



DEPARTMENT OF ENERGY
Environmental Management Los Alamos Field Office (EM-LA)
Los Alamos, New Mexico 87544

EMLA-23-BF249-2-1

July 24, 2023

Mr. Rick Shean
Designated Agency Manager
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313



Subject: Request for Certificates of Completion for One Solid Waste Management Unit and Thirteen Areas of Concern in the Cañon de Valle Aggregate Area

- References:**
1. Los Alamos National Laboratory, September 2006. "Investigation Work Plan for Cañon de Valle Aggregate Area," Los Alamos National Laboratory document LA-UR-06-4960
 2. Los Alamos National Laboratory, November 1990. "Solid Waste Management Units Report, Volume II of IV (TA-10 through TA-25)," Los Alamos National Laboratory document LA-UR-90-3400
 3. Los Alamos National Laboratory, July 1995. "RFI Work Plan for Operable Unit 1082, Addendum 2," Los Alamos National Laboratory document LA-UR-95-1038
 4. New Mexico Environment Department letter, J.P. Bearzi to D. Gregory and D. McInroy, "Approval with Modifications Investigation Work Plan for Cañon de Valle Aggregate Area," dated February 9, 2007

Dear Mr. Shean,

In accordance with Section XXI of the 2016 Compliance Order on Consent (Consent Order), the U.S. Department of Energy (DOE) Environmental Management Los Alamos Field Office (EM-LA) is requesting certificates of completion without controls for the following solid waste management unit (SWMU) and areas of concern (AOCs) within the Cañon de Valle Aggregate Area in Technical Area 15 (TA-15) and TA-16:

- SWMU 15-004(i), The Gulch Firing Site
- AOC 16-027(a), Transformer
- AOC 16-027(b), Transformer
- AOC 16-037, Aboveground Tank – Existence not verified
- AOC C-16-001, Building (Former Platform)
- AOC C-16-009, Soil Contamination Associated with Former Building 16-134
- AOC C-16-015, Soil Contamination Associated with Former Structure 16-143
- AOC C-16-018, Soil Contamination Associated with Former Aboveground Tank
- AOC C-16-036, Soil Contamination Associated with Former Septic System
- AOC C-16-041, Soil Contamination Associated with Former Building 16-198

- AOC C-16-044, Soil Contamination Associated with Former Manhole
- AOC C-16-061, Soil Contamination Associated with Building (Former Platform)
- AOC C-16-070, Underground Tank
- AOC C-16-072, Tank – Existence not verified

The above SWMU and AOCs were included in the “Investigation Work Plan for Cañon de Valle Aggregate Area,” (hereafter the investigation work plan [IWP]) (Reference 1). These sites were among the 2 SWMUs and 26 AOCs included in Appendix B of the IWP. Appendix B contained sites for which no further investigation or corrective action was being proposed and provided justifications for the no further action proposals. Appendix B stated that certificates of completion would be requested for these sites following approval of the IWP.

The IWP generally proposed no investigation for the above SWMU and AOCs either because the sites did not exist (e.g., were never constructed) or were found to have never been used to manage solid or hazardous wastes or to have had releases or discharges of contaminants. Brief descriptions of these sites and summaries of the justifications for no further investigation are provided below.

SWMU 15-004(i) consists of a former firing site located in Cañon de Valle within TA-15 that was reportedly used to conduct two test explosions in 1944. The precise location was not identified in historical records, and a field reconnaissance of suspected locations conducted during preparation of the IWP could identify no signs of explosives testing (e.g., cratering in the canyon wall). No further investigation was proposed in the IWP (Reference 1) because the site could not be located using the best available historical information and field reconnaissance.

AOC 16-027(a) is a leak from a transformer located in equipment room 110 within building 16-260, a high explosives– (HE-) processing facility. On May 17, 1990, a high-concentration spill from the transformer occurred within the building. The spill was characterized as a nonreportable release. The transformer contained 100 to 500 gal. of polychlorinated biphenyl– (PCB-) containing dielectric oil listed at concentrations greater than 500,000 ppm. Materials contaminated with the oil were nonimpervious solid surfaces and consisted of the concrete floor, a concrete sump, and a metal sump cover. A cleanup in accordance with Toxic Substances Control Act (TSCA) requirements was initiated immediately, using the double-wash/double-rinse method. The cleanup was completed on the following day using the scabbler concrete removal system. Subsequent cleanup efforts were performed at four other times in 1990. These cleanup efforts employed the Penetone double-wash/double-rinse method and the Capsur foam method. Final cleanup occurred on November 13, 1990. The transformer was drained, removed, and replaced with a non-PCB-containing unit on July 9, 1990. No further investigation was proposed in the IWP (Reference 1) because the spill was located in, and contained within, a building, and no release to the environment occurred. In addition, the spill was cleaned up in accordance with applicable TSCA regulatory requirements.

AOC 16-027(b) is a leak from a transformer located on the second floor of the former TA-16 steam plant (building 16-540). The transformer contained 100 to 500 gal. of PCB-containing dielectric oil listed as having concentrations greater than 500,000 ppm. This transformer had a slow leak, which was contained with a metal can. No spills occurred onto surfaces that required cleanup. The transformer was retrofilled with non-PCB oil on July 15, 1988, and was reclassified as non-PCB-containing on

September 6, 1990. No further investigation was proposed in the IWP (Reference 1) because the spill was located in, and contained within, a building, and no release to the environment occurred.

AOC 16-037 was identified in the 1990 SWMU Report (Reference 2) as an aboveground industrial waste tank (structure 16-215). Extensive archival information reviewed during preparation of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan for Operable Unit (OU) 1082, Addendum 2 (Reference 3), including engineering records and interviews with former site employees, indicated that the structure had never been constructed. No further investigation was proposed in the IWP (Reference 1) because the site was found to not exist.

AOC C-16-001 is a former T-shaped, elevated, crossover platform (structure 16-384) constructed over three HE slurry drain troughs at the TA-16 Burning Ground. The platform was constructed to allow workers to cross over the trough area instead of walking around it and was not used to manage wastes or hazardous materials. No further investigation was proposed in the IWP (Reference 1) because the site was never used for managing solid or hazardous wastes, and no discharges or release of contaminants have occurred.

AOC C-16-009 is soil contamination associated with a former mess hall (former building 16-134). The mess hall was located in the western portion of TA-16, where there was no handling of unpackaged HE. Historical records cited in the IWP (Reference 1) indicate the building had no association with hazardous materials. No further investigation was proposed in the IWP (Reference 1) because the site was never used for managing solid or hazardous wastes, and no discharges or release of contaminants have occurred.

AOC C-16-015 is soil contamination associated with a former hose house (structure 16-143). This structure was used to store fire hoses and was located adjacent to the former fire station (structure 16-142) in the western portion of TA-16, where there was no handling of unpackaged HE. Historical records cited in the IWP (Reference 1) indicate the building had no association with hazardous materials. No further investigation was proposed in the IWP (Reference 1) because the site was never used for managing solid or hazardous wastes, and no discharges or release of contaminants have occurred.

AOC C-16-018 is soil contamination associated with a former 30,000-gal. water storage tank (structure 16-172). The tank was located along Jemez Road across from the current entrance to TA-16 and was relocated to TA-49 in 1959. Historical records cited in the IWP (Reference 1) indicate the tank had no association with hazardous waste or hazardous materials. No further investigation was proposed in the IWP (Reference 1) because the site was never used for managing solid or hazardous wastes, and no discharges or release of contaminants have occurred.

AOC C-16-036 is soil contamination associated with a former latrine (structure 16-145). The latrine was located in the western portion of TA-16, where there was no handling of unpackaged HE. Historical records cited in the IWP (Reference 1) indicate the building had no association with hazardous materials. No further investigation was proposed in the IWP (Reference 1) because the site was never used for managing solid or hazardous wastes.

AOC C-16-041 is soil contamination associated with a former hose house (structure 16-198) that was located on the driveway into the old burning area along Anchor Ranch Road, north of the TA-16 administration area. The structure was used to store and protect lengths of fire hose. Historical records cited in the IWP (Reference 1) indicate the building tested free of contamination and had no association with hazardous materials. No further investigation was proposed in the IWP (Reference 1) because the site was never used for managing solid or hazardous wastes, and no discharges or release of contaminants have occurred.

AOC C-16-044 is soil contamination associated with a steam manhole (structure 16-1079). The manhole is believed to have contained only pipes that carried distilled steam vapor or cool condensate water from, and to, the TA-16 steam plant. Historical records cited in the IWP (Reference 1) indicate the manhole had no association with hazardous materials. No further investigation was proposed in the IWP (Reference 1) because the site was never used for managing solid or hazardous wastes, and no discharges or release of contaminants have occurred.

AOC C-16-061 is soil contamination associated with a former latrine (structure 16-396) for the TA-16 Burning Ground. The latrine was of wood-frame construction, measured 4 ft long × 4 ft wide × 7.5 ft high, and contained no plumbing. Historical records cited in the IWP (Reference 1) indicate the structure had no association with hazardous materials. No further investigation was proposed in the IWP (Reference 1) because the site was never used for managing solid or hazardous wastes.

AOC C-16-070 is an underground propane tank (structure 16-391) at the TA-16 Burning Ground used to provide fuel for heating and drying the sand in the Burning Ground filter tanks. Historical records cited in the IWP (Reference 1) indicate the tank had no association with hazardous materials (other than propane) and had been shown to be free of HE and radioactive contamination. No further investigation was proposed in the IWP (Reference 1) because the site was never used for managing solid or hazardous wastes, and no discharges or release of contaminants have occurred.

AOC C-16-072 was identified in the 1990 SWMU Report (Reference 2) as a fuel tank (structure 16-216). Extensive archival information reviewed during preparation of the RFI work plan for OU 1082, Addendum 2 (Reference 3), including engineering records and site interviews, confirmed that the structure had never been constructed. No further investigation was proposed in the IWP (Reference 1) because the site was found to not exist.

The IWP was approved with modifications in the New Mexico Environment Department's (NMED's) "Approval with Modifications, Investigation Work Plan for Cañon de Valle Aggregate Area" letter dated February 9, 2007 (Reference 4). NMED's approval with modifications included comments on Appendix B of the IWP. The approval with modifications indicated NMED did not concur with the proposals for no further action for some of the sites in Appendix B. For those sites where NMED did not concur, NMED provided site-specific comments that identified additional justification that would need to be provided in order to support a recommendation of no further action. NMED's comments on Appendix B, however, did not include any comments directed toward SWMU 15-004(i) or AOCs 16-037, C-16-001, C-16-009, C-16-015, C-16-018, C-16-036, C-16-041, C-16-044, C-16-061, C-16-070, and C-16-072 and did not identify any further justification needed to recommend no further

action for these sites. Because NMED did not provide comments on these sites, EM-LA assumes that NMED may concur that no further investigation or corrective action is necessary at these twelve sites.

NMED did provide a comment for AOCs 16-027(a) and 16-027(b), which stated that documentation of approval of the PCB cleanups by the U.S. Environmental Protection Agency (EPA) was needed. Information related to the PCB cleanups at AOCs 16-027(a) and 16-027(b) that was submitted to EPA by Los Alamos National Laboratory (LANL) in July 1995 with the "RFI Work Plan for Operable Unit 1082, Addendum 2," (RFI work plan addendum) (Reference 3) is provided in Enclosures 1 and 2, respectively. AOCs 16-027(a) and 16-027(b) were recommended for no further action in the RFI work plan addendum because the two sites had been remediated in accordance with applicable regulations (i.e., TSCA), and chemicals of concern were either not present or present in concentrations that would not pose a risk. The information in Enclosures 1 and 2 was submitted to EPA with the RFI work plan addendum to document that these requirements for no further action under RCRA corrective action had been met.

As described in Enclosure 1, the PCB spill associated with AOC 16-027(a) was not reportable to EPA under TSCA. The spill was cleaned up in accordance with TSCA requirements for cleanup of high concentration spills under 40 Code of Federal Regulations 761.125(c), and documentation of the cleanup is provided in Enclosure 1. Because reporting of the spill to EPA was not required under TSCA, no approval by EPA was ever issued or required to be issued. As noted in Enclosure 1, the transformer associated with AOC 16-027(a) was retrofilled with non-PCB oil and reclassified as a non-PCB transformer in July 1990. Any subsequent releases of non-PCB oil would, therefore, not have required notification to EPA, nor would any cleanup activities have required approval by EPA. Although reporting to EPA under TSCA was not required, the information in Enclosure 1 was submitted to the EPA RCRA corrective action program to document that TSCA cleanup requirements had been met and no further actions under the RCRA corrective action program were required.

As described in Enclosure 2, the transformer oil released at AOC 16-027(b) was contained and never spilled onto surfaces that required cleanup. Therefore, cleanup was never needed and no reporting or documentation of cleanup was ever submitted to EPA under TSCA, or required to be submitted to EPA. Further, no approval by EPA under TSCA was ever issued or required to be issued. As noted in Enclosure 2, the transformer associated with AOC 16-027(b) was retrofilled with non-PCB oil and reclassified as a non-PCB transformer in September 1990. Any subsequent releases of non-PCB oil would, therefore, not have required notification to EPA, nor would any cleanup activities have required approval by EPA. The information in Enclosure 2 was submitted to the EPA RCRA corrective action program to document that TSCA cleanup requirements had been met and no further actions under RCRA corrective action were required. Building 16-540 underwent D&D in 2005. All materials and equipment associated with the second floor where the transformer was located were removed, and there is nothing remaining at the site that would require further investigation.

Based on the information contained in Enclosures 1 and 2, no documentation of cleanup of AOCs 16-027(a) and 16-027(b) was required to be submitted to EPA under TSCA, and approval of the spill responses by EPA was not required. Because EPA did not require it, the documentation of EPA approval requested by NMED in the approval with modifications does not exist but is not needed to justify no further investigation of these sites. Information submitted to the EPA RCRA corrective

action program is provided to document remediation of the sites under TSCA requirements and to document that no further action under RCRA corrective action is required.

Based on the justifications for no further investigation or corrective action contained in the IWP, and the information contained in Enclosures 1 and 2 in response to NMED's comment related to AOCs 16-027(a) and 16-027(b), EM-LA requests certificates of completion without controls for SWMU 15-004(i) and AOCs 16-027(a), 16-027(b), 16-037, C-16-001, C-16-009, C-16-015, C-16-018, C-16-036, C-16-041, C-16-044, C-16-061, C-16-070, and C-16-072.

If you have any questions, please contact Christian Maupin at (505) 695-4281 (christian.maupin@em-la.doe.gov) or Cheryl Rodriguez at (505) 414-0450 (cheryl.rodriguez@em.doe.gov).

Sincerely,



Digitally signed by BRIAN
HARCEK
Date: 2023.07.21 13:41:06
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Arturo Q. Duran For
Compliance and Permitting Manager
U.S. Department of Energy
Environmental Management
Los Alamos Field Office

Enclosure(s): Two hard copies with electronic files

1. Information Related to Area of Concern 16-027(a) Included with Addendum 2 to the Resource Conservation and Recovery Act Facility Investigation Work Plan for Operable Unit 1082 (EM2023-0421)
2. Information Related to Area of Concern 16-027(b) Included with Addendum 2 to the Resource Conservation and Recovery Act Facility Investigation Work Plan for Operable Unit 1082 (EM2023-0421)

cc (letter and enclosure[s] emailed):

Laurie King, EPA Region 6, Dallas, TX
Steve Yanicak, NMED-DOE OB
Neelam Dhawan, NMED-HWB
Ricardo Maestas, NMED-HWB
Stephen Hoffman, NA-LA
Jennifer Payne, LANL
William Alexander, N3B
Brenda Bowlby, N3B
Robert Edwards III, N3B
Kate Ellers, N3B
Michael Erickson, N3B
Dana Lindsay, N3B

Tracy McFarland, N3B
Christian Maupin, N3B
Vince Rodriguez, N3B
Bradley Smith, N3B
Jeffrey Stevens, N3B
Troy Thomson, N3B
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Public Reading Room (EPRR)
PRS website

Enclosure 1

Information Related to Area of Concern 16-027(a) Included with Addendum 2 to the Resource Conservation and Recovery Act Facility Investigation Work Plan for Operable Unit 1082

Area of Concern (AOC) 16-027(a) was recommended for no further action in Addendum 2 to the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan for Operable Unit 1082 (RFI work plan addendum) (LANL 1995, 057225). The site was recommended for no further action because it had been remediated in accordance with applicable regulations (i.e., the Toxic Substances Control Act [TSCA]), and chemicals of concern were either not present or present in concentrations that would not pose a risk. Attachment A to Chapter 6 of the RFI work plan addendum contained cleanup documentation to justify recommendations for no further action for sites for which previous response actions had been performed, including AOC 16-027(a). The information provided in this enclosure consists of the documentation contained in Attachment A to Chapter 6 that pertained to AOC 16-027(a). Addendum 2 to the RFI Work Plan was submitted to the U.S. Environmental Protection Agency (EPA) in July 1995.

As described in the information contained in this enclosure, reporting of the polychlorinated biphenyl spill to EPA under TSCA and approval of cleanup by EPA was not required.

Reference

LANL (Los Alamos National Laboratory), July 1995. "RFI Work Plan for Operable Unit 1082, Addendum 2," Los Alamos National Laboratory document LA-UR-95-1038, Los Alamos, New Mexico. (LANL 1995, 057225)

ATTACHMENT A TO CHAPTER 6

This attachment contains cleanup documentation for SWMUs recommended for no further action under step 3 or 4 of the the four-step criteria.

The SWMU, its location in Chapter 6, and associated documentation are listed below:

SWMU	Subsection	Documentation
16-021(b)	6.7.4.2	15-16-590
16-022(a)	6.7.3.1	15-16-568
16-022(b)	6.7.3.2	15-16-540, 15-16-585
16-025(e2,f2,h2)	6.6.3.1	15-16-144
16-027(a-c)	6.7.4.1	15-16-546, 15-16, 547, 15-16-386
16-033(a,b,f-j)	6.7.3.2	15-16-076, 15-16-114, 15-16-131, 15-16-602, 15-16-607, 15-16-588, 15-16-585, 15-16-597, 15-16-596

16-000546

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

memorandum

TO: Margo Buksa, CST-6, MS E525
FROM: Tina Marie Sandoval, EM-8 *TMS*
SYMBOL: EM-8/WQ&H:94-008
SUBJECT: REQUEST FOR PCB-RELATED DOCUMENTATION

DATE: January 4, 1994
MAIL STOP/TELEPHONE: K490/5-2288

Enclosed are copies of documentation you requested regarding PCB-related activities, including spills, which occurred at three Laboratory S-Site locations. Below is a summary of these activities.

TA-16-260, Room 110 (Transformer PCB s ID #'s 85-5607 and 85-5608)

- A PCB spill cleanup was performed at this location on May 17, 1990. EM-8/JENV PCB spill documentation is enclosed.
- The two transformers noted were drained, removed and replaced with non-PCB units on July 9, 1990. Disposal information is enclosed.

TA-16-540, (Transformer PCB ID # 85-5020)

- The transformer noted at this location had a slow leak, but never spilled onto surfaces which required cleanup. The spilled oil was contained in a coffee can which was disposed of. No EM-8/JENV PCB spill records exist for the spill activities occurring at this location.
- The transformer noted above, began a UNISON retrofit process on July 15, 1988 and was re-classified to non-PCB on September 6, 1990. Disposal information for the PCB oil and retrofit fluids is enclosed.

TA-16-563, Station 9, (Transformer PCB ID # 86-4997, which is located next to Building TA-16-430)

- A PCB spill cleanup was performed at this location beginning July 28, 1987. EM-8/JENV PCB spill documentation is enclosed.
- This transformer was drained, removed and replaced with a non-PCB unit in September 1993. In-service documentation reflecting a REM/STO (removal/storage) date is enclosed.

I hope the information provided herein satisfies your request. Please call me if you have any questions.

TMS/em

Enc. a/s

Cy: EM-8 Reading File, w/o enc.
Circ. File, w/o enc.

PCB TRANSFORMER/MISCELLANEOUS DISPOSAL REPORT (≥ 500 ppm)

OWNER	PCB ID#	T Y P E	PCB WT. (kg)	DESCRIPTION	REM/STO DATE yy/mm/dd	TRANSPORT DATE yy/mm/dd	L O C yy/mm/dd	DESTRUCT DATE yy/mm/dd	CERT.#	SHIP WT. (lbs)	MANIF.#	F
ENG-4	855573	RT	2336.02	TRANSFORMER	89/12/08	90/03/16	U1	90/06/20	U0006318	32495	10144	2967
ENG-4	855574	RT	2336.02	TRANSFORMER	89/12/04	90/03/16	U1	90/03/21	U0003574		10144	2968
ENG-4	855575	RT	2336.02	TRANSFORMER	89/11/27	90/03/16	U1	90/08/01	U0006240		10144	2969
ENG-4	855576	RT	2336.02	TRANSFORMER	89/11/30	90/03/16	U1	90/06/20	U0006317		10144	2970
ENG-4	855577	RT	2866.73	TRANSFORMER	89/11/07	90/03/16	U1	90/07/27	U0006241		10144	2971
ENG-4	855607	RT	1734.99	TRANSFORMER	90/05/17	90/07/09	U1	90/10/26	U0006445	10350	11039	3462
* ENG-4	855608	RT	1734.99	TRANSFORMER	90/05/17	90/07/09	U1	90/10/26	U0006444		11039	3463
WX-3	902089	RT	2103.00	TRANSFORMER	90/05/04	90/07/16	U1	90/10/26	U0006454	3700	0007203	3655
WX-3	902090	RT	2103.00	TRANSFORMER	90/05/04	90/07/16	U1	90/10/26	U0006453		0007203	3656
JCI	855001	RT	3923.61	TRANSFORMER	90/09/05	90/09/10	U1	90/12/06	U0006545	40070	0007281	3657
JCI	855002	RT	3923.61	TRANSFORMER	90/09/05	90/09/10	U1	90/09/20	U0004196		0007281	3658
JCI	855006	RT	3742.17	TRANSFORMER	90/08/21	90/09/10	U1	90/12/06	U0006543		0007281	3659
JCI	855007	RT	3655.99	TRANSFORMER	90/08/21	90/09/10	U1	90/12/06	U0006544		0007281	3660
JCI	855000	RT	3923.61	TRANSFORMER	90/09/07	90/09/17	U1	90/09/28	U0004362	12918	0007306	3661
JCI	855003	RT	1355.80	TRANSFORMER	90/09/12	90/09/17	U1	90/12/06	U0006554		0007306	3662
JCI	855005	RT	235.87	TRANSFORMER	90/09/14	90/09/17	U1	91/03/23	U0006686		0007306	3663
M-6	909061	VP	101.15	VAC PUMP - DRAINED, FLUSHED	90/01/11	90/01/11	G	90/01/11	NONE	223	R-S900386	3894
M-6	919062	VP	101.15	BOOSTER PUMP - DRAINED, FLUSHED	90/02/06	90/02/06	G	90/02/06	NONE	223	R-S900390	3898

TOTAL PCB WT(kg)= 40849.75

TOTAL PCB WEIGHT SHIPPED (lbs)= 99979

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RT=RADIAL TRANSFORMER
VP=VACUUM PUMP

PCB OIL/SOIL/RETROFILL FLUIDS/DISPOSAL REPORT

OWNER	PCB ID#	PCB WT. (kg)	DESCRIPTION	REM/STO DATE yy/mm/dd	TRANSPORT DATE yy/mm/dd	L O C	DESTRUCT DATE yy/mm/dd	CERT.#	SHIP WT. (lbs)	MANIF.#	FORM#
JCI	0-493	302.30	6 OF 12 55 GAL DRUM - OIL (855002)	90/09/05	90/09/19	R	90/09/26	NONE		00122882	3709
JCI	0-494	302.30	7 OF 12 55 GAL DRUM - OIL (855002)	90/09/05	90/09/19	R	90/09/26	NONE		00122882	3710
JCI	0-495	302.30	8 OF 12 55 GAL DRUM - OIL (855002)	90/09/05	90/09/19	R	90/09/26	NONE		00122882	3711
JCI	0-496	302.30	9 OF 12 55 GAL DRUM - OIL (855002)	90/09/05	90/09/19	R	90/09/26	NONE		00122882	3712
JCI	0-497	302.30	10 OF 12 55 GAL DRUM - OIL (855002)	90/09/05	90/09/19	R	90/09/26	NONE		00122882	3713
JCI	0-498	302.30	11 OF 12 55 GAL DRUM - OIL (855002)	90/09/05	90/09/19	R	90/09/26	NONE		00122882	3714
JCI	0-499	302.30	12 OF 12 55 GAL DRUM - OIL (855002)	90/09/05	90/09/19	R	90/09/26	NONE		00122882	3715
JCI	0-500	302.30	1 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3716
JCI	0-501	302.30	2 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3717
JCI	0-502	302.30	3 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3718
JCI	0-503	302.30	4 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3719
JCI	0-504	302.30	5 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3720
JCI	0-505	302.30	6 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3721
JCI	0-506	302.30	7 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3722
JCI	0-507	302.30	8 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3723
JCI	0-508	302.30	9 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3724
JCI	0-509	302.30	10 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3725
JCI	0-510	302.30	11 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3726
JCI	0-511	302.30	12 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3727
JCI	0-512	302.30	13 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3728
JCI	0-513	302.30	14 OF 14 55 GAL DRUM - OIL (855000)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3729
JCI	0-514	302.30	1 OF 4 55 GAL DRUM - OIL (855003)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3730
JCI	0-515	302.30	2 OF 4 55 GAL DRUM - OIL (855003)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3731
JCI	0-516	302.30	3 OF 4 55 GAL DRUM - OIL (855003)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3732
JCI	0-517	302.30	4 OF 4 55 GAL DRUM - OIL (855003)	90/09/12	90/09/19	R	90/09/26	NONE		00122882	3733
X WX-12	0-518	302.30	1 OF 10 55 GAL DRUM - OIL (855607/8)	90/05/17	90/09/24	R	90/10/13	NONE	9140	00235492	3768
X WX-12	0-519	302.30	2 OF 10 55 GAL DRUM - OIL (855607/8)	90/05/17	90/09/24	R	90/10/13	NONE		00235492	3769
X WX-12	0-520	302.30	3 OF 10 55 GAL DRUM - OIL (855607/8)	90/05/17	90/09/24	R	90/10/20	NONE		00235492	3770
X WX-12	0-521	302.30	4 OF 10 55 GAL DRUM - OIL (855607/8)	90/05/17	90/09/24	R	90/10/20	NONE		00235492	3771
X WX-12	0-522	302.30	5 OF 10 55 GAL DRUM - OIL (855607/8)	90/05/17	90/09/24	R	90/10/13	NONE		00235492	3772
X WX-12	0-523	302.30	6 OF 10 55 GAL DRUM - OIL (855607/8)	90/05/17	90/09/24	R	90/10/13	NONE		00235492	3773
X WX-12	0-524	302.30	7 OF 10 55 GAL DRUM - OIL (855607/8)	90/05/17	90/09/24	R	90/10/13	NONE		00235492	3774
X WX-12	0-525	302.30	8 OF 10 55 GAL DRUM - OIL (855607/8)	90/05/17	90/09/24	R	90/10/13	NONE		00235492	3775
X WX-12	0-526	302.30	9 OF 10 55 GAL DRUM - OIL (855607/8)	90/05/17	90/09/24	R	90/10/13	NONE		00235492	3776
X WX-12	0-527	302.30	10 OF 10 55 GAL DRUM - OIL (855607/8)	90/05/17	90/09/24	R	90/10/20	NONE		00235492	3777
X WX-12	0-528	161.40	1 OF 1 55 GAL DRUM - OIL (855607)	90/05/17	90/09/24	R	90/10/13	NONE		00235492	3778
X WX-12	0-529	152.30	1 OF 1 55 GAL DRUM - OIL (855608)	90/05/17	90/09/24	R	90/10/20	NONE		00235492	3779
WX-12	0-530	146.00	1 OF 1 55 GAL DRUM - FLUSH	90/05/17	90/09/24	R	90/10/20	NONE		00235492	3780

NON-REPORTABLE

CLEANUP RECORD OF HIGH-CONCENTRATION
SPILLS INVOLVING NON REPORTABLE RELEASESTA- 16 - 260.Equipment Room 110

Records. The responsible party shall document the cleanup with records of decontamination. The records must be maintained for a period of 5 years. The records and certification shall consist of the following:

- I. Identification of the source of the spill, e.g., type of equipment.

PCB transformers, PCB ID # 5607 and 5608.

- II. Estimated or actual date and time of the spill occurrence.

Spill occurred on May 17, 1990 at approximately 7:00 pm

- III. The date and time cleanup was completed or terminated (if cleanup was delayed by emergency or adverse weather: the nature and duration of the delay).

Cleanup initiated immediately on May 17, 1990, using the double wash/double rinse method and completed on May 18, 1990 at approximately 4:00pm, using the scabbler concrete removal system.

Subsequent cleanup efforts were done on;

*July 2, 1990, Penetone, double wash/double rinse
August 27 and 28, 1990, Capsur foam method
October 4 and 5, 1990, Capsur foam method*

Cleanup completed on

November 13, 1990, Penetone, double wash/double rinse

- IV. A brief description of the spill location and the nature of the materials contaminated. (This information should include whether the spill occurred in an outdoor electrical substation, other restricted access location, or in a nonrestricted access area.)

Spill occurred in Room 110 at Technical Area (TA) 16, Building 260. Contaminated material was nonimpervious solid surfaces; concrete floor, concrete sump, and an impervious metal sump cover. This location is considered as a "restricted access area".

CLEANUP RECORD

High concentration.

TA- 16 - 260.

Equipment Room 110

- V. Pre-cleanup sampling data used to establish the spill boundaries if required because of insufficient visible traces and a brief description of the sampling methodology used to establish the spill boundaries.

Spill boundaries established using visual stain under transformer and visible stain under pump and drums.

- VI. A brief description of the solid surfaces cleaned.

Concrete floor under transformer was scabbled, sampled and encapsulated. Concrete floor and sump under the pump and drums was cleaned using the double wash/double rinse methodology using various cleaning agents. The Capsur cleaning process was also used in these areas. The metal sump lid was wrapped in plastic and taken to at TA-54, Area G. The floor area of the entire room was encapsulated using a two tone epoxy coating, all grid points were below the required 100ug/100cm² prior to encapsulation.

- VII. Approximate depth of soil excavation and the amount of soil removed.

No soil removed during this cleanup process.

- VIII. Post-cleanup verification sampling data and, if not otherwise apparent from the documentation, a brief description of the sampling methodology and analytical technique used.

* *Post-cleanup sampling was conducted after each cleanup effort. Sampling scheme established using the MBI guidelines. Surface swipes were taken using gauze, cyclohexane, and 100cm² templates.*

Optional: 1) Estimated cost of cleanup (by man-hours, dollars, or both).

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

memorandum

TO: Raul Morales, HSE-8, MS K490

DATE: May 21, 1990

FROM: L. A. Stretz

MAIL STOP/TELEPHONE: C930/7-6495

SYMBOL: WX-3

SUBJECT: PCB CLEANUP AT TA-16-260

It is my understanding based on our telephone conversation on May 21, 1990 that encapsulation of the floor area of the equipment room at Building 260 is acceptable for fixing the small amount of remaining PCB. We will proceed based on your recommendation.

Reasons for following this course are:

1. Cleaning (surface scabbling) reduced measured PCB levels to well below 100 µg although levels still exceed 10 µg.
2. The room is isolated from the outside environment and from the operating area of Building 260.
3. The Building is used for essential operations and must be returned to service without delay.
4. Encapsulation will assure protection of the environment and employees against PCB exposure.


L. A. Stretz

LAS/klm

Cy: J. L. Parkinson, WX-3, MS C930
R. Taylor, WX-12, MS C932
B. McCormick, WX-12, MS C923
R. A. Hildner, WX-3, MS C934
File

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

SPILL REPORT

Spill Coordinator Michael Bailey	Telephone 7-01-4	Mail Stop PENV	Division PAWS	Group PENV
-------------------------------------	---------------------	-------------------	------------------	---------------

SPILL INFORMATION

Date of Spill 5/17/90	Time of Spill 7:00 PM	Location TA-16 Building 260 Room 110
--------------------------	--------------------------	-----------------------------------------

Amount of Spilled Material 1/2 to 2/4 gallon	Type of Spilled Material PCB (Greater than 500 ppm) liquid
-------------------------------------------------	---------------------------------------------------------------

Basis of Estimate	<input type="checkbox"/> Inventory	<input checked="" type="checkbox"/> Visual Estimate	<input type="checkbox"/> Recovered Volume	<input type="checkbox"/> Other
-------------------	------------------------------------	-----------------------------------------------------	-------------------------------------------	--------------------------------

Cause (Describe events leading up to the spill, if applicable.)

A PCB transformer (PCB ID# 5608) was being drained by the Pan Am Inside Electricians at the time of the spill. A drum overflowed. A non-reportable quantity of PCB liquid (non-RQ) was released.

Injuries or Exposure?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	(If yes, please describe.)
-----------------------	------------------------------	----------------------------------------	----------------------------

Did evacuation occur?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Were facilities or equipment damaged?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
-----------------------	------------------------------	----------------------------------------	---------------------------------------	------------------------------	----------------------------------------

Did fire/explosion occur?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Was there a potential for fire/explosion?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
---------------------------	------------------------------	----------------------------------------	-------------------------------------------	------------------------------	----------------------------------------

Did the spill enter sewer drains, streams, or stream beds?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	(If yes, give location and ultimate drainage.)
------------------------------------------------------------	------------------------------	----------------------------------------	------------------------------------------------

Who discovered the spill?

Michael Bailey, PENV

SPILL RESPONSE

Describe the spill response, in chronological order. Include a call-out of response personnel, steps taken to contain the spill, and steps taken to clean up.

Also describe spill control equipment used.

A PCB transformer (PCB ID# 5608), was being drained at TA-16 Building 260, Room 110. The Pan Am Inside Electricians decided to take a break before emptying the second of two transformers at this site. The first transformer was drained without incident. The pump was set up and all hoses were in place for the second draining. The electricians did not close a bypass valve on the pump before the break. The transformer siphoned into the drum until the drum overflowed. A sump with no drain received approximately 1/2 to 3/4 gallon of PCB oil from the drum. The drum happened to be over the sump when it overflowed. The spill occurred at 7:00 PM. Michael Bailey, who was on the scene for the draining, was the first responder to the spill. Sorbent sheets were placed in the sump to contain the spill. The sump was given a double wash/double rinse with "Naturalizer" PCB solvent. The spill was completely cleaned by 8:30 PM. The cleanup was delayed while the transformer was drained into drums.

● Pan Am World Services, Inc.

TO: Distribution

THRU: Mike Brown, Supervisor, PENV *MFB*

FROM: Michael Bailey, Environmental Engineer, PENV
=====

DATE: May 14, 1990

MEMO: PENV.90-237

SUBJECT: PAN AM HSE PROCEDURES FOR THE REMOVAL OF PCB
TRANSFORMERS AT TA-16 BUILDING 260, ROOM 110

Replacement of two PCB transformers at TA-16 Building 260, Room 110, is scheduled to start on May 17, 1990. Health, safety, and environmental protection procedures have been written to ensure the safe removal of these transformers. Room 110 is an equipment room located on the outside of Building 260, and is easily accessible by two large double doors.

A list of the personnel that will be involved in the removal follows:

Construction Supervisor - Robert Tarleton, CA3D
Electricians - Foreman Larry Meira
Linemen - Foreman Ruben Salazar
Riggers - Foreman Ray Smith
Operators - Foreman Ray Smith
Laborers - CALD Laborers (have been trained in PCBs)
HSE-7 Personnel - Larry Hupke
PENV Personnel - Michael Bailey
PSFT Personnel - Tito N. Trujillo, Lorenzo Chavez

Information about the two PCB transformers follows:

Tech Area Bldg.	Room No.	Serial No.	PCB ID No.	Fluid Vol.	
TA-16	260	110	57988	5607	294 gal
TA-16	260	110	59344	5608	294 gal

The two transformers will be emptied on site and transported by the Pan Am Riggers through a double door to the outside. The transformers will be loaded by a crane to a truck with a drip pan that covers the entire bed of the truck by the Riggers. A High Explosives Decontamination Permit (WX-12-1) will be obtained from WX-12 personnel, and a Hazardous Materials On-Site Transfer (OTM-1) Form will be required.

TO: KenH

CC: MikeA
RaulM
RoyB
SteveR
TinaS

DATE: 05-21-90
TIME: 16:34

FROM: RaulM

SUBJECT: PCBs ON THE FLOOR AT TA16, BLD260, RM110

PRIORITY:

ATTACHMENTS:

Ken,

1. As you already know, PCBs were found on the floor beneath a transformer at TA-16, Bldg 260, Room 110 while the transformer was in the process of being replaced. Analytical chemistry results indicate PCB concentrations in that area to be less than 100ug/100sq cm after cleanup.

2. In the process of emptying the Askarel 1260 from the transformer, World Services personnel had a couple of spills -- one of about a pint and the other 3/4 gallon. This area is to be sampled once initial cleanup procedures have been completed.

ACTIONS TAKEN TO ADDRESS THE ABOVE

Having just returned from a PCB course in Washington D.C., I had obtained information on the regulations which helped put the above items in perspective. For PCB concentrations of less than 100ug/100sq cm as described (1) above, we can encapsulate the PCBs in the floor (and place in our report as a report of what happened and how we alleviated or corrected the situation). We have already conveyed this information to the responsible parties and the encapsulation and transformer replacement is proceeding. We do not need to notify the EPA or obtain approval to encapsulate, but according to the regulations the EPA can disallow our encapsulation. I believe that will be unlikely since no threat to the environment is presented by this situation.

The spills described in (2) present a different situation. Under TSCA, we must report spills involving 10# of pure PCBs to the EPA. Under CERCLA, 1# or more must be reported to the National Response Center (who typically reports it to the EPA). Although we may have about 10# of PCBs spilled in this case, there is no need to report either to the EPA or NRC because the regulations address RELEASES TO THE ENVIRONMENT. In this case, we have a workplace release, i.e., a closed place with no emissions to the environment. There are no drains or similar conduits in the room.

Appropriate reports will be written and filed for the incident.

Rae wanted me to bring you up-to-date on the above. If you have questions call me at 7-0814.



PAN AM WORLD SERVICES, INC.
FIELD AUTHORIZATION

DATE 7/3/90
% COMP. 98
PAN# 5

PART A: DESCRIPTION AND JUSTIFICATION

PRIME NO. 9095-54 TITLE PCB TRANSFORMER REPL
ASSOCIATE NO. 5-8401-98 TA 16 BLDG. 260

TO AUTHORIZE CLEANUP OF PCB'S LEAKED FROM
OLD TRANSFORMERS AND COVER TIME LOST
DUE TO SHUT DOWN OF JOB

ONE HALF OF THE ROOM WAS ENCAPSULATED ON
11-21-90 - including sump.

REVISED TARGET DATE 7/31/90

ACTIVITY NO. (S) 01050

PART B: CAUSES

☐ PROJECT REVISION <2K
☐ WORK DEFINITION
☐ PRODUCTIVITY
☐ WORKMANSHIP
☐ SCHEDULING
☐ ESTIMATE PLAN
☐ SUPERVISION
☐ FIELD DIRECTION
☐ MATERIALS TOOLS
☐ TRANSP. EQUIP.
☐ PLANS & SPECIFICATIONS
☐ CONGESTION
☐ OVERTIME
☒ SITE ACCESS
☐ FIELD CONDITIONS
☐ RATE CHANGES
☐ H. S. OR E.
☐ WEATHER
☐ OTHER

PART C: HOURS

CARPENTERS
ROOFERS
FLOOR CREW
PAINTERS 13
MASONS
LABORERS 220
TEAMSTERS 3
OPERATORS 8
IRON WKRS 12
TINNERS

SUB-TOTAL

264

FITTERS
INSULATORS
ELECTRICIANS 88 1/2
LINEMEN
RIGGERS
FAB SHOPS
S & T
CUSTODIAL

NON-MANUAL

SUB-TOTAL

88 1/2

TOTAL HRS. 352 1/2

PART D: COSTS

LOADED LABOR \$ 11,000 INCLUDES \$ 0 FOR NON-MANUAL
MATERIAL & HANDLING \$ 500
EQUIPMENT \$ INCLUDES HOURS
SUBTOTAL \$ 11,500
G&A - GRT \$ 2,622

TOTAL ESTIMATED COST

\$ 14,122

BASIS: ☒ WORKSHEET
☐ PLANNERS
☐ ESTIMATORS

PART E: APPROVALS

[Signature] FUNDING ORGANIZATION
DATE 7/5/90
[Signature] W.O. AUTHOR
DATE 7-5-90
[Signature] PAN AM CONST. SUPV.

12. Laborers dressed in personal protection equipment (PPE) will clean area where transformers were in place with Chemsearch Naturalizer non-hazardous solvent and rags in a double wash/double rinse method as determined by PENV.
13. A Hazardous Materials On-Site Transfer (OTM-1) Form will be completed by PENV and given to the driver of the truck for each load. Truck will be placarded with PCB labels, front, sides, and back, by PENV.
14. A High Explosives Decontamination Permit (WX-12-1) will be completed by Bill McCormick, WX-12, at this time and given to the driver (no high explosives are suspected to contaminate these transformers, as stated by Bill McCormick).
15. Drums of oil and empty transformers will be taken to TA-54 Building 39 (HSE-7 PCB Management Facility) by the truck, and the Pan Am Riggers will unload the cargo at an area specified by Larry Hupke, HSE-7.

Michael Bailey

Michael Bailey

Distribution:

Robert Tarleton, CA3D
Steve Rae, HSE-8, K490
Raul Morales, HSE-8, K490
Larry Hupke, HSE-7, K518
Bill McCormick, WX-12, C935
M. R. Heineman, HSE-3, K489
S. J. Calanni, PMGR
A. L. Da Silva, OMDO
Joe J. Lopez, PHSE
Stan Nalley, UMDO
Tito N. Trujillo, PSFT
Lorenzo Chavez, PSFT
Charlie Barnett, PENV
file
reading file

JUN 12 1990

Circ: to: Steve Roe
Roy Dohn
Raul Morales
Hesay

PAN AM WORLD SERVICES, INC.

MEMORANDUM

TO: Joe Lopez, Manager, Health, Safety & Env., PHSE
THRU: Manager, Construction Department, CDDO
FROM: Construction Superintendent, CA2D

DATE: 25 May 1990 MEMO NO.: CA2D.90-212

SUBJECT: PCB TRANSFORMER REMOVAL WORK LESSONS LEARNED

The listed items were things that were dealt with, left out, poorly communicated, etc. on the work done at TA-16-260 and should be considered in future activities concerning PCB work:

1. PCB removal procedures were provided at the last moment but requests for these procedures were made at the pre-job conference two months prior with additional inquiries about the status of the procedures during that two month period.
2. The procedures didn't require any pre-job swiping or indexing to determine if there were existing PCBs oil residuals on the floor prior to beginning transformer and switchgear removal operations. This data would have provided a base from which to formulate a more comprehensive work plan.
3. There didn't seem to be a clear line of communication established between Pan Am Safety and HSE as to who was responsible for what and who was to contact whom.
4. The scabbling machine that was provided at the job site was grossly undersized for the work task and mechanically unsound to start with. There was no back-up machine available if the one provided would have completely failed.
5. The marshaling of resources to deal with this one small incident seemed too fragmented and clearly incomplete.
6. The mopping "double wash" activities seemed to be taken lightly. The scabbling machine was utilized perhaps prematurely. It seems like a more comprehensive "double wash" method with perhaps the appropriate solvents and scrubbing devices other than mops might have remedied the situation with substantially less cost.

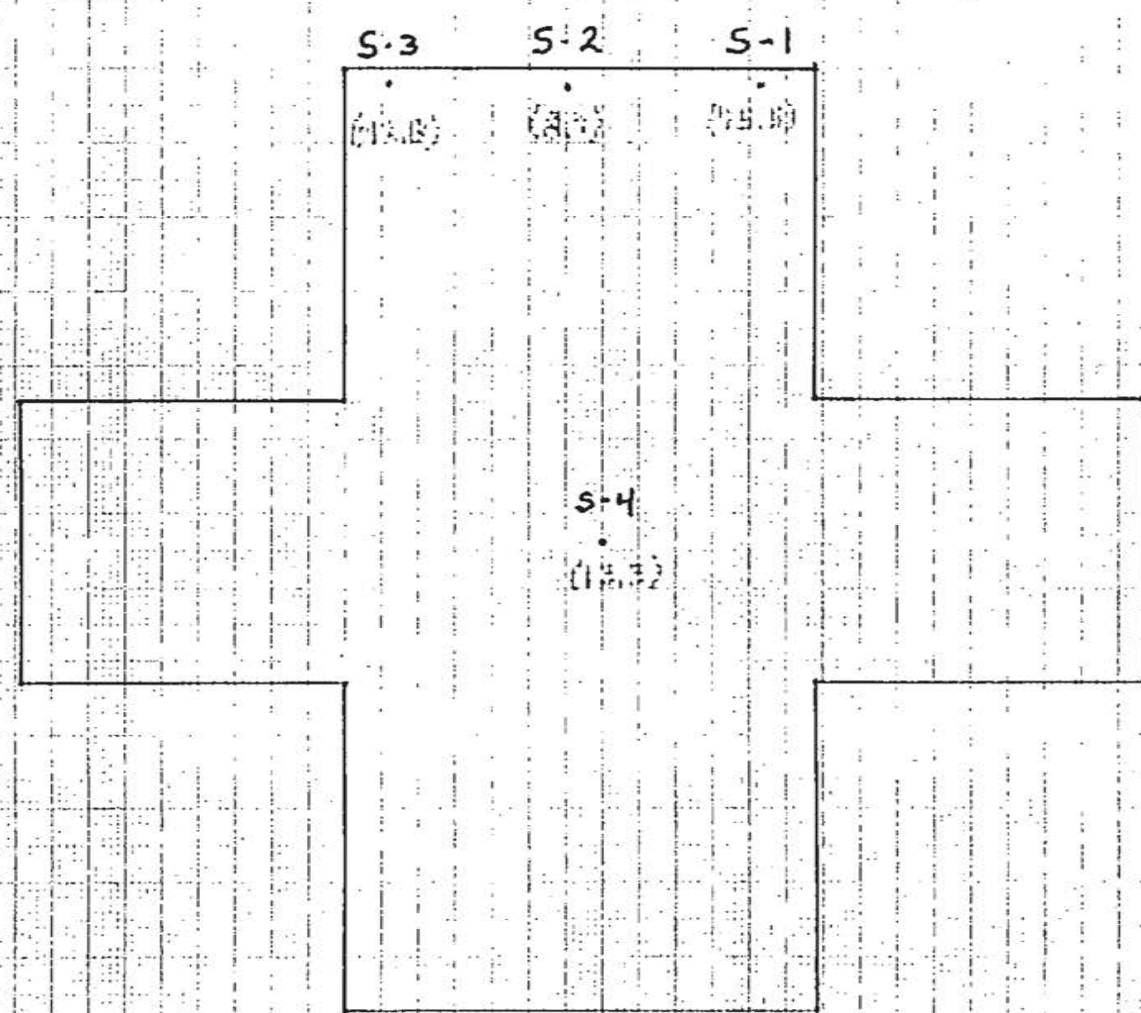
DOCUMENTATION CHECKLIST

CHECK APPROPRIATE BOX

- ☒ GRID
- ☒ ANALYTICAL
- ☒ INCIDENT REPORT
- ☒ MEMO'S
- ☒ COPY OF SJT OR WO'S
- ☐ NOTES
- ☐ PHOTOGRAPHS

1/1 10 202 (dumps)

1
N

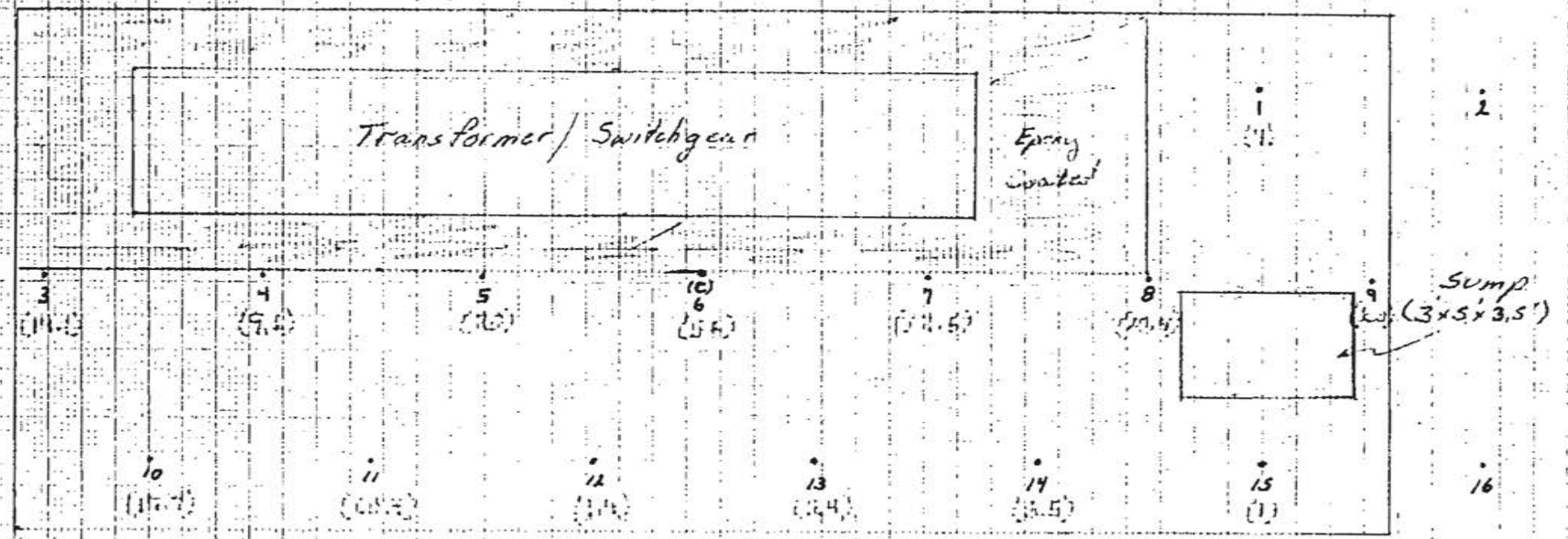


1" = 2'
 Section 5' x 4"
 Distance between points 1' to 2' is 2' 8"
 Distance between points 2' to 3' is 2' 4"
 Grid Samples

1" = 2'

N

40'



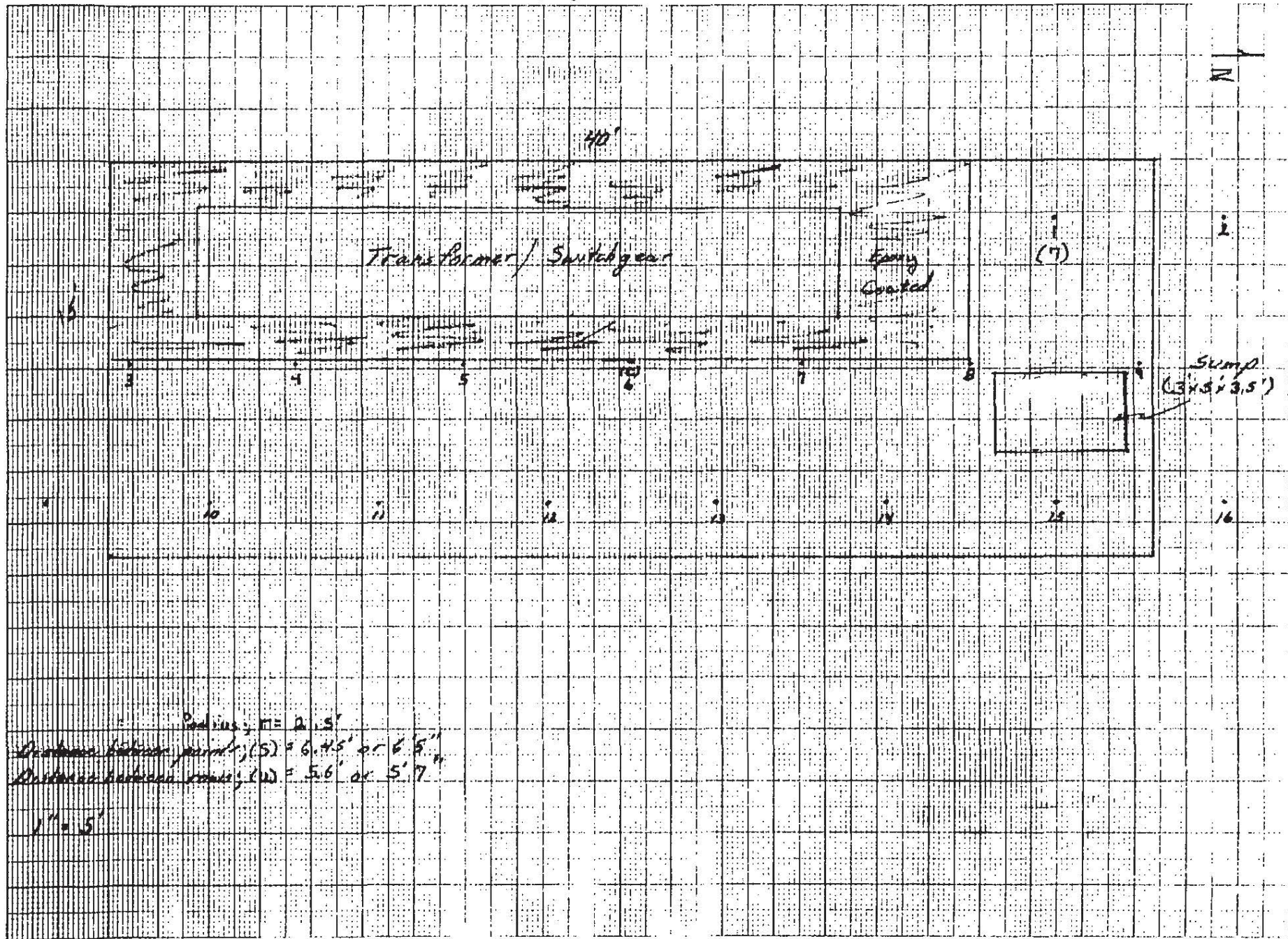
Radius, $r = 21.5'$
 Distance between points, (S) = 6.45' or 6' 5"
 Distance between rows, (W) = 5.6' or 5' 7"

1" = 5'

1:1 values in () are important due to the fact that the values are not rounded.

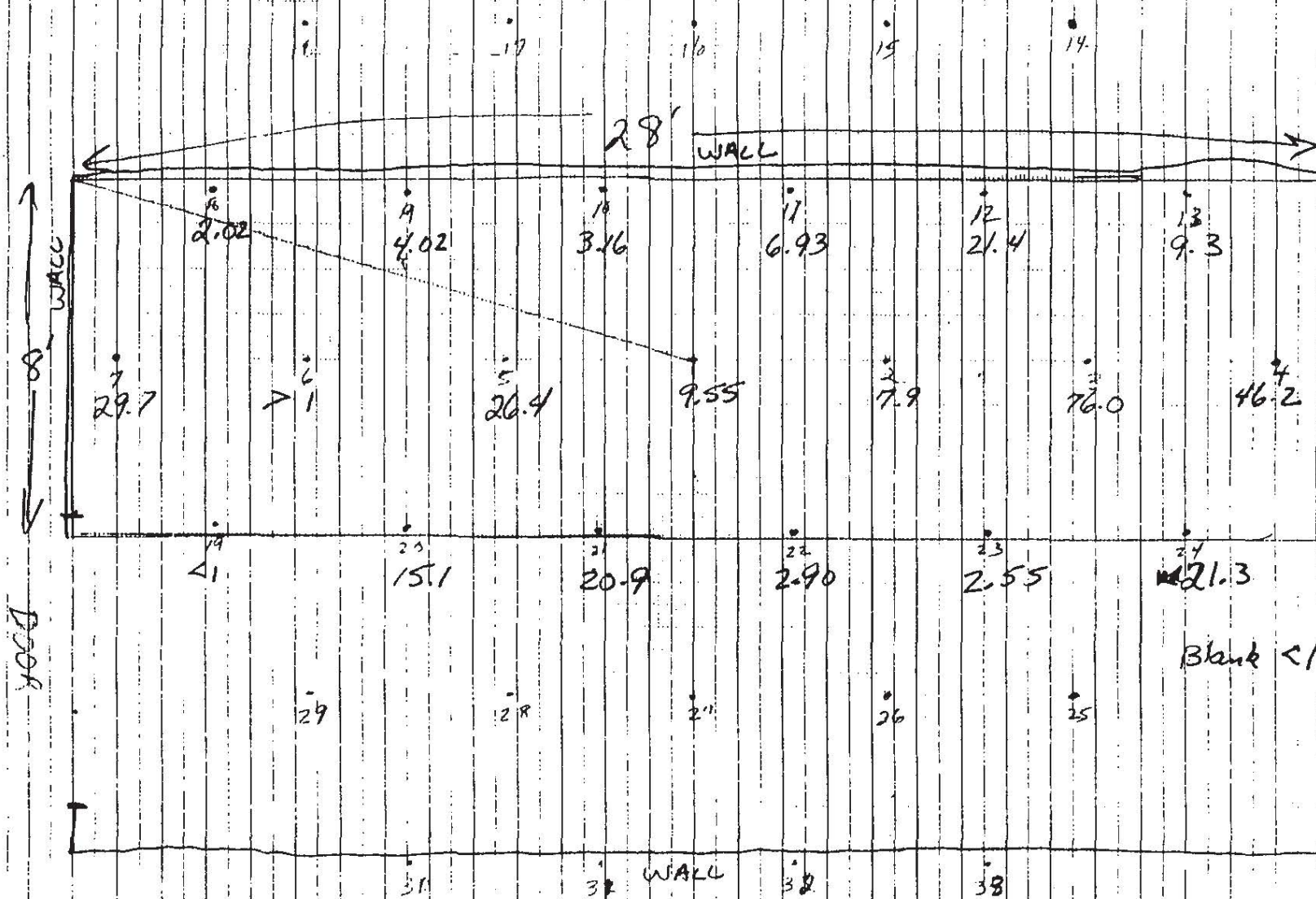
TA-16-260, Final Values

TA-16-260



TA-16-260, Sample 11/15/76

5/20/90



T-9-16-260, Grid under transformer
5/20/90

15' x 14' 6" = 14' 6"
37 Sampling Points

S = 4.36'
U = 3.74'
horizontal = 1' 4"
vertical = 3' 2"

HSE-9 ANALYTICAL REPORT

Prepared by: DMS

on 14-Nov-1990

POLYCHLORINATED BIPHENYLS

REQUEST NUMBER: 10963

MATRIX: FS

ANALYST: Dee Seitz

PROGRAM CODE: WH54

OWNER: Michael Alexander

GROUP: HSE-8

MAIL-STOP: K490

PHONE: 5-4752

SUMMARY of TOTAL PCB's for customer samples on this report

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT	COMPOUND NAME
90.01391-MRA	90.19161	1336363	7.	1.4	UG/SAMPLE	11/14/90		Mixed-Aroclor
90.01392-MRA	90.19162	1336363	75.5	15.1	UG/SAMPLE	11/14/90		Mixed-Aroclor
90.01393-MRA	90.19163	1336363	8.7	1.7	UG/SAMPLE	11/14/90		Mixed-Aroclor
90.01394-MRA	90.19164	1336363	42.8	8.6	UG/SAMPLE	11/14/90		Mixed-Aroclor
90.01395-MRA	90.19165	1336363	13.3	2.7	UG/SAMPLE	11/14/90		Mixed-Aroclor

DETAILED PCB DATA for customer samples on this report

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT	COMPOUND NAME
90.01391-MRA	90.19161	1336363	7.	1.4	UG/SAMPLE	11/14/90		Mixed-Aroclor
90.01391-MRA	90.19161	53469219	< 0.4		UG/SAMPLE	11/14/90		Aroclor 1242
90.01391-MRA	90.19161	11097691	< 0.4		UG/SAMPLE	11/14/90		Aroclor 1254
90.01391-MRA	90.19161	11096825	7.	1.4	UG/SAMPLE	11/14/90		Aroclor 1260
90.01392-MRA	90.19162	1336363	75.5	15.1	UG/SAMPLE	11/14/90		Mixed-Aroclor
90.01392-MRA	90.19162	53469219	< 0.4		UG/SAMPLE	11/14/90		Aroclor 1242
90.01392-MRA	90.19162	11097691	< 0.4		UG/SAMPLE	11/14/90		Aroclor 1254
90.01392-MRA	90.19162	11096825	75.5	15.1	UG/SAMPLE	11/14/90		Aroclor 1260
90.01393-MRA	90.19163	1336363	8.7	1.7	UG/SAMPLE	11/14/90		Mixed-Aroclor
90.01393-MRA	90.19163	53469219	< 0.4		UG/SAMPLE	11/14/90		Aroclor 1242

TH-16-260, Sample 11/13/90

90.01393-MRA 90.19163	11097691	< 0.4		UG/SAMPLE	11/14/90	Aroclor 1254
90.01393-MRA 90.19163	11096825	8.7	1.7	UG/SAMPLE	11/14/90	Aroclor 1260
90.01394-MRA 90.19164	1336363	42.8	8.6	UG/SAMPLE	11/14/90	Mixed-Aroclor
90.01394-MRA 90.19164	53469219	< 0.4		UG/SAMPLE	11/14/90	Aroclor 1242
90.01394-MRA 90.19164	11097691	< 0.4		UG/SAMPLE	11/14/90	Aroclor 1254
90.01394-MRA 90.19164	11096825	42.8	8.6	UG/SAMPLE	11/14/90	Aroclor 1260
90.01395-MRA 90.19165	1336363	13.3	2.7	UG/SAMPLE	11/14/90	Mixed-Aroclor
90.01395-MRA 90.19165	53469219	< 0.4		UG/SAMPLE	11/14/90	Aroclor 1242
90.01395-MRA 90.19165	11097691	< 0.4		UG/SAMPLE	11/14/90	Aroclor 1254
90.01395-MRA 90.19165	11096825	13.3	2.7	UG/SAMPLE	11/14/90	Aroclor 1260

***** HSE-9 QUALITY ASSURANCE REPORT *****

Prepared by: DMS on 14-Nov-1990

POLYCHLORINATED BIPHENYLS

REQUEST NUMBER: 10963 MATRIX: FS ANALYST: Dee Seitz PROGRAM CODE: WH54
 OWNER: Michael Alexander GROUP: HSE-8 MAIL-STOP: K490 PHONE: 5-4752

SUMMARY OF CONTROL STATUS OF OPEN (NON-BLIND) QA SAMPLES RUN WITH THIS BATCH

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	CERTIFIED VALUE	CERTIFIED VALUE UNCERTAINTY	COMPLETION DATE	COMMENT	COMPOUN
00.21737	00.21737	1336363	19.2	3.8	UG/SAMPLE	13.	1.	11/14/90	UNDER CONTROL	Mixed-Aroclor
00.21737	00.21737	53469219	19.2	3.8	UG/SAMPLE	13.	1.	11/14/90	UNDER CONTROL	Aroclor 1242
00.21737	00.21737	11097691	< 0.4		UG/SAMPLE	0.0		11/14/90	UNDER CONTROL	Aroclor 1254
00.21737	00.21737	11096825	< 0.4		UG/SAMPLE	0.0		11/14/90	UNDER CONTROL	Aroclor 1260

SUMMARY OF CONTROL STATUS OF BLIND QA SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	CERTIFIED VALUE	CERTIFIED VALUE UNCERTAINTY	COMPLETION DATE	COMMENT	COMPOUND-NAME
90.19166	1336363	10.3	2.1	UG/SAMPLE	6.	0.6	11/14/90	UNDER CONTROL	Mixed-Aroclor
90.19166	53469219	10.3	2.1	UG/SAMPLE	6.	0.6	11/14/90	UNDER CONTROL	Aroclor 1242
90.19166	11097691	< 0.4		UG/SAMPLE	0.0		11/14/90	UNDER CONTROL	Aroclor 1254

90.19166 11096825

< 0.4

UG/SAMPLE

0.0

11/14/90 UNDER CONTROL

Aroclor 1260

REPORT NUMBER: 8823

D. Deane Analyst

Analyst

Chris Palmer Reviewer

Reviewer

Chris Palmer Section Leader

Section Leader

QA Officer

11/15/90

Date

11/15/90

Date

11/15/90

Date

Date

The control status of the preceeding data was evaluated using the standard statistical criteria set forth in
'Quality Assurance for Health and Environmental Chemistry: 1986,' LA-11114-MS, pp. 3-4.

End with 12, 13

HSE-9 ANALYTICAL REPORT

Prepared by: DLN

on 29-Oct-1990

POLYCHLORINATED BIPHENYLS

REQUEST NUMBER: 10868

MATRIX: MOL

ANALYST: Dee Seitz

PROGRAM CODE: WH54

OWNER: Michael Alexander

GROUP: HSE-8

MAIL-STOP: K490

PHONE: 5-4752

TASK-ID:

SUMMARY of TOTAL PCB's for customer samples on this report

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT	COMPOUND NAME
90.01366	90.18463	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01374	90.18464	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01375	90.18465	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01376	90.18466	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01377	90.18467	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01378	90.18468	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01379	90.18469	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01380	90.18470	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01381	90.18471	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01382	90.18472	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01367	90.18474	1336363	1.4	0.2	UG/SAMPLE	10/24/90		Mixed-Aroclor
90.01368	90.18475	1336363	12.6	2.5	UG/SAMPLE	10/24/90		Mixed-Aroclor
90.01369	90.18476	1336363	10.4	2.	UG/SAMPLE	10/24/90		Mixed-Aroclor
90.01370	90.18477	1336363	2.	0.4	UG/SAMPLE	10/24/90		Mixed-Aroclor
90.01371	90.18478	1336363	1.	0.2	UG/SAMPLE	10/24/90		Mixed-Aroclor
90.01372	90.18479	1336363	2.6	0.5	UG/SAMPLE	10/24/90		Mixed-Aroclor
90.01373	90.18480	1336363	0.8	0.2	UG/SAMPLE	10/24/90		Mixed-Aroclor

DETAILED PCB DATA for customer samples on this report

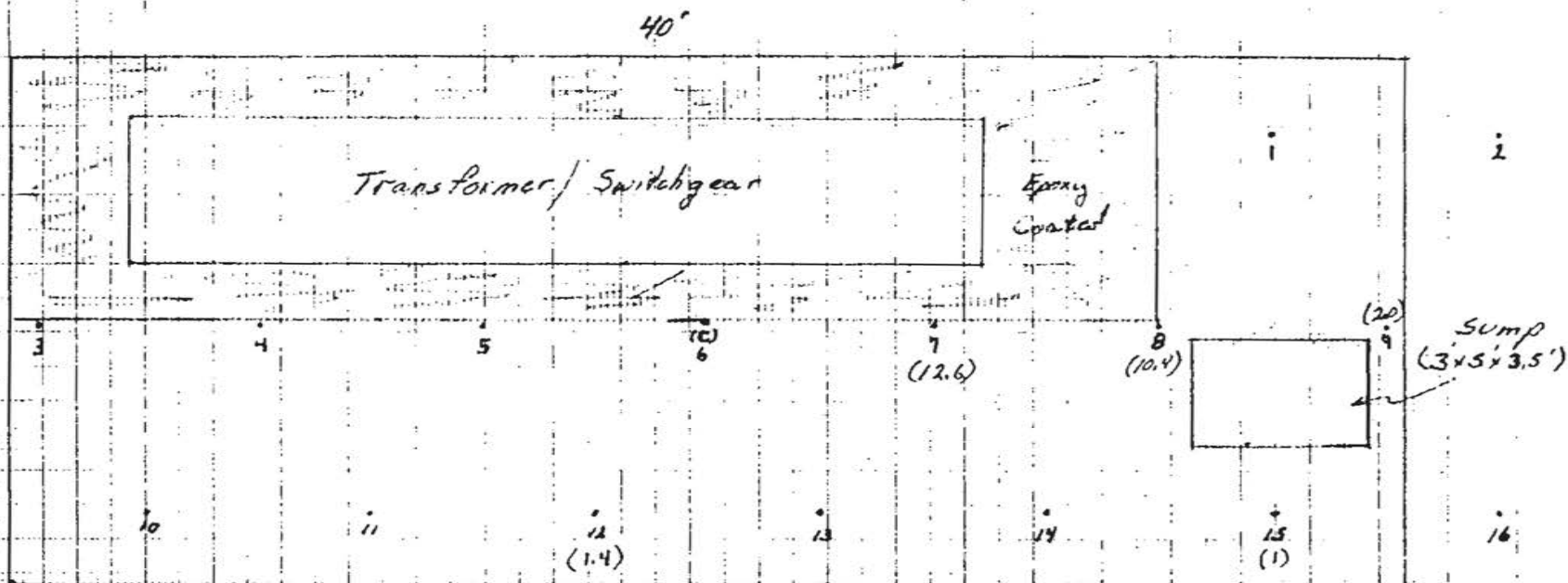
CUSTOMER SAMPLE

COMPLETION

TH-H-860, Samples 10/21/90

T-9-16-260

N



Radius, $r = 21.5'$
 Distance between points; (S) = 6.45' or 6' 5"
 Distance between rows; (W) = 5.6' or 5' 7"
 1" = 5'

T-9-16-260, Sampled 10/5/90

NUM	NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	DATE	COMMENT	COMPOUND NAME
90.01366	90.18463	1336363	< 50.		PPM	10/24/90	KIT	Mixed-Aroclor
90.01366	90.18463	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01366	90.18463	53469219	< 4.		UG/G	10/24/90		Aroclor 1242
90.01366	90.18463	11097691	< 4.		UG/G	10/24/90		Aroclor 1254
90.01366	90.18463	11096825	< 4.		UG/G	10/24/90		Aroclor 1260
90.01374	90.18464	1336363	< 500.		PPM	10/24/90	KIT	Mixed-Aroclor
90.01374	90.18464	1336363	> 50.		PPM	10/24/90	KIT	Mixed-Aroclor
90.01374	90.18464	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01374	90.18464	53469219	< 4.		UG/G	10/24/90		Aroclor 1242
90.01374	90.18464	11097691	< 4.		UG/G	10/24/90		Aroclor 1254
90.01374	90.18464	11096825	< 4.		UG/G	10/24/90		Aroclor 1260
90.01375	90.18465	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01375	90.18465	53469219	< 4.		UG/G	10/24/90		Aroclor 1242
90.01375	90.18465	11097691	< 4.		UG/G	10/24/90		Aroclor 1254
90.01375	90.18465	11096825	< 4.		UG/G	10/24/90		Aroclor 1260
90.01376	90.18466	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01376	90.18466	1336363	< 500.		PPM	10/24/90	KIT	Mixed-Aroclor
90.01376	90.18466	53469219	< 4.		UG/G	10/24/90		Aroclor 1242
90.01376	90.18466	11097691	< 4.		UG/G	10/24/90		Aroclor 1254
90.01376	90.18466	11096825	< 4.		UG/G	10/24/90		Aroclor 1260
90.01377	90.18467	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01377	90.18467	1336363	> 50.		PPM	10/24/90	KIT	Mixed-Aroclor
90.01377	90.18467	53469219	< 4.		UG/G	10/24/90		Aroclor 1242
90.01377	90.18467	11097691	< 4.		UG/G	10/24/90		Aroclor 1254
90.01377	90.18467	11096825	< 4.		UG/G	10/24/90		Aroclor 1260
90.01378	90.18468	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01378	90.18468	1336363	< 50.		PPM	10/24/90	KIT	Mixed-Aroclor
90.01378	90.18468	53469219	< 4.		UG/G	10/24/90		Aroclor 1242
90.01378	90.18468	11097691	< 4.		UG/G	10/24/90		Aroclor 1254
90.01378	90.18468	11096825	< 4.		UG/G	10/24/90		Aroclor 1260
90.01379	90.18469	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01379	90.18469	1336363	< 50.		PPM	10/24/90	KIT	Mixed-Aroclor
90.01379	90.18469	53469219	< 4.		UG/G	10/24/90		Aroclor 1242
90.01379	90.18469	11097691	< 4.		UG/G	10/24/90		Aroclor 1254
90.01379	90.18469	11096825	< 4.		UG/G	10/24/90		Aroclor 1260
90.01380	90.18470	1336363	< 50.		PPM	10/24/90	KIT	Mixed-Aroclor
90.01380	90.18470	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01380	90.18470	53469219	< 4.		UG/G	10/24/90		Aroclor 1242
90.01380	90.18470	11097691	< 4.		UG/G	10/24/90		Aroclor 1254
90.01380	90.18470	11096825	< 4.		UG/G	10/24/90		Aroclor 1260
90.01381	90.18471	1336363	< 4.		UG/G	10/24/90		Mixed-Aroclor
90.01381	90.18471	1336363	< 50.		PPM	10/24/90	KIT	Mixed-Aroclor
90.01381	90.18471	53469219	< 4.		UG/G	10/24/90		Aroclor 1242
90.01381	90.18471	11097691	< 4.		UG/G	10/24/90		Aroclor 1254

90.01381	90.18471	11096825	< 4.		UG/G	10/24/90	Aroclor 1260
90.01382	90.18472	1336363	< 4.		UG/G	10/24/90	Mixed-Aroclor
90.01382	90.18472	53469219	< 4.		UG/G	10/24/90	Aroclor 1242
90.01382	90.18472	11097691	< 4.		UG/G	10/24/90	Aroclor 1254
90.01382	90.18472	11096825	< 4.		UG/G	10/24/90	Aroclor 1260
90.01367	90.18474	1336363	1.4	0.2	UG/SAMPLE	10/24/90	Mixed-Aroclor
90.01367	90.18474	53469219	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1242
90.01367	90.18474	11097691	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1254
90.01367	90.18474	11096825	1.4	0.2	UG/SAMPLE	10/24/90	Aroclor 1260
90.01368	90.18475	1336363	12.6	2.5	UG/SAMPLE	10/24/90	Mixed-Aroclor
90.01368	90.18475	53469219	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1242
90.01368	90.18475	11097691	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1254
90.01368	90.18475	11096825	12.6	2.5	UG/SAMPLE	10/24/90	Aroclor 1260
90.01369	90.18476	1336363	10.4	2.	UG/SAMPLE	10/24/90	Mixed-Aroclor
90.01369	90.18476	53469219	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1242
90.01369	90.18476	11097691	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1254
90.01369	90.18476	11096825	10.4	2.	UG/SAMPLE	10/24/90	Aroclor 1260
90.01370	90.18477	1336363	2.	0.4	UG/SAMPLE	10/24/90	Mixed-Aroclor
90.01370	90.18477	53469219	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1242
90.01370	90.18477	11097691	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1254
90.01370	90.18477	11096825	2.	0.4	UG/SAMPLE	10/24/90	Aroclor 1260
90.01371	90.18478	1336363	1.	0.2	UG/SAMPLE	10/24/90	Mixed-Aroclor
90.01371	90.18478	53469219	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1242
90.01371	90.18478	11097691	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1254
90.01371	90.18478	11096825	1.	0.2	UG/SAMPLE	10/24/90	Aroclor 1260
90.01372	90.18479	1336363	2.6	0.5	UG/SAMPLE	10/24/90	Mixed-Aroclor
90.01372	90.18479	53469219	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1242
90.01372	90.18479	11097691	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1254
90.01372	90.18479	11096825	2.6	0.5	UG/SAMPLE	10/24/90	Aroclor 1260
90.01373	90.18480	1336363	0.8	0.2	UG/SAMPLE	10/24/90	Mixed-Aroclor
90.01373	90.18480	53469219	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1242
90.01373	90.18480	11097691	< 0.4		UG/SAMPLE	10/24/90	Aroclor 1254
90.01373	90.18480	11096825	0.8	0.2	UG/SAMPLE	10/24/90	Aroclor 1260

***** HSE-9 QUALITY ASSURANCE REPORT *****

Prepared by: DLN on 29-Oct-1990

POLYCHLORINATED BIPHENYLS

REQUEST NUMBER: 10868 MATRIX: MOL ANALYST: Dee Seitz PROGRAM CODE: WH54

OWNER: Michael Alexander GROUP: HSE-8 MAIL-STOP: K490 PHONE: 5-4752 TASK-ID:

SUMMARY OF CONTROL STATUS OF OPEN (NON-BLIND) QA SAMPLES RUN WITH THIS BATCH

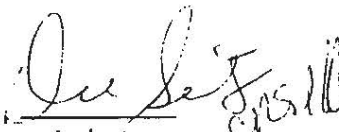
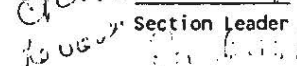
CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	CERTIFIED VALUE	CERTIFIED VALUE UNCERTAINTY	COMPLETION DATE	COMMENT	COMPOUN
00.21374	00.21374	1336363	3.4	0.7	UG/SAMPLE	5.	0.5	10/24/90	UNDER CONTROL	Mixed-Aroclor
00.21374	00.21374	53469219	< 0.4		UG/SAMPLE	0.0		10/24/90	UNDER CONTROL	Aroclor 1242
00.21374	00.21374	11097691	< 0.4		UG/SAMPLE	0.0		10/24/90	UNDER CONTROL	Aroclor 1254
00.21374	00.21374	11096825	3.4	0.7	UG/SAMPLE	5.	0.5	10/24/90	UNDER CONTROL	Aroclor 1260
00.97411	00.97411	1336363	18.8	3.8	UG/G	25.	2.	10/24/90	UNDER CONTROL	Mixed-Aroclor
00.97411	00.97411	53469219	< 4.		UG/G	0.0		10/24/90	UNDER CONTROL	Aroclor 1242
00.97411	00.97411	11097691	< 4.		UG/G	0.0		10/24/90	UNDER CONTROL	Aroclor 1254
00.97411	00.97411	11096825	18.8	3.8	UG/G	25.	2.	10/24/90	UNDER CONTROL	Aroclor 1260

SUMMARY OF CONTROL STATUS OF BLIND QA SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	CERTIFIED VALUE	CERTIFIED VALUE UNCERTAINTY	COMPLETION DATE	COMMENT	COMPOUND-NAME
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90.18473	1336363	40.7	8.1	UG/G	57.	6.	10/24/90	UNDER CONTROL	Mixed-Aroclor
90.18473	53469219	< 4.		UG/G	0.0		10/24/90	UNDER CONTROL	Aroclor 1242
90.18473	11097691	< 4.		UG/G	0.0		10/24/90	UNDER CONTROL	Aroclor 1254
90.18473	11096825	40.7	8.1	UG/G	57.	6.	10/24/90	UNDER CONTROL	Aroclor 1260
90.18481	1336363	11.6	2.3	UG/SAMPLE	15.	2.	10/29/90	UNDER CONTROL	Mixed-Aroclor
90.18481	53469219	< 0.4		UG/SAMPLE	0.0		10/29/90	UNDER CONTROL	Aroclor 1242
90.18481	11097691	< 0.4		UG/SAMPLE	0.0		10/29/90	UNDER CONTROL	Aroclor 1254
90.18481	11096825	11.6	2.3	UG/SAMPLE	15.	2.	10/29/90	UNDER CONTROL	Aroclor 1260

REPORT NUMBER: 8581


 Analyst

 Section Leader
 11/7/90 mla/as
 Date

QA Officer

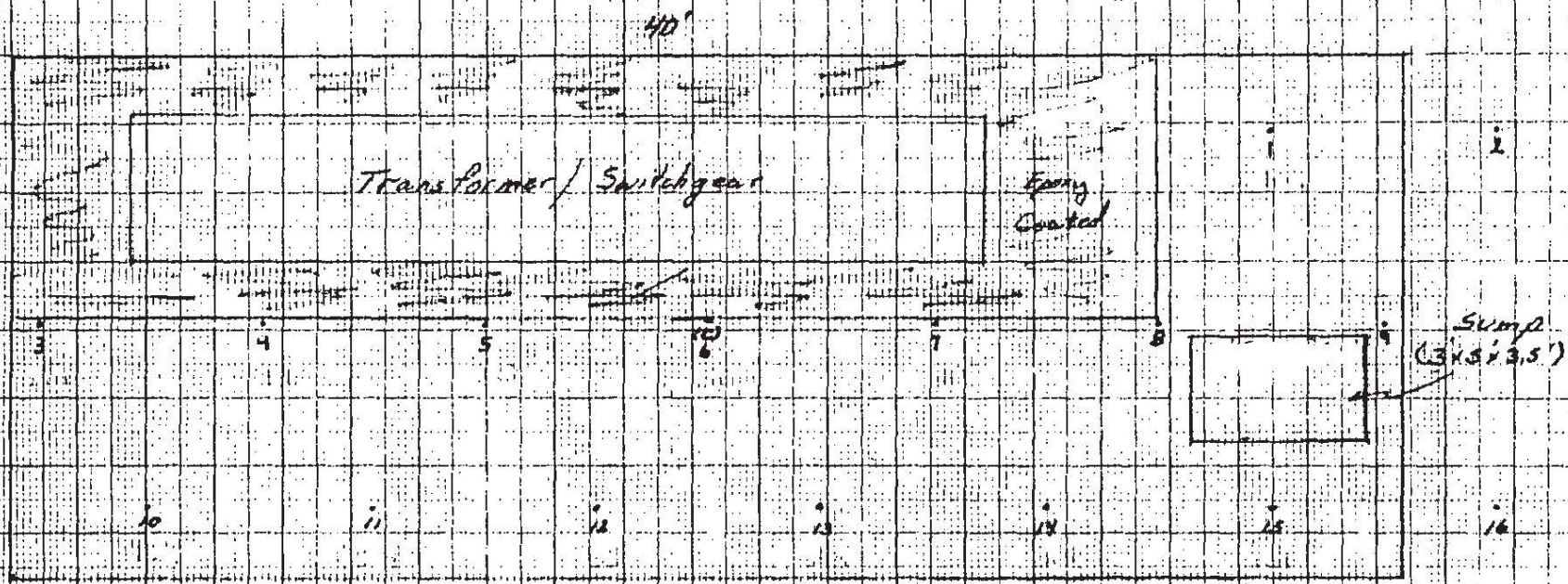
Date

The control status of the preceeding data was evaluated using the standard statistical criteria set forth in 'Quality Assurance for Health and Environmental Chemistry: 1986,' LA-11114-MS, pp. 3-4.

TA-16-260

8/29/90, Sampled

N



Radius, $r = 2.5'$

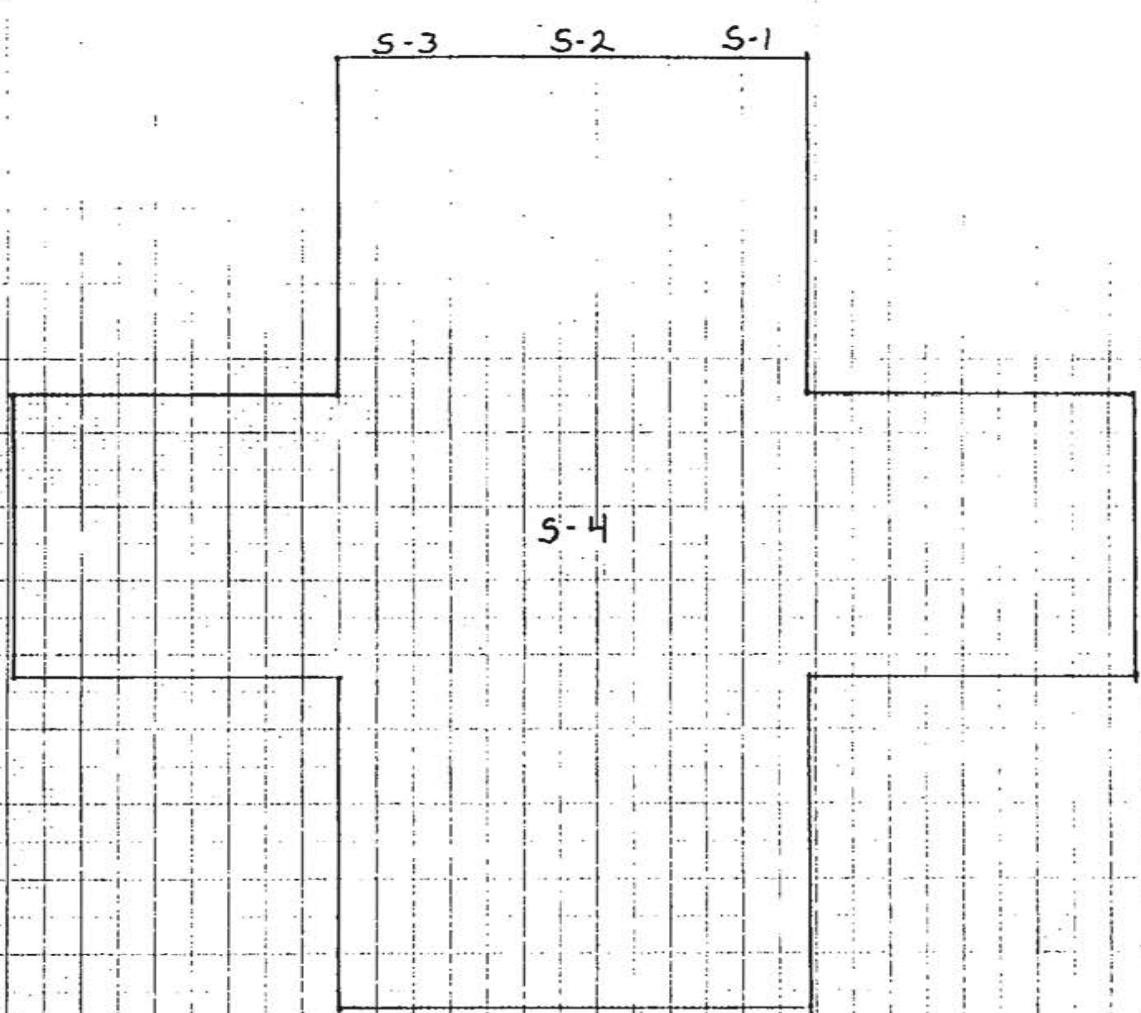
Distance between points; (S) = 6.45' or 6.5'

Distance between rows; (W) = 5.6' or 5.7'

1" = 5'

TA-16-260, Sampled 8/29/90

N



Radius 5' 6"

Distance between points 26', 28'

Distance between points 23', 24'

Circle Samples

1" = 2'

HSE-9 ANALYTICAL REPORT

Prepared by: DMS

on 14-Sep-1990

POLYCHLORINATED BIPHENYLS

REQUEST NUMBER: 10731

MATRIX: FS

ANALYST: Dee Seitz

PROGRAM CODE: WA56

OWNER: Michael Alexander

GROUP: HSE-8

MAIL-STOP: K490

PHONE: 5-4752

TASK-ID:

SUMMARY of TOTAL PCB's for customer samples on this report

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT	COMPOUND NAME
90.01304-MRA	90.17071	1336363	107.	43.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01305-MRA	90.17072	1336363	14.1	2.8	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01306-MRA	90.17073	1336363	9.6	1.9	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01307-MRA	90.17074	1336363	20.	4.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01308-MRA	90.17075	1336363	56.	22.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01309-MRA	90.17076	1336363	610.	240.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01310-MRA	90.17077	1336363	260.	100.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01311-MRA	90.17078	1336363	866.	350.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01312-MRA	90.17079	1336363	17.7	3.5	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01313-MRA	90.17080	1336363	< 0.4		UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01314-MRA	90.17081	1336363	85.	34.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01315-MRA	90.17082	1336363	24.	4.7	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01316-MRA	90.17083	1336363	8.5	1.7	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01317-MRA	90.17084	1336363	131.	52.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01318-MRA	90.17085	1336363	129.	52.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01319-MRA	90.17086	1336363	183.	73.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01320-MRA	90.17087	1336363	271.	108.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01321-MRA	90.17088	1336363	276.	110.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01322-MRA	90.17089	1336363	290.	115.	UG/SAMPLE	9/14/90		Mixed-Aroclor

DETAILED PCB DATA for customer samples on this report

TA-16-26, Sampled 5/27/90

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT	COMPOUND NAME
90.01304-MRA	90.17071	1336363	107.	43.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01304-MRA	90.17071	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242
90.01304-MRA	90.17071	11097691	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1254
90.01304-MRA	90.17071	11096825	107.	43.	UG/SAMPLE	9/14/90		Aroclor 1260
90.01305-MRA	90.17072	1336363	14.1	2.8	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01305-MRA	90.17072	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242
90.01305-MRA	90.17072	11097691	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1254
90.01305-MRA	90.17072	11096825	14.1	2.8	UG/SAMPLE	9/14/90		Aroclor 1260
90.01306-MRA	90.17073	1336363	9.6	1.9	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01306-MRA	90.17073	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242
90.01306-MRA	90.17073	11097691	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1254
90.01306-MRA	90.17073	11096825	9.6	1.9	UG/SAMPLE	9/14/90		Aroclor 1260
90.01307-MRA	90.17074	1336363	20.	4.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01307-MRA	90.17074	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242
90.01307-MRA	90.17074	11097691	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1254
90.01307-MRA	90.17074	11096825	20.	4.	UG/SAMPLE	9/14/90		Aroclor 1260
90.01308-MRA	90.17075	1336363	56.	22.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01308-MRA	90.17075	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242
90.01308-MRA	90.17075	11097691	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1254
90.01308-MRA	90.17075	11096825	56.	22.	UG/SAMPLE	9/14/90		Aroclor 1260
90.01309-MRA	90.17076	1336363	610.	240.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01309-MRA	90.17076	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242
90.01309-MRA	90.17076	11097691	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1254
90.01309-MRA	90.17076	11096825	610.	240.	UG/SAMPLE	9/14/90		Aroclor 1260
90.01310-MRA	90.17077	1336363	260.	100.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01310-MRA	90.17077	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242
90.01310-MRA	90.17077	11097691	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1254
90.01310-MRA	90.17077	11096825	260.	100.	UG/SAMPLE	9/14/90		Aroclor 1260
90.01311-MRA	90.17078	1336363	866.	350.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01311-MRA	90.17078	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242
90.01311-MRA	90.17078	11097691	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1254
90.01311-MRA	90.17078	11096825	866.	350.	UG/SAMPLE	9/14/90		Aroclor 1260
90.01312-MRA	90.17079	1336363	17.7	3.5	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01312-MRA	90.17079	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242
90.01312-MRA	90.17079	11097691	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1254
90.01312-MRA	90.17079	11096825	17.7	3.5	UG/SAMPLE	9/14/90		Aroclor 1260
90.01313-MRA	90.17080	1336363	< 0.4		UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01313-MRA	90.17080	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242
90.01313-MRA	90.17080	11097691	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1254
90.01313-MRA	90.17080	11096825	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1260
90.01314-MRA	90.17081	1336363	85.	34.	UG/SAMPLE	9/14/90		Mixed-Aroclor
90.01314-MRA	90.17081	53469219	< 0.4		UG/SAMPLE	9/14/90		Aroclor 1242

90.01314-MRA 90.17081	11097691	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1254
90.01314-MRA 90.17081	11096825	85.	34.	UG/SAMPLE	9/14/90	Aroclor 1260
90.01315-MRA 90.17082	1336363	24.	4.7	UG/SAMPLE	9/14/90	Mixed-Aroclor
90.01315-MRA 90.17082	53469219	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1242
90.01315-MRA 90.17082	11097691	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1254
90.01315-MRA 90.17082	11096825	24.	4.7	UG/SAMPLE	9/14/90	Aroclor 1260
90.01316-MRA 90.17083	1336363	8.5	1.7	UG/SAMPLE	9/14/90	Mixed-Aroclor
90.01316-MRA 90.17083	53469219	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1242
90.01316-MRA 90.17083	11097691	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1254
90.01316-MRA 90.17083	11096825	8.5	1.7	UG/SAMPLE	9/14/90	Aroclor 1260
90.01317-MRA 90.17084	1336363	131.	52.	UG/SAMPLE	9/14/90	Mixed-Aroclor
90.01317-MRA 90.17084	53469219	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1242
90.01317-MRA 90.17084	11097691	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1254
90.01317-MRA 90.17084	11096825	131.	52.	UG/SAMPLE	9/14/90	Aroclor 1260
90.01318-MRA 90.17085	1336363	129.	52.	UG/SAMPLE	9/14/90	Mixed-Aroclor
90.01318-MRA 90.17085	53469219	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1242
90.01318-MRA 90.17085	11097691	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1254
90.01318-MRA 90.17085	11096825	129.	52.	UG/SAMPLE	9/14/90	Aroclor 1260
90.01319-MRA 90.17086	1336363	183.	73.	UG/SAMPLE	9/14/90	Mixed-Aroclor
90.01319-MRA 90.17086	53469219	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1242
90.01319-MRA 90.17086	11097691	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1254
90.01319-MRA 90.17086	11096825	183.	73.	UG/SAMPLE	9/14/90	Aroclor 1260
90.01320-MRA 90.17087	1336363	271.	108.	UG/SAMPLE	9/14/90	Mixed-Aroclor
90.01320-MRA 90.17087	53469219	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1242
90.01320-MRA 90.17087	11097691	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1254
90.01320-MRA 90.17087	11096825	271.	108.	UG/SAMPLE	9/14/90	Aroclor 1260
90.01321-MRA 90.17088	1336363	276.	110.	UG/SAMPLE	9/14/90	Mixed-Aroclor
90.01321-MRA 90.17088	53469219	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1242
90.01321-MRA 90.17088	11097691	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1254
90.01321-MRA 90.17088	11096825	276.	110.	UG/SAMPLE	9/14/90	Aroclor 1260
90.01322-MRA 90.17089	1336363	290.	116.	UG/SAMPLE	9/14/90	Mixed-Aroclor
90.01322-MRA 90.17089	53469219	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1242
90.01322-MRA 90.17089	11097691	< 0.4		UG/SAMPLE	9/14/90	Aroclor 1254
90.01322-MRA 90.17089	11096825	290.	116.	UG/SAMPLE	9/14/90	Aroclor 1260

***** HSE-9 QUALITY ASSURANCE REPORT *****

Prepared by: DMS on 14-Sep-1990

POLYCHLORINATED BIPHENYLS

REQUEST NUMBER: 10731 MATRIX: FS ANALYST: Dee Seitz PROGRAM CODE: WA56

OWNER: Michael Alexander GROUP: HSE-8 MAIL-STOP: K490 PHONE: 5-4752 TASK-ID:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	CERTIFIED VALUE	CERTIFIED VALUE UNCERTAINTY	COMPLETION DATE	COMMENT	COMPOUN
00.99952	00.99952	1336363	13.2	2.6	UG/SAMPLE	12.5	1.	9/14/90	UNDER CONTROL	Mixed-Aroclor
00.99952	00.99952	53469219	13.2	2.6	UG/SAMPLE	12.5	1.	9/14/90	UNDER CONTROL	Aroclor 1242
00.99952	00.99952	11097691	< 0.4		UG/SAMPLE			9/14/90	UNDER CONTROL	Aroclor 1254
00.99952	00.99952	11096825	< 0.4		UG/SAMPLE			9/14/90	UNDER CONTROL	Aroclor 1260

SUMMARY OF CONTROL STATUS OF BLIND QA SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	CERTIFIED VALUE	CERTIFIED VALUE UNCERTAINTY	COMPLETION DATE	COMMENT	COMPOUND-NAME
90.17090	1336363	11.2	2.2	UG/SAMPLE	10.	1.	9/14/90	UNDER CONTROL	Mixed-Aroclor
90.17090	53469219	11.2	2.2	UG/SAMPLE	10.	1.	9/14/90	UNDER CONTROL	Aroclor 1242
90.17090	11097691	< 0.4		UG/SAMPLE			9/14/90	UNDER CONTROL	Aroclor 1254
90.17090	11096825	< 0.4		UG/SAMPLE			9/14/90	UNDER CONTROL	Aroclor 1260

Dee Seitz
9/14/90
Chris Palmer
9/14/90
9/07/90

Amended 9/5/90

HSE-9 ANALYTICAL SERVICE AGREEMENT

REQUEST-NUMBER: 10731

I. PRESAMPLING CONFERENCE: Organic Section

Program code: WA56 Task ID #: No. Samples Expected: 0019
Request date: 30-Aug-1990 Completion date: 27-Sep-1990
Chain of Custody: N Special protocol: NONE
Container Type: GLASS Preservative: NONE Storage Conditions: NONE

(See Memo HSE-9/88-304. Guidelines for Collection and Preservation of Liquid Samples)

Sample Hazards Present:
NONE

Sample Disposal: DISCARD (All hazardous samples or TRU wastes will be returned to the Customer.)

Customer: Michael Alexander HSE_9 SECTION LEADER: CPR
Customer initials: MRA Customer phone: 5-4752 MS: K490 Date: 5-Sep-1990
=====

II. EMERGENCY SAMPLES: Emergency status REQUIRES the following approvals:

Customer Group Leader _____ HSE-9 Group Leader _____ Date _____
=====

III. SAMPLE RECEIPT

Signature Amundson Date: 31-Aug-1990 Total No. received: 19 + 2 QCS

Matrix Initial SN Final SN # Received

FS 00.99952 to 00.99952 1
FS 90.17071 to 90.17090 20

Translation table of HSE-9/Customer numbers will be provided by Sample-Receiving and appear on each final data report

HSE-9 ANALYTICAL CHEMISTRY REQUESTREQUEST-NUMBER: 10731

Program code: WA56

Task ID number:

Request date: 30-Aug-1990

Customer initials: MRA

Customer phone: 5-4752

MS: K490

MATRIX	Initial		Final
FS	00.99952	to	00.99952
FS	90.17071	to	90.17090

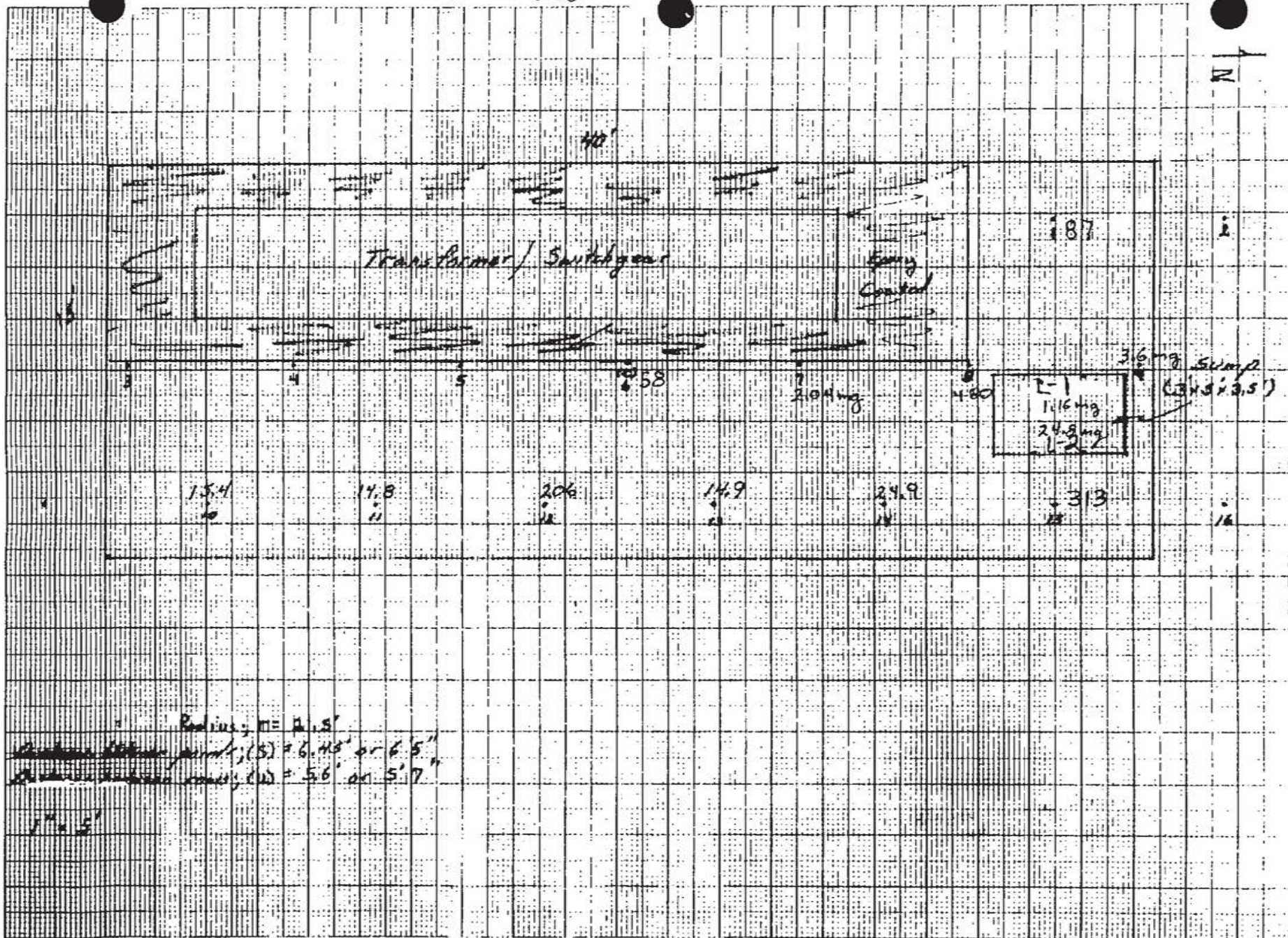
Section	Analysis	Technique	Analyst	Due-date
O	1336363	GCEC	DMS	9/27/90

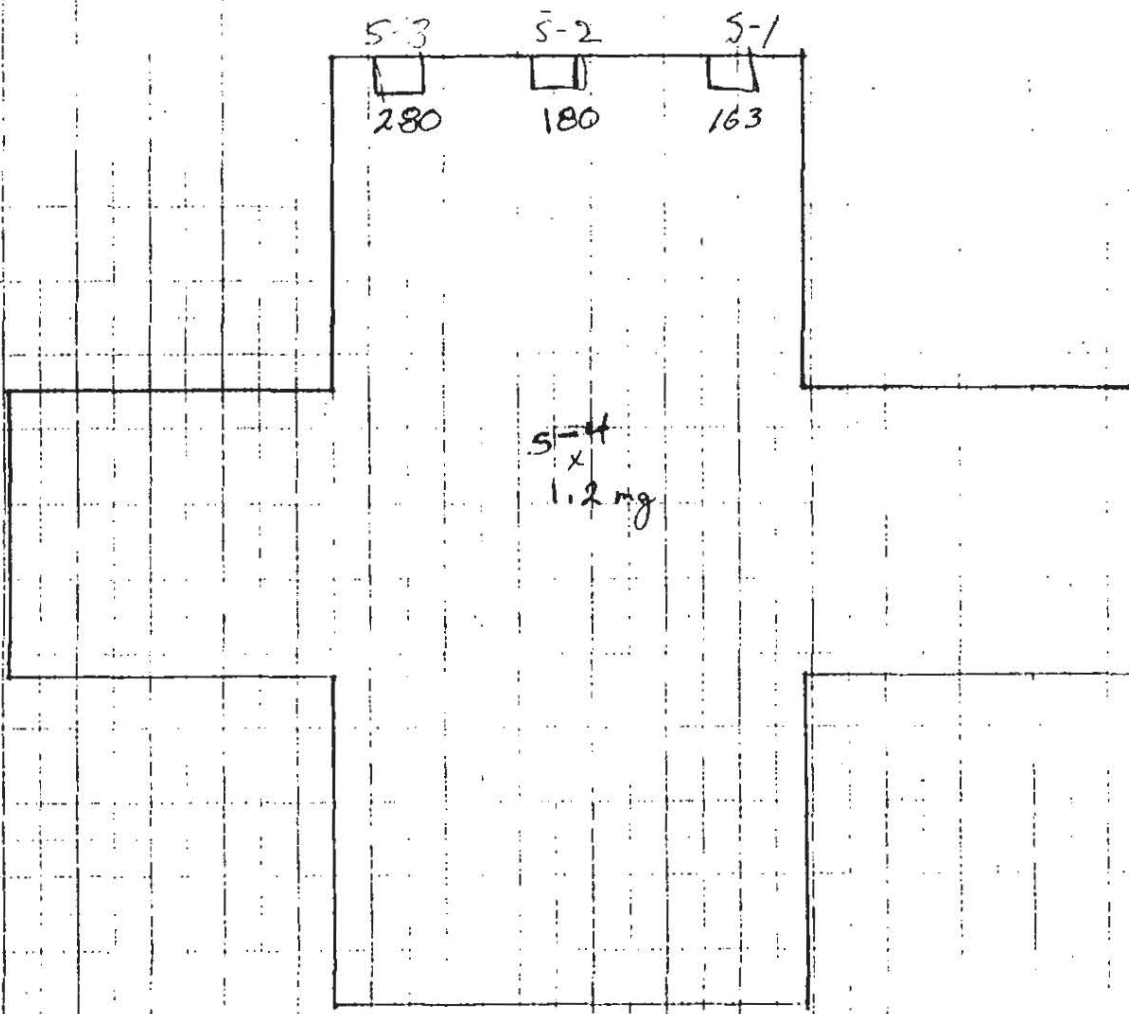
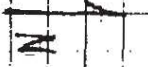
REMARKS:

PCB/SWIPES

GRAPH PAPER

TA-16-260, Sampled 7/13/90





1" = 2'
End use - 5' x 10'
Distance between points - 20', 10', 10'
Distance between points - 10', 10', 10'
Grid samples

1" = 2'

HSE-9 ANALYTICAL REPORT

Prepared by: DMS

on 19-Jul-1990

POLYCHLORINATED BIPHENYLS

REQUEST NUMBER: 10597

MATRIX: FS

ANALYST: Dee Seitz

PROGRAM CODE: WA56

OWNER: Michael Alexander

GROUP: HSE-8

MAIL-STOP: K490

PHONE: 7-0453

TASK-ID:

SUMMARY of TOTAL PCB's for customer samples on this report

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT	COMPOUND NAME
90-00575-MRA	90.15862	1336363	87.	17.4	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00576-MRA	90.15863	1336363	58.	11.6	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00577-MRA	90.15864	1336363	2.04	0.41	MG/SAMPLE	7/18/90		Mixed-Aroclor
90-00578-MRA	90.15865	1336363	480.	96.	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00579-MRA	90.15866	1336363	3.6	0.72	MG/SAMPLE	7/18/90		Mixed-Aroclor
90-00580-MRA	90.15867	1336363	15.4	3.1	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00581-MRA	90.15868	1336363	14.8	2.9	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00582-MRA	90.15869	1336363	206.	41.2	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00583-MRA	90.15870	1336363	14.9	3.	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00584-MRA	90.15872	1336363	24.9	5.	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00585-MRA	90.15873	1336363	313.	62.6	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00586-MRA	90.15874	1336363	1.16	0.23	MG/SAMPLE	7/18/90		Mixed-Aroclor
90-00587-MRA	90.15875	1336363	24.8	4.94	MG/SAMPLE	7/18/90		Mixed-Aroclor
90-00588-MRA	90.15876	1336363	163.	32.6	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00589-MRA	90.15877	1336363	180.	36.	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00590-MRA	90.15878	1336363	280.	56.	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00591-MRA	90.15879	1336363	1.2	0.2	MG/SAMPLE	7/18/90		Mixed-Aroclor
90-00592-MRA	90.15880	1336363	< 0.4		UG/SAMPLE	7/18/90		Mixed-Aroclor

DETAILED PCB DATA for customer samples on this report

TA-16-260, Sampled 7/13/90

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT	COMPOUND NAME
90-00575-MRA	90.15862	1336363	87.	17.4	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00575-MRA	90.15862	53469219	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1242
90-00575-MRA	90.15862	11097691	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1254
90-00575-MRA	90.15862	11096825	87.	17.4	UG/SAMPLE	7/18/90		Aroclor 1260
90-00576-MRA	90.15863	1336363	58.	11.6	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00576-MRA	90.15863	53469219	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1242
90-00576-MRA	90.15863	11097691	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1254
90-00576-MRA	90.15863	11096825	58.	11.6	UG/SAMPLE	7/18/90		Aroclor 1260
90-00577-MRA	90.15864	1336363	2.04	0.41	MG/SAMPLE	7/18/90		Mixed-Aroclor
90-00577-MRA	90.15864	53469219	< 0.04		MG/SAMPLE	7/18/90		Aroclor 1242
90-00577-MRA	90.15864	11097691	< 0.04		MG/SAMPLE	7/18/90		Aroclor 1254
90-00577-MRA	90.15864	11096825	2.04	0.41	MG/SAMPLE	7/18/90		Aroclor 1260
90-00578-MRA	90.15865	1336363	480.	96.	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00578-MRA	90.15865	53469219	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1242
90-00578-MRA	90.15865	11097691	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1254
90-00578-MRA	90.15865	11096825	480.	96.	UG/SAMPLE	7/18/90		Aroclor 1260
90-00579-MRA	90.15866	1336363	3.6	0.72	MG/SAMPLE	7/18/90		Mixed-Aroclor
90-00579-MRA	90.15866	53469219	< 0.04		MG/SAMPLE	7/18/90		Aroclor 1242
90-00579-MRA	90.15866	11097691	< 0.04		MG/SAMPLE	7/18/90		Aroclor 1254
90-00579-MRA	90.15866	11096825	3.6	0.72	MG/SAMPLE	7/18/90		Aroclor 1260
90-00580-MRA	90.15867	1336363	15.4	3.1	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00580-MRA	90.15867	53469219	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1242
90-00580-MRA	90.15867	11097691	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1254
90-00580-MRA	90.15867	11096825	15.4	3.1	UG/SAMPLE	7/18/90		Aroclor 1260
90-00581-MRA	90.15868	1336363	14.8	2.9	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00581-MRA	90.15868	53469219	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1242
90-00581-MRA	90.15868	11097691	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1254
90-00581-MRA	90.15868	11096825	14.8	2.9	UG/SAMPLE	7/18/90		Aroclor 1260
90-00582-MRA	90.15869	1336363	206.	41.2	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00582-MRA	90.15869	53469219	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1242
90-00582-MRA	90.15869	11097691	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1254
90-00582-MRA	90.15869	11096825	206.	41.2	UG/SAMPLE	7/18/90		Aroclor 1260
90-00583-MRA	90.15870	1336363	14.9	3.	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00583-MRA	90.15870	53469219	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1242
90-00583-MRA	90.15870	11097691	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1254
90-00583-MRA	90.15870	11096825	14.9	3.	UG/SAMPLE	7/18/90		Aroclor 1260
90-00584-MRA	90.15872	1336363	24.9	5.	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00584-MRA	90.15872	53469219	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1242
90-00584-MRA	90.15872	11097691	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1254
90-00584-MRA	90.15872	11096825	24.9	5.	UG/SAMPLE	7/18/90		Aroclor 1260
90-00585-MRA	90.15873	1336363	313.	62.6	UG/SAMPLE	7/18/90		Mixed-Aroclor
90-00585-MRA	90.15873	53469219	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1242
90-00585-MRA	90.15873	11097691	< 0.4		UG/SAMPLE	7/18/90		Aroclor 1254

90-00585-MRA 90.15873	11096825	313.	62.6	UG/SAMPLE	7/18/90	Aroclor 1260
90-00586-MRA 90.15874	1336363	1.16	0.23	MG/SAMPLE	7/18/90	Mixed-Aroclor
90-00586-MRA 90.15874	53469219	< 0.04		MG/SAMPLE	7/18/90	Aroclor 1242
90-00586-MRA 90.15874	11097691	< 0.04		MG/SAMPLE	7/18/90	Aroclor 1254
90-00586-MRA 90.15874	11096825	1.16	0.23	MG/SAMPLE	7/18/90	Aroclor 1260
90-00587-MRA 90.15875	1336363	24.8	4.94	MG/SAMPLE	7/18/90	Mixed-Aroclor
90-00587-MRA 90.15875	53469219	< 0.04		MG/SAMPLE	7/18/90	Aroclor 1242
90-00587-MRA 90.15875	11097691	< 0.04		MG/SAMPLE	7/18/90	Aroclor 1254
90-00587-MRA 90.15875	11096825	24.8	4.94	MG/SAMPLE	7/18/90	Aroclor 1260
90-00588-MRA 90.15876	1336363	163.	32.6	UG/SAMPLE	7/18/90	Mixed-Aroclor
90-00588-MRA 90.15876	53469219	< 0.4		UG/SAMPLE	7/18/90	Aroclor 1242
90-00588-MRA 90.15876	11097691	< 0.4		UG/SAMPLE	7/18/90	Aroclor 1254
90-00588-MRA 90.15876	11096825	163.	32.6	UG/SAMPLE	7/18/90	Aroclor 1260
90-00589-MRA 90.15877	1336363	180.	36.	UG/SAMPLE	7/18/90	Mixed-Aroclor
90-00589-MRA 90.15877	53469219	< 0.4		UG/SAMPLE	7/18/90	Aroclor 1242
90-00589-MRA 90.15877	11097691	< 0.4		UG/SAMPLE	7/18/90	Aroclor 1254
90-00589-MRA 90.15877	11096825	180.	36.	UG/SAMPLE	7/18/90	Aroclor 1260
90-00590-MRA 90.15878	1336363	280.	56.	UG/SAMPLE	7/18/90	Mixed-Aroclor
90-00590-MRA 90.15878	53469219	< 0.4		UG/SAMPLE	7/18/90	Aroclor 1242
90-00590-MRA 90.15878	11097691	< 0.4		UG/SAMPLE	7/18/90	Aroclor 1254
90-00590-MRA 90.15878	11096825	280.	56.	UG/SAMPLE	7/18/90	Aroclor 1260
90-00591-MRA 90.15879	1336363	1.2	0.2	MG/SAMPLE	7/18/90	Mixed-Aroclor
90-00591-MRA 90.15879	53469219	< 0.04		MG/SAMPLE	7/18/90	Aroclor 1242
90-00591-MRA 90.15879	11097691	< 0.04		MG/SAMPLE	7/18/90	Aroclor 1254
90-00591-MRA 90.15879	11096825	1.2	0.2	MG/SAMPLE	7/18/90	Aroclor 1260
90-00592-MRA 90.15880	1336363	< 0.4		UG/SAMPLE	7/18/90	Mixed-Aroclor
90-00592-MRA 90.15880	53469219	< 0.4		UG/SAMPLE	7/18/90	Aroclor 1242
90-00592-MRA 90.15880	11097691	< 0.4		UG/SAMPLE	7/18/90	Aroclor 1254
90-00592-MRA 90.15880	11096825	< 0.4		UG/SAMPLE	7/18/90	Aroclor 1260

***** HSE-9 QUALITY ASSURANCE REPORT *****

Prepared by: DMS on 19-Jul-1990

POLYCHLORINATED BIPHENYLS

REQUEST NUMBER: 10597 MATRIX: FS ANALYST: Dee Seitz PROGRAM CODE: WA56

OWNER: Michael Alexander GROUP: HSE-8 MAIL-STOP: K490 PHONE: 7-0453 TASK-ID:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	CERTIFIED VALUE	CERTIFIED VALUE UNCERTAINTY	COMPLETION DATE	COMMENT	COMPOUND
00.99802	00.99802	1336363	13.5	2.7	UG/SAMPLE	19.	2.	7/18/90	UNDER CONTROL	Mixed-Aroclor
00.99802	00.99802	53469219	< 0.4		UG/SAMPLE			7/18/90	UNDER CONTROL	Aroclor 1242
00.99802	00.99802	11097691	< 0.4		UG/SAMPLE			7/18/90	UNDER CONTROL	Aroclor 1254
00.99802	00.99802	11096825	13.5	2.7	UG/SAMPLE	19.	2.	7/18/90	UNDER CONTROL	Aroclor 1260

SUMMARY OF CONTROL STATUS OF BLIND QA SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	RESULT	UNCERTAINTY	UNITS	CERTIFIED VALUE	CERTIFIED VALUE UNCERTAINTY	COMPLETION DATE	COMMENT	COMPOUND-NAME
90.15871	1336363	6.4	1.3	UG/SAMPLE	8.5	0.8	7/18/90	UNDER CONTROL	Mixed-Aroclor
90.15871	53469219	< 0.4		UG/SAMPLE			7/18/90	UNDER CONTROL	Aroclor 1242
90.15871	11097691	< 0.4		UG/SAMPLE			7/18/90	UNDER CONTROL	Aroclor 1254
90.15871	11096825	6.4	1.3	UG/SAMPLE	8.5	0.8	7/18/90	UNDER CONTROL	Aroclor 1260

Dee Seitz
7/19/90

A. G. G.
7/23/90

Chris Helms
7/26/90

HSE-9 ANALYTICAL SERVICE AGREEMENTREQUEST-NUMBER: 10597

I. PRESAMPLING CONFERENCE: Organic Section

Program code: WA56 Task ID #: No. Samples Expected: 0018
Request date: 16-Jul-1990 Completion date: 13-Aug-1990
Chain of Custody: N Special protocol: NONE
Container Type: GLASS Preservative: NONE Storage Conditions: REFRIGERATE

(See Memo HSE-9/88-304. Guidelines for Collection and Preservation of Liquid Samples)

Sample Hazards Present:
NONE

Sample Disposal: DISCARD (All hazardous samples or TRU wastes will be returned to the Customer.)

Customer: Michael Alexander HSE_9 SECTION LEADER: LAT
Customer initials: MRA Customer phone: 7-0453 MS: K490 Date: 16-Jul-1990

II. EMERGENCY SAMPLES: Emergency status REQUIRES the following approvals:

Customer Group Leader _____ HSE-9 Group Leader _____ Date _____
=====

III. SAMPLE RECEIPT

Signature Elizabeth A. Jones Date: 16-Jul-1990 Total No. received: 18+200

Matrix Initial SN Final SN # Received

FS	00.99802	to 00.99802	1
FS	90.15862	to 90.15880	19

Translation table of HSE-9/Customer numbers will be provided by Sample-Receiving and appear on each final data report

HSE-9 ANALYTICAL CHEMISTRY REQUESTREQUEST-NUMBER: 10597

Program code: WA56 Task ID number: Request date: 16-Jul-1990
Customer initials: MRA Customer phone: 7-0453 MS: K490

MATRIX	Initial	Final
FS	00.99802	to 00.99802
FS	90.15862	to 90.15880

Section Analysis	Technique	Analyst	Due-date
O	1336363	GCEC	DMS 8/13/90

REMARKS:

MIKE WOULD LIKE PRELIMINARY RESULTS BY THE MIDDLE OF NEXT WEEK

Enclosure 2

Information Related to Area of Concern 16-027(b) Included with Addendum 2 to the Resource Conservation and Recovery Act Facility Investigation Work Plan for Operable Unit 1082

Area of Concern (AOC) 16-027(b) was recommended for no further action in Addendum 2 to the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan for Operable Unit 1082 (RFI work plan addendum) (LANL 1995, 057225). The site was recommended for no further action because it had been remediated in accordance with applicable regulations (i.e., the Toxic Substances Control Act [TSCA]), and chemicals of concern were either not present or present in concentrations that would not pose a risk. Attachment A to Chapter 6 of the RFI work plan addendum contained cleanup documentation to justify recommendations for no further action for sites for which previous response actions had been performed, including AOC 16-027(b). The information provided in this enclosure consists of the documentation contained in Attachment A to Chapter 6 that pertained to AOC 16-027(b). Addendum 2 to the RFI Work Plan was submitted to the U.S. Environmental Protection Agency (EPA) in July 1995.

As described in the information contained in this enclosure, reporting of the polychlorinated biphenyl spill to EPA under TSCA and approval of cleanup by EPA was not required.

Reference

LANL (Los Alamos National Laboratory), July 1995. "RFI Work Plan for Operable Unit 1082, Addendum 2," Los Alamos National Laboratory document LA-UR-95-1038, Los Alamos, New Mexico. (LANL 1995, 057225)

ATTACHMENT A TO CHAPTER 6

This attachment contains cleanup documentation for SWMUs recommended for no further action under step 3 or 4 of the the four-step criteria.

The SWMU, its location in Chapter 6, and associated documentation are listed below:

SWMU	Subsection	Documentation
16-021(b)	6.7.4.2	15-16-590
16-022(a)	6.7.3.1	15-16-568
16-022(b)	6.7.3.2	15-16-540, 15-16-585
16-025(e2,f2,h2)	6.6.3.1	15-16-144
16-027(a-c)	6.7.4.1	15-16-546, 15-16, 547, 15-16-386
16-033(a,b,f-j)	6.7.3.2	15-16-076, 15-16-114, 15-16-131, 15-16-602, 15-16-607, 15-16-588, 15-16-585, 15-16-597, 15-16-596

16-000546

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

memorandum

TO: Margo Buksa, CST-6, MS E525
FROM: Tina Marie Sandoval, EM-8 *TMS*
SYMBOL: EM-8/WQ&H:94-008
SUBJECT: REQUEST FOR PCB-RELATED DOCUMENTATION

DATE: January 4, 1994
MAIL STOP/TELEPHONE: K490/5-2288

Enclosed are copies of documentation you requested regarding PCB-related activities, including spills, which occurred at three Laboratory S-Site locations. Below is a summary of these activities.

TA-16-260, Room 110 (Transformer PCB s ID #'s 85-5607 and 85-5608)

- A PCB spill cleanup was performed at this location on May 17, 1990. EM-8/JENV PCB spill documentation is enclosed.
- The two transformers noted were drained, removed and replaced with non-PCB units on July 9, 1990. Disposal information is enclosed.

TA-16-540, (Transformer PCB ID # 85-5020)

- The transformer noted at this location had a slow leak, but never spilled onto surfaces which required cleanup. The spilled oil was contained in a coffee can which was disposed of. No EM-8/JENV PCB spill records exist for the spill activities occurring at this location.
- The transformer noted above, began a UNISON retrofill process on July 15, 1988 and was re-classified to non-PCB on September 6, 1990. Disposal information for the PCB oil and retrofill fluids is enclosed.

TA-16-563, Station 9, (Transformer PCB ID # 86-4997, which is located next to Building TA-16-430)

- A PCB spill cleanup was performed at this location beginning July 28, 1987. EM-8/JENV PCB spill documentation is enclosed.
- This transformer was drained, removed and replaced with a non-PCB unit in September 1993. In-service documentation reflecting a REM/STO (removal/storage) date is enclosed.

I hope the information provided herein satisfies your request. Please call me if you have any questions.

TMS/em

Enc. a/s

Cy: EM-8 Reading File, w/o enc.
Circ. File, w/o enc.

TA-16-540

PCB ID # 85

20

Reclassified/UNISON, non-PCB

3/6/90

AS OF: 12/31/88

PAGE

PCB DISPOSAL REPORT (OIL/FLASH/DEBRIS)

OWNER	ID#	TYPE	WT(kg)	DESCRIPTION	REM/STO DATE yy/mm/dd	TRANSPORT DATE yy/mm/dd	DESTINATION	DESTRUCT DATE yy/mm/dd	CERT.#	SHIP WT.	MANIF#	FORM#
PAN AM	0-12		188.60	1 DRUM OIL	87/10/21	88/01/14	ENSCO	88/02/16	32194	1769	AR262208	80
PAN AM	0-13		178.60	1 DRUM OIL	87/10/21	88/01/14	ENSCO	88/02/16	32194		AR262208	81
PAN AM	0-14		184.10	1 DRUM OIL	87/10/21	88/01/14	ENSCO	88/02/16	32194		AR262208	82
PAN AM	0-15		182.20	1 DRUM OIL	87/10/21	88/01/14	ENSCO	88/02/16	32194		AR262208	83
PAN AM	0-16		186.80	1 DRUM OIL	87/10/21	88/01/14	ENSCO	88/02/16	32193	883	AR262208	84
PAN AM	0-17		178.60	1 DRUM OIL	87/10/20	88/01/14	ENSCO	88/02/16	32193		AR262208	85
PAN AM	0-18		171.30	1 DRUM OIL	87/05/18	88/01/14	ENSCO	88/02/16	32186	415	AR262208	86
MEC-DO	0-19		2843.10	8 DRUMS					32192	5333	AR262208	87
PAN AM	0-20		185.00	1 C					32193	901	AR262208	88
PAN AM	0-21		186.80	1 C					32193		AR262208	89
MEC-DO	0-22		1791.80	6 C					32191	8855	AR262208	90
MEC-DO	0-23		1989.50	7 C					32191		AR262208	91
HSE-07	0-24		426.80	8 C					31730	1356	AR262227	92
HSE-7	0-25		194.10	1 D					10479	421	AR262212	434
HSE-7	0-26		528.60	5 D					14608	1837	AR262222	435
HSE-7	0-27		533.20	3 D					14463	624	AR263382	436
PAN AM	0-28		170.50	1 D					10479	3786	AR262212	473
PAN AM	0-29		175.00	1 DI					0479		AR262212	474
PAN AM	0-30		182.30	1 DI					0479		AR262212	475
PAN AM	0-31		179.50	1 DI					0479		AR262212	476
PAN AM	0-32		161.40	1 DI					0479		AR262212	477
PAN AM	0-33		182.30	1 DI					0479		AR262212	478
PAN AM	0-34		180.40	1 DI					0479		AR262212	479
PAN AM	0-35		179.50	1 DI					0479		AR262212	480
PAN AM	0-36		183.20	1 DI					0479		AR262212	481
ENG	0-37		254.00	1 DI					1479	421	AR262212	559
ENG	0-38		60.90	1 -					1479	421	AR262212	560
ENG-01	0-39		45.00	1 55					1648	196	AR270803	1604
PAN AM	0-40		152.30	1 55					1790	370	AR270687	1605
PAN AM	0-41		95.90	1 55					1648	246	AR270803	1606
PAN AM	0-42		176.40	1 55					40790	423	AR270687	1607
HSE-7	0-43		45.40	1 55					47648	135	AR270803	1608
PAN AM	0-44		73.20	1 DRUM DEBRIS	88/06/08	88/06/28	ENSCO	89/05/26	48271	655	AR270688	1873
PAN AM	0-45		25.00	1 DRUM DEBRIS	88/06/08	88/06/28	ENSCO	89/05/26	48271		AR270688	1874
HSE-7	0-46		149.50	1 DRUM DEBRIS	88/05/31	88/06/28	ENSCO	89/05/26	48271		AR270688	1875
HSE-7	0-47		4904.50	26 DRUMS OF OIL	88/05/31	88/06/28	ENSCO	88/08/05	41214	11700	AR270688	1876
PAN AM	0-48		313.00	1 55 GALLON DRUM OIL	88/07/06	88/11/21	ENSCO	88/11/29	43225	257	AR270724	2352
MST-06	0-49		217.00	1 55 GALLON DRUM OIL	88/07/06	88/11/21	ENSCO	88/11/29	43225	351	AR270724	2353
MEC-05	0-50		241.00	1 55 GALLON DRUM OIL	88/08/24	88/11/21	ENSCO	88/11/29	43225	717	AR270724	2354
MEC-05	0-51		323.00	1 55 GALLON DRUM OIL	88/08/24	88/11/21	ENSCO	88/11/29	43225		AR270724	2355
CLS-07	0-52		353.00	1 55 GALLON DRUM OIL	88/09/23	88/11/21	ENSCO	88/11/29	43225	439	AR270724	2356
HSE-07	0-53		177.00	1 55 GALLON DRUM DEBRIS	88/08/05	88/11/21	ENSCO	/ /	/ /	428	AR270724	2357
HSE-07	0-54		275.00	1 55 GALLON DRUM DEBRIS	88/08/05	88/11/21	ENSCO	/ /	/ /		AR270689	2358
HSE-07	0-55		171.00	1 55 GALLON DRUM DEBRIS	88/08/05	88/11/21	ENSCO	/ /	/ /	681	AR281063	2359
HSE-07	0-56		117.00	1 55 GALLON DRUM DEBRIS	88/08/05	88/11/21	ENSCO	/ /	/ /		AR281063	2360
HSE-07	0-57		79.00	1 55 GALLON DRUM DEBRIS	88/08/05	88/11/21	ENSCO	/ /	/ /		AR281063	2361
PAN AM	0-58		83.00	1 55 GALLON DRUM DEBRIS	88/09/28	88/11/21	ENSCO	/ /	/ /		AR281063	2362
PAN AM	0-59		520.00	1 55 GALLON DRUM DEBRIS	88/09/28	88/11/21	ENSCO	/ /	/ /	1201	AR270689	2363
* PAN AM	0-60		590.00	1 55 GALLON DRUM DEBRIS	88/09/28	88/11/21	ENSCO	/ /	/ /		AR270689	2364
* PAN AM	055020		1500.00	5 DRUMS OIL	88/07/15	88/07/29	APTUS	88/09/14	15396	7159	11519	2465
ENG-04	055559		1200.00	4 DRUMS OIL	88/07/16	88/07/29	APTUS	88/09/14	15396		11519	2466

located at
TA-16 Steamplant -

Never leaked onto floor or
other surfaces. Slow leaker -
fluid was contained w/ coffee
can until it (the transformer) was
retrofitted by UNISON to non-PCB
on 9/6/90. The retrofit
process started on 7/15/88.

AS OF: 02/05/90

PCB DISPOSAL REPORT (OIL/FLUSH/DEBRIS)

****FOR ABBREVIATIONS: E,R,C,A,U3, SEE PAGE ii,iii

OWNER	ID#	T Y P E	WT(kg)	DESCRIPTION	REM/STO DATE yy/mm/dd	TRANSPORT DATE yy/mm/dd	D E S T	DESTRUCT DATE yy/mm/dd	CERT#	SHIP WT (lbs)	MANIF#	FORM#
ENG-1	0-192		280.00	9 OF 9 55 GALLON DRUM - OIL (855577)	89/11/08	89/12/19	R	89/12/21	NONE		00145468	2891
ENG-1	0-193		311.33	1 OF 7 55 GALLON DRUM - OIL (855575)	89/11/27	89/12/19	R	89/12/21	NONE		00145468	2892
ENG-1	0-194		311.33	2 OF 7 55 GALLON DRUM - OIL (855575)	89/11/27	89/12/19	R	89/12/21	NONE		00145468	2893
ENG-1	0-195		311.33	3 OF 7 55 GALLON DRUM - OIL (855575)	89/11/27	89/12/19	R	89/12/21	NONE		00145468	2894
ENG-1	0-196		311.33	4 OF 7 55 GALLON DRUM - OIL (855575)	89/11/27	89/12/19	R	89/12/21	NONE		00145468	2895
ENG-1	0-197		311.33	5 OF 7 55 GALLON DRUM - OIL (855575)	89/11/27	89/12/19	R	89/12/21	NONE		00145468	2896
ENG-1	0-198		311.33	6 OF 7 55 GALLON DRUM - OIL (855575)	89/11/27	89/12/19	R	89/12/21	NONE		00145468	2897
ENG-1	0-199		311.33	7 OF 7 55 GALLON DRUM - OIL (855575)	89/11/27	89/12/19	R	89/12/21	NONE		00145468	2898
ENG-1	0-200		311.33	1 OF 8 55 GALLON DRUM - OIL (855576)	89/11/30	89/12/19	R	89/12/21	NONE		00145468	2899
ENG-1	0-201		311.33	2 OF 8 55 GALLON DRUM - OIL (855576)	89/11/30	89/12/19	R	89/12/21	NONE		00145468	2900
ENG-1	0-202		311.33	3 OF 8 55 GALLON DRUM - OIL (855576)	89/11/30	89/12/19	R	89/12/21	NONE		00145468	2901
ENG-1	0-203		311.33	4 OF 8 55 GALLON DRUM - OIL (855576)	89/11/30	89/12/19	R	89/12/21	NONE		00145468	2902
ENG-1	0-204		311.33	5 OF 8 55 GALLON DRUM - OIL (855576)	89/11/30	89/12/19	R	89/12/21	NONE		00145468	2903
ENG-1	0-205		311.33	6 OF 8 55 GALLON DRUM - OIL (855576)	89/11/30	89/12/19	R	89/12/21	NONE		00145468	2904
ENG-1	0-206		311.33	7 OF 8 55 GALLON DRUM - OIL (855576)	89/11/30	89/12/19	R	89/12/21	NONE		00145468	2905
ENG-1	0-207		311.33	8 OF 8 55 GALLON DRUM - OIL (855576)	89/11/30	89/12/19	R	89/12/21	NONE		00145468	2906
ENG-1	0-208		311.33	1 OF 6 55 GALLON DRUM - OIL (855574)	89/12/04	89/12/19	R	89/12/21	NONE		00145468	2907
ENG-1	0-209		311.33	2 OF 6 55 GALLON DRUM - OIL (855574)	89/12/04	89/12/19	R	89/12/21	NONE		00145468	2908
ENG-1	0-210		311.33	3 OF 6 55 GALLON DRUM - OIL (855574)	89/12/04	89/12/19	R	89/12/21	NONE		00145468	2909
ENG-1	0-211		311.33	4 OF 6 55 GALLON DRUM - OIL (855574)	89/12/04	89/12/19	R	89/12/21	NONE		00145468	2910
ENG-1	0-212		311.33	5 OF 6 55 GALLON DRUM - OIL (855574)	89/12/04	89/12/19	R	89/12/21	NONE		00145468	2911
ENG-1	0-213		311.33	6 OF 6 55 GALLON DRUM - OIL (855574)	89/12/04	89/12/19	R	89/12/21	NONE		00145468	2912
ENG-1	0-214		311.33	1 OF 7 55 GALLON DRUM - OIL (855573)	89/12/08	89/12/19	R	89/12/21	NONE		00145468	2913
ENG-1	0-215		311.33	2 OF 7 55 GALLON DRUM - OIL (855573)	89/12/08	89/12/19	R	89/12/21	NONE		00145468	2914
ENG-1	0-216		311.33	3 OF 7 55 GALLON DRUM - OIL (855573)	89/12/08	89/12/19	R	89/12/21	NONE		00145468	2915
ENG-1	0-217		311.33	4 OF 7 55 GALLON DRUM - OIL (855573)	89/12/08	89/12/19	R	89/12/21	NONE		00145468	2916
ENG-1	0-218		311.33	5 OF 7 55 GALLON DRUM - OIL (855573)	89/12/08	89/12/19	R	89/12/21	NONE		00145468	2917
ENG-1	0-219		311.33	6 OF 7 55 GALLON DRUM - OIL (855573)	89/12/08	89/12/19	R	89/12/21	NONE		00145468	2918
ENG-1	0-220		311.33	7 OF 7 55 GALLON DRUM - OIL (855573)	89/12/08	89/12/19	R	89/12/21	NONE		00145468	2919
PAN AM	0-221		307.00	1 OF 4 55 GALLON DRUM - OIL (855060)	89/11/18	89/12/19	R	89/12/21	NONE		00145468	2920
PAN AM	0-222		307.00	2 OF 4 55 GALLON DRUM - OIL (855060)	89/11/18	89/12/19	R	89/12/21	NONE		00145468	2921
PAN AM	0-223		307.00	3 OF 4 55 GALLON DRUM - OIL (855060)	89/11/18	89/12/19	R	89/12/21	NONE		00145468	2922
PAN AM	0-224		307.00	4 OF 4 55 GALLON DRUM - OIL (855060)	89/11/18	89/12/19	R	89/12/21	NONE		00145468	2923
PAN AM	0-225		189.00	1 55 GALLON DRUM - OIL (855560)	89/11/18	89/12/19	R	89/12/21	NONE		00145468	2924
* PAN AM	855020		2619.00	9 55 GALLON DRUMS - PCB FLUSH (TFX)	88/12/22	89/01/03	C	89/06/05	02335	26576	11781	2925 *
ENG-4	855549		1746.00	6 55 GALLON DRUMS - PCB FLUSH (TFX)	88/12/20	89/01/03	C	89/06/05	02335		11781	2926
ENG-4	855548		1455.00	5 55 GALLON DRUMS - PCB FLUSH (TFX)	88/12/31	89/01/03	C	89/06/05	02335		11781	2927
ENG-4	855599		2037.00	7 55 GALLON DRUMS - PCB FLUSH (TFX)	88/12/27	89/01/03	C	89/06/05	02335		11781	2928
ENG-4	855600		1746.00	6 55 GALLON DRUMS - PCB FLUSH (TFX)	88/12/28	89/01/03	C	89/06/05	02335		11781	2929
ENG-4	855602		1261.00	5 55 GALLON DRUMS - PCB FLUSH (TFX)	88/12/28	89/01/03	C	89/06/05	02335		11781	2930
ENG-4	855601		1455.00	5 55 GALLON DRUMS - PCB FLUSH (TFX)	88/12/27	89/01/03	C	89/06/05	02335		11781	2931
ENG-4	855601		22.70	1 55 GALLON DRUM - PCB DEBRIS (SOL)	88/12/27	89/01/03	A	89/06/05	7037	100	11781	2932
ENG-4	855548		22.70	1 55 GALLON DRUM - PCB DEBRIS (SOL)	88/12/21	89/01/03	A	89/06/05	7037		11781	2933

AS OF: 02/05/90

PCB DISPOSAL REPORT (OIL/FLUSH/DEBRIS)

****FOR ABBREVIATIONS: E,R,C,A,U3, SEE PAGE ii,iii

OWNER	ID#	T Y P E	WT(kg)	DESCRIPTION	REM/STO DATE yy/mm/dd	TRANSPORT DATE yy/mm/dd	D E S T	DESTRUCT DATE yy/mm/dd	CERT#	SHIP WT (lbs)	MANIF#	FORM#
ENG-4	855559		2328.00	8 55 GALLON DRUMS - PCB FLUSH (TFX)	89/12/31	89/01/01	C	89/06/05	02335	18256	11782	2934
ENG-4	855605		1900.00	7 55 GALLON DRUMS - PCB FLUSH (TFX)	89/01/01	89/01/01	C	89/06/05	02335		11782	2935
ENG-4	855603		2037.00	7 55 GALLON DRUMS - PCB FLUSH (TFX)	88/12/29	89/01/03	C	89/06/05	02335		11782	2936
ENG-4	855604		2037.00	7 55 GALLON DRUMS - PCB FLUSH (TFX)	88/12/30	89/01/03	C	89/06/05	02335		11782	2937
ENG-4	855605		22.70	1 55 GALLON DRUM - PCB DEBRIS (SOL)	89/01/01	89/01/03	A	89/06/05	7037	50	11782	2938
ENG-4	855548		354.76	3 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/19	89/09/23	U3	/ /		1184	11968	2939
ENG-4	855549		173.76	1 55 GALLON DRUM - PCB SIL-LIQ (SILX)	89/09/19	89/09/23	U3	/ /			11968	2940
ENG-4	855548		90.80	4 55 GALLON DRUMS - PCB DEBRIS (SOL)	89/09/19	89/09/23	U3	/ /		200	11968	2941
ENG-4	855559		1455.00	5 55 GALLON DRUMS - PCB FLUSH (TFX)	89/09/04	89/09/06	R	89/11/03	112242-	30128	11991	2942
ENG-4	855604		2328.00	8 55 GALLON DRUMS - PCB FLUSH (TFX)	89/09/03	89/09/06	R	89/11/03	112242-		11991	2943
ENG-4	855548		1164.00	4 55 GALLON DRUMS - PCB FLUSH (TFX)	89/09/03	89/09/06	R	89/11/03	112242-		11991	2944
ENG-4	855549		873.00	3 55 GALLON DRUMS - PCB FLUSH (TFX)	89/09/02	89/09/06	R	89/11/03	112242-		11991	2945
* PAN AM	855020		1455.00	5 55 GALLON DRUMS - PCB FLUSH (TFX)	89/09/04	89/09/06	R	89/11/03	112242-		11991	2946
ENG-4	855605		1164.00	4 55 GALLON DRUMS - PCB FLUSH (TFX)	89/09/03	89/09/06	R	89/11/03	112242-		11991	2947
ENG-4	855601		1746.00	6 55 GALLON DRUMS - PCB FLUSH (TFX)	89/09/02	89/09/06	R	89/11/03	112242-		11991	2948
ENG-4	855602		1164.00	4 55 GALLON DRUMS - PCB FLUSH (TFX)	89/09/01	89/09/06	R	89/11/03	112242-		11991	2949
ENG-4	855600		1455.00	5 55 GALLON DRUMS - PCB FLUSH (TFX)	89/09/01	89/09/06	R	89/11/03	112242-		11991	2950
ENG-4	855599		1164.00	4 55 GALLON DRUMS - PCB FLUSH (TFX)	89/09/02	89/09/06	R	89/11/03	112242-		11991	2951
ENG-4	855559		597.00	3 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/04	89/09/06	U3	/ /		16900	11993	2952
ENG-4	855604		1194.00	6 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/03	89/09/06	U3	/ /			11993	2953
ENG-4	855548		464.00	3 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/03	89/09/06	U3	/ /			11993	2954
ENG-4	855549		597.00	3 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/02	89/09/06	U3	/ /			11993	2955
* PAN AM	855020		796.00	4 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/04	89/09/06	U3	/ /			11993	2956
ENG-4	855605		796.00	4 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/03	89/09/06	U3	/ /			11993	2957
ENG-4	855601		1393.00	7 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/02	89/09/06	U3	/ /			11993	2958
ENG-4	855602		796.00	4 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/01	89/09/06	U3	/ /			11993	2959
ENG-4	855600		796.00	4 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/01	89/09/06	U3	/ /			11993	2960
ENG-4	855599		398.00	2 55 GALLON DRUMS - PCB SIL-LIQ (SILX)	89/09/02	89/09/06	U3	/ /			11993	2961
ENG-4	855548		22.70	1 55 GALLON DRUM - PCB DEBRIS (SOL)	89/09/03	89/09/06	U3	/ /		250	11993	2962
* PAN AM	855020		91.00	4 55 GALLON DRUMS - PCB DEBRIS (SOL)	89/09/04	89/09/06	U3	89/09/16	51925		11993	2963

TOTAL PCB WT(kg)= 83452.86

TOTAL PCB SHIP WT(lbs)= 188141

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PCB OIL/SOIL/RETROFILL FLUIDS/DISPOSAL REPORT

OWNER	PCB ID#	PCB WT. (kg)	DESCRIPTION	REM/STO DATE yy/mm/dd	TRANSPORT DATE yy/mm/dd	L O C	DESTRUCT DATE yy/mm/dd	CERT.#	SHIP WT. (lbs)	MANIF.#	FORM#
MST	0-341	194.51	1 OF 9 55 GAL DRUM - SILX (855602)	90/05/17	90/05/20	C	90/08/14	11257		10244	3380
MST	0-342	194.51	2 OF 9 55 GAL DRUM - SILX (855602)	90/05/17	90/05/20	C	90/08/14	11257		10244	3381
MST	0-343	194.51	3 OF 9 55 GAL DRUM - SILX (855602)	90/05/17	90/05/20	C	90/08/14	11257		10244	3382
MST	0-344	198.20	4 OF 9 55 GAL DRUM - SILX (855602)	90/05/17	90/05/20	C	90/08/14	11257		10244	3383
MST	0-345	198.20	5 OF 9 55 GAL DRUM - SILX (855602)	90/05/17	90/05/20	C	90/08/14	11257		10244	3384
MST	0-346	198.20	6 OF 9 55 GAL DRUM - SILX (855602)	90/05/17	90/05/20	C	90/08/14	11257		10244	3385
MST	0-347	198.20	7 OF 9 55 GAL DRUM - SILX (855602)	90/05/17	90/05/20	C	90/08/14	11257		10244	3386
MST	0-348	198.20	8 OF 9 55 GAL DRUM - SILX (855602)	90/05/17	90/05/20	C	90/08/14	11257		10244	3387
MST	0-349	198.20	9 OF 9 55 GAL DRUM - SILX (855602)	90/05/17	90/05/20	C	90/08/14	11257		10244	3388
MST	0-350	194.51	1 OF 10 55 GAL DRUM - SILX (855601)	90/05/18	90/05/20	C	90/08/14	11257		10244	3389
MST	0-351	194.51	2 OF 10 55 GAL DRUM - SILX (855601)	90/05/18	90/05/20	C	90/08/14	11257		10244	3390
MST	0-352	194.51	3 OF 10 55 GAL DRUM - SILX (855601)	90/05/18	90/05/20	C	90/08/14	11257		10244	3391
MST	0-353	194.51	4 OF 10 55 GAL DRUM - SILX (855601)	90/05/18	90/05/20	C	90/08/14	11257		10244	3392
MST	0-354	198.20	5 OF 10 55 GAL DRUM - SILX (855601)	90/05/18	90/05/20	C	90/08/14	11257		10244	3393
MST	0-355	198.20	6 OF 10 55 GAL DRUM - SILX (855601)	90/05/18	90/05/20	C	90/08/14	11257		10244	3394
MST	0-356	198.20	7 OF 10 55 GAL DRUM - SILX (855601)	90/05/18	90/05/20	C	90/08/14	11257		10244	3395
MST	0-357	198.20	8 OF 10 55 GAL DRUM - SILX (855601)	90/05/18	90/05/20	C	90/08/14	11257		10244	3396
MST	0-358	198.20	9 OF 10 55 GAL DRUM - SILX (855601)	90/05/18	90/05/20	C	90/08/14	11257		10244	3397
MST	0-359	198.20	10 OF 10 55 GAL DRUM - SILX (855601)	90/05/18	90/05/20	C	90/08/14	11257		10244	3398
MST	0-360	194.51	1 OF 9 55 GAL DRUM - SILX (855600)	90/05/19	90/05/20	C	90/08/14	11257		10244	3399
MST	0-361	194.51	2 OF 9 55 GAL DRUM - SILX (855600)	90/05/19	90/05/20	C	90/08/14	11257		10244	3400
MST	0-362	194.51	3 OF 9 55 GAL DRUM - SILX (855600)	90/05/19	90/05/20	C	90/08/14	11257		10244	3401
MST	0-363	198.20	4 OF 9 55 GAL DRUM - SILX (855600)	90/05/19	90/05/20	C	90/08/14	11257		10244	3402
MST	0-364	198.20	5 OF 9 55 GAL DRUM - SILX (855600)	90/05/19	90/05/20	C	90/08/14	11257		10244	3403
MST	0-365	198.20	6 OF 9 55 GAL DRUM - SILX (855600)	90/05/19	90/05/20	C	90/08/14	11257		10244	3404
MST	0-366	198.20	7 OF 9 55 GAL DRUM - SILX (855600)	90/05/19	90/05/20	C	90/08/14	11257		10244	3405
MST	0-367	198.20	8 OF 9 55 GAL DRUM - SILX (855600)	90/05/19	90/05/20	C	90/08/14	11257		10244	3406
MST	0-368	198.20	9 OF 9 55 GAL DRUM - SILX (855600)	90/05/19	90/05/20	C	90/08/14	11257		10244	3407
MST	0-369	194.51	1 OF 8 55 GAL DRUM - SILX (855603)	90/05/20	90/05/20	U	90/08/14	11257		10244	3408
MST	0-370	194.51	2 OF 8 55 GAL DRUM - SILX (855603)	90/05/20	90/05/20	U	/ /	11257		10244	3409
MST	0-371	194.51	3 OF 8 55 GAL DRUM - SILX (855603)	90/05/20	90/05/20	U	/ /	11257		10244	3410
MST	0-372	194.51	4 OF 8 55 GAL DRUM - SILX (855603)	90/05/20	90/05/20	U	/ /	11257		10244	3411
MST	0-373	198.20	5 OF 8 55 GAL DRUM - SILX (855603)	90/05/20	90/05/20	U	/ /	11257		10244	3412
MST	0-374	198.20	6 OF 8 55 GAL DRUM - SILX (855603)	90/05/20	90/05/20	U	/ /	11257		10244	3413
MST	0-375	198.20	7 OF 8 55 GAL DRUM - SILX (855603)	90/05/20	90/05/20	U	/ /	11257		10244	3414
MST	0-376	198.20	8 OF 8 55 GAL DRUM - SILX (855603)	90/05/20	90/05/20	U	/ /	11257		10244	3415
* WX-DO	0-377	95.42	1 OF 1 55 GAL DRUM - SILX (855020)	90/05/20	90/05/20	C	90/08/14	11257		10244	3416
MST	0-378	22.72	1 OF 1 55 GAL DRUM - SOL (855604)	90/05/15	90/05/20	R	90/10/26	120299-	101	10244	3417

PCB OIL/SOIL/RETROFILL FLUIDS/DISPOSAL REPORT

OWNER	PCB ID#	PCB WT. (kg)	DESCRIPTION	REM/STO DATE yy/mm/dd	TRANSPORT DATE yy/mm/dd	L O C	DESTRUCT DATE yy/mm/dd	CERT.#	SHIP WT. (lbs)	MANIF.#	FORM#
MST	0-379	22.72	1 OF 1 55 GAL DRUM - SOL (855603)	90/05/20	90/05/20	R	90/10/26	120299-		10244	3418
MP/WX	0-380	194.51	1 OF 8 55 GAL DRUM - SILX (855605)	90/05/28	90/05/29	C	90/08/14	11257	17667	10246	3419
MP/WX	0-381	194.51	2 OF 8 55 GAL DRUM - SILX (855605)	90/05/28	90/05/29	C	90/08/14	11257		10246	3420
MP/WX	0-382	194.51	3 OF 8 55 GAL DRUM - SILX (855605)	90/05/28	90/05/29	C	90/08/14	11257		10246	3421
MP/WX	0-383	194.51	4 OF 8 55 GAL DRUM - SILX (855605)	90/05/28	90/05/29	C	90/08/14	11257		10246	3422
MP/WX	0-384	198.20	5 OF 8 55 GAL DRUM - SILX (855605)	90/05/28	90/05/29	C	90/08/14	11257		10246	3423
MP/WX	0-385	198.20	6 OF 8 55 GAL DRUM - SILX (855605)	90/05/28	90/05/29	C	90/08/14	11257		10246	3424
MP/WX	0-386	198.20	7 OF 8 55 GAL DRUM - SILX (855605)	90/05/28	90/05/29	C	90/08/14	11257		10246	3425
MP/WX	0-387	198.20	8 OF 8 55 GAL DRUM - SILX (855605)	90/05/28	90/05/29	C	90/08/14	11257		10246	3426
INC/WX	0-388	198.20	1 OF 7 55 GAL DRUM - SILX (855549)	90/05/25	90/05/29	C	90/08/14	11257		10246	3427
INC/WX	0-389	198.20	2 OF 7 55 GAL DRUM - SILX (855549)	90/05/25	90/05/29	C	90/08/14	11257		10246	3428
INC/WX	0-390	198.20	3 OF 7 55 GAL DRUM - SILX (855549)	90/05/25	90/05/29	C	90/08/14	11257		10246	3429
INC/WX	0-391	198.20	4 OF 7 55 GAL DRUM - SILX (855549)	90/05/25	90/05/29	C	90/08/14	11257		10246	3430
INC/WX	0-392	198.20	5 OF 7 55 GAL DRUM - SILX (855549)	90/05/25	90/05/29	C	90/08/14	11257		10246	3431
INC/WX	0-393	198.20	6 OF 7 55 GAL DRUM - SILX (855549)	90/05/25	90/05/29	C	90/08/14	11257		10246	3432
INC/WX	0-394	198.20	7 OF 7 55 GAL DRUM - SILX (855549)	90/05/25	90/05/29	C	90/08/14	11257		10246	3433
INC/WX	0-395	194.51	1 OF 7 55 GAL DRUM - SILX (855548)	90/05/26	90/05/29	C	90/08/14	11257		10246	3434
INC/WX	0-396	194.51	2 OF 7 55 GAL DRUM - SILX (855548)	90/05/26	90/05/29	C	90/08/14	11257		10246	3435
INC/WX	0-397	194.51	3 OF 7 55 GAL DRUM - SILX (855548)	90/05/26	90/05/29	C	90/08/14	11257		10246	3436
INC/WX	0-398	194.51	4 OF 7 55 GAL DRUM - SILX (855548)	90/05/26	90/05/29	C	90/08/14	11257		10246	3437
INC/WX	0-399	194.51	5 OF 7 55 GAL DRUM - SILX (855548)	90/05/26	90/05/29	C	90/08/14	11257		10246	3438
INC/WX	0-400	194.51	6 OF 7 55 GAL DRUM - SILX (855548)	90/05/26	90/05/29	C	90/08/14	11257		10246	3439
INC/WX	0-401	194.51	7 OF 7 55 GAL DRUM - SILX (855548)	90/05/26	90/05/29	C	90/08/14	11257		10246	3440
P/J/WX	0-402	194.51	1 OF 9 55 GAL DRUM - SILX (855559)	90/05/27	90/05/29	C	90/08/14	11257		10246	3441
P/J/WX	0-403	194.51	2 OF 9 55 GAL DRUM - SILX (855559)	90/05/27	90/05/29	C	90/08/14	11257		10246	3442
P/J/WX	0-404	194.51	3 OF 9 55 GAL DRUM - SILX (855559)	90/05/27	90/05/29	C	90/08/14	11257		10246	3443
P/J/WX	0-405	194.51	4 OF 9 55 GAL DRUM - SILX (855559)	90/05/27	90/05/29	C	90/08/14	11257		10246	3444
P/J/WX	0-406	198.20	5 OF 9 55 GAL DRUM - SILX (855559)	90/05/27	90/05/29	C	90/08/14	11257		10246	3445
P/J/WX	0-407	198.20	6 OF 9 55 GAL DRUM - SILX (855559)	90/05/27	90/05/29	C	90/08/14	11257		10246	3446
P/J/WX	0-408	198.20	7 OF 9 55 GAL DRUM - SILX (855559)	90/05/27	90/05/29	C	90/08/14	11257		10246	3447
P/J/WX	0-409	198.20	8 OF 9 55 GAL DRUM - SILX (855559)	90/05/27	90/05/29	C	90/08/14	11257		10246	3448
P/J/WX	0-410	198.20	9 OF 9 55 GAL DRUM - SILX (855559)	90/05/27	90/05/29	C	90/08/14	11257		10246	3449
X WX-DO	0-411	194.51	1 OF 10 55 GAL DRUM - SILX (855020)	90/05/29	90/05/29	C	90/08/14	11257		10246	3450 X
X WX-DO	0-412	194.51	2 OF 10 55 GAL DRUM - SILX (855020)	90/05/29	90/05/29	C	90/08/14	11257		10246	3451 X
X WX-DO	0-413	194.51	3 OF 10 55 GAL DRUM - SILX (855020)	90/05/29	90/05/29	C	90/08/14	11257		10246	3452 X
X WX-DO	0-414	194.51	4 OF 10 55 GAL DRUM - SILX (855020)	90/05/29	90/05/29	C	90/08/14	11257		10246	3453 X
X WX-DO	0-415	194.51	5 OF 10 55 GAL DRUM - SILX (855020)	90/05/29	90/05/29	C	90/08/14	11257		10246	3454 X
X WX-DO	0-416	198.20	6 OF 10 55 GAL DRUM - SILX (855020)	90/05/29	90/05/29	C	90/08/14	11257		10246	3455 X

PCB OIL/SOIL/RETROFILL FLUIDS/DISPOSAL REPORT

OWNER	PCB ID#	PCB WT. (kg)	DESCRIPTION	REM/STO DATE yy/mm/dd	TRANSPORT DATE yy/mm/dd	L DESTRUCT O DATE C yy/mm/dd	CERT.#	SHIP WT. (lbs)	MANIF.#	FORM#
* WX-DO	0-417	198.20	7 OF 10 55 GAL DRUM - SILX (855020)	90/05/29	90/05/29	C 90/08/14	11257		10246	3456 *
* WX-DO	0-418	198.20	8 OF 10 55 GAL DRUM - SILX (855020)	90/05/29	90/05/29	C 90/08/14	11257		10246	3457 *
* WX-DO	0-419	198.20	9 OF 10 55 GAL DRUM - SILX (855020)	90/05/29	90/05/29	C 90/08/14	11257		10246	3458 *
* WX-DO	0-420	198.20	10 OF 10 55 GAL DRUM - SILX (855020)	90/05/29	90/05/29	C 90/08/14	11257		10246	3459 *
INC/WX	0-421	22.72	1 OF 1 55 GAL DRUM - SOL (855549)	90/05/29	90/05/29	R 90/10/26	120229-	176	10246	3460
* WX	0-422	22.72	1 OF 1 55 GAL DRUM - SOL (855020)	90/05/29	90/05/29	R 90/10/26	120229-		10246	3461 *
JCI	0-423	60.45	1 55 GAL DRUM - DEBRIS	90/01/22	90/07/12	R 90/08/31	NONE	1625	00269594	3534
CTR	0-424	43.64	1 55 GAL DRUM - DEBRIS	90/03/12	90/07/12	R 90/08/31	NONE		00269594	3535
JCI	0-425	11.34	1 55 GAL DRUM - DEBRIS	90/03/13	90/07/12	R 90/08/31	NONE		00269594	3536
JCI	0-426	58.20	1 55 GAL DRUM - DEBRIS	90/03/13	90/07/12	R 90/08/31	NONE		00269594	3537
JCI	0-427	143.20	1 55 GAL DRUM - DEBRIS	90/03/27	90/07/12	R 90/08/31	NONE		00269594	3538
WX-12	0-428	32.72	1 55 GAL DRUM - DEBRIS	90/05/17	90/07/12	R 90/08/31	NONE		00269594	3539
JCI	0-429	9.10	1 55 GAL DRUM - DEBRIS	90/05/24	90/07/12	R 90/08/31	NONE		00269594	3540
JCI	0-430	62.73	1 55 GAL DRUM - DEBRIS	90/05/24	90/07/12	R 90/08/31	NONE		00269594	3541
WX-17	0-431	55.50	1 55 GAL DRUM - DEBRIS	90/05/18	90/07/12	R 90/08/31	NONE		00269594	3542
HSE-7	0-432	34.10	1 55 GAL DRUM - DEBRIS	90/05/02	90/07/12	R 90/08/31	NONE		00269594	3543
P-10	0-433	197.72	1 55 GAL DRUM - OIL	90/03/15	90/07/12	R 90/07/28	NONE	2593	00269594	3544
CLS	0-434	165.91	1 55 GAL DRUM - OIL	90/03/27	90/07/12	R 90/07/28	NONE		00269594	3545
HSE-8	0-435	175.00	1 55 GAL DRUM - OIL	90/04/16	90/07/12	R 90/07/28	NONE		00269594	3546
HSE-8	0-436	56.82	1 55 GAL DRUM - OIL	90/04/16	90/07/12	R 90/07/28	NONE		00269594	3547
WX-3	0-437	185.00	1 55 GAL DRUM - OIL	90/05/04	90/07/12	R 90/07/28	NONE		00269594	3548
WX-3	0-438	102.30	1 55 GAL DRUM - OIL	90/05/04	90/07/12	R 90/07/28	NONE		00269594	3549
WX-3	0-439	185.00	1 55 GAL DRUM - OIL	90/05/04	90/07/12	R 90/07/28	NONE		00269594	3550
	0-440	400.00	1 55 GAL DRUM - SYSTEM 50 FLUID	90/05/16	90/07/15	E1 90/07/27	66593	4515	456308	3647
	0-441	400.00	1 55 GAL DRUM - SYSTEM 50 FLUID	90/05/15	90/07/15	E1 90/07/27	66593		456308	3648
	0-442	400.00	1 55 GAL DRUM - SYSTEM 50 FLUID	90/05/15	90/07/15	E1 90/07/27	66593		456308	3649
	0-443	400.00	1 55 GAL DRUM - SYSTEM 50 FLUID	90/06/11	90/07/15	E1 90/07/27	66593		456308	3650
	0-444	400.00	1 55 GAL DRUM - SYSTEM 50 FLUID	90/06/12	90/07/15	E1 90/07/27	66593		456308	3651
	0-445	400.00	1 55 GAL DRUM - SYSTEM 50 FLUID	90/06/12	90/07/15	E1 90/07/27	66593		456308	3652
	0-446	400.00	1 55 GAL DRUM - SYSTEM 50 FLUID	90/06/13	90/07/15	E1 90/07/27	66593		456308	3653
	0-447	200.00	1 55 GAL DRUM - DEBRIS	90/07/15	90/07/15	E1 90/10/20	71540	106	456307	3654
JCI	0-448	302.30	1 OF 14 55 GAL DRUM - OIL (855006)	90/08/21	90/09/19	R 90/09/26	NONE	45020	00122882	3664
JCI	0-449	302.30	2 OF 14 55 GAL DRUM - OIL (855006)	90/08/21	90/09/19	R 90/09/26	NONE		00122882	3665
JCI	0-450	302.30	3 OF 14 55 GAL DRUM - OIL (855006)	90/08/21	90/09/19	R 90/09/26	NONE		00122882	3666
JCI	0-451	302.30	4 OF 14 55 GAL DRUM - OIL (855006)	90/08/21	90/09/19	R 90/09/26	NONE		00122882	3667
JCI	0-452	302.30	5 OF 14 55 GAL DRUM - OIL (855006)	90/08/21	90/09/19	R 90/09/26	NONE		00122882	3668
JCI	0-453	302.30	6 OF 14 55 GAL DRUM - OIL (855006)	90/08/21	90/09/19	R 90/09/26	NONE		00122882	3669
JCI	0-454	302.30	7 OF 14 55 GAL DRUM - OIL (855006)	90/08/21	90/09/19	R 90/09/26	NONE		00122882	3670