.00	8.00	100.0	U 0.10

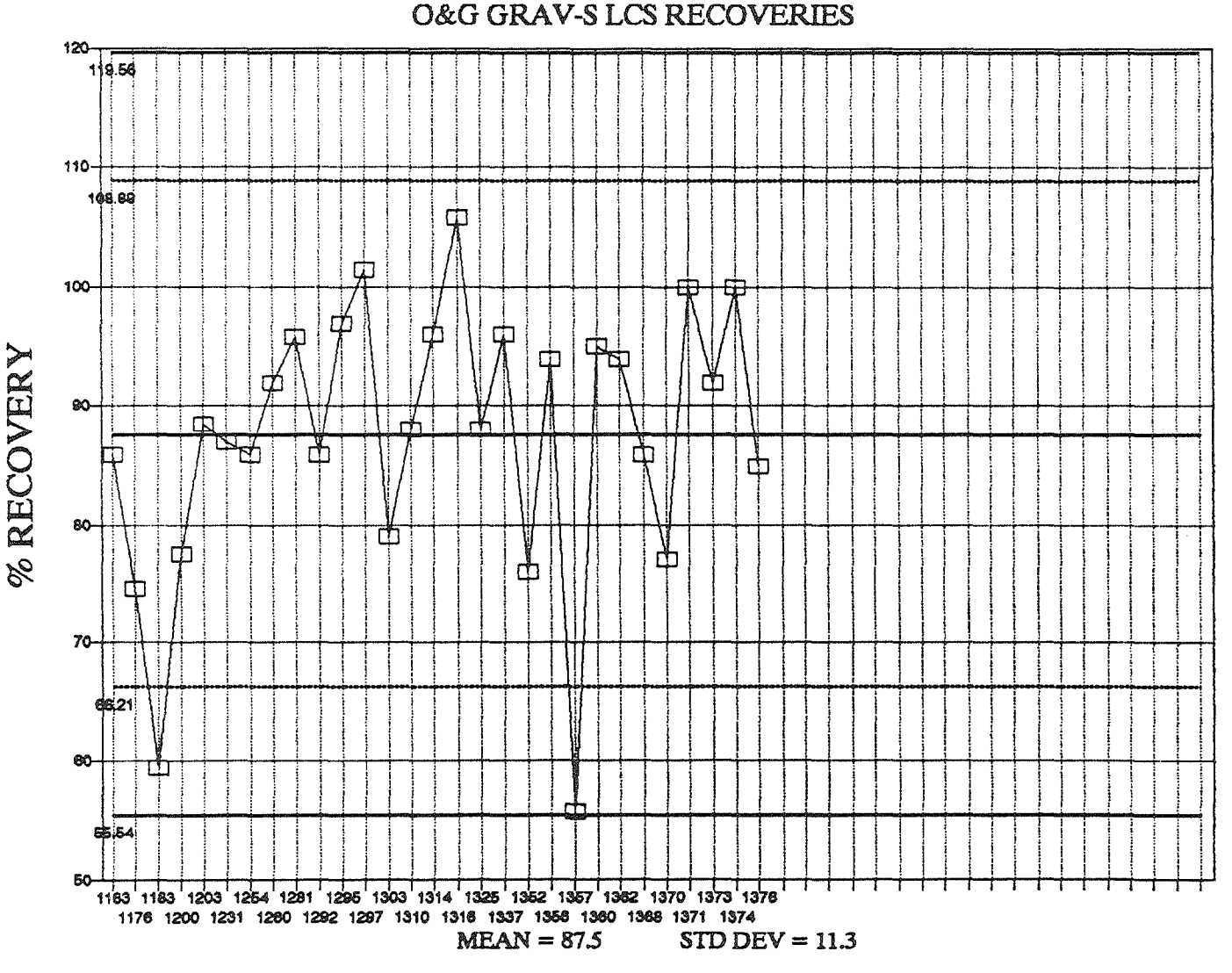
B = Result between instrument detection limit and reporting limit.
U = Result below instrument detection limit.
N = LCS recovery not within advisory QC limits (80% - 120%)
with the exception of Silver QC limits (52% - 136%).

TOTAL GAS LCS RECOVERIES
LIMITS SET 4/13/94



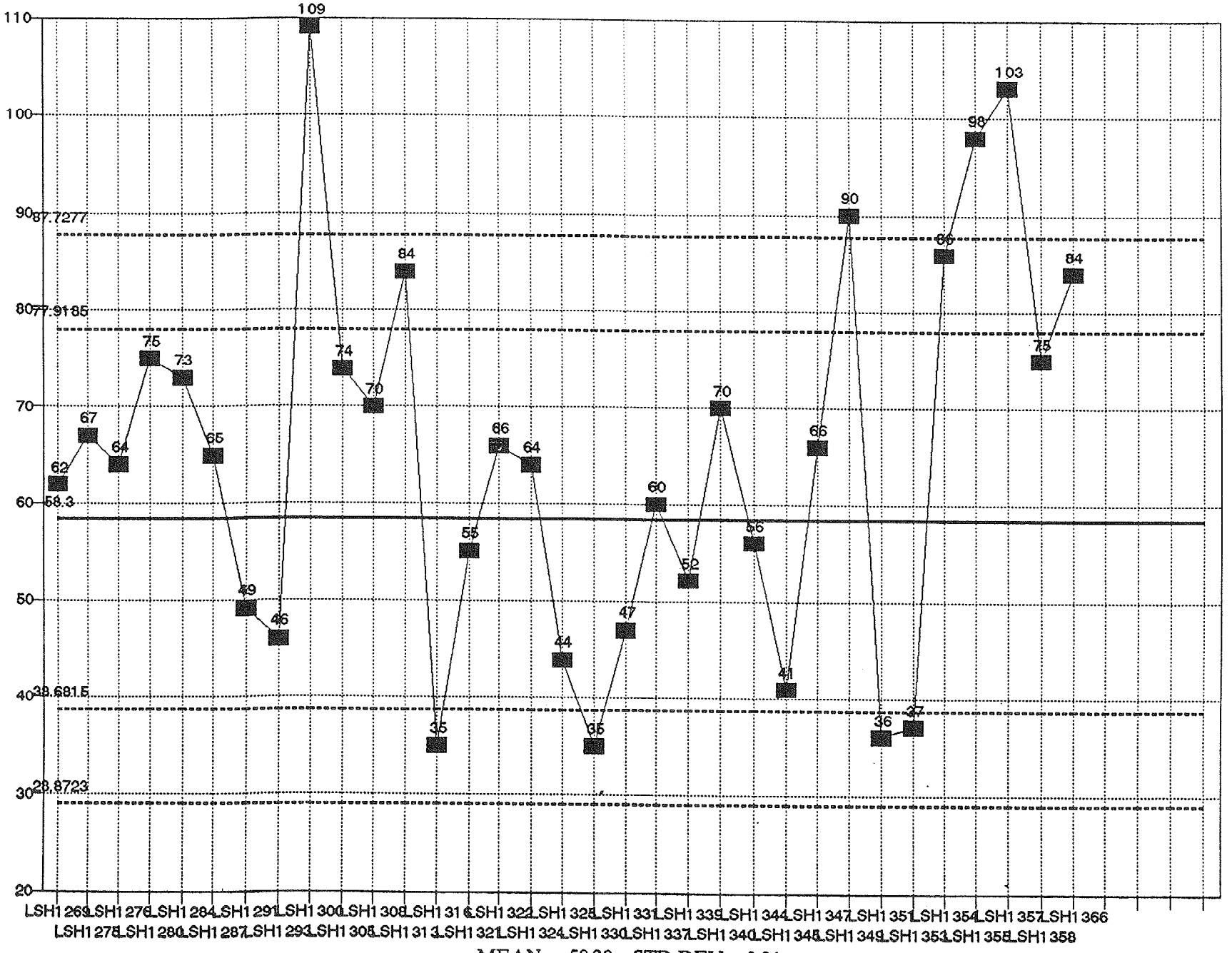
STD DEV = 8.93 MEAN = 103

00000034


O&G GRAV-S LCS RECOVERIES
% RECOVERY
120
110
100
90
80
70
60
50
119.56
108.89
66.21
55.54
1163 1183 1203 1254 1281 1295 1303 1314 1325 1352 1357 1362 1370 1373 1376
1176 1200 1231 1260 1292 1297 1310 1316 1337 1358 1360 1368 1371 1374
MEAN = 87.5
STD DEV = 11.3

PHC LOW SOLIDS - DIESEL

SPK REC LIMS SET6/6/95-PPCBCHT\PHCS1294

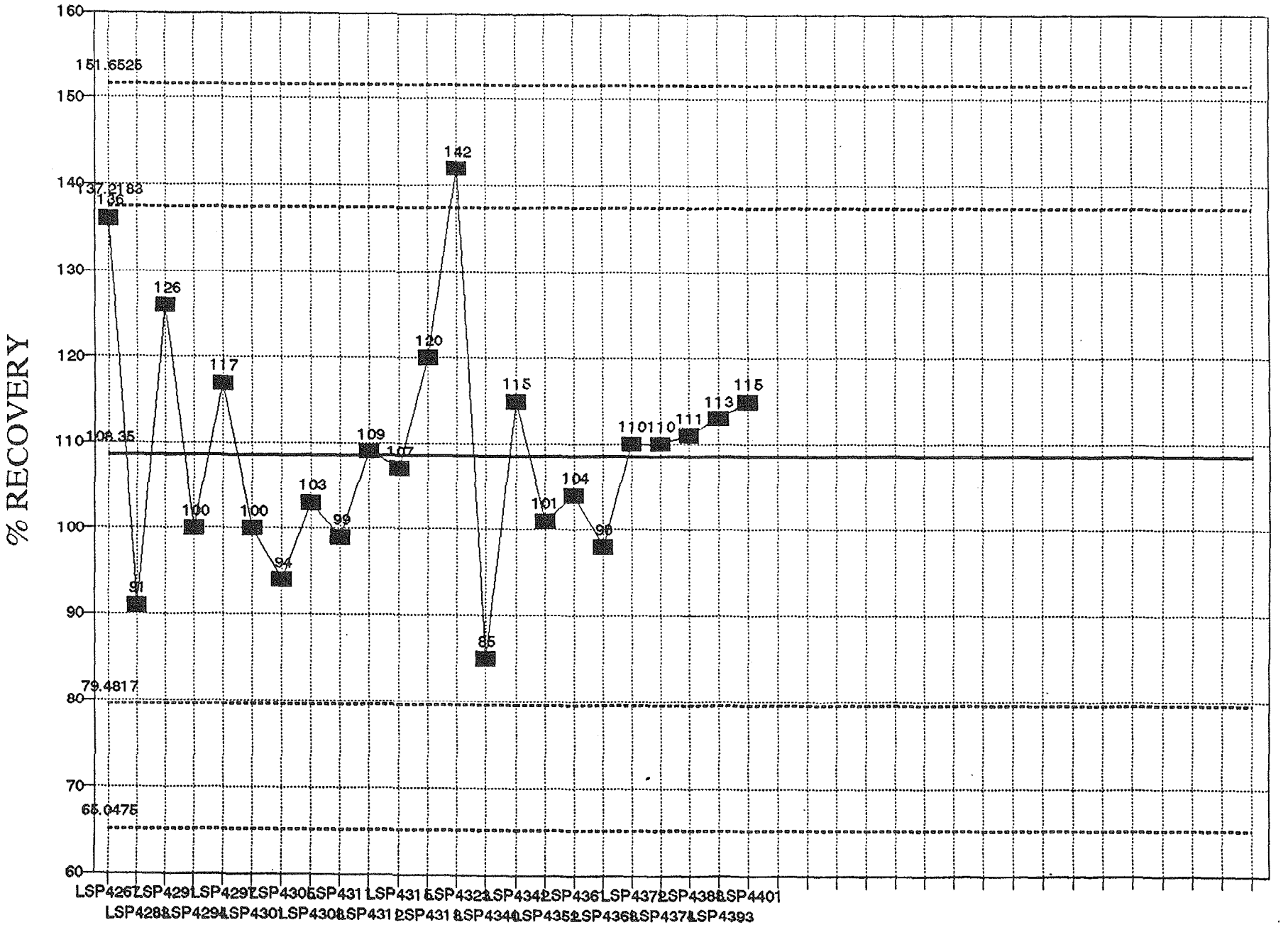


MEAN = 58.30 STD DEV =9.81

0000036

PCB MEDIUM SOLIDS AROCHLOR 1254

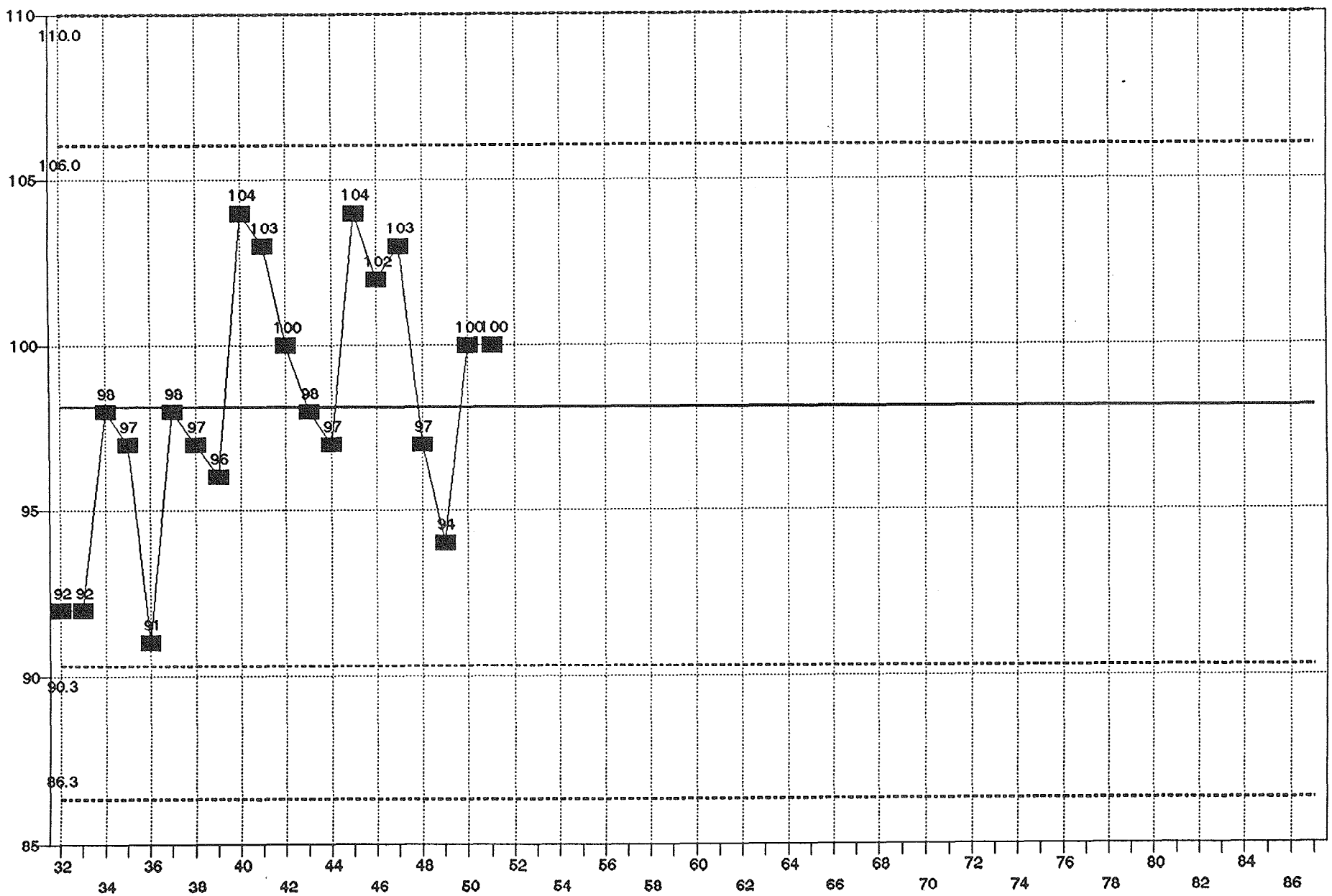
SPK LIMITS SET 8/95-PPCBCHT\AR1254S



MEAN = 108.35 STD DEV = 14.43

00000037

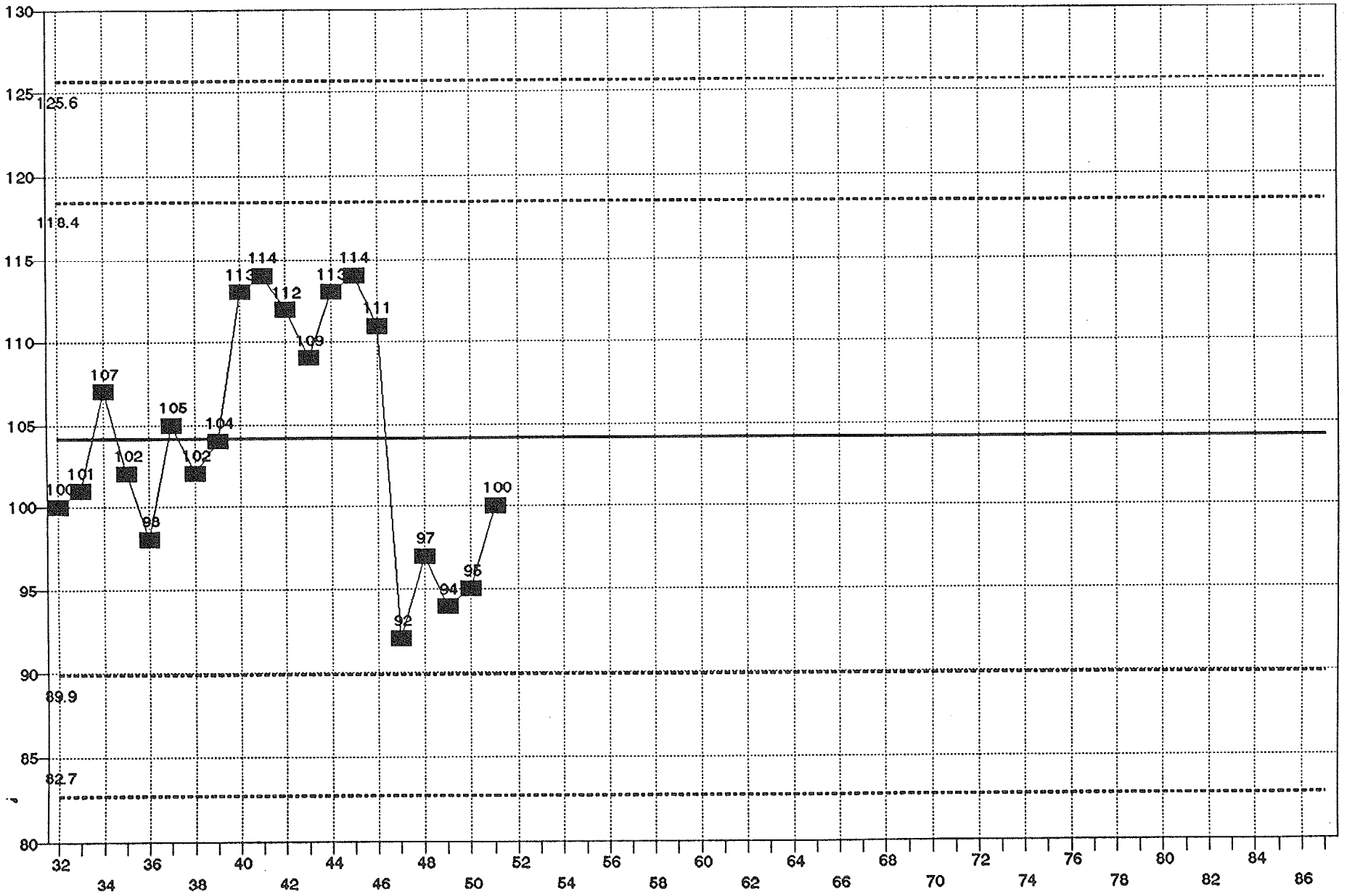
VOA MED SOLIDS - SURR DCE
LIMIT SET 8/95



STD DEV = 3.94 MEAN = 98.2

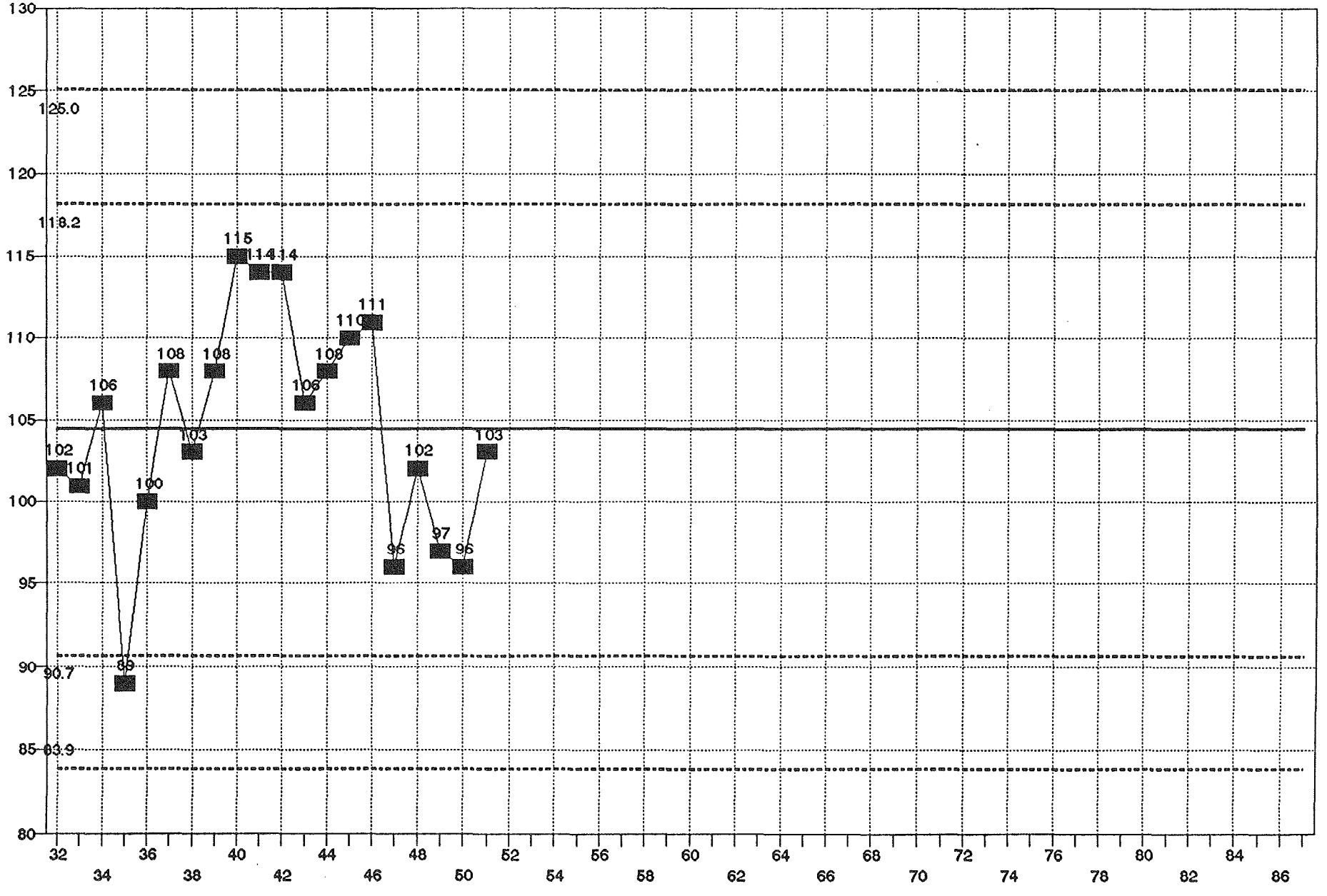
00000038

VOA MED SOLIDS - SURR TOL
LIMIT SET 8/95



STD DEV = 7.14 MEAN = 104.2

VOA MED SOLIDS - SURR BFB
LIMIT SET 8/95



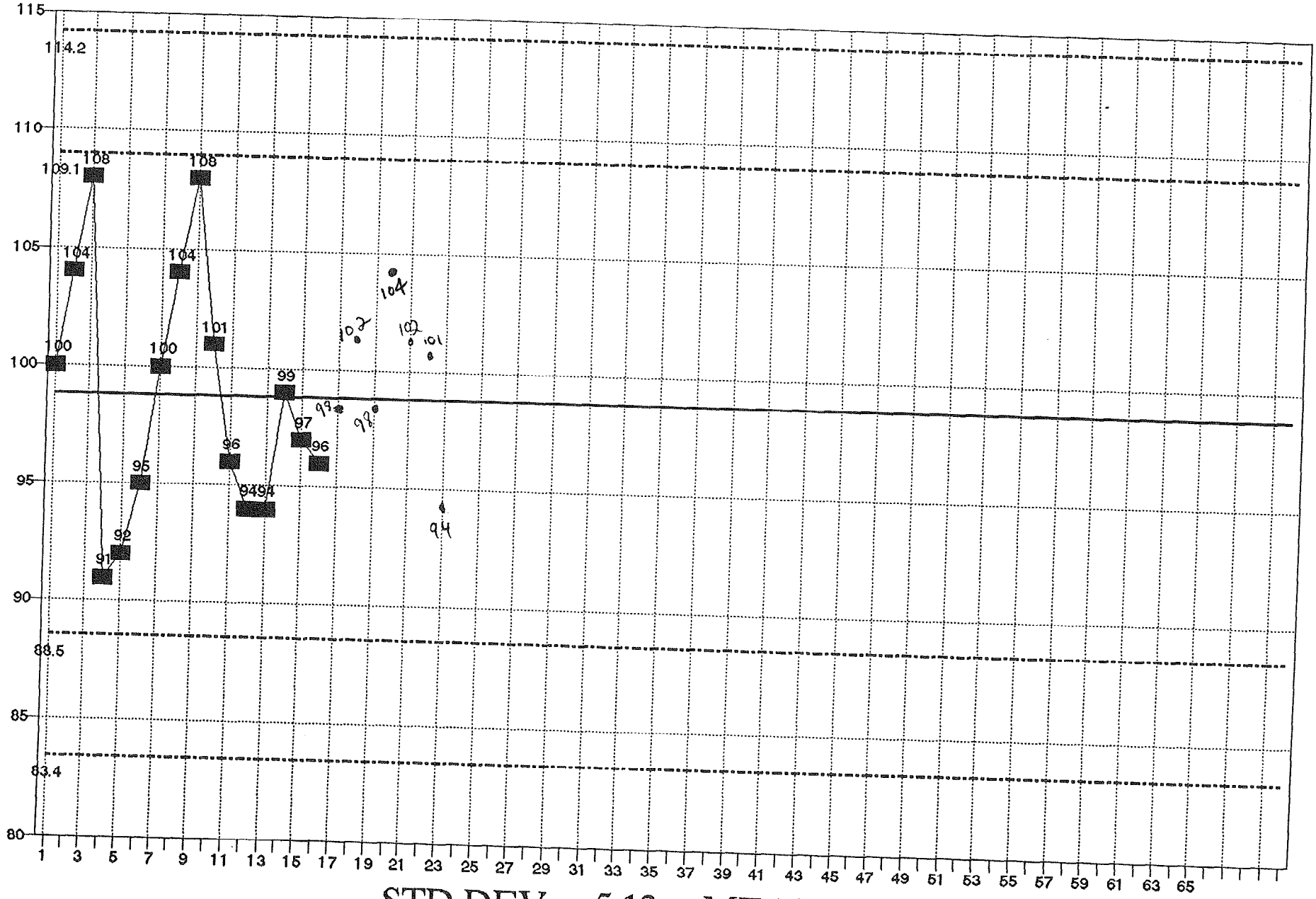
STD DEV = 6.86 MEAN = 104.4

00000040

MED SOIL BLANK # LIST

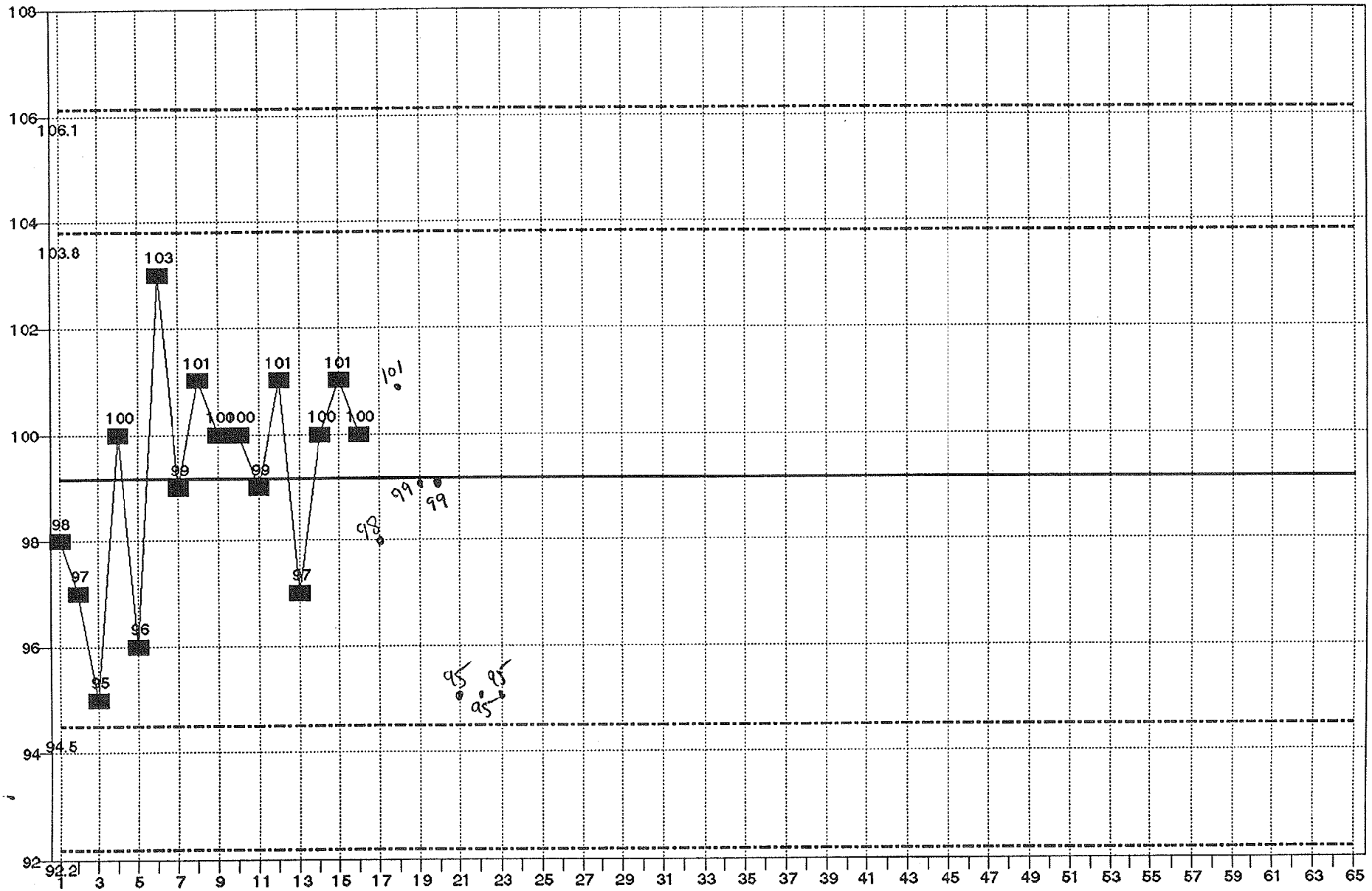
POINT	/ BLANK
1	MB021693A
2	MB022193B
3	MB022993B
4	MB030193A
5	MB040293A
6	MB050493A
7	MB050493A
8	MB050593A
9	MB050693A
10	MB052793B
11	MB052593A
12	MB101293A
13	MB100993A
14	MB111793A
15	MB121393A
16	MB121393A
17	MB020694A
18	MB021094A
19	MB021594A
20	MB021594A
21	MB021594A
22	MB042994B
23	MB050494A
24	MB050494A
25	B-V1005A
26	B-V1021A
27	B-V1027B
28	B-V1027C
29	B-V1034C
30	B-V1039
31	B-V1044A
32	B-V1045A
33	B-V1044B
34	B-V1050
35	B-V1066 EMS
36	B-V1066 CMS
37	B-V1070 12/30/94
38	B-V1070 1/3/95
39	B-V1085
40	B-V1084
41	B-V1085
42	B-V1084
43	B-V1087
44	B-V1085
45	B-V1084
46	B-V1084
47	B-V1117A
48	B-V1117B
49	B-V1118A
50	B-V1118D
51	B-V1118B

VOA TCLP - SURR DCE
LIMIT SET 7/93



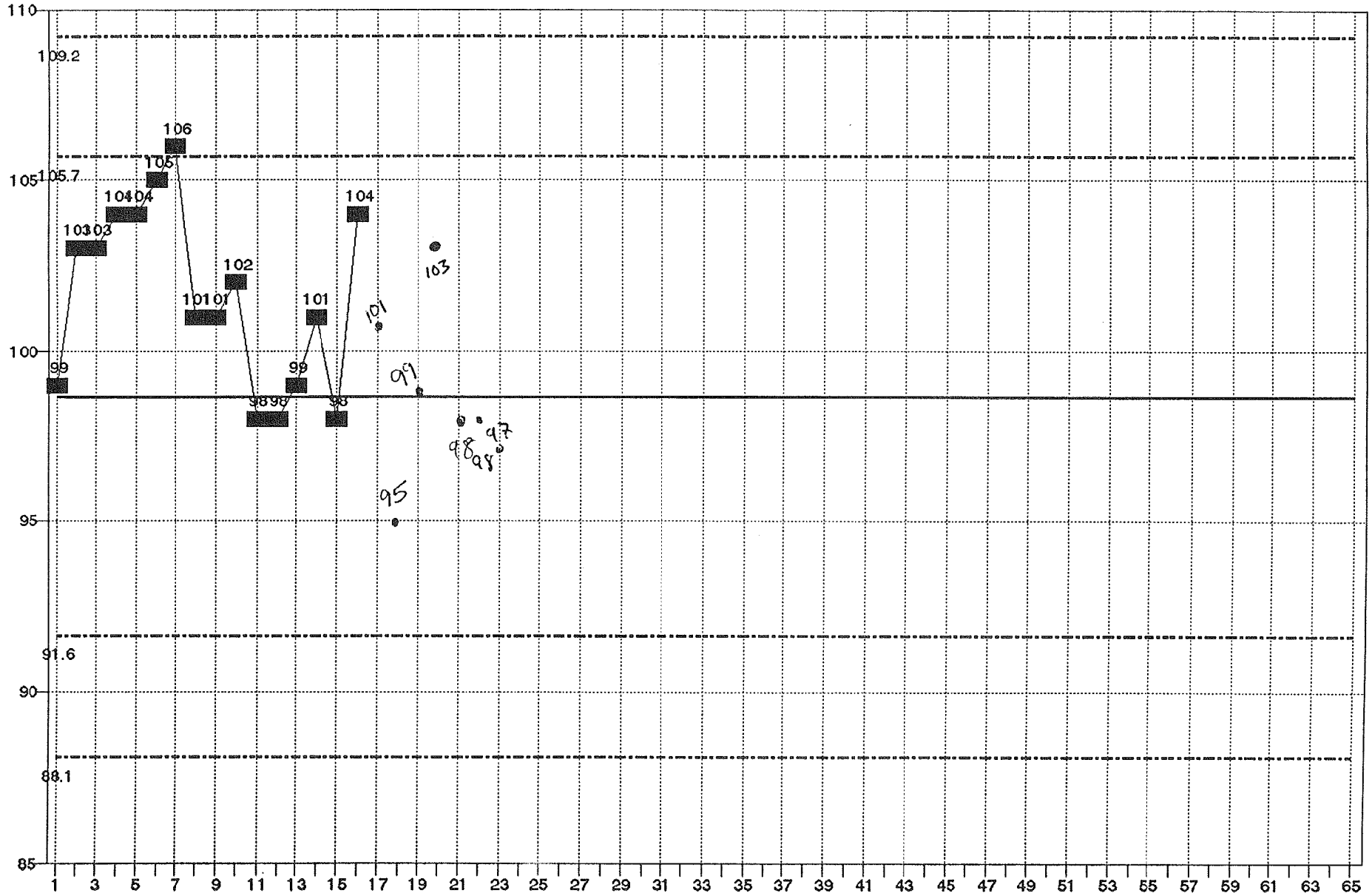
STD DEV = 5.13 MEAN = 98.8

VOA TCLP - SURR TOL
LIMIT SET 7/93



STD DEV = 2.32 MEAN = 99.1

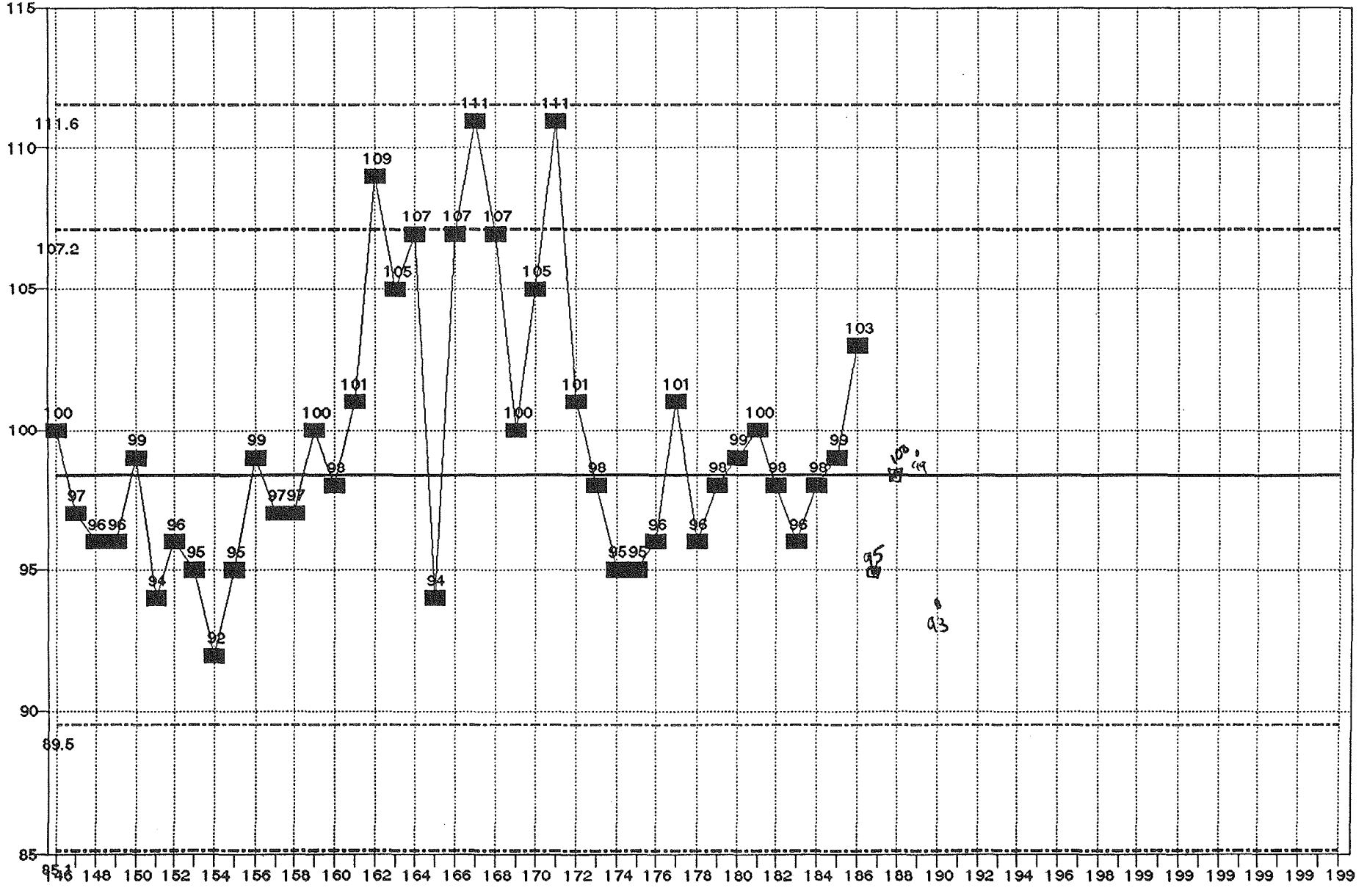
VOA TCLP - SURR BFB
LIMIT SET 7/93



STD DEV =3.51 MEAN = 98.6

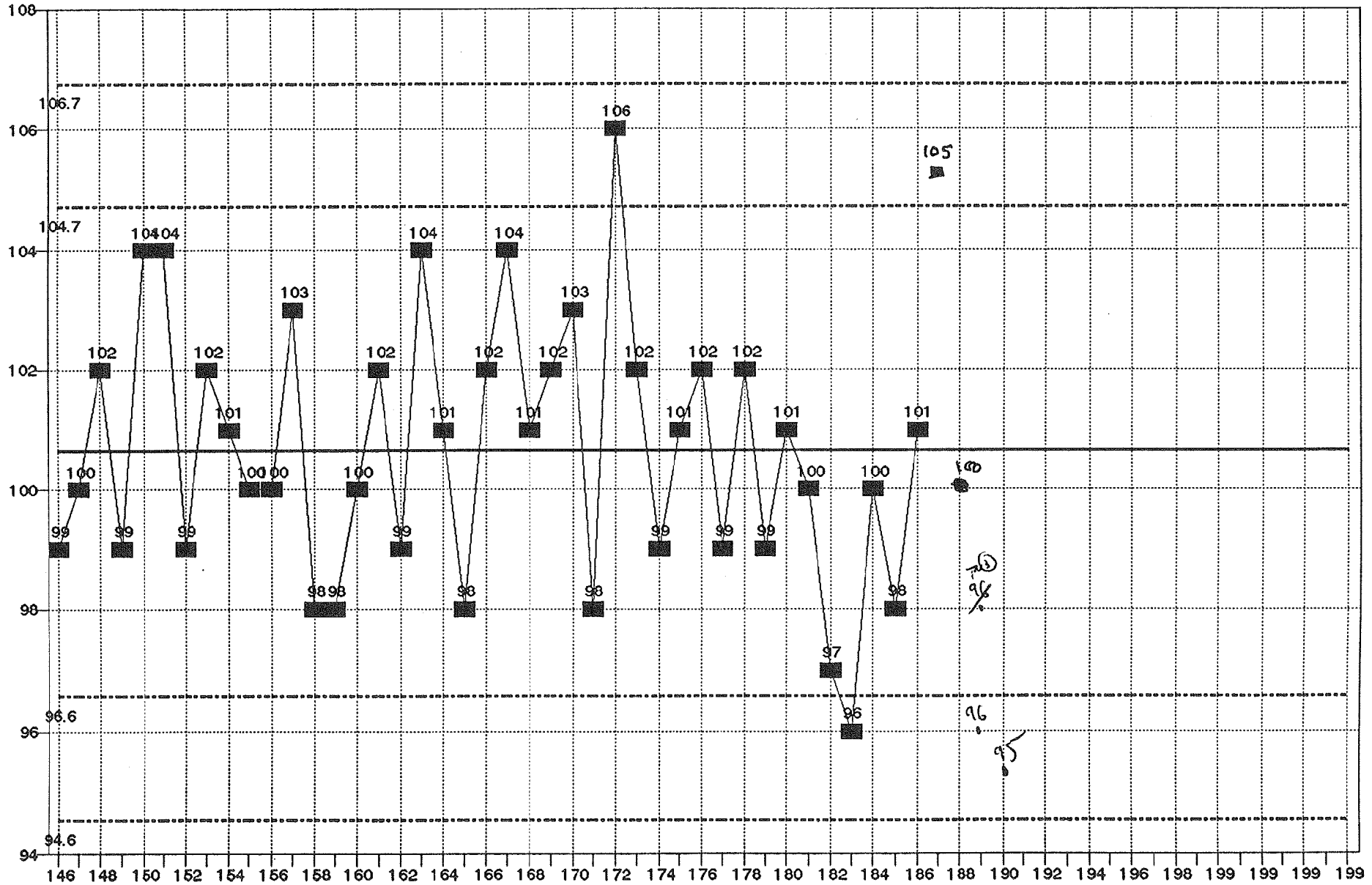
1	TCLP BLANK	340	03/16/94
2	TCLP BLANK	340	03/17/94
3	TCLP BLANK	341	03/17/94
4	TCLP BLANK	341	03/18/94
5	TCLP BLANK	342	03/18/94
6	TCLP BLANK	341	03/22/94
7	TCLP BLANK	343	03/25/94
8	TCLP BLANK	343	03/28/94
9	TCLP BLANK	344	03/28/94
10	TCLP BLANK	345	03/28/94
11	TCLP BLANK	346	04/07/94
12	TCLP BLANK	347	04/19/94
13	TCLP BLANK	349	05/11/94
14	TCLP BLANK	350	05/16/94
15	TCLP BLANK	352	05/17/94
16	TCLP BLANK	354	06/06/94
17	TCLP BLANK	357	7/12/94
18	TCLP BLANK	358	7/15/94
19	TCLP BLANK	360	7/27/94
20	TCLP BLANK	369	11/10/94
21	TCLP BLANK	386	
22	TCLP BLANK	388	
23	TCLP BLANK	389	

VOA WATERS - SURR DCE
LIMITS SET 4/95



STD DEV = 4.40 MEAN = 98.4

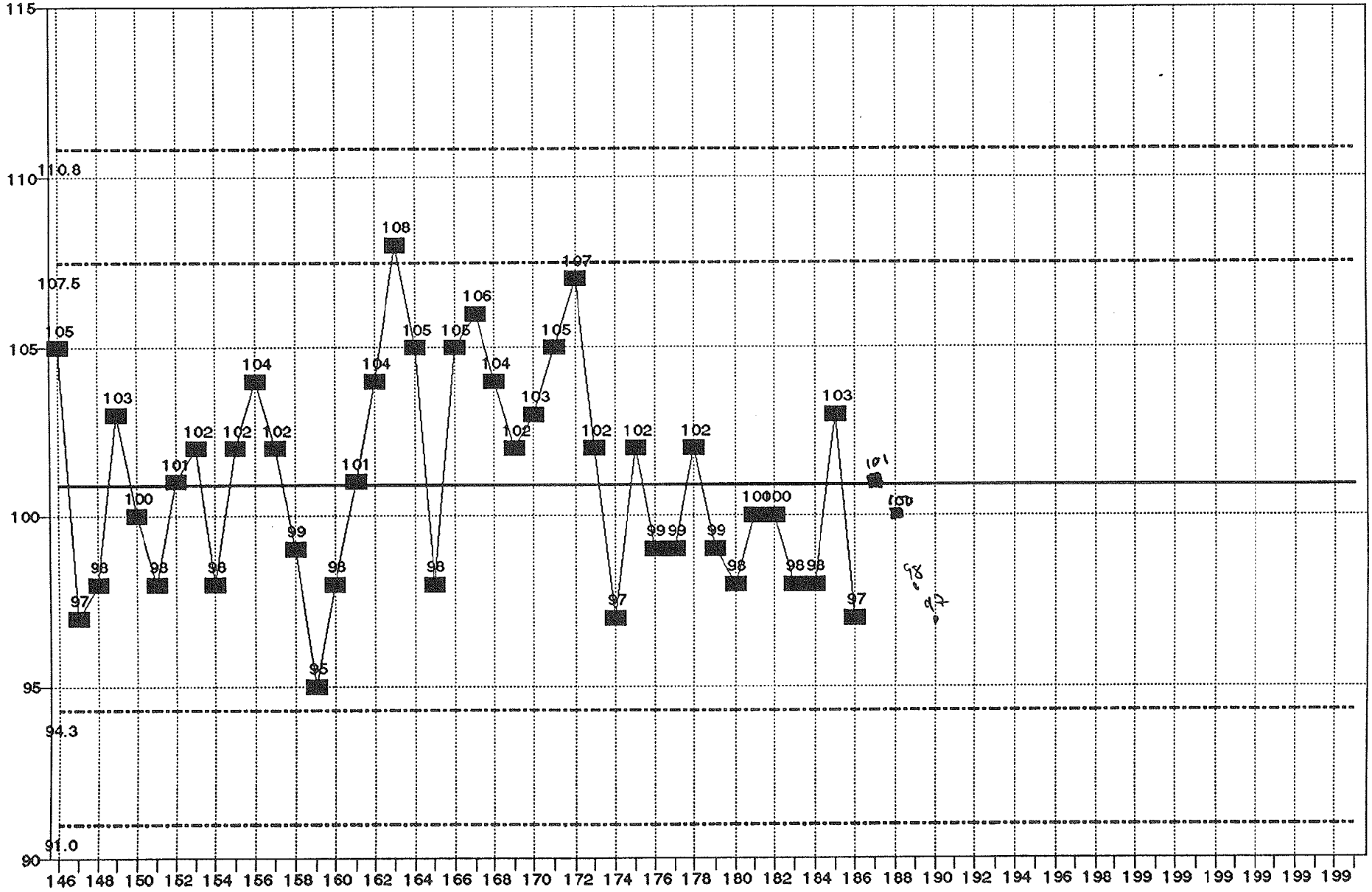
VOA WATERS - SURR TOL
LIMIT SET 4/95



STD DEV = 2.03 MEAN = 100.6

0000047

VOA WATERS - SURR BFB
LIMIT SET 4/95



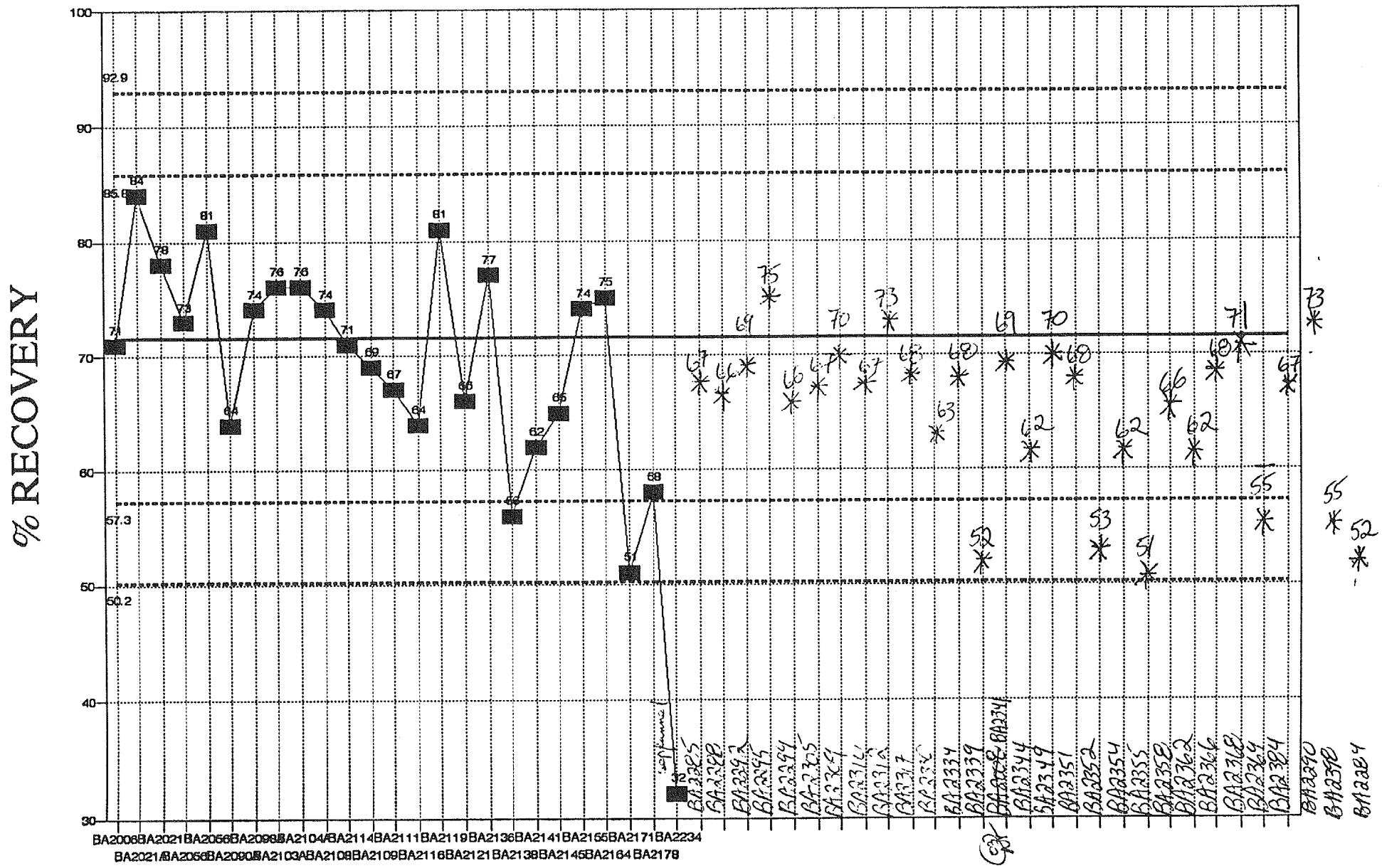
STD DEV =3.31 MEAN = 100.9

VOLATILES -- WATER SURROGATE CONTROL CHARTS

POINT / BLANK

21	BE081892A	69	BC041493A	117	BE070794A	165	BC041295A
22	BC082192A	70	BE052593B	118	BE070894A	166	BI042095B
23	BE082092A	71	BE060193A	119	BC063094A	167	BI042195A
24	BC082592A	72	BE060393A	120	BC072794A	168	BI042495A
25	BC082692A	73	BC062193A	121	BD072794A	169	BC042595B
26	BE082792A	74	BE051393A	122	BD072894A	170	BI042595A
27	BE082892B	75	BC062493A	123	BD072994A	171	BI042795A
28	BE083092A	76	BD051993A	124	BE081194A	172	BI050195A
29	BD101492A	77	BD052093B	125	BC081994A	173	BC050595A
30	BC100992A	78	BC063093A	126	BE101194A	174	BC050695A
31	BC110692A	79	BC061093A	127	BE101294B	175	BG050295B
32	BC111992A	80	BE051393A	128	BG101494A	176	BC062995B
33	BE112092A	81	BD072293A	129	BC110294B	177	BC063095B
34	BC112392A	82	BD072393A	130	BC110394B	178	BC072495A
35	BG113092B	83	BD072693A	131	BC110794B	179	BC072695A
36	BG120192A	84	BD072793A	132	BC110894B	180	BI080895A
37	BC122292A	85	BD073093A	133	BC110994A	181	BI080995A
38	BG013093B	86	BC080493A	134	BC111594B	182	BC080295A
39	BC012193A	87	BC080593A	135	BC111794B	183	BC080495A
40	BD021693A	88	BE091793A	136	BC111894B	184	BC080795A
41	BD021793A	89	BC092093B	137	BG111094A	185	BC080895A
42	BD021893A	90	BC093093B	138	BC120194B	186	BI081095A
43	BD021993A	91	BG093093A	139	BC120294B	187	BI081195A
44	BD022293A	92	BE120693A	140	BC120594B	188	BI080995A
45	BD022393A	93	BE120793A	141	BC120694B	189	BC081195A1
46	BD022493A	94	BE121793A	142	BC120794B	190	BC081495A1
47	BG030293A	95	BC122793B	143	BC121594B	191	
48	BC030193B	96	BC122893A	144	BG120394B	192	
49	BG030393A	97	BG021094A	145	BC122294B	193	
50	BG030493A	98	BG021194A	146	BC122994B	194	
51	BG031593A	99	BG021494A	147	BE121694A	195	
52	BG031693A	100	BG021594A	148	BE020995B	196	
53	BD031893A	101	BC022394B	149	BE021395A	197	
54	BD031993A	102	BC022494C	150	BE021595A	198	
55	BC032293B	103	BC022594B	151	BE021695A	199	
56	BC032393A	104	BG022594B	152	BC032295A	200	
57	BC041293A	105	BG022894A	153	BC032395A	201	
58	BC041393A	106	BG030394A	154	BC032495A	202	
59	BC041993A	107	BD022194A	155	BC032795A	203	
60	BE042893A	108	BC031194A	156	BC040695A	204	
61	BE042993A	109	BC031594B	157	BC041195B	205	
62	BE043093A	110	BG040794A	158	BC041395A	206	
63	BE050393A	111	BC041294B	159	BC041495A	207	
64	BE050493A	112	BG042894A	160	BG041095B	208	
65	BE050593A	113	BG042994A	161	BG041495B	209	
66	BE050693A	114	BC050994C	162	BI041395A	210	
67	BE051093A	115	BG060394A	163	BI041895B	211	
68	BE051193A	116	BC050394B	164	BI041995A	212	

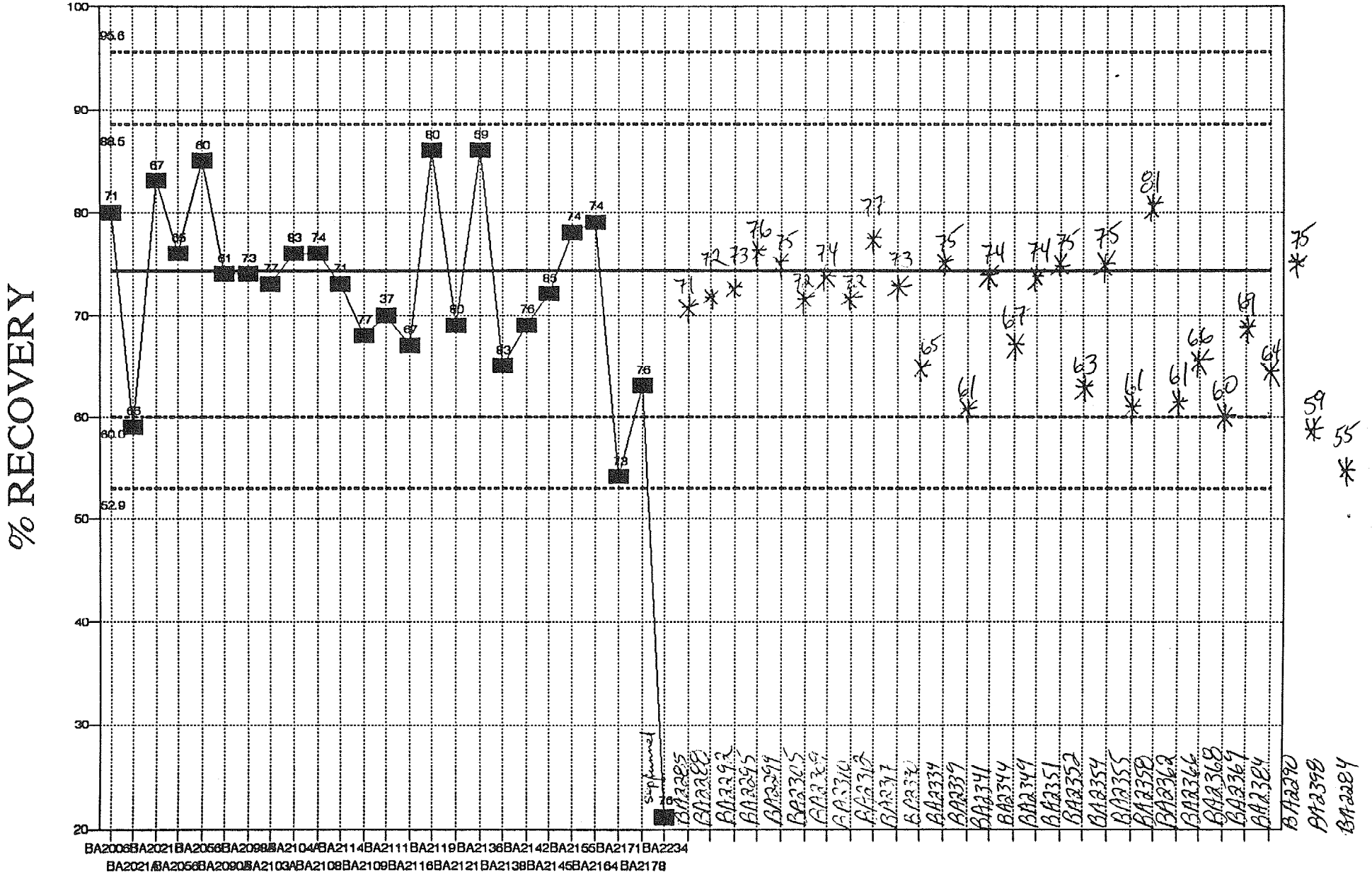
ABN WATER 3520/8270, 2-FLUOROPHENOL SURR, LIMITS SET 2/95



STD DEV = 7.12 MEAN = 71.6

0500000

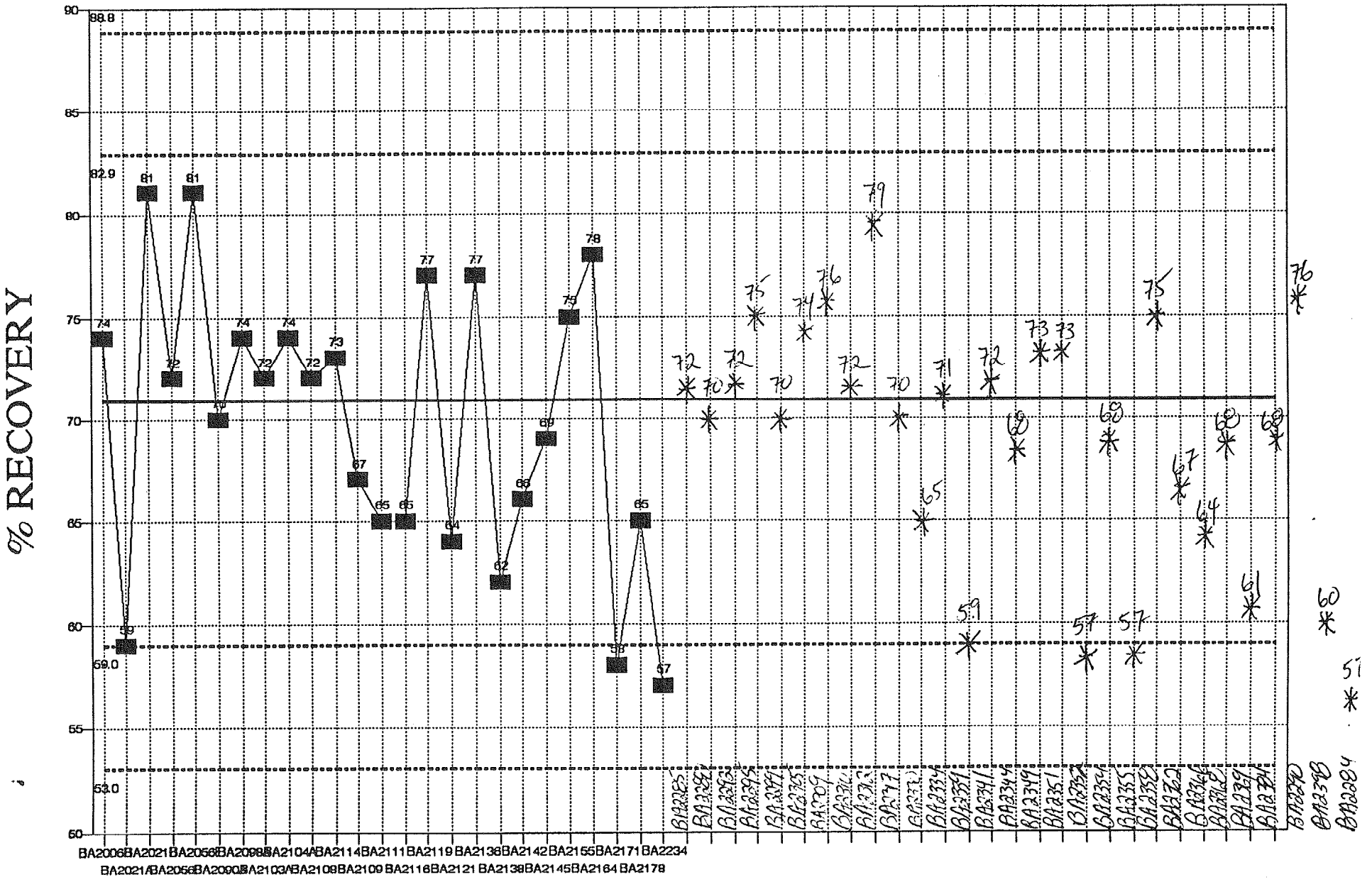
ABN WATER 3520/8270, PHENOL-D5
SURR, LIMITS SET 2/95



STD DEV = 7.13 MEAN = 74.2

1500000

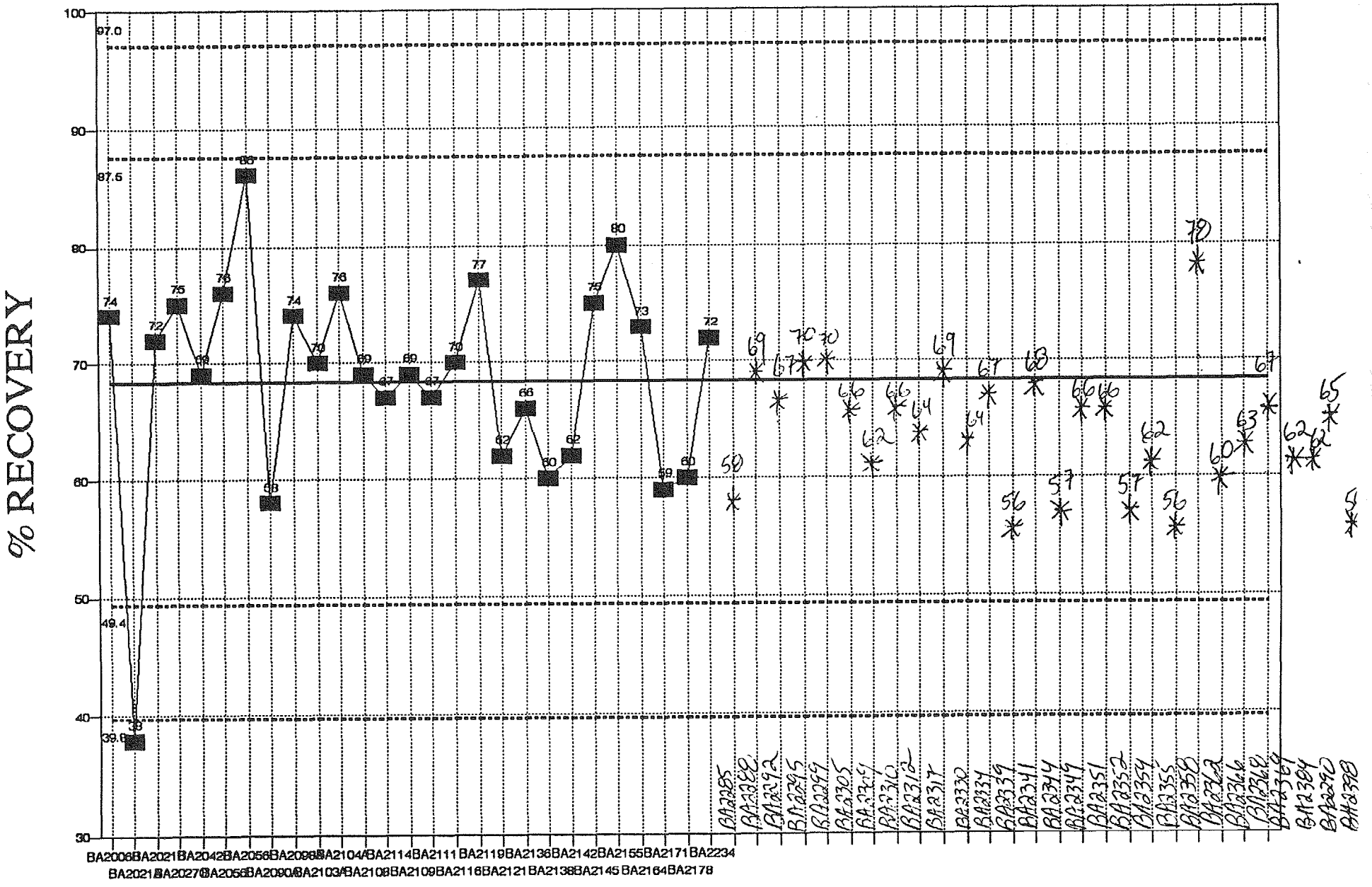
ABN WATER 3520/8270, 2-CHLOROPHENOL-D4
SURR, LIMITS SET 2/95



STD DEV = 5.97 MEAN = 70.9

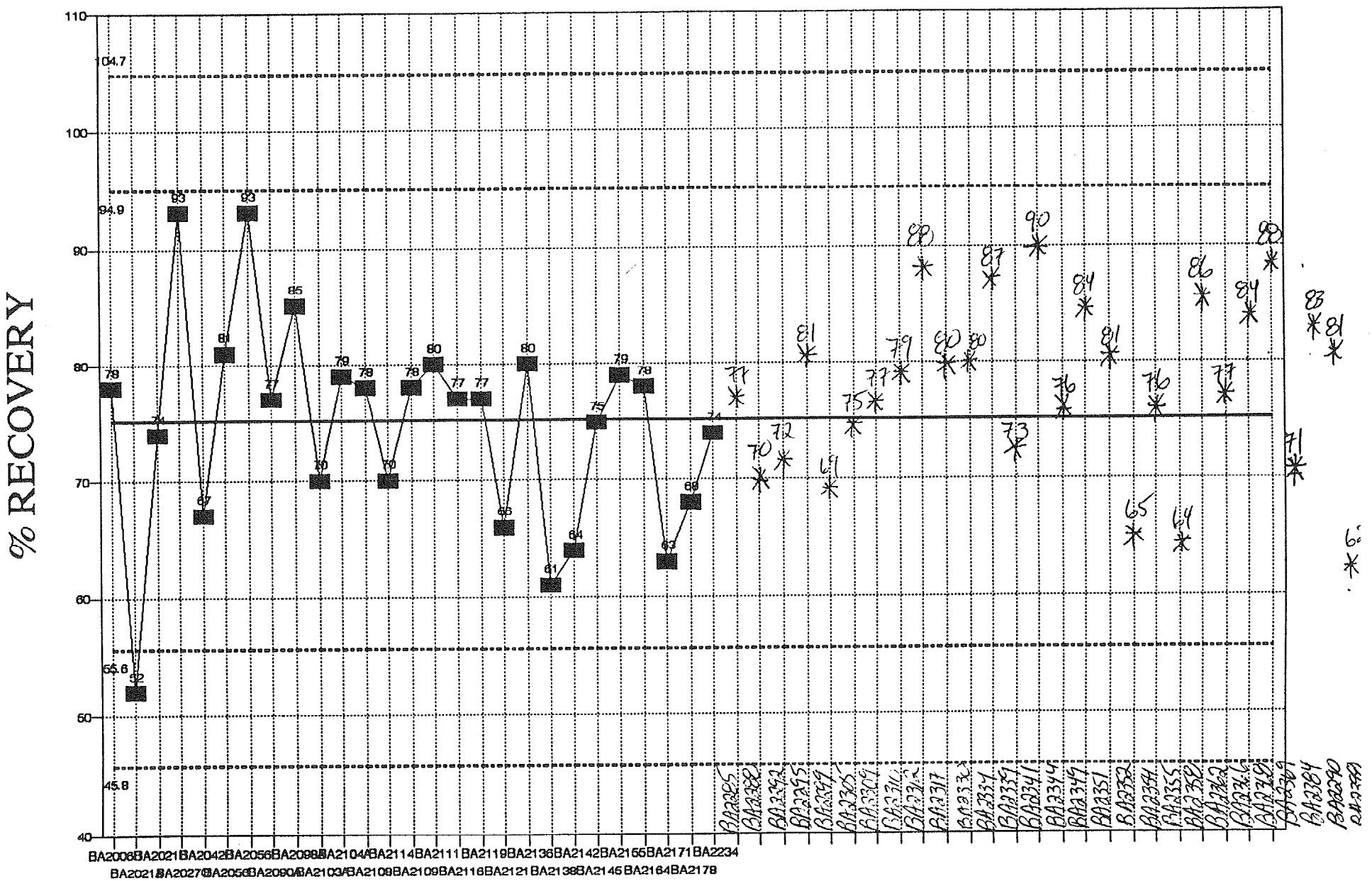
2900000

ABN H2O 3520/8270, 1,2-DICHLOROBENZENE-SURR, LIMITS SET 2/95



STD DEV = 9.54 MEAN = 68.4

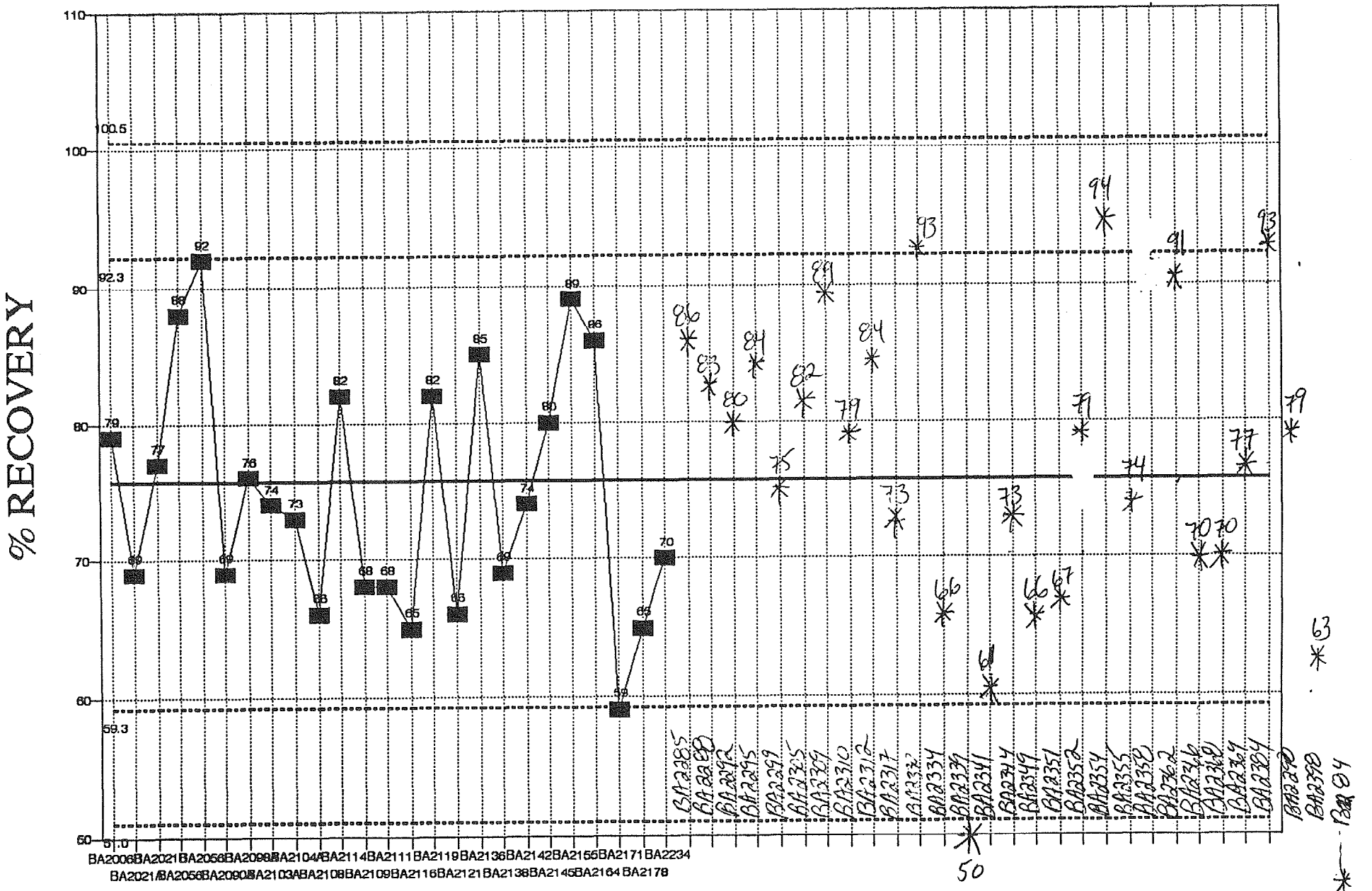
ABN H2O 3520/8270, NITROBENZENE-D5
SURR, LIMITS SET 2/95



STD DEV = 9.82 MEAN = 75.2

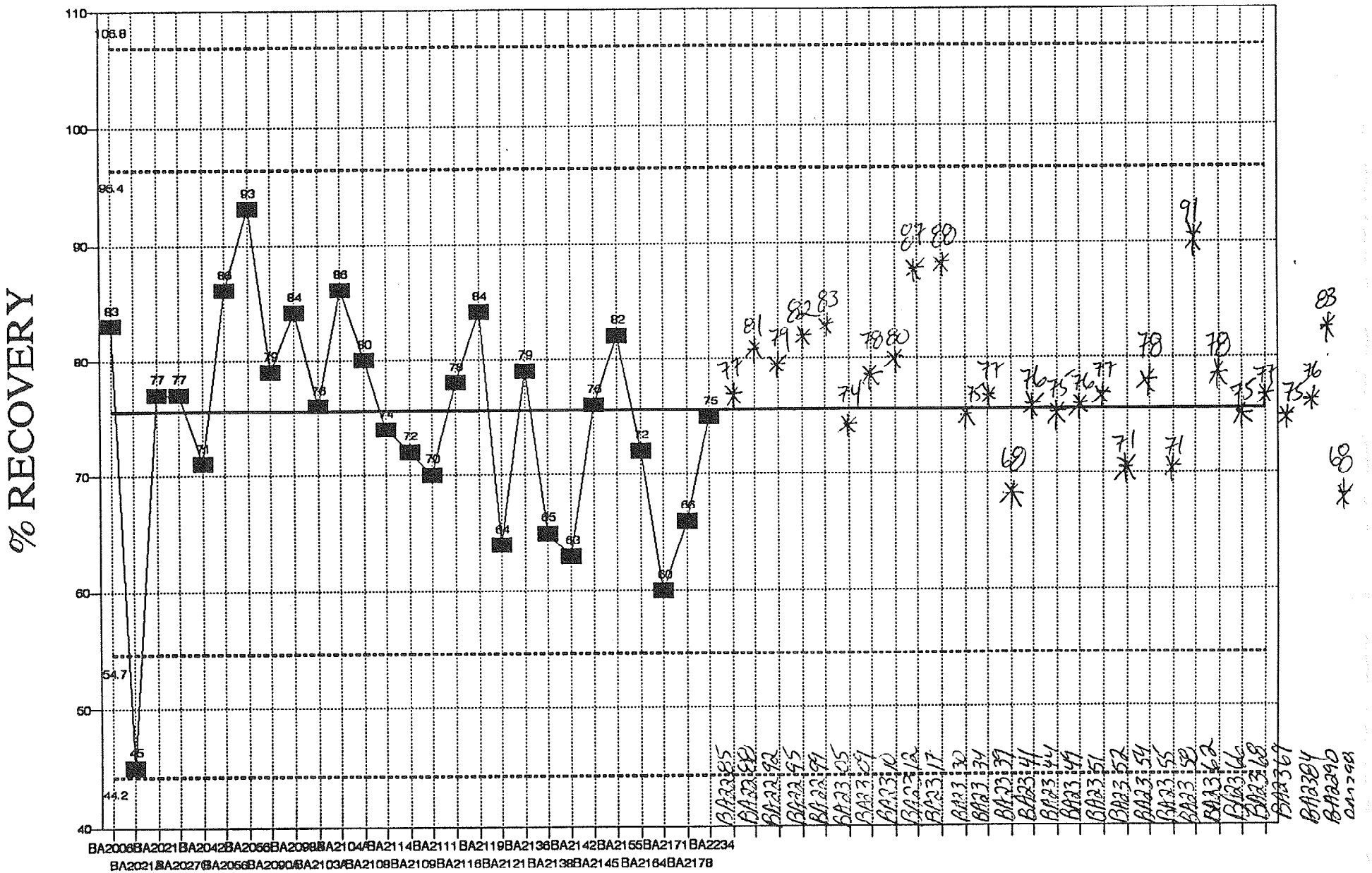
00000054

ABN H2O 3520/8270, 2,4,6-TRIBROMOPHENOL SURR, LIMITS SET 2/95



STD DEV = 8.24 MEAN = 75.8

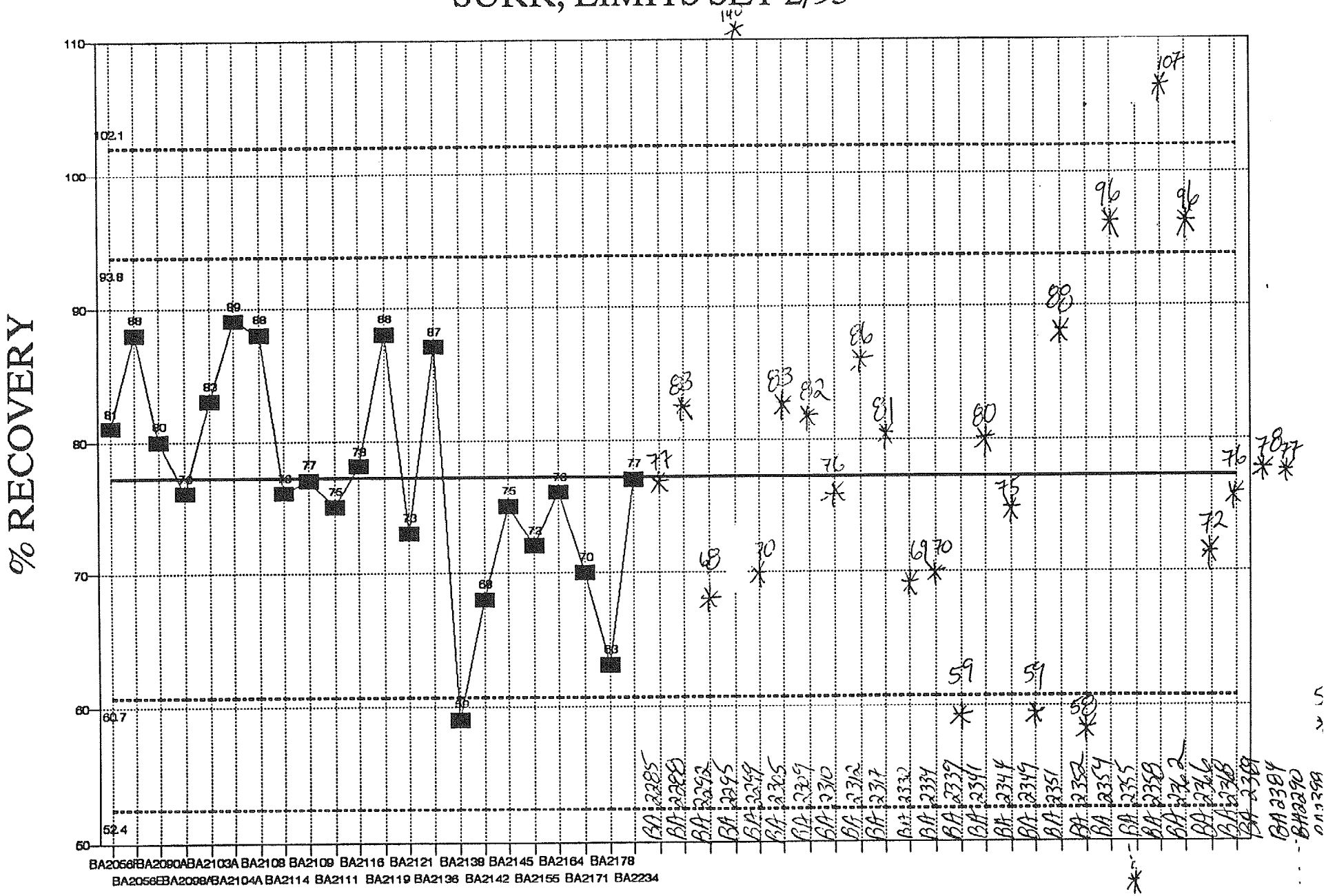
ABN H2O 3520/8270, 2-FLUOROBIPHENYL
SURR, LIMITS SET 2/95



STD DEV = 10.4 MEAN = 75.5

9500056

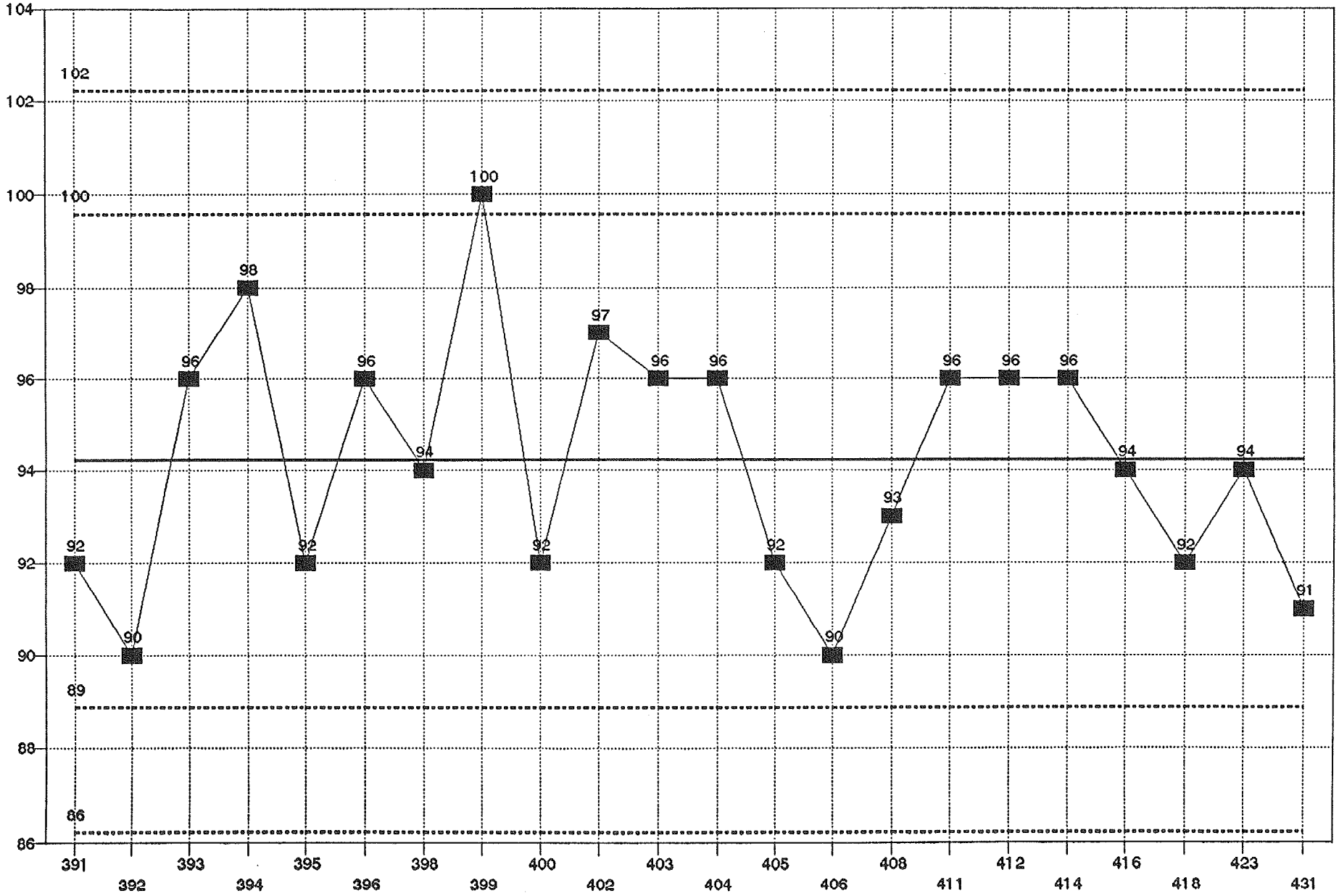
ABN H2O 3520/8270, TERPHENYL-D14
SURR, LIMITS SET 2/95



STD DEV = 8.78 MEAN = 77.2

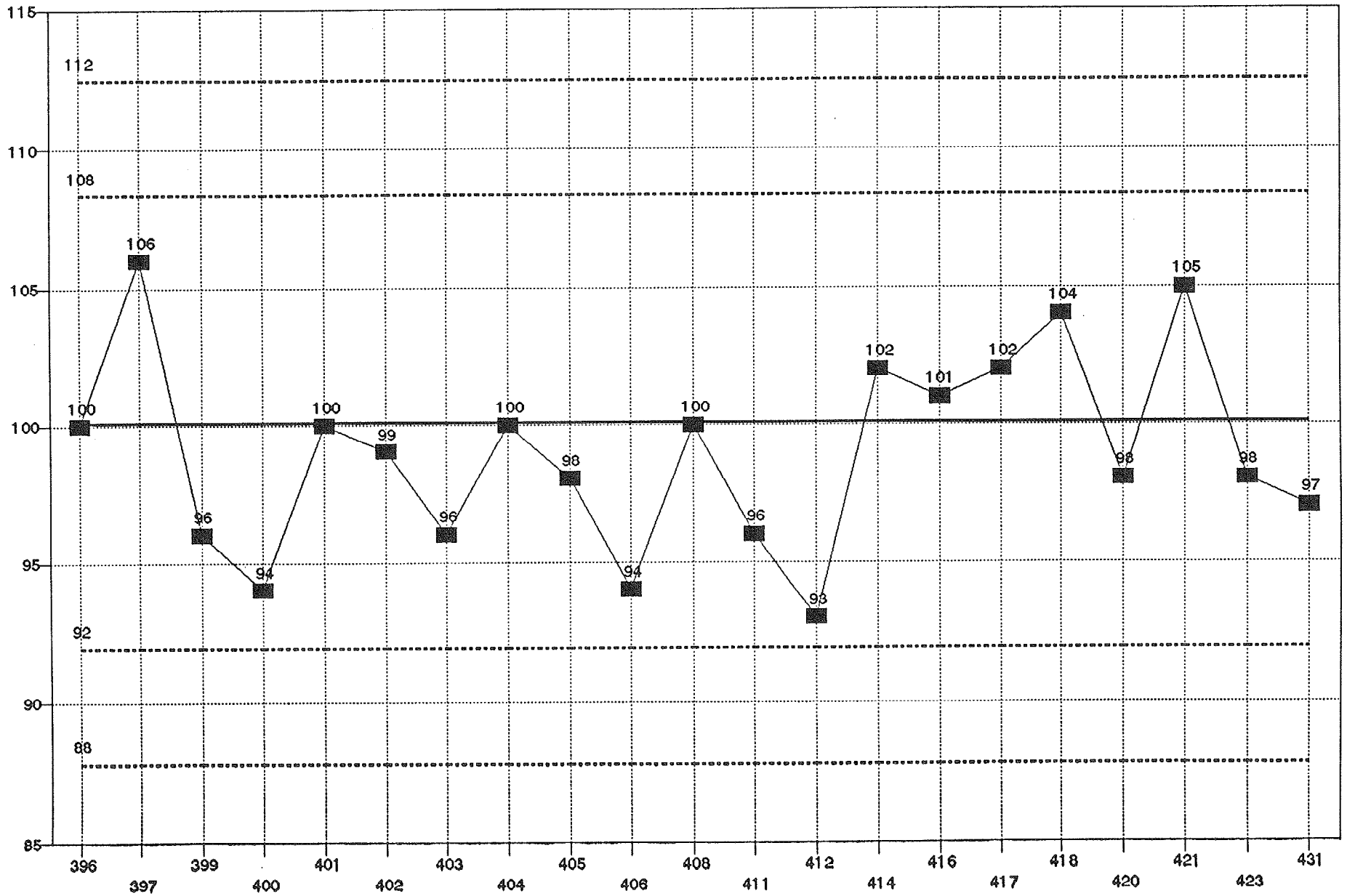
00000057

AS TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 8/95



STD DEV = 2.67 MEAN = 94.2

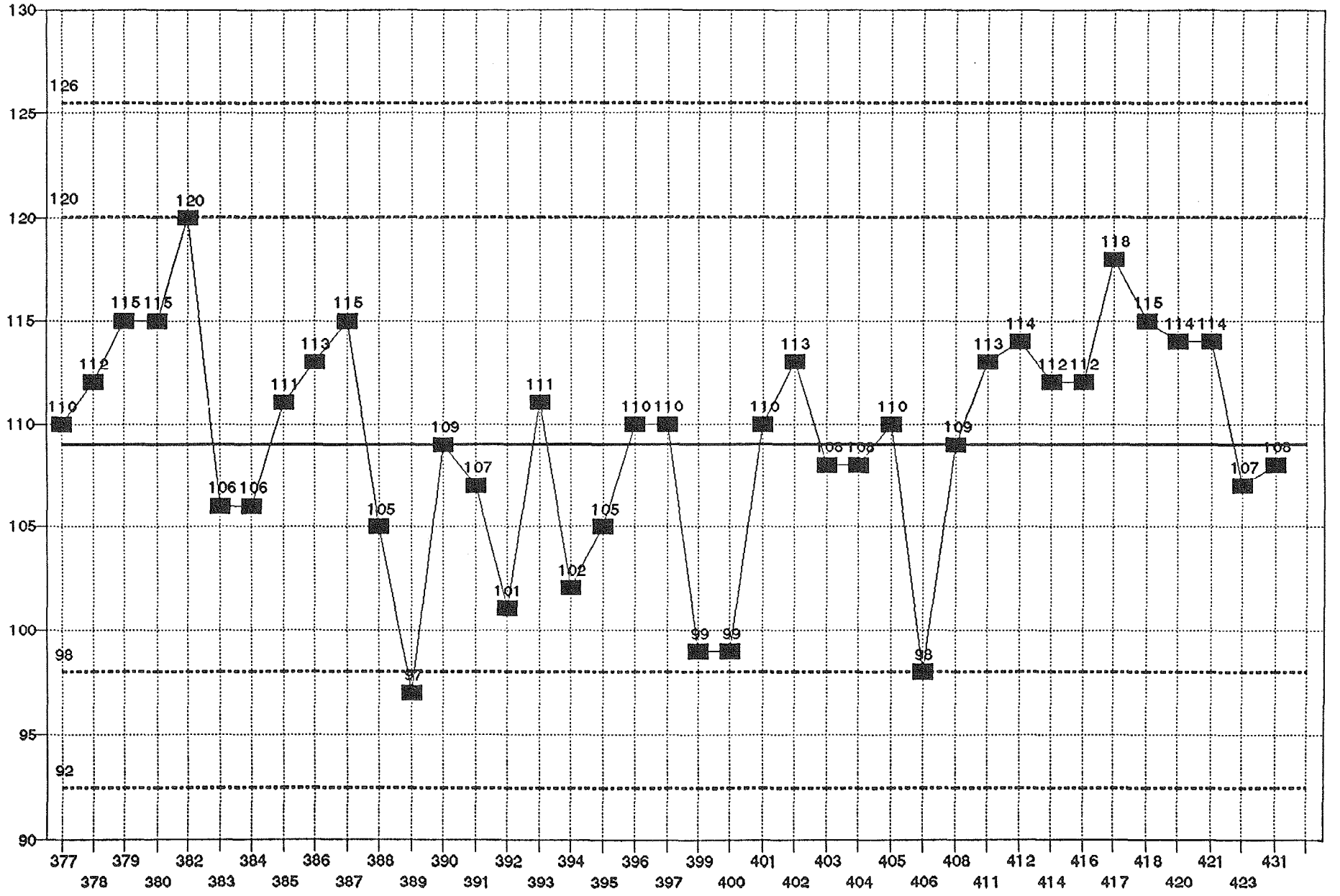
Ba COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.10 MEAN = 100.1

6500059

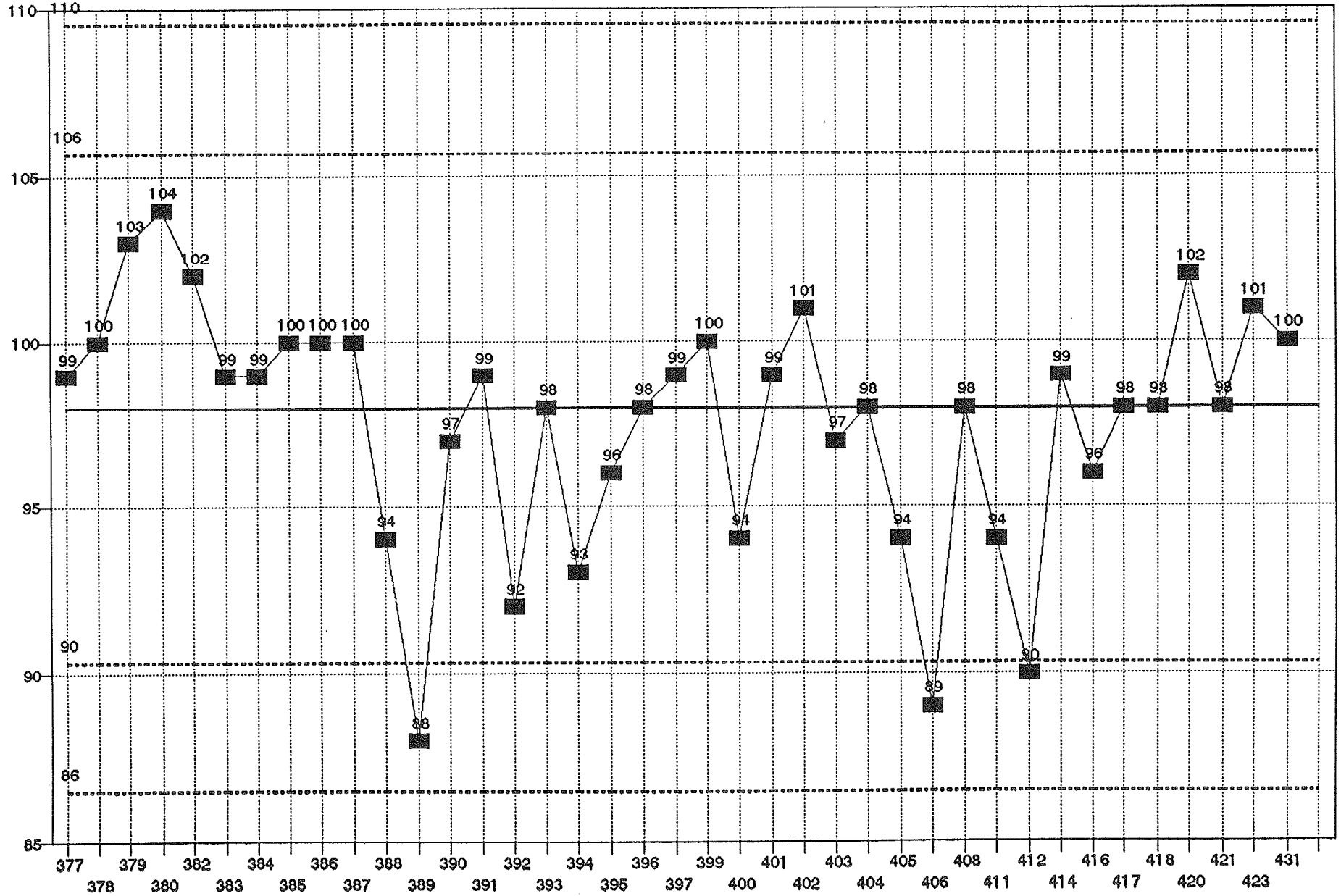
Cd COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 5.51 MEAN = 109

0000060

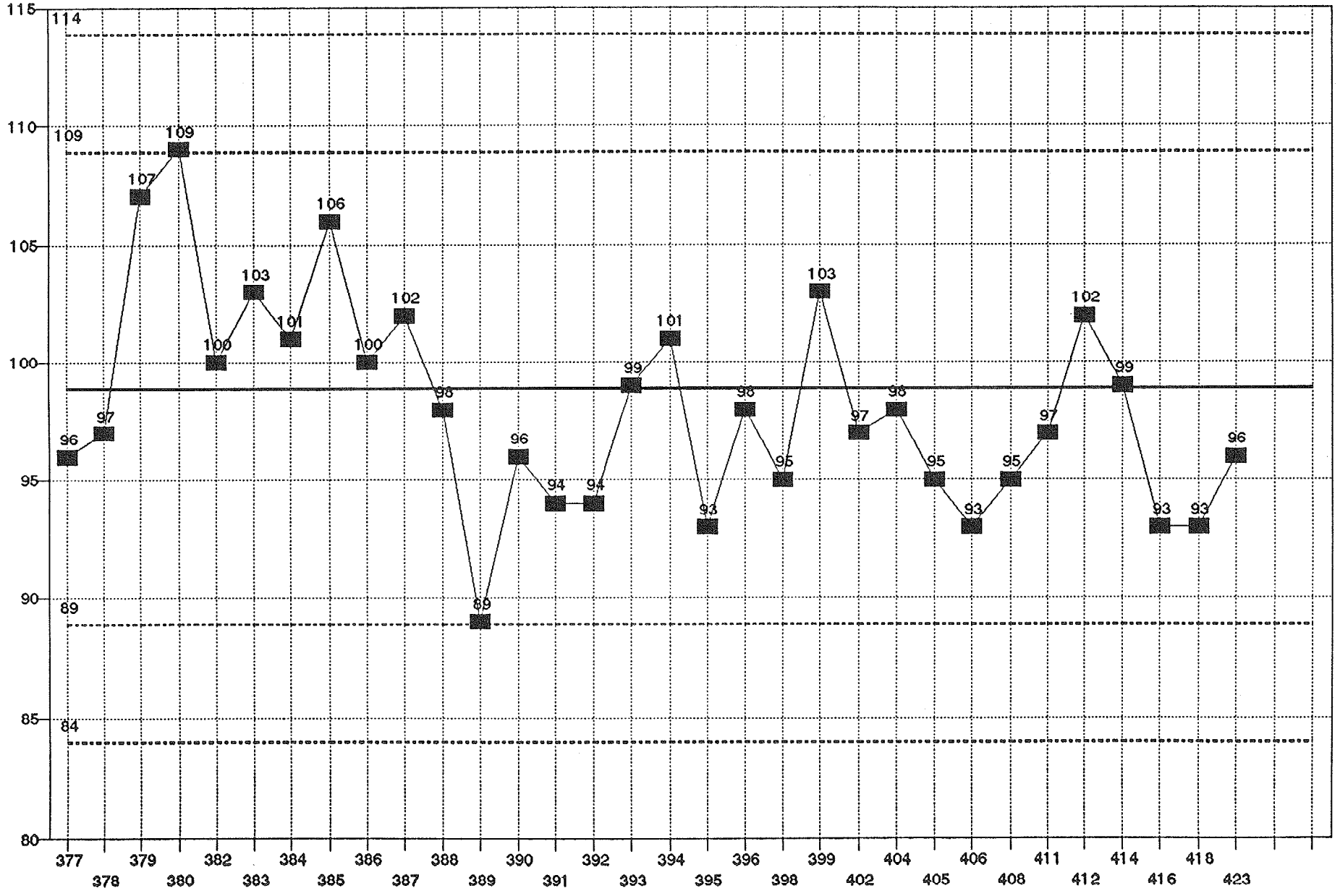
Cr COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 3.84 MEAN = 98.0

1900061

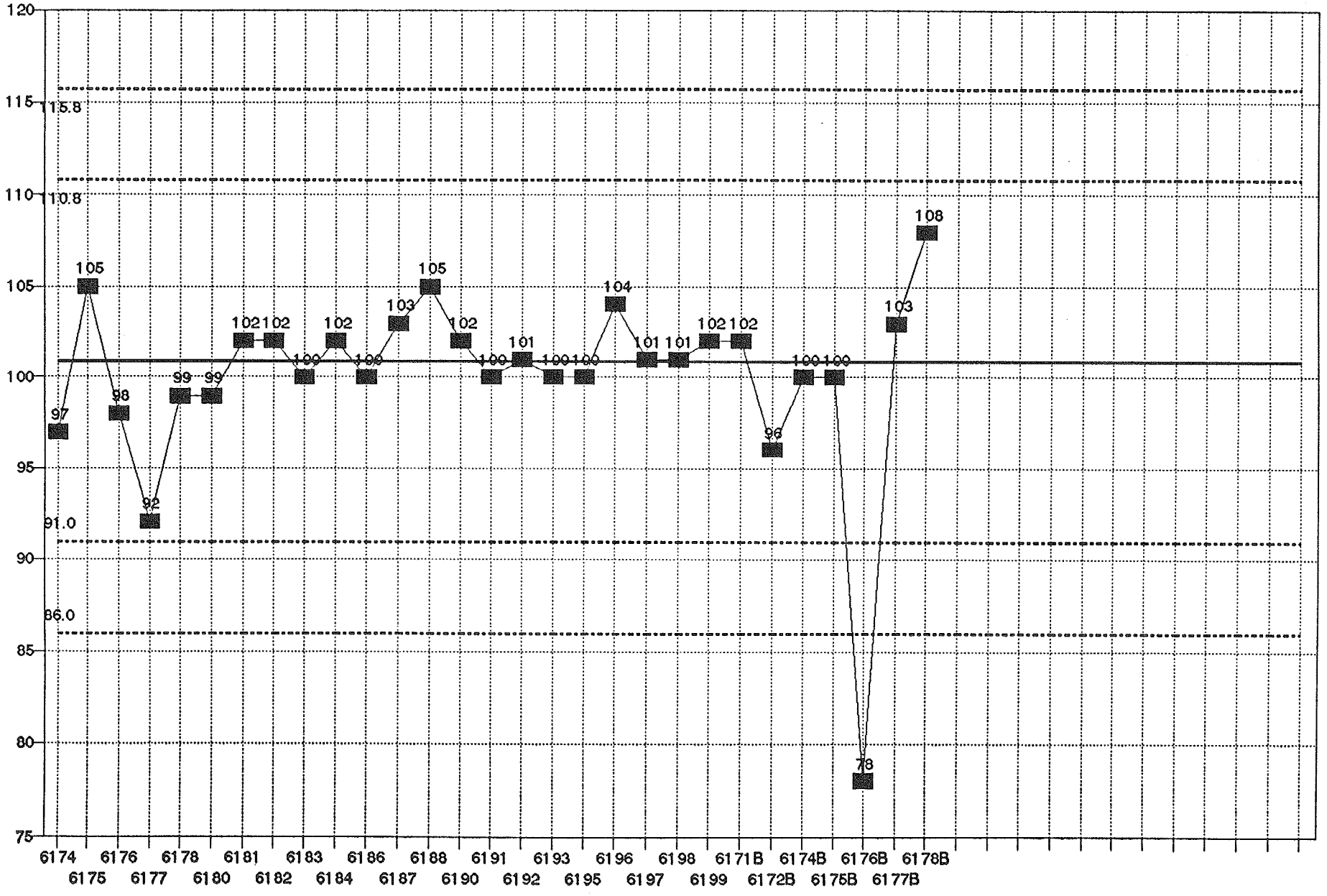
Pb TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.99 MEAN = 98.9

0000062

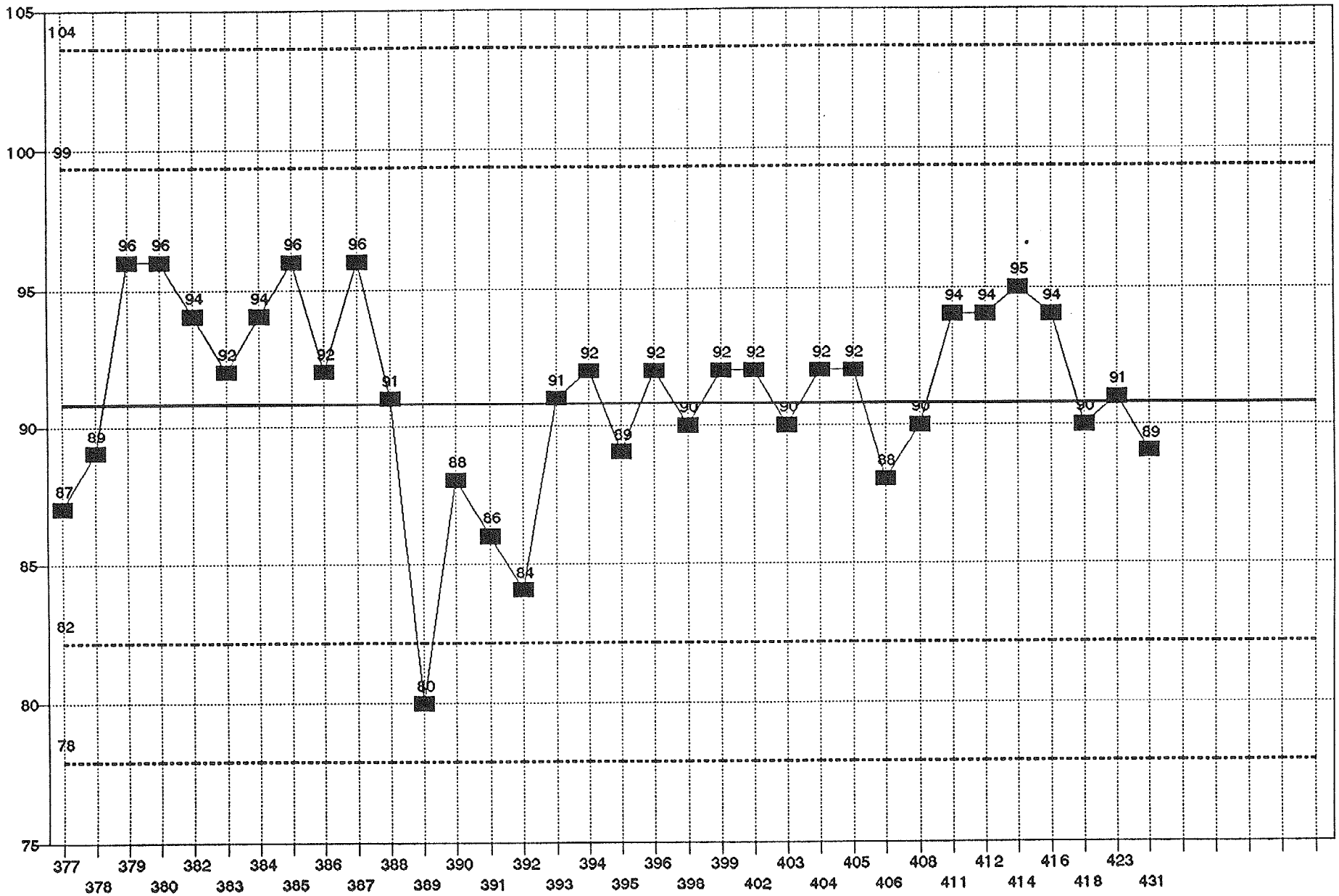
MERCURY CV LCS WATER RECOVERIES
LIMITS SET 2/94



STD DEV = 4.96 MEAN = 100.9

0000063

Se TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.29 MEAN = 90.8

00000064

LAB COPY

OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 001
Field Technical Service
Rev. 08/

144100

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune D.O. 44	Camp Geiger, NC

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
16487	Rakesh Mishra	910-451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Jim Dunn / Randy Smith

ITEM NO	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TPH-GRO	TPH-DRO	TCLP Metals, TCLP Semi-Volatile	TCLP Volatile	RCRA Haz Waste Char.	O&G	PCB, Total Lead	Volatile + BTEX (8240)	REMARKS
1	CLJ44-CC-016	8/7	1040	X		Composite of clean Soil from Pile 4 of Area C.	4	X	X	X	X	X				
2	CLJ44-CC-011	8/7	1050	X		Composite of clean Soil from ~~Pile~~ Pile 7 of Area C.	4	X	X	X	X	X				
3	CLJ44-CC-015-RB	8/7	1102			Rinsate Blank of clean soil of Pile 4 & 7 of Area C.	5	X	X	X	X	X				
4	CLJ44-CC-019-TB	8/7				Trip Blank	3	X			X				X	
5	CLJ44-CC-020	8/7	1115	X		Composite of Contaminated soil from Pile 13 of Area C.	4	1-X	X-5				X5			44913
6	CLJ44-CC-021	8/7	1121	X		Composite of Contaminated Soil from Pile 14 of Area C	4	2-X	X-6				X6			
7	CLJ44-CC-022	8/7	1132	X		Composite of contaminated soil from Pile 15 of Area C.	4	3-X	X-7	X	X	X	X7	X7	X13	
8	CLJ44-CC-023	8/7	1145	X		Composite of contaminated soil from Pile 16 of Area C.	4	4-X	X-8		9		X8			
9																
10																

TRANSFER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-8				
2			K.K. Lawson/PACE NH	8/8/95	0915
3					
4					

REMARKS Send samples to Pace Lab.
Samples 1-4 7days TAT.
Samples 5-8 24hr. TAT. = 44913

SAMPLER'S SIGNATURE

00000095

pace INCORPORATED
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REPORT OF LABORATORY ANALYSIS

August 29, 1995

OHM Remediation Services Corporation
5335 Triangle Parkway
Suite 450-
Norcross, GA 30092

SAMPLE DELIVERY GROUP NARRATIVE

Case: OHMRC
SDG: LJN1A
Laboratory: PACE New England - New Hampshire of Hampton, NH
Lab Numbers: 44914
Protocol: SW846 Methods. NEESA C deliverables. No diskette.

Sample Receipt: These samples were received at PACE, Inc. on August 8, 1995. Laboratory sample numbers were assigned for test parameters as listed on the Sample Table which follows this narrative. The sample shipment was checked for custody seal integrity and cooler temperature. Samples were checked for appropriate preservation and accuracy against the Chains-of-Custody provided. Other than the exceptions noted below, samples were received between 2-6° C and in good condition. PACE Sample Receipt Condition Reports can be found with the Chains-of-Custody.

Shipment received 8/8/95 (44913): These samples were received and samples were logged in under PACE Lab Numbers 44913 and 44914. A temperature blank was not included with the shipment, therefore the cooler temperature could not be verified upon receipt of samples at PACE. The samples were received cool, and had been packed on ice. Samples listed as Items 1-4 on the COC were logged in under PACE# 44914 for seven day turnaround. Samples listed as Items 5-8 on the COC were logged in under PACE# 44913 for 24 hour turnaround. No problems were encountered with the shipment of these samples.

GRO Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

DRO Analysis: Laboratory numbers 44914-2, -6 and -11 for diesel range organics contained petroleum hydrocarbon products which did not match diesel.

Volatiles Analysis: The laboratory number 44914-10 submitted for volatiles analysis was not preserved to a pH < 2.

Metals Analysis: Samples were analyzed within holding time and in accordance with SW846 methods for the TCLP list of eight metals (Ag, As, Ba, Cd, Cr, Hg, Pb, Se). Sample matrices consisted of water and TCLP extracts run as waters. No sample QC was requested for this SDG. Due to software restrictions, sample field identifications were shortened to six characters. The correct full identifications have been included as comments on the Form I sample data. NEESA control charts showed acceptable recoveries for laboratory control samples. One high trend was evident for cadmium, but the LCS of batch 12423 brought it back into control.

Samples were prepared in two ICP batches and one mercury batch. Analyses were conducted in three sequences on three instruments:

TJA01 08/14/95 for Ag, As, Ba, Cd, Cr, Pb, Se.
TJA03 08/16/95 for Ag, As, Ba, Cd, Cr, Pb, Se.
PE02 08/17/95 for Hg.

The TJA03 instrument, located at Pace NE-ME, achieves lower detection limits for As, Pb, and Se than the TJA01. Standards met all compliance criteria. Blanks were also acceptable, although they had low hits on the TJA01 instrument for lead and selenium. This should not affect the TCLP sample data for which the action limits are high. Laboratory control sample data were also acceptable for all analytes of this project.

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

SDG Narrative
Case: OHMRC, SDG: LJN1A

TCLP Volatiles Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

TCLP Semivolatiles Analysis: The control charts included, per NEESA C requirements, are in the process of accumulating 20 data points since a change was made in the method. Therefore, limits have yet to be established.

Conventional Chemistry Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Statement of Compliancy and Data Authorization

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Richard K. Wickman — 8/29/95

PACE Incorporated, New England-New Hampshire — August 29, 1995

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

Case: _____

SDG: LJM1A

TABLE 1: MANUAL INTEGRATIONS PERFORMED

EPA ID	LAB ID	FILE NUMBER	COMPOUNDS MANUALLY INTEGRATED
	VSTD010	>C9104	ACETONE 1,2 DICHLOROETHENE (TOTAL) 2-HEXANONE
	VSD050	>C9753	1,2-DICHLOROETHANE (TOTAL) TRANS-1,3-DICHLOROPROPENE
	VSD050	>C9772	1,2-DICHLOROETHANE

Manual Integrations were performed as required to correct faulty integrations made by the automated software. The manual integrations began and ended at the points where the peak intersected the baseline (unless otherwise indicated), in order that the entire peak and only the peak would be integrated. Hardcopies of the manually-integrated peaks have been provided with the data.

Analyst Signature, PACE Incorporated

8/29/95
Date

PACE Incorporated

ref: PACE SOP ALL-Q-013-A c:\document\manint.frm

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

44914

PAGE 1 of 1
COOLER ____ of ____
COC# ____
SDG# LJN21A
CASE# OHMKC

CLIENT OHM
DATE/TIME RECEIVED 8/8/95 ~~0845~~ 0915
DELIVERED BY Fed Ex
RECEIVED BY [signature]
LIMS ENTRY BY GMF
TRANSCRIPTION REVIEW BY TR 8/8/95
LIMS REVIEW BY/PM GMF

	NA	YES	EXCEPTION	COMMENT	RESOLUTION
1. CUSTODY SEALS PRESENT/INTACT	☑	☐	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☑	☐		
3. CHAIN OF CUSTODY SIGNED	☐	☑	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES	☐	☑	☐		
5. SAMPLES RECEIVED AT 2° - 6° C Ice/Ice Packs Present? (Y) or N	☐	☐	☑	No Temp Blank	
6. VOLATILES FREE OF HEAD SPACE	☐	☑	☐		
7. TRIP BLANK PRESENT IN THIS COOLER	☐	☑	☐		
8. PROPER SAMPLE CONTAINERS AND VOLUME	☐	☑	☐		
9. SAMPLES WITHIN HOLD TIME	☐	☑	☐		
10. SAMPLES PROPERLY PRESERVED	☐	☑	☐		

11. ANALYTICAL PROGRAMS (circle one) (COMMERCIAL) CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other ____
Level C

12. NUMBER OF PACE FILTRATIONS: ____

13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes: 7-day TAT

CLIENT AUTHORIZATION SIGNATURE ____ DATE ____

SAMPLE TABLE

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-CU-016	SOLID	44914-001	TOTAL GASOLINE
		44914-002	TOTAL DIESEL
		44914-003	GC/MS VOA
			ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
			TCLP VOA EXTRACT
			TCLP ORGANICS EXTRACT
			TCLP METALS EXTRACTION
			Ba, Cd, Cr, Pb, Hg, Ag, As, Se
		44914-004	CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
CLJ44-CU-017	SOLID	44914-005	TOTAL GASOLINE
		44914-006	TOTAL DIESEL
		44914-007	GC/MS VOA
			ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
			TCLP VOA EXTRACT
			TCLP ORGANICS EXTRACT
			TCLP METALS EXTRACTION
			Ba, Cd, Cr, Pb, Hg, Ag, As, Se
		44914-008	CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
CLJ44-CU-018-RB	WATER	44914-009	TOTAL GASOLINE
		44914-010	GC/MS VOA
		44914-011	TOTAL DIESEL
		44914-012	ACID EXTRACTABLES
			BASE/NEUTRAL EXTRACTABLES
		44914-013	Ba, Cd, Cr, Pb, Hg, Ag, As, Se
		44914-014	CORROSIVITY
			FLASH POINT
			RELEASABLE CYANIDE
			RELEASABLE SULFIDE
CLJ44-CU-019-TB	WATER	44914-015	GC/MS VOA
			TOTAL GASOLINE

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Field Identification: CLJ44-CU-016 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	13	44914-001	08/08/95	BG1033A	8015(mod)/2
Total Diesel (ug/g)	46	3.6	44914-002	08/09/95		8015(mod),3350/2
Corrosivity (pH, units)	8.0		44914-004	08/08/95	347	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44914-004	08/08/95	290	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44914-004	08/08/95	290	7.3.3.2/2
Flash Point (degrees F)	>150	50	44914-004	08/08/95	316	1010/2

Field Identification: CLJ44-CU-017 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	BDL	12	44914-005	08/08/95	BG1033A	8015(mod)/2
Total Diesel (ug/g)	16	3.7	44914-006	08/09/95		8015(mod),3350/2
Corrosivity (pH, units)	8.1		44914-008	08/08/95	347	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44914-008	08/08/95	290	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44914-008	08/08/95	290	7.3.3.2/2
Flash Point (degrees F)	>150	50	44914-008	08/08/95	316	1010/2

Field Identification: CLJ44-CU-018-RB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44914-009	08/10/95		8015(mod)/2
Total Diesel (ug/L)	150	100	44914-011	08/11/95		8015(mod),3350/2
Corrosivity (pH, units)	6.1		44914-014	08/08/95	347	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44914-014	08/08/95	290	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44914-014	08/08/95	290	7.3.3.2/2
Flash Point (degrees F)	>150	50	44914-014	08/08/95	316	1010/2

Field Identification: CLJ44-CU-019-TB Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44914-015	08/10/95		8015(mod)/2

Results for solid sample expressed on a dry weight basis with the exception of releasables, which are expressed on a weight as received basis.

References: 2) EPA SW 846, 3rd Edition

pace INCORPORATED THE ASSURANCE OF QUALITY

QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: BG1033
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: SOLID

COMPOUND	CONCENTRATION ug/g	DETECTION LIMIT ug/g
GASOLINE	BDL	12

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1033
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
GASOLINE	0	50	54	108

METHOD REFERENCE: METHOD 8015 (MODIFIED)

pace INCORPORATED
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QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: BG080995TGA
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: WATER

COMPOUND	CONCENTRATION ug/L	DETECTION LIMIT ug/L
GASOLINE	BDL	100

METHOD REFERENCE: METHOD 8015 (MODIFIED)

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QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: BG081095TGA
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/10/95
Matrix: WATER

COMPOUND	CONCENTRATION ug/L	DETECTION LIMIT ug/L
GASOLINE	BDL	100

MATRIX SPIKE DUPLICATE RECOVERY

Laboratory Number: LW081095TGA
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/10/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
GASOLINE	0	500	579	116

METHOD REFERENCE: METHOD 8015 (MODIFIED)

pace INCORPORATED
THE ASSURANCE OF QUALITY

PACE New England
VOA SOILS PREP

TOTAL GASOLINE

Date/Init	Smpl Ct.	SAMPLE #	Prep Wt. (g)	Pan #	Pan Wt. (g)	Wet Wt. + Pan (g)	Dry Wt. + Pan (g)	% Solid	COMMENTS
CF 8/8/95		BG1033M	4.0						MeOH Lot#
		LS 1003	4.0						
		44913-1	4.3						
		-2	4.1						
		-3	4.0						
		-4	4.1						
CF 8/8/95		44914-1	4.2						
		-5	4.5						
CF 8/9/95		BG1033D	4.0						
		44928-1	4.1						
		2	4.3						
		3	4.2						
		4	4.3						
		5	4.5						
		6	Prep Blank						

CF 9/14/95

CF 8/16/95

Calibration Curve for total gas

Titles

Test: total gas
Date: 06/08/95
X-Axis: concntration
Y-Axis: area

	Conc.	Acs.	Calc-Abs.
1	100	1288e96	1410739
2	200	16e4627	2097020
3	500	4743123	4155865
4	1000	7930574	7587273
5	2000	1424697a5	14450087

Regression Output:

Constant	724456.9
Std Err of Y Est	305148.5
R Squared	0.997547
No. of Observations	5
Degrees of Freedom	3
X Coefficient(s)	6862.816
Std Err of Coef.	196.4319
Slope	= 6862.816
Y-Intercept	= 724456.9

CF 8/16/95

Calibration Curve for bromofluorobenzene

Titles

Test: bromofluorobenzene
Date: 06/08/95
X-Axis: concentration
Y-Axis: area

	Conc.	Abs.	Calc-Abs.
1	10	71193.62	74025.06
2	20	130501.1	132355.2
3	50	320493.9	307345.8
4	100	605433.7	598996.2
5	200	1177057	1182297

Regression Output:

Constant	15694.93
Std Err of Y Est	11300.24
R Squared	0.999533
No. of Observations	5
Degrees of Freedom	3
X Coefficient(s)	5833.012
Std Err of Coef.	72.76106

Slope = 5833.012
Y-Intercept = 15694.93

PACE, Incorporated New England - New Hampshire Laboratory

670001
Instrument GC07

Reviewed by ____ Date ____

TOTAL GAS

Logbook # 1

Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
							cf 09/09/95 TVA TVAS0012
	G7CK117429		1	BG090995TVA	5ml		copy TVAS0308
	30		2	VSTD1000	5ml		↓
	31		3	BG1033A	100mL		
	32		4	44913-1	10mL		Screens
	33		5	2	↓		↓
	34		6	3	↓		↓
	35		7	4	↓		↓
	36		8	LS1033	100mL		
	37		9	44913-1	50mL		
	38		10	2	100mL		
	39		1	3	20mL		
	40		2	4	100mL		
	41		3	BG1033B	100mL		
	42		4	44928-1	10mL		Screens
	43		5	-2	10mL		↓
	44		6	-3	10mL		↓
	45		7	-4	10mL		↓
	46		8	-5	10mL		↓
	47		9	-6	~~10mL~~ 5ml	[illegible] 9/11/95	
	48		10	44897-3	20mL		
	49		1	-4	100mL		
	50		2	-8	30mL		
	51		3	-1	100mL		
	52		4	TUBE Blanks			BDL
	53		5	↓			BDL
	54		6	↓			BDL
	55		7	↓			BDL
	56		8	↓			BDL
	57		9	↓			BDL
	58			BAKE			
				cf 9/10/95			

PACE, Incorporated New England - New Hampshire Laboratory 0000050

Instrument GC07 TOTAL GAS Logbook # 1

Reviewed by ____ Date ____ Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
							CF 8/10/95 TO-HS0612
	6TCF117459		1	BG081095T6A	5ml		Copy TOHS0808
	46		2	VSTD1000	5ml		5pt V6145
	61		3	44928-1	30ml		
	62		4	2	100ml		
	63		5	3	100ml		
	64		6	4	100ml		
	65		7	5	100ml		
	67		8	44877-12	40ml		
	68		9	44898-3	5ml		pH neutral
	69		10	4	5ml		pH<2
	70		1	44914-1	10ml		
	71		2	5	10ml		
	72		3	9	5ml		pH neutral
	73		4	15	5ml		pH<2
	74		5	44881-3	5ml		pH<2
	75		6	4	5ml		pH<2
	76		7	5	5ml		pH neutral
	77		8	LW081015T6-A	5ml		
	78		9	TUBE Blanks			BDL
	79		10	↓			BDL
	80		1	↓			BDL
	81		2	↓			BDL
	82		3	↓			BDL
	83		4	↓			BDL
	84		5	↓			✓
	85		6	↓			✓
	86		7	↓			✓
	87		8	BAKE			

PACE, Incorporated New England - New Hampshire Laboratory

0000051

Instrument GC07 TOTAL GAS Logbook # 2

Reviewed by_____ Date_____ Method EPA modified 8015

surr recov	result file	surr µL	tube #	sample #	vol	MI	COMMENTS/DATE/INITIALS/METHOD FILE
							CF 8/11/95 [illegible] TGA150612
	G7CF117488	1		BG0811951GA	5ml		
	89	2		VSTD1000	5ml		5L/V6145
	90	3		BG1034A	100ml		
	91	4		44939-1	↓		
	92	5		2			
	93	6		3			
	94	7		4			
	95	8		5			
	96	9		6			
		~~10~~		~~7~~		CF 8/11/95	
		~~1~~		~~8~~			
		~~2~~		~~9~~	↓		
	97	3		44898-1	100ml		
	98	4		44898-2 CF 8/11/95	100ml		
	99	5		43939-10	100ml		
	500	6		-11	100ml		
	1	7		44881-3	900µl		
	2	8		4	↓		
	3	9		5	↓		
	4	10		44939-7	100ml		
	5	1		44939-8	100ml		
	6	2		44939-9	100ml		
	7	3		44914-1	100ml		
	8	4		5	100ml		
	9	5		BG1034B	100ml		
	10	6		44951-1	20ml		Screens
	11	7		-2	20ml		
	12	8		-3	20ml		
	13	9		44939-1ms	100ml		
	14	10		-1msd	↓		
	15 loaded	1		LS1034	↓		

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1358
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: SOLID

HYDROCARBON TYPE	CONCENTRATION ug/g	DETECTION LIMIT ug/g
DIESEL	BDL	3

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1358
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: SOLID

COMPOUND	ug/g SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
DIESEL	0	33.5	25.1	75

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8015 (MODIFIED) AND 3350

pace INCORPORATED THE ASSURANCE OF QUALITY

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1361
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/10/95
Matrix: WATER

HYDROCARBON TYPE	CONCENTRATION ug/L	DETECTION LIMIT ug/L
DIESEL	BDL	100

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1361
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/10/95
Matrix: SOLID

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
DIESEL	0	1004	1337	133

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8015 (MODIFIED) AND 3350

pace INCORPORATED THE ASSURANCE OF QUALITY

PACE INCORPORATED
Organics Extraction
SOLIDS PREP LOG

PROTOCOL: EPA SW846

SOP #: QA 5547

METHOD: SONC/3550

MATRIX: SOLID

TEST / LEVEL: PHC /

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	INIT WT (g)	SURR # AMT/CONC.	LCS MS/MSD	SPIKE # AMT/CONC.	NA2SO4 (g)	INTER VOL (ml)	ALIQUOT VOL (ml)	FINAL VOL (ml)
—	mC 8/8/95	BH1358	30.0	E1363 0.5ml	N/A	N/A	60.0	10.0	10.0	1.0
—	↓	LSH1358	30.0	✓ 10ppm	LSH1358	E1319 200ml 5019ppm N/A	↓	↓	↓	↓
5		HH898-5	30.08		44877-1 MS/MSD					
6	↓	-6	30.04	✓		N/A	↓			
7		44913-5	30.69	✓	↓	↓				
8		-6	30.65	✓						
9		-7	30.74	✓						
10	↓	-8	30.23	✓		↓	↓			
11		44914-2	30.08	↓						
12		-3	30.55							
13		-6	30.38							
14	↓	-7	30.09	↓	↓	↓	↓	↓	↓	↓

Sent mC 8/8/95

8/8/95

mC

mC

N/A

COMMENTS: Ass. QC 44877-1 MS/MSD

PACE, INC. NEW ENGLAND - NEW HAMPSHIRE LAB
Organic Extractions
AQUEOUS PREP LOG

PROTOCOL: EPA SW846 LOGBOOK NO: 2

SOP: PACE NE-NH SOP 5501 METHOD: CONT/3520 SEPF/3510

MATRIX: AQUEOUS TEST/LEVEL: PHC /

COUNT	DATE/ INIT	CONT #	BLANK/ SPIKE/ SAMPLE #	INIT VOL (L)	SURR AMT/ CONC	LCS MS/MSD	SPIKE # AMT/CONC	INTER VOL (mL)	ALIQUOT VOL (mL)	FINAL VOL (mL)
—	PN		BH1361	1.0	E1364 0.5 mL	—	LSH1361 no QC	10.0	10.0	1.0
—	8-10-95		LSH1361	1.0	101 ppm	E1383 200 uL	MS/MSD assigned			
15	↓		44898-7	1.0	↓	5019 ppm N/A	@ this point	↓	↓	↓
16			44932-1	.720		↓	↓			
17			(E10) -2	.720						
18	↓		-3	.720						
19	↓		44914-11	1.0						

[illegible] 08/14/95

PN 8-10-95

(3)

COMMENTS: (E10) - May have double surrogated 44932-2 - PN 8-10-95

FACE, Incorporated

INITIAL CALIBRATION SUMMARY

For /DATA/GC09/METHOD/DIESEL015.MTH
Method created: 08/23/95 11:10:55
Method updated: 08/23/95 11:21:55

Result files used for Calibration data:
Level 1 /DATA/GC09/RESULT/G9H18939.RES
Level 2 /DATA/GC09/RESULT/G9H18940.RES
Level 3 /DATA/GC09/RESULT/G9H18941.RES
Level 4 /DATA/GC09/RESULT/G9H18942.RES
Level 5 /DATA/GC09/RESULT/G9H18943.RES

#	Time	Analyte	Correlation	B0 Intercept	B1 Slope	B2 Quadratic
1	3.73	SOLVENT PEAK	.00000	0.00	**********	**********
2	20.45	DIESEL FUEL	1.0000	40620.00	3554.09	.08

$$R = B0 + B1X + B2X^2$$

FACE, Incorporated

INITIAL CALIBRATION SUMMARY

for /DATA/GC12/METHOD/DIESEL006.MTH
Method created: 08/07/95 11:04:44
Method updated: 08/07/95 11:34:29

Result files used for Calibration data:
Level 1 /DATA/GC12/RESULT/G12H01296.RES
Level 2 /DATA/GC12/RESULT/G12H01297.RES
Level 3 /DATA/GC12/RESULT/G12H01298.RES
Level 4 /DATA/GC12/RESULT/G12H01299.RES
Level 5 /DATA/GC12/RESULT/G12H01300.RES

#	Time	Analyte	Correlation	B_0 Intercept	B1 Slope	B2 Quadratic
1	3.72	SOLVENT PEAK	.00000	0.00	**********	**********
2	21.89	DIESEL FUEL	.99999	-22114.00	2942.53	.12

$$R = B_0 + B_1 X + B_2 X^2$$

PACE, Incorporated
Continuing Calibration Report Fri Aug 25, 1995 1:26:17 pm

/DATA/GC09/RESULT/G9H18855.RES
/DATA/GC09/METHOD/DIESEL014.MTH

Sample: DRO 2500PPM P8710
Injected: Wed Aug 9, 1995 5:45:14 pm

RetTime	Analyte	Found	Nominal	%D	Recovery
18.67	DIESEL FUEL	2302.05	2500.000	7.9	92.1

PACE, Incorporated
Continuing Calibration Report Fri Aug 25, 1995 1:19:59 pm

/DATA/GC12/RESULT/G12H01359.RES
/DATA/GC12/METHOD/DIESEL006.MTH

Sample: DRO 2500PPM P8710
Injected: Thu Aug 10, 1995 12:20:09 am

RetTime	Analyte	Found	Nominal	%D	Recovery
18.67	DIESEL FUEL	2647.61	2500.000	5.9	105.9

PACE, Incorporated
Continuing Calibration Report Fri Aug 25, 1995 1:20:25 pm

/DATA/GC12/RESULT/G12H01370.RES
/DATA/GC12/METHOD/DIESEL006.MTH

Sample: DRO 2500PPM P8710
Injected: Thu Aug 10, 1995 10:47:02 pm

RetTime	Analyte	Found	Nominal	%D	Recovery
20.30	DIESEL FUEL	2744.91	2500.000	9.8	109.8

PACE, INCORPORATED
GC Instrument Run Log

0000070

Reviewed by _____ Date _____

Circle one:
CLP/PHC/OPP/HERB/P-P

Date	init	result file	Sample	MI	v	Method	column	Sequence
8/8/15	HS	G9H18834	p8609 MSP/HYDR 2546/5159ppm	Y	Y	Calib231	154	G90808
		835	p8578 #6 Fuel Oil 10000ppm					
		836	p8611 MODF 5061 ppm					
		837	p8429 10200 ppm C-range					
		838	p8591 JP4/C8 801/24ppm			↓		
		839	DRO 50ppm p8588			Diesel014		
		840	DRO 500ppm p8584					
		841	DRO 2500ppm p8710					
		842	DRO 5000ppm p8582					
		843	DRO 10000ppm p8581					
		844	BIT1358 PHC-LS LJN10					
		845	LSIT1358 PHC-LS					
		846	44898-5 DRO-LS LJN09					
		847	-6 ↓ ↓					
		848	44913-5 LJN10		N	need Dilute		
		849	-6					
		850	-7					
		851	-8					
		852	44914-2	Y	Y			
		853	-3					
8/9/15	HS	G9H18834	p8722 Gas/Lube/2PHP	Y	Y*	Calib231	154	G90809
		855	DRO 2500ppm p8710			Diesel014		
		856	44913-5 DRO-LS LJN10 1:10					
		857	-6					
		858	-7					
		859	-8					
		860	44914-6					
		861	-7					
		862	44877-1 PHC-S Shell.					
		863	-1MS					
		864	-1MSD					

PACE, INCORPORATED
GC Instrument Run Log

0000044

Circle one:
CLP/(PHC)/OPP/HERB/P-P

Reviewed by _____ Date _____

Date	init	result file	Sample	MI	v	Method	column	Sequence
8/4/95	HS	GH4H01289	P8722 Gas/Lube/2 FBP 5042/5104/5PPM	Y	Y	Calib008	131	GH20804
		290	P8610 Kerosene 5219 ppm					
		291	P8609 MSP/HYDR 2546/5159 PPM					
		292	P8578 #6 Fuel oil 10000 PPM					
		293	P8611 MODF 5061 PPM					
		294	P8429 10200 PPM C-range					
		295	P8591 JP4/C18 5924 PPM					
		296	DRO 50 PPM P8585			Diesel006		
		297	DRO 500 PPM P8584					
		298	DRO 2500 PPM P8710					
		299	DRO 5000 PPM P8582					
		300	DRO 10000 PPM P8581					
		301	BH1354 DRO-S					
		302	LSH1354					
		303	44837-2 PACENJ					
		304	BH1355 PHC-LS			Calib008		
		305	LSH1358					
		306	44857-3 Shell					
		307	44862-9 LJN09			Diesel006		
		308	-11					
		309	-12					
		310	-13					
		311	Grad/lube 5042/5104/5PPM P8722		N	Calib008		
		312	Diesel 2500 ppm P8710	Y	Y	Diesel006		
		313	Gas/Lube 5042/5104/5PPM P8722			Calib008	131	GH20807
8/7/95	HS	GH4H0314	BH1357 PHC-LS			Diesel006		
		315	LSH1357 PHC-LS					
		316	44897-13 DRO-LS LJN09					
		317	-14					
		318	-15 need data		N			
		319	-16					

0000026

PACE, INCORPORATED
GC Instrument Run Log

Reviewed by _____ date _____

Circle one:
CLP/(PHC)/OPP/HERB/P-P

Date	init	result file	Sample	MI	V	Method	column	Sequence
8/9/95	BS	G12H01351	44862-15 DRO-W LJN09	Y	Y	Diesel00b	131	G12c808
8/9/95	BS	G12H01352	44897-21 DRO-LS LJN09 1:100					G12c809
		G12H01353	BLH1360					
		354	LSLH1360					
		355	44928-8 1:10					
		356	-9					
		357	-10					
		358	-11					
		359	DRO 2500ppm P8710 1:10	Y	Y			
		360	44928-13 DRO-LS LJN1:10					
		361	BLH1359 DRO-W					
		362	LSLH1359					
		363	44881-1					
		364	-2					
		365	44897-18 1:100					
8/10/95	BS	G12H01366	BLH1361 PHC-W			Diesel00b	131	G12c810
		367	CSLH1361					
		368	44898-7 DRO-W					
		369	44932-1					
		370	DRO 2500ppm P8710	Y	Y			
		371	44932-2 DRO-W					
		372	-3					
		373	44914-11					
		374	Diesel 2500 ppm P8710	Y	Y	Diesel00b	131	G12c811
8/11/95	BS	G12H01375	BLH 1364 PHC-S					
		376	CSLH1364					
		377	44951-5 DRO-S 1:10					
		378	-6					
		379	-7					
		380	BLH1362 DRO-S					
		381	LSLH1362					

QUALITY CONTROL
Corrosivity
Method: 7.2 SW846 3rd Edition

QC Batch: 347 For: 44914
Matrix: SOLID

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
LCS1	7.0	7.02

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Sulfide
Method: 7.3.4.2 EPA SW846, 3rd Edition

QC Batch: 290 For: 44914
Matrix: SOLID

METHOD BLANK:

	Result ug/g
	< 50.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	1403.0	1480.3	105.5

FIELD SAMPLE:

Precision Lab No.	Replicate 1 ug/g	Replicate 2 ug/g	Average ug/g	Relative Percent Difference %
44829-1	< 50.00	< 50.00	NC	NC

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

NC = Not calculable due to result below detection limit.

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Cyanide
Method: 7.3.3.2 SW846, 3rd Edition

QC Batch: 290 For: 44914
Matrix: SOLID

METHOD BLANK:

	Result ug/g
	< 1.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	40.0	6.200	15.5

FIELD SAMPLE:

Precision Lab No.	Replicate 1 ug/g	Replicate 2 ug/g	Average ug/g	Relative Percent Difference %
44829-1	< 1.00	< 1.00	NC	NC

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

NC = Not calculable due to result below detection limit.

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL
Flashpoint
Method: D93-80, ASTM

QC Batch: 316 For: 44914
Matrix: SOIL

LABORATORY CONTROL SAMPLES:

	True Value Deg F	Observed Value Deg F
LCS1	81.0	81.00

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44914-003
Field Identification : CLJ44-CU-016
Extraction Date : 08/09/95
TCLP Blank : 90,002-388

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44914-003
Sample Designation:CLJ44-CU-016
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/11/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

pace INCORPORATED
THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44914-007
Field Identification : CLJ44-CU-017
Extraction Date : 08/09/95
TCLP Blank : 90,002-388

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

pace INCORPORATED
THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44914-007
Sample Designation: CLJ44-CU-017
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/14/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

pace INCORPORATED
THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44914-010
Sample Designation:CLJ44-CU-018-RB
Matrix: WATER

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/11/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: 44914-015
Sample Designation: CLJ44-CU-019-TB
Date Analyzed: 08/11/95
Matrix: WATER

Instrument File Name: >C9761

VOLATILE ORGANICS	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	BDL	10
Acetone	BDL	25
Carbon disulfide	BDL	5
Tetrahydrofuran	BDL	25
Trichlorofluoromethane	BDL	5
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (total)	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	5
2-Butanone	BDL	25
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	BDL	5
Bromoform	BDL	5
4-Methyl-2-Pentanone	BDL	25
2-Hexanone	BDL	25
Tetrachloroethene	BDL	5
1,1,2,2-Tetrachloroethane	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Xylene (total)	BDL	5

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

BDL = Below reporting limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

WATER VOLATILES SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44914
Project: CAMP LEJEUNE/LJN1A

CLIENT SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
CLJ44-CU-016	96	96	103		0
CLJ44-CU-017	93	99	99		0
CLJ44-CU-018-RB	92	95	100		0
CLJ44-CU-019-TB	94	99	98		0
TCLP BLANK #388	95	98	101		0
TCLP BLANK #389	95	97	94		0
BC081495A1	95	97	93		0
BC081195A1	96	98	99		0

	QC LIMITS
S1 (TOL) = Toluene-d8	86 - 114
S2 (BFB) = Bromofluorobenzene	72 - 132
S3 (DCE) = 1,2-Dichloroethane-d4	70 - 138

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: TCLP BLANK #388
Client ID: TCLP BLANK
Date Analyzed: 08/11/95
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Detection Limit (ug/L)
Vinyl chloride	BDL	200	10
1,1-Dichloroethene	BDL	700	5
1,2-Dichloroethane	BDL	500	5
Chloroform	BDL	6000	5
Methyl ethyl ketone	BDL	200000	25
Carbon Tetrachloride	BDL	500	5
Trichloroethene	BDL	500	5
Benzene	BDL	500	5
Tetrachloroethene	BDL	700	5
Chlorobenzene	BDL	100000	5

METHOD REFERENCE: EPA SW846 3rd EDITION
METHOD 8240

BDL = Below detection limit

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: BC081195A1
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/11/95
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	BDL	10
Acetone	BDL	25
Carbon disulfide	BDL	5
1,1-Dichloroethene	BDL	5
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (total)	BDL	5
Chloroform	BDL	5
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Benzene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
1,2-Dichloropropane	BDL	5
2-Chloroethyl vinyl ether	BDL	5
Bromoform	BDL	5
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5
Tetrachloroethene	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
m-Xylene	BDL	5
o,p-Xylene	BDL	5
Styrene	BDL	5

METHOD REFERENCE: EPA SW 846 3RD EDITION
METHOD 8240

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

MATRIX SPIKE RECOVERY
VOLATILE ORGANIC COMPOUNDS

Laboratory Number: LCC081195A1
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/11/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
1,1-DICHLOROETHENE	0	50	64	128
TRICHLOROETHYLENE	0	50	58	116
BENZENE	0	50	56	112
TOLUENE	0	50	58	115
CHLOROBENZENE	0	50	61	122

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8240

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: TCLP BLANK #389
Client ID: TCLP BLANK
Date Analyzed: 08/14/95
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Detection Limit (ug/L)
Vinyl chloride	BDL	200	10
1,1-Dichloroethene	BDL	700	5
1,2-Dichloroethane	BDL	500	5
Chloroform	BDL	6000	5
Methyl ethyl ketone	BDL	200000	25
Carbon Tetrachloride	BDL	500	5
Trichloroethene	BDL	500	5
Benzene	BDL	500	5
Tetrachloroethene	BDL	700	5
Chlorobenzene	BDL	100000	5

METHOD REFERENCE: EPA SW846 3rd EDITION
METHOD 8240

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: BC081495A1
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/14/95
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	BDL	10
Acetone	BDL	25
Carbon disulfide	BDL	5
1,1-Dichloroethene	BDL	5
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (total)	BDL	5
Chloroform	BDL	5
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Benzene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
1,2-Dichloropropane	BDL	5
2-Chloroethyl vinyl ether	BDL	5
Bromoform	BDL	5
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5
Tetrachloroethene	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
m-Xylene	BDL	5
o,p-Xylene	BDL	5
Styrene	BDL	5

METHOD REFERENCE: EPA SW 846 3RD EDITION
METHOD 8240

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

MATRIX SPIKE RECOVERY
VOLATILE ORGANIC COMPOUNDS

Laboratory Number: LCC081495A1
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/14/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
1,1-DICHLOROETHENE	0	50	60	120
TRICHLOROETHYLENE	0	50	51	102
BENZENE	0	50	51	101
TOLUENE	0	50	47	94
CHLOROBENZENE	0	50	49	98

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8240

pace INCORPORATED
THE ASSURANCE OF QUALITY

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN1A

Lab File ID: >C9099 BFB Injection Date: 06/23/95

Instrument ID: CMS BFB Injection Time: 16:33

ION ABUNDANCE CRITERIA for C9099 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
VSTD200	VSTD200	C9100	06/23/95	17:04
VSTD100	VSTD100	C9101	06/23/95	17:39
VSTD050	VSTD050	C9102	06/23/95	18:14
VSTD020	VSTD020	C9103	06/23/95	18:48
VSTD010	VSTD010	C9104	06/23/95	19:23

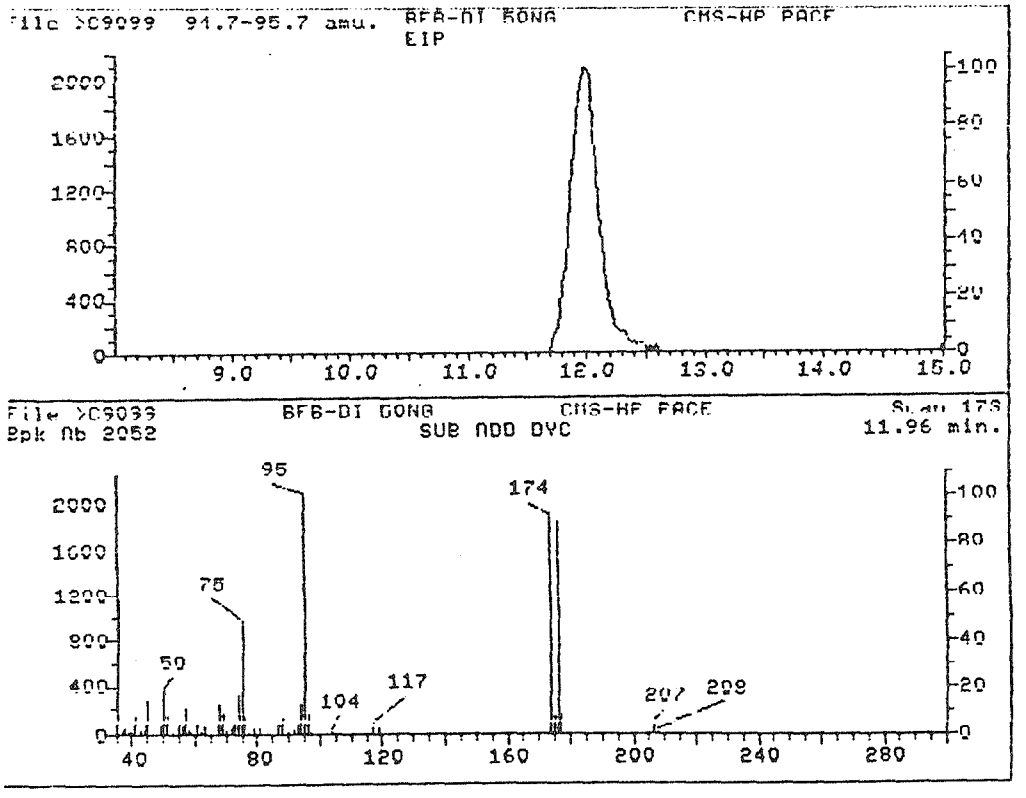
GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB) 1HH

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	17.24	17.24	Ok
75	30-60% of mass 95	45.22	45.22	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.99	7.99	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	90.59	90.59	Ok
175	5-9% of mass 174	6.43	7.10	Ok
176	95-101% of mass 174	89.47	98.76	Ok
177	5-9% of mass 176	7.26	8.12	Ok

Injection Date: 06/23/95
Injection Time: 16:33
Data File: >C9099
Scan: 173

THIS IS THE RESULT OF AVERAGING	172.00	173.00	174.00
AND SUBTRACTING BACKGROUND SCAN	153.00		



5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN1A

Lab File ID: >C9751 BFB Injection Date: 08/11/95

Instrument ID: CMS BFB Injection Time: 11:04

ION ABUNDANCE CRITERIA for C9751 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

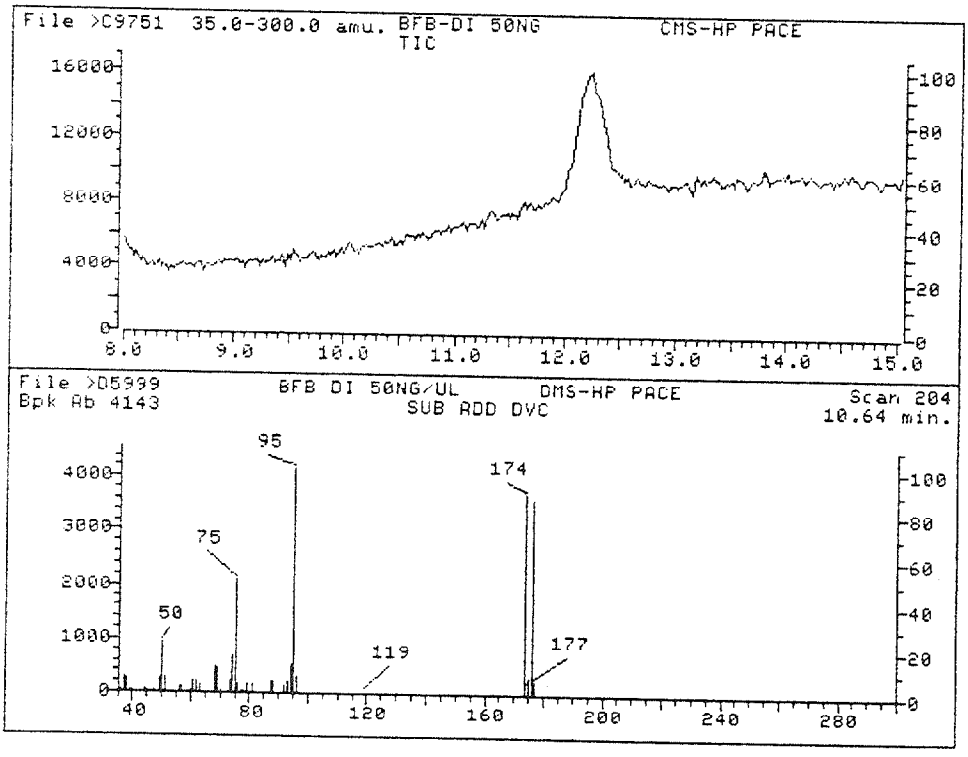
CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
VSTD050	VSTD050	C9753	08/11/95	12:30
BC081195A1	90182-063	C9754	08/11/95	13:05
LCC081195A1	90182-063MS	C9755	08/11/95	13:51
TCLPBLK388 5ML	90182-082	C9756	08/11/95	14:26
CLJ44-CU-016	44914-003	C9758	08/11/95	15:36
CLJ44-CU-018-RB	44914-010	C9760	08/11/95	16:46
CLJ44-CU-019-TB	44914-015	C9761	08/11/95	17:21

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB) '88

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	18.48	18.48	Ok
75	30-60% of mass 95	56.18	56.18	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.84	6.84	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	95.50	95.50	Ok
175	5-9% of mass 174	7.85	8.21	Ok
176	95-101% of mass 174	96.28	100.81	Ok
177	5-9% of mass 176	7.00	7.27	Ok

Injection Date: 08/11/95
Injection Time: 11:04
Data File: >C9751
Scan: 183



5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN1A

Lab File ID: >C9770 BFB Injection Date: 08/14/95

Instrument ID: CMS BFB Injection Time: 12:44

ION ABUNDANCE CRITERIA for C9770 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
VSTD050	VSTD050	C9772	08/14/95	13:44
BC081495A1	90182-065	C9773	08/14/95	14:19
TCLPBLK389 5ML	90182-078	C9774	08/14/95	15:05
LCC081495A1	90182-065MS	C9777	08/14/95	17:01
CLJ44-CU-017	44914-007	C9779	08/14/95	18:11

pace INCORPORATED THE ASSURANCE OF QUALITY

Sum of corrected areas: 28722.

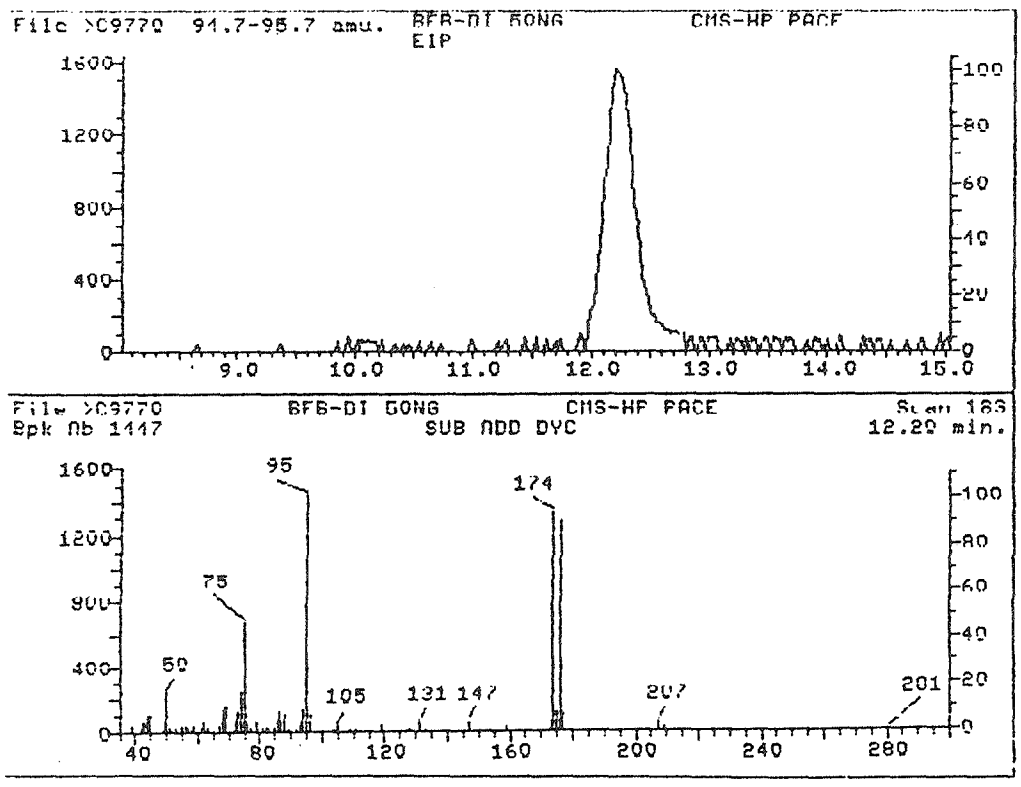
GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB) '88

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	16.54	16.54	Ok
75	30-60% of mass 95	46.21	46.21	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.25	6.25	Ok
173	Less than 2% of mass 174	.90	.97	Ok
174	Greater than 50% of mass 95	93.04	93.04	Ok
175	5-9% of mass 174	7.69	8.27	Ok
176	95-101% of mass 174	89.29	95.96	Ok
177	5-9% of mass 176	7.10	7.95	Ok

Injection Date: 08/14/95
Injection Time: 12:44
Data File: >C9770
Scan: 183

THIS IS THE RESULT OF AVERAGING	182.00	183.00	184.00
AND SUBTRACTING BACKGROUND SCAN	163.00		



NLR 6/26/95

Initial Calibration Data
HSL Compounds

Case No:

Instrument ID: CMS-HP

Contractor: RESAN

Calibration Date: ~~06/26/95~~ 6/23/95 NLR 6/26/95 (5)

CC0623 / IC0623

Contract No: 68020026

Minimum $\overline{RF}$ for SPCC is .30 Maximum % RSD for CCC is 30%

	Laboratory ID:	>C9104	>C9103	>C9102	>C9101	>C9100					
		RF	RF	RF	RF	RF					
	Compound	10.00	20.00	50.00	100.00	200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
C010	CHLOROMETHANE	.44111	.47892	.43883	.44213	.42666	.214	.44553	4.414		** ✓
C015	BROMOMETHANE	1.16219	1.20325	1.14649	1.21862	1.20167	.292	1.18644	2.575		
C020	VINYL CHLORIDE	.65743	.73678	.68291	.72002	.69786	.354	.69900	4.443	*	✓
C025	CHLOROETHANE	.37753	.44550	.40659	.44271	.44451	.435	.42337	7.177		
C030	METHYLENE CHLORIDE	1.28878	1.17373	1.01633	1.00839	.97652	.626	1.09275	12.231		
C035	ACETONE	.34619	.28699	.16263	.14432	.11643	.218	.21131	42.191	OK	
C040	CARBON DISULFIDE	2.60964	2.83092	2.69218	2.11613	2.72336	.832	2.59445	10.749		
C042	TRICHLOROFLUOROMETHANE	2.59125	2.79585	2.60479	2.64426	2.59431	.896	2.64609	3.263		
C045	1,1-DICHLOROETHENE	.89885	.94021	.91494	.92055	.90566	.980	.91605	1.734	*	✓
C058	TETRAHYDROFURAN	.02735	.02715	.05066	.05617	.05167	1.133	.04260	33.250	OK-non clp	
C050	1,1-DICHLOROETHANE	1.63841	1.75796	1.64674	1.66338	1.59399	1.128	1.66010	3.640	**	✓
C053	1,2-DICHLOROETHENE(total)	1.03216	1.10286	1.06407	1.08872	1.05839	1.225	1.06924	2.573		(Conc=20.0,40.0,100.0,200
C060	CHLOROFORM	2.59660	2.72050	2.53178	2.55614	2.44103	1.278	2.56921	3.971	*	✓
C110	2-BUTANONE	.42652	.38522	.27731	.28076	.22415	1.405	.31859	26.227	OK	
C065	1,2-DICHLOROETHANE	1.54349	1.54943	1.53859	1.56006	1.45559	1.388	1.52943	2.749		
MTBE		1.81306	1.81258	1.70064	1.69466	1.51541	1.549	1.70727	7.132		
CS15	1,2-DICHLOROETHANE-d4	1.50326	1.39407	1.35789	1.36355	1.25332	1.375	1.37442	6.512		
C115	1,1,1-TRICHLOROETHANE	.69839	.72645	.69731	.69466	.69962	.639	.70329	1.859		
C120	CARBON TETRACHLORIDE	.72352	.74585	.71789	.70999	.72995	.660	.72544	1.870		
C125	VINYL ACETATE	.49945	.43341	.42886	.41222	.38742	.681	.43227	9.636		
C130	BROMODICHLOROMETHANE	.84039	.80884	.79241	.77807	.79210	.682	.80236	2.977		
C140	1,2-DICHLOROPROPANE	.29110	.29789	.27865	.28285	.27668	.768	.28543	3.117	*	✓
C143	CIS-1,3-DICHLOROPROPENE	.48081	.47282	.46907	.47801	.47853	.780	.47585	1.006		
C150	TRICHLOROETHENE	.47278	.48281	.48008	.45509	.45917	.818	.46999	2.634		
C155	DIBROMOCHLOROMETHANE	.82091	.79930	.77186	.77017	.76601	.836	.78565	3.016		
C160	1,1,2-TRICHLOROETHANE	.35577	.34425	.32595	.32092	.29906	.849	.32919	6.655		
C165	BENZENE	.74143	.73148	.70580	.70061	.68233	.854	.71233	3.362		
C172	TRANS-1,3-DICHLOROPROPENE	.45094	.44416	.43799	.44579	.44169	.853	.44411	1.085		
C176	2-CHLOROETHYLVINYLETHER	.11279	.11512	.11643	.12513	.12206	.920	.11831	4.325		
C180	BROMOFORM	.67840	.67970	.66705	.62931	.62601	.987	.65609	4.031		** ✓

RF - Response Factor (Subscript is amount in ug/L)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
MSL Compounds

Case No: Instrument ID: CMS-HP

Contractor: RESAN Calibration Date: ~~06/26/95~~ 6/23/95

Contract No: 68D20026

CC0623 / IC0623

Minimum $\overline{RF}$ for SPCC is .30 Maximum % RSD for CCC is 30%

Laboratory ID:	>C9104 RF	>C9103 RF	>C9102 RF	>C9101 RF	>C9100 RF					
Compound	10.00	20.00	50.00	100.00	200.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
CS05 TOLUENE-d8	1.03191	1.01040	.96869	.98472	.94411	.950	.98797	3.484		
C205 4-METHYL-2-PENTANONE	.31566	.27172	.23076	.23245	.20627	.814	.25137	17.068		
C210 2-HEXANONE	.19333	.19267	.16894	.15660	.13748	.884	.16980	14.111		
C220 TETRACHLOROETHENE	.55657	.60396	.56390	.57770	.56904	.895	.57423	3.189		
C225 1,1,2,2-TETRACHLOROETHANE	.61589	.59586	.56297	.57818	.54269	.883	.57912	4.900		**
C230 TOLUENE	1.09937	1.12361	1.08256	1.09458	1.06627	.959	1.09328	1.942	*	
C235 CHLOROBENZENE	.95413	.99569	.94105	.92963	.92169	1.005	.94844	3.069		**
C240 ETHYLBENZENE	.43746	.44906	.42847	.44287	.42954	1.088	.43748	2.004	*	
C245 STYRENE	.95027	.94350	.88876	.89022	.86434	1.207	.90742	4.137		
C251 XYLENE	.54129	.54229	.52494	.50758	.49606	1.216	.52243	3.914		
C250 XYLENE (total)	.55102	.55236	.52631	.51593	.50162	1.241	.52945	4.178		(Conc=20.0,40.0,100.0,200
CS10 BROMOFLUOROBENZENE	1.04312	.93476	.89359	.88607	.83735	1.164	.91898	8.438		

RF - Response Factor (Subscript is amount in ug/L)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

IC0811

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 08/11/95

Contractor: RESAN Time: 12:30

Contract No: 68020026 Laboratory ID: >C9753

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C010 CHLOROMETHANE	.44553	.40595	8.88		**	
C015 BROMOMETHANE	1.18644	1.05038	11.47			
C020 VINYL CHLORIDE	.69900	.62797	10.16	*		
C025 CHLOROETHANE	.42337	.40296	4.82			
C030 METHYLENE CHLORIDE	1.09275	1.03589	5.20			
C035 ACETONE	.21131	.18478	12.55			
C040 CARBON DISULFIDE	2.59445	1.98810	23.37			
C042 TRICHLOROFLUOROMETHANE	2.64609	2.34800	11.27			
C045 1,1-DICHLOROETHENE	.91605	.83468	8.88	*		
C058 TETRAHYDROFURAN	.04260	.05557	30.44			
C050 1,1-DICHLOROETHANE	1.66010	1.58238	4.68		**	
C053 1,2-DICHLOROETHENE(total)	1.06924	.96048	10.17			(Conc=100.00
C060 CHLOROFORM	2.56921	2.47631	3.62	*		
C110 2-BUTANONE	.31859	.32136	.87			
C065 1,2-DICHLOROETHANE	1.52943	1.50147	1.83			
MTBE	1.70727	1.72217	.87			(Conc=50.00)
CS15 1,2-DICHLOROETHANE-d4	1.37442	1.40992	2.58			
C115 1,1,1-TRICHLOROETHANE	.70329	.67527	3.98			
C120 CARBON TETRACHLORIDE	.72544	.66744	7.99			
C125 VINYL ACETATE	.43227	.41241	4.59			
C130 BROMODICHLOROMETHANE	.80236	.78938	1.62			
C140 1,2-DICHLOROPROPANE	.28543	.27813	2.56	*		
C143 CIS-1,3-DICHLOROPROPENE	.47585	.46550	2.18			(Conc=50.00)
C150 TRICHLOROETHENE	.46999	.45227	3.77			
C155 DIBROMOCHLOROMETHANE	.78565	.76045	3.21			
C160 1,1,2-TRICHLOROETHANE	.32919	.33397	1.45			
C165 BENZENE	.71233	.70035	1.68			
C172 TRANS-1,3-DICHLOROPROPENE	.44411	.42695	3.86			(Conc=50.00)
C176 2-CHLOROETHYLVINYLETHER	.11831	.10557	10.77			
C180 BROMOFORM	.65609	.60099	8.40		**	
CS05 TOLUENE-d8	.98797	.91624	7.26			
C205 4-METHYL-2-PENTANONE	.25137	.24988	.59			

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 08/11/95

Contractor: RESAN Time: 12:30

Contract No: 68020026 Laboratory ID: >C9753

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

	Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C210	2-HEXANONE	.16980	.14451	14.90			
C220	TETRACHLOROETHENE	.57423	.50101	12.75			
C225	1,1,2,2-TETRACHLOROETHANE	.57912	.52914	8.63		**	
C230	TOLUENE	1.09328	.96321	11.90	*		
C235	CHLOROBENZENE	.94844	.84785	10.61		**	
C240	ETHYLBENZENE	.43748	.39812	9.00	*		
C245	STYRENE	.90742	.79508	12.38			
C251	XYLENE	.52243	.46171	11.62			
C250	XYLENE (total)	.52945	.46892	11.43			(Conc=100.00)
CS10	BROMOFLUOROBENZENE	.91898	.90400	1.63			

IC0814

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 08/14/95

Contractor: RESAN Time: 13:44

Contract No: 68020026 Laboratory ID: >C9772

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C010 CHLOROMETHANE	.44553	.49290	10.63		**	
C015 BROMOMETHANE	1.18644	1.20335	1.42			
C020 VINYL CHLORIDE	.69900	.70764	1.24	*		
C025 CHLOROETHANE	.42337	.42894	1.32			
C030 METHYLENE CHLORIDE	1.09275	1.05440	3.51			
C035 ACETONE	.21131	.15913	24.69			
C040 CARBON DISULFIDE	2.59445	2.48122	4.36			
C042 TRICHLOROFLUOROMETHANE	2.64609	2.50054	5.50			
C045 1,1-DICHLOROETHENE	.91605	.94344	2.99	*		
C058 TETRAHYDROFURAN	.04260	.06341	48.86			
C050 1,1-DICHLOROETHANE	1.66010	1.64388	.98		**	
C053 1,2-DICHLOROETHENE(total)	1.06924	1.09171	2.10			(Conc=100.00
C060 CHLOROFORM	2.56921	2.56532	.15	*		
C110 2-BUTANONE	.31859	.33143	4.03			
C065 1,2-DICHLOROETHANE	1.52943	1.59754	4.45			
MTBE	1.70727	1.94910	14.16			(Conc=50.00)
CS15 1,2-DICHLOROETHANE-d4	1.37442	1.36900	.39			
C115 1,1,1-TRICHLOROETHANE	.70329	.66098	6.01			
C120 CARBON TETRACHLORIDE	.72544	.66124	8.85			
C125 VINYL ACETATE	.43227	.41676	3.59			
C130 BROMODICHLOROMETHANE	.80236	.79438	.99			
C140 1,2-DICHLOROPROPANE	.28543	.27186	4.75	*		
C143 CIS-1,3-DICHLOROPROPENE	.47585	.48013	.90			(Conc=50.00)
C150 TRICHLOROETHENE	.46999	.46835	.35			
C155 DIBROMOCHLOROMETHANE	.78565	.77019	1.97			
C160 1,1,2-TRICHLOROETHANE	.32919	.33066	.45			
C165 BENZENE	.71233	.69897	1.87			
C172 TRANS-1,3-DICHLOROPROPENE	.44411	.44501	.20			(Conc=50.00)
C176 2-CHLOROETHYLVINYLETHER	.11831	.12562	6.18			
C180 BROMOFORM	.65609	.64325	1.96		**	
CS05 TOLUENE-d8	.98797	.89456	9.45			
C205 4-METHYL-2-PENTANONE	.25137	.25542	1.61			

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 08/14/95

Contractor: RESAN Time: 13:44

Contract No: 68020026 Laboratory ID: >C9772

Instrument ID: CMS-HP Initial Calibration Date: 06/26/95

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
C210 2-HEXANONE	.16980	.17560	3.41			
C220 TETRACHLOROETHENE	.57423	.52738	8.16			
C225 1,1,2,2-TETRACHLOROETHANE	.57912	.57347	.97		**	
C230 TOLUENE	1.09328	1.04296	4.60	*		
C235 CHLOROBENZENE	.94844	.90207	4.89		**	
C240 ETHYLBENZENE	.43748	.42088	3.79	*		
C245 STYRENE	.90742	.85821	5.42			
C251 XYLENE	.52243	.49407	5.43			
C250 XYLENE (total)	.52945	.48726	7.97			(Conc=100.00
CS10 BROMOFLUOROBENZENE	.91898	.89628	2.47			

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN1A

Lab File ID (Standard): >C9753 Date Analyzed: 08/11/95

Instrument ID: CMS Time Analyzed: 12:30

	IS1(BCM)		IS2(DFB)		IS3(CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	70943	7.30	237048	17.87	202271	22.68
UPPER LIMIT	141886	7.80	474096	18.37	404542	23.18
LOWER LIMIT	35472	6.80	118524	17.37	101136	22.18
CLIENT I.D.						
BC081195A1	63710	7.32	213519	17.88	189244	22.73
LCC081195A1	54014	7.30	188000	17.86	162008	22.70
TCLPBLK388 5ML	59588	7.36	210935	17.89	186096	22.70
CLJ44-CU-016	59218	7.28	223263	17.89	201858	22.69
CLJ44-CU-018-RB	65011	7.27	224908	17.88	209383	22.69
CLJ44-CU-019-TB	66506	7.34	231321	17.88	199011	22.71

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN1A

Lab File ID (Standard): >C9772 Date Analyzed: 08/14/95

Instrument ID: CMS Time Analyzed: 13:44

	IS1(BCM)		IS2(DFB)		IS3(CBZ)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	73756	7.25	268303	17.87	223786	22.68
UPPER LIMIT	147512	7.75	536606	18.37	447572	23.18
LOWER LIMIT	36878	6.75	134152	17.37	111893	22.18
CLIENT I.D.						
BC081495A1	73246	7.31	254765	17.89	217753	22.70
TCLPBLK389 5ML	70932	7.30	247754	17.86	209535	22.69
LCC081495A1	62691	7.27	216712	17.88	195656	22.67
CLJ44-CU-017	63125	7.28	217185	17.87	189445	22.68

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

Voltage = 1675

6 x 5pt
160

PACE New England

TGN

061995TGN

GCMS/VOA Instr C MS-HP Analyst/Date TGN 6/23/95 STD Lot #V-6088

FRN	Area	ID File	Tube	SAMPLE	AMT	COMMENTS	pH	A	R
>C9099	H	—	—	BFB - DI	50ng	m+R1 m/e95 = 351		y	
				Scan: 172+173		OK 188 + 191			
				+174 - 153		V-6088			
				time: 1633					
>C9100		IC0623	1	VSTD200	5mls	IC0623/CC0623		y	
01			2	VSTD100		OK 188 + 191		y	
02			3	VSTD050				y	
03			4	VSTD020				y	
04			5	VSTD010		m2=C7 m3=C13 m2=C36		y	
05		IC0623	6	BCC02395A		VBLKCM		y	
06			7	LCC02395				y	
07			8	TCLPBlank381				y	
08			9	44,349-2		(R624TCLP)		y	✓
09			10	49,769-23		WP034		y	
10			1	-24				y	
11			2	-25		use for DCBs		y	
12			3	-26	V	↓ ↓		y	
13			/	BAKE					

CLP

VOLTAGE = 1725
624/8240 + EDB
MSCOAM

PACE New England

GCMS/VOA Instr CMS-HP Analyst/Date TN 8/11/95 STD Lot # V-6350B 8/11/95 TGH

FRN	Arcv	ID File	Tube	SAMPLE	AMT	COMMENTS	pH	A	R
>C9749	B478	—	—	BFB - DI	50ng			N	
50		—	—	BFB - DI	50ng			N	
51		—	—	BFB DI	50ng	MTU 1 MF 95 = 29K		✓	✓
				TIME: 11:04		'91 + (88 - @C9751)			
				SCAN: 183 + 184	+ 185 -	138			
>C9752		ICE623	1	VSTD 050 + EDB	5ml	MS USED		N	
53			2	VSTD 050 + EDB	↓	C-15 C-31 (M2) TN 8/11/95		✓	✓
54		IC0811	3	BC081195A1	↓	VBLK CZ		✓	✓
>C9755			4	LCC081195A1	5ml	V-6349		✓	
56			5	TCLPBLK 388	5ml	(R624TCLP)	>2	✓	✓
57			6	44913-9		CLJ44-CC-022 LJN10 V-8/11 *		✓	✓
58			7	44914-3		CLJ44-CU-016		✓	
59			8	-7		CLJ44-CU-017 LOW SURR RIDS			
60			9	-10		CLJ44-CU-018-RB	↓		✓
61			10	-15		(R8240) CLJ44-CU-019-TB	<2		
62			1	44910-15MS		26169 (R9:VOA) 26122 V6349			✓
63			2	-15MSD	↓	↓ M2=C26 ↓	↓		✓
64			3	BV1118D	100ME	(R8240)			✓
65			4	44897-27	SOME	CLJ44-CU-025 LJN09LP			✓
66			5	-27MS	↓	M2=C45 ↓			
67			6	BLANK	5ml				
68			7	44897-27MD	SOME	CLJ44-CU-025 LJN09			✓
69			8	— BAKE —					
12HR 70			9			NOT RUN			

VOLTAGE = 1725
G24/8240
M3CSA01

PACE New England

GCMS/VOA Instr CMS-HP Analyst/Date pk/TP 8/14/95 STD Lot # 081495ALB V-6369A

FRN	Arcv	ID File	Tube	SAMPLE	AMT	COMMENTS	pH	A	R
>C9770	9471	—	—	BFB - DI	50ng	MTH 1 8/29S = 29K		✓	
				TIME: 12:44					
				SCAN: 182+183+184 - 163		188 & 91			
>C9771		IC0623	1	VSTD050	5ml	NOT USED		N	
72			2	VSTD050	↓	C-13 M3		✓	
73		IC0814	3	BC081495A1	↓	VBLKCA		✓	✓
74			5	TCLPBLK 389	5ml	(R624TCLP)	≥2	✓	✓
75			6	44929-12	↓	CLJ44-CC-027 V-8114 LSN012	>2	✓	✓
76			7	-14	↓	CLJ44-CC-027D ↓ ↓	>2	✓	✓
77		TP	8 4	LCC081495A1	5ml	V-6367		✓	
78		ICE814	5	EDB STD 050	↓			y	
79		ICC814	6	44914-7	↓	CLJ44-CU-017 V-8115 LSN1A	>2	y	✓
80		ICE814	7	44942-1	600 µl	(R624MCL10) 26175 RE 1.2ml 25013	<2	N	
81			8	-2	5ml	26172		y	✓
82			9	-2MS	↓	V-6367 ↓ 0.26		y	✓
83			10	-2MSD	↓	↓ ↓		y	✓
84			1	-3	↓	25012		y	✓
85			2	-4	↓	26174 RE 2mls		N	
86			3	-5	↓	25499	↓	y	✓
87		IC0814	4	44889-17	5ml	(R624TCLP)	>2	y	✓
88			5	-18	↓	↓		y	✓
89			6	-19	↓	↓		y	✓
90		ICE814	7	44942HB	5ml	HOLDING BLANK HB44942 out of window	↓	N	
~~91~~			-	~~BAKE~~		TP			
91		ICE814	8	44942-1	1.2ml	26175 25013 out of window RE 1.2mls	<2	N	
92				BAKE					

pk 8/15/95

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44914-003
Field Identification : CLJ44-CU-016
Extraction Date : 08/09/95
TCLP Blank : 90,001-274

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 6.41. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.69, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17.00 hrs

Final pH : 5.27

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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Laboratory number: 44914-003
Sample Designation: CLJ44-CU-016
Date Extracted: 08/10/95
Date Analyzed: 08/11/95
Matrix: TCLP EXTRACT

Instrument File Name: >H8785

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44914-007
Field Identification : CLJ44-CU-017
Extraction Date : 08/09/95
TCLP Blank : 90,001-274

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 8.14. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 2.47, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17.00 hrs

Final pH : 5.41

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

Laboratory number: 44914-007
Sample Designation: CLJ44-CU-017
Date Extracted: 08/10/95
Date Analyzed: 08/11/95
Matrix: TCLP EXTRACT

Instrument File Name: >H8786

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

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Laboratory number: 44914-012
Sample Designation: CLJ44-CU-018-RB
Date Extracted: 08/10/95
Date Analyzed: 08/11/95
Matrix: WATER

Instrument File Name: >H8787

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

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WATER SEMIVOLATILES SURROGATE RECOVERY

Client: OHM REMEDIATION SERVICES CORP. Lab No.: 44914
Project: CAMP LEJEUNE/LJN1A

CLIENT SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
CLJ44-CU-016	71	76	67	63	61	74		0
CLJ44-CU-017	62	68	61	58	55	67		0
CLJ44-CU-018-RB	64	69	53	57	56	68		0
B-A2398	62	68	59	59	55	63		0
TCLP BLANK #274	76	79	79	71	69	76		0

		QC LIMITS
S1	(NBZ) = Nitrobenzene-d5	35 - 114
S2	(FBP) = 2-Fluorobiphenyl	43 - 116
S3	(TPH) = Terphenyl-d14	33 - 141
S4	(PHL) = Phenol-d5	10 - 110
S5	(2FP) = 2-Fluorophenol	21 - 110
S6	(TBP) = 2,4,6-Tribromophenol	10 - 123

Column to be used to flag recovery values with an asterisk
* Values outside of designated QC limits
D Surrogates diluted out

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Laboratory number: TCLP BLANK #274
Sample Designation: TCLP BLANK
Date Analyzed: 08/18/95
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Detection Limit (ug/L)
Pyridine	BDL	5000	56
1,4-Dichlorobenzene	BDL	7500	56
2,4-Dinitrotoluene	BDL	130	56
2-Methylphenol	BDL	200000	56
3,4-Methylphenols	BDL	200000	56
Hexachloroethane	BDL	3000	56
Nitrobenzene	BDL	2000	56
Hexachlorobenzene	BDL	130	56
Pentachlorophenol	BDL	100000	56
Hexachlorobutadiene	BDL	500	56
2,4,6-Trichlorophenol	BDL	2000	56
2,4,5-Trichlorophenol	BDL	400000	56

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8270

BDL = Below detection limit

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Laboratory number: B-A2398
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/11/95
Matrix: WATER

ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
N-Nitrosodimethylamine	BDL	10
Phenol	BDL	10
Aniline	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzylalcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitroso-di-N-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	50
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	50
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	50
Dimethylpthalate	BDL	10
Acenaphthylene	BDL	10
2,6-Dinitrotoluene	BDL	10

ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
3-Nitroaniline	BDL	50
Acenaphthene	BDL	10
2,4-Dintrophenol	BDL	50
4-Nitrophenol	BDL	50
Dibenzofuran	BDL	10
2,4-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10
4-Chlorophenyl-phenylether	BDL	10
Fluorene	BDL	10
4-Nitroaniline	BDL	50
4,6-Dinitro-2-methylphenol	BDL	50
N-Nitrosodiphenylamine	BDL	10
Azobenzene	BDL	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	BDL	10
Di-N-butylphthalate	BDL	10
Fluoranthene	BDL	10
Benzidine	BDL	50
Pyrene	BDL	10
Butylbenzylpthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	20
Benzo(A)anthracene	BDL	10
Chrysene	BDL	10
Bis(2-ethylhexyl)phthalate	BDL	10
Di-N-octylphthalate	BDL	10
Benzo(B)fluoranthene	BDL	10
Benzo(K)fluoranthene	BDL	10
Benzo(A)pyrene	BDL	10
Ideno(1,2,3,-CD)pyrene	BDL	10
Dibenz(A,H)anthracene	BDL	10
Benzo(G,H,I)perylene	BDL	10

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8270

BDL = Below detection limit

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MATRIX SPIKE RECOVERY
ACID/BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS

Laboratory Number: LS-A2398
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/11/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
PHENOL	0	200	112	56
2-CHLOROPHENOL	0	200	126	63
1,4-DICHLOROBENZENE	0	100	55	55
N-NITROSO-DI-N-PROPYLAMINE	0	100	64	64
1,2,4-TRICHLOROBENZENE	0	100	62	62
4-CHLORO-3-METHYLPHENOL	0	200	133	67
ACENAPHTHENE	0	100	67	67
4-NITROPHENOL	0	200	125	63
2,4-DINITROTOLUENE	0	100	66	66
PENTACHLOROPHENOL	0	200	130	65
PYRENE	0	100	59	59

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8270

pace INCORPORATED
THE ASSURANCE OF QUALITY

REVIEWED BY
JEA 08/21/95

PACE INCORPORATED
Organics Extraction
AQUEOUS PREP LOG

PROTOCOL: EPA SW846

LOG BOOK NO: 3

SOP #: QA5514

METHOD: CONT/3520 SEPF/3510

TC1P Neutral LCS MS/MSD

MATRIX: AQUEOUS

TEST / LEVEL: ABN /

INIT VOL (L)

COUNT	DATE/INIT	BLANK/SPIKES SAMPLE #	LCS MS/MSD	SURR # AMT/CONC	INIT VOL (L)	SPIKE # AMT/CONC	INTER VOL (ml)	ALIQ VOL (ml)	FINAL VOL (mL)	* SPECIAL CLEAN-UP	QUATTRO DATE/INIT
/	Amc 8/10/95	BA 2398	1.0	E1362 1,500		N/A	10.0	10.0	1.0	N/A	JGW JEL
/	↓	LSA 2398	1.0	160ppm 200ppm	LSA2398	E1316 1.0 100ppm 200	↓	↓	↓	↓	08/11/95
13	↓	44913-9	200ml	↓	↓	N/A	↓	↓	↓	↓	↓
14	↓	44914-3	↓	↓	↓	↓	↓	↓	↓	↓	↓
15	↓	-7	↓	↓	↓	↓	↓	↓	↓	↓	↓
16	↓	44853-2	↓	↓	↓	↓	↓	↓	↓	↓	↓
17	↓	44898-11	↓	↓	↓	↓	↓	↓	↓	↓	↓
18	↓	44914-12	↓	↓	↓	↓	↓	↓	↓	↓	↓

JGW
pm

(3) Am 8-11-95

COMMENTS: * F = Florisil; G = GPC; S = Sulfur

5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN1A

Lab File ID: >H8752 DFTPP Injection Date: 08/10/95

Instrument ID: HMS DFTPP Injection Time: 08:39

ION ABUNDANCE CRITERIA for H8752 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
ABNSTD160	ABNSTD160	H8754	08/10/95	08:55
ABNSTD120	ABNSTD120	H8755	08/10/95	09:30
ABNSTD080	ABNSTD080	H8756	08/10/95	10:05
ABNSTD050	ABNSTD050	H8757	08/10/95	10:39
ABNSTD020	ABNSTD020	H8758	08/10/95	11:14

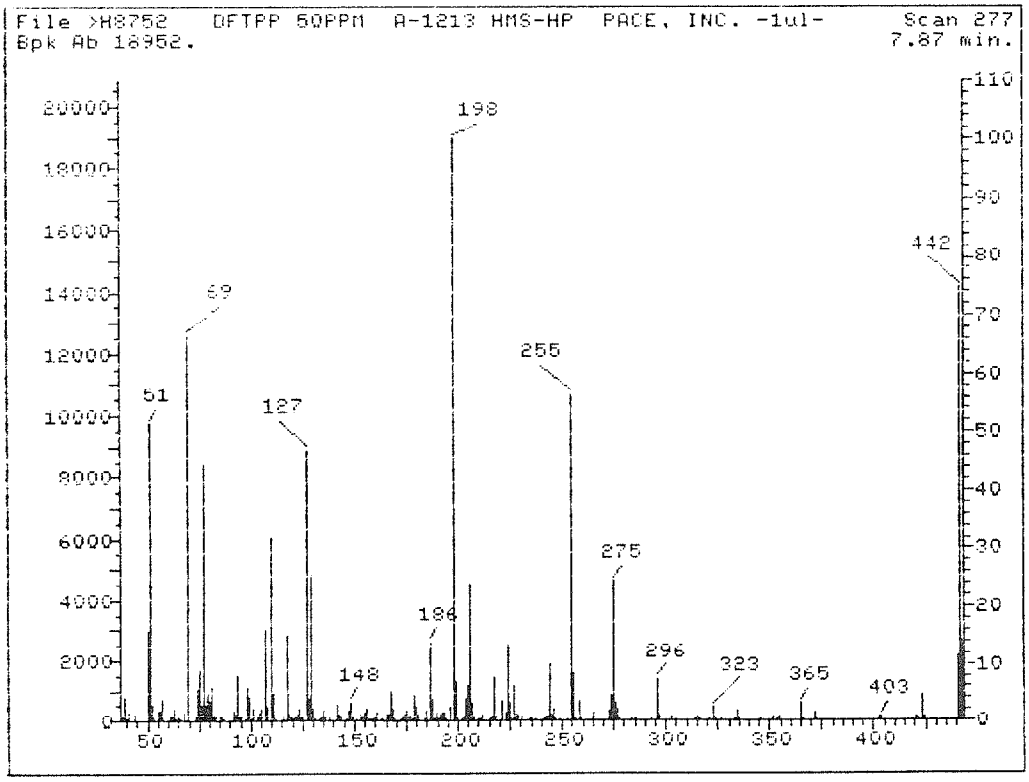
pace INCORPORATED THE ASSURANCE OF QUALITY

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	51.41	51.41	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	66.36	66.36	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	46.88	46.88	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.76	6.76	Ok
275	10-30% of mass 198	24.36	24.36	Ok
365	Greater than 1% of mass 198	3.04	3.04	Ok
441	0-100% of mass 443	11.33	82.14	Ok
442	Greater than 40% of mass 198	74.66	74.66	Ok
443	17-23% of mass 442	13.80	18.48	Ok

Injection Date: 08/10/95
Injection Time: 08:39
Data File: >H8752
Scan: 277



5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN1A

Lab File ID: >H8773 DFTPP Injection Date: 08/11/95

Instrument ID: HMS DFTPP Injection Time: 07:17

ION ABUNDANCE CRITERIA for H8773 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

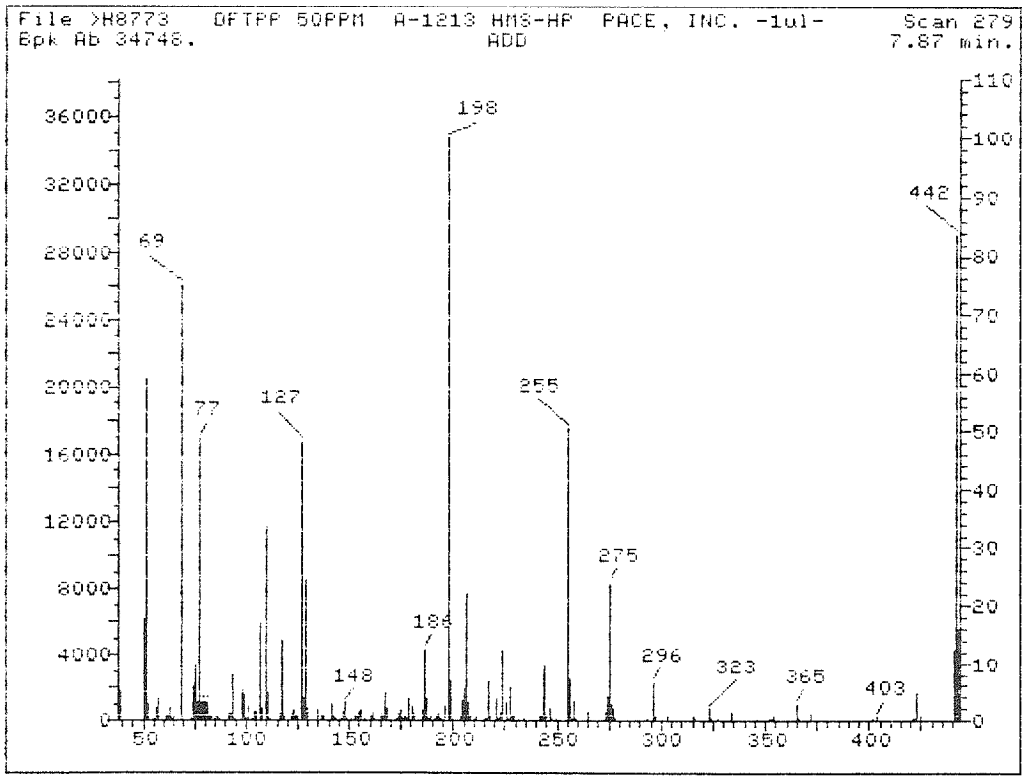
CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
ABNSTD050	ABNSTD050	H8775	08/11/95	07:35
BA2398	90176-065	H8782	08/11/95	13:32
LSA2398	90176-065MS	H8783	08/11/95	16:03
CLJ44-CU-016	44914-003	H8785	08/11/95	17:13
CLJ44-CU-017	44914-007	H8786	08/11/95	17:48
CLJ44-CU-018-RB	44914-012	H8787	08/11/95	18:22

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	58.80	58.80	Ok
68	Less than 2% of mass 69	.09	.12	Ok
69	(reference only)	74.82	74.82	Ok
70	Less than 2% of mass 69	.16	.21	Ok
127	40-60% of mass 198	48.24	48.24	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.78	6.78	Ok
275	10-30% of mass 198	23.83	23.83	Ok
365	Greater than 1% of mass 198	2.89	2.89	Ok
441	0-100% of mass 443	12.39	77.22	Ok
442	Greater than 40% of mass 198	83.55	83.55	Ok
443	17-23% of mass 442	16.04	19.20	Ok

Injection Date: 08/11/95
Injection Time: 07:17
Data File: >H8773
Scan: 279



5B

SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN1A

Lab File ID: >H8859 DFTPP Injection Date: 08/18/95

Instrument ID: HMS DFTPP Injection Time: 07:50

ION ABUNDANCE CRITERIA for H8859 are reported on a separate sheet.

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS

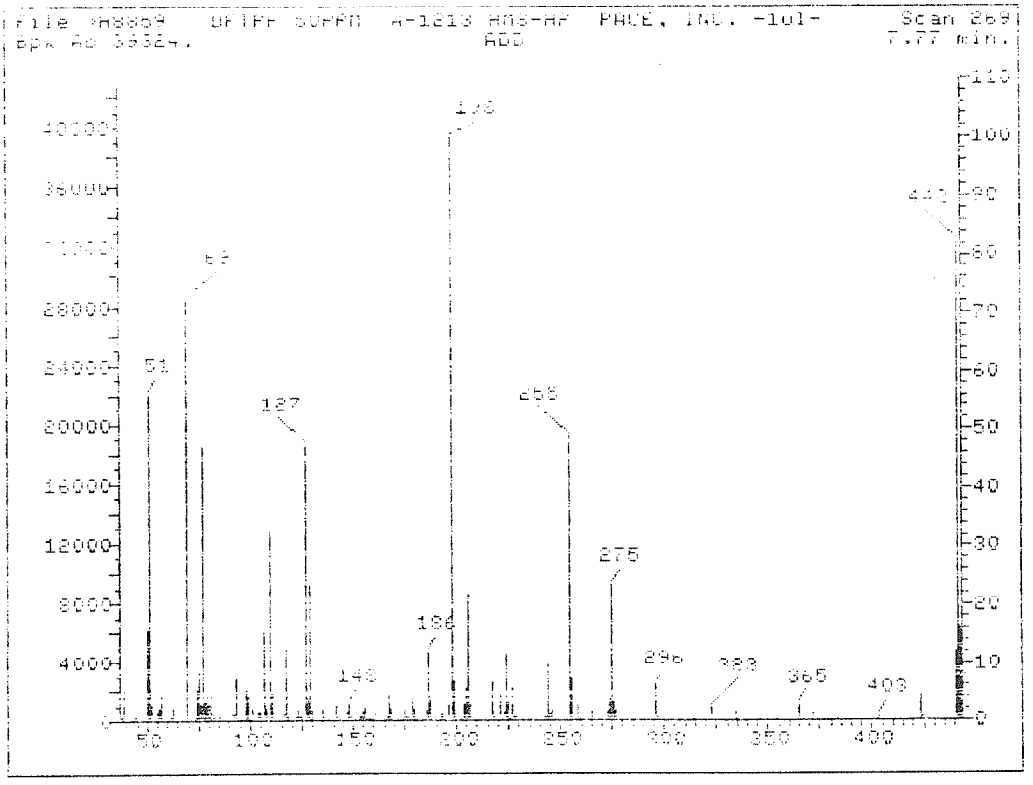
CLIENT I.D.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	DATE ANALYZED
ABNSTD050	ABNSTD050	H8861	08/18/95	08:08
90001-274	90001-274	H8864	08/18/95	09:55

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	56.11	56.11	Ok
68	Less than 2% of mass 69	.12	.16	Ok
69	(reference only)	72.10	72.10	Ok
70	Less than 2% of mass 69	.56	.78	Ok
127	40-60% of mass 198	47.07	47.07	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.86	6.86	Ok
275	10-30% of mass 198	23.28	23.28	Ok
365	Greater than 1% of mass 198	2.49	2.49	Ok
441	0-100% of mass 443	12.06	75.69	Ok
442	Greater than 40% of mass 198	82.14	82.14	Ok
443	17-23% of mass 442	15.94	19.40	Ok

Injection Date: 08/18/95
Injection Time: 07:50
Data File: >H8859
Scan: 269



Initial Calibration Data
HSL Compounds

Case No: Instrument ID: HMS-HP

Contractor: PACE, INC. Calibration Date: 08/10/95

Contract No:

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:	>H8758	>H8757	>H8756	>H8755	>H8754					
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
C310 N-NITROSODIMETHYLAMINE	.78952	.82818	.81636	.82583	.84814	.501	.82161	2.598		
C550 2-FLUOROPHENOL	1.32477	1.36126	1.34128	1.36827	1.36689	.749	1.35249	1.397		
C565 PHENOL-d5	1.61943	1.66316	1.62659	1.65894	1.63747	.934	1.64112	1.179		
C570 2-CHLOROPHENOL-d4	1.42596	1.42674	1.40202	1.39882	1.39802	.962	1.41031	1.044		
C575 1,2-DICHLOROBENZENE-d4	.92085	.89987	.86056	.84000	.81430	1.041	.86712	5.003		
C315 PHENOL	1.72486	1.71988	1.69397	1.71078	1.72246	.937	1.71439	.735	*	
C320 ANILINE	1.42590	1.45993	1.40253	1.35110	1.22789	.939	1.37347	6.589		
C325 BIS(2-CHLOROETHYL)ETHER	1.45777	1.44561	1.46596	1.60539	1.72295	.951	1.53954	7.882		
C330 2-CHLOROPHENOL	1.43133	1.43881	1.38791	1.39536	1.37139	.965	1.40536	2.039		
C335 1,3-DICHLOROBENZENE	1.58642	1.58049	1.52211	1.50250	1.46970	.993	1.53224	3.290		
C340 1,4-DICHLOROBENZENE	1.56843	1.54708	1.47243	1.46028	1.43978	1.003	1.49760	3.782	*	
C345 BENZYL ALCOHOL	.82435	.85139	.84324	.85173	.83499	1.034	.84114	1.383		
C350 1,2-DICHLOROBENZENE	1.48992	1.45968	1.36066	1.34383	1.32861	1.044	1.39658	5.234		
C355 2-METHYLPHENOL	1.14143	1.17212	1.14948	1.14758	1.13040	1.058	1.14820	1.333		
C360 BIS(2-CHLOROISOPROPYL)ETH	1.87015	1.85922	1.81233	1.79993	1.79160	1.064	1.82665	1.955		
C365 4-METHYLPHENOL	1.23357	1.25934	1.23262	1.27525	1.28665	1.091	1.25749	1.952		
C370 N-NITROSO-DI-N-PROPYLAMIN	1.02963	1.06867	1.07902	1.07674	1.11469	1.099	1.07375	2.827		**
C375 HEXACHLOROETHANE	.80925	.80701	.77767	.77882	.77281	1.110	.78911	2.220		
C410 NITROBENZENE	.49768	.50072	.47503	.48714	.48522	.883	.48916	2.109		
C415 ISOPHORONE	.93000	.92974	.89797	.92836	.91686	.925	.92099	1.483		
C520 NITROBENZENE-d5	.49564	.50297	.47815	.49228	.48915	.880	.49164	1.856		
C420 2-NITROPHENOL	.23296	.24014	.22955	.23439	.22715	.937	.23284	2.135	*	
C425 2,4-DIMETHYLPHENOL	.50348	.49324	.46723	.47252	.47559	.944	.48241	3.170		
C430 BENZOIC ACID	.19665	.21361	.20249	.20441	.19728	.972	.20289	3.376		
C435 BIS(2-CHLOROETHOXY)METHAN	.55458	.55438	.53110	.54427	.53725	.959	.54432	1.907		
C440 2,4-DICHLOROPHENOL	.35021	.34949	.32233	.31795	.31485	.978	.33097	5.271	*	
C445 1,2,4-TRICHLOROBENZENE	.38829	.37597	.35636	.34524	.33843	.992	.36086	5.794		
C450 NAPHTHALENE	1.12174	1.08572	1.04297	1.04193	.97750	1.004	1.05397	5.135		
C455 4-CHLOROANILINE	.42985	.42790	.41831	.42117	.41800	1.014	.42305	1.301		
C460 HEXACHLOROBUTADIENE	.29169	.27260	.24401	.22773	.22265	1.034	.25174	11.774	*	

RF - Response Factor (Subscript is amount in ug/ml)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: HMS-HP

Contractor: PACE, INC. Calibration Date: 08/10/95

Contract No:

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

	Laboratory ID:	>H8758	>H8757	>H8756	>H8755	>H8754					
	Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
C465	4-CHLORO-3-METHYLPHENOL	.44723	.43717	.41067	.40798	.40801	1.098	.42221	4.410	*	
C470	2-METHYLNAPHTHALENE	.68119	.65400	.62447	.60669	.60565	1.124	.63440	5.148		
C555	2,4,6-TRIBROMOPHENOL	.38696	.37960	.38125	.37089	.37175	1.108	.37809	1.789		
C525	2-FLUOROBIPHENYL	1.48494	1.39867	1.28884	1.23542	1.24291	.908	1.33016	8.144		
C510	HEXACHLOROCYCLOPENTADIENE	.29497	.36752	.37756	.37516	.38834	.887	.36071	10.396		**
C515	2,4,6-TRICHLOROPHENOL	.50295	.48534	.45878	.44355	.43589	.898	.46530	6.078	*	
C520	2,4,5-TRICHLOROPHENOL	.56154	.53700	.50666	.48948	.46875	.904	.51269	7.221		
C525	2-CHLORONAPHTHALENE	1.31139	1.24220	1.16172	1.14035	1.11852	.923	1.19484	6.711		
C530	2-NITROANILINE	.64039	.63980	.62574	.63665	.64582	.939	.63768	1.168		
C535	DIMETHYLPHTHALATE	1.82843	1.73487	1.66252	1.62587	1.64392	.967	1.69912	4.902		
C540	ACENAPHTHYLENE	2.07039	1.99434	1.89359	1.82694	1.80238	.980	1.91753	5.906		
C545	3-NITROANILINE	.42056	.42761	.41908	.42707	.42177	.996	.42322	.918		
C550	ACENAPHTHENE	1.35710	1.26713	1.21880	1.16570	1.18532	1.005	1.23881	6.174	*	
C555	2,4-DINITROPHENOL	.16937	.24387	.26177	.26854	.27012	1.009	.24273	17.432		**
C560	4-NITROPHENOL	.40781	.42096	.41688	.42541	.46914	1.019	.42804	5.578		**
C565	DIBENZOFURAN	1.92874	1.78039	1.72186	1.69630	1.70718	1.027	1.76689	5.440		
C543	2,6-DINITROTOLUENE	.41225	.41794	.40162	.37485	.37178	.977	.39569	5.376		
C570	2,4-DINITROTOLUENE	.59168	.59648	.58725	.60268	.60768	1.030	.59715	1.375		
C580	DIETHYLPHTHALATE	2.14272	1.99271	1.90195	1.87447	1.92349	1.064	1.96707	5.465		
C585	4-CHLOROPHENYL-PHENYLETHE	.75441	.65511	.58978	.54436	.51046	1.072	.61082	15.854		
C590	FLUORENE	1.45597	1.30402	1.23312	1.17754	1.21006	1.074	1.27614	8.678		
C595	4-NITROANILINE	.40420	.42887	.45624	.45744	.46971	1.083	.44329	5.971		
C610	4,6-DINITRO-2-METHYLPHENO	.17702	.20566	.20266	.19392	.16608	.907	.18907	8.996		
C615	N-NITROSODIPHENYLAMINE	.59931	.56304	.53702	.51285	.49584	.908	.54161	7.575	*	
C620	AZOBENZENE	.23072	.21988	.20782	.19360	.16492	.912	.20339	12.569		
C625	4-BROMOPHENYL-PHENYLETHER	.27717	.25936	.24407	.23601	.22363	.948	.24805	8.392		
C630	HEXACHLOROBENZENE	.42468	.39634	.37265	.34970	.34505	.966	.37768	8.812		
C635	PENTACHLOROPHENOL	.26208	.26869	.26349	.26188	.25808	.986	.26284	1.458	*	
C640	PHENANTHRENE	1.26437	1.17967	1.11818	1.07759	1.06656	1.003	1.14127	7.172		
C645	ANTHRACENE	1.26256	1.18069	1.11580	1.05482	1.03232	1.008	1.12924	8.347		

RF - Response Factor (Subscript is amount in ug/ml)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: HMS-HP

Contractor: PACE, INC. Calibration Date: 08/10/95

Contract No:

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:	>H8758	>H8757	>H8756	>H8755	>H8754					
	RF	RF	RF	RF	RF					
Compound	20.00	50.00	80.00	120.00	160.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
C650 DI-N-BUTYLPHTHALATE	2.08964	1.95774	1.83242	1.55975	1.50596	1.069	1.78910	14.068		
C655 FLUORANTHENE	1.42196	1.31925	1.24199	1.14425	1.16702	1.138	1.25890	9.066	*	
C660 BENZIDINE	.12899	.14550	.15186	.15872	.13931	1.150	.14487	7.901		
C530 TERPHENYL-d14	.93665	.86989	.88597	.90250	.95891	.907	.91078	4.012		
C715 PYRENE	1.29814	1.25145	1.26392	1.34911	1.47191	.894	1.32691	6.742		
C720 BUTYLBENZYLPHTHALATE	.94955	.89635	.92238	.97282	1.05611	.951	.95944	6.378		
C725 3,3'-DICHLOROBENZIDINE	.53313	.52963	.50222	.50296	.48635	.997	.51086	3.897		
C730 BENZO(A)ANTHRACENE	1.26293	1.22516	1.17202	1.17766	1.24897	.999	1.21735	3.379		
C745 BIS(2-ETHYLHEXYL)PHTHALAT	1.17932	1.13910	1.06921	1.08969	1.20268	1.002	1.13600	5.006		
C740 CHRYSENE	1.15355	1.07701	1.06484	1.12623	1.21815	1.003	1.12796	5.496		
C760 DI-N-OCTYLPHTHALATE	2.92894	2.71411	2.58821	2.37744	2.28748	.910	2.57923	10.006	*	
C765 BENZO(B)FLUORANTHENE	1.64726	1.53698	1.97354	1.94591	1.95653	.956	1.81204	11.299		
C770 BENZO(K)FLUORANTHENE	1.42049	1.39546	.81647	.72613	.67327	.959	1.00636	36.794		
C775 BENZO(A)PYRENE	1.34734	1.32355	1.28587	1.27580	1.26465	.994	1.29944	2.674	*	
C780 INDENO(1,2,3-CD)PYRENE	1.75329	1.75579	1.77747	1.78777	1.73666	1.172	1.76219	1.156		
C785 DIBENZ(A,H)ANTHRACENE	-	1.42549	1.43882	1.45538	1.43663	1.176	1.43908	.857		
C790 BENZO(G,H,I)PERYLENE	1.41428	1.42961	1.47130	1.49151	1.45369	1.222	1.45208	2.139		

RF - Response Factor (Subscript is amount in ug/ml)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/11/95

Contractor: PACE, INC. Time: 07:35

Contract No: Laboratory ID: >HB775

Instrument ID: HMS-HP Initial Calibration Date: 08/10/95

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
C310 N-NITROSODIMETHYLAMINE	.82161	.81497	.81		
CS50 2-FLUOROPHENOL	1.35249	1.36535	.95		
CS45 PHENOL-d5	1.64112	1.63322	.48		
CS70 2-CHLOROPHENOL-d4	1.41031	1.42553	1.08		
CS75 1,2-DICHLOROBENZENE-d4	.86712	.90804	4.72		
C315 PHENOL	1.71439	1.72287	.49	*	
C320 ANILINE	1.37347	1.48206	7.91		
C325 BIS(2-CHLOROETHYL)ETHER	1.53954	1.46650	4.74		
C330 2-CHLOROPHENOL	1.40536	1.42616	1.48		
C335 1,3-DICHLOROBENZENE	1.53224	1.57955	3.09		
C340 1,4-DICHLOROBENZENE	1.49760	1.55080	3.55	*	
C345 BENZYL ALCOHOL	.84114	.78585	6.57		
C350 1,2-DICHLOROBENZENE	1.39658	1.46121	4.63		
C355 2-METHYLPHENOL	1.14820	1.23458	7.52		
C360 BIS(2-CHLOROISOPROPYL)ETH	1.82665	1.87461	2.63		
C365 4-METHYLPHENOL	1.25749	1.27040	1.03		
C370 N-NITROSO-DI-N-PROPYLAMIN	1.07375	1.06483	.83		**
C375 HEXACHLOROETHANE	.78911	.83007	5.19		
C410 NITROBENZENE	.48916	.50400	3.03		
C415 ISOPHORONE	.92099	.92723	.68		
CS20 NITROBENZENE-d5	.49164	.50070	1.84		
C420 2-NITROPHENOL	.23284	.23915	2.71	*	
C425 2,4-DIMETHYLPHENOL	.48241	.50068	3.79		
C430 BENZOIC ACID	.20289	.20653	1.79		
C435 BIS(2-CHLOROETHOXY)METHAN	.54432	.54663	.42		
C440 2,4-DICHLOROPHENOL	.33097	.34642	4.67	*	
C445 1,2,4-TRICHLOROBENZENE	.36086	.38042	5.42		
C450 NAPHTHALENE	1.05397	1.10180	4.54		
C455 4-CHLOROANILINE	.42305	.44079	4.19		
C460 HEXACHLOROBUTADIENE	.25174	.28145	11.80	*	
C465 4-CHLORO-3-METHYLPHENOL	.42221	.43974	4.15	*	
C470 2-METHYLNAPHTHALENE	.63440	.66768	5.25		

RF - Response Factor from daily standard file at 50.00 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 03/11/95

Contractor: PACE, INC. Time: 07:35

Contract No: Laboratory ID: >H8775

Instrument ID: HMS-HP Initial Calibration Date: 08/10/95

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

	Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
CS55	2,4,6-TRIBROMOPHENOL	.37809	.37094	1.89		
CS25	2-FLUOROBIPHENYL	1.33016	1.36667	2.74		
C510	HEXACHLOROCYCLOPENTADIENE	.36071	.41440	14.88		**
C515	2,4,6-TRICHLOROPHENOL	.46530	.46271	.56	*	
C520	2,4,5-TRICHLOROPHENOL	.51269	.54447	6.20		
C525	2-CHLORONAPHTHALENE	1.19484	1.22624	2.63		
C530	2-NITROANILINE	.63768	.61927	2.89		
C535	DIMETHYLPHTHALATE	1.69912	1.71159	.73		
C540	ACENAPHTHYLENE	1.91753	1.94558	1.46		
C545	3-NITROANILINE	.42322	.42287	.08		
C550	ACENAPHTHENE	1.23881	1.25952	1.67	*	
C555	2,4-DINITROPHENOL	.24273	.23504	3.17		**
C560	4-NITROPHENOL	.42804	.41939	2.02		**
C565	DIBENZOFURAN	1.76689	1.83538	3.88		
C543	2,6-DINITROTOLUENE	.39569	.42135	6.49		
C570	2,4-DINITROTOLUENE	.59715	.60562	1.42		
C580	DIETHYLPHTHALATE	1.96707	2.02765	3.08		
C585	4-CHLOROPHENYL-PHENYLETHE	.61082	.68701	12.47		
C590	FLUORENE	1.27614	1.33923	4.94		
C595	4-NITROANILINE	.44329	.42807	3.43		
C610	4,6-DINITRO-2-METHYLPHENO	.18907	.21328	12.81		
C615	N-NITROSODIPHENYLAMINE	.54161	.60209	11.17	*	
C620	AZOBENZENE	.20339	.21988	8.11		
C625	4-BROMOPHENYL-PHENYLETHER	.24805	.26641	7.40		
C630	HEXACHLOROBENZENE	.37768	.40852	8.17		
C635	PENTACHLOROPHENOL	.26284	.27783	5.70	*	
C640	PHENANTHRENE	1.14127	1.20217	5.34		
C645	ANTHRACENE	1.12924	1.19294	5.64		
C650	DI-N-BUTYLPHTHALATE	1.78910	1.97739	10.52		
C655	FLUORANTHENE	1.25890	1.29401	2.79	*	
C660	BENZIDINE	.14487	.14054	3.00		
CS30	TERPHENYL-d14	.91078	.92989	2.10		

RF - Response Factor from daily standard file at 50.00 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/11/95

Contractor: PACE, INC. Time: 07:35

Contract No: Laboratory ID: >H8775

Instrument ID: HMS-HP Initial Calibration Date: 08/10/95

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
C715 PYRENE	1.32691	1.31035	1.25		
C720 BUTYLBENZYLPHTHALATE	.95944	.95404	.56		
C725 3,3'-DICHLOROBENZIDINE	.51086	.50557	1.03		
C730 BENZO(A)ANTHRACENE	1.21735	1.22549	.67		
C745 BIS(2-ETHYLHEXYL)PHTHALAT	1.13600	1.14132	.47		
C740 CHRYSENE	1.12796	1.11203	1.41		
C760 DI-N-OCTYLPHTHALATE	2.57923	2.88457	11.84	*	
C765 BENZO(B)FLUORANTHENE	1.81204	1.63434	9.81		
C770 BENZO(K)FLUORANTHENE	1.00636	1.35465	34.61		
C775 BENZO(A)PYRENE	1.29944	1.33635	2.84	*	
C780 INDENO(1,2,3-CD)PYRENE	1.76219	1.70011	3.52		
C785 DIBENZ(A,H)ANTHRACENE	1.43908	1.38010	4.10		
C790 BENZO(G,H,I)PERYLENE	1.45208	1.37452	5.34		

RF - Response Factor from daily standard file at 50.00 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/18/95

Contractor: PACE, INC. Time: 08:08

Contract No: Laboratory ID: >H8861

Instrument ID: HMS-HP Initial Calibration Date: 08/10/95

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
C310 N-NITROSODIMETHYLAMINE	.82161	.82755	.72		
C550 2-FLUOROPHENOL	1.35249	1.35630	.28		
C545 PHENOL-d5	1.64112	1.63988	.08		
C570 2-CHLOROPHENOL-d4	1.41031	1.39859	.83		
C575 1,2-DICHLOROBENZENE-d4	.60712	.87771	5.53		
C315 PHENOL	1.71497	1.71114	.19	*	
C320 ANILINE	1.37347	1.49170	8.61		
C325 BIS(2-CHLOROETHYL)ETHER	1.53954	1.44875	5.90		
C330 2-CHLOROPHENOL	1.40536	1.39492	.74		
C335 1,3-DICHLOROBENZENE	1.53224	1.56159	1.90		
C340 1,4-DICHLOROBENZENE	1.49760	1.55598	3.76	*	
C345 BENZYL ALCOHOL	.84114	.83087	1.22		
C350 1,2-DICHLOROBENZENE	1.39658	1.43833	2.99		
C355 2-METHYLPHENOL	1.14620	1.13716	.96		
C360 BIS(2-CHLOROISOPROPYL)ETH	1.82665	1.84775	1.16		
C365 4-METHYLPHENOL	1.25749	1.23577	1.73		
C370 N-NITROSO-DI-N-PROPYLAMIN	1.07375	.97082	9.03		**
C375 HEXACHLOROETHANE	.78911	.79104	.24		
C410 NITROBENZENE	.48916	.46912	.01		
C415 ISOPHORONE	.92099	.93304	1.31		
C520 NITROBENZENE-d5	.49164	.48273	1.81		
C420 2-NITROPHENOL	.23284	.22705	2.49	*	
C425 2,4-DIMETHYLPHENOL	.48241	.48463	.46		
C430 BENZOIC ACID	.20269	.19977	1.54		
C435 BIS(2-CHLOROETHOXY)METHAN	.54452	.55543	2.04		
C440 2,4-DICHLOROPHENOL	.33097	.33821	2.19	*	
C445 1,2,4-TRICHLOROBENZENE	.36086	.37998	5.30		
C450 NAPHTHALENE	1.05397	1.08676	3.11		
C455 4-CHLOROANILINE	.42305	.42874	1.35		
C460 HEXACHLOROBUTADIENE	.25174	.26684	6.00	*	
C465 4-CHLORO-3-METHYLPHENOL	.42221	.42918	1.65	*	
C470 2-METHYLNAPHTHALENE	.63440	.65311	2.95		

$\overline{RF}$ - Response Factor from daily standard file at 50.00 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: ____________________ Calibration Date: 08/18/95

Contractor: FACE, INC. Time: 08:08

Contract No: ____________________ Laboratory ID: >H8061

Instrument ID: HMS-HP Initial Calibration Date: 08/10/95

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
C555 2,4,6-TRIBROMOPHENOL	.37809	.37103	1.87		
C525 2 FLUOROBIPHENYL	1.33016	1.37382	3.28		
C510 HEXACHLOROCYCLOPENTADIENE	.36071	.36169	.27		**
C515 2,4,6-TRICHLOROPHENOL	.46530	.47554	2.20	*	
C520 2,4,5-TRICHLOROPHENOL	.51269	.50834	.85		
C525 2-CHLORONAPHTHALENE	1.17404	1.23450	5.32		
C530 2 NITROANILINE	.63780	.58755	7.88		
C535 DIMETHYLPHTHALATE	1.69712	1.69293	.36		
C540 ACENAPHTHYLENE	1.91759	1.97187	2.89		
C545 3-NITROANILINE	.42322	.41517	1.88		
C550 ACENAPHTHENE	1.15861	1.27610	.91	*	
C555 2,4 DINITROPHENOL	.24273	.17908	26.22		**
C560 4-NITROPHENOL	.42804	.37472	12.46		**
C565 DIBENZOFURAN	1.76887	1.80880	2.36		
C543 2,6-DINITROTOLUENE	.39569	.39810	.61		
C570 2,4-DINITROTOLUENE	.59715	.56480	5.40		
C580 DIETHYLPHTHALATE	1.96707	2.00582	2.02		
C585 4-CHLOROPHENYL-PHENYLETHE	.61002	.68444	12.05		
C590 FLUORENE	1.27614	1.30657	2.38		
C595 4 NITROANILINE	.44329	.40610	8.39		
C610 4,6-DINITRO-2-METHYLPHENO	.18907	.17810	5.77		
C615 N-NITROSODIPHENYLAMINE	.54182	.57419	6.01	*	
C620 AZOBENZENE	.20339	.21500	5.71		
C625 4 BROMOPHENYL PHENYLETHER	.24805	.26686	7.58		
C630 HEXACHLOROBENZENE	.37708	.35772	5.83		
C635 PENTACHLOROPHENOL	.26284	.25034	4.76	*	
C640 PHENANTHRENE	1.14127	1.18155	3.53		
C645 ANTHRACENE	1.12924	1.16970	3.58		
C650 DI-N BUTYLPHTHALATE	1.78710	1.91512	7.04		
C655 FLUORANTHENE	1.25890	1.28026	1.70	*	
C660 BENZIDINE	.14407	.05659	60.94		
C530 TERPHENYL-d14	.91078	.89814	1.39		

RF - Response Factor from daily standard file at 50.00 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 08/18/95

Contractor: PACE, INC. Time: 08:08

Contract No: Laboratory ID: >H86o1

Instrument ID: HMS-HF Initial Calibration Date: 08/10/95

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
C715 PYRENE	1.32691	1.28055	3.49		
C720 BUTYLBENZYLPHTHALATE	.95944	.92144	3.96		
C725 3.3'-DICHLOROBENZIDINE	.51086	.51179	.18		
C730 BENZO(A)ANTHRACENE	1.21735	1.19709	1.66		
C745 BIS(2-ETHYLHEXYL)PHTHALAT	1.13600	1.06365	6.35		
C740 CHRYSENE	1.12796	1.00363	11.02		
C760 DI-N-OCTYLPHTHALATE	2.57923	2.77523	7.60	*	
C765 BENZO(B)FLUORANTHENE	1.81204	1.67113	7.78		
C770 BENZO(K)FLUORANTHENE	1.00636	1.28813	28.00		
C775 BENZO(A)PYRENE	1.27944	1.34092	3.19	*	
C780 INDENO(1,2,3-CD)PYRENE	1.76219	1.81850	3.19		
C785 DIBENZ(A,H)ANTHRACENE	1.43508	1.45552	1.14		
C790 BENZO(G,H,I)PERYLENE	1.45206	1.47766	1.76		

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN1A

Lab File ID (Standard): >H8775 Date Analyzed: 08/11/95

Instrument ID: HMS Time Analyzed: 07:35

	IS1(DCB)		IS2(NPT)		IS3(ANT)		IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	34032	7.20	117385	9.20	64043	12.07	104190	14.48	104059	18.86	86420	21.99
UPPER LIMIT	68064	7.70	234770	9.70	128086	12.57	208380	14.98	208118	19.36	172840	22.49
LOWER LIMIT	17016	6.70	58693	8.70	32022	11.57	52095	13.98	52030	18.36	43210	21.49
CLIENT I.D.												
BA2398	29996	7.19	99045	9.19	52907	12.07	86176	14.47	90731	18.84	72497	21.96
LSA2398	29825	7.20	101083	9.19	53836	12.07	87055	14.48	89888	18.83	72312	21.96
CLJ44-CU-016	31564	7.20	103884	9.19	55106	12.07	88817	14.48	92488	18.83	73458	21.96
CLJ44-CU-017	29740	7.20	100670	9.19	53305	12.07	85556	14.48	88650	18.83	70848	21.95
CLJ44-CU-018-RB	29610	7.20	98882	9.19	52034	12.07	83333	14.47	89364	18.83	70568	21.95

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PACE New England Contract:

Lab Code: RESAN Case No.: OHMRC SAS No.: SDG No.: LJN1A

Lab File ID (Standard): >H8861 Date Analyzed: 08/18/95

Instrument ID: HMS Time Analyzed: 08:08

	IS1(DCB)		IS2(NPT)		IS3(ANT)		IS4(PHN)		IS5(CRY)		IS6(PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	31793	7.09	106425	9.08	56782	11.95	95049	14.35	96805	18.72	84113	21.72
UPPER LIMIT	63586	7.59	212850	9.58	113564	12.45	190098	14.85	193610	19.22	168226	22.22
LOWER LIMIT	15897	6.59	53213	8.58	28391	11.45	47525	13.85	48403	18.22	42057	21.22
CLIENT I.D.												
90001-274	29681	7.08	102250	9.08	54466	11.94	88112	14.34	98364	18.69	84873	21.71

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values outside of UPPER and LOWER LIMIT with an asterisk

pace INCORPORATED THE ASSURANCE OF QUALITY

PACE New England

GCMS Semi Volatiles
RUN LOG

0000071

Voltage 1750 Tune Meth MSHDFT Initial Cal 8/10/95 Date 8/10/95
Threshold 20 Sample Meth MSHTST Batch File HAU10A, B, C Analyst NS
OASOP 5200 Volume Inj 1ul Int Std A-1441 Instr 1f MS-HP

Maintenance: Septum ✓ Liner ✓ Inlet Disk ✓ Column Clip ✓ Other

Btl #	File #	Sample	Matrix	ID File	Dil	SDG	Comments	MI	A	R	Arcv	P
✓	7H0752	~~7H0752~~ 63R DFTPP50	A-1213				m/e 198 = 20K inj0839 scan 277		✓	✓	A2/533	
✓	54	~~ABNSTD60~~ 54	A-1442	1HAU10			initial cal compliant 8870	NA	✓	✓		
✓	55	ABNSTD120	A-1443	↓			↓	↓	✓	✓		
✓	56	ABNSTD080	A-1444						✓	✓		
✓	57	ABNSTD050	A-1445						✓	✓		
✓	58	ABNSTD020	A-1446	↓			↓	✓	✓	✓		
	59	44686-23	ABNL	1H0810	1/1	MYPE	3325		✓	✓		
	60	-24	↓	↓	1/1	↓	3326		✓	✓		
	61	-25			1/2		3327 RE 1/4					
	62	-26			1/4		3328		✓	✓		
	63	-23R			1/1		3325		✓	✓		
	64	-24R			1/1		3326		✓	✓		
	65	-25R			1/2		3327 RE 1/4					
	66	-26R			1/4		3328		✓	✓		
	67	-25			1/4		3327		✓	✓		
	68	-25R			1/4		3327		✓	✓		
	69	BA2389			1/1				✓	✓		
	70	LSA2389			↓				✓	✓		
	71	BA2286							✓	✓		
	72	LSA2286		↓	↓	↓			✓	✓	↓	
							8/11/95 K					

PACE New England | **GCMS Semi Volatiles RUN LOG** | 0000072

Voltage 1750 | Tune Meth MSHDFT | Initial Cal 8/10/95 | Date 8/11/95
Threshold 20 | Sample Meth MSHIST | Batch File HAU11A | Analyst MT
OASOP 5200 | Volume Inj 1 ul | Int Std A-1441 | Instr H MS-HP

Maintenance: Septum _____ Liner _____ Inlet Disk _____ Column Clip _____ Other none

Btl #	File #	Sample	Matrix	ID File	Dil	SDG	Comments	MI	A	R	Arcv	P
5	7HB773	DFTPP 50	A-1213				m/e 198 = 22 K inj 0717 Scan - 278+279+280		✓	✓	A2/S33	
5	75	ABN STD 50	A-1445	1HAU10			compliant 8270	✓	✓	✓		
6	76	44897-25	ABNL	1HTCLP	1/1				✓	✓		
7	77	44898-8							✓	✓		
8	78	-9							✓	✓		
9	79	BA2290		1HOE11					✓	✓		
10	80	LSA2290							✓	✓		
11	81	44898-11		1HTCLP					✓	✓		
12	82	BA2398		1HOE11					✓	✓		
13	83	LSA2398							✓	✓		
14	84	44913-9		1HTCLP					✓	✓		
15	85	44914-3							✓	✓		
16	86	-7							✓	✓		
17	87	-12							✓	✓		
18	88	44853-1			1/5				✓	✓		
19	89	-2			1/10			✓	✓	✓		
20	90	G-161 pre		1HAU10 1HSCAN 1HPOST			pre/run after H8782		✓	✓		
21	91	G-161 post		1HPOST			post) BR's low		N	✓		

8/14/95

PACE New England

GCMS Semi Volatiles
RUN LOG

0000077

Voltage 1750 | Tune Meth MSHDFT | Initial Cal 8/10/95 | Date 8/18/95
Threshold 20 | Sample Meth MSHTST | Batch File H0818A | Analyst LEH
OASOP 5200 | Volume Inj 1µl | Int Std A-1453 | Instr H MS-HP

Maintenance: Septum ✓ | Liner ✓ | Inlet Disk ✓ | Column Clip ~15cm | Other cleaned syringe

Btl #	File #	Sample	Matrix	ID File	Dil	SDG	Comments	MI	A	R	Arcv	P
1	>8859	DFTPP 50ppm	A-1213	—	1/1	—	m/z 198 25K SCANS 268+269+270 INJ 7:50		✓	✓	8/23/95	
2	61	ABNSTD050	A-1445	IHAUIQ	1/1	—	COMPLIANT 8270	3 LEH	✓	✓		
6	62	B-A2407	ABNL	IH0818	1/1	—			✓	✓		
7	63	LS A2407					ISG low		◯			
8	64	90001-274							✓	✓		
9	65	44993-1		IHTCLP			V 8/18		✓	✓		
10	66	B-A2410		IH0818					✓	✓		
11	67	LS-A2410							✓	✓		
12	68	B-A2408	ABNS						✓	✓		
13	69	LS-A2408							✓	✓		
14	70	B-A2405	ABNS						✓	✓		
15	71	LS-A2405					3 spike targets low					
16	72	44966-1	ABNS					✓NT	✓	✓		
17	73	44995-3						✓NT	✓	✓		
18	74	-4						✓NT	✓	✓		
19	75	44991-4	ABNL	IHTCLP			V 8/22 (RE8TCLP)		✓	✓		
20	76	-5							✓	✓		
21	77	44958-9	ABNL	IH0818					✓	✓		
22	78	44954-2							✓	✓		
23	79	B+J BK739	MeCl2						✓			
24	80	B+J BK381							✓			
25	81	B+J BK298	MeOH						✓			
26	82	B+J BK044							✓			
27	83	B+J BK556							✓			
28	84	44995-4 MSD	ABNL				inhomogeneous					
29	85	-4 MSD										

8/21/95

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

SOW No.: 3/90

EPA Sample No.	Lab Sample ID.
CU-016	44914-003
CU-017	44914-007
CU-018	44914-013

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Christopher J. Dodd Name: Christopher J. Dodd

Date: 8/29/95 Title: Metals Supervisor

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

CU-016

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Matrix (soil/water): WATER Lab Sample ID: 44914-003

Level (low/med): LOW Date Received: 08/08/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	2.8	U		P
7440-39-3	Barium	31.9	B		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	6.4			P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	3.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
Actual field ID CLJ44-CU-016 was reduced to CU-016 due to software limitations.

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EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

CU-017

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Matrix (soil/water): WATER Lab Sample ID: 44914-007

Level (low/med): LOW Date Received: 08/08/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	2.8	U		P
7440-39-3	Barium	31.9	B		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	10.3			P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	3.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
Actual field ID CLJ44-CU-017 was reduced to CU-017 due to software limitations.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

CU-018

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Matrix (soil/water): WATER Lab Sample ID: 44914-013

Level (low/med): LOW Date Received: 08/08/95

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	2.8	U		P
7440-39-3	Barium	2.7	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	3.7	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	2.4	B		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	3.7	U		P
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
Actual field ID CLJ44-CU-018-RB was reduced to CU-018 due to software limitations.

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG\MAL

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic	1000.0	1039.50	104.0	10000.0	9644.50	96.4	9404.02	94.0	P
Barium	1000.0	1002.64	100.3	40000.0	40398.08	101.0	39522.72	98.8	P
Beryllium									
Cadmium	500.0	500.98	100.2	1000.0	983.82	98.4	975.35	97.5	P
Calcium									
Chromium	1000.0	1043.97	104.4	4000.0	4074.37	101.9	3994.62	99.9	P
Cobalt									
Copper									
Iron									
Lead	1000.0	997.58	99.8	10000.0	9834.90	98.3	9654.69	96.5	P
Magnesium									
Manganese									
Mercury	4.0	4.14	103.5	5.0	4.76	95.2			CV
Nickel									
Potassium									
Selenium	1000.0	1041.29	104.1	10000.0	9931.38	99.3	9799.65	98.0	P
Silver	200.0	210.87	105.4	1000.0	1057.57	105.8	1040.44	104.0	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG\MAL

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic				10000.0	9473.95	94.7	9644.01	96.4	P
Barium				40000.0	39792.58	99.5	40217.63	100.5	P
Beryllium									
Cadmium				1000.0	983.19	98.3	983.12	98.3	P
Calcium									
Chromium				4000.0	4016.09	100.4	4035.82	100.9	P
Cobalt									
Copper									
Iron									
Lead				10000.0	9709.64	97.1	9747.01	97.5	P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				10000.0	9906.67	99.1	9955.23	99.6	P
Silver				1000.0	1045.80	104.6	1052.86	105.3	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG\MAL

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic				10000.0	9477.84	94.8	9516.09	95.2	P
Barium				40000.0	39680.06	99.2	40064.95	100.2	P
Beryllium									
Cadmium				1000.0	980.26	98.0	979.85	98.0	P
Calcium									
Chromium				4000.0	4002.35	100.1	4025.74	100.6	P
Cobalt									
Copper									
Iron									
Lead				10000.0	9656.65	96.6	9705.99	97.1	P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				10000.0	9872.79	98.7	9929.95	99.3	P
Silver				1000.0	1047.23	104.7	1049.96	105.0	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG\MAL

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic				10000.0	9656.05	96.6	9586.88	95.9	P
Barium				40000.0	40489.51	101.2	41027.48	102.6	P
Beryllium									
Cadmium				1000.0	982.84	98.3	985.22	98.5	P
Calcium									
Chromium				4000.0	4050.57	101.3	4105.04	102.6	P
Cobalt									
Copper									
Iron									
Lead				10000.0	9769.83	97.7	9862.86	98.6	P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				10000.0	9946.02	99.5	10061.04	100.6	P
Silver				1000.0	1055.69	105.6	1060.38	106.0	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG\MAL

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic				10000.0	9585.02	95.9	9369.98	93.7	P
Barium				40000.0	40706.41	101.8	39319.49	98.3	P
Beryllium									
Cadmium				1000.0	986.09	98.6	966.82	96.7	P
Calcium									
Chromium				4000.0	4116.65	102.9	3997.20	99.9	P
Cobalt									
Copper									
Iron									
Lead				10000.0	9853.09	98.5	9588.10	95.9	P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				10000.0	10086.31	100.9	9572.23	95.7	P
Silver				1000.0	1052.80	105.3	1040.41	104.0	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG\MAL

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic				10000.0	9525.81	95.3	9630.68	96.3	P
Barium				40000.0	39249.00	98.1	39769.10	99.4	P
Beryllium									
Cadmium				1000.0	977.27	97.7	985.77	98.6	P
Calcium									
Chromium				4000.0	4031.26	100.8	4056.65	101.4	P
Cobalt									
Copper									
Iron									
Lead				10000.0	9688.49	96.9	9713.99	97.1	P
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				10000.0	9665.00	96.6	9769.67	97.7	P
Silver				1000.0	1049.00	104.9	1059.59	106.0	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG\MAL

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic				10000.0	9820.48	98.2	9490.00	94.9	P
Barium				40000.0	40618.09	101.5	39159.04	97.9	P
Beryllium									
Cadmium				1000.0	1003.62	100.4	973.78	97.4	P
Calcium									
Chromium				4000.0	4128.70	103.2	3991.28	99.8	P
Cobalt									
Copper									
Iron									
Lead				10000.0	9919.49	99.2	9596.05	96.0	P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				10000.0	9970.26	99.7	9613.80	96.1	P
Silver				1000.0	1082.08	108.2	1048.41	104.8	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Initial Calibration Source: VHG\MALL\IV

Continuing Calibration Source: SOL+\VHG\MAL

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic				10000.0	9161.31	91.6	10141.98	101.4	P
Barium				40000.0	38872.54	97.2	44044.29	110.1	P
Beryllium									
Cadmium				1000.0	964.73	96.5	1030.24	103.0	P
Calcium									
Chromium				4000.0	3938.38	98.5	4296.81	107.4	P
Cobalt									
Copper									
Iron									
Lead				10000.0	9469.23	94.7	10219.96	102.2	P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				10000.0	9373.04	93.7	10506.60	105.1	P
Silver				1000.0	1033.47	103.3	1128.31	112.8	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Initial Calibration Source: IV

Continuing Calibration Source: IV

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic	750.0	755.05	100.7	1000.0	1014.12	101.4	1024.82	102.5	P
Barium	250.0	256.56	102.6	1000.0	998.09	99.8	981.62	98.2	P
Beryllium									
Cadmium	875.0	897.62	102.6	1000.0	972.43	97.2	977.83	97.8	P
Calcium									
Chromium	250.0	247.23	98.9	1000.0	967.71	96.8	968.19	96.8	P
Cobalt									
Copper									
Iron									
Lead	1250.0	1244.58	99.6	1000.0	976.73	97.7	980.33	98.0	P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	750.0	757.42	101.0	1000.0	1014.00	101.4	1017.27	101.7	P
Silver	500.0	510.08	102.0	1000.0	1035.85	103.6	1031.49	103.1	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Initial Calibration Source: IV

Continuing Calibration Source: IV

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic				1000.0	1027.69	102.8	1034.57	103.5	P
Barium				1000.0	989.48	98.9	997.08	99.7	P
Beryllium									
Cadmium				1000.0	972.33	97.2	984.07	98.4	P
Calcium									
Chromium				1000.0	965.13	96.5	970.89	97.1	P
Cobalt									
Copper									
Iron									
Lead				1000.0	976.32	97.6	992.03	99.2	P
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				1000.0	1025.33	102.5	1031.85	103.2	P
Silver				1000.0	1035.60	103.6	1032.50	103.2	P
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic	-3.0	B	9.9	B	23.8	B	25.1	B	-11.780	B	P
Barium	-7.0	B	2.7	U	3.9	B	14.7	B	2.700	U	P
Beryllium											
Cadmium	-1.6	B	1.5	U	1.5	U	1.5	U	1.500	U	P
Calcium											
Chromium	3.7	U	3.7	U	4.1	B	4.4	B	3.700	U	P
Cobalt											
Copper											
Iron											
Lead	-8.4		1.6	U	-6.7		6.0		14.030		P
Magnesium											
Manganese											
Mercury	0.1	B	0.1	U					0.100	U	CV
Nickel											
Potassium											
Selenium	6.6		-6.6		12.6		9.3		-6.300		P
Silver	1.9	U	1.9	U	2.5	B	3.7	B	4.740	B	P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

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3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			15.5	B	21.1	B	17.1	B	2.800	U	P
Barium			2.7	U	2.7	U	4.5	B	2.700	U	P
Beryllium											
Cadmium			1.5	U	1.5	U	1.5	U	1.500	U	P
Calcium											
Chromium			3.7	U	3.7	U	3.7	U	3.700	U	P
Cobalt											
Copper											
Iron											
Lead			3.6		1.6	U	1.6	U	1.640	B	P
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			10.6		18.6		11.3		3.700	U	P
Silver			3.3	B	2.8	B	2.8	B	1.900	U	P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

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BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			21.2	B	13.7	B	12.7	B			P
Barium			10.1	B	4.8	B	6.5	B			P
Beryllium											
Cadmium			1.5	U	1.5	U	1.5	U			P
Calcium											
Chromium			3.7	U	3.7	U	3.7	U			P
Cobalt											
Copper											
Iron											
Lead			2.4	B	1.6	U	1.6	U			P
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			9.3		3.7	U	8.6				P
Silver			1.9	U	1.9	U	1.9	U			P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			15.1	B	35.9	B	37.4	B			P
Barium			6.2	B	9.6	B	20.1	B			P
Beryllium											
Cadmium			1.5	U	1.5	U	1.5	U			P
Calcium											
Chromium			3.7	U	3.7	U	3.7	U			P
Cobalt											
Copper											
Iron											
Lead			1.6	U	-2.4	B	1.7	B			P
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			3.7	U	3.7	U	13.9				P
Silver			1.9	U	1.9	U	1.9	U			P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			27.2	B	12.0	B	2.8	U			P
Barium			23.7	B	21.9	B	21.5	B			P
Beryllium											
Cadmium			1.8	B	1.5	U	1.5	U			P
Calcium											
Chromium			3.7	U	3.8	B	3.7	U			P
Cobalt											
Copper											
Iron											
Lead			5.2		5.8		5.8				P
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			3.7	U	10.7		10.7				P
Silver			2.0	B	1.9	U	1.9	U			P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			16.8	B							P
Barium			8.8	B							P
Beryllium											
Cadmium			1.5	U							P
Calcium											
Chromium			3.7	U							P
Cobalt											
Copper											
Iron											
Lead			1.6	U							P
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			3.7	U							P
Silver			3.6	B							P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

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3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U			P
Barium	2.7	U	2.7	U	2.7	U	2.7	U			P
Beryllium											
Cadmium	1.5	U	1.5	U	1.5	U	1.5	U			P
Calcium											
Chromium	3.7	U	3.7	U	3.7	U	3.7	U			P
Cobalt											
Copper											
Iron											
Lead	1.6	B	1.6	U	2.0	B	1.9	B			P
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium	3.7	U	3.7	U	3.7	U	3.7	U			P
Silver	1.9	U	1.9	U	1.9	U	1.9	U			P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			2.8	U							P
Barium			2.7	U							P
Beryllium											
Cadmium			1.5	U							P
Calcium											
Chromium			3.7	U							P
Cobalt											
Copper											
Iron											
Lead			1.6	U							P
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			3.7	U							P
Silver			1.9	U							P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

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4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

ICP ID Number: TJA01 ICS Source: VHG\SOLNS+

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	503004	502390.3	100.5	494705	496815.1	99.4
Antimony								
Arsenic								
Barium		500	-10	471.5	94.3	-11	477.6	95.5
Beryllium								
Cadmium		1000	2	904.5	90.4	4	903.2	90.3
Calcium	500000	500000	492751	492221.5	98.4	493844	497825.6	99.6
Chromium		500	-2	456.7	91.3	-2	469.1	93.8
Cobalt								
Copper								
Iron	200000	200000	184276	184332.4	92.2	186188	188187.4	94.1
Lead		1000	2	905.1	90.5	-2	925.7	92.6
Magnesium	500000	500000	489833	489733.0	97.9	484537	486963.4	97.4
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver		1000	2	980.2	98.0	1	979.4	97.9
Sodium								
Thallium								
Vanadium								
Zinc								

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

ICP ID Number: TJA01 ICS Source: VHG\SOLNS+

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000				555628	546210.0	109.2
Antimony								
Arsenic								
Barium		500				-4	535.5	107.1
Beryllium								
Cadmium		1000				7	941.4	94.1
Calcium	500000	500000				526156	518839.5	103.8
Chromium		500				-4	487.2	97.4
Cobalt								
Copper								
Iron	200000	200000				200604	199624.8	99.8
Lead		1000				-61	907.4	90.7
Magnesium	500000	500000				538725	531466.9	106.3
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver		1000				-1	1050.5	105.0
Sodium								
Thallium								
Vanadium								
Zinc								

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4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

ICP ID Number: TJA01 ICS Source: HP\IV

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	481289	496030.6	99.2	508829	499911.9	100.0
Antimony								
Arsenic								
Barium		500	4	530.5	106.1	4	534.2	106.8
Beryllium								
Cadmium		1000	1	1011.7	101.2	1	1031.0	103.1
Calcium	500000	500000	471746	492115.1	98.4	507950	502787.6	100.6
Chromium		500	-1	499.5	99.9	-1	504.4	100.9
Cobalt								
Copper								
Iron	200000	200000	192546	197704.7	98.9	204563	199859.6	99.9
Lead		1000	0	1470.4	147.0	1	1500.9	150.1
Magnesium	500000	500000	491339	494791.2	99.0	524568	502625.2	100.5
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver		1000	-1	1091.0	109.1	0	1092.3	109.2
Sodium								
Thallium								
Vanadium								
Zinc								

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LABORATORY CONTROL SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Solid LCS Source: VHG\MALL

Aqueous LCS Source: SOL+\LL\MALL

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic	2000.0	1922.28	96.1						
Barium	2000.0	1949.15	97.5						
Beryllium									
Cadmium	50.0	53.72	107.4						
Calcium									
Chromium	200.0	202.25	101.1						
Cobalt									
Copper									
Iron									
Lead	500.0	460.39	92.1						
Magnesium									
Manganese									
Mercury	8.0	8.03	100.4						
Nickel									
Potassium									
Selenium	2000.0	1879.67	94.0						
Silver	50.0	52.42	104.8						
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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LABORATORY CONTROL SAMPLE

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: OHMRC SAS No.: SDG No.: MLJN1A

Solid LCS Source: VHG\MALL

Aqueous LCS Source: SOL+\LL\MALL

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic	2000.0	1918.18	95.9						
Barium	2000.0	1988.40	99.4						
Beryllium									
Cadmium	50.0	50.30	100.6						
Calcium									
Chromium	200.0	187.40	93.7						
Cobalt									
Copper									
Iron									
Lead	500.0	482.86	96.6						
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	2000.0	1851.16	92.6						
Silver	50.0	47.12	94.2						
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: SAS No.: SDG No.: MLJN1A

ICP ID Number: TJA01 Date: 07/25/95

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200.0	10.5	P
Antimony	206.84		60.0	10.5	P
Arsenic	193.70		10.0	17.8	P
Barium	493.41		200.0	2.7	P
Beryllium	313.04		5.0	0.3	P
Cadmium	228.80		5.0	1.5	P
Calcium	317.93		5000.0	10.7	P
Chromium	267.72		10.0	3.7	P
Cobalt	228.62		50.0	1.2	P
Copper	324.75		25.0	2.5	P
Iron	259.94		100.0	9.4	P
Lead	220.35		3.0	10.8	P
Magnesium	279.08		5000.0	15.5	P
Manganese	257.61		15.0	0.8	P
Mercury			0.2		
Nickel	231.60		40.0	6.1	P
Potassium	766.49		5000.0	365.9	P
Selenium	196.03		5.0	23.7	P
Silver	328.07		10.0	1.9	P
Sodium	589.00		5000.0	6.4	P
Thallium			10.0		
Vanadium	292.40		50.0	3.5	P
Zinc	213.86		20.0	3.2	P

Comments:

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10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: SAS No.: SDG No.: MLJN1A

ICP ID Number: TJA03 Date: 08/01/95

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200.0	14.5	P
Antimony	206.80		60.0	2.6	P
Arsenic	189.00		200.0	2.8	P
Barium	493.40		200.0	0.1	P
Beryllium			5.0		
Cadmium	226.50		5.0	0.2	P
Calcium	317.90		5000.0	9.3	P
Chromium	267.70		10.0	0.5	P
Cobalt	228.60		50.0	0.6	P
Copper	324.70		25.0	1.1	P
Iron	271.40		100.0	14.3	P
Lead	220.30		3.0	1.6	P
Magnesium	279.00		5000.0	11.0	P
Manganese			15.0		
Mercury			0.2		
Nickel	231.60		40.0	1.0	P
Potassium			5000.0		
Selenium	196.00		5.0	3.7	P
Silver	328.00		10.0	0.7	P
Sodium			5000.0		
Thallium	190.80		10.0	5.5	P
Vanadium	292.40		50.0	0.5	P
Zinc	213.80		20.0	1.4	P

Comments:

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10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: PACE INC., NE-NH Contract: LEJEUNE

Lab Code: Case No.: SAS No.: SDG No.: MLJN1A

ICP ID Number: Date: 05/23/95

Flame AA ID Number: PE02

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic			10.0		
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead			3.0		
Magnesium			5000.0		
Manganese			15.0		
Mercury	253.70		0.2	0.1	CV
Nickel			40.0		
Potassium			5000.0		
Selenium			5.0		
Silver			10.0		
Sodium			5000.0		
Thallium			10.0		
Vanadium			50.0		
Zinc			20.0		

Comments:
PE02 IS A MERCURY COLD VAPOR INSTRUMENT.
CALCULATED IDL IS 0.08ug/L

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44914-003
Field Identification : CLJ44-CU-016
Extraction Date : 08/09/95
TCLP Blank : 90,001-274

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 6.41. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.69, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17.00 hrs

Final pH : 5.27

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44914-007
Field Identification : CLJ44-CU-017
Extraction Date : 08/09/95
TCLP Blank : 90,001-274

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 8.14. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 2.47, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 17.00 hrs

Final pH : 5.41

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

pace INCORPORATED
THE ASSURANCE OF QUALITY

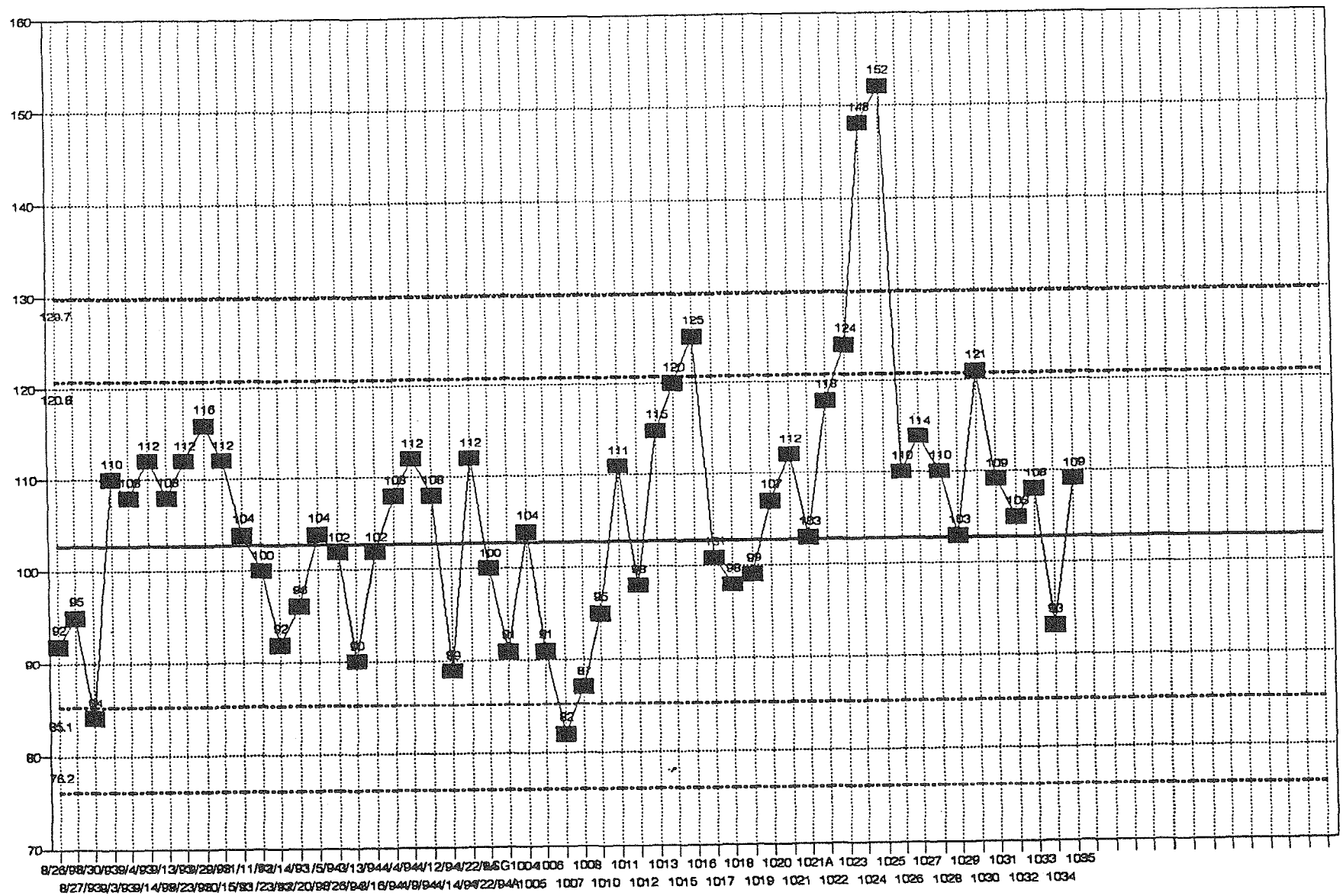
PACE New England, Inc.

Metals Results for TCLP Blank 274

ELEMENT	BLANK RESULT	
Arsenic	< 0.20	mg/L
Barium	< 0.10	mg/L
Cadmium	< 0.005	mg/L
Chromium	< 0.01	mg/L
Lead	< 0.05	mg/L
Mercury	< 0.0003	mg/L
Selenium	< 0.20	mg/L
Silver	< 0.02	mg/L

All results are methods 3010 and 6010, except mercury (method 7470).

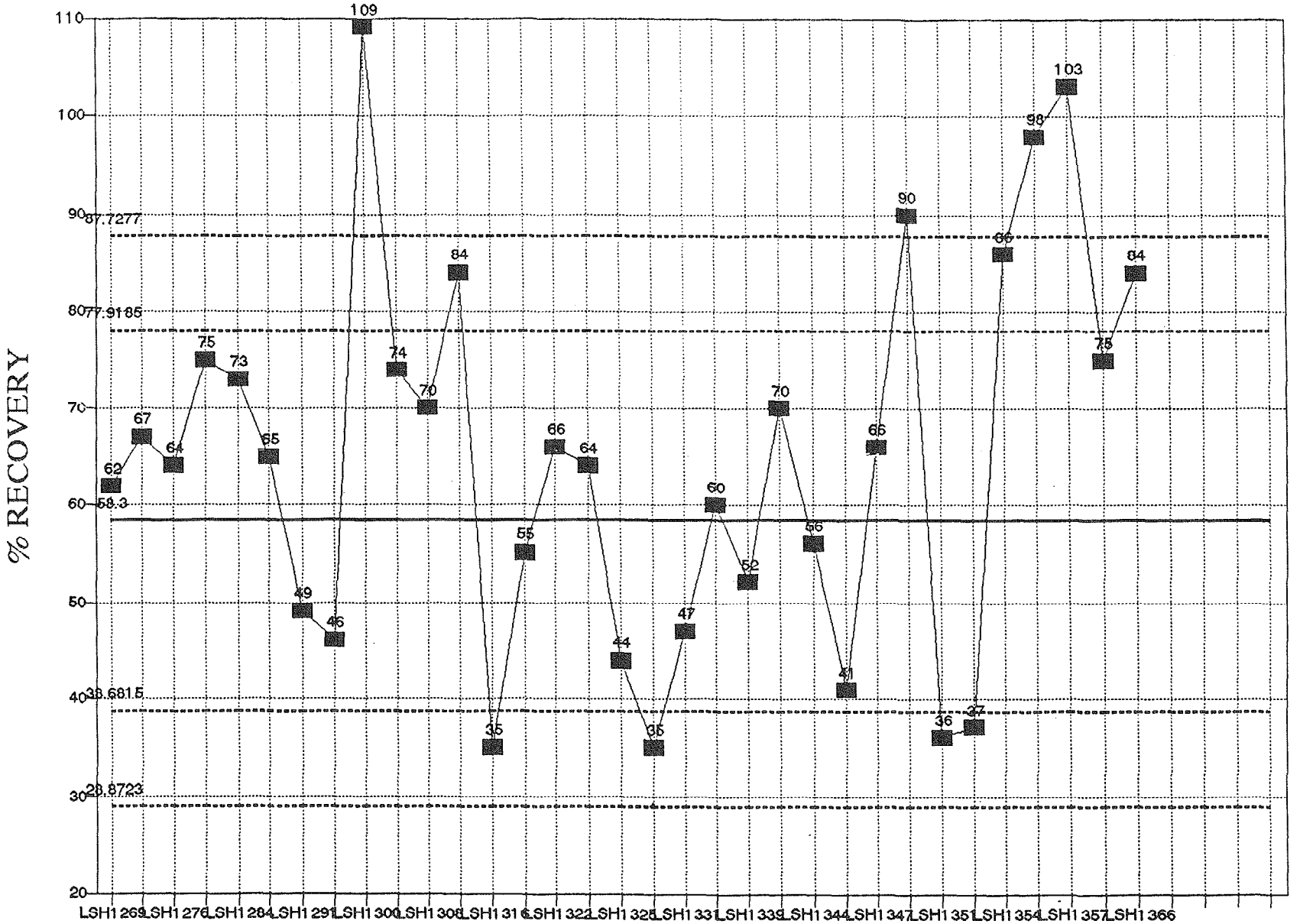
TOTAL GAS LCS RECOVERIES
LIMITS SET 4/13/94



STD DEV = 8.93 MEAN = 103

PHC LOW SOLIDS - DIESEL

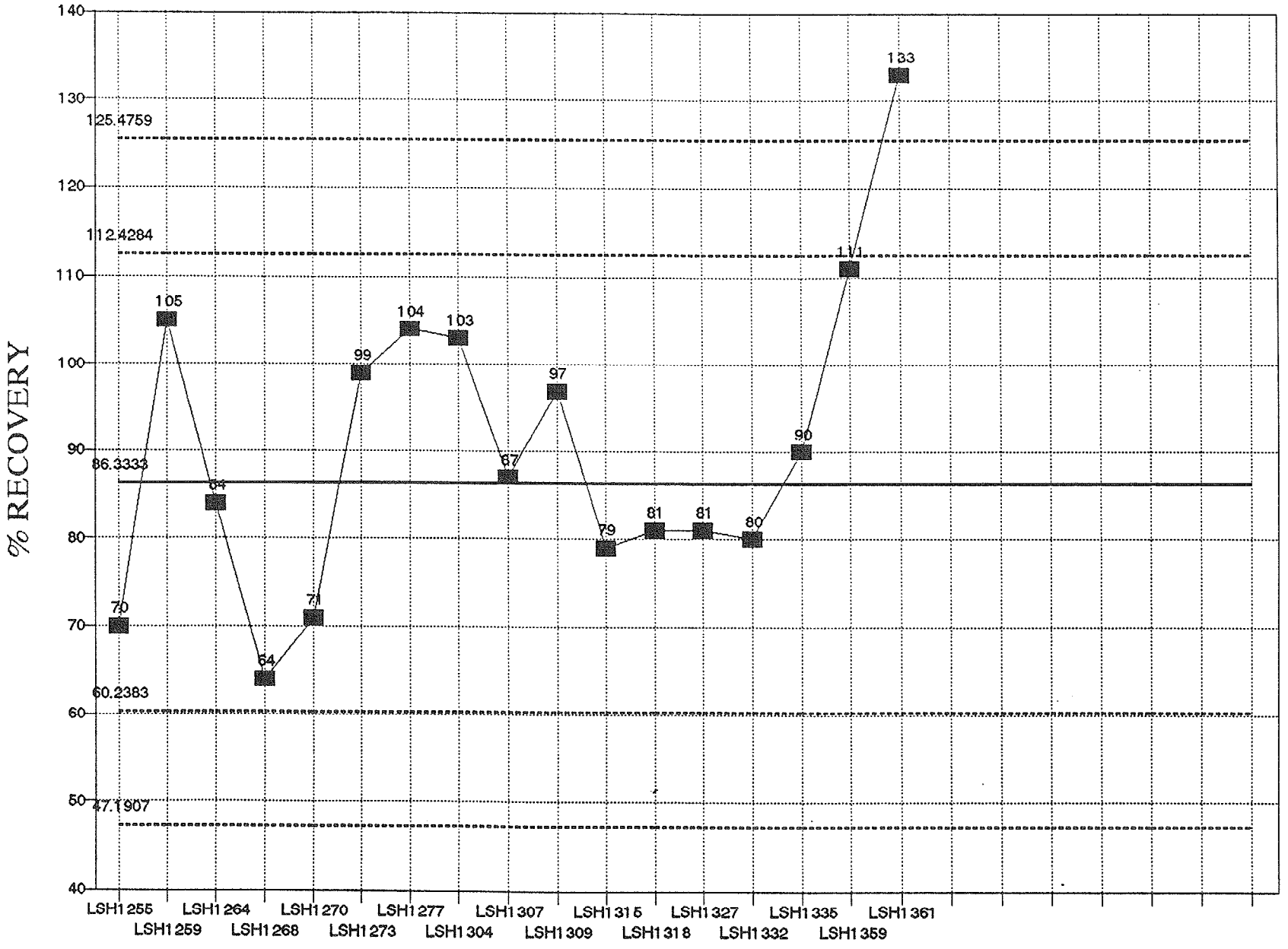
SPK REC LIMS SET6/6/95-PPCBCHT\PHCS1294



MEAN = 58.30 STD DEV =9.81

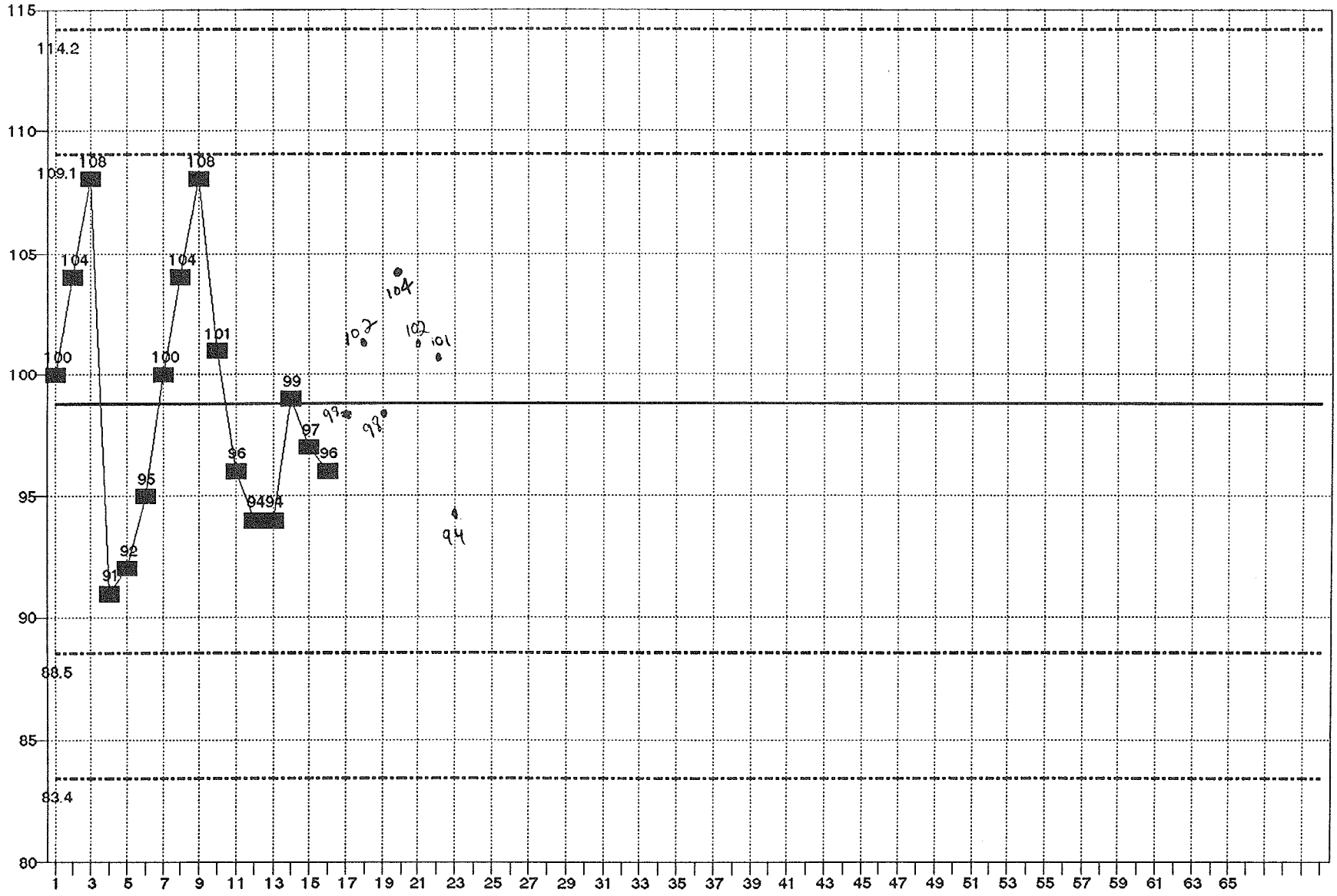
PHC WATERS BY SEPF - DIESEL

SPK REC LIMS SET0795-PPCBCHT\PHCWSF94



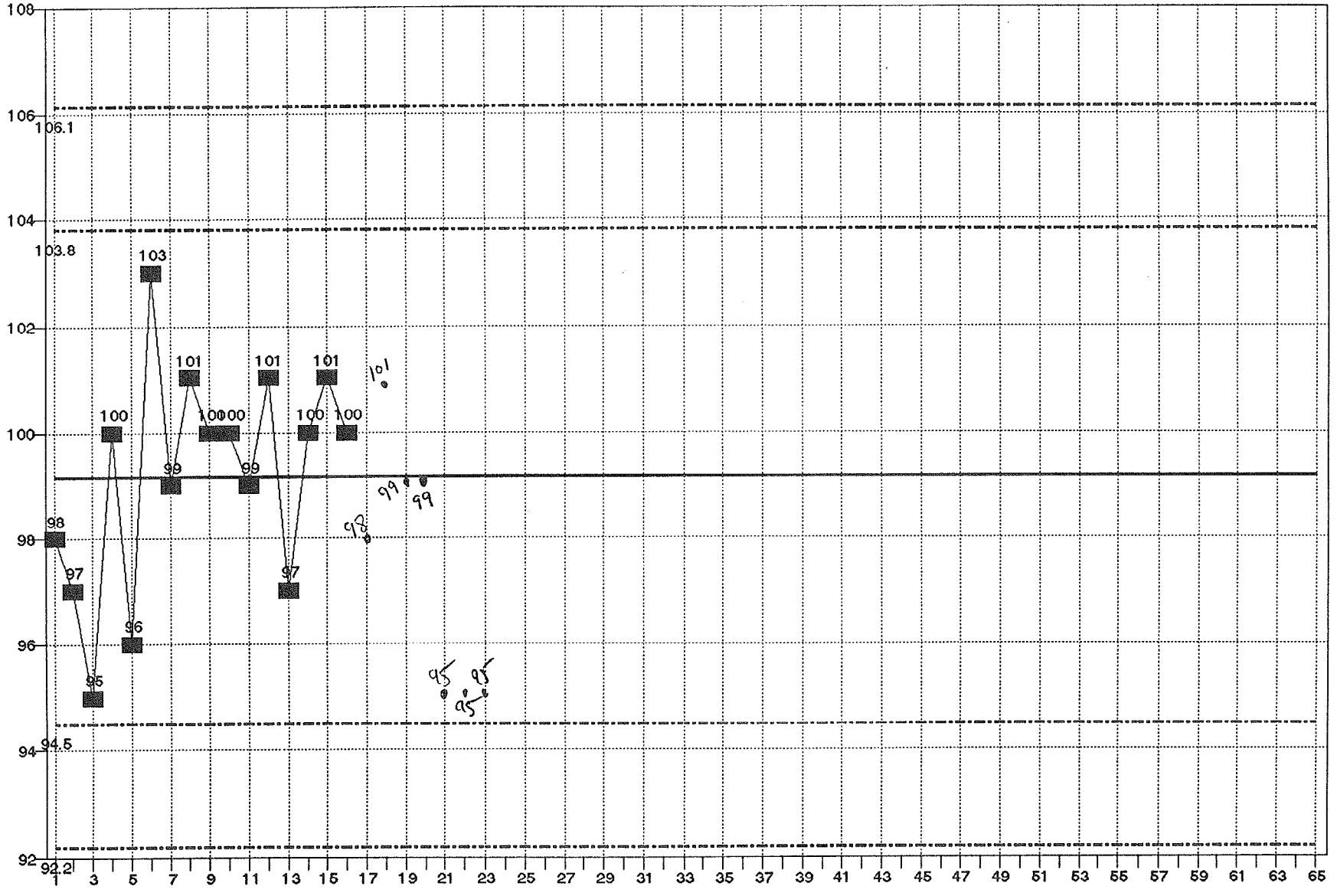
MEAN = 86.33 STD DEV = 13.05

VOA TCLP - SURR DCE
LIMIT SET 7/93



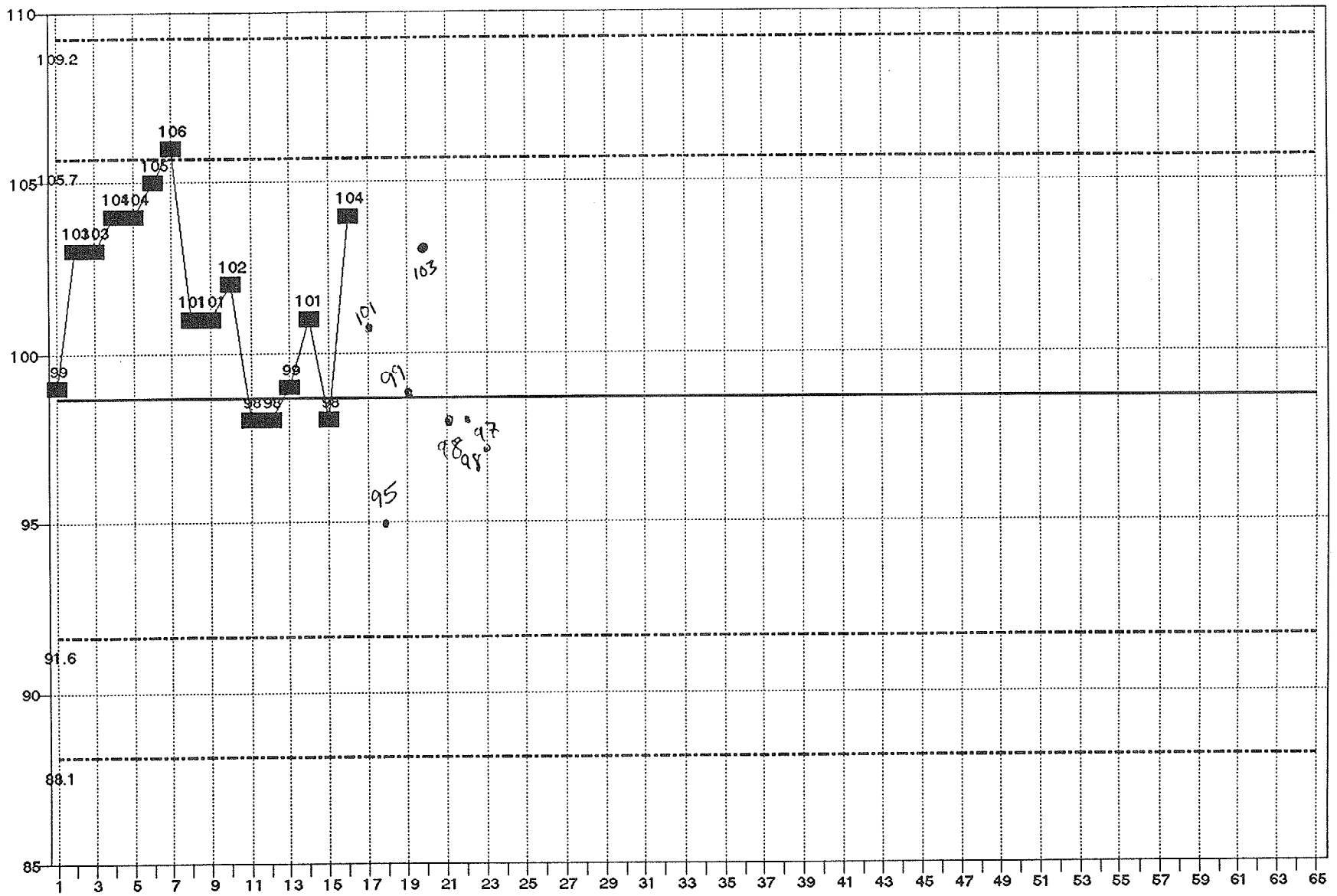
STD DEV = 5.13 MEAN = 98.8

VOA TCLP - SURR TOL
LIMIT SET 7/93



STD DEV = 2.32 MEAN = 99.1

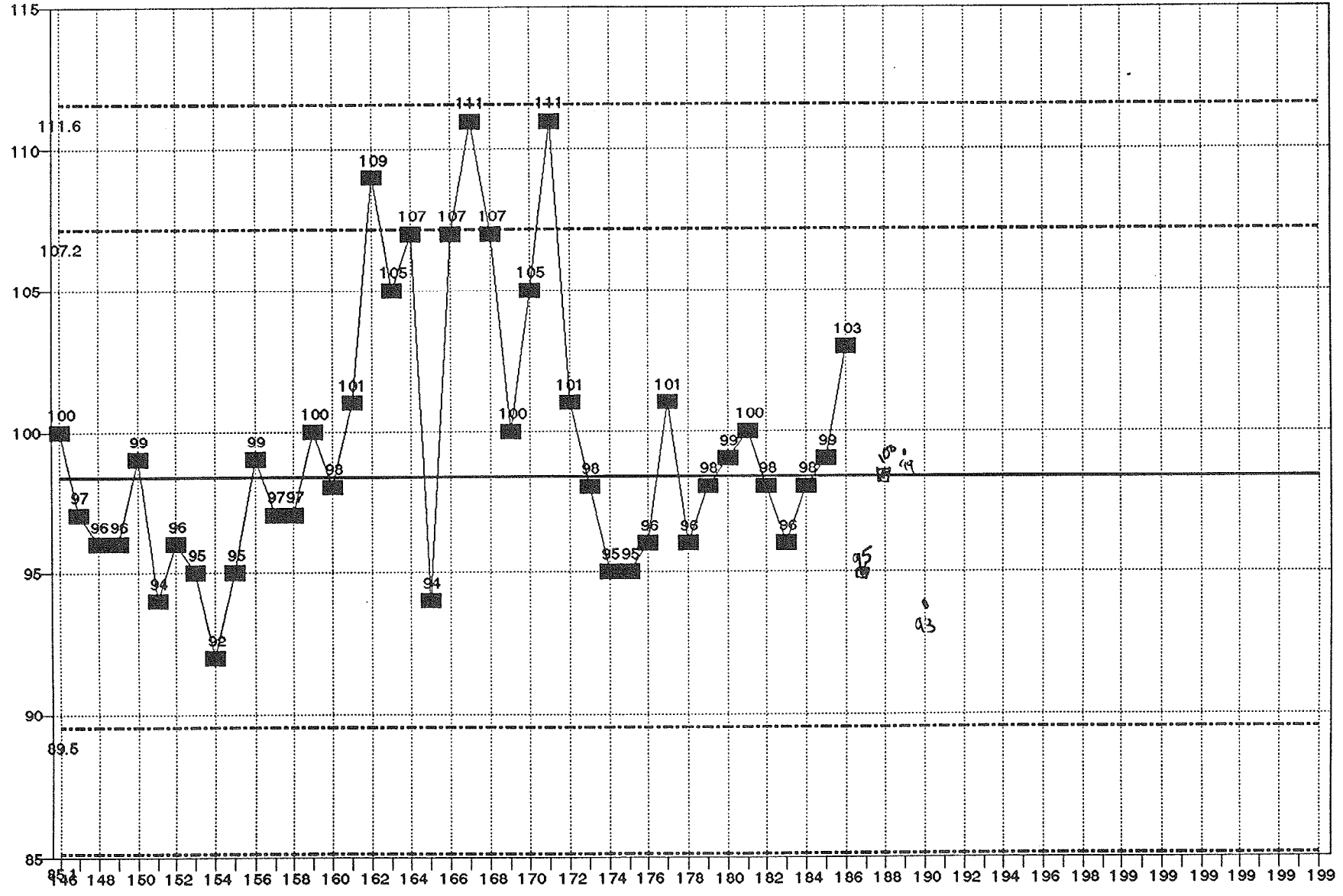
VOA TCLP - SURR BFB
LIMIT SET 7/93



STD DEV =3.51 MEAN = 98.6

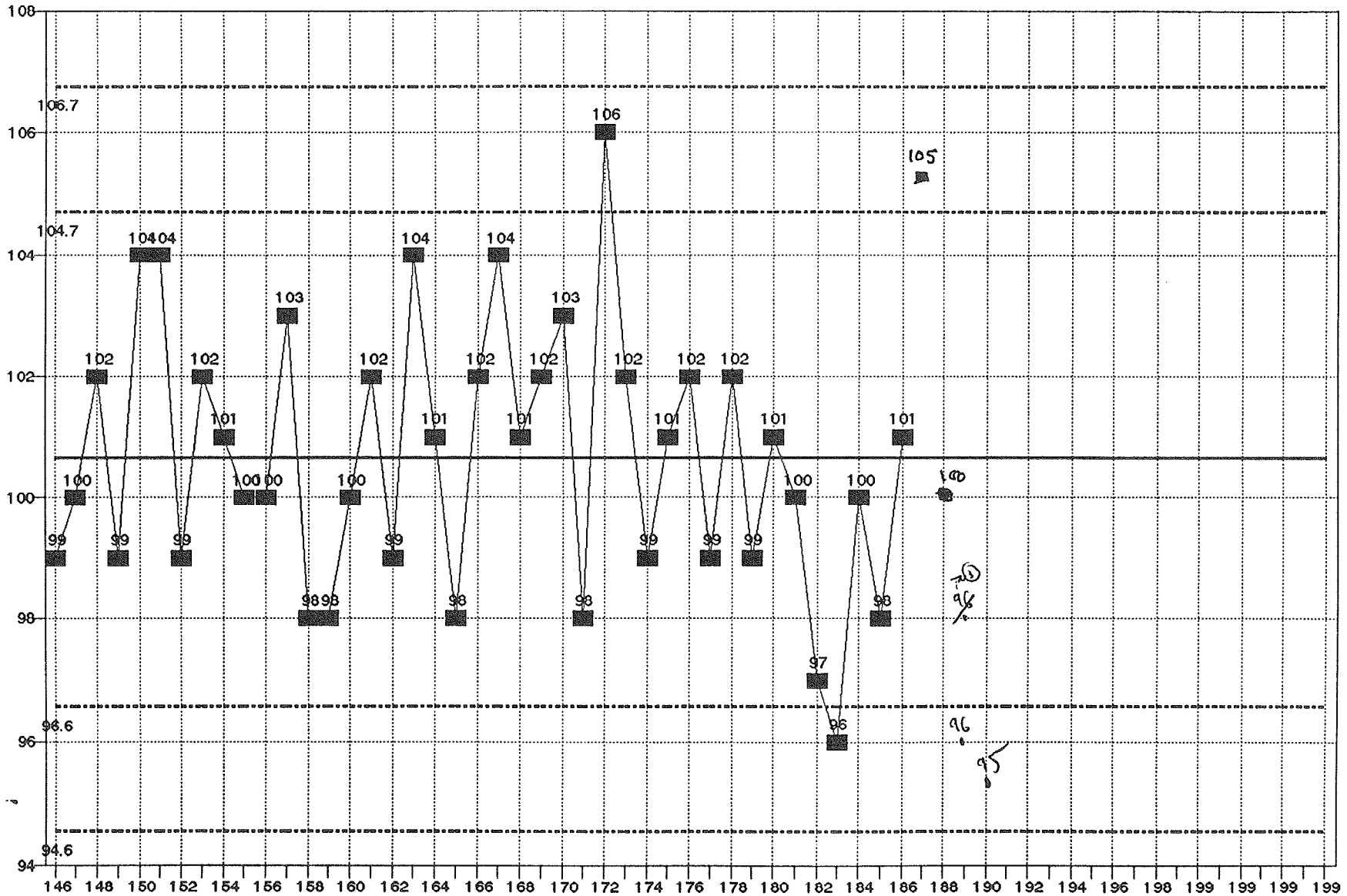
1	TCLP BLANK	340	03/16/94
2	TCLP BLANK	340	03/17/94
3	TCLP BLANK	341	03/17/94
4	TCLP BLANK	341	03/18/94
5	TCLP BLANK	342	03/18/94
6	TCLP BLANK	341	03/22/94
7	TCLP BLANK	343	03/25/94
8	TCLP BLANK	343	03/28/94
9	TCLP BLANK	344	03/28/94
10	TCLP BLANK	345	03/28/94
11	TCLP BLANK	346	04/07/94
12	TCLP BLANK	347	04/19/94
13	TCLP BLANK	349	05/11/94
14	TCLP BLANK	350	05/16/94
15	TCLP BLANK	352	05/17/94
16	TCLP BLANK	354	06/06/94
17	TCLP BLANK	357	7/12/94
18	TCLP BLANK	358	7/15/94
19	TCLP BLANK	360	7/27/94
20	TCLP BLANK	369	11/10/94
21	TCLP BLANK	386	
22	TCLP BLANK	388	
23	TCLP BLANK	389	

VOA WATERS - SURR DCE
LIMITS SET 4/95



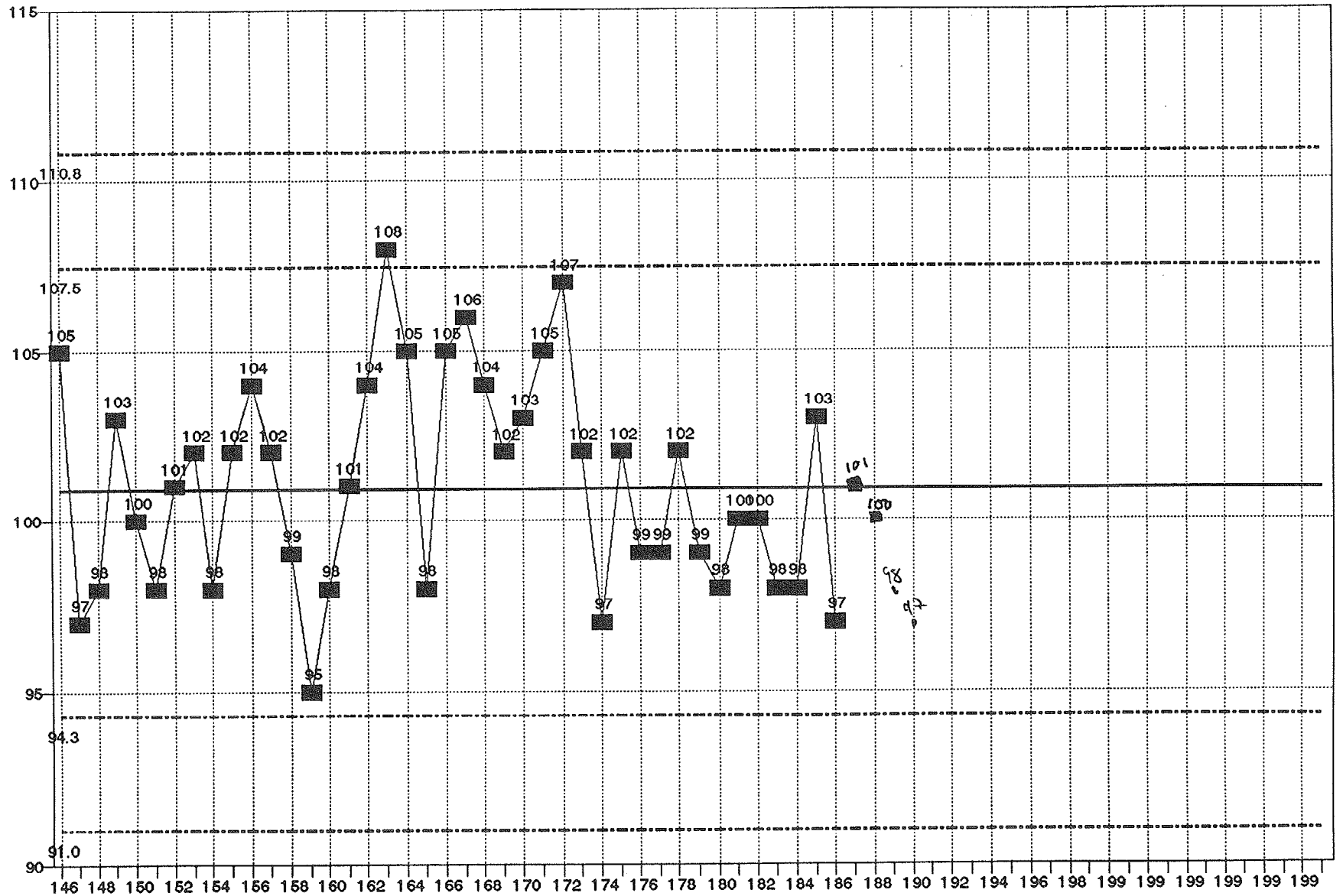
STD DEV = 4.40 MEAN = 98.4

VOA WATERS - SURR TOL
LIMIT SET 4/95



STD DEV = 2.03 MEAN = 100.6

VOA WATERS - SURR BFB
LIMIT SET 4/95



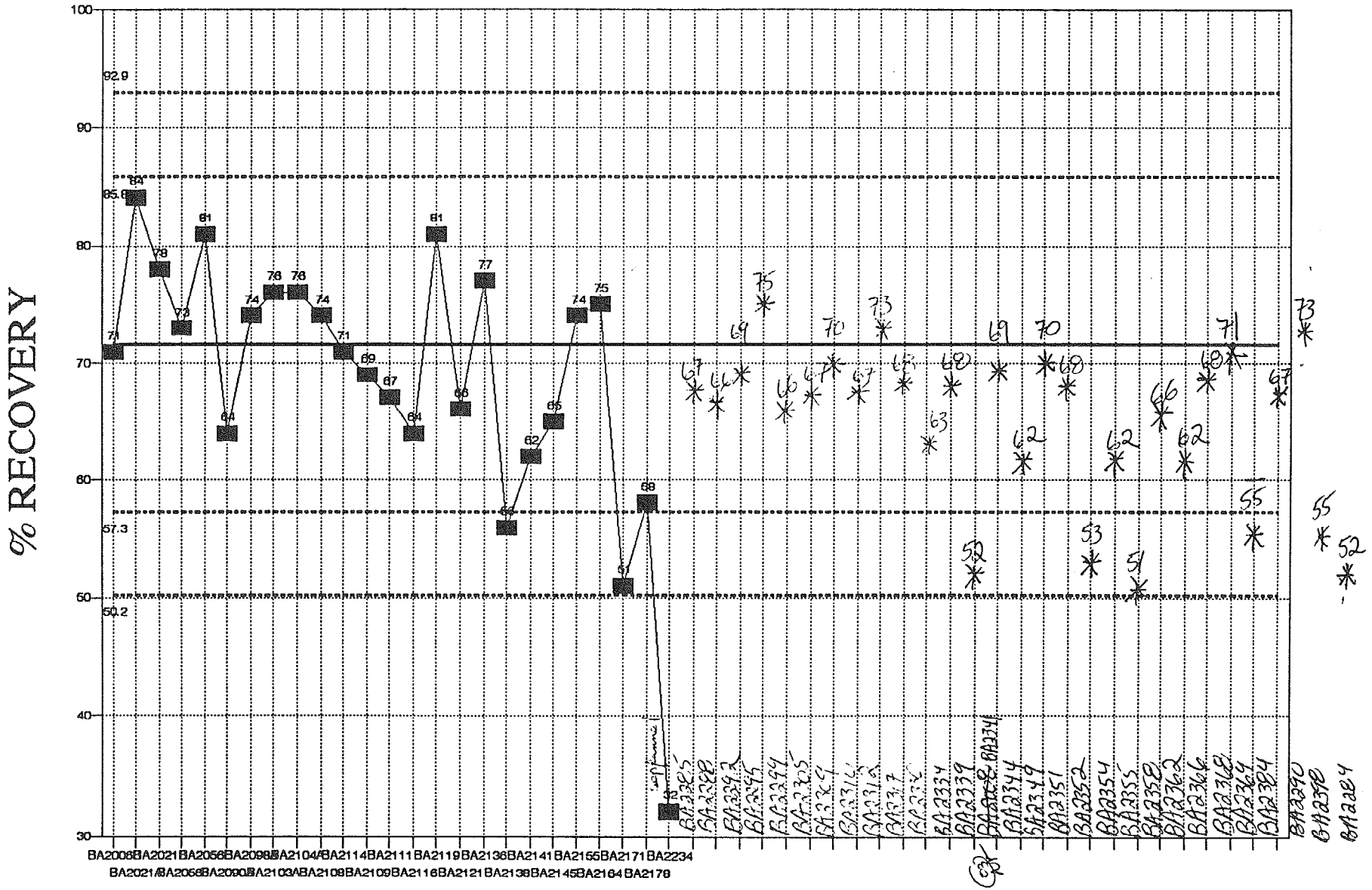
STD DEV =3.31 MEAN = 100.9

VOLATILES -- WATER SURROGATE CONTROL CHARTS

POINT / BLANK

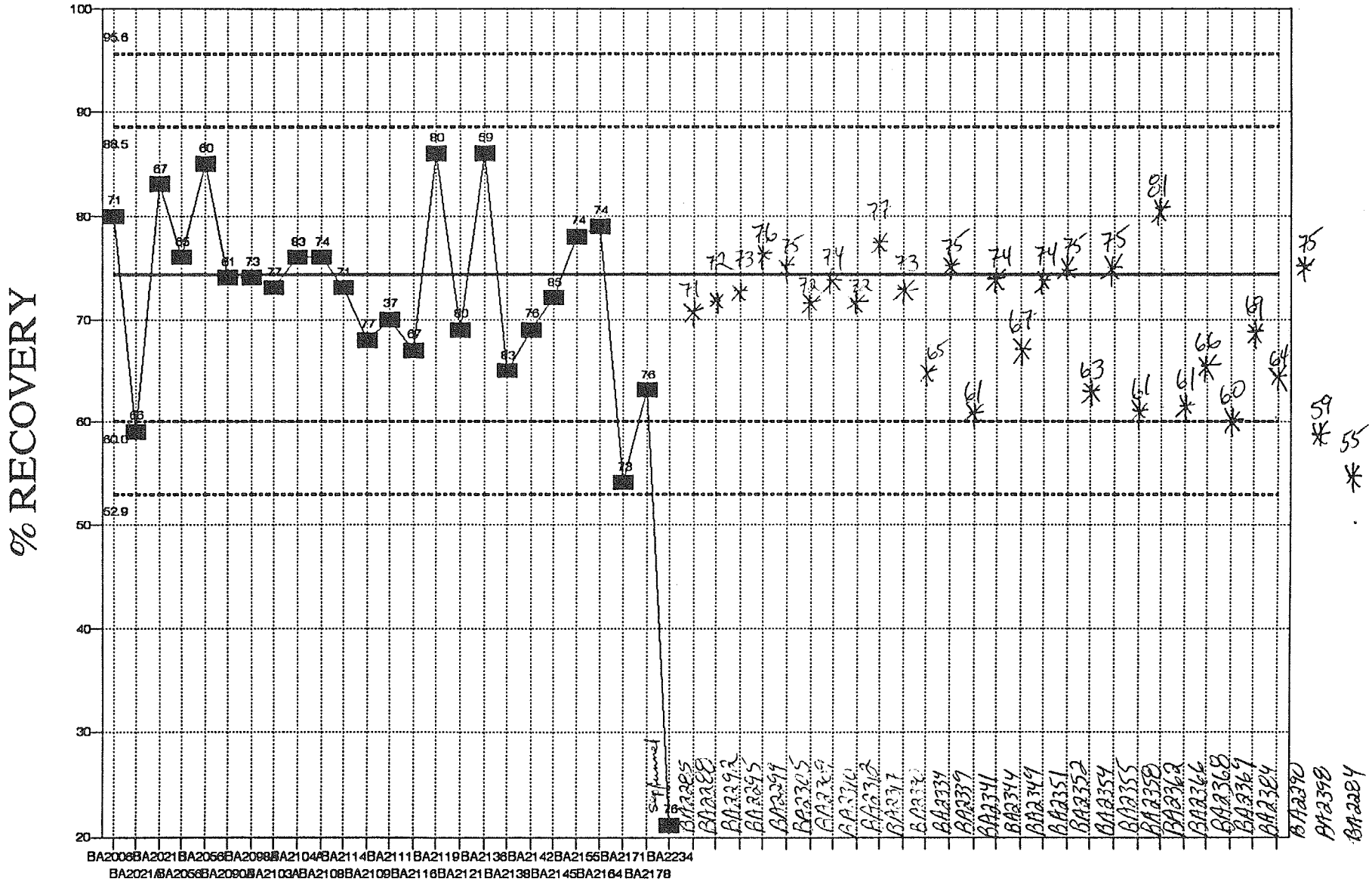
21 BE081892A	69 BC041493A	117 BE070794A	165 BC041295A
22 BC082192A	70 BE052593B	118 BE070894A	166 BI042095B
23 BE082092A	71 BE060193A	119 BC063094A	167 BI042195A
24 BC082592A	72 BE060393A	120 BC072794A	168 BI042495A
25 BC082692A	73 BC062193A	121 BD072794A	169 BC042595B
26 BE082792A	74 BE051393A	122 BD072894A	170 BI042595A
27 BE082892B	75 BC062493A	123 BD072994A	171 BI042795A
28 BE083092A	76 BD051993A	124 BE081194A	172 BI050195A
29 BD101492A	77 BD052093B	125 BC081994A	173 BC050595A
30 BC100992A	78 BC063093A	126 BE101194A	174 BC050695A
31 BC110692A	79 BC061093A	127 BE101294B	175 BG050295B
32 BC111992A	80 BE051393A	128 BG101494A	176 BC062995B
33 BE112092A	81 BD072293A	129 BC110294B	177 BC063095B
34 BC112392A	82 BD072393A	130 BC110394B	178 BC072495A
35 BG113092B	83 BD072693A	131 BC110794B	179 BC072695A
36 BG120192A	84 BD072793A	132 BC110894B	180 BI080895A
37 BC122292A	85 BD073093A	133 BC110994A	181 BI080995A
38 BG013093B	86 BC080493A	134 BC111594B	182 BC080295A
39 BC012193A	87 BC080593A	135 BC111794B	183 BC080495A
40 BD021693A	88 BE091793A	136 BC111894B	184 BC080795A
41 BD021793A	89 BC092093B	137 BG111094A	185 BC080895A
42 BD021893A	90 BC093093B	138 BC120194B	186 BI081095A
43 BD021993A	91 BG093093A	139 BC120294B	187 BI081195A
44 BD022293A	92 BE120693A	140 BC120594B	188 BI080995A
45 BD022393A	93 BE120793A	141 BC120694B	189 BC081195A1
46 BD022493A	94 BE121793A	142 BC120794B	190 BC081495A1
47 BG030293A	95 BC122793B	143 BC121594B	191
48 BC030193B	96 BC122893A	144 BG120394B	192
49 BG030393A	97 BG021094A	145 BC122294B	193
50 BG030493A	98 BG021194A	146 BC122994B	194
51 BG031593A	99 BG021494A	147 BE121694A	195
52 BG031693A	100 BG021594A	148 BE020995B	196
53 BD031893A	101 BC022394B	149 BE021395A	197
54 BD031993A	102 BC022494C	150 BE021595A	198
55 BC032293B	103 BC022594B	151 BE021695A	199
56 BC032393A	104 BG022594B	152 BC032295A	200
57 BC041293A	105 BG022894A	153 BC032395A	201
58 BC041393A	106 BG030394A	154 BC032495A	202
59 BC041993A	107 BD022194A	155 BC032795A	203
60 BE042893A	108 BC031194A	156 BC040695A	204
61 BE042993A	109 BC031594B	157 BC041195B	205
62 BE043093A	110 BG040794A	158 BC041395A	206
63 BE050393A	111 BC041294B	159 BC041495A	207
64 BE050493A	112 BG042894A	160 BG041095B	208
65 BE050593A	113 BG042994A	161 BG041495B	209
66 BE050693A	114 BC050994C	162 BI041395A	210
67 BE051093A	115 BG060394A	163 BI041895B	211
68 BE051193A	116 BC050394B	164 BI041995A	212

ABN WATER 3520/8270, 2-FLUOROPHENOL SURR, LIMITS SET 2/95



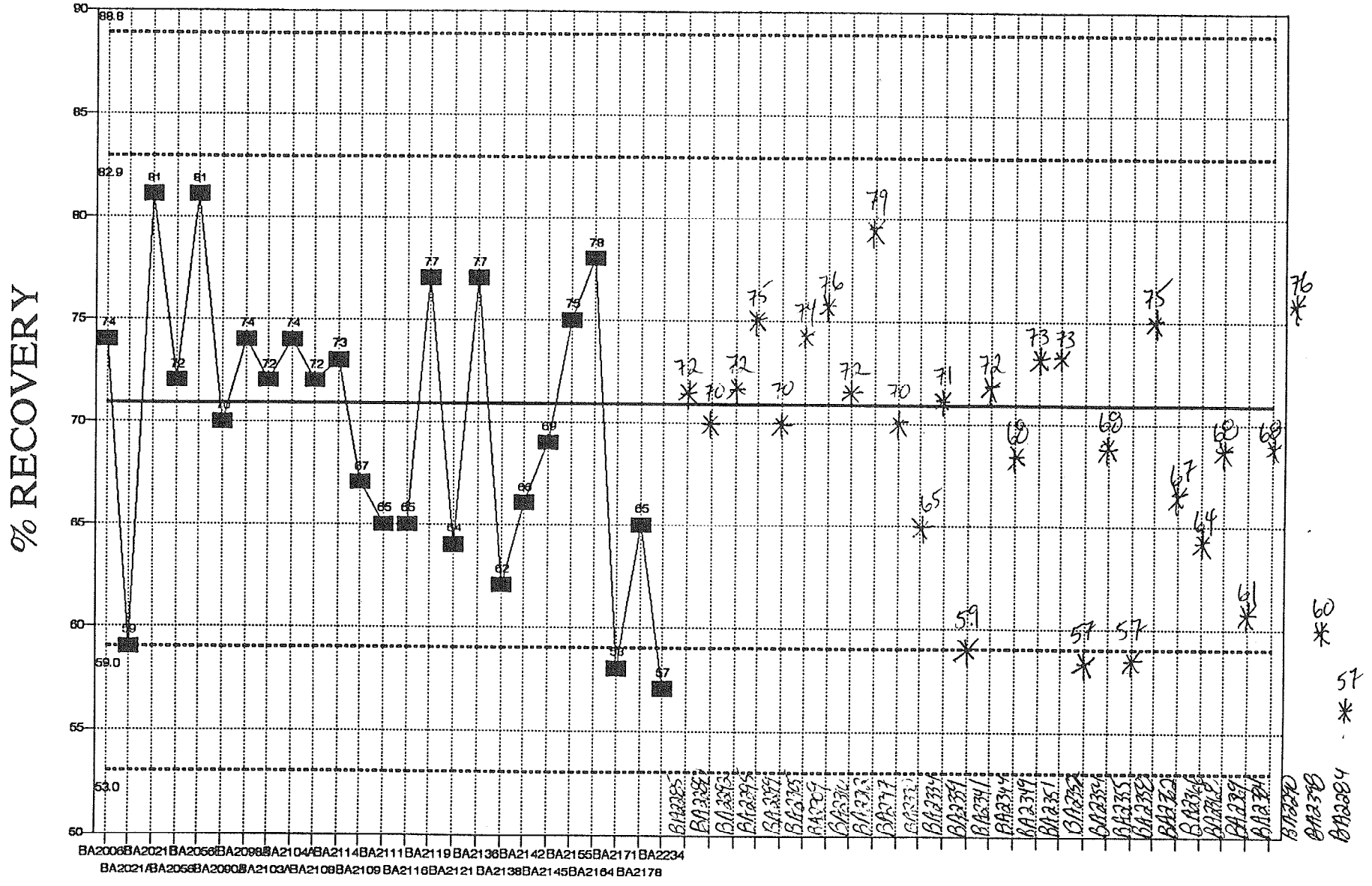
STD DEV = 7.12 MEAN = 71.6

ABN WATER 3520/8270, PHENOL-D5
SURR, LIMITS SET 2/95



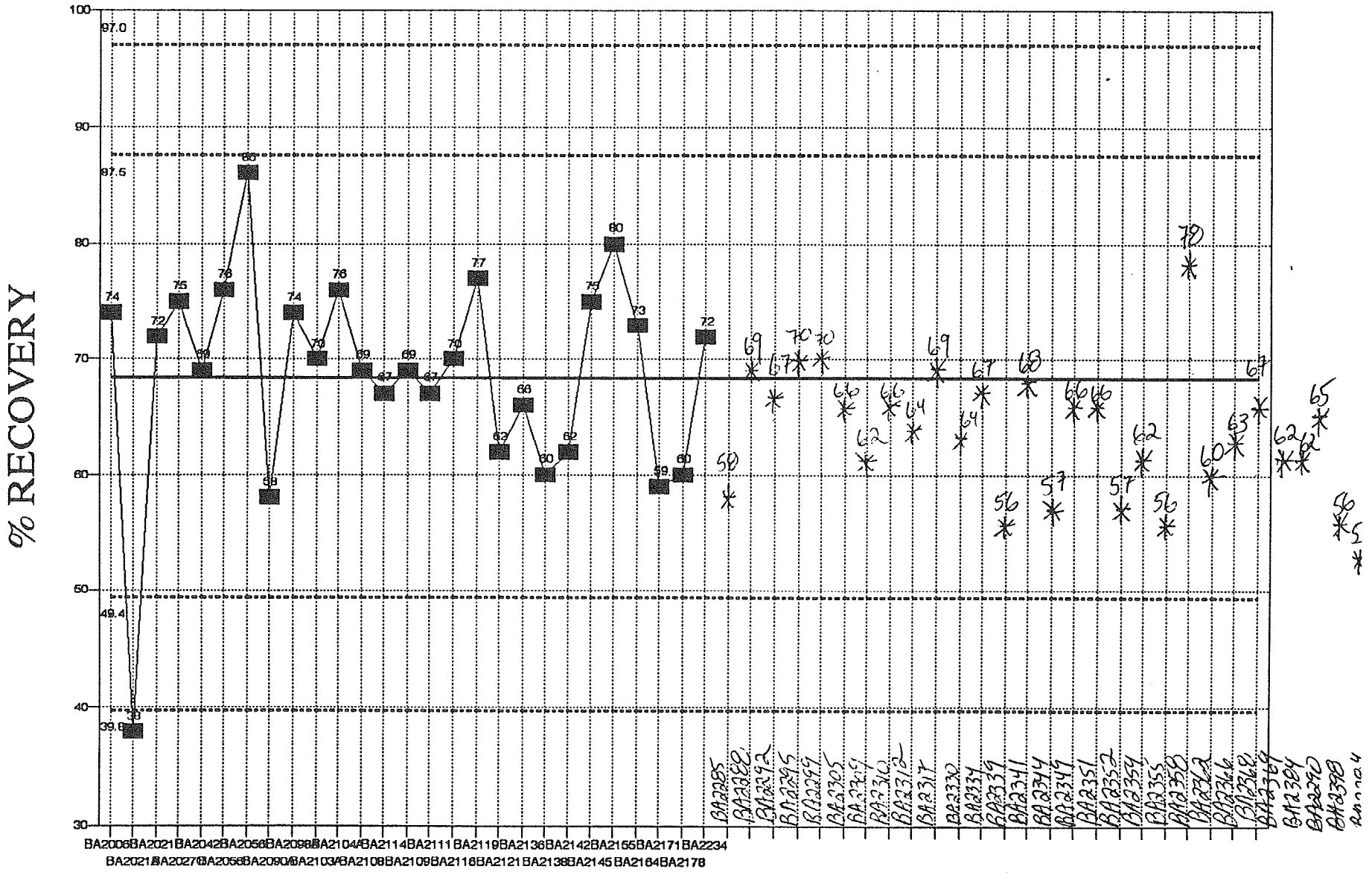
STD DEV = 7.13 MEAN = 74.2

ABN WATER 3520/8270, 2-CHLOROPHENOL-D4
SURR, LIMITS SET 2/95



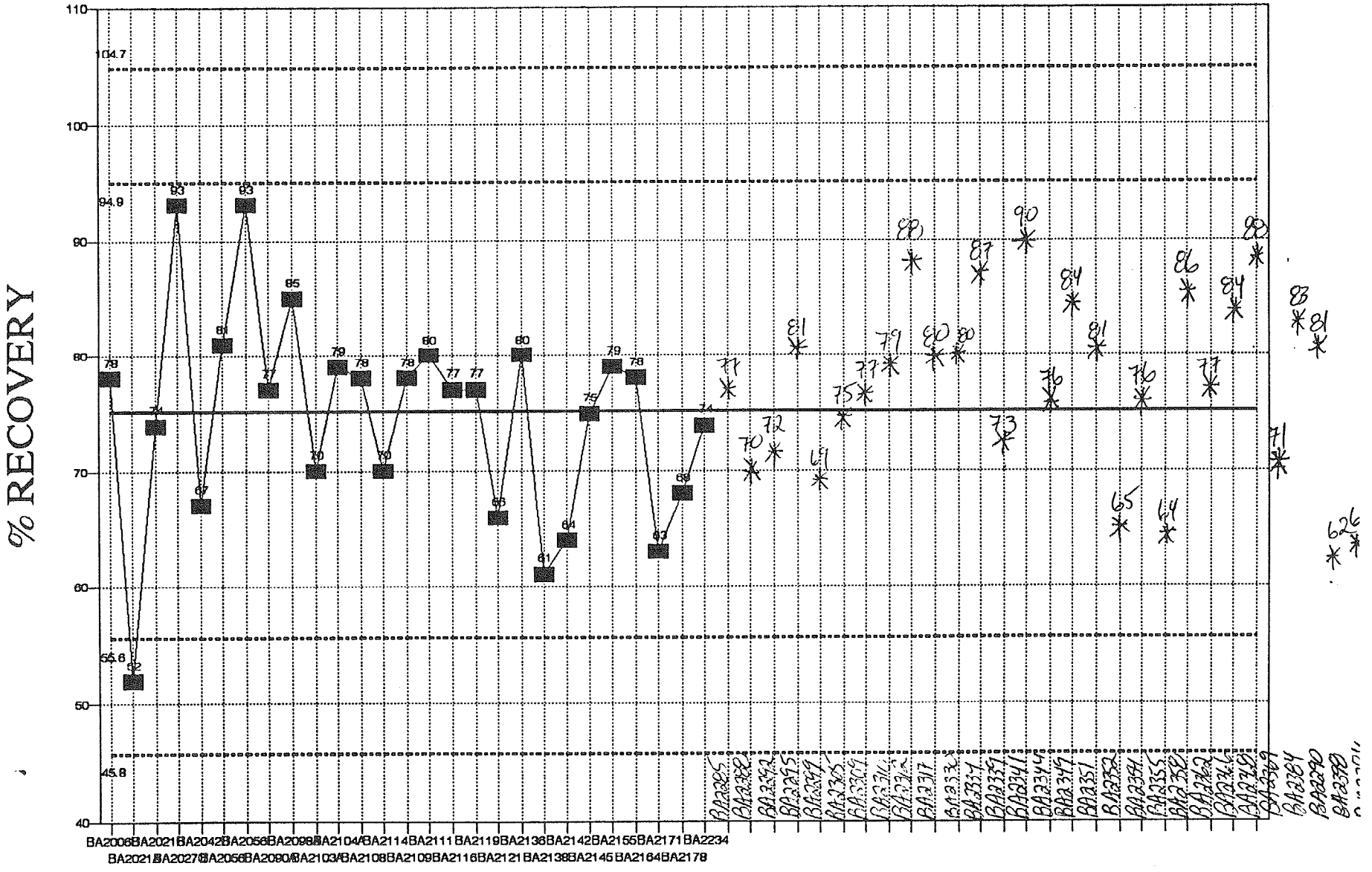
STD DEV = 5.97 MEAN = 70.9

ABN H2O 3520/8270, 1,2-DICHLOROBENZENE-SURR, LIMITS SET 2/95



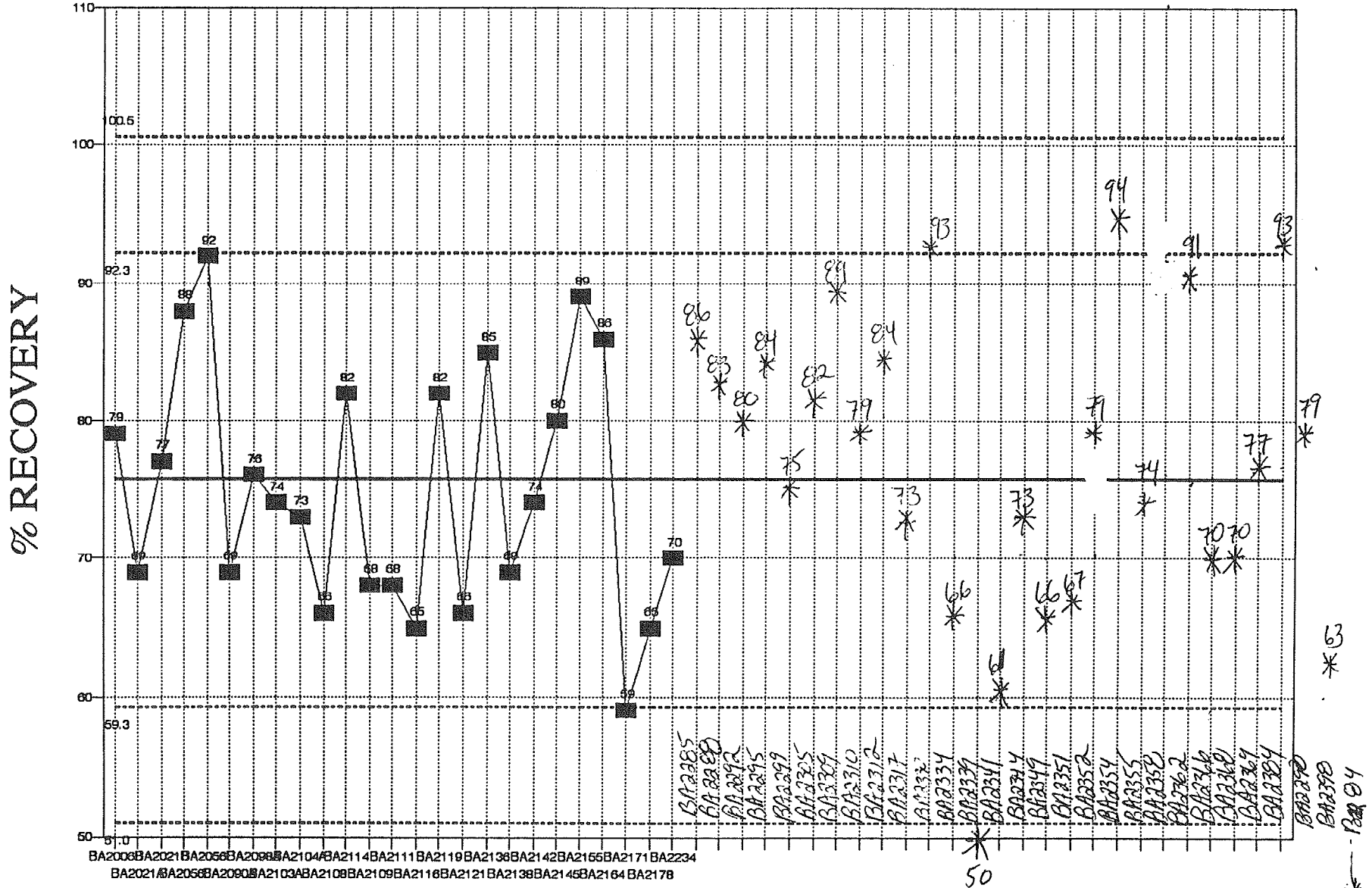
STD DEV = 9.54 MEAN = 68.4

ABN H2O 3520/8270, NITROBENZENE-D5
SURR, LIMITS SET 2/95



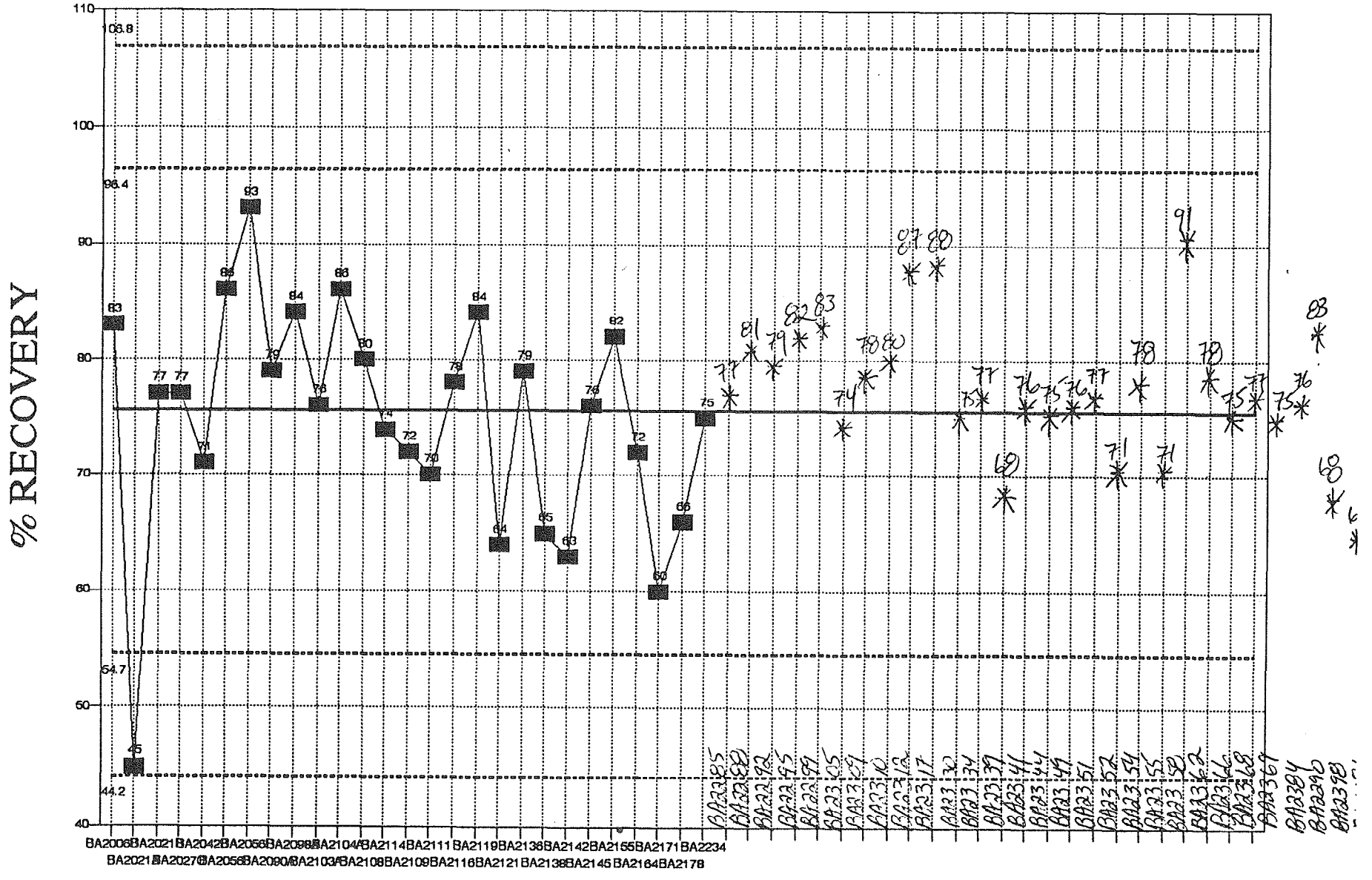
STD DEV = 9.82 MEAN = 75.2

ABN H2O 3520/8270, 2,4,6-TRIBROMOPHENOL SURR, LIMITS SET 2/95



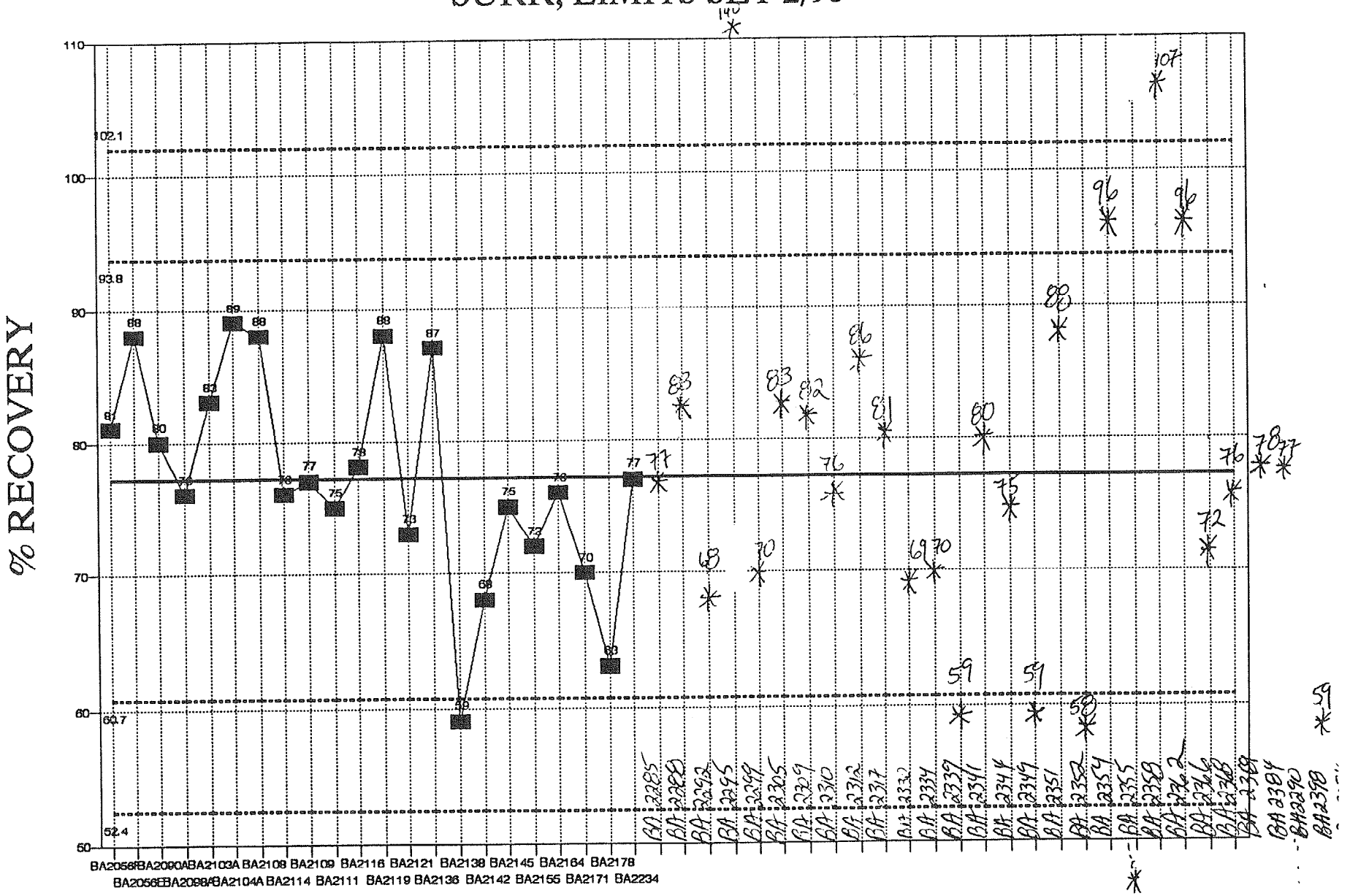
STD DEV = 8.24 MEAN = 75.8

ABN H2O 3520/8270, 2-FLUOROBIPHENYL SURR, LIMITS SET 2/95



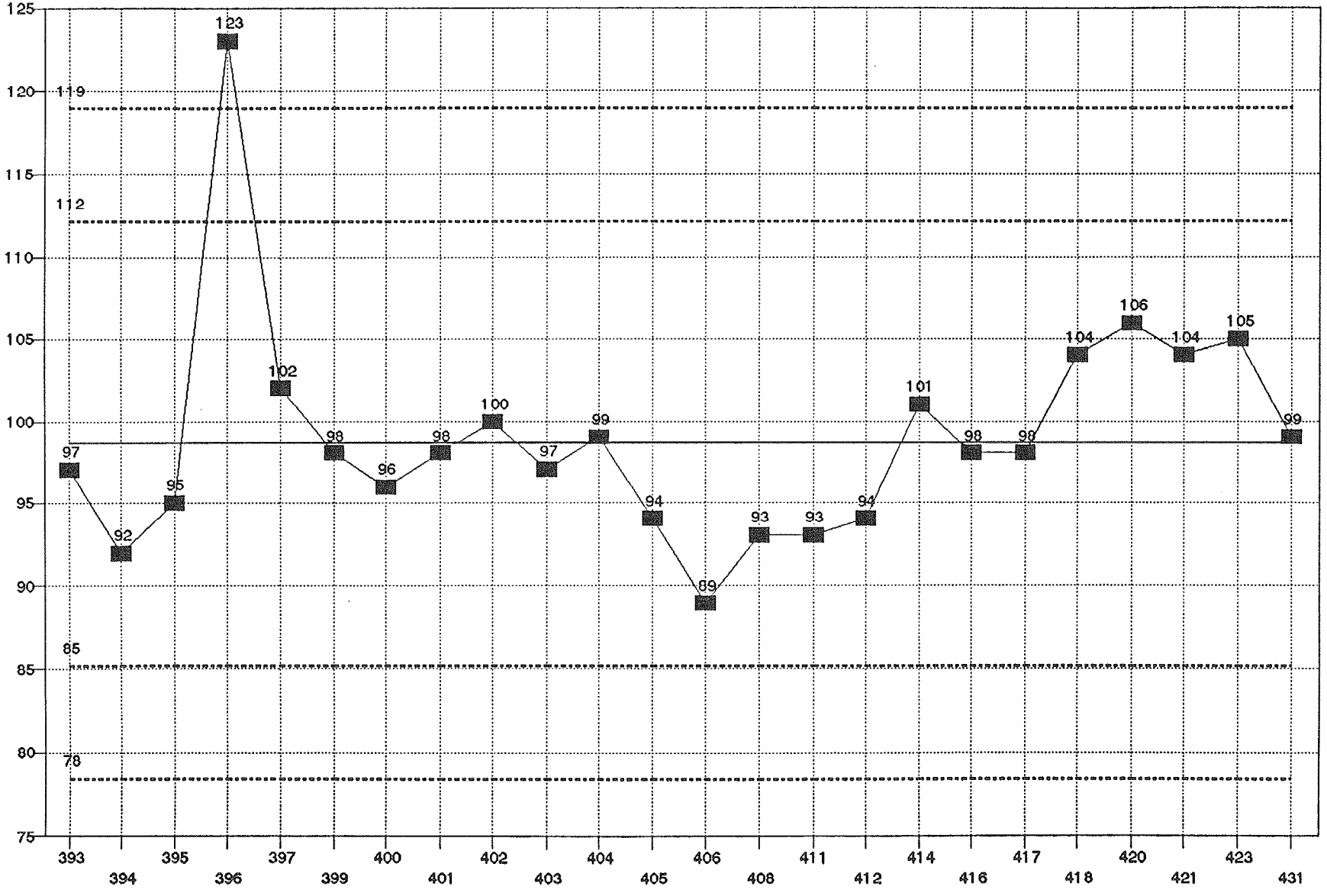
STD DEV = 10.4 MEAN = 75.5

ABN H2O 3520/8270, TERPHENYL-D14
SURR, LIMITS SET 2/95



STD DEV = 8.78 MEAN = 77.2

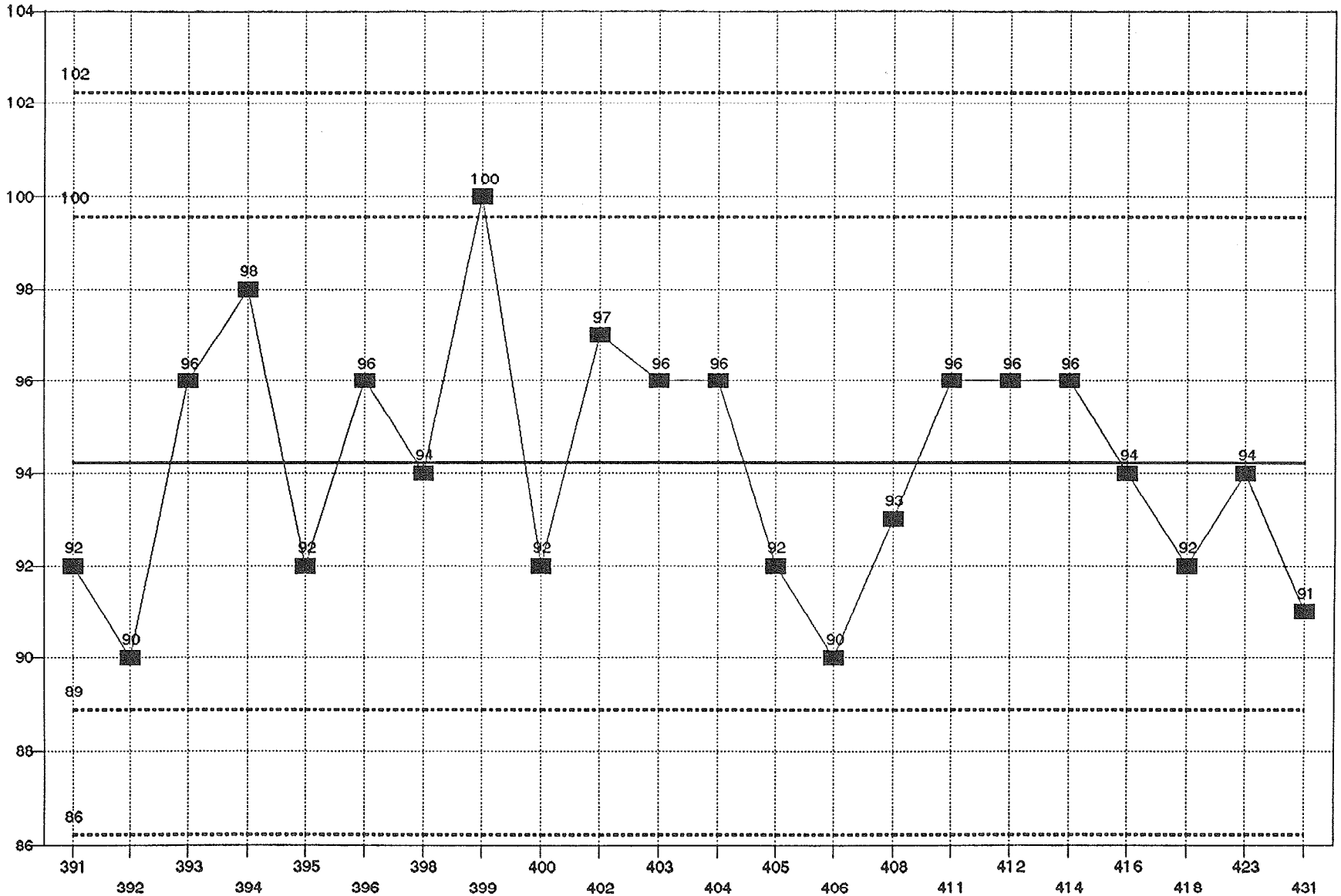
Ag COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 8/95



STD DEV = 6.75 MEAN = 98.6

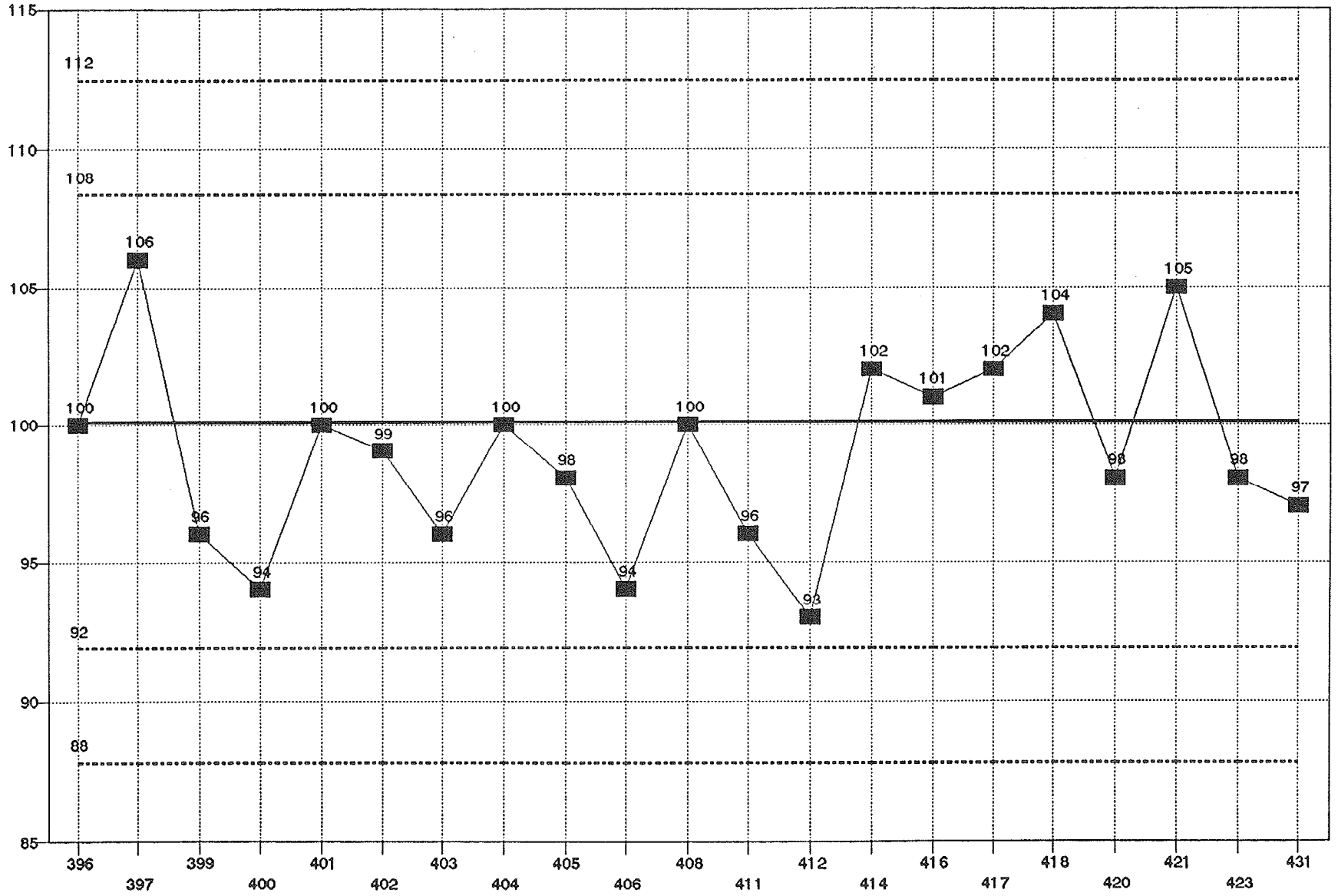
0000144

AS TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 8/95



STD DEV = 2.67 MEAN = 94.2

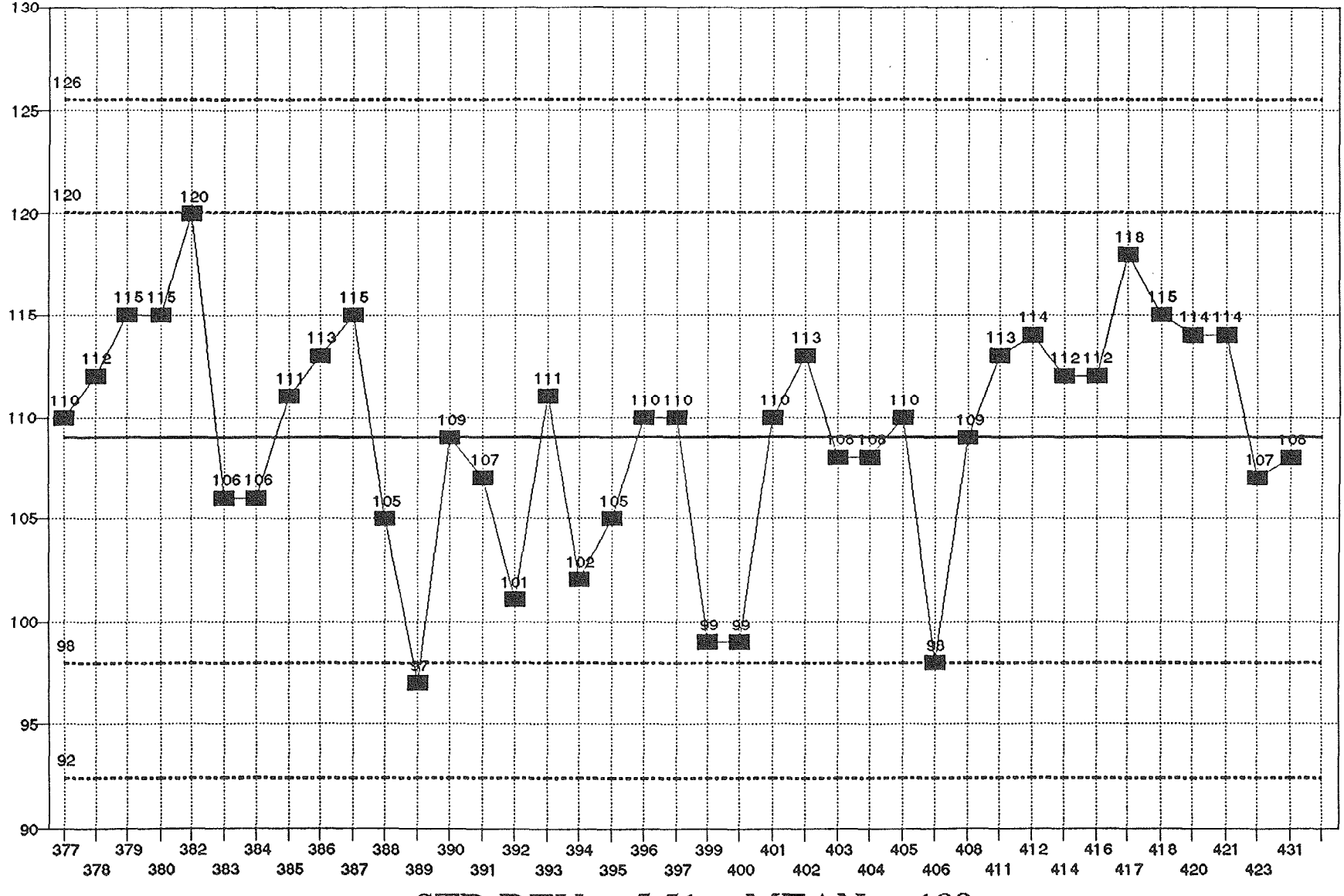
Ba COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.10 MEAN = 100.1

0000146

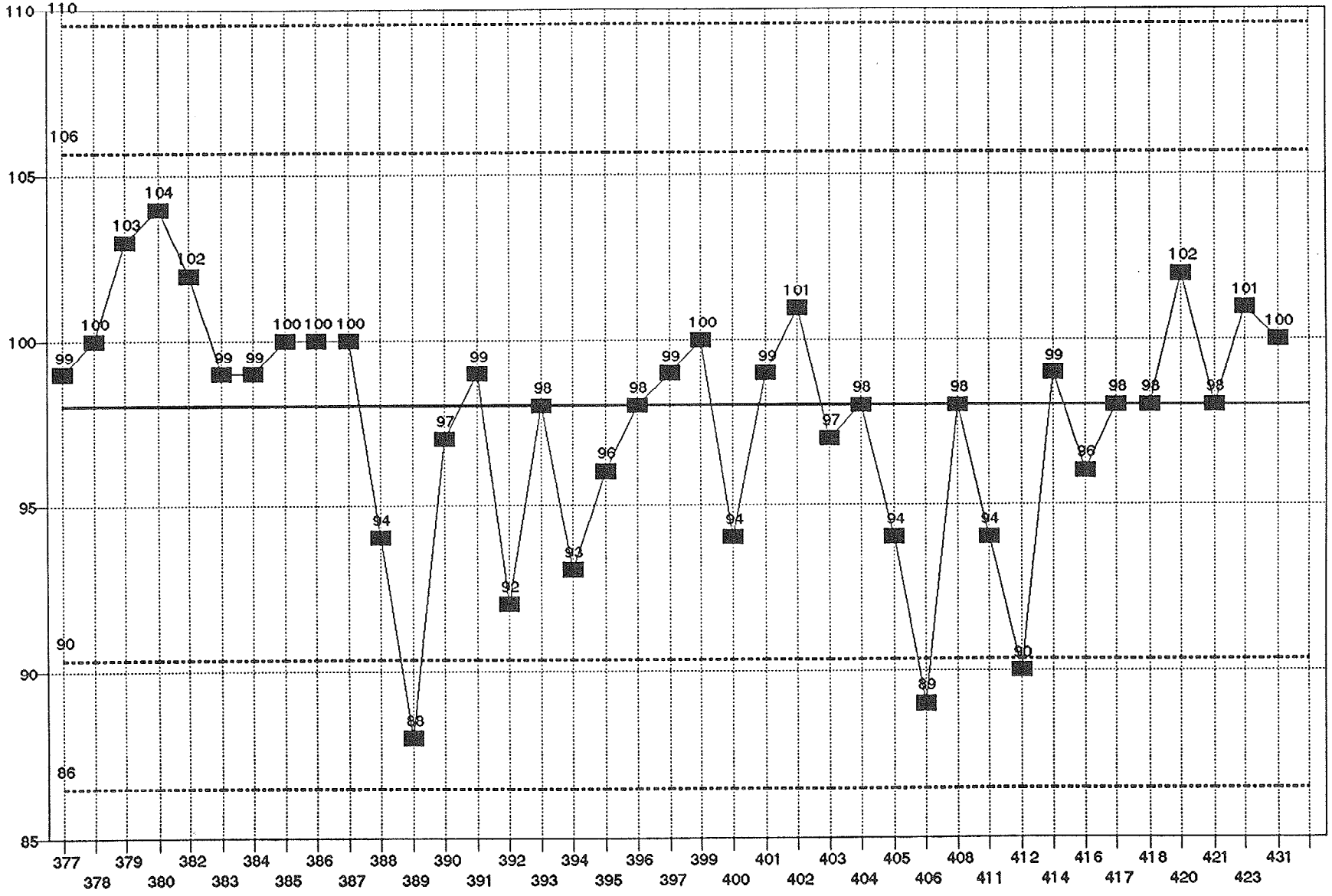
Cd COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 5.51 MEAN = 109

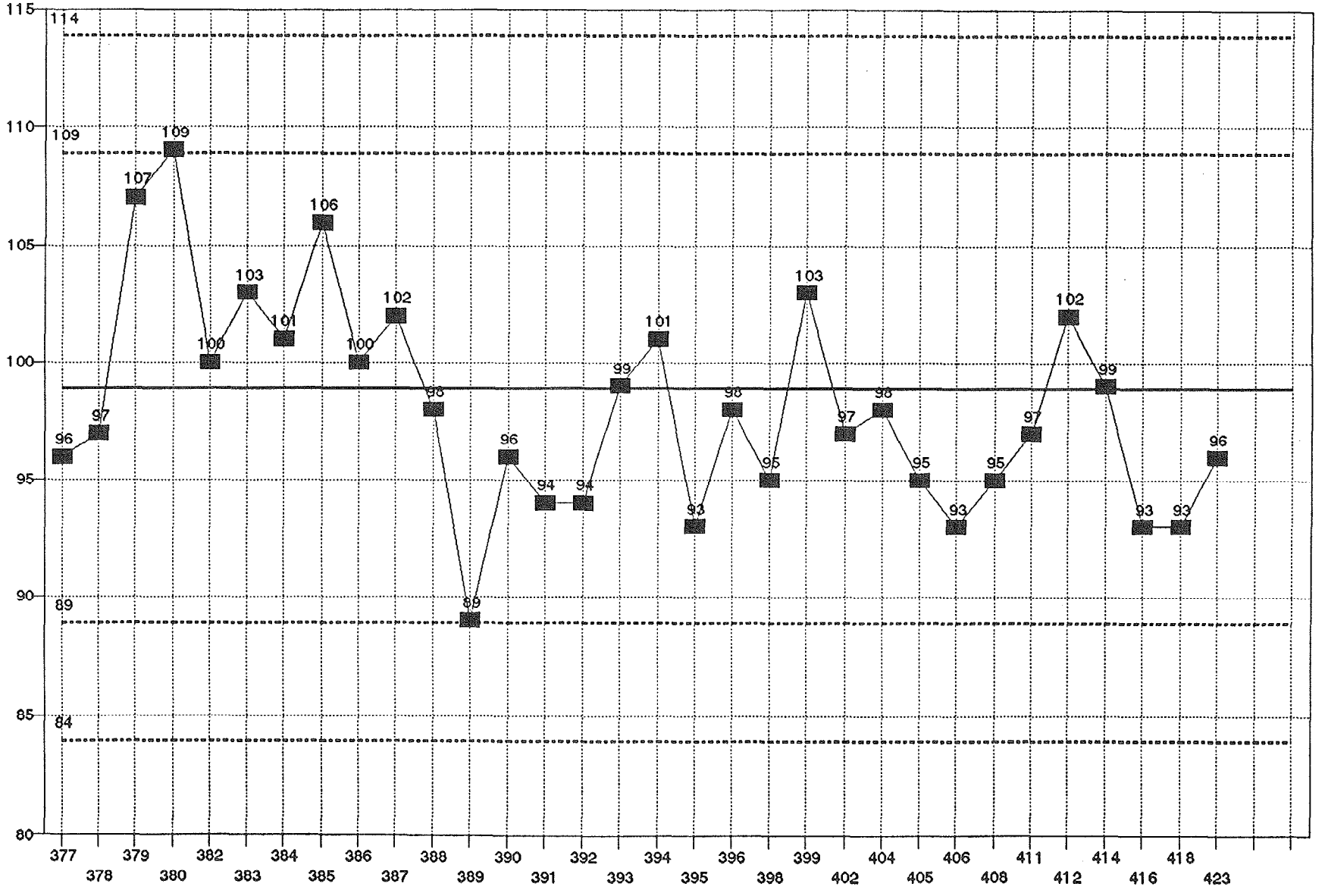
00001147

Cr COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 3.84 MEAN = 98.0

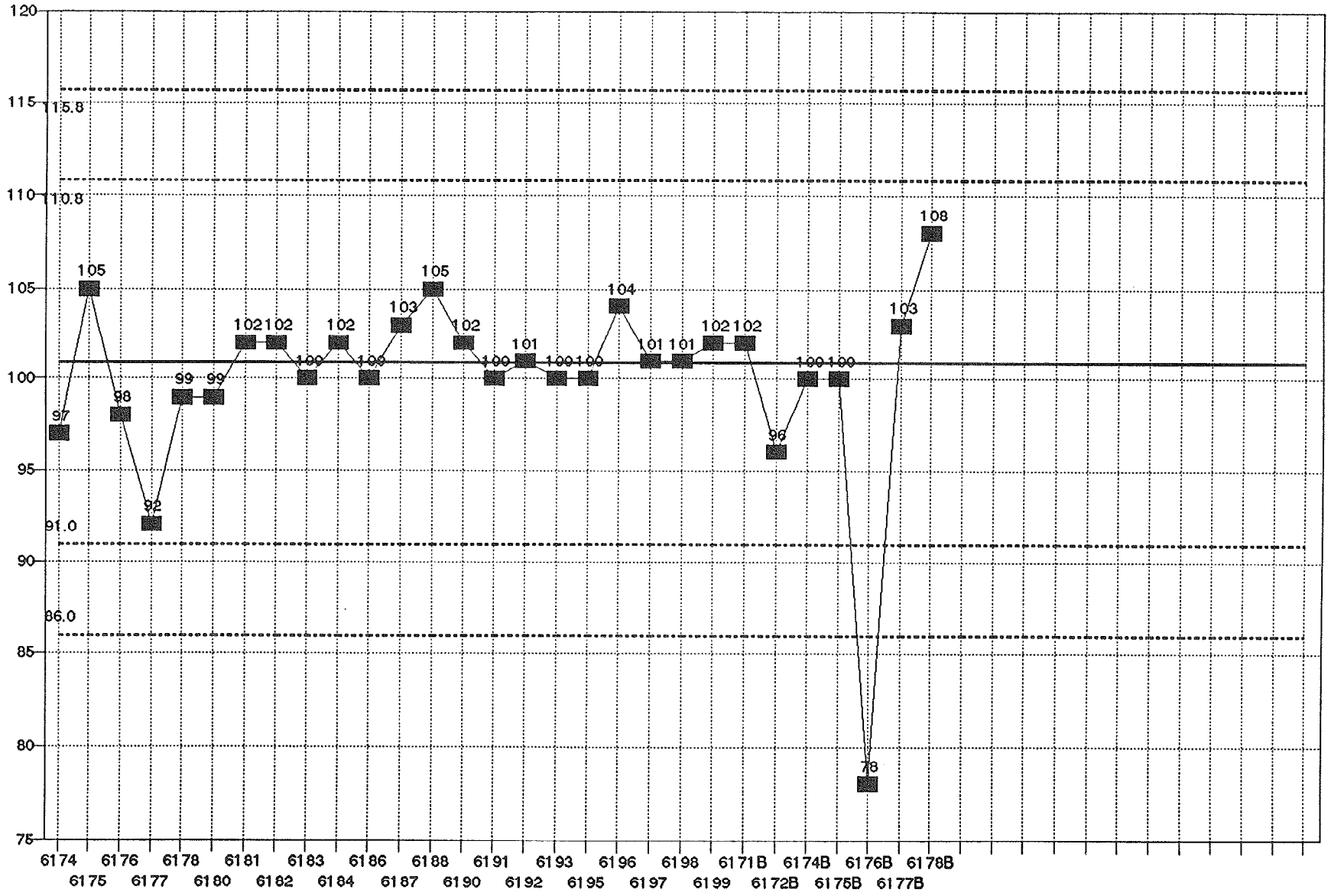
Pb TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.99 MEAN = 98.9

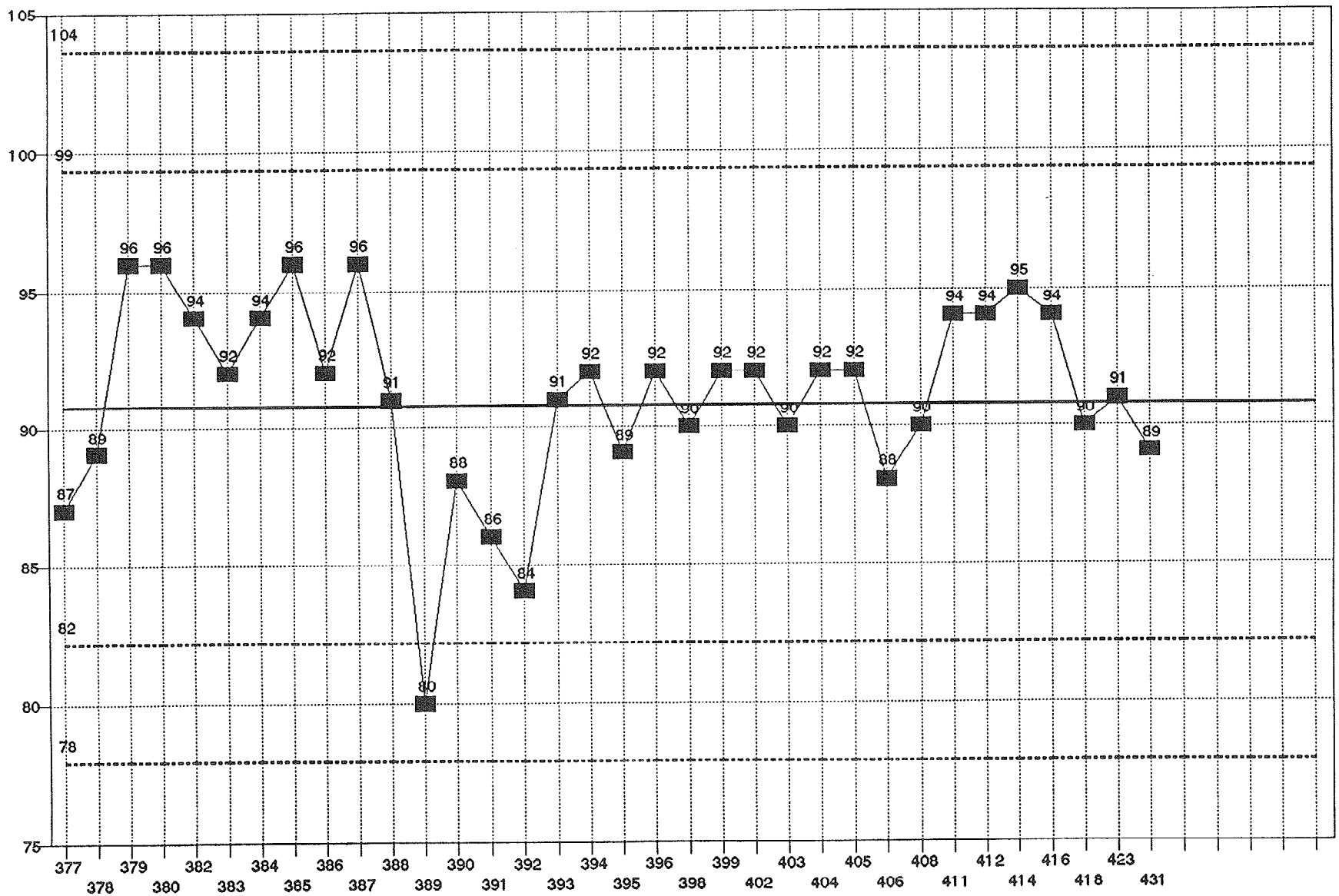
00001149

MERCURY CV LCS WATER RECOVERIES
LIMITS SET 2/94



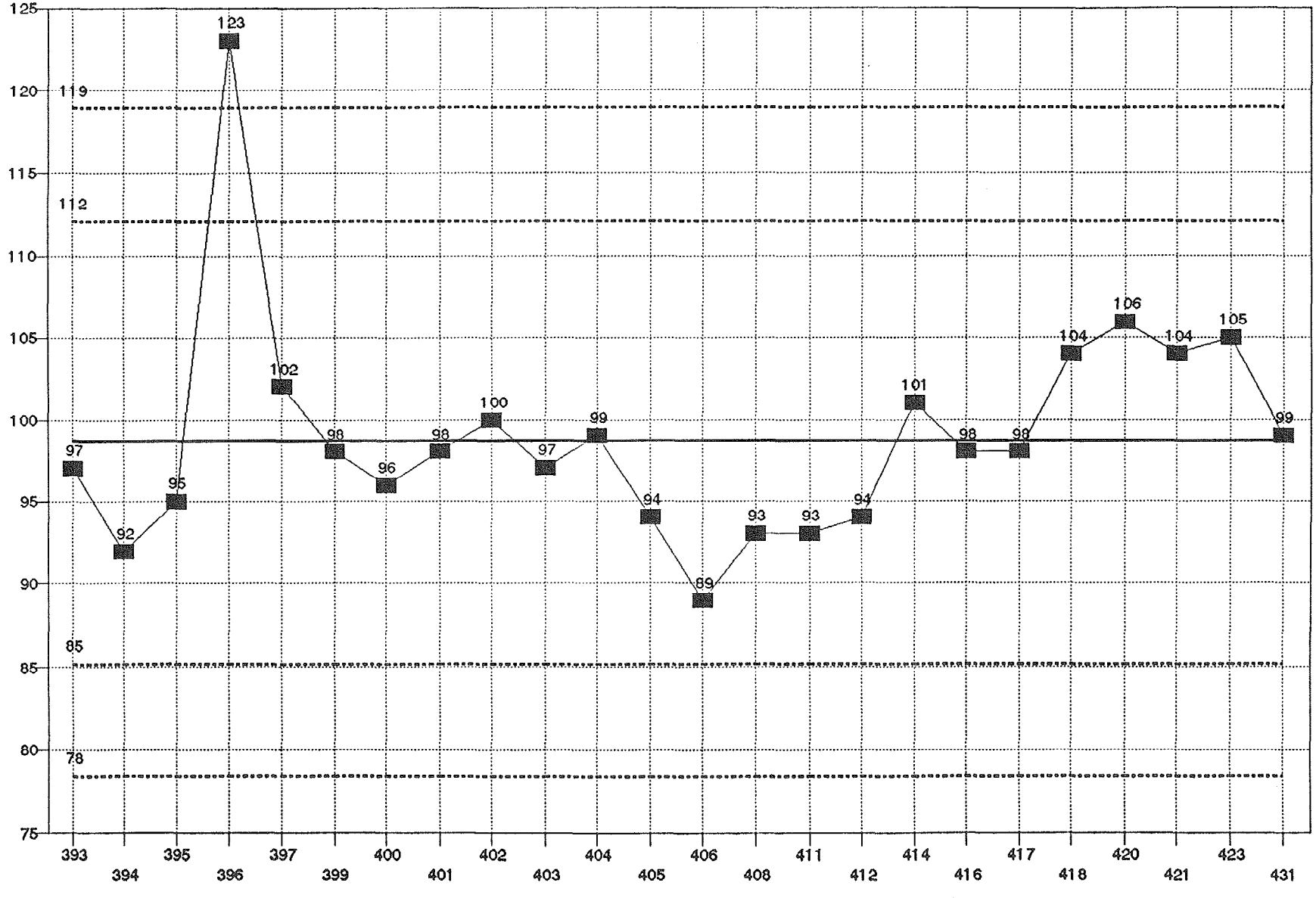
STD DEV = 4.96 MEAN = 100.9

Se TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.29 MEAN = 90.8

Ag COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 8/95



STD DEV = 6.75 MEAN = 98.6

0000152

TRANSFER 2

OHM Corporation

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

144100

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune D.O. 44	Camp Geiger, NC

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
16187	Rakesh Mishra	910-451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Jim Dunn / Randy Smith

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TPH-GRO	TPH-DRO	TCLP Metals	TCLP Volatile	RCRA 11oz Waste Char.	O&G	PCB, Total Lead	Volatile BTEX (8240)	REMARKS
1	CLJ44-CC-016	8/7	1040	X		Composite of clean soil from Pile 4 of Area C.	4	-1 X	-2 X	-3 X	-3 X	-4 X				44914
2	CLJ44-CC-017	8/7	1050	X		Composite of clean soil from Pile 7 of Area C.	4	-5 X	-6 X	-7 X	-7 X	-8 X				
3	CLJ44-CC-018-RB	8/7	1102			Rinsate Blank of clean soil of Pile 4 & 7 of Area C.	5	-9 X	-11 X	-12 X -13	-10 X	-14 X				
4	CLJ44-CC-019-TB	8/7				Trip Blank	3	X -15			X -16				X -17	
5	CLJ44-CC-020	8/7	1115	X		Composite of contaminated soil from Pile 13 of Area C.	4	X	X				X			
6	CLJ44-CC-021	8/7	1121	X		Composite of contaminated soil from Pile 14 of Area C.	4	X	X				X			
7	CLJ44-CC-022	8/7	1132	X		Composite of contaminated soil from Pile 15 of Area C.	4	X	X	X	X	X	X	X	X	
8	CLJ44-CC-023	8/7	1145	X		Composite of contaminated soil from Pile 16 of Area C.	4	X	X				X			
9																
10																

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 2 3 4 5 6 7 8 9 10				
2					
3					
4					

REMARKS Send samples to Pace Lab.
Samples 1-4 7days TAT. = 44914
Samples 5-8 24hr. TAT.

SAMPLER'S SIGNATURE

0000153

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

August 29, 1995

OHM Remediation Services Corporation
5335 Triangle Parkway
Suite 450
Norcross, GA 30092

SAMPLE DELIVERY GROUP NARRATIVE

Case: OHMRC
SDG: LJN11
Laboratory: PACE New England - New Hampshire of Hampton, NH
Lab Numbers: 44928
Protocol: SW846 Methods. NEESA E deliverables. No diskette.

Sample Receipt: These samples were received at PACE, Inc. on August 9, 1995. Laboratory sample numbers were assigned for test parameters as listed on the Sample Table which follows this narrative. The sample shipment was checked for custody seal integrity and cooler temperature. Samples were checked for appropriate preservation and accuracy against the Chains-of-Custody provided. Other than the exceptions noted below, samples were received between 2-6° C and in good condition. PACE Sample Receipt Condition Reports can be found with the Chains-of-Custody.

Shipment received 8/9/95 (44928): These samples were received and logged in under PACE# 44928 and 44929. Samples for 24-hour turnaround were logged in under 44928 and the TCLP parameters were logged in under 44929 for three day turnaround. A temperature blank was not included with the shipment, therefore the cooler temperature could not be verified upon receipt of samples at PACE. The samples were received cool, and had been packed on ice. The rinsate blank listed as Item #6 on the COC was put on hold per the request on the COC.

GRO Analysis: The sample 44928-1 and -5 for total gasoline analysis had no recovery for the surrogate. This was a probable matrix effect.

Volatiles Analysis: The method 8240 blank "BV1118BI" contained low levels of methylene chloride. The sample results for this analyte should be used with due consideration.

DRO Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Oil and Grease Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

PCB Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Lead Analysis: The replicate analysis of lead in the sample designated "CLJ44-CC-027" (laboratory number 44928-011) showed relative percent difference of 34.7% (advisory limit 20%).

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

Statement of Compliancy and Data Authorization

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Richard K Wellman — 8/29/95

PACE Incorporated, New England-New Hampshire — August 29, 1995

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

44928
PAGE 1 of 1
COOLER ____ of ____
COC# ____
SDG# LJN11
CASE# OHMRC

CLIENT OHM
DATE/TIME RECEIVED 8/9/95 0955
DELIVERED BY Fed Ex
RECEIVED BY [signature]
LIMS ENTRY BY [signature]
TRANSCRIPTION REVIEW BY GMF
LIMS REVIEW BY/PM GMF

	NA	YES	EXCEPTION	COMMENT	RESOLUTION
1. CUSTODY SEALS PRESENT/INTACT	☐	☑	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☑	☐		
3. CHAIN OF CUSTODY SIGNED	☐	☑	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES	☐	☑	☐		
5. SAMPLES RECEIVED AT 2° - 6° C Ice/Ice Packs Present? (Y) or N	☐	☐	☑	No Temp Blank rec'd - Samples cool to touch	
6. VOLATILES FREE OF HEAD SPACE	☐	☑	☐		
7. TRIP BLANK PRESENT IN THIS COOLER	☐	☑	☐		
8. PROPER SAMPLE CONTAINERS AND VOLUME	☐	☑*	☐	See below	
9. SAMPLES WITHIN HOLD TIME	☐	☑	☐		
10. SAMPLES PROPERLY PRESERVED	☐	☑	☐		

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other ____
12. NUMBER OF PACE FILTRATIONS: ____
13. CORRECTIVE ACTIONS REPORT # ____

NEESA E

Log-in Notes:
one jar rec'd - Pole 18 - area C vial with cap appearing to have been melted - do not think sample has been compromised - Pace # 44928-9C

000003

CLIENT AUTHORIZATION SIGNATURE ____ DATE ____

SAMPLE TABLE

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-CC-024	SOLID	44928-001	TOTAL GASOLINE
		44928-008	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-025	SOLID	44928-002	TOTAL GASOLINE
		44928-009	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-026	SOLID	44928-003	TOTAL GASOLINE
		44928-010	OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
CLJ44-CC-027	SOLID	44928-004	GC/MS VOA
			TOTAL GASOLINE
		44928-011	PCBS
			OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
			Pb
CLJ44-CC-027D	SOLID	44928-005	GC/MS VOA
			TOTAL GASOLINE
		44928-013	PCBS
			OIL & GREASE BY GRAVIMETRY
			TOTAL DIESEL
			Pb
CLJ44-CC-029-TB	WATER	44928-006	TOTAL GASOLINE
		44928-007	GC/MS VOA

pace INCORPORATED
THE ASSURANCE OF QUALITY

Field Identification: CLJ44-CC-024 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	680	49	44928-001	08/10/95	BG1033B	8015(mod)/2
Total Diesel (ug/g)	1800	40	44928-008	08/09/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	1300	300	44928-008	08/11/95	BG1371	9071,503D/2,3

Field Identification: CLJ44-CC-025 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	140	13	44928-002	08/10/95	BG1033B	8015(mod)/2
Total Diesel (ug/g)	1200	38	44928-009	08/09/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	860	290	44928-009	08/11/95	BG1371	9071,503D/2,3

Field Identification: CLJ44-CC-026 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	160	14	44928-003	08/10/95	BG1033B	8015(mod)/2
Total Diesel (ug/g)	1300	38	44928-010	08/09/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	490	290	44928-010	08/11/95	BG1371	9071,503D/2,3

Field Identification: CLJ44-CC-027 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	160	14	44928-004	08/10/95	BG1033B	8015(mod)/2
Total Diesel (ug/g)	1600	39	44928-011	08/09/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	1600	300	44928-011	08/11/95	BG1371	9071,503D/2,3
Lead, total (ug/g)	4.4	0.4	44928-011	08/10/95	21807	3050,6010/2

Field Identification: CLJ44-CC-027D Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/g)	77	5.2	44928-005	08/10/95	BG1033B	8015(mod)/2
Total Diesel (ug/g)	1800	37	44928-013	08/09/95		8015(mod),3350/2
Oil and Grease by Gravimetry (ug/g)	1400	270	44928-013	08/11/95	BG1371	9071,503D/2,3
Lead, total (ug/g)	4.2	0.4	44928-013	08/10/95	21807	3050,6010/2

Results expressed on a dry weight basis.

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Field Identification: CLJ44-CC-029-TB

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Gasoline (ug/L)	BDL	100	44928-006	08/09/95		8015(mod)/2

References: 2) EPA SW 846, 3rd Edition
3) Standard Methods, 16th Edition

Laboratory number: 44928-004
Sample Designation: CLJ44-CC-027
Date Analyzed: 08/09/95
Matrix: SOLID

Instrument File Name: \I4367

Results are expressed on a dry (103 degrees C) basis.
Moisture content was 20 % , elevating the reporting limits
by a factor of 1.24 .

VOLATILE ORGANICS	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
Chloromethane	BDL	1.5
Bromomethane	BDL	1.5
Vinyl chloride	BDL	1.5
Chloroethane	BDL	0.8
Methylene chloride	0.6 J	1.5
Acetone	BDL	3.8
Carbon disulfide	BDL	0.8
1,1-Dichloroethene	BDL	0.8
Tetrahydrofuran	BDL	3.8
1,1-Dichloroethane	BDL	0.8
1,2-Dichloroethene (total)	BDL	0.8
Chloroform	BDL	0.8
Methyl ethyl ketone	BDL	3.8
1,2-Dichloroethane	BDL	0.8
1,1,1-Trichloroethane	BDL	0.8
Carbon Tetrachloride	BDL	0.8
Vinyl acetate	BDL	1.5
Bromodichloromethane	BDL	0.8
cis-1,3-Dichloropropene	BDL	0.8
trans-1,3-Dichloropropene	BDL	0.8
Trichloroethene	BDL	0.8
Benzene	BDL	0.8
Dibromochloromethane	BDL	0.8
1,1,2-Trichloroethane	BDL	0.8
1,2-Dichloropropane	BDL	0.8
2-Chloroethyl vinyl ether	BDL	0.8
Bromoform	BDL	0.8
Methyl isobutyl ketone	BDL	3.8
2-Hexanone	BDL	3.8
1,1,2,2-Tetrachloroethane	BDL	0.8
Tetrachloroethene	BDL	0.8
Toluene	BDL	0.8
Chlorobenzene	BDL	0.8
Ethylbenzene	BDL	0.8
Xylene (total)	0.6 J	0.8
Styrene	BDL	0.8

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

BDL = Below reporting limit
J = Probable presence below listed detection limit

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: 44928-005
Sample Designation: CLJ44-CC-027D
Date Analyzed: 08/16/95
Matrix: SOLID

Instrument File Name: \I4445

Results are expressed on a dry (103 degrees C) basis.
Moisture content was*** % , elevating the reporting limits
by a factor of 0.5 .

VOLATILE ORGANICS	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
Chloromethane	BDL	0.6
Bromomethane	BDL	0.6
Vinyl chloride	BDL	0.6
Chloroethane	BDL	0.3
Methylene chloride	BDL	0.6
Acetone	BDL	1.4
Carbon disulfide	BDL	0.3
1,1-Dichloroethene	BDL	0.3
Tetrahydrofuran	BDL	1.4
1,1-Dichloroethane	BDL	0.3
1,2-Dichloroethene (total)	BDL	0.3
Chloroform	BDL	0.3
Methyl ethyl ketone	BDL	1.4
1,2-Dichloroethane	BDL	0.3
1,1,1-Trichloroethane	BDL	0.3
Carbon Tetrachloride	BDL	0.3
Vinyl acetate	BDL	0.6
Bromodichloromethane	BDL	0.3
cis-1,3-Dichloropropene	BDL	0.3
trans-1,3-Dichloropropene	BDL	0.3
Trichloroethene	BDL	0.3
Benzene	BDL	0.3
Dibromochloromethane	BDL	0.3
1,1,2-Trichloroethane	BDL	0.3
1,2-Dichloropropane	BDL	0.3
2-Chloroethyl vinyl ether	BDL	0.3
Bromoform	BDL	0.3
Methyl isobutyl ketone	BDL	1.4
2-Hexanone	BDL	1.4
1,1,2,2-Tetrachloroethane	BDL	0.3
Tetrachloroethene	BDL	0.3
Toluene	BDL	0.3
Chlorobenzene	BDL	0.3
Ethylbenzene	BDL	0.3
Xylene (total)	0.2 J	0.3
Styrene	BDL	0.3

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

BDL = Below reporting limit
J = Probable presence below listed detection limit

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: 44928-007
Sample Designation: CLJ44-CC-029-TB
Date Analyzed: 08/10/95
Matrix: WATER

Instrument File Name: \I4381

VOLATILE ORGANICS	CONCENTRATION (ug/L)	REPORTING LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	BDL	10
Acetone	BDL	25
Carbon disulfide	BDL	5
Tetrahydrofuran	BDL	25
Trichlorofluoromethane	BDL	5
1,1-Dichloroethene	BDL	5
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (total)	BDL	5
Chloroform	BDL	5
1,2-Dichloroethane	BDL	5
2-Butanone	BDL	25
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
1,2-Dichloropropane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
Benzene	BDL	5
Bromoform	BDL	5
4-Methyl-2-Pentanone	BDL	25
2-Hexanone	BDL	25
Tetrachloroethene	BDL	5
1,1,2,2-Tetrachloroethane	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
Styrene	BDL	5
Xylene (total)	BDL	5

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

BDL = Below reporting limit

Laboratory number: 44928-011
Sample Designation: CLJ44-CC-027
Date Extracted: 08/09/95
Date Analyzed: 08/09/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.
Moisture content was 16 % , elevating the reporting limits
by a factor of 1.19 .

PCB'S	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
PCB-1242 (Arochlor 1242)	BDL	0.1
PCB-1254 (Arochlor 1254)	BDL	0.1
PCB-1221 (Arochlor 1221)	BDL	0.1
PCB-1232 (Arochlor 1232)	BDL	0.1
PCB-1248 (Arochlor 1248)	BDL	0.1
PCB-1260 (Arochlor 1260)	BDL	0.1
PCB-1016 (Arochlor 1016)	BDL	0.1

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHODS 3550 AND 8080

BDL = Below reporting limit

Laboratory number: 44928-013
Sample Designation: CLJ44-CC-027D
Date Extracted: 08/10/95
Date Analyzed: 08/10/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.
Moisture content was 11 % , elevating the reporting limits
by a factor of 1.12 .

PCB'S	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
PCB-1242 (Arochlor 1242)	BDL	0.1
PCB-1254 (Arochlor 1254)	BDL	0.1
PCB-1221 (Arochlor 1221)	BDL	0.1
PCB-1232 (Arochlor 1232)	BDL	0.1
PCB-1248 (Arochlor 1248)	BDL	0.1
PCB-1260 (Arochlor 1260)	BDL	0.1
PCB-1016 (Arochlor 1016)	BDL	0.1

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHODS 3550 AND 8080

BDL = Below reporting limit

QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: B-G1033B
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/10/95
Matrix: SOLID

COMPOUND	CONCENTRATION ug/g	DETECTION LIMIT ug/g
GASOLINE	BDL	12

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1033
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
GASOLINE	0	50	54	108

METHOD REFERENCE: METHOD 8015 (MODIFIED)

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QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: BG080995TGA
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: WATER

COMPOUND	CONCENTRATION ug/L	DETECTION LIMIT ug/L
GASOLINE	BDL	100

METHOD REFERENCE: METHOD 8015 (MODIFIED)

pace INCORPORATED
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QUALITY CONTROL DATA
TOTAL GASOLINE

BLANK DATA

Laboratory Number: BG081095TGA
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/10/95
Matrix: WATER

COMPOUND	CONCENTRATION ug/L	DETECTION LIMIT ug/L
GASOLINE	BDL	100

MATRIX SPIKE RECOVERY

Laboratory Number: LW081095TGA
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/10/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
GASOLINE	0	500	579	116

METHOD REFERENCE: METHOD 8015 (MODIFIED)

QUALITY CONTROL DATA
PETROLEUM HYDROCARBONS BY GCFID

BLANK DATA

Laboratory Number: B-H1300
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/09/95
Matrix: SOLID

HYDROCARBON TYPE	CONCENTRATION ug/g	DETECTION LIMIT ug/g
DIESEL	BDL	3

MATRIX SPIKE RECOVERY

Laboratory Number: LSH1300
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: SOLID

COMPOUND	ug/g SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
DIESEL	0	33.46	23.19	69

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8100 (MODIFIED) AND ASTM D 3328-78

QUALITY CONTROL
OIL & GREASE

BLANK DATA

Laboratory Number: B-G1371
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/11/95
Matrix: SOLID

PARAMETER	CONCENTRATION ug/g	DETECTION LIMIT ug/g
OIL & GREASE	BDL	250

MATRIX SPIKE RECOVERY

Laboratory Number: LS-G1371
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/11/95
Matrix: SOLID

PARAMETER	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
OIL & GREASE	0	1300	1300	100

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHOD 9071
STANDARD METHODS, 16TH EDITION, METHOD 503D

Laboratory number: BV1118BI
Sample Designation: LAB BLANK
Date Analyzed: 08/09/95
Matrix: SOLID

Instrument File Name: \I4366

Results are expressed on a dry (103 degrees C) basis.

VOLATILE ORGANICS	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
Chloromethane	BDL	1.3
Bromomethane	BDL	1.3
Vinyl chloride	BDL	1.3
Chloroethane	BDL	0.6
Methylene chloride	0.5 J	1.3
Acetone	BDL	3.1
Carbon disulfide	BDL	0.6
1,1-Dichloroethene	BDL	0.6
Tetrahydrofuran	BDL	3.1
1,1-Dichloroethane	BDL	0.6
1,2-Dichloroethene (total)	BDL	0.6
Chloroform	BDL	0.6
Methyl ethyl ketone	BDL	3.1
1,2-Dichloroethane	BDL	0.6
1,1,1-Trichloroethane	BDL	0.6
Carbon Tetrachloride	BDL	0.6
Vinyl acetate	BDL	1.3
Bromodichloromethane	BDL	0.6
cis-1,3-Dichloropropene	BDL	0.6
trans-1,3-Dichloropropene	BDL	0.6
Trichloroethene	BDL	0.6
Benzene	BDL	0.6
Dibromochloromethane	BDL	0.6
1,1,2-Trichloroethane	BDL	0.6
1,2-Dichloropropane	BDL	0.6
2-Chloroethyl vinyl ether	BDL	0.6
Bromoform	BDL	0.6
Methyl isobutyl ketone	BDL	3.1
2-Hexanone	BDL	3.1
1,1,2,2-Tetrachloroethane	BDL	0.6
Tetrachloroethene	BDL	0.6
Toluene	BDL	0.6
Chlorobenzene	BDL	0.6
Ethylbenzene	BDL	0.6
Xylene (total)	BDL	0.6
Styrene	BDL	0.6

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

BDL = Below reporting limit
J = Probable presence below listed detection limit

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VOLATILE ORGANIC COMPOUNDS
MATRIX SPIKE RECOVERY

Laboratory Number:	LSV1118A 100ME
Field Identification:	LABORATORY CONTROL SAMPLE
Date Analyzed:	10 Aug 95 4:09 pm
Matrix:	SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
C045 1,1-Dichloroethene	0.00	6.25	6.20	99
C150 Trichloroethene	0.00	6.25	6.49	104
C165 Benzene	0.00	6.25	6.31	101
C230 Toluene	0.00	6.25	6.58	105
C235 Chlorobenzene	0.00	6.25	7.14	114

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8240

Laboratory number: BV1119AI
Sample Designation: LAB BLANK
Date Analyzed: 08/16/95
Matrix: SOLID

Instrument File Name: \I4434

Results are expressed on a dry (103 degrees C) basis.

VOLATILE ORGANICS	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
Chloromethane	BDL	1.3
Bromomethane	BDL	1.3
Vinyl chloride	BDL	1.3
Chloroethane	BDL	0.6
Methylene chloride	BDL	1.3
Acetone	BDL	3.1
Carbon disulfide	BDL	0.6
1,1-Dichloroethene	BDL	0.6
Tetrahydrofuran	BDL	3.1
1,1-Dichloroethane	BDL	0.6
1,2-Dichloroethene (total)	BDL	0.6
Chloroform	BDL	0.6
Methyl ethyl ketone	BDL	3.1
1,2-Dichloroethane	BDL	0.6
1,1,1-Trichloroethane	BDL	0.6
Carbon Tetrachloride	BDL	0.6
Vinyl acetate	BDL	1.3
Bromodichloromethane	BDL	0.6
cis-1,3-Dichloropropene	BDL	0.6
trans-1,3-Dichloropropene	BDL	0.6
Trichloroethene	BDL	0.6
Benzene	BDL	0.6
Dibromochloromethane	BDL	0.6
1,1,2-Trichloroethane	BDL	0.6
1,2-Dichloropropane	BDL	0.6
2-Chloroethyl vinyl ether	BDL	0.6
Bromoform	BDL	0.6
Methyl isobutyl ketone	BDL	3.1
2-Hexanone	BDL	3.1
1,1,2,2-Tetrachloroethane	BDL	0.6
Tetrachloroethene	BDL	0.6
Toluene	BDL	0.6
Chlorobenzene	BDL	0.6
Ethylbenzene	BDL	0.6
Xylene (total)	BDL	0.6
Styrene	BDL	0.6

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8240

BDL = Below reporting limit

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VOLATILE ORGANIC COMPOUNDS
MATRIX SPIKE RECOVERY

Laboratory Number: LSV1119 100ME
Field Identification: LABORATORY CONTROL SAMPLE
Date Analyzed: 16 Aug 95 7:02 pm
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
C045 1,1-Dichloroethene	0.00	6.25	6.12	98
C150 Trichloroethene	0.00	6.25	6.19	99
C165 Benzene	0.00	6.25	5.94	95
C230 Toluene	0.00	6.25	6.33	101
C235 Chlorobenzene	0.00	6.25	6.58	105

METHOD REFERENCE: EPA SW 846, 3RD EDITION METHOD 8240

Laboratory number: BI081095A1
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/10/95
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	BDL	10
Acetone	BDL	25
Carbon disulfide	BDL	5
1,1-Dichloroethene	BDL	5
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (total)	BDL	5
Chloroform	BDL	5
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Benzene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
1,2-Dichloropropane	BDL	5
2-Chloroethyl vinyl ether	BDL	5
Bromoform	BDL	5
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5
Tetrachloroethene	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
m-Xylene	BDL	5
o,p-Xylene	BDL	5
Styrene	BDL	5

METHOD REFERENCE: EPA SW 846 3RD EDITION
METHOD 8240

BDL = Below detection limit

VOLATILE ORGANIC COMPOUNDS
MATRIX SPIKE RECOVERY

Laboratory Number:	LCI081095A1 5ML
Field Identification:	LABORATORY CONTROL SAMPLE
Date Analyzed:	10 Aug 95 11:29 am
Matrix:	WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
C045 1,1-Dichloroethene	0.00	50.00	50.12	100
C150 Trichloroethene	0.00	50.00	53.28	107
C165 Benzene	0.00	50.00	50.36	101
C230 Toluene	0.00	50.00	50.85	102
C235 Chlorobenzene	0.00	50.00	54.56	109

METHOD REFERENCE: EPA SW-846, 3RD EDITION
METHOD 8240

Laboratory number: BP4399
Sample Designation: LAB BLANK
Date Extracted: 08/09/95
Date Analyzed: 08/09/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.

PCB'S	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
PCB-1242 (Arochlor 1242)	BDL	0.1
PCB-1254 (Arochlor 1254)	BDL	0.1
PCB-1221 (Arochlor 1221)	BDL	0.1
PCB-1232 (Arochlor 1232)	BDL	0.1
PCB-1248 (Arochlor 1248)	BDL	0.1
PCB-1260 (Arochlor 1260)	BDL	0.1
PCB-1016 (Arochlor 1016)	BDL	0.1

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHODS 3550 AND 8080

BDL = Below reporting limit

PCB'S

MATRIX SPIKE RECOVERY

Laboratory Number: LS-P4399
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/09/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
AR-1254	0	1.01	1.14	113

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHODS 3550 AND 8080

Laboratory number: BP4401
Sample Designation: LAB BLANK
Date Extracted: 08/10/95
Date Analyzed: 08/10/95
Matrix: SOLID

Results are expressed on a dry (103 degrees C) basis.

PCB'S	CONCENTRATION (ug/g)	REPORTING LIMIT (ug/g)
PCB-1242 (Arochlor 1242)	BDL	0.1
PCB-1254 (Arochlor 1254)	BDL	0.1
PCB-1221 (Arochlor 1221)	BDL	0.1
PCB-1232 (Arochlor 1232)	BDL	0.1
PCB-1248 (Arochlor 1248)	BDL	0.1
PCB-1260 (Arochlor 1260)	BDL	0.1
PCB-1016 (Arochlor 1016)	BDL	0.1

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHODS 3550 AND 8080

BDL = Below reporting limit

PCB'S

MATRIX SPIKE RECOVERY

Laboratory Number: LS-P4401
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed 08/10/95
Matrix: SOLID

COMPOUND	ug/g IN SAMPLE	ug/g SPIKE	ug/g FOUND	%REC-OVERY
AR-1254	0	1.01	1.16	115

METHOD REFERENCE: EPA SW846, 3RD EDITION
METHODS 3550 AND 8080

PACE New England, Inc.

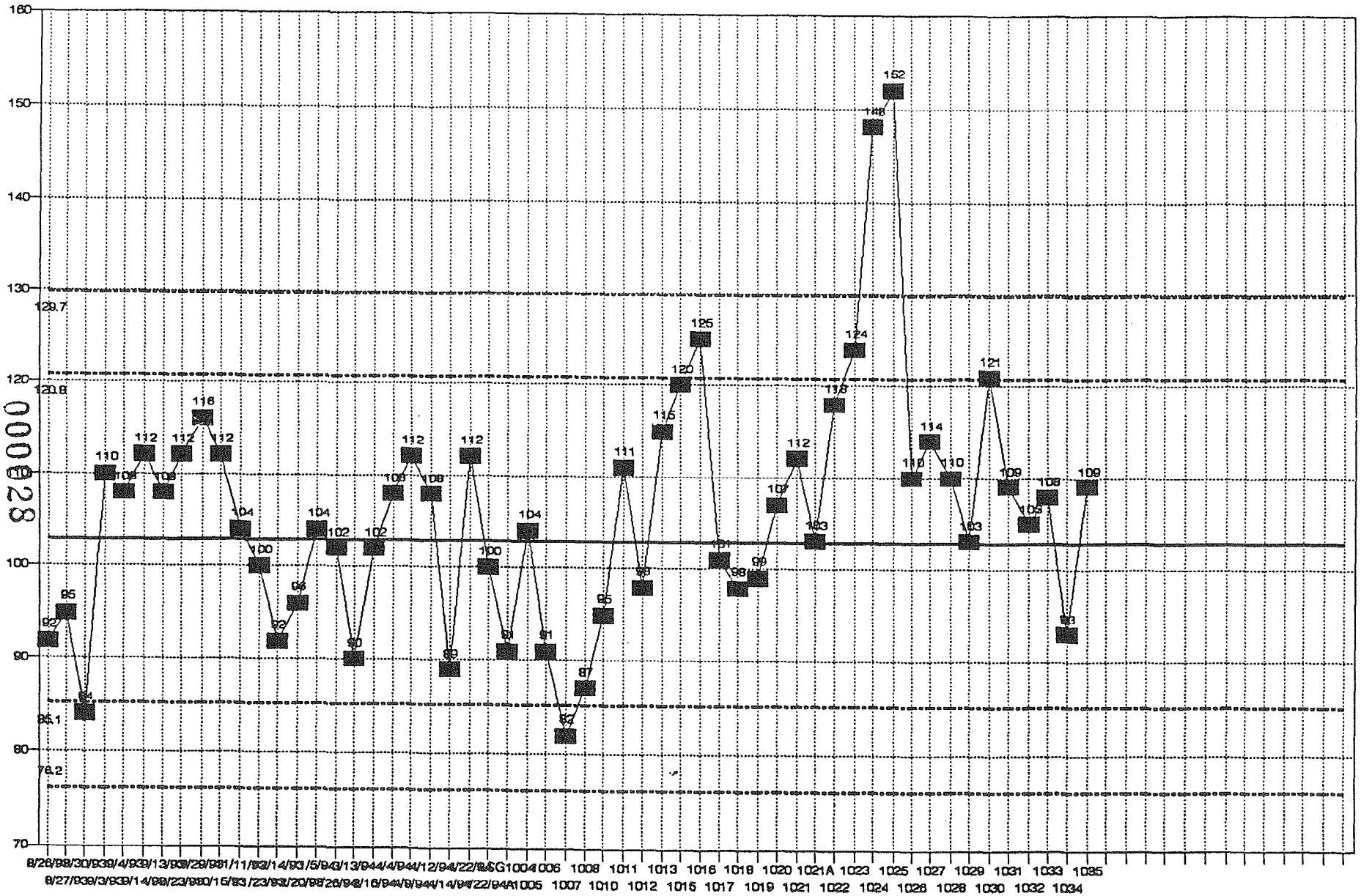
Metals QC Results for : 44928

QC BATCH: 21807
MATRIX: SOIL
CONCENTRATION UNITS: MG/KG

ELEMENT	LCS TRUE VALUE	LCS RESULT	LCS % RECOVERY	METHOD BLANK
Lead -	100.90	88.70	87.9	B 0.3

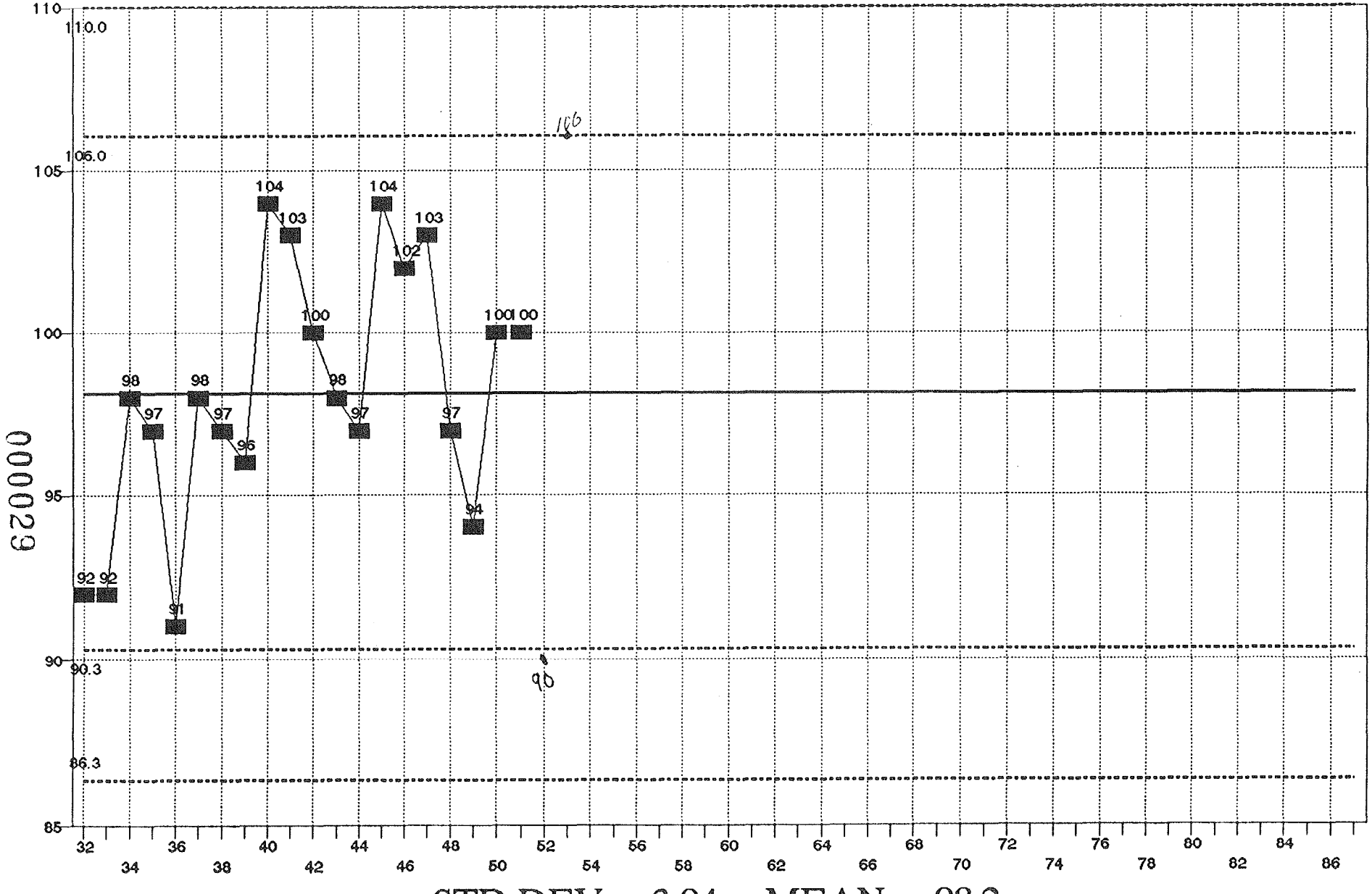
B = Result between instrument detection limit and reporting limit.
U = Result below instrument detection limit.
N = LCS recovery not within advisory QC limits (80% - 120%)
with the exception of Silver QC limits (52% - 136%).

TOTAL GAS LCS RECOVERIES
LIMITS SET 4/13/94



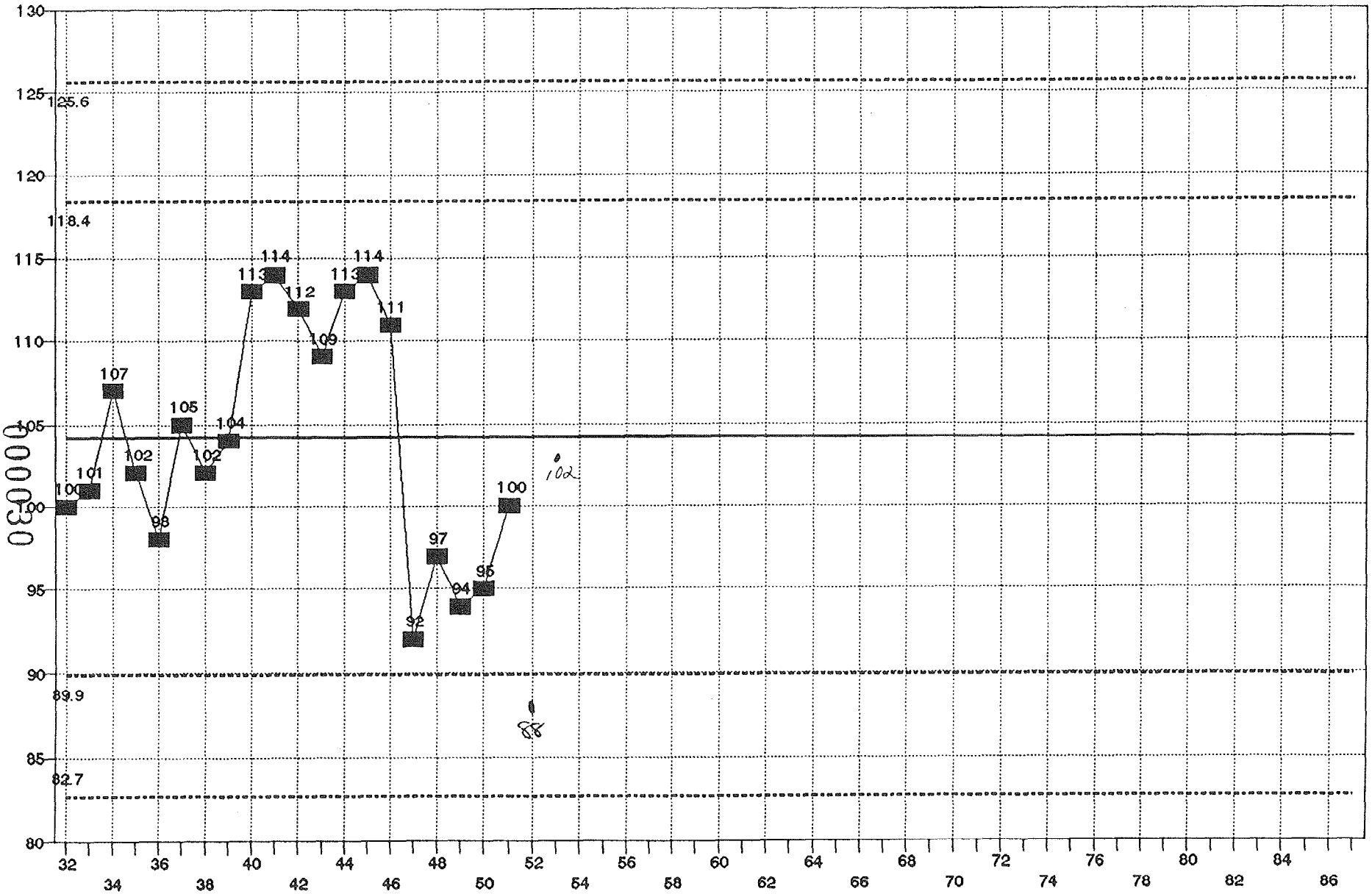
STD DEV = 8.93 MEAN = 103

VOA MED SOLIDS - SURR DCE
LIMIT SET 8/95



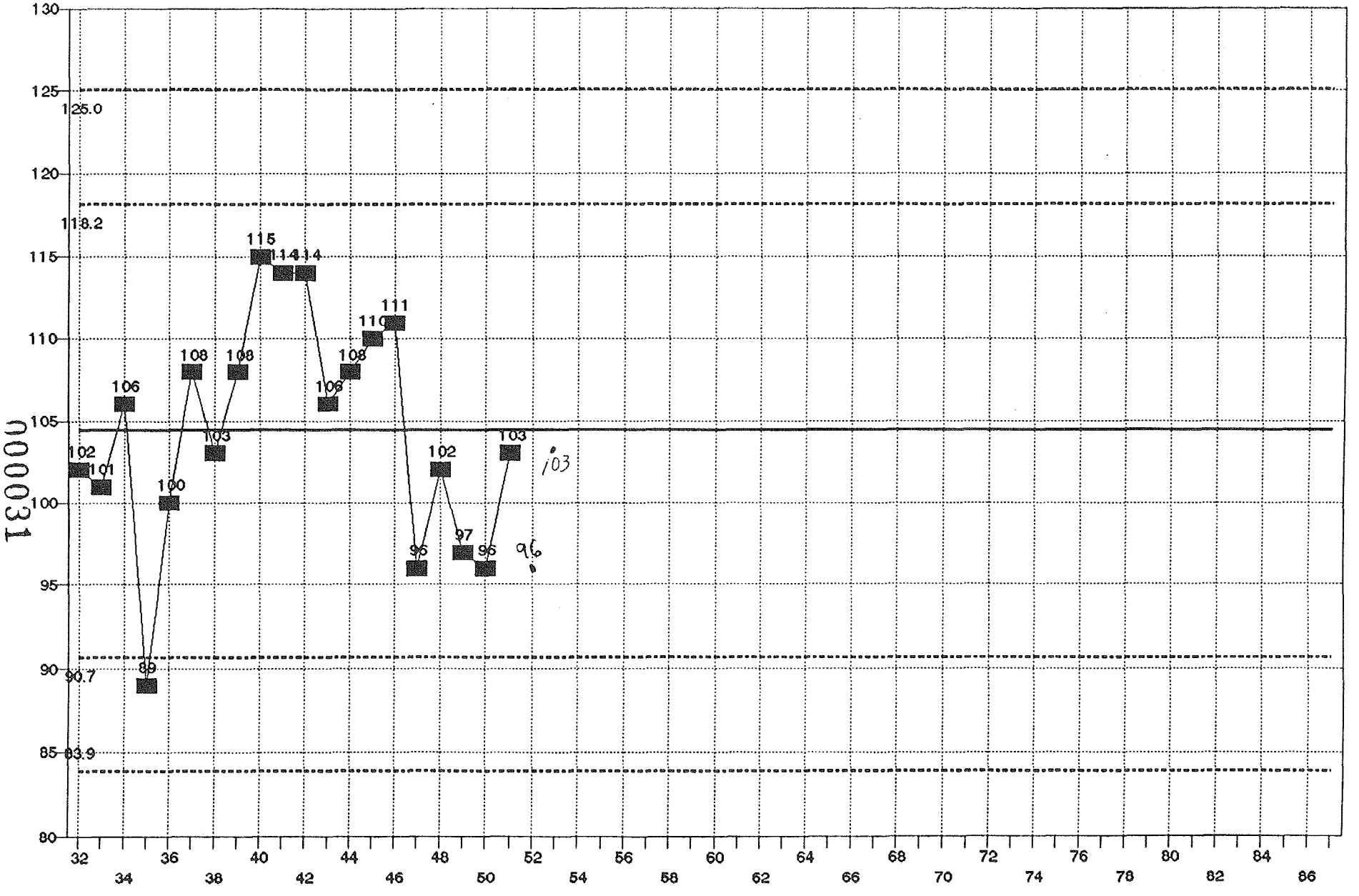
STD DEV = 3.94 MEAN = 98.2

VOA MED SOLIDS - SURR TOL
LIMIT SET 8/95



STD DEV = 7.14 MEAN = 104.2

VOA MED SOLIDS - SURR BFB
LIMIT SET 8/95

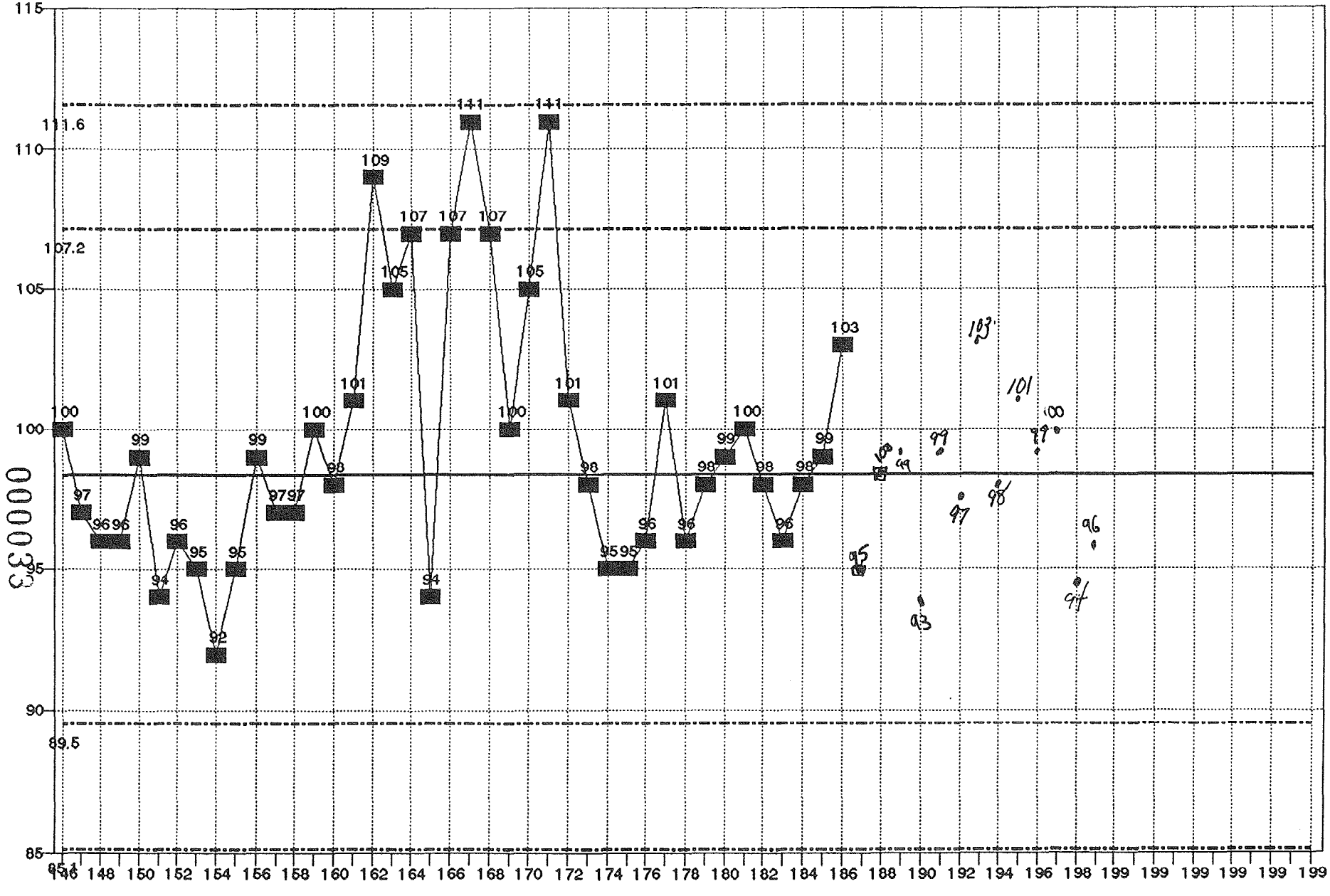


STD DEV = 6.86 MEAN = 104.4

MED SOIL BLANK # LIST

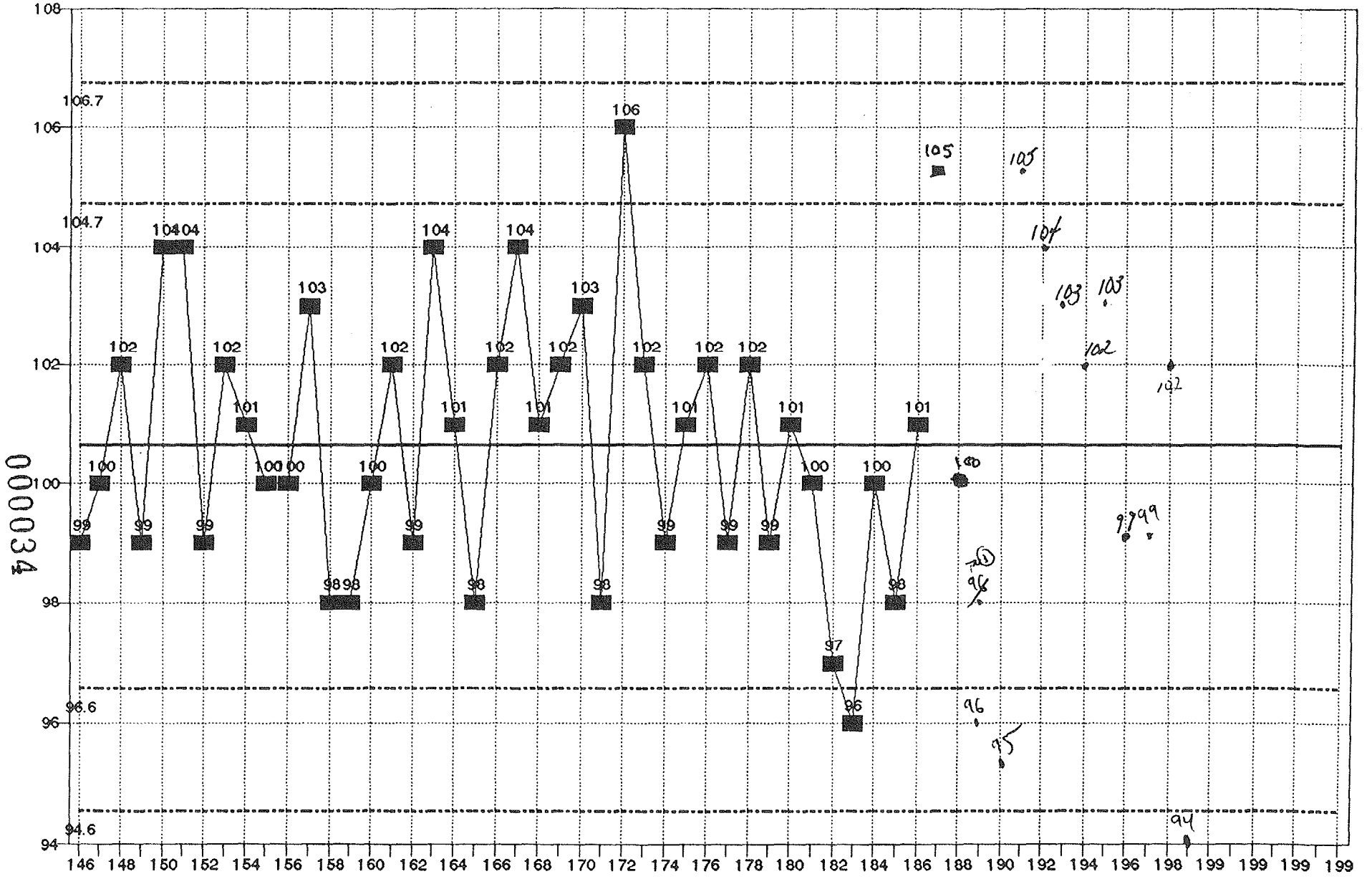
POINT	/ BLANK
1	MB021693A
2	MB022193B
3	MB022993B
4	MB030193A
5	MB040293A
6	MB050493A
7	MB050493A
8	MB050593A
9	MB050693A
10	MB052793B
11	MB052593A
12	MB101293A
13	MB100993A
14	MB111793A
15	MB121393A
16	MB121393A
17	MB020694A
18	MB021094A
19	MB021594A
20	MB021594A
21	MB021594A
22	MB042994B
23	MB050494A
24	MB050494A
25	B-V1005A
26	B-V1021A
27	B-V1027B
28	B-V1027C
29	B-V1034C
30	B-V1039
31	B-V1044A
32	B-V1045A
33	B-V1044B
34	B-V1050
35	B-V1066 EMS
36	B-V1066 CMS
37	B-V1070 12/30/94
38	B-V1070 1/3/95
39	B-V1085
40	B-V1084
41	B-V1085
42	B-V1084
43	B-V1087
44	B-V1085
45	B-V1084
46	B-V1084
47	B-V1117A
48	B-V1117B
49	B-V1118A
50	B-V1118D
51	B-V1118B
52	B-V1118A CMS
53	B-V1119A

VOA WATERS - SURR DCE
LIMITS SET 4/95



STD DEV = 4.40 MEAN = 98.4

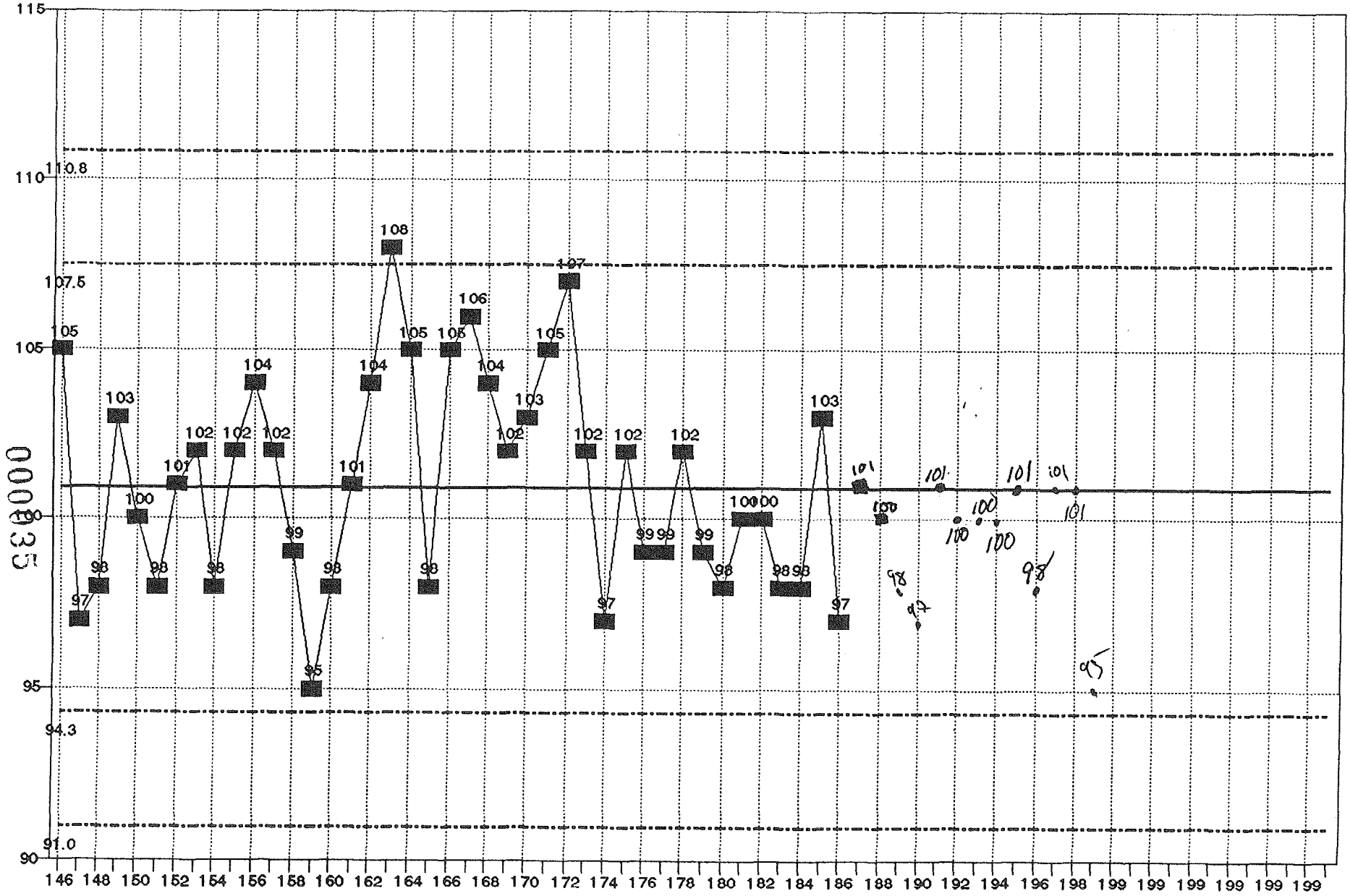
VOA WATERS - SURR TOL
LIMIT SET 4/95



000034

STD DEV = 2.03 MEAN = 100.6

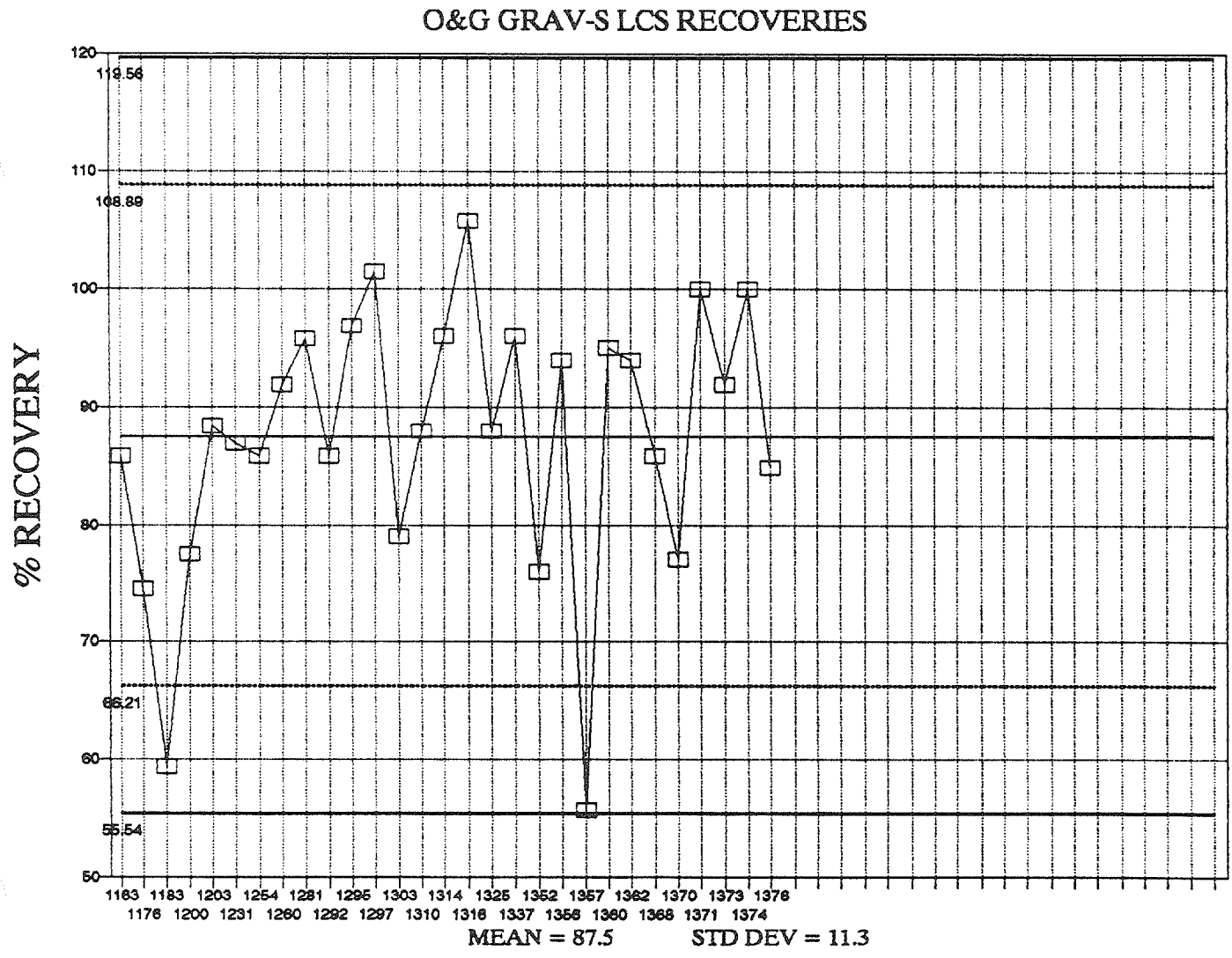
VOA WATERS - SURR BFB
LIMIT SET 4/95



STD DEV =3.31 MEAN = 100.9

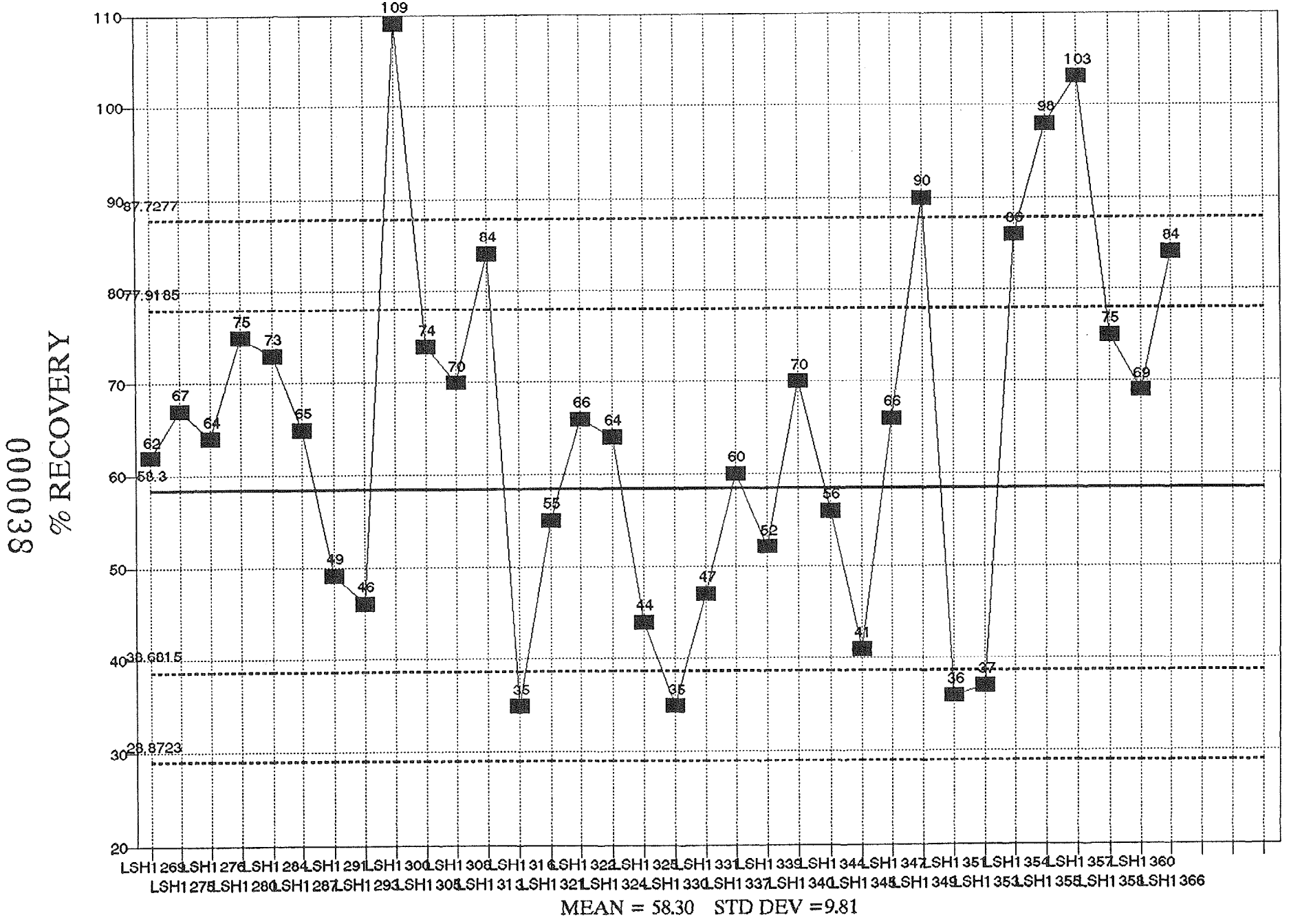
VOLATILES -- WATER SURROGATE CONTROL CHARTS
POINT / BLANK

21	BE081892A	69	BC041493A	117	BE070794A	165	BC041295A
22	BC082192A	70	BE052593B	118	BE070894A	166	BI042095B
23	BE082092A	71	BE060193A	119	BC063094A	167	BI042195A
24	BC082592A	72	BE060393A	120	BC072794A	168	BI042495A
25	BC082692A	73	BC062193A	121	BD072794A	169	BC042595B
26	BE082792A	74	BE051393A	122	BD072894A	170	BI042595A
27	BE082892B	75	BC062493A	123	BD072994A	171	BI042795A
28	BE083092A	76	BD051993A	124	BE081194A	172	BI050195A
29	BD101492A	77	BD052093B	125	BC081994A	173	BC050595A
30	BC100992A	78	BC063093A	126	BE101194A	174	BC050695A
31	BC110692A	79	BC061093A	127	BE101294B	175	BG050295B
32	BC111992A	80	BE051393A	128	BG101494A	176	BC062995B
33	BE112092A	81	BD072293A	129	BC110294B	177	BC063095B
34	BC112392A	82	BD072393A	130	BC110394B	178	BC072495A
35	BG113092B	83	BD072693A	131	BC110794B	179	BC072695A
36	BG120192A	84	BD072793A	132	BC110894B	180	BI080895A
37	BC122292A	85	BD073093A	133	BC110994A	181	BI080995A
38	BG013093B	86	BC080493A	134	BC111594B	182	BC080295A
39	BC012193A	87	BC080593A	135	BC111794B	183	BC080495A
40	BD021693A	88	BE091793A	136	BC111894B	184	BC080795A
41	BD021793A	89	BC092093B	137	BG111094A	185	BC080895A
42	BD021893A	90	BC093093B	138	BC120194B	186	BI081095A
43	BD021993A	91	BG093093A	139	BC120294B	187	BI081195A
44	BD022293A	92	BE120693A	140	BC120594B	188	BI080995A
45	BD022393A	93	BE120793A	141	BC120694B	189	BC081195A1
46	BD022493A	94	BE121793A	142	BC120794B	190	BC081495A1
47	BG030293A	95	BC122793B	143	BC121594B	191	BI081495A1 (97, 105, 10[illegible])
48	BC030193B	96	BC122893A	144	BG120394B	192	BI081595A1 (97, 104, 100)
49	BG030393A	97	BG021094A	145	BC122294B	193	BI081695A1 ([illegible], 103, 105)
50	BG030493A	98	BG021194A	146	BC122994B	194	BI081795A1 (98, 102, 100)
51	BG031593A	99	BG021494A	147	BE121694A	195	BI081895A1 (101, 103, 101)
52	BG031693A	100	BG021594A	148	BE020995B	196	BI082195A1 (99, 98, 98)
53	BD031893A	101	BC022394B	149	BE021395A	197	BC081695A1 (100, 99, 101)
54	BD031993A	102	BC022494C	150	BE021595A	198	BI08[illegible]
55	BC032293B	103	BC022594B	151	BE021695A	199	BC081595A1 (96, 94, 95)
56	BC032393A	104	BG022594B	152	BC032295A	200	
57	BC041293A	105	BG022894A	153	BC032395A	201	
58	BC041393A	106	BG030394A	154	BC032495A	202	
59	BC041993A	107	BD022194A	155	BC032795A	203	
60	BE042893A	108	BC031194A	156	BC040695A	204	
61	BE042993A	109	BC031594B	157	BC041195B	205	
62	BE043093A	110	BG040794A	158	BC041395A	206	
63	BE050393A	111	BC041294B	159	BC041495A	207	
64	BE050493A	112	BG042894A	160	BG041095B	208	
65	BE050593A	113	BG042994A	161	BG041495B	209	
66	BE050693A	114	BC050994C	162	BI041395A	210	
67	BE051093A	115	BG060394A	163	BI041895B	211	
68	BE051193A	116	BC050394B	164	BI041995A	212	


O&G GRAV-S LCS RECOVERIES
% RECOVERY
120
110
100
90
80
70
60
50
118.56
108.89
66.21
55.54
1163 1183 1203 1254 1281 1295 1303 1314 1325 1352 1357 1362 1370 1373 1376
1176 1200 1231 1260 1292 1297 1310 1318 1337 1358 1360 1368 1371 1374
MEAN = 87.5
STD DEV = 11.3

PHC LOW SOLIDS - DIESEL

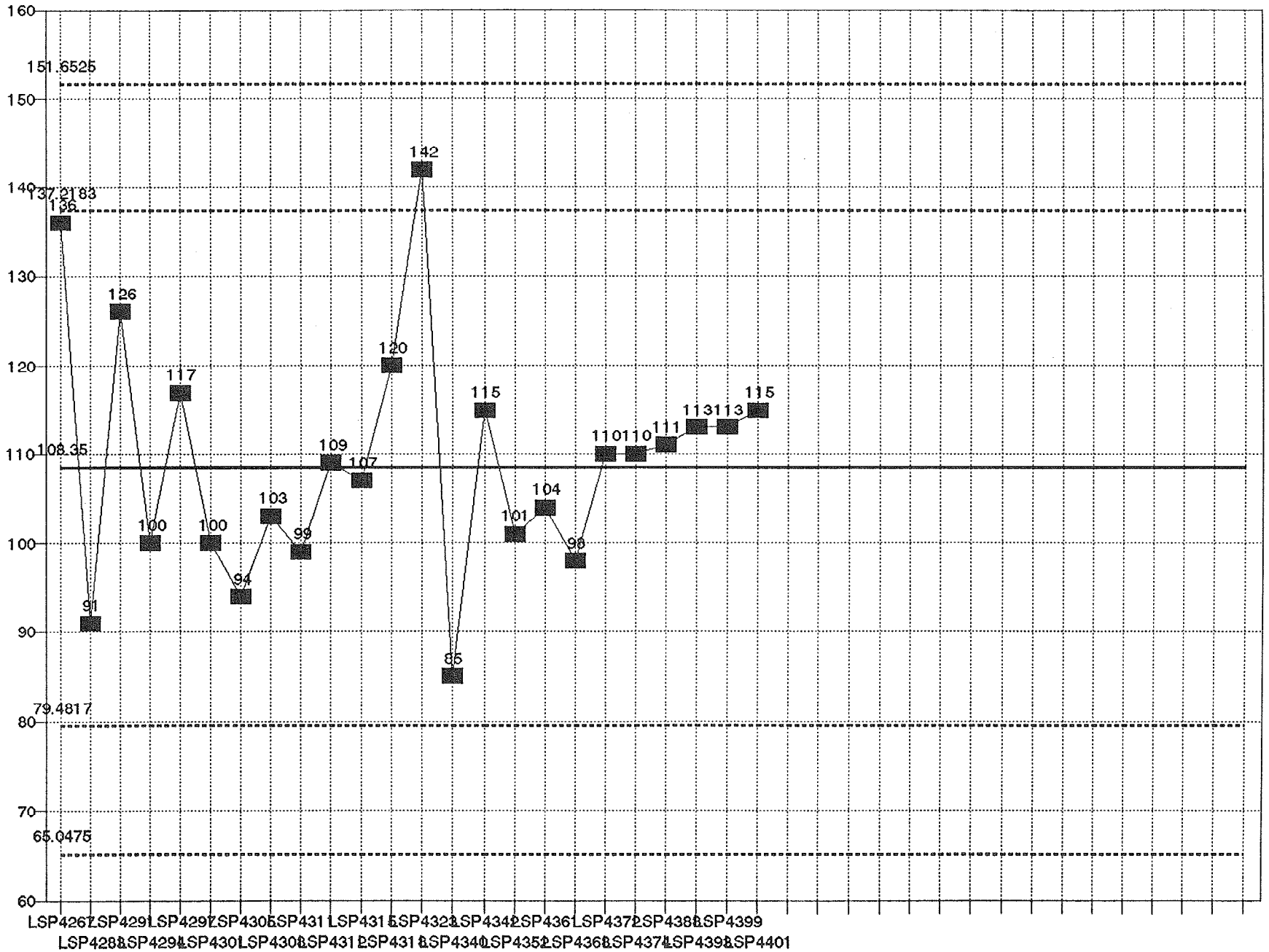
SPK REC LIMS SET6/6/95-PPCBCHT\PHCS1294



MEAN = 58.30 STD DEV =9.81

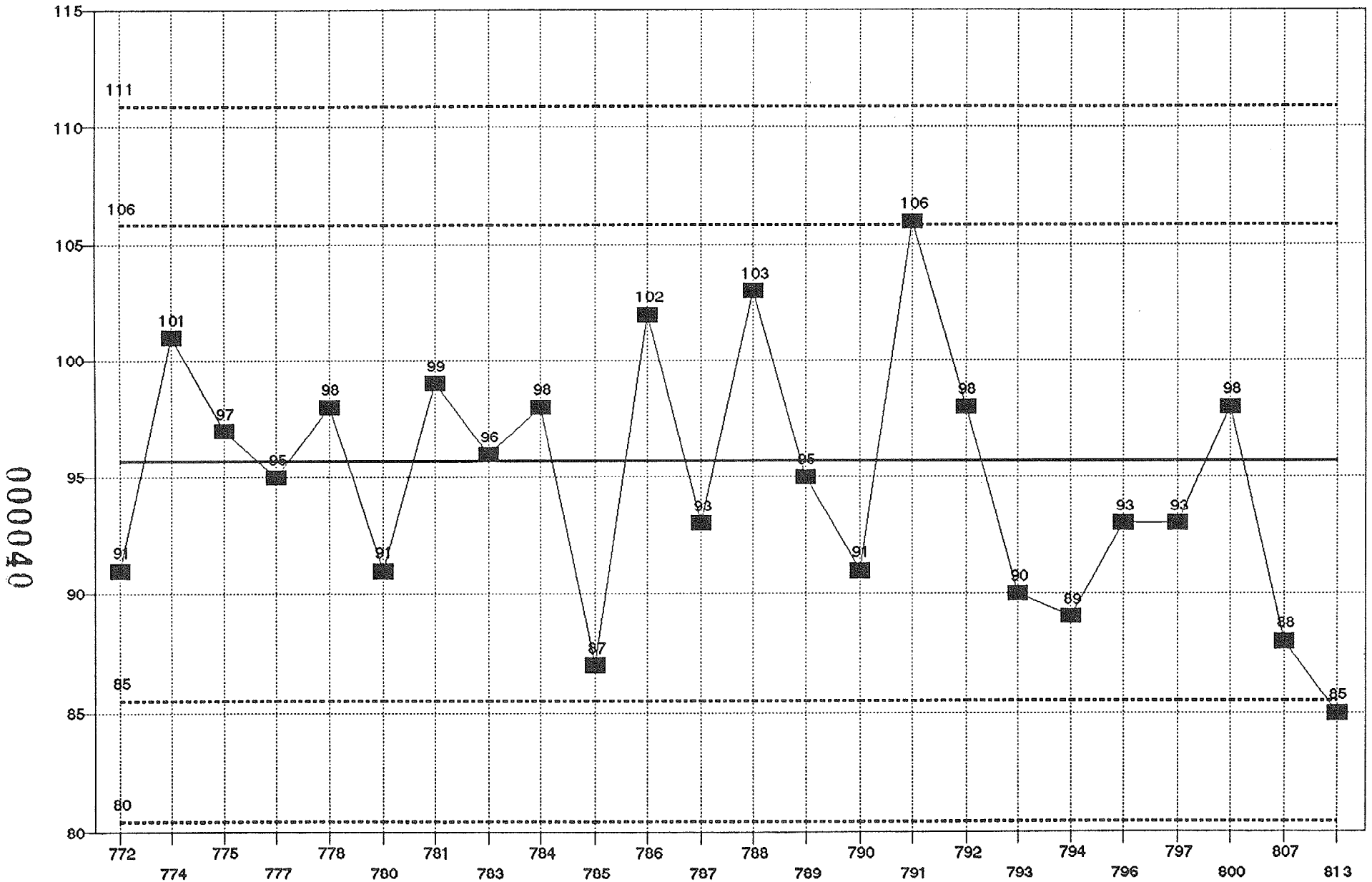
PCB MEDIUM SOLIDS AROCHLOR 1254

SPK LIMITS SET 8/95-PPCBCHT\AR1254S



MEAN = 108.35 STD DEV = 14.43

Pb TRACECOMMERCIAL LCS SOLID RECOVERIES
LIMITS SET 7/95



STD DEV = 5.08 MEAN = 95.6

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

LAB COF

Form 00
Field Technical Servic
Rev. 08/

166405

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune, D.O. 44	Camp Geiger, NC

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
16487	Rakesh Mishra	910-45-2579

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
	Jim Dunn / Sandy Smith

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TPH-GRO	TPH-DRO	TCLP Metals, TCLP Semi-Volatile	TCLP Volatile	RCRA Haz Waste Char.	OEG	PCB, Total Lead	Volatile + BTEX (8240)	REMARKS 44928
1	CLJ44-CC-024	8/8	1102	X		Contaminated Soil from Pile 17 of Area C.	4	1-X	X	-8			X	-8		Do Not Analyze
2	CLJ44-CC-025	8/8	1113	X		Contaminated Soil from Pile 18 of Area C.	4	2-X	X	-9			X	-9		Sample #'s (CLJ44-CC-02 -RB).
3	CLJ44-CC-026	8/8	1120	X		Contaminated soil from Pile 19 of Area C.	4	3-X	X	-10			X	-10		
4	CLJ44-CC-027	8/8	1132	X		Contaminated Soil from Pile 20 of Area C.	4	4-X	X	-11 X	X	12 X	X	-11 X	X	-4 Telp Met, VOA+ORG+HazWaste
5	CLJ44-CC-027D	8/8	1132	X		Duplicate Contaminated Soil from Pile 20 of Area C.	4	5-X	X	-13 X	X	14 X	X	13 X	X	-5 ARE Job# 44929
6	CLJ44-CC-028 -RB	8/8	1140	X		Rinsate Blank of Contaminated Soil Pile 17-20 of Area C.	5	X	X	X	X	X				
7	CLJ44-CC-029 -TB	8/8				Trip Blank	3	6-X			X				X	-7
8																
9																
10																

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-7			8/8	1500
2			K.C. Lawson / PACE NH	8/9/95	0955
3					
4					

REMARKS

SAMPLER'S SIGNATURE

T00004

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

August 29, 1995

OHM Remediation Services Corporation
5335 Triangle Parkway
Suite 450
Norcross, GA 30092

SAMPLE DELIVERY GROUP NARRATIVE

Case: OHMRC
SDG: LJN12
Laboratory: PACE New England - New Hampshire of Hampton, NH
Lab Numbers: 44929
Protocol: SW846 Methods. NEESA E deliverables. No diskette.

Sample Receipt: These samples were received at PACE, Inc. on August 9, 1995. Laboratory sample numbers were assigned for test parameters as listed on the Sample Table which follows this narrative. The sample shipment was checked for custody seal integrity and cooler temperature. Samples were checked for appropriate preservation and accuracy against the Chains-of-Custody provided. Other than the exceptions noted below, samples were received between 2-6° C and in good condition. PACE Sample Receipt Condition Reports can be found with the Chains-of-Custody.

Shipment received 8/9/95 (44929): These samples were received and logged in under PACE# 44928 and 44929. Samples for 24-hour turnaround were logged in under 44928 and the TCLP parameters were logged in under 44929 for three day turnaround. A temperature blank was not included with the shipment, therefore the cooler temperature could not be verified upon receipt of samples at PACE. The samples were received cool, and had been packed on ice. The rinsate blank listed as Item #6 on the COC was put on hold per the request on the COC.

TCLP Volatiles Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

TCLP Semivolatiles Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

TCLP Metals Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Conventional Chemistry Analysis: Analyses proceeded without difficulty. Matrix spikes and duplicates met all acceptance criteria.

Statement of Compliancy and Data Authorization

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Richard K Wellman — 8/29/95

PACE Incorporated, New England-New Hampshire — August 29, 1995

P.O. Box 2130
1 Lafayette Road
Hampton, NH 03842
TEL: 603-926-7777
800-992-0724
FAX: 603-926-7939

pace INCORPORATED
ENVIRONMENTAL LABORATORIES

NEW ENGLAND - NEW HAMPSHIRE LABORATORY
SAMPLE RECEIPT CONDITION REPORT
Tel. (603) 926-7777
FAX (603) 926-7939

44929

PAGE 1 of 1
COOLER ____ of ____
COC# ____
SDG# LJN12
CASE# OHMRC

CLIENT OHM
DATE/TIME RECEIVED 8/9/95 0955
DELIVERED BY Fed Ex
RECEIVED BY [signature]

LIMS ENTRY BY [signature]
TRANSCRIPTION REVIEW BY [signature]
LIMS REVIEW BY/PM [signature]

		NA	YES	EXCEPTION	COMMENT	RESOLUTION
1.	CUSTODY SEALS PRESENT/INTACT	☐	☑	☐		
2.	CHAIN OF CUSTODY PRESENT IN THIS COOLER	☐	☑	☐		
3.	CHAIN OF CUSTODY SIGNED	☐	☑	☐		
4.	CHAIN OF CUSTODY MATCHES SAMPLES	☐	☑	☐		
5.	SAMPLES RECEIVED AT 2° - 6° C Ice/Ice Packs Present? (Y) or N	☐	☐	☑	No Trip Blank - Samples cool to touch	
6.	VOLATILES FREE OF HEAD SPACE	☐	☑	☐		
7.	TRIP BLANK PRESENT IN THIS COOLER	☐	☑	☐		
8.	PROPER SAMPLE CONTAINERS AND VOLUME	☐	☑	☐		
9.	SAMPLES WITHIN HOLD TIME	☐	☑	☐		
10.	SAMPLES PROPERLY PRESERVED	☐	☑	☐		

11. ANALYTICAL PROGRAMS (circle one) COMMERCIAL CLP EPA-CLP NYASP NJ ISRA (NEESA) AFCEE Other ____
NEESA
12. NUMBER OF PACE FILTRATIONS: ____
13. CORRECTIVE ACTIONS REPORT # ____

Log-in Notes:

CLIENT AUTHORIZATION SIGNATURE ____ DATE ____

SAMPLE TABLE

CLIENT ID.	MATRIX	PACE #	PARAMETERS
CLJ44-CC-027	SOLID	44929-012	GC/MS VOA ACID EXTRACTABLES BASE/NEUTRAL EXTRACTABLES TCLP VOA EXTRACT TCLP ORGANICS EXTRACT CORROSIVITY FLASH POINT RELEASABLE CYANIDE RELEASABLE SULFIDE TCLP METALS EXTRACTION Ba, Cd, Cr, Pb, Hg, Ag, As, Se
CLJ44-CC-027D	SOLID	44929-014	GC/MS VOA ACID EXTRACTABLES BASE/NEUTRAL EXTRACTABLES TCLP VOA EXTRACT TCLP ORGANICS EXTRACT CORROSIVITY FLASH POINT RELEASABLE CYANIDE RELEASABLE SULFIDE TCLP METALS EXTRACTION Ba, Cd, Cr, Pb, Hg, Ag, As, Se

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number	:	44929-012
Field Identification	:	CLJ44-CC-027
Extraction Date	:	08/10/95
TCLP Blank	:	90,002-389

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44929-012
Sample Designation:CLJ44-CC-027
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/14/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44929-012
Field Identification : CLJ44-CC-027
Extraction Date : 08/10/95
TCLP Blank : 90,001-274

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.49. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.67, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 16.50 hrs

Final pH : 5.18

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

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Laboratory number: 44929-012
Sample Designation: CLJ44-CC-027
Date Extracted: 08/14/95
Date Analyzed: 08/15/95
Matrix: TCLP EXTRACT

Instrument File Name: >H8813

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR METALS CONSTITUENTS

Laboratory number: 44929 -012
Sample Designation: CLJ44-CC-027
Matrix: TCLP EXTRACT

Parameter		Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
METALS	Date Analyzed			
Arsenic	08/16/95 13:59	BDL	5.0	.05
Barium	08/16/95 13:59	BDL	100	.5
Cadmium	08/16/95 13:59	BDL	1.0	.03
Chromium	08/16/95 13:59	BDL	5.0	.05
Lead	08/16/95 13:59	BDL	5.0	.03
Mercury	08/17/95 11:48	BDL	0.2	.0003
Selenium	08/16/95 13:59	BDL	1.0	.05
Silver	08/16/95 13:59	BDL	5.0	.1

Results uncorrected for matrix spike recovery.

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TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR VOLATILE CONSTITUENTS

Laboratory Number : 44929-014
Field Identification : CLJ44-CC-027D
Extraction Date : 08/10/95
TCLP Blank : 90,002-389

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

Extraction Fluid #1 was used as specfied in the method.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 25 g of sample was added to the extractor with 500 mL of Extraction Fluid #1.

Extraction Time : 16.00 hrs

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid #1: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

pace INCORPORATED THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR VOLATILE CONSTITUENTS

Laboratory number: 44929-014
Sample Designation:CLJ44-CC-027D
Matrix: TCLP EXTRACT

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
VOLATILES	Date Analyzed: 08/14/95		
Vinyl chloride	BDL	0.2	.01
1,1-Dichloroethene	BDL	0.7	.005
1,2-Dichloroethane	BDL	0.5	.005
Chloroform	BDL	6.0	.005
Methyl ethyl ketone	BDL	200	.025
Carbon Tetrachloride	BDL	0.5	.005
Trichloroethene	BDL	0.5	.005
Benzene	BDL	0.5	.005
Tetrachloroethene	BDL	0.7	.005
Chlorobenzene	BDL	100	.005

Results uncorrected for matrix spike recovery.

pace INCORPORATED
THE ASSURANCE OF QUALITY

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (1)
EXTRACTION FOR NON-VOLATILE CONSTITUENTS

Laboratory Number : 44929-014
Field Identification : CLJ44-CC-027D
Extraction Date : 08/10/95
TCLP Blank : 90,001-274

Sample description : NON-HOMOGENEOUS GRANULAR SOIL

Extraction Fluid Selection (1,2):

A 5.0 gm portion of the sample was stirred with 96.5 mL deionized water. The pH at the end of 5 minutes was 7.52. 3.5 mL 1.0N HCl was added and the mixture was then heated to 50C for ten minutes. Upon cooling the pH was 1.84, therefore Extraction Fluid #1 was used.

Sample Preparation (1):

Since the sample contained no free liquid, it was not filtered before extraction. 100 gm of sample was added to the extractor with 2000 mL Extraction Fluid #1.

Extraction Time : 16.50 hrs

Final pH : 5.14

% Solids as defined in method : 100

References:

1. 40 CFR Part 261, Appendix II, Nov. 24, 1992

2. Extraction Fluid: 0.57% by volume glacial acetic acid to which 0.1N NaOH has been added to yield a pH of 4.93 +/- 0.05.

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: 44929-014
Sample Designation: CLJ44-CC-027D
Date Extracted: 08/14/95
Date Analyzed: 08/15/95
Matrix: TCLP EXTRACT

Instrument File Name: >H8814

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
Pyridine	BDL	5.0	0.05
1,4-Dichlorobenzene	BDL	7.5	0.05
2,4-Dinitrotoluene	BDL	0.13	0.05
2-Methylphenol	BDL	200	0.05
3,4-Methylphenols	BDL	200	0.05
Hexachloroethane	BDL	3.0	0.05
Nitrobenzene	BDL	2.0	0.05
Hexachlorobenzene	BDL	0.13	0.05
Pentachlorophenol	BDL	100	0.05
Hexachlorobutadiene	BDL	0.5	0.05
2,4,6-Trichlorophenol	BDL	2.0	0.05
2,4,5-Trichlorophenol	BDL	400	0.05

METHOD REFERENCE: EPA SW846, 3rd Edition
METHOD 8270

BDL = Below reporting limit

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
ANALYSIS FOR METALS CONSTITUENTS

Laboratory number: 44929 -014
Sample Designation: CLJ44-CC-027D
Matrix: TCLP EXTRACT

Parameter		Result (mg/L)	Regulatory Limit (mg/L)	Reporting Limit (mg/L)
METALS	Date Analyzed			
Arsenic	08/16/95 14:05	BDL	5.0	.05
Barium	08/16/95 14:05	BDL	100	.5
Cadmium	08/16/95 14:05	BDL	1.0	.03
Chromium	08/16/95 14:05	BDL	5.0	.05
Lead	08/16/95 14:05	BDL	5.0	.03
Mercury	08/17/95 14:05	BDL	0.2	.0003
Selenium	08/16/95 14:05	BDL	1.0	.05
Silver	08/16/95 14:05	BDL	5.0	.1

Results uncorrected for matrix spike recovery.

pace INCORPORATED THE ASSURANCE OF QUALITY

TCLP METHOD SUMMARY

PARAMETER		METHOD/REF.
TCLP Extract Generation		1311/1
Volatile organic compounds		8240/2
Semivolatile organic compounds		8270/2
Pesticides		8080/2
Herbicides		8150/2
Metals:	Arsenic	6010/2
	Barium	6010/2
	Cadmium	6010/2
	Chromium	6010/2
	Lead	6010/2
	Mercury	7470/2
	Selenium	6010/2
	Silver	6010/2

References:
1) 40 CFR Part 261, Appendix II, Nov. 24, 1992
2) EPA SW 846, 3rd Edition

Field Identification: CLJ44-CC-027 Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Corrosivity (pH, units)	7.9		44929-012	08/09/95	348	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44929-012	08/11/95	291	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44929-012	08/14/95	291	7.3.3.2/2
Flash Point (degrees F)	>150	50	44929-012	08/09/95	317	1010/2

Field Identification: CLJ44-CC-027D Matrix: SOLID

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Corrosivity (pH, units)	8.0		44929-014	08/09/95	348	2.1.2/2
Releasable Sulfide (mg/Kg)	BDL	50	44929-014	08/11/95	291	7.3.4.2/2
Releasable Cyanide (mg/Kg)	BDL	1	44929-014	08/14/95	291	7.3.3.2/2
Flash Point (degrees F)	>150	50	44929-014	08/09/95	317	1010/2

Results expressed on a weight as received basis.

References: 2) EPA SW 846, 3rd Edition

pace INCORPORATED THE ASSURANCE OF QUALITY

Laboratory number: TCLP BLANK #389
Client ID: TCLP BLANK
Date Analyzed: 08/14/95
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Detection Limit (ug/L)
Vinyl chloride	BDL	200	10
1,1-Dichloroethene	BDL	700	5
1,2-Dichloroethane	BDL	500	5
Chloroform	BDL	6000	5
Methyl ethyl ketone	BDL	200000	25
Carbon Tetrachloride	BDL	500	5
Trichloroethene	BDL	500	5
Benzene	BDL	500	5
Tetrachloroethene	BDL	700	5
Chlorobenzene	BDL	100000	5

METHOD REFERENCE: EPA SW846 3rd EDITION
METHOD 8240

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: BC081495A1
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/14/95
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Chloromethane	BDL	10
Bromomethane	BDL	10
Vinyl chloride	BDL	10
Chloroethane	BDL	5
Methylene chloride	BDL	10
Acetone	BDL	25
Carbon disulfide	BDL	5
1,1-Dichloroethene	BDL	5
Tetrahydrofuran	BDL	25
1,1-Dichloroethane	BDL	5
1,2-Dichloroethene (total)	BDL	5
Chloroform	BDL	5
Methyl ethyl ketone	BDL	25
1,2-Dichloroethane	BDL	5
1,1,1-Trichloroethane	BDL	5
Carbon Tetrachloride	BDL	5
Vinyl acetate	BDL	10
Bromodichloromethane	BDL	5
cis-1,3-Dichloropropene	BDL	5
trans-1,3-Dichloropropene	BDL	5
Trichloroethene	BDL	5
Benzene	BDL	5
Dibromochloromethane	BDL	5
1,1,2-Trichloroethane	BDL	5
1,2-Dichloropropane	BDL	5
2-Chloroethyl vinyl ether	BDL	5
Bromoform	BDL	5
Methyl isobutyl ketone	BDL	25
2-Hexanone	BDL	25
1,1,2,2-Tetrachloroethane	BDL	5
Tetrachloroethene	BDL	5
Toluene	BDL	5
Chlorobenzene	BDL	5
Ethylbenzene	BDL	5
m-Xylene	BDL	5
o,p-Xylene	BDL	5
Styrene	BDL	5

METHOD REFERENCE: EPA SW 846 3RD EDITION
METHOD 8240

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

MATRIX SPIKE RECOVERY
VOLATILE ORGANIC COMPOUNDS

Laboratory Number: LCC081495A1
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/14/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
1,1-DICHLOROETHENE	0	50	60	120
TRICHLOROETHYLENE	0	50	51	102
BENZENE	0	50	51	101
TOLUENE	0	50	47	94
CHLOROBENZENE	0	50	49	98

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8240

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: TCLP BLANK #274
Sample Designation: TCLP BLANK
Date Analyzed: 08/18/95
Matrix: TCLP EXTRACT

Parameter	Result (ug/L)	Regulatory Limit (ug/L)	Detection Limit (ug/L)
Pyridine	BDL	5000	56
1,4-Dichlorobenzene	BDL	7500	56
2,4-Dinitrotoluene	BDL	130	56
2-Methylphenol	BDL	200000	56
3,4-Methylphenols	BDL	200000	56
Hexachloroethane	BDL	3000	56
Nitrobenzene	BDL	2000	56
Hexachlorobenzene	BDL	130	56
Pentachlorophenol	BDL	100000	56
Hexachlorobutadiene	BDL	500	56
2,4,6-Trichlorophenol	BDL	2000	56
2,4,5-Trichlorophenol	BDL	400000	56

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8270

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

Laboratory number: B-A2401
Sample Designation: LABORATORY BLANK
Date Analyzed: 08/15/95
Matrix: WATER

ACID/BASE/NEUTRAL EXTRACTABLES	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
N-Nitrosodimethylamine	BDL	10
Phenol	BDL	10
Aniline	BDL	10
Bis(2-chloroethyl)ether	BDL	10
2-Chlorophenol	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Benzylalcohol	BDL	10
1,2-Dichlorobenzene	BDL	10
2-Methylphenol	BDL	10
Bis(2-chloroisopropyl)ether	BDL	10
4-Methylphenol	BDL	10
N-Nitroso-di-N-propylamine	BDL	10
Hexachloroethane	BDL	10
Nitrobenzene	BDL	10
Isophorone	BDL	10
2-Nitrophenol	BDL	10
2,4-Dimethylphenol	BDL	10
Benzoic acid	BDL	50
Bis(2-chloroethoxy)methane	BDL	10
2,4-Dichlorophenol	BDL	10
1,2,4-Trichlorobenzene	BDL	10
Naphthalene	BDL	10
4-Chloroaniline	BDL	10
Hexachlorobutadiene	BDL	10
4-Chloro-3-methylphenol	BDL	10
2-Methylnaphthalene	BDL	10
Hexachlorocyclopentadiene	BDL	10
2,4,6-Trichlorophenol	BDL	10
2,4,5-Trichlorophenol	BDL	50
2-Chloronaphthalene	BDL	10
2-Nitroaniline	BDL	50
Dimethylpthalate	BDL	10
Acenaphthylene	BDL	10
2,6-Dinitrotoluene	BDL	10
3-Nitroaniline	BDL	50
Acenaphthene	BDL	10
2,4-Dintrophenol	BDL	50
4-Nitrophenol	BDL	50
Dibenzofuran	BDL	10
2,4-Dinitrotoluene	BDL	10
Diethylphthalate	BDL	10
4-Chlorophenyl-phenylether	BDL	10
Fluorene	BDL	10
4-Nitroaniline	BDL	50
4,6-Dinitro-2-methylphenol	BDL	50
N-Nitrosodiphenylamine	BDL	10
Azobenzene	BDL	10
4-Bromophenyl-phenylether	BDL	10
Hexachlorobenzene	BDL	10
Pentachlorophenol	BDL	10
Phenanthrene	BDL	10
Anthracene	BDL	10
Di-N-butylphthalate	BDL	10
Fluoranthene	BDL	10
Benzidine	BDL	50
Pyrene	BDL	10
Butylbenzylpthalate	BDL	10
3,3'-Dichlorobenzidine	BDL	20
Benzo(A)anthracene	BDL	10
Chrysene	BDL	10
Bis(2-ethylhexyl)phthalate	BDL	10
Di-N-octylphthalate	BDL	10
Benzo(B)fluoranthene	BDL	10
Benzo(K)fluoranthene	BDL	10
Benzo(A)pyrene	BDL	10
Ideno(1,2,3,-CD)pyrene	BDL	10
Dibenz(A,H)anthracene	BDL	10
Benzo(G,H,I)perylene	BDL	10

METHOD REFERENCE: EPA SW 846, 3RD EDITION
METHOD 8270

BDL = Below detection limit

pace INCORPORATED
THE ASSURANCE OF QUALITY

MATRIX SPIKE RECOVERY
ACID/BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS

Laboratory Number: LS-A2401
Sample Designation: LABORATORY CONTROL SAMPLE
Date Analyzed: 08/15/95
Matrix: WATER

COMPOUND	ug/L IN SAMPLE	ug/L SPIKE	ug/L FOUND	%REC-OVERY
PHENOL	0	200	134	67
2-CHLOROPHENOL	0	200	142	71
1,4-DICHLOROBENZENE	0	100	61	61
N-NITROSO-DI-N-PROPYLAMINE	0	100	70	70
1,2,4-TRICHLOROBENZENE	0	100	65	65
4-CHLORO-3-METHYLPHENOL	0	200	145	72
ACENAPHTHENE	0	100	72	72
4-NITROPHENOL	0	200	143	72
2,4-DINITROTOLUENE	0	100	73	73
PENTACHLOROPHENOL	0	200	124	62
PYRENE	0	100	68	68

METHOD REFERENCE: EPA SW 846, 3rd Edition
METHOD 8270

pace INCORPORATED
THE ASSURANCE OF QUALITY

QUALITY CONTROL
Corrosivity
Method: 7.2 SW846 3rd Edition

QC Batch: 348 For: 44929
Matrix: SOLID

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
LCS1	7.0	7.02

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Sulfide
Method: 7.3.4.2 EPA SW846, 3rd Edition

QC Batch: 291 For: 44929
Matrix: SOLID

METHOD BLANK:

	Result ug/g
	< 50.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	1490.9	1693.4	113.6

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

pace INCORPORATED
THE ASSURANCE OF QUALITY

PACE INC. NE-NH LAB
QUALITY CONTROL
Releasable Cyanide
Method: 7.3.3.2 SW846, 3rd Edition

QC Batch: 291 For: 44929
Matrix: SOLID

METHOD BLANK:

	Result ug/g
	< 1.00

LABORATORY CONTROL SAMPLES:

	True Value ug/g	Observed Value ug/g	Accuracy Recovery %
LCS1	40.0	10.750	26.9

FIELD SAMPLE:

Precision

Lab No.	Replicate 1 ug/g	Replicate 2 ug/g	Average ug/g	Relative Percent Difference %
0	< 1.00	< 1.00	NC	NC

QUALITY CONTROL QUALIFIER STATEMENT
The sample results used to generate quality control information for solid samples are uncorrected for dry weight. This does not affect the results reported for percent of spike recovery and relative percent difference.

NC = Not calculable due to result below detection limit.

QUALITY CONTROL
Flashpoint
Method: D93-80, ASTM

QC Batch: 317 For: 44929
Matrix: SOLID

LABORATORY CONTROL SAMPLES:

	True Value DEG F	Observed Value DEG F
LCS1	81.00	81.00

FIELD SAMPLE:

Precision

Lab No.	Replicate 1 ug/g	Replicate 2 ug/g
44929-14	150.00	150.00

pace INCORPORATED THE ASSURANCE OF QUALITY

Metals Results for TCLP Blank 274

ELEMENT	BLANK RESULT	
Arsenic	< 0.20	mg/L
Barium	< 0.10	mg/L
Cadmium	< 0.005	mg/L
Chromium	< 0.01	mg/L
Lead	< 0.05	mg/L
Mercury	< 0.0003	mg/L
Selenium	< 0.20	mg/L
Silver	< 0.02	mg/L

All results are methods 3010 and 6010, except mercury (method 7470).

PACE New England, Inc.

Metals QC Results for : 44929

QC BATCH: 12426
MATRIX: WATER
CONCENTRATION UNITS: UG/L

ELEMENT	LCS TRUE VALUE	LCS RESULT	LCS % RECOVERY	METHOD BLANK	
Arsenic	2000.00	2050.00	102.5	U	2.8
Barium	2000.00	2100.00	105.0	B	0.4
Cadmium	50.00	53.60	107.2	U	0.2
Chromium	200.00	199.00	99.5	U	0.5
Lead	500.00	515.00	103.0	B	1.7
Selenium	2000.00	1960.00	98.0	U	3.7
Silver	50.00	50.10	100.2	U	0.7
Zinc	500.00	525.00	105.0	B	8.9

B = Result between instrument detection limit and reporting limit.
U = Result below instrument detection limit.
N = LCS recovery not within advisory QC limits (80% - 120%)
with the exception of Silver QC limits (52% - 136%).

PACE New England, Inc.

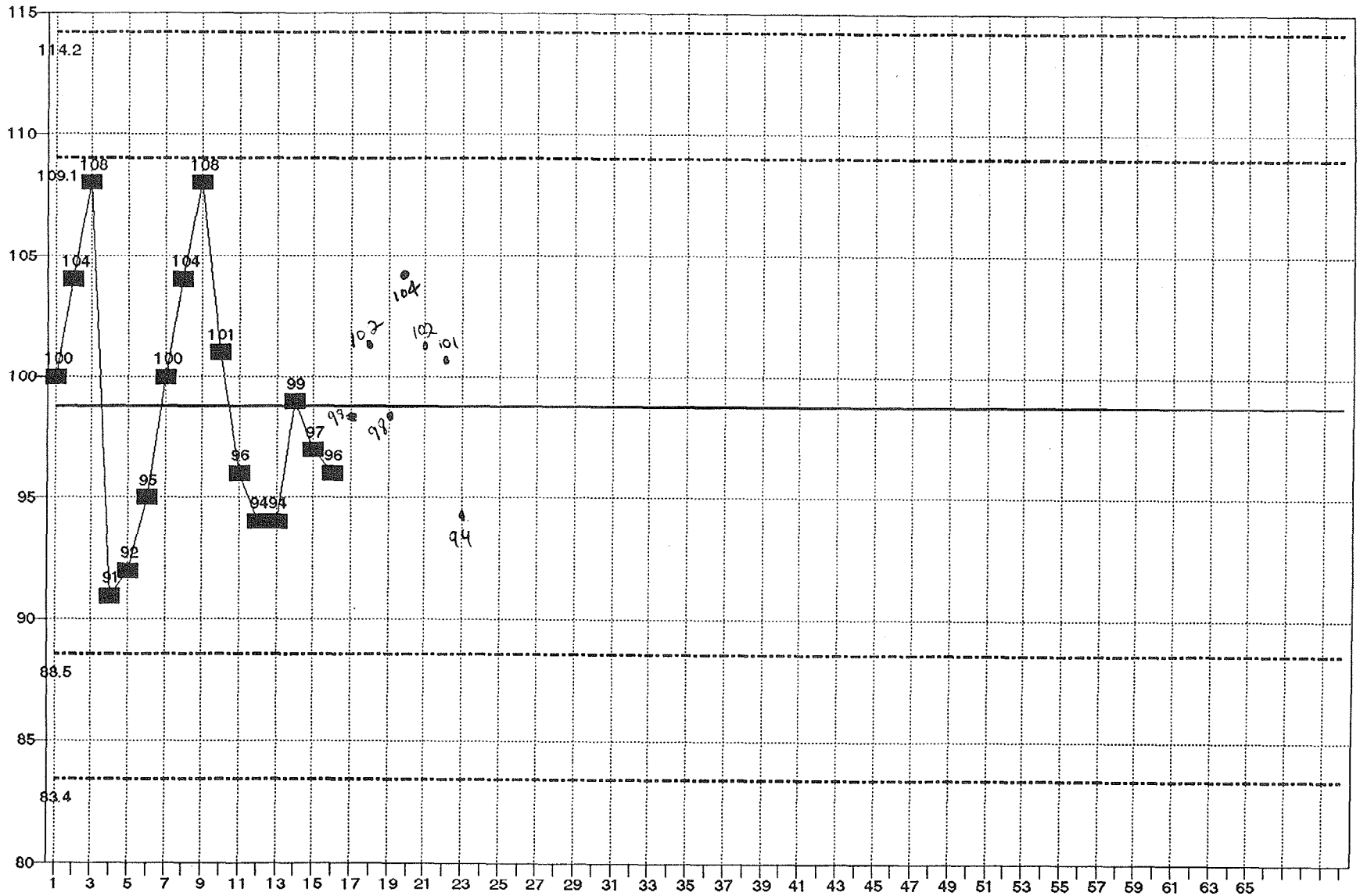
Metals QC Results for : 44929

QC BATCH: 6175
MATRIX: WATER
CONCENTRATION UNITS: UG/L

ELEMENT	LCS TRUE VALUE	LCS RESULT	LCS % RECOVERY	METHOD BLANK
Mercury	8.00	8.00	100.0	U 0.10

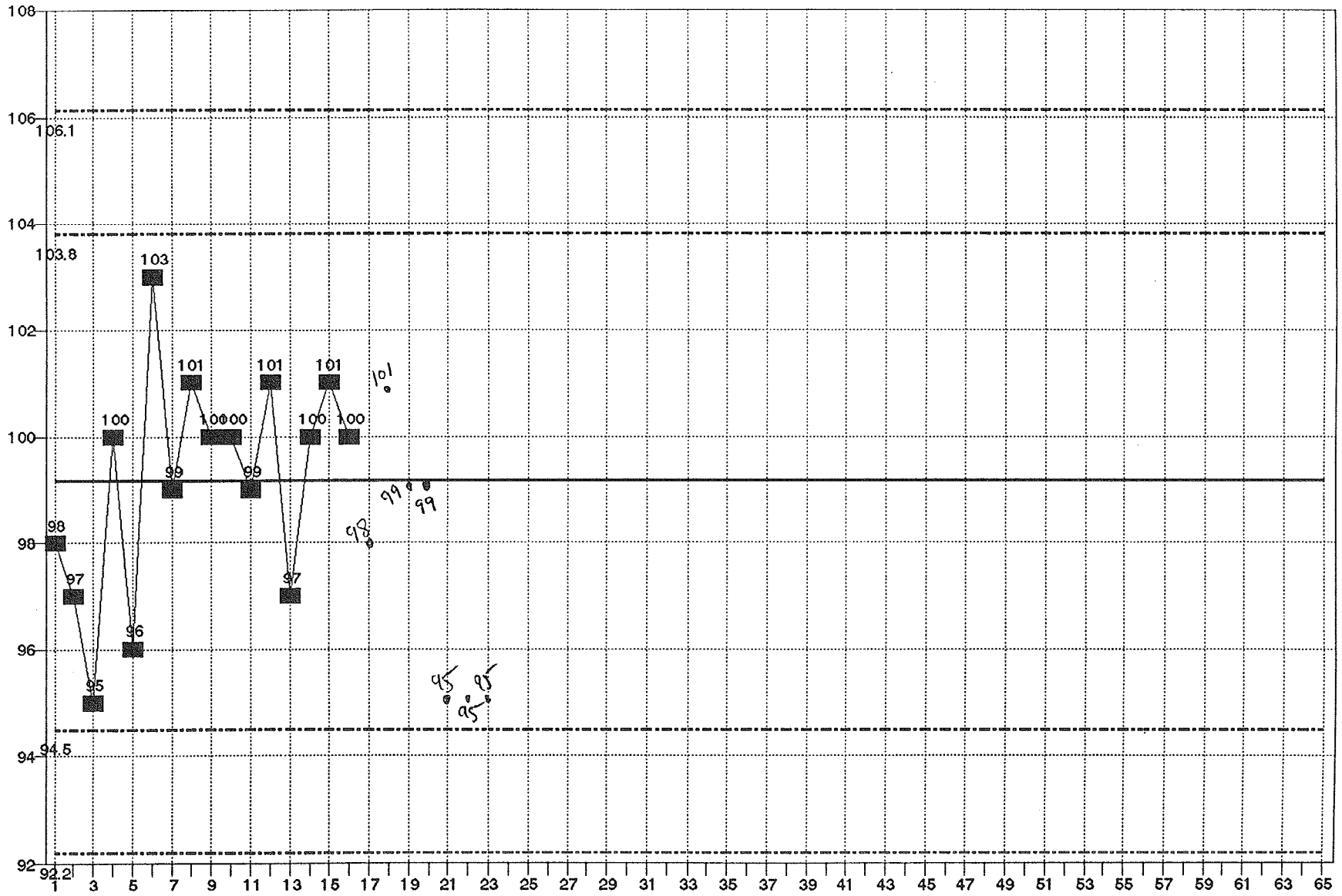
B = Result between instrument detection limit and reporting limit.
U = Result below instrument detection limit.
N = LCS recovery not within advisory QC limits (80% - 120%)
with the exception of Silver QC limits (52% - 136%).

VOA TCLP - SURR DCE
LIMIT SET 7/93



STD DEV = 5.13 MEAN = 98.8

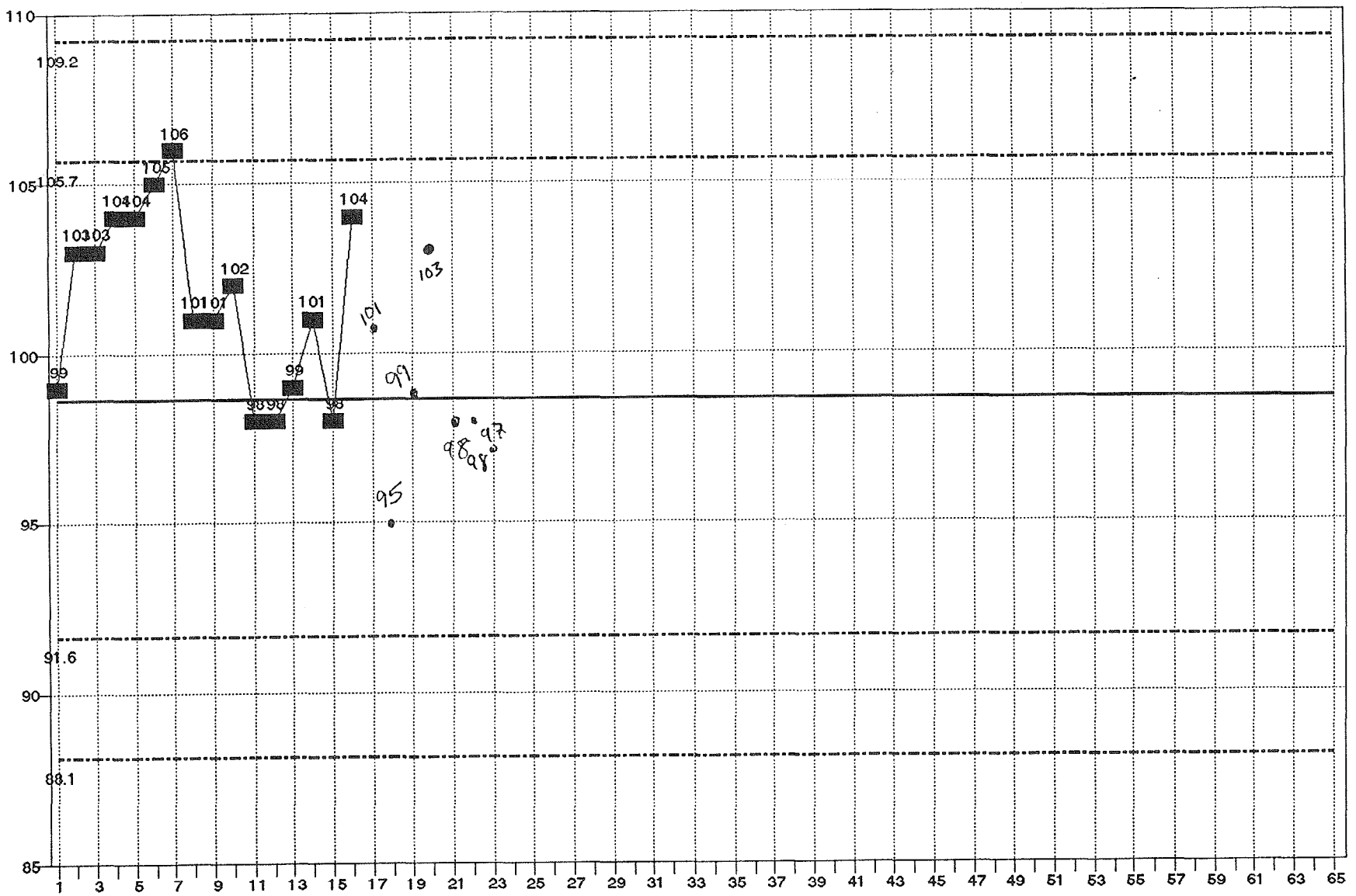
VOA TCLP - SURR TOL
LIMIT SET 7/93



STD DEV = 2.32 MEAN = 99.1

0000030

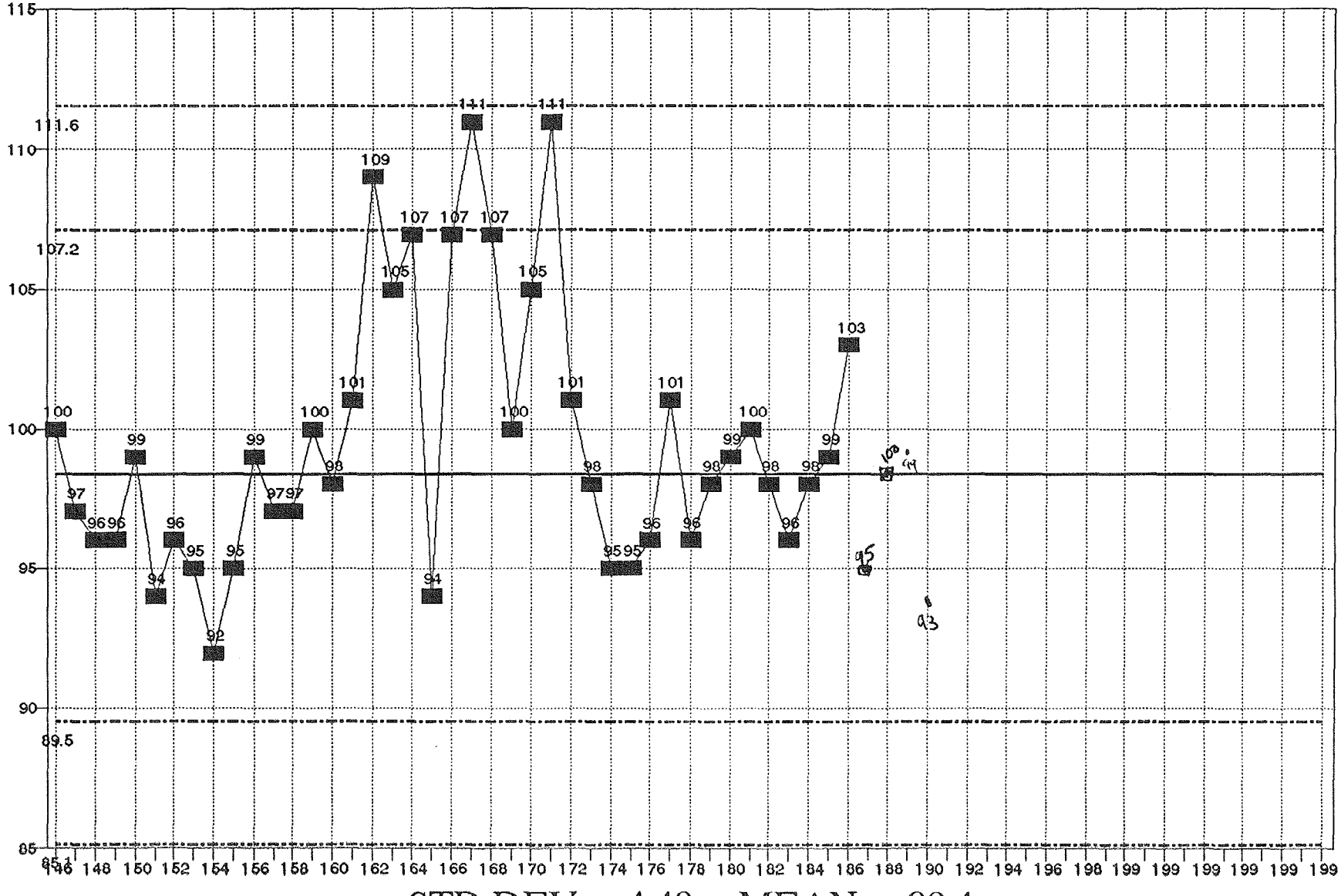
VOA TCLP - SURR BFB
LIMIT SET 7/93



STD DEV =3.51 MEAN = 98.6

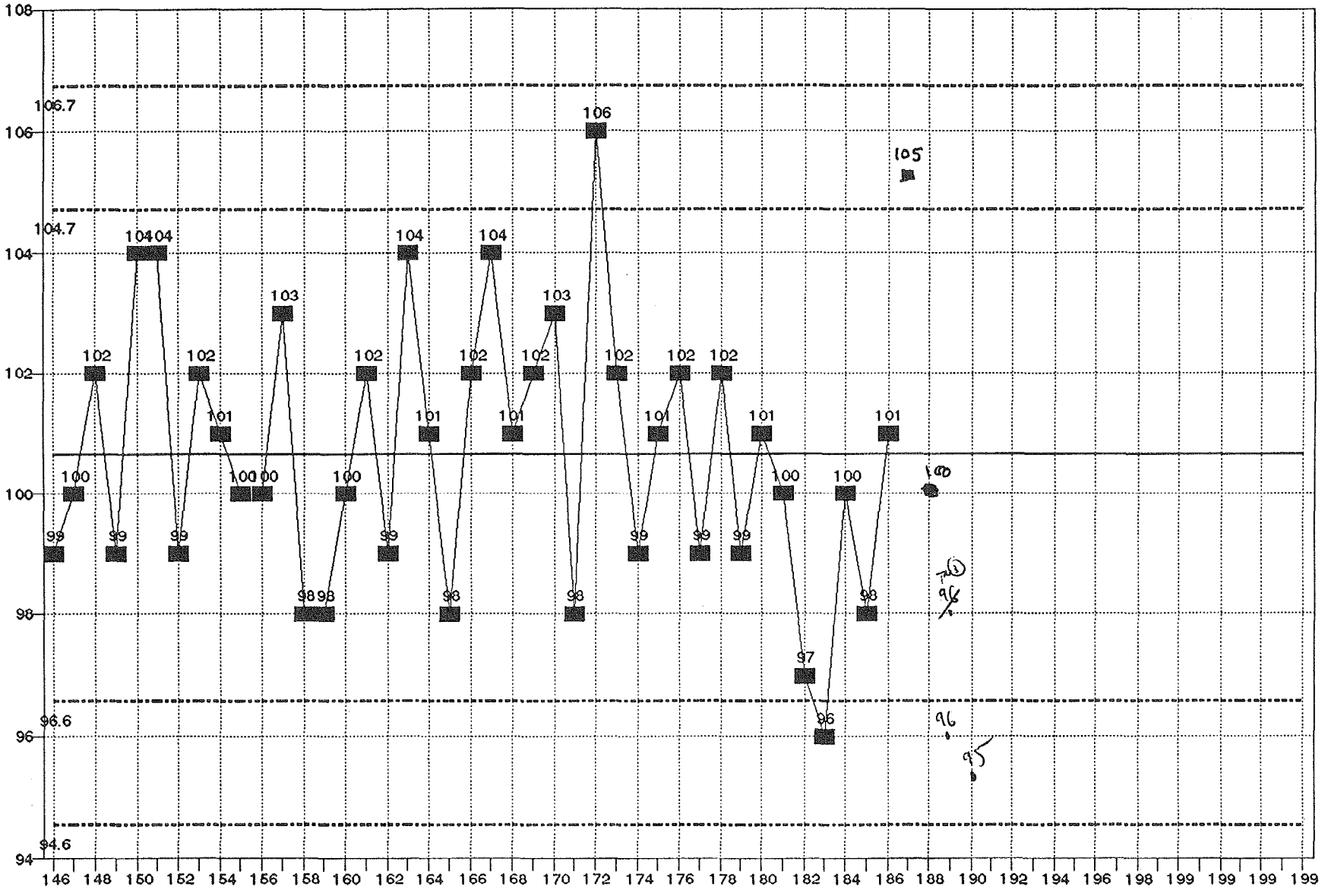
1	TCLP BLANK	340	03/16/94
2	TCLP BLANK	340	03/17/94
3	TCLP BLANK	341	03/17/94
4	TCLP BLANK	341	03/18/94
5	TCLP BLANK	342	03/18/94
6	TCLP BLANK	341	03/22/94
7	TCLP BLANK	343	03/25/94
8	TCLP BLANK	343	03/28/94
9	TCLP BLANK	344	03/28/94
10	TCLP BLANK	345	03/28/94
11	TCLP BLANK	346	04/07/94
12	TCLP BLANK	347	04/19/94
13	TCLP BLANK	349	05/11/94
14	TCLP BLANK	350	05/16/94
15	TCLP BLANK	352	05/17/94
16	TCLP BLANK	354	06/06/94
17	TCLP BLANK	357	7/12/94
18	TCLP BLANK	358	7/15/94
19	TCLP BLANK	360	7/27/94
20	TCLP BLANK	369	11/10/94
21	TCLP BLANK	386	
22	TCLP BLANK	388	
23	TCLP BLANK	389	

VOA WATERS - SURR DCE
LIMITS SET 4/95



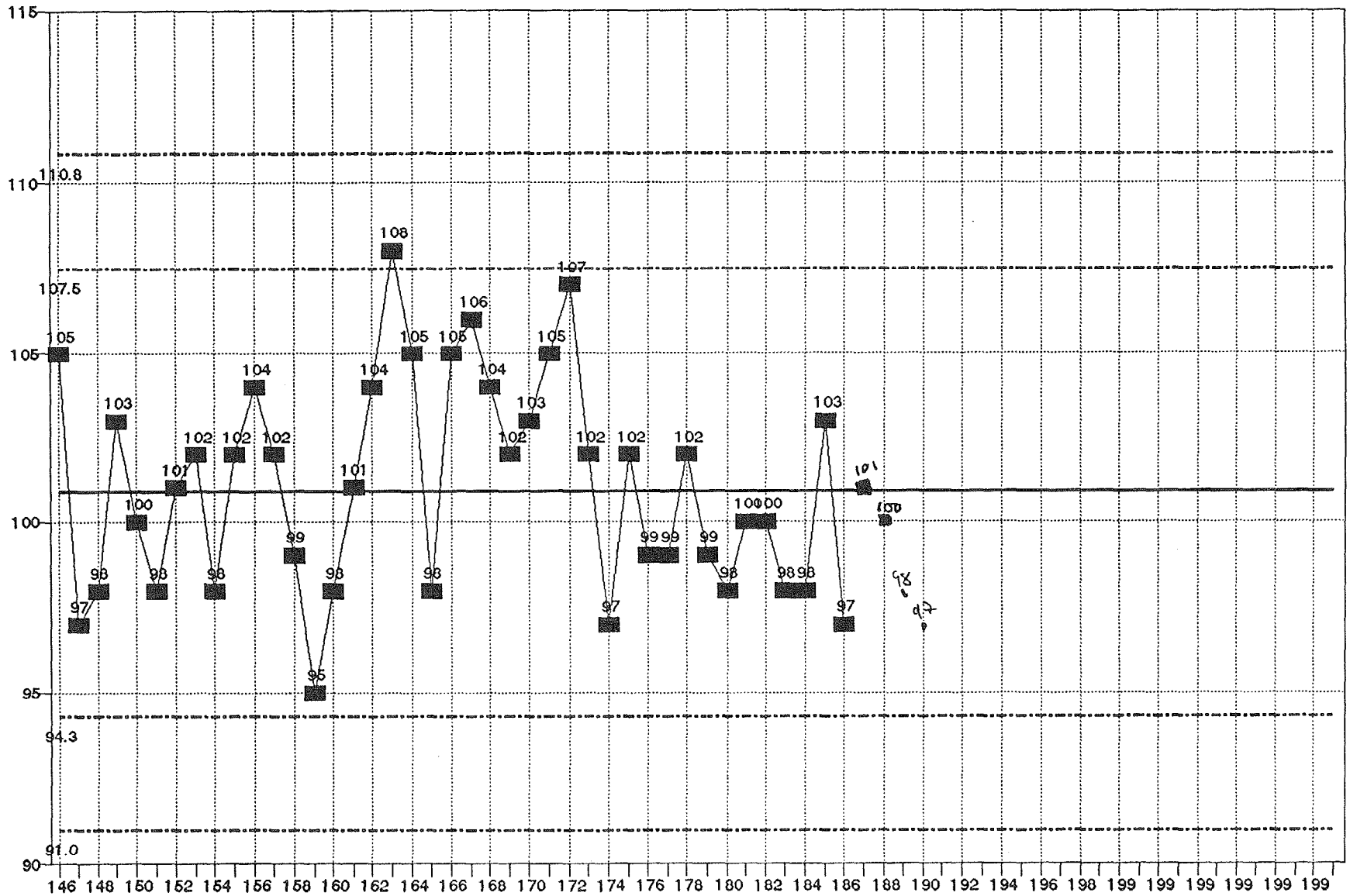
STD DEV = 4.40 MEAN = 98.4

VOA WATERS - SURR TOL
LIMIT SET 4/95



STD DEV = 2.03 MEAN = 100.6

VOA WATERS - SURR BFB
LIMIT SET 4/95

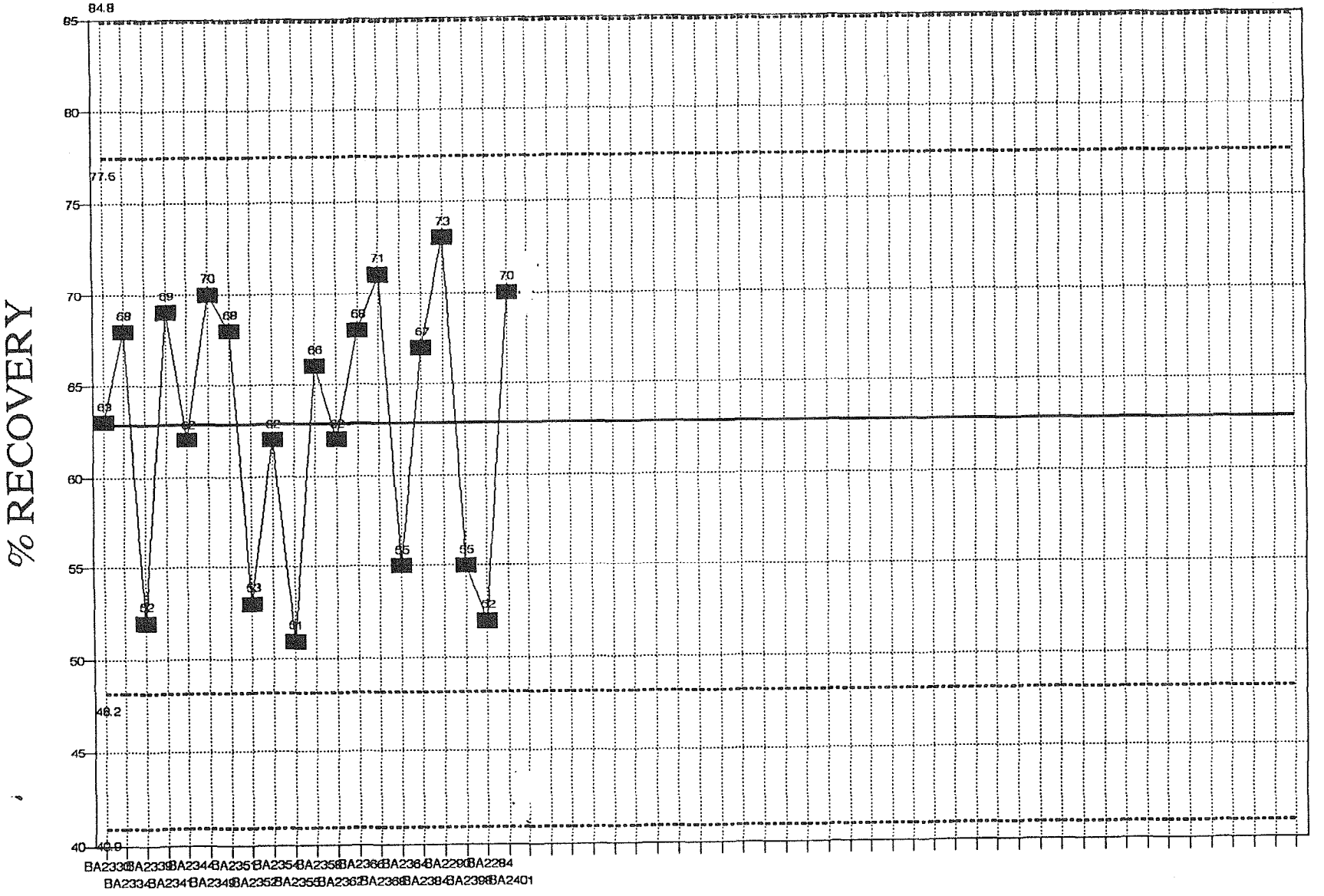


STD DEV =3.31 MEAN = 100.9

VOLATILES -- WATER SURROGATE CONTROL CHARTS
POINT / BLANK

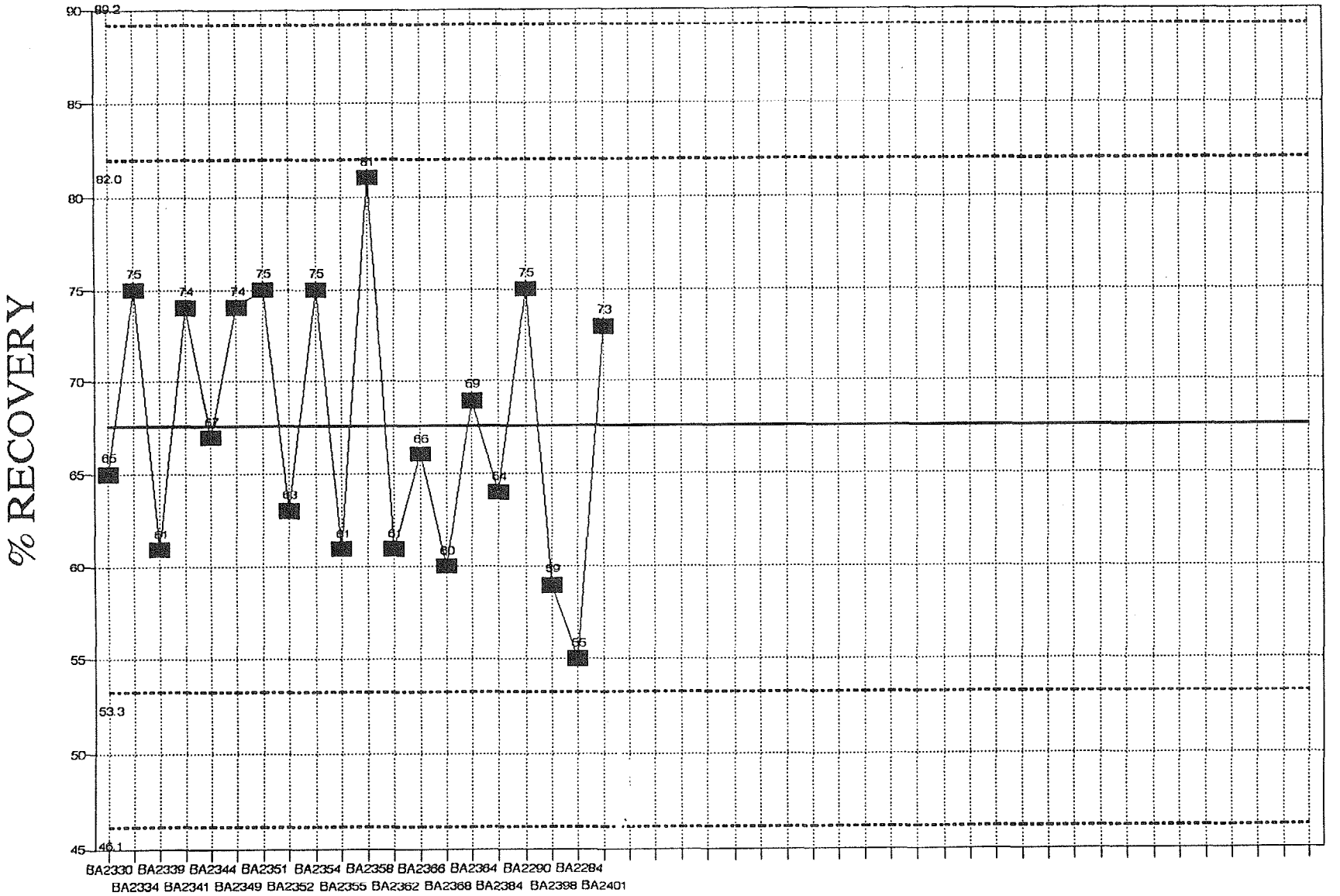
21 BE081892A	69 BC041493A	117 BE070794A	165 BC041295A
22 BC082192A	70 BE052593B	118 BE070894A	166 BI042095B
23 BE082092A	71 BE060193A	119 BC063094A	167 BI042195A
24 BC082592A	72 BE060393A	120 BC072794A	168 BI042495A
25 BC082692A	73 BC062193A	121 BD072794A	169 BC042595B
26 BE082792A	74 BE051393A	122 BD072894A	170 BI042595A
27 BE082892B	75 BC062493A	123 BD072994A	171 BI042795A
28 BE083092A	76 BD051993A	124 BE081194A	172 BI050195A
29 BD101492A	77 BD052093B	125 BC081994A	173 BC050595A
30 BC100992A	78 BC063093A	126 BE101194A	174 BC050695A
31 BC110692A	79 BC061093A	127 BE101294B	175 BG050295B
32 BC111992A	80 BE051393A	128 BG101494A	176 BC062995B
33 BE112092A	81 BD072293A	129 BC110294B	177 BC063095B
34 BC112392A	82 BD072393A	130 BC110394B	178 BC072495A
35 BG113092B	83 BD072693A	131 BC110794B	179 BC072695A
36 BG120192A	84 BD072793A	132 BC110894B	180 BI080895A
37 BC122292A	85 BD073093A	133 BC110994A	181 BI080995A
38 BG013093B	86 BC080493A	134 BC111594B	182 BC080295A
39 BC012193A	87 BC080593A	135 BC111794B	183 BC080495A
40 BD021693A	88 BE091793A	136 BC111894B	184 BC080795A
41 BD021793A	89 BC092093B	137 BG111094A	185 BC080895A
42 BD021893A	90 BC093093B	138 BC120194B	186 BI081095A
43 BD021993A	91 BG093093A	139 BC120294B	187 BI081195A
44 BD022293A	92 BE120693A	140 BC120594B	188 BI080995A
45 BD022393A	93 BE120793A	141 BC120694B	189 BC081195A1
46 BD022493A	94 BE121793A	142 BC120794B	190 BC081495A1
47 BG030293A	95 BC122793B	143 BC121594B	191
48 BC030193B	96 BC122893A	144 BG120394B	192
49 BG030393A	97 BG021094A	145 BC122294B	193
50 BG030493A	98 BG021194A	146 BC122994B	194
51 BG031593A	99 BG021494A	147 BE121694A	195
52 BG031693A	100 BG021594A	148 BE020995B	196
53 BD031893A	101 BC022394B	149 BE021395A	197
54 BD031993A	102 BC022494C	150 BE021595A	198
55 BC032293B	103 BC022594B	151 BE021695A	199
56 BC032393A	104 BG022594B	152 BC032295A	200
57 BC041293A	105 BG022894A	153 BC032395A	201
58 BC041393A	106 BG030394A	154 BC032495A	202
59 BC041993A	107 BD022194A	155 BC032795A	203
60 BE042893A	108 BC031194A	156 BC040695A	204
61 BE042993A	109 BC031594B	157 BC041195B	205
62 BE043093A	110 BG040794A	158 BC041395A	206
63 BE050393A	111 BC041294B	159 BC041495A	207
64 BE050493A	112 BG042894A	160 BG041095B	208
65 BE050593A	113 BG042994A	161 BG041495B	209
66 BE050693A	114 BC050994C	162 BI041395A	210
67 BE051093A	115 BG060394A	163 BI041895B	211
68 BE051193A	116 BC050394B	164 BI041995A	212

ABN WATER 3520/8270B, 2-FLUOROPHENOL SURR, LIMITS SET 8/95



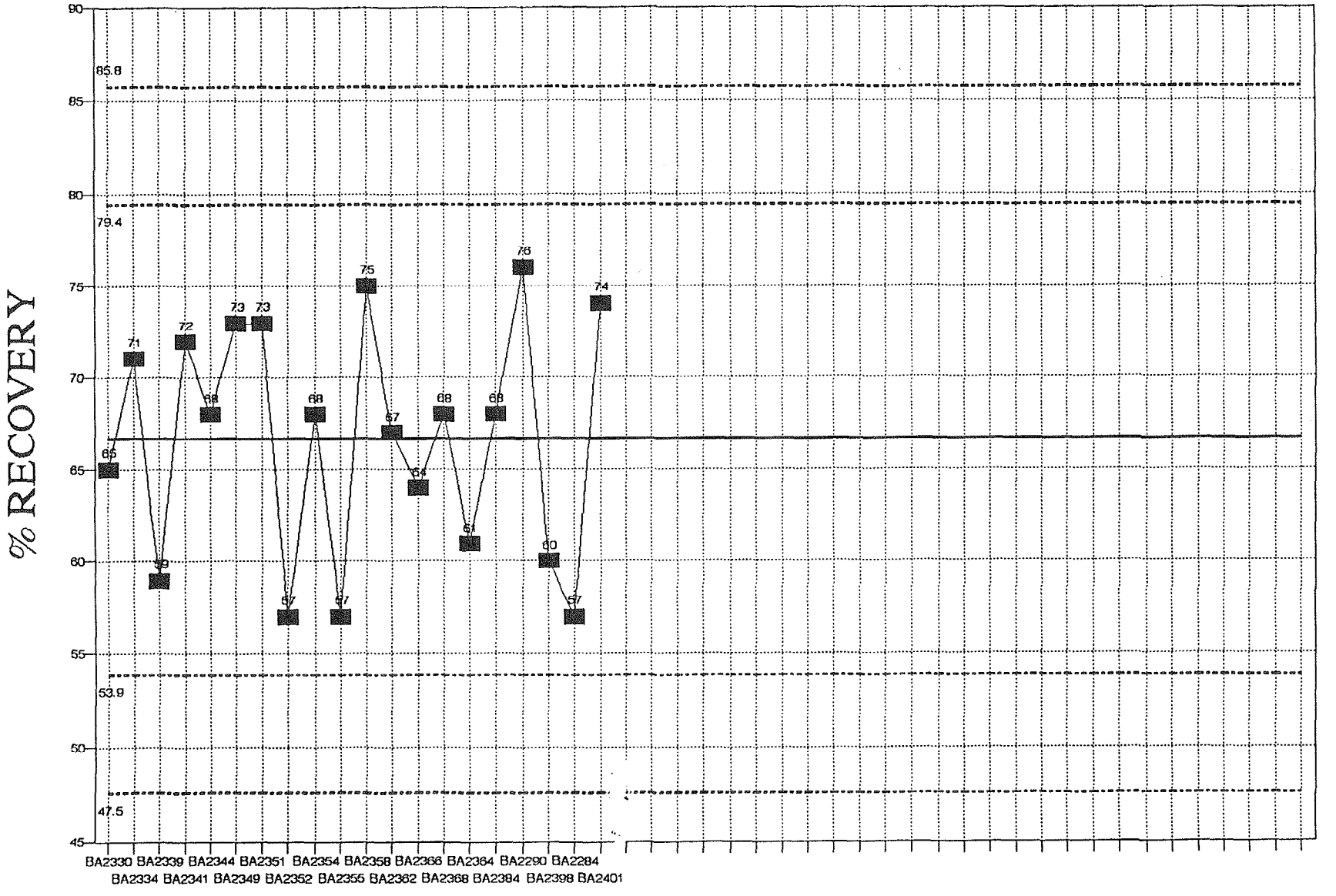
STD DEV = 7.31 MEAN = 62.8

ABN WATER 3520/8270B, PHENOL-D5
SURR, LIMITS SET 8/95



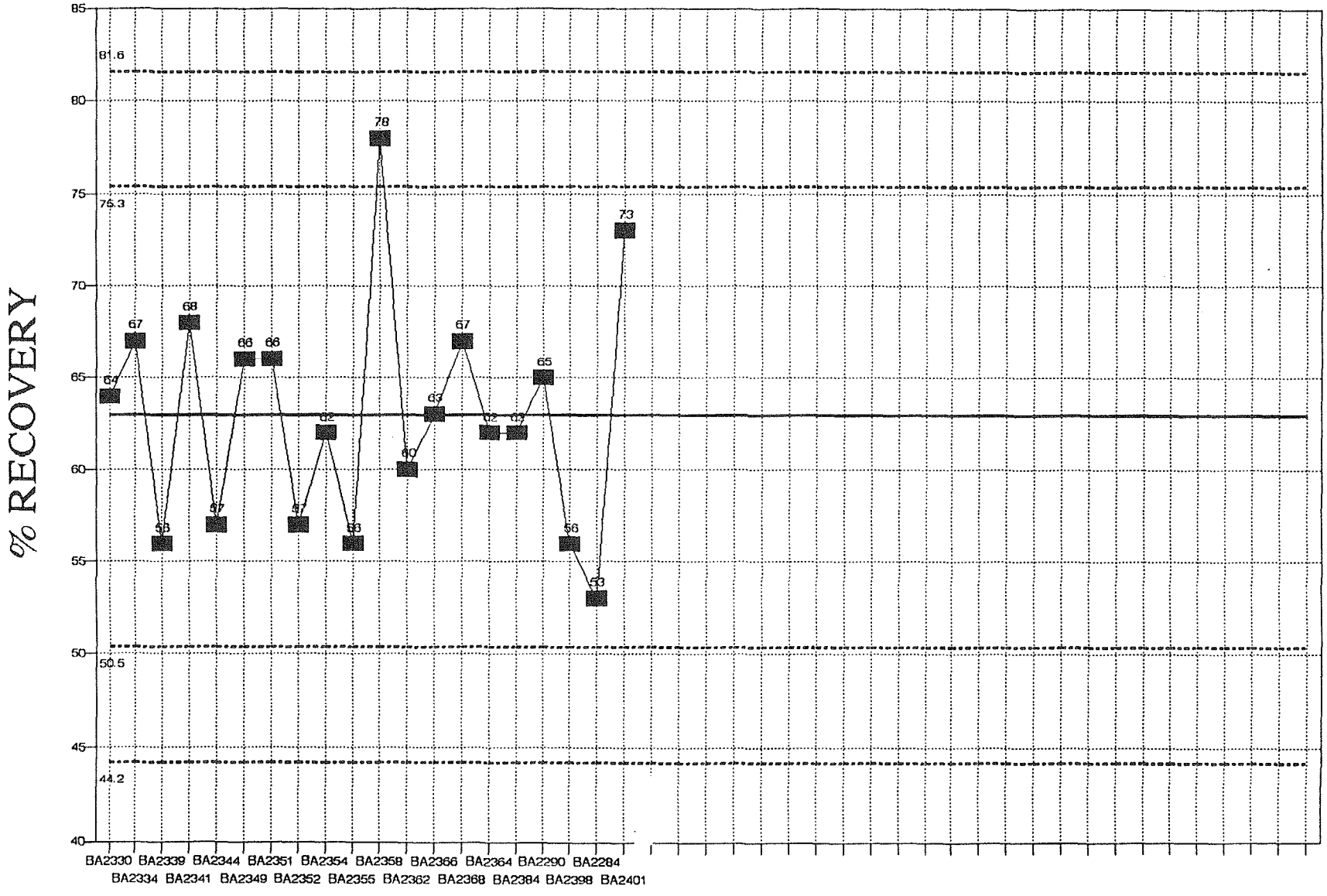
STD DEV = 7.17 MEAN = 67.6

ABN WATER 3520/8270B, 2-CHLOROPHENOL-D4
SURR, LIMITS SET 8/95



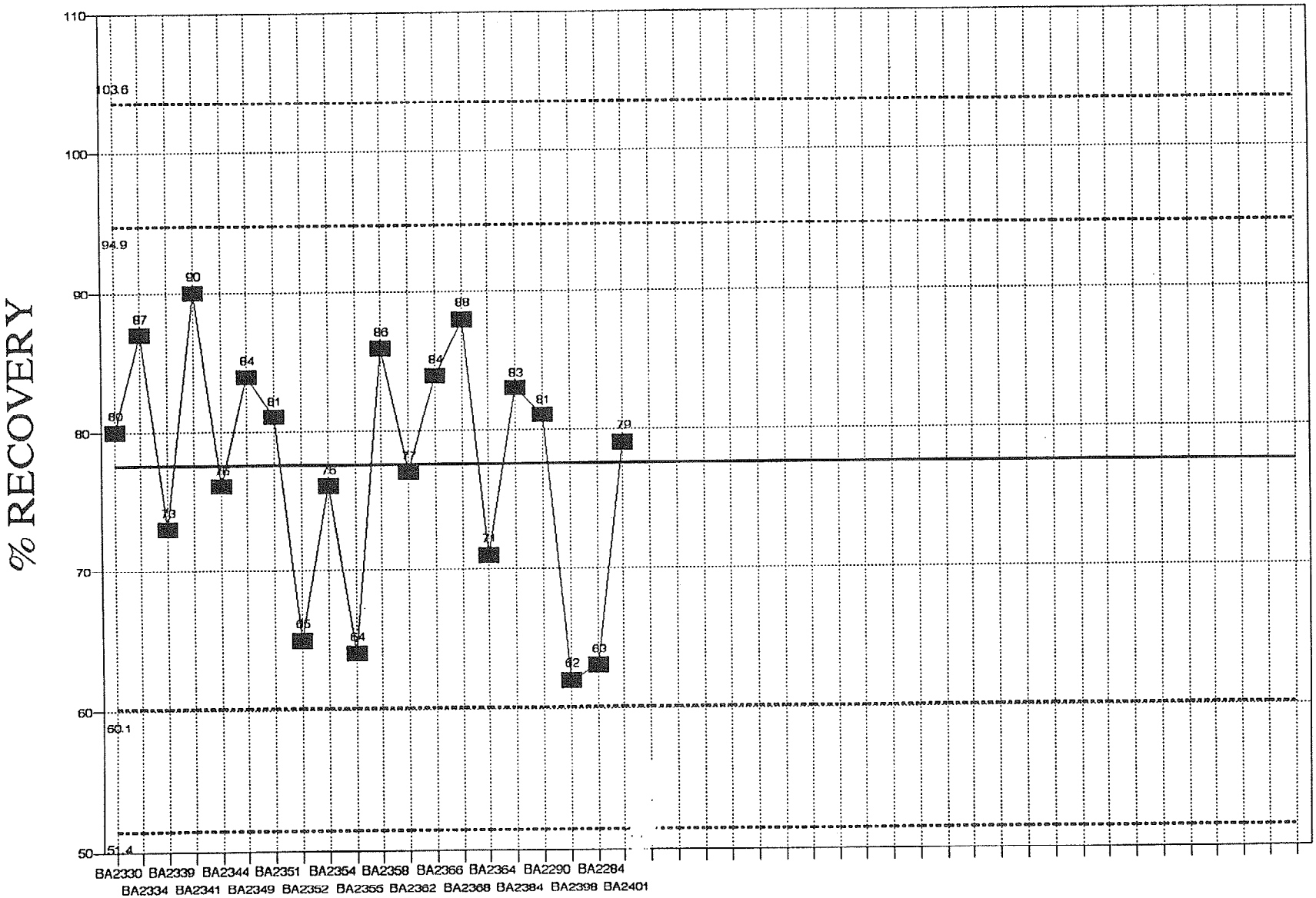
STD DEV = 6.37 MEAN = 66.6

ABN H2O 3520/8270B,1,2-DICHLOROBENZENE-SURR, LIMITS SET 8/95



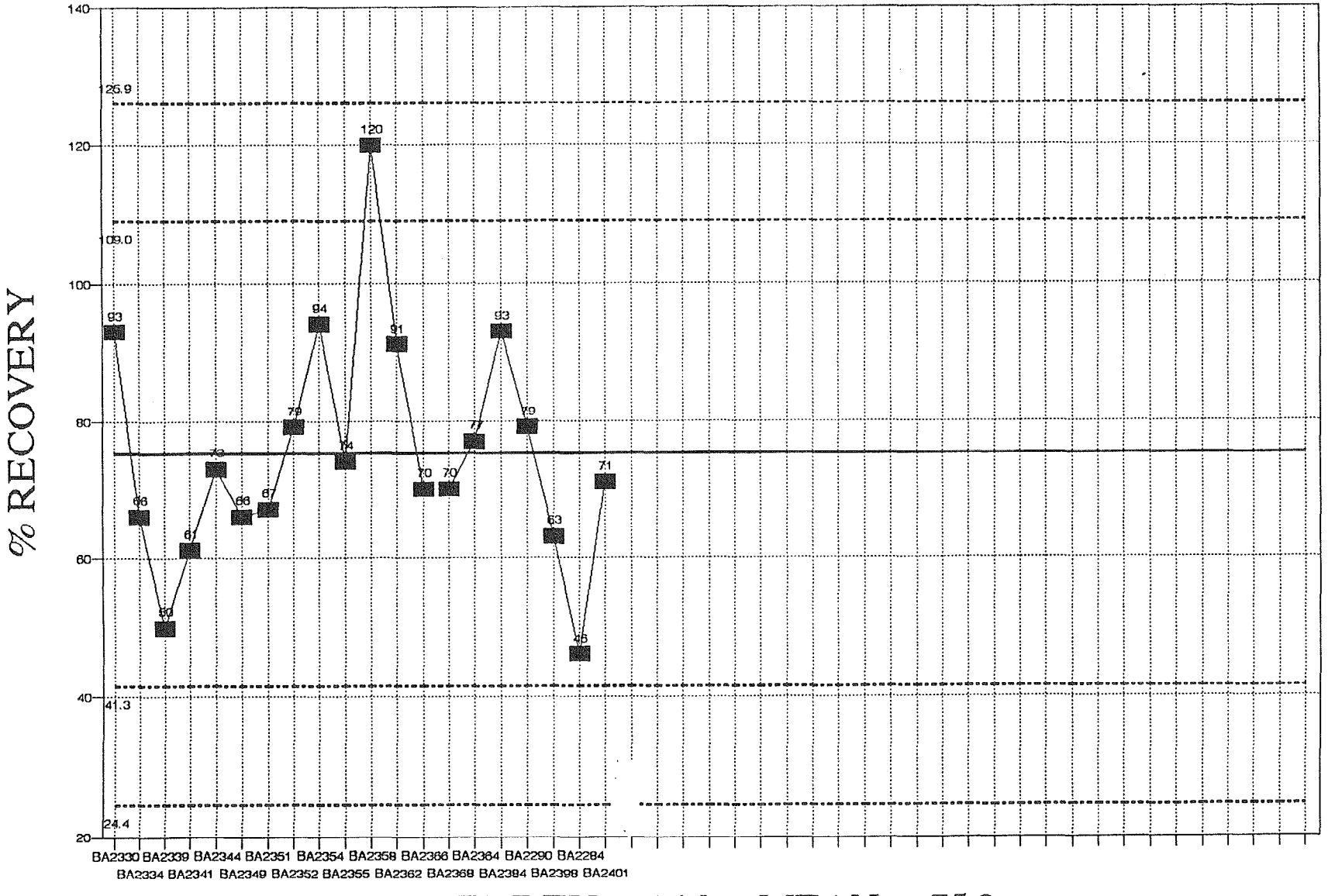
STD DEV = 6.22 MEAN = 62.9

ABN H2O 3520/8270B, NITROBENZENE-D5
SURR, LIMITS SET 8/95



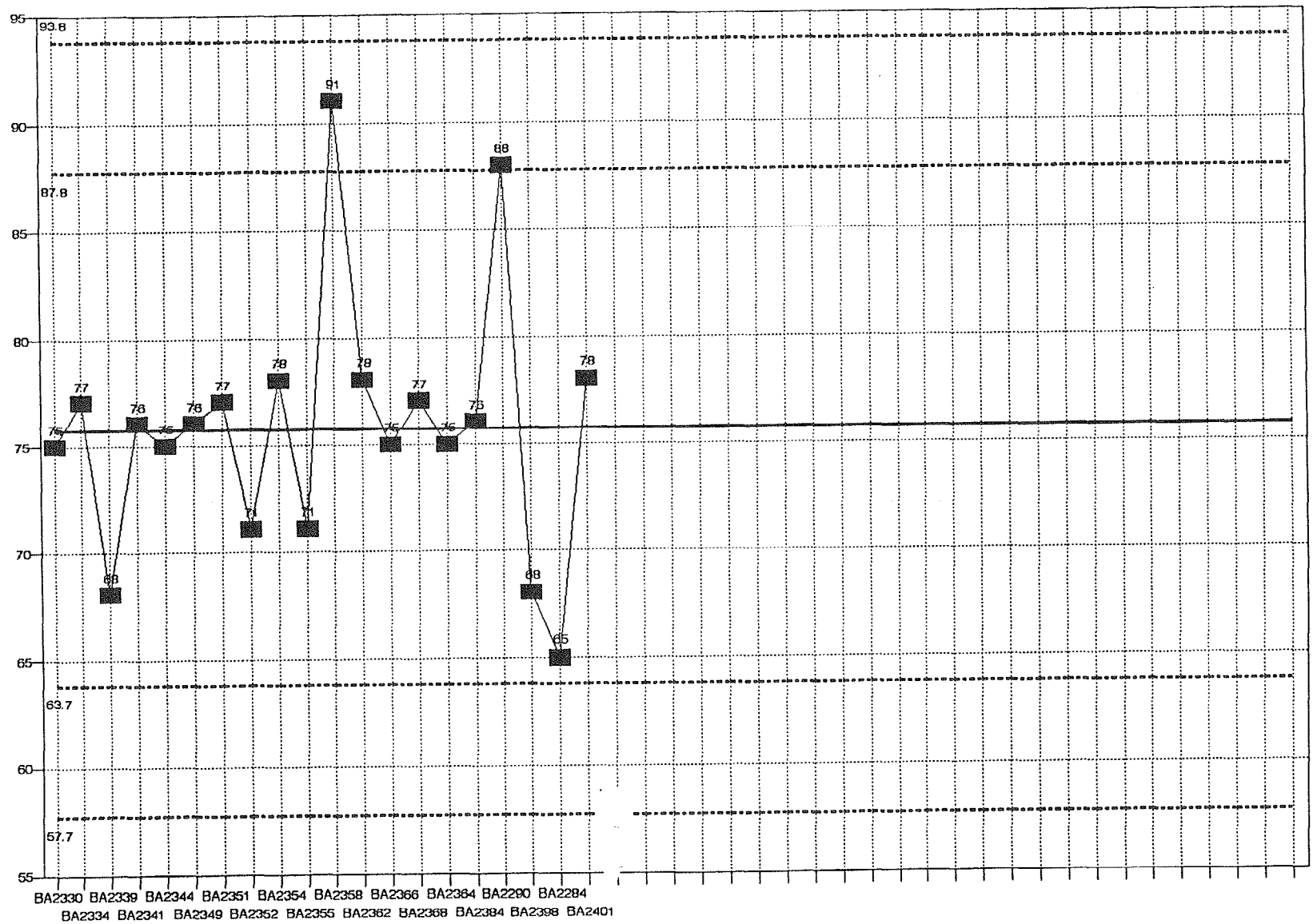
STD DEV = 8.68 MEAN = 77.5

ABN H2O 3520/8270B,2,4,6-TRIBROMOPHENOL SURR, LIMITS SET 8/95



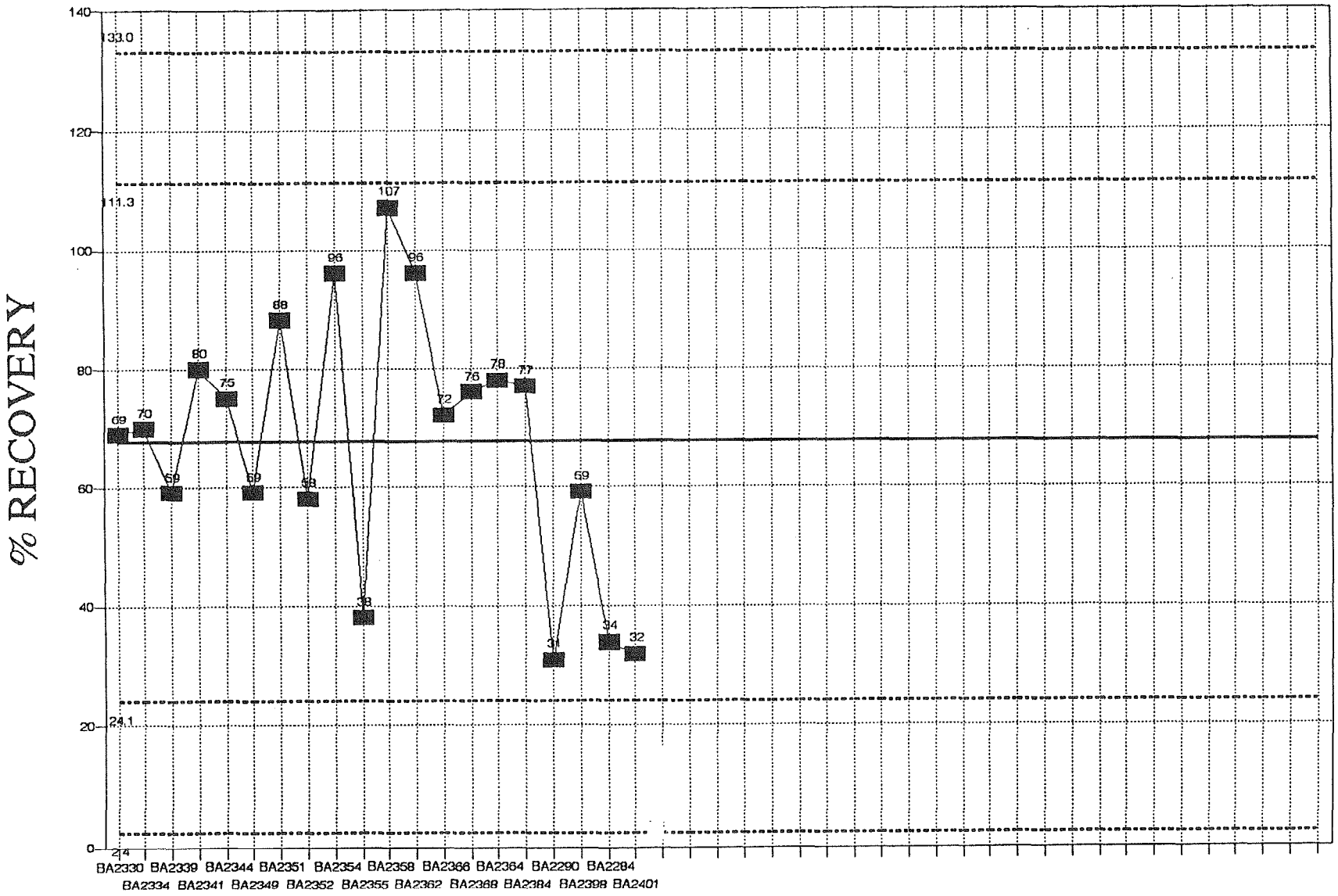
STD DEV = 16.9 MEAN = 75.2

ABN H2O 3520/8270B, 2-FLUOROBIPHENYL SURR, LIMITS SET 8/95



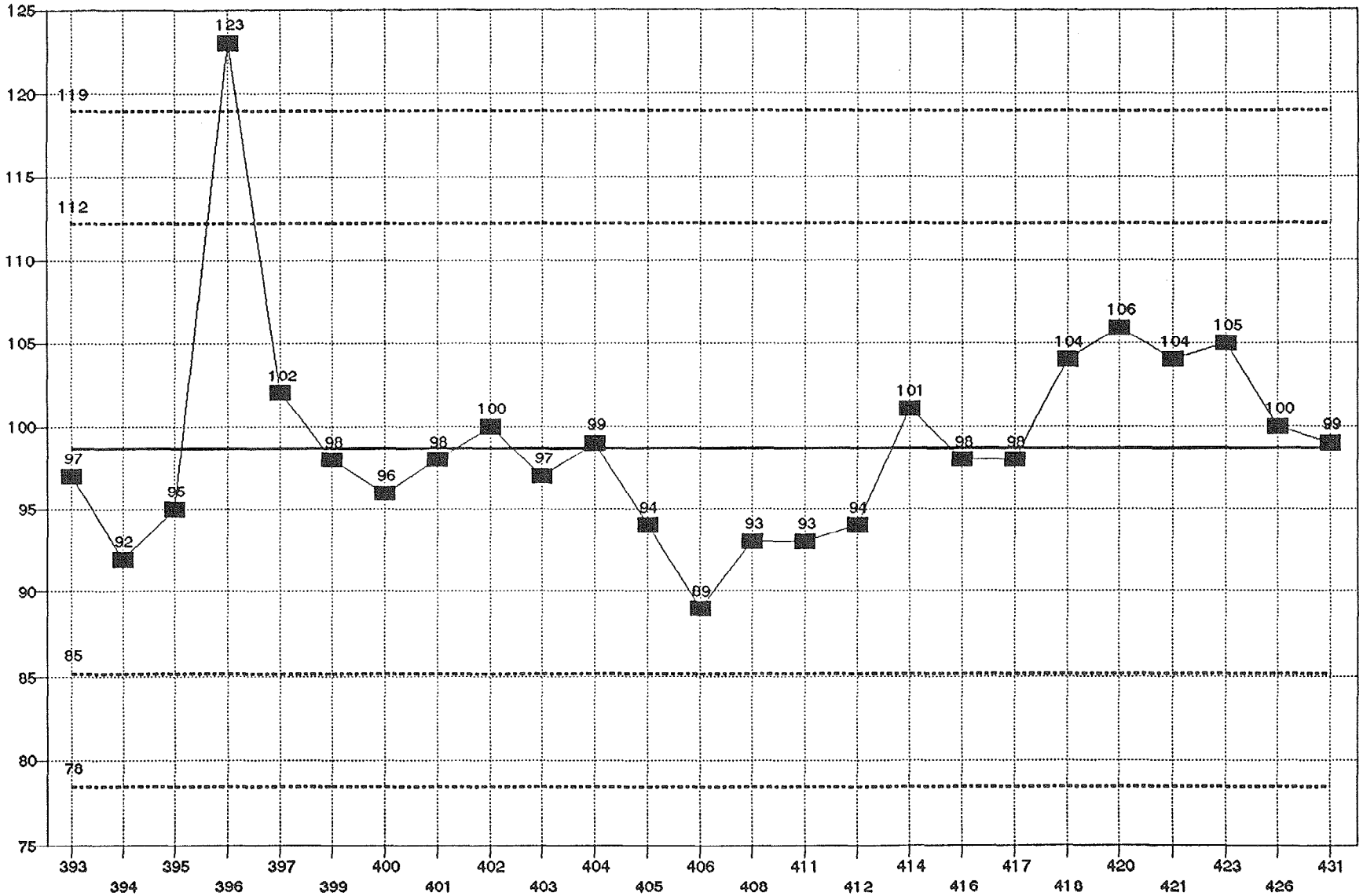
STD DEV = 6.01 MEAN = 75.8

ABN H2O 3520/8270B, TERPHENYL-D14
SURR, LIMITS SET 8/95



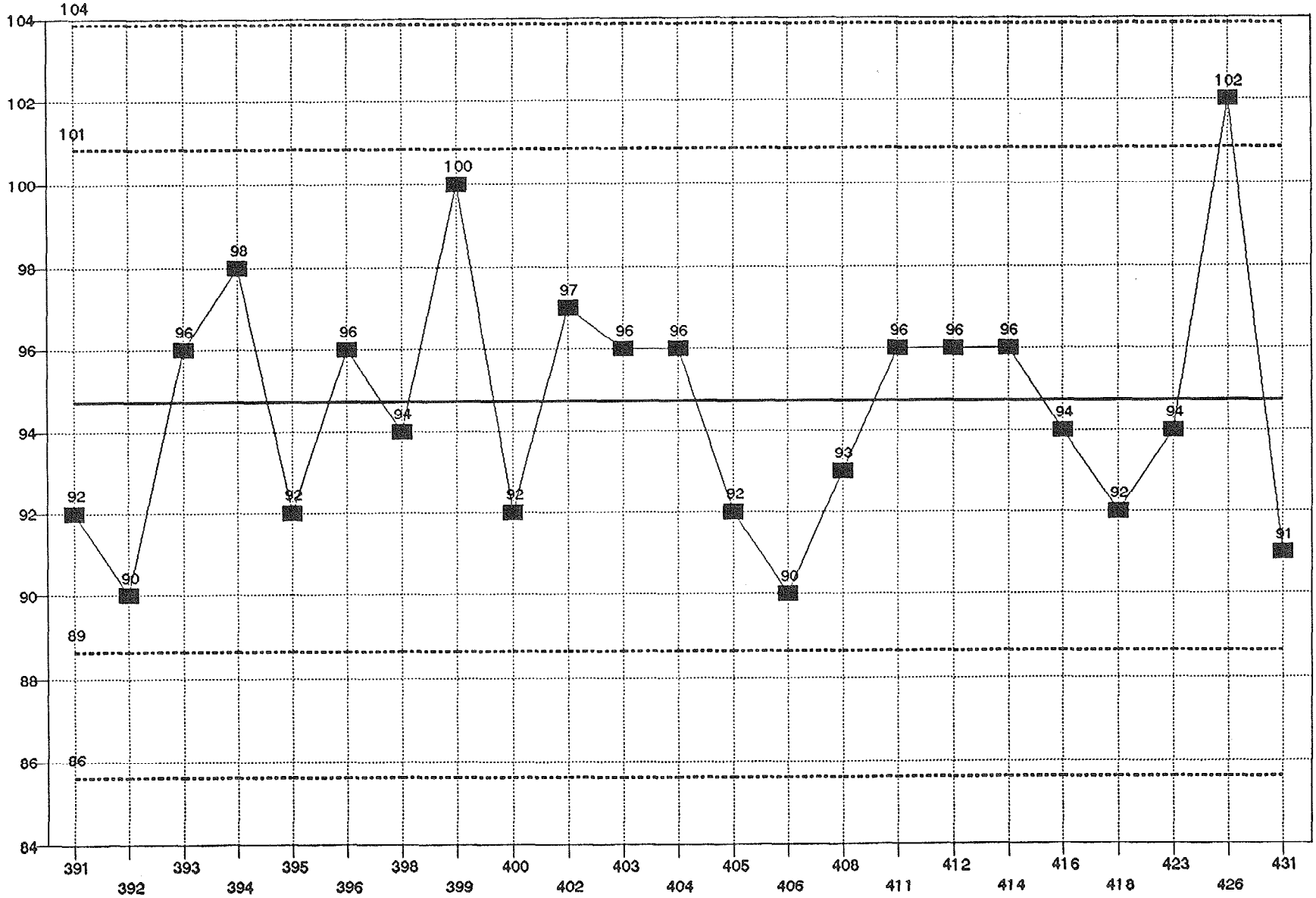
STD DEV = 21.8 MEAN = 67.7

Ag COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 8/95



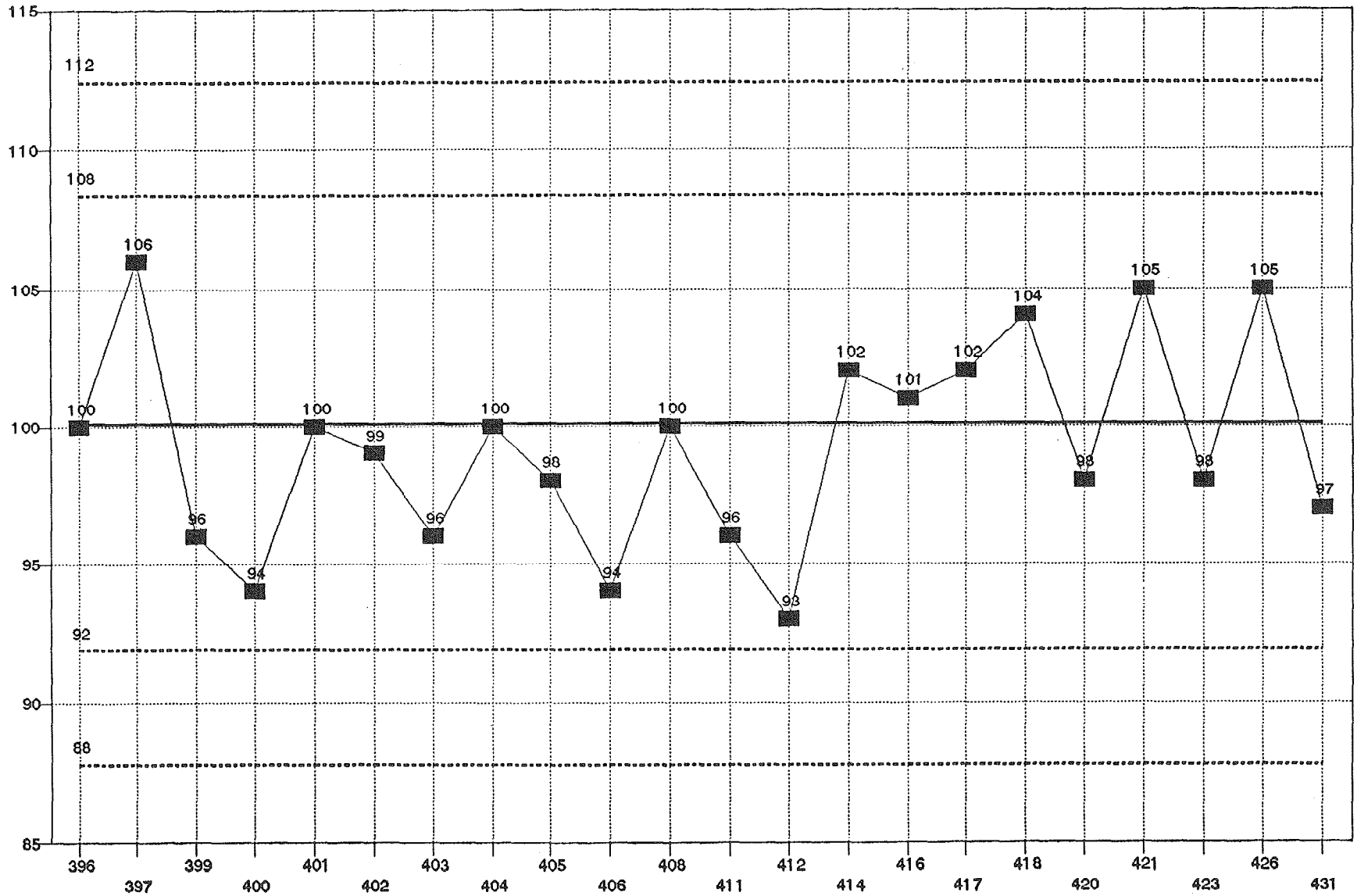
STD DEV = 6.75 MEAN = 98.6

AS TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 8/95



STD DEV = 2.67 MEAN = 94.2

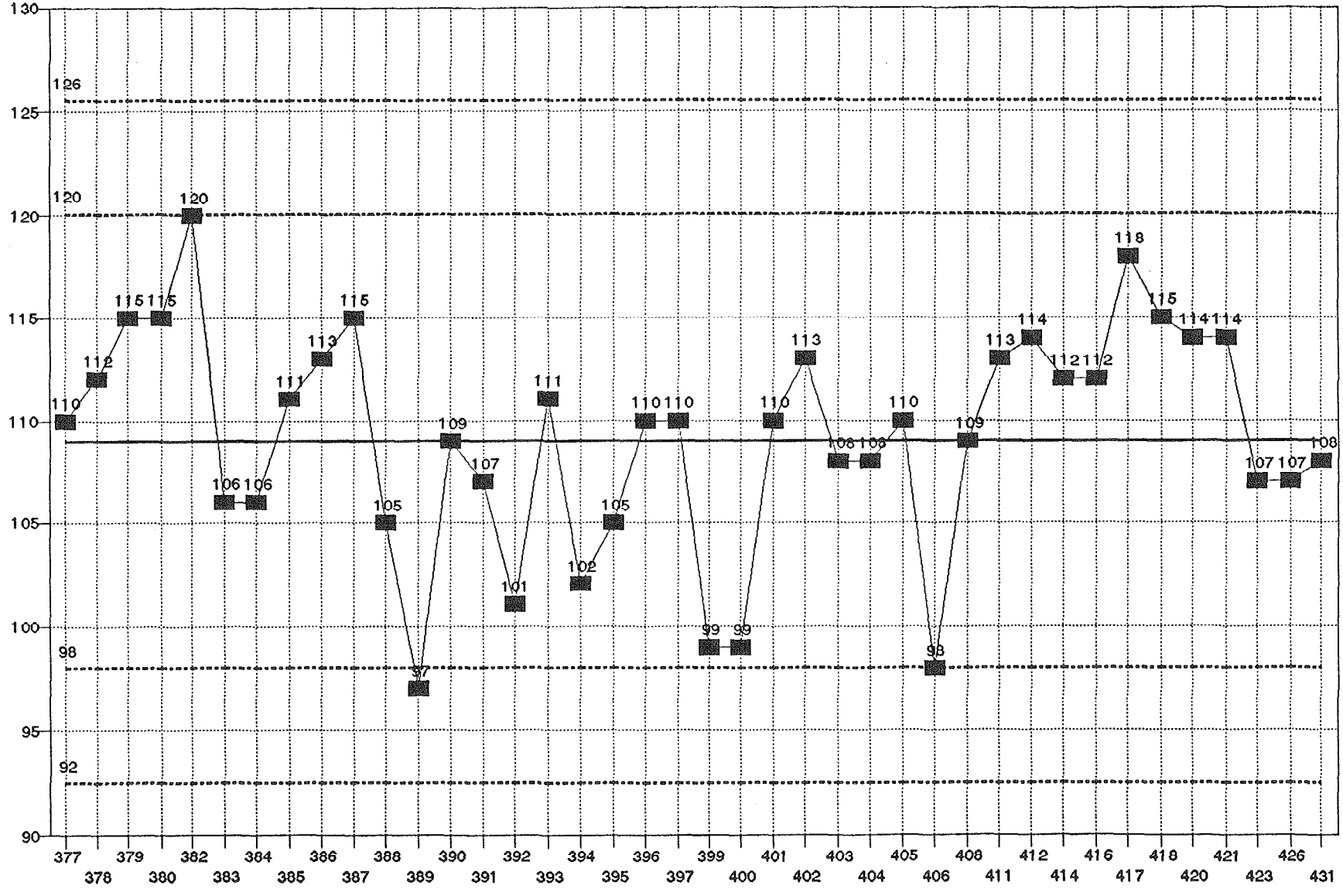
Ba COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.10 MEAN = 100.1

0000047

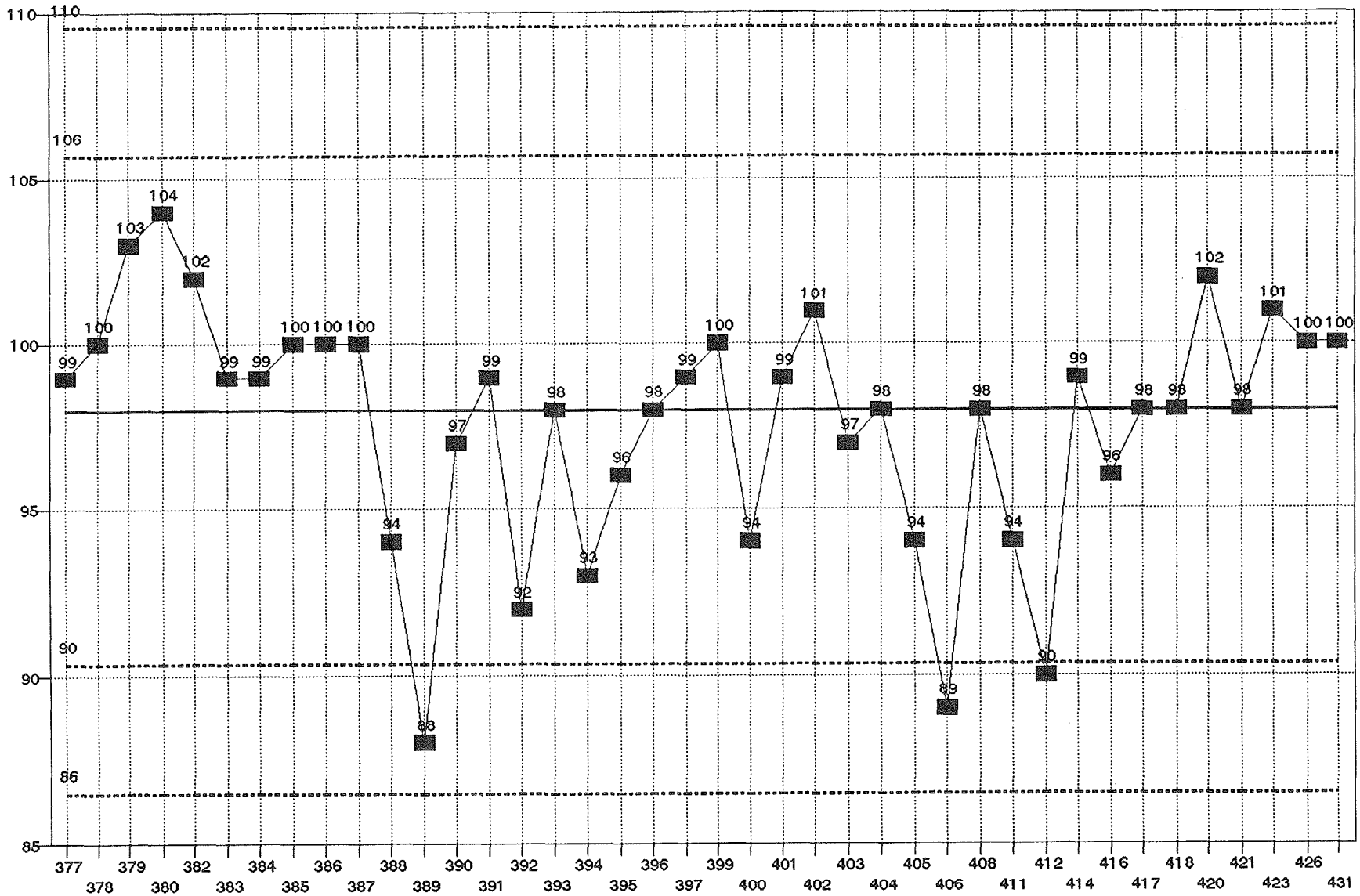
Cd COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 5.51 MEAN = 109

0000048

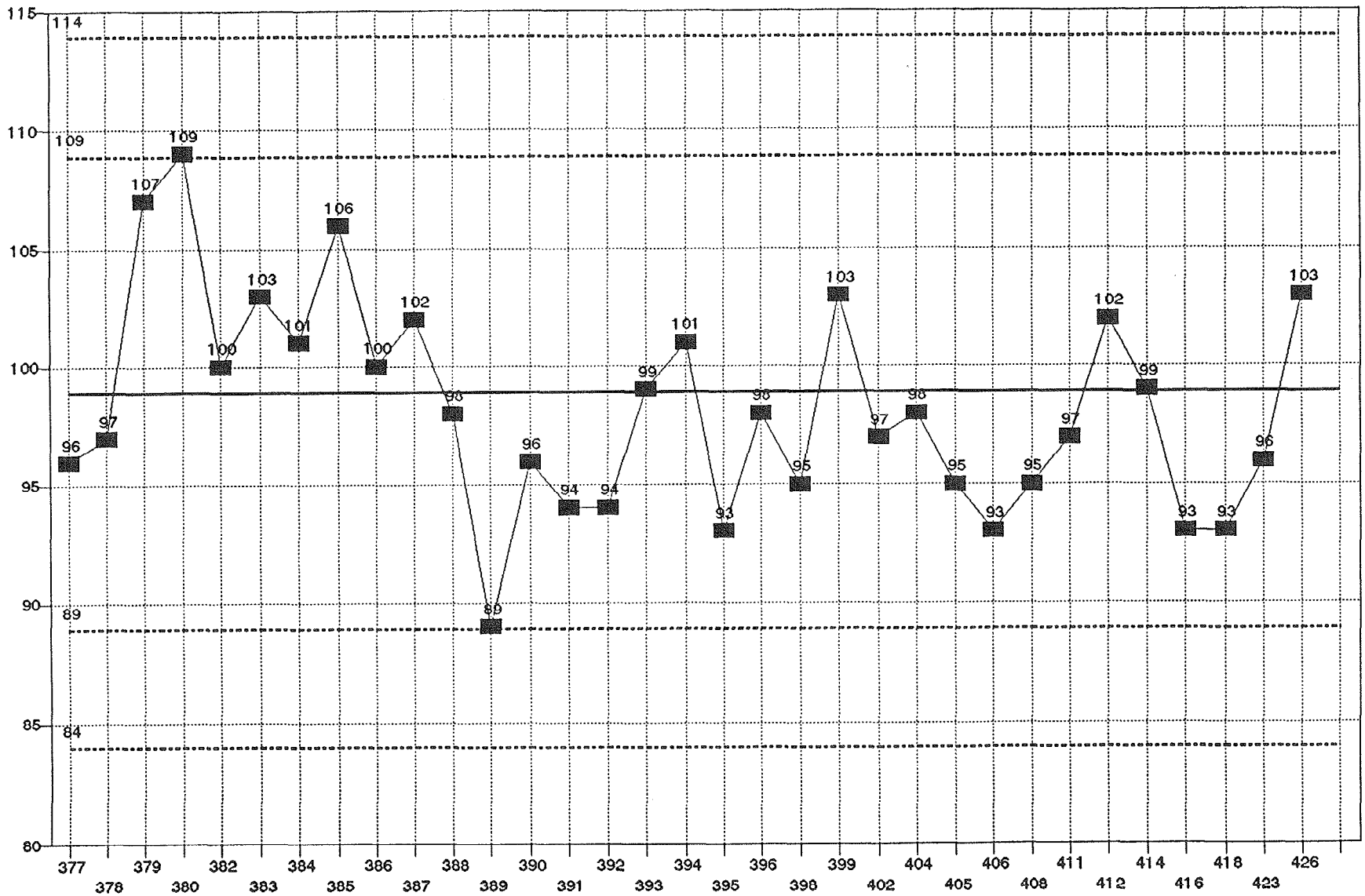
Cr COMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 3.84 MEAN = 98.0

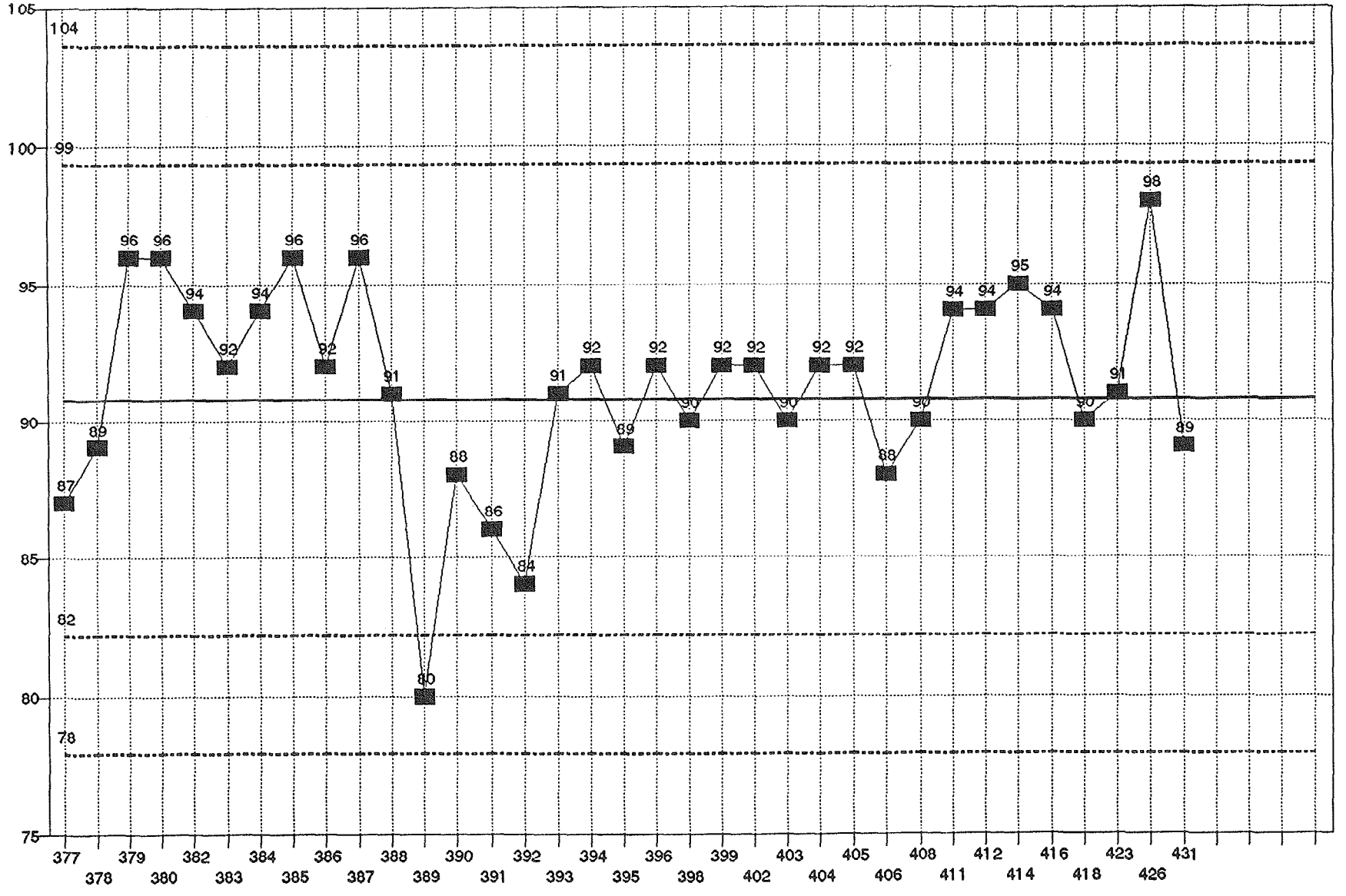
0000049

Pb TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.99 MEAN = 98.9

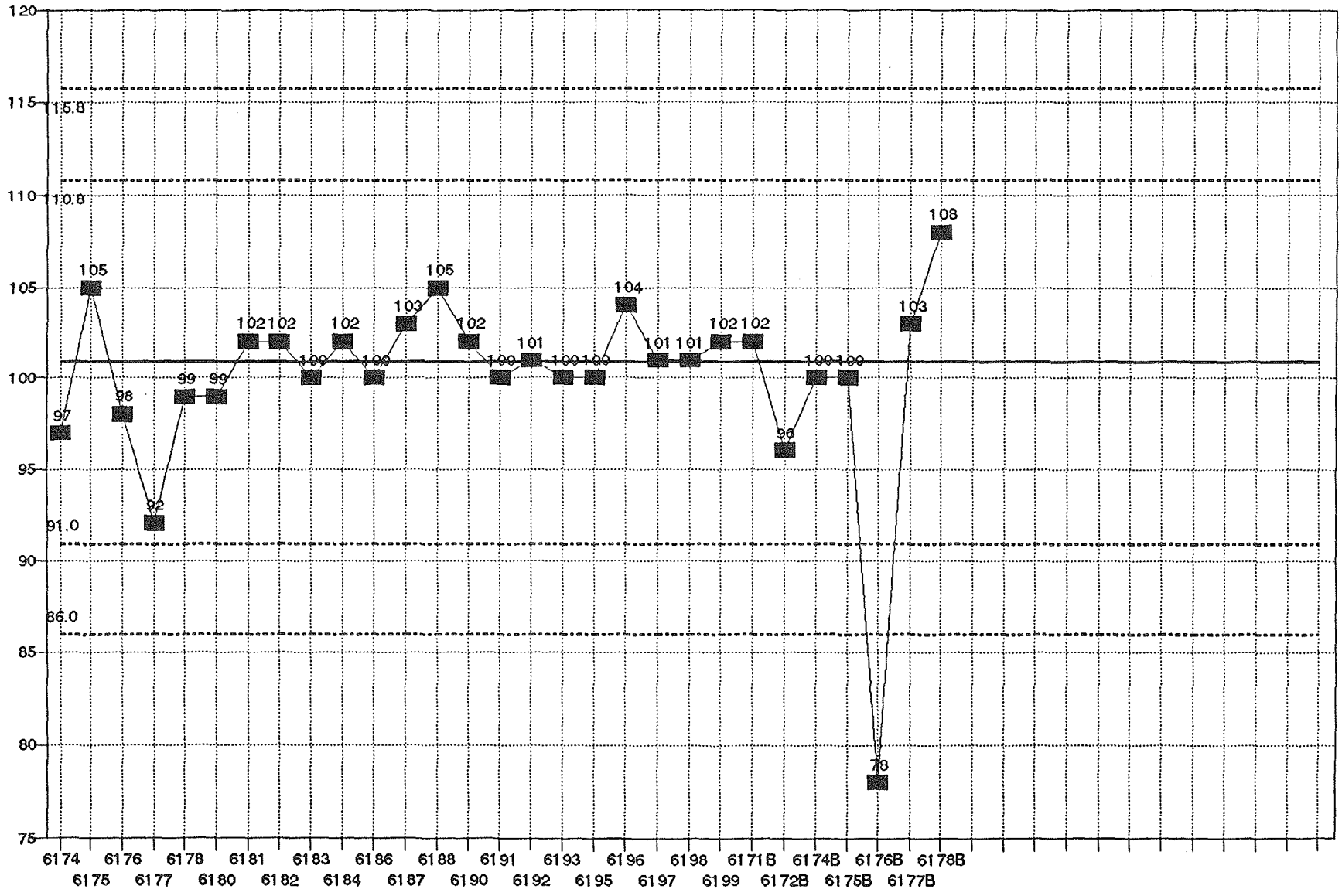
Se TRACECOMMERCIAL LCS WATER RECOVERIES
LIMITS SET 7/95



STD DEV = 4.29 MEAN = 90.8

0000051

MERCURY CV LCS WATER RECOVERIES
LIMITS SET 2/94



STD DEV = 4.96 MEAN = 100.9

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 3

Form 0019
Field Technical Services
Rev. 08/89

166405

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune, D.O. 44	Camp Geiger, NC.
PROJ. NO.	**PROJECT CONTACT** / **PROJECT TELEPHONE NO.**
6487	Rakesh Mishra 910-115-2379
CLIENT'S REPRESENTATIVE	**PROJECT MANAGER/SUPERVISOR**
	Jim Dunn / Sandy Smith

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TPH-GRO	TPH-DRO	TCL/TAL Metals, TCLP Semi-Volatile	TCLP Volatile	RCRA Haz Waste Char.	OEG	PCB, Total Lead	Volatile + BTEX (8240)	REMARKS
CLJ44-CC-024	8/8	1102	X		Contaminated Soil from Pile 17 of Area C.	4	X	X				X			Do Not Analyze
CLJ44-CC-025	8/8	1113	X		Contaminated Soil from Pile 18 of Area C.	4	X	X				X			Sample #1a (CLJ44-CC-028-RB).
CLJ44-CC-026	8/8	1120	X		Contaminated soil from Pile 19 of Area C.	4	X	X				X			
CLJ44-CC-027	8/8	1132	X		Contaminated Soil from Pile 20 of Area C.	4	X	X	X	X	X	X	X	X	TCLP Met, VOAs, ORG + Haz Waste ONE TO BE ANALYZED
CLJ44-CC-027D	8/8	1132	X		Duplicate Contaminated Soil from Pile 20 of Area C.	4	X	X	X	X	X	X	X	X	
CLJ44-CC-028-RB	8/8	1140	X		Rinsate Blank of Contaminated Soil Pile 17-20 of Area C.	5	X	X	X	X	X				
CLJ44-CC-029-TB	8/8				Trip Blank	3	X			X				X	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	REMARKS
1	1-7			8/8	1500	
2			FEC Kansas / Price Mill	8/9/95	0955	
3						
4						SAMPLER'S SIGNATURE

0000053