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# WASTEWATER CHARACTERIZATION SURVEY, DOBBINS AIR FORCE BASE, GEORGIA

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OCCUPATIONAL AND ENVIRONMENTAL HEALTH DIRECTORATE Brooks Air Force Base, TX 78235-5000

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### WASTEWATER CHARACTERIZATION SURVEY, DOBBINS AIR FORCE BASE, GEORGIA

### INTRODUCTION

A wastewater characterization survey was conducted at Dobbins Air Force Base (AFB) from 9-21 June 1991 by personnel of the Water Quality Function of the Armstrong Laboratory (AL). The purpose of this survey was to identify and characterize the wastewater, determine the appropriateness of present disposal methods, determine the need for routine sampling or monitoring, and recommend parameters for wastewater and storm water analysis.

This survey was performed in response to a request from HQ AFRES/SGB to perform a wastewater characterization at Dobbins AFB, GA (Appendix A).

Armstrong Laboratory personnel performing the survey included: Capt Richard McCoy, 2Lt Anita Acker (Team Chief), TSgt Mary Fields (Team NCOIC), and AlC Keanue Byrd.

### DISCUSSION

### Background

Dobbins AFB is located 2 miles south of Marietta, Georgia, and 16 miles northwest of Atlanta, Georgia. The base is the home of the 14th Air Force Reserves (AFRES), 94th Tactical Airlift Wing (AFRES), 116th Tactical Fighter, Air National Guard (ANG), the 151st Military Intelligence Battalion, Army National Guard (ArNG), and the 145th and 412th Medical Detachments, United States Army Reserves (USAR). The Naval Air Station Atlanta and the Lockheed Aeronautical Systems Co/Air Force Plant 6 adjoin Dobbins AFB and jointly use the airfield facilities.

The base has approximately 4,500 personnel assigned: 1,250 active duty personnel, 2,000 reservists, and 1,250 civilian workers.

Wastewater treatment is accomplished with primary and secondary treatment. A primary clarifier collects solids which are pumped to an anaerobic digester. Secondary treatment is accomplished with 2 trickling filters operating in series. Prior to discharge, the effluent is chlorinated and an antifoam emulsion is added. The effluent is discharged into Nickajack and Rottenwood Creeks. The wastewater treatment plant is owned and operated by Lockheed-Georgia Company, a Division of the Lockheed Aircraft Corporation. The plant is equipped with a tertiary treatment facility in which industrial waste is pretreated. Since Dobbins AFB does not have the industrial lines to run to the pretreatment plant, only sanitary waste can be discharged from its shops and operations to the wastewater treatment plant (WWTP). The Environmental Protection Agency (EPA) pretreatment standards (40 CFR 403.5) describe the prohibited discharges to Publicly Owned Treatment Works (POTW). These prohibited discharges include any pollutants which cause (a) fire or explosion hazard, (b) corrosive structural damage, (c) obstruction of flow, or (d) inhibition of the biological treatment process at the POTW. In addition to the general prohibitions, certain categorical users that may be found at Air Force installations include electroplating, metal finishing, photographic processing, and hospitals. Since there are no individual permits for these processes on the base, discharges from industrial facilities were compared to pretreatment standards in 40 CFR 403-471.

The Clean Water Act, Section 402p, requires EPA to establish storm water regulations under the National Pollutant Discharge Elimination System (NPDES) permit program. On 16 November 1990, EPA published final rules regulating certain industrial and municipal discharges of storm water. The related portion of these EPA rules requires industrial storm water dischargers to apply for a permit, either individually or as part of a group of similar industries, by May 1992. The categorical list of industries that must apply includes tractor trailor and truck maintenance shops, vehicle equipment operations, and airport facilities. Permits are required for areas where past industrial activities occurred and significant materials remain exposed to storm water. Analytical requirements include: (a) any pollutant limited in an effluent guideline, (b) any pollutant in a NPDES permit for process wastewater, (c) oil and grease, total suspended solids, chemical oxygen demand, pH, biochemical oxygen demand, total phosphorus, total Kjeldahl nitrogen, nitrate plus nitrite nitrogen, and (d) other pollutants the applicant is expected to know or has reason to believe are present, based on an evaluation of the expected use, production, or storage of the pollutant, or on any previous analyses for the pollutant.

Dobbins AFB is now one of the 9 Air Force Reserve (AFRES) bases that are included in a Stage I storm water survey conducted by (EA) Engineering, Science, and Technology. The Stage I survey is an on-site study to identify the number and type of industrial areas, to identify the number and locations of storm water conveyances, and to gather other information necessary to comply with monitoring requirements of NPDES storm water permits. The kick-off meeting for this survey was held 27 September 1991 at Youngstown, Ohio. According to the contract statement of work, the final storm water report is due 15 March 1992.

### Permit Standards

The discharge from the WWTP is regulated by a NPDES permit (Appendix B). This permit lists the monitoring requirements Lockheed must perform to operate its WWTP. Currently the AFRES and ANG operations are not required to perform any monitoring of their discharges to the WWTP.

### Sampling Strategy

A presurvey was conducted at Dobbins AFB from 9-10 April 1991. During this presurvey, the sample protocol, developed by 2Lt Acker, was reviewed by the base Bioenvironmental Engineer and the Environmental Coordinator. Nine sites had originally been chosen in the strategy. These locations were selected to characterize the general quality of the wastewater. The Bioenvironmental Engineer requested an additional 6 sites, and Civil Engineering requested 4 oil/vater separators to be sampled. The final strategy is in Appendix C, along with a base map depicting the locations of each site.

### Sampling Methods

Wastewater samples were typically collected over a 24-h period as a time-proportional composite. Samples collected for volatile organics, oils and greases, total petroleum hydrocarbons, and total toxic organics were collected as grab samples. The sample pH and temperature were recorded each day a sample was collected. All samples were collected and analyzed using EPA-approved procedures. Sample preservation was in accordance with the <u>AFOEHL Sampling</u> Guide, March 1989 (1) (Appendix D).

Composite samples were poured directly from the sampler's 11.35-liter (3-gal) glass collection jar into sample containers in the field. Samples were then preserved upon returning to the on-site laboratory set up in the Civil Engineering warehouse. Grab samples were collected by pumping a sample into a pitcher using the composite sampler's pump. The samples were then carefully poured into 40-ml vials to ensure no headspace or into 1-liter cubitainers. These samples were also preserved as needed upon return to the on-site laboratory.

# Field Quality Assurance/Quality Control (QA/QC)

A field QA/QC program was used during this survey to verify the accuracy and reproducibility of laboratory results. Errors in the reporting of analytical data can result from many causes, including equipment malfunctions and operator error, both during the sampling and analysis. Sample contamination is a common error and may result from residue in sampling containers, preservation, handling, storage, or transport to the laboratory.

Equipment field blank samples are generally aliquots of distilled water that are as free of contaminants as possible and are transferred to a sample container at the sampling site and preserved with the appropriate reagents. The purpose of these blanks is to identify potential contamination contributed from the equipment. The possible contaminants that could be attributed to the equipment are oils and greases and total petroleum hydrocarbon. All other contaminants found in the equipment blanks can most likely be related to field technique or spill-over of samples from previous sampling periods. This affects the accuracy of the data reported.

Reagent blanks are aliquots of distilled water that are as free of contaminants as possible and contain all the reagents in the same volume as used in the processing of the samples. The reagent blank is used to correct for possible contamination resulting from the preparation or processing of the sample. All contaminants analyzed from the reagent blanks should be nondetected.

Spike samples are also aliquots of distilled water in which a known quantity of contaminant is added. Spikes serve as a check on the confidence of the data, through the recovery of known additions. Spike samples were prepared on-site using stock reagents prepared by Armstrong Laboratory Analytical Services. The concentration of the spike samples was 10 mg/l for cyanide, 3 mg/l for surfactants, 10 mg/l for chromium, and 10 mg/l for each metal. Duplicate samples are 2 discrete samples taken from the same source, analyzed independently. These samples serve as a measure of precision, which is the agreement between a set of replicate measurements without assumption or knowledge of the true value. Duplicate samples were collected at 6 sites (#6, 8, 9, 13, 14, 15). All were collected on the third day of sampling. Duplicate samples can differ greatly due to the amount of solids in the collection jar not being dispersed evenly in each sample container, sample preservation techniques, or sample analysis techniques. All volatile organic samples were also collected in duplicate as part of our Analytical Services internal QA/QC program.

### Internal QA/QC

The Armstrong Laboratory Analytical Division Quality Assurance Plan establishes the guidelines and rules necessary to meet the analytical laboratory requirements of 43 states, U.S. Environmental Protection Agency, and private accrediting agencies (Appendix E). Specific activities include inserting a minimum of one blind sample control for each parameter analyzed on a monthly basis, periodic auditing of the laboratory quality assurance items from each branch, all instruments are calibrated each day of use, at least 1 National Institute Standards and Technology/Standard Reference Materials (NIST/SRM) traceable standard and control sample will be included with each analytical run, corrective action is documented every time a quality assurance parameter is not met, all sample data will have established detection limits, the laboratory participates in numerous proficiency surveys and interlaboratory quality evaluation programs, and all quality control samples are plotted and tracked by the individual work sections.

### RESULTS

### QA/QC Results

All field QA/QC results are in Appendix F. The results of the reagent blanks indicate that sample containers and reagents were not a source of contamination.

### Volatile Organic Chemical Results

Results of the sampling performed in the sanitary sever system are in Appendix G. These results are discussed by sampling group. The Volatile Organic Chemical (VOC) screen measures the concentration of a number of volatile compounds. Tetrachloroethylene was found on 1 day at site 9, the Air Force Reserve Civil Engineering and Welding Shop, at a concentration around 10  $\mu$ g/l. Trichloroethylene (TCE) was also found on 1 day at site 14, the Dobbins influent to the WWTP, at a concentration around 40  $\mu$ g/l. 1,1,1-Trichloroethane was found at 10 sites in concentrations ranging from 1-80  $\mu$ g/l. These intermittent solvent levels are indications that either small amounts of these chemicals are poured down the drains or entering the sewage system via rinse water.

1,1-Dichloroethane was also found at site 9 on 1 day at a concentration around 10  $\mu$ g/l. This compound is commonly associated with industrial chemical usage. Since this lone result is near the detection limit, it is most likely an artifact of an analytical procedure.

Methylene chloride is a degreasing and cleaning fluid which is found in paints. This chemical was found in detectable concentrations at 4 sites. Concentrations ranged from a high around 180  $\mu$ g/l to a low around 1  $\mu$ g/l. The high concentration was found at the Dobbins influent to the WWTP. Methylene chloride was found consistently for 5 days at the Dobbins influent to the WWTP.

Chloroform was detected at 13 sites in concentrations ranging from around 1-100  $\mu$ g/l. Bromodichloromethane was found at site 15, the WWTP effluent, on 2 days with a high concentration around 70  $\mu$ g/l. These compounds are routinely found in wastewater analyses and are usually the products of reactions of organic compounds with residual disinfectants. 1,4-Dichlorobenzene was found at 13 sites in concentrations ranging from around 10-1000  $\mu$ g/l. This compound is a solvent found in paints and cleaning and polishing agents. The high concentration around 1,000  $\mu$ g/l was found on the first day of sampling at site 7, the lift station, where sewage comes from the chow hall, billeting, and V00. This level suggests that many household cleaners are used in this area. On the other 2 days of sampling at this site, concentrations of 1,4-dichlorobenzene were at much lower levels, suggesting that less household cleaners were used or that sampling contamination may have occurred from residue in sampling containers, preservation, handling, storage, or transport to the lab.

Toluene was detected at 7 sites in concentrations ranging from around 4-200  $\mu$ g/l. The high concentration was found at site 10, the AFRES Motor Pool, on the first day of sampling. All other sampling at this site showed levels below the detection level. Ethyl benzene and benzene were only detected at site 9, the Air Force Reserve Civil Engineering and Welding Shop, at concentrations around 20  $\mu$ g/l and 60  $\mu$ g/l, respectively. Overall results indicate that the use of aromatic organic chemicals is being well controlled in the shops.

### Metal Results

The NPDES Permit establishes daily average concentration limits for the effluent of the Lockheed Treatment Plant. There are no permit requirements that establish daily average concentration limits in the sanitary sewer system. Due to the absence of permit limits, discharges of industrial facilities were compared to pretreatment standards in 40 CFR 403-471 and to an 1988 AFOEHL Report, Design Criteria for Process Wastewater Pretreatment Facilities (2). Appendix H lists the typical discharge limitations for various waste sources. Also, the NPDES permit for the Lockheed Treatment Plant does not have standards for all the analytes that were tested. These additional analytes were compared to the U.S. EPA Handbook: <u>Quality Criteria for Water 1986</u> (3). These standards can be found in Appendix I. All metal results are for the total dissolved and suspender form of the sampled metal.

Copper was found at site 10, the AFRES Motor Pool, at a concentration around 50 mg/l. This finding was a 1 day occurrence. All other metal results met pretreatment standards for industrial facilities and standards for water quality. There were, however, high concentrations of aluminum and iron found at 14 sites, probably as the result of these metals leaching from the soil. According to Kabata-Pendias (4), neutral soils contain aluminum in the order of about 400  $\mu$ g/l, while in soils at pH 4.4, aluminum concentrations can be as high as 5,700  $\mu$ g/l. The concentration of iron in soil solutions within common soil pH levels ranges from 30-550  $\mu$ g/l, whereas in very acid soil it can exceed 2,000  $\mu$ g/l. According to Fairbridge and Finkyl (5), acid soils are most extensive in the eastern half of the United States (U.S.). The distribution of acid soils in the U.S. is illustrated by the Ultisols, Oxisols, and Spodosols. Dobbins AFB is in the Ultisols region.

### Other Results

Several other analyses were conducted to characterize the quality of the wastewater. These results are discussed next.

Ammonia, Chromium VI, Cyanide, and Silver analyses were conducted at 4 sites (#2, 3, 14, and 15) to determine if photographic processes, battery/electric processes, and civil engineering shop processes were discharging significant amounts of these pollutants. Cyanide and silver analyses were conducted at site 4 and chromium and silver analyses were only conducted at sites #5 and 9. The results shown in Appendix G show that none of these processes were discharging significant amounts of these pollutants. These processes all met the pretreatment standards set by 40 CFR.

Phosphorus concentrations were analyzed at 7 sites (#5, 6, 7, 12, 13, 14, and 15) and surfactant concentrations were analyzed at 4 sites (#6, 10, 14, and 15) to determine if shops were using soaps with high concentrations of these contaminants. All sites sampled showed low levels of phosphorus and surfactants indicating proper usage.

Phenol concentrations were analyzed at 3 sites (#6, 14, and 15) and found in low concentrations or below the detection limit, indicating proper disposal techniques are being used.

Glycol was found at site 10, the AFRES Motor Pool, at a concentration around 40 mg/l. The detection limit for this contaminant is 50  $\mu$ g/l. This analyte was tested due to the sewage from this site being blue/green in appearance during 1 day of sampling. This test indicated antifreeze was poured or spilled down the drain. However, antifreeze is not considered a hazardous waste and disposing of it to a POTW is a proper disposal technique, due to its biodegradability. There are no pretreatment standards for glycol. The Lockheed WWTP does not have any limitations for this contaminant, but pouring it down the drain may not be considered good disposal practice.

Total Petroleum Hydrocarbon (TPH) and Oils and Greases analyses were performed to estimate the amount of hydrocarbons in the wastewater that originate from petroleum sources. Sites 1, 2, 9, and 12 had the highest concentrations of oils and greases. The concentrations of these analytes measured at site 15, the effluent of the wastewater treatment plant, indicate that the treatment plant is adequately controlling oils and grease levels.

A Total Toxic Organics (TTO) test was performed 1 day at site 15, the effluent of the treatment plant. This test was run to determine if any toxic substances listed in 40 CFR 433.11 were being discharged from the plant. The majority of the analytes tested were found below their detection limits indicating that no toxics are being discharged. Included in the TTO screen is the volatile organic chemical screen. Results less than 10  $\mu$ g/l are not reported in this screen. Chloroform was detected on 2 days out of 6 days of sampling at levels higher than 10  $\mu$ g/l. The high level was around 100  $\mu$ g/l, and the low level was around 20  $\mu$ g/l. Due to this detection only being a 2-day occurrence and the levels being relatively close to the nonreporting concentration, it is most likely an artifact of an analytical procedure. Also, 1,4-dichlorobenzene was found on 1 day around 10  $\mu$ g/l, and 1,1,1-trichloroethane was found on 1 day around 10  $\mu$ g/l. These levels are so close to the nonreporting concentration that they are just worth noting and no action needs to be taken.

### PH Results

The pH of every sample was recorded. All ranges were between six and eight, which is normal for sanitary sewage.

### Oil/Water Separator Results

Four oil/water separators were sampled to determine their operational effectiveness. The results are shown in Appendix J. The oil/water separator behind Building 819 was the only one with high effluent levels of oils and greases. This result indicates that this separator has reached its holding capacity and needs to be pumped out in order to perform properly.

### CONCLUSIONS

The base's effort to ensure only sanitary waste is discharged into the sewer system is commended. Discharges from the shops on base that perform industrial processes met all the applicable pretreatment standards. None of the shops were discharging significant amounts of industrial pollutants, indicating that the use of industrial chemicals is being well controlled and that present disposal methods are appropriate. The sampling data is considered typical wastewater stream discharge from an Air Force base, according to a USAFOEHL Report (3).

The field QA/QC from this survey indicate the data for duplicates and spikes are not very precise or accurate. The duplicate samples for the most part showed no bias. Manganese, aluminum, and zinc were the only metals in which there was a significant difference in the duplicates taken. Even though the reagent blanks were negative, the low-level values noted in the equipment field blanks indicate a probability of contamination of the blank water source. The very low recovery for all the analytes in the spike samples indicates a dilution error.

The internal QA/QC was accurate and precise. The laboratory performed the analyses in accordance with U.S. EPA and the state of Georgia approved methodology.

Considering both the field and the internal QA/QC, the data results should not be used for regulatory purposes, but they still are valuable indicators of potential problems. Compared to other Air Force bases, the sampling data is typical, according to a USAFOEHL Report (3) which analyzed waste stream data from various Air Force bases. The oil/water separators were, for the most part, in good operating condition. The inspection records of the separators in the AFRES area were up-to-date and Civil Engineering is playing an active role in the maintenance schedule for the separators. However, in the ANG area behind building 988, the separator needs to be pumped out before it can be sampled. The separator was full of a red, oily fluid suggesting that hydraulic fluid is being poured directly in this separator as a disposal procedure.

Based on the sampling we performed, the treatment plant appears to be properly removing pollutants from the base wastewater.

Due to the absence of industrial waste lines, the base drums all the industrial waste. From June 1989 to April 1991, it cost the base approximately \$6,000 to dispose of the industrial waste. This price does not include the cost of each drum and the manpower it takes to label the drums and maintain them on site. To connect the base with the industrial wastewater treatment facilities, an 8,000-ft, 6-in. polyvinyl chloride (PVC) pipe is required. During a personal conversation with Mr Fischer, Civil Engineering Planning Department at Brooks AFB, he said it would cost \$30,000 to install this pipe (ref. Means Mechanic Contracting Book 1990) (6). Therefore, if the base were to connect their industrial waste operation to the Lockheed Pretreatment facility, cost savings would not be realized for 5 years.

### RECOMMENDATIONS

The base should continue their efforts to maintain proper waste disposal. As for the need for routine sampling or monitoring at the base effluent, we do not feel it is necessary at this time. However, if the Lockheed Plant experiences an upset in its treatment process, the AFRES and ANG units can expect monitoring requirements to be imposed upon them under the EPA Pretreatment Rule. The only need for any routine sampling would be as a result of an upset to the Lockheed WWTP. The need for quantitative data on wastewater composition would then be required to determine the cause and to control future upsets. If routine sampling is desired, we would suggest it be done quarterly at the Dobbins influent to the treatment plant. The parameters that should be sampled include volatile halocarbons, volatile aromatics, metals, oil and greases, and total petroleum hydrocarbons.

In the last 22 months, the base spent \$6,000 on disposal of waste. At this current spending rate, it would take approximately 5 years for the base to pay off its expenditure of adding an industrial line. With the existing waste stream, we do not recommend adding an industrial line at this time.

### REFERENCES

1. AFOEHL Sampling Guide, March 1989.

2. Binovi, R. and Riojas, A., Design Criteria for Process Wastewater Pretreatment Facilities, USAFOEHL-TR-88-069EQ0111EIB, May 1988.

3. United States Environmental Protection Agency Handbook: Quality Criteria for Water, EPA/440/5-86-001, U.S. Environmental Protection Agency, Washington, D.C., 1986.

4. Kabata-Pendias, A. and Pendias, H., Trace Elements in Soils and Plants, Baco Raton, Florida, CRC Press, Inc., 1984.

5. Fairbridge, R. and Finkyl, C., Jr., The Encyclopedia of Soil and Science Part 1, Volume XVII, Stroudsburg, Pennsylvania, Dowden, Hutchinson & Ross, Inc., 1979.

6. R.S. Means Company, Inc., Means Mechanic Contracting Book 1990, Kingston, Maine, Construction Consultant, Inc., 1990. APPENDIX A

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Request Letter



# DEPARTMENT OF THE AIR FORCE

DOBBINS ANT FORCE BASE GEORGIA 30069-5000

REPLY TO ATTN OF SGPE

24 Jul 90

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SUBJECT

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HQ-AFRES/SGE

Sanitary and Industrial Waste Survey

1. Request subject survey from USAF Occupational and Environmental Health Laboratory, Hazardous Waste/Water Quality Function. Specifically request assistance in conducting a sanitary and industrial waste water survey to determine the following:

a. Identity and characteristic of waste water,

b. Appropriateness of present disposal methods,

c. The need for routine sampling or monitoring, and

d. Recommended parameters for waste water and storm water analysis.

2. Contact me at 925-5781 (AV) for any questions or regarding scheduling.

TERESA M PAULSEN Bioenvironmental Engineer

cc: 14 AF/SGPB 94 CSG/CC

NOTE:

This Headquarters contacted HQ AFSC/SGPB, Lt Col Joseph Martin, and was instructed that coordination was not required unless it was an emergency request. fmf

APPENDIX B

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NPDES Permit

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PERMIT NO. GA 0001198

### STATE OF GEORGIA DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION DIVISION

# AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the "State Act," the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.), hereinafter called the "Federal Act," and the Rules and Regulations promulgated pursuant to each of these Acts,

DEPARTMENT OF THE AIR FORCE Air Force Plant No. 6

is authorized to discharge from a facility located at Lockheed Aeronautical Systems Co. Air Force Plant No. 6 Dobbins Air Force Base Marietta, Cobb County, Georgia

to receiving waters

Nickajack Creek, Rottenwood Creek and Poorhouse Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts 1, 11, and 111 hereof.

This permit shall become effective on June 30, 1988.

This permit and the authorization to discharge shall expire at midnight, June 15, 1993.

Signed this <u>30th</u> day of <u>June</u>, <u>1988</u>



etor.

Environmental Protection Division

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# A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

the permittee is authorized to discharge from outfall(s) serial number(s) 001 - Tertiary Treatment During the period beginning effective date and lasting through June 15, 1993, Plant Effluent. 1.

Such discharges shall be limited and monitored by the permittee as specified below:

<b>Effluent Characteristic</b>		Discharge L	imitations		Monitori	ing Requirem	ents
	kg/day	(lbs/day)	Other Unit:	s(Specify)			
			(mg/l)		Measurement	Sample	Sample
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Frequency	Type	Location
Flow-m <sup>3</sup> Day (MGD)	26,495 (7.	- (0	ı	ı	Continuous	V/N	Fffluent
BOD5	ı	265 (584)	ı	10	3/Week	Composite	Effluent
Suspended Solids	ı	199 (438)	ı	10	3/Week	Composite	Effluent
Fecal Coliform, No/100 m	1 -	• •	200	400	3/Week	Grab	Effluent
Chemical Oxygen Demand	ł	497.5 (1095	· ~	25	3/Week	Composite	Effluent
Cyanide	ı	0.13 (0.2	- (6	0.005	1/Week	Grab	Effluent
Fluoride	ı	53 (117)	1	2.0	2/Month	Composite	Effluent
Alumfnum	ı	8 (17.5)	I	0.4	2/Week	Composite	Effluent
Cadmium	1	0.4 (.876	•	0.02	2/Week	Composite	Effluent
Chromium, Total	ı	2.7 (5.8)	•	0.10	2/Week	Composite	Effluent
Соррег	ı	5.3 (11.7	•	0.20	2/Week	Composite	Effluent
Lead	ı	1.3 (2.9)	ł	0.05	2/Week	Composite	Effluent
Mercury	1	0.005 (0.	01) -	0.002	1/Week	Composite	Effluent
Nickel	r	0.3 (0.6)	ı	0.01	2/Week	Composite	Effluent
Silver	·	1.3 (2.9)	ı	0.05	2/Week	Composite	Effluent
Zinc	ı	2.92 (6.4	- (2)	0.11	2/Week	Composite	Effluent
011 & Grease	ı	265 (584)	ı	10	1/Week	Grab	Effluent

# PART I

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ENVIRONMENTAL PROTECTION DIVISION DEPARTMENT OF NATURAL RESOURCES STATE OF GEORGIA

the permittee is authorized to discharge from outfall(s) serial number(s) 001 - (continued) During the period beginning effective date and lasting through June 15, 1993,

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	kg/day	Discharge 1 (lbs/day)	Limitations Other Units	(Specify)	Monitori	ng Requirem	ents
	Daíly Avg.	Daily Max.	(mg/l) Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Orthophosphates Phenol Surfactants Diagolved Oxygen Total Toxic Organics(1)		53 (117) 0.13 (0.29 9.95 (21.9	3.0	2.0 0.005 0.5 1.0	2/Week 2/Month 1/Week Daily 1/Year	Composite Grab Composite Grab Composite	Effluent Effluent Effluent Effluent Effluent

The pH shall not he less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 3/week by grab sample.

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There shall be no discharge of floating solids or visible foam in other than trace amounts.

Total Toxic Organics (TTO) must be monitored or certified in accordance with 40 CFR See Part III, Section B., Special Requirements, on Part 433, dated July 15, 1983. Page 13 of this permit. Ξ

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ENVIRONMENTAL PROTECTION DIVISION DEPARTMENT OF NATURAL RESOURCES STATE OF CEORCIA

the permittee is authorized to discharge from outfall(s) serial number(s)-Sample 1 thru 5 (Surface Streams). and lasting through June 15, 1993, During the period beginning effective date

Such discharges shall be limited and monitored by the permittee as specified below:

ements	Sample Location		*	*	*
ng Requir	Sample Type		Grab	Grab	Grab
Monitori	Measurement Frequency		Daily	Daily	3/Week
ts(Specify)	Daily Max.				
imitations Other Uni	Daily Avg.				
Discharge L bs/day)	Daily Max.				
kg/day(11	Daily Avg.	I			
Effluent Characteristic		Flow-m <sup>3</sup> Day (MGD)	pH	TOC	Total Chromium

There shall be no discharge of floating solids or visible foam in other than trace amounts. \* Sampling shall be at the points indicated on the attached map to this permit.

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- B. SCHEDULE OF COMPLIANCE
  - 1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

Limitations are effective immediately upon issuance of permit.

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

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PART I

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Note: EPD as used herein means the Division of Environmental Protection of the Department of Natural Resources.

- C. MONITORING AND REPORTING
  - 1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

Monitoring results obtained during the previous one month shall be summarized for each month and reported on an Operation Monitoring Report (Form WQ 1.45), postmarked no later than the 28th day of the month following the completed reporting period. The first report is due on July 28, 1988. The EPD may require reporting of additional monitoring results by written notification. Signed copies of these, and all other reports required herein, shall be submitted to the following address:

Georgia Environmental Protection Division Industrial Wastewater Program 205 Butler Street, S.E., Floyd Towers East Suite 1070 Atlanta, Georgia 30334

- 3. Definitions
  - a. The "daily average" discharge means the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.
  - b. The "daily maximum" discharge means the total discharge by weight during any calendar day.
  - c. The "daily average" concentration means the arithmetic average of all the daily determinations of concentration made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during that calendar day.

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EPD 2.21-5

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PART I

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- d. The "daily maximum" concentration means the daily determination of concentration for any calendar day.
- e. "Weighted by flow value" means the summation of each sample concentration times its respective flow in convenient units divided by the sum of the respective flows.
- f. For the purpose of this permit, a calendar day is defined as any consecutive 24-hour period.
- 4. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(g) of the Federal Act.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses.
- 6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Operation Monitoring Report Form (WQ 1.45). Such increased monitoring frequency shall also be indicated. The EPD may require more frequent monitoring or the monitoring of other pollutants not required in this permit by written notification.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained by the permittee for a minimum of three (3) years, or longer if requested by the State Environmental Protection Division.

PART II

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# A. MANAGEMENT REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges or pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the EPD of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Water Protection Branch of EPD with the following information, in writing, within five (5) days of becoming aware of such condition:

- A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.
- 3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

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PART II

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### 5. Bypassing

Any diversion from or bypass of facilities covered by this permit is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage, runoff, or infiltration would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. The permittee shall monitor all overflows and bypasses in the sewer and treatment system. A record of each overflow and bypass shall be kept with information on the location, cause, duration, and peak flow rate. Upon written notification by EPD, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State.

7. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

a. In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or, if such alternative power source is not in existence, and no date for its implementation appears in Part I,

b. Halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

### B. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Director of EPD, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

EPD 2.21-8

PART II

# STATE OF GEORGIA DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION DIVISION

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- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.
- 2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Water Protection Branch of EPD.

3. Availability of Reports

Except for data determined by the Director of EPD to be confidential under Section 16 of the State Act or the Regional Administrator of the U. S. Environmental Protection Agency under Section 308 c1 the Federal Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the Atlanta office of the EPD. Effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 22(b) of the State Act.

4. Permit Modification

After written notice and opportunity for a hearing, this permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause includi..g, but not limited to, the following:

- a. Violation of any conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or
- d. To comply with any applicable effluent limitation issued pursuant to the order the United States District Court for the District of Columbia issued on June 8, 1976, in <u>Natural</u> <u>Resources Defense Council, Inc. et.al.</u> v. <u>Russell E. Train</u>, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:
  - (1) is different in conditions or more stringent than any effluent limitation in the permit; or
  - (2) controls any pollutant not limited in the permit.

PART II

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5. Toxic Pollutants

Notwithstanding Part II, B-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Federal Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for this pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition. A draft permit will be provided for review and comments prior to issuance.

6. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Federal Act.

8. Water Quality Standards

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Expiration of Permit

Permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date.

11. Contested Hearings

Any person who is aggrieved or adversely affected by an action of the Director of EPD shall petition the Director for a hearing within thirty (30) days of notice of such action.

PART II

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12. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

13. Best Available Technology Economically Achievable

Notwithstanding Part II, B-4 above, if an applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 301(b)2 of the Federal Act for a pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with such effluent standard or prohibition. A draft permit will be provided for review and comments prior to issuance.

14. The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage areas; in-plant transfer, process and material handling areas; loading and unloading operations; plant site runoff; and sludge and waste disposal areas.

PART III

### A. PREVIOUS PERMITS

1. All previous State water quality permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act. as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

EPD 2.21-11

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STATE OF GEORGIA DEPARTMENT OF NATURAL RESOURCES ENVIRONMENTAL PROTECTION DIVISION ENVIRONMENTAL PROTECTION DIVISION PART I

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### **B. SPECIAL REQUIREMENTS**

- a. Total Toxic Organics (TTO): TTO includes all of the lll chemical listed in 40 CFR 433.11(e) and which are reasonably expected to be present in the wastewater. Those substances with quantifiable values greater than 0.01 mg/l will be added together to determine the TTO concentration present in the discharge. In lieu of annual monitoring for TTO, the permittee may certify on a monthly basis that no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report and that the solvent management plan is being implemented. This statement shall be made in accordance with 40 CFR 433.12(a). The solvent management plan is to be part of the request for the certification alternative.
- b. On June 1, 1984, Lockheed Aeronautical Systems Company submitted to the Georgia Environmental Protection Division a Solvent Management Plan and requested the certification alternative in lieu of annual monitoring for TTO. The Georgia Environmental Protection Division reviewed this plan and determined that it met the requirements of 40 CFR 433.12. By letter of June 21, 1984, the Georgia Environmental Protection Division approved Lockheed's request for TTO certification.

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PART III

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# C. BIOMONITORING AND TOXICITY REDUCTION REQUIREMENTS

The permittee may not discharge toxic wastes in concentrations or combinations which are harmful to humans, fish or aquatic life. The permittee shall not discharge an effluent which will kill 10% or more of the exposed test organisms in 96 hours or less, when the test solution contains volumes of effluent and dilution water proportional to the plant design flow and the 7Q10 flow of the receiving stream.

- 1. If toxicity is suspected in the permittee's effluent, the Division may require the permittee to develop a screening program for whole effluent biomonitoring. The schedule will be as follows for this screening approach:
  - a. Within 90 days of Division notification, a study plan detailing the test methodology and test organisms shall be submitted for conducting forty-eight hour acute static renewal tests of the final effluent. If residual chlorine is present in the final effluent from treatment and/or disinfection processes, a prechlorinated or dechlorinated sample will also be tested.
  - b. Within 90 days of Division approval of the study plan, the permittee shall conduct and submit the results of the fortyeight hour static renewal tests.
- 2. If toxicity is found in the permittee's effluent based upon the results of the screering process, the permittee shall, within 90 days of written notification by the Division, submit a Toxicity Reduction Evaluation (TRE) plan to the Division. (Note: Toxicity is defined to be a situation in which the effluent quality is such that 10% or more of the test organisms are killed within 96 hours, in a test solution which contains volumes of effluent and dilution water proportional to the plant design flow and the 7010 flow of the receiving stream.) The TRE plan shall detail the action the permittee will implement to eliminate toxicity. Within 270 days of Division approval of the TRE plan, the permittee shall complete implementation of the TRE plan and conduct follow-up biomonitoring of the effluent in accordance with the approved TRE plan. If toxicity is still indicated, the permittee shall continue the TRE plan. The TRE plan shall not be complete until the permittee has eliminated the toxicity in its effluent. On a case specific basis, chronic toxicity testing procedures may be required to verify that the toxicity has been eliminated.
- 3. If toxicity is not indicated initially, or if there are substantial changes in the effluent composition, the permittee may be required to repeat the forty-eight hour static renewal test upon notification by the Division. On a case specific basis, chronic toxicity testing procedures may also be required. Biomonitoring of the effluent 'will be required at a minimum of once every three years unless otherwise noted.

Upon approval by the Division, all study plans and TRE plans will become part of the requirements of this permit.

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APPENDIX C

Sampling Strategy for Dobbins AFB

# Dobbins AFB Sampling Strategy

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<u>Site</u> #	<u>Manhole #</u>	Site Description	Analyses
1	23	Arrauland face Nestive Reproductions Lab (Army area) photolats ara B-838 (discrep) Tran	VOs, TPH, Metals, A <sup>CN, NH</sup> 3, O&Gs
2	2126	Photo Lab, Age, Battery/Elec Shop, Pneudraulics	Metals(esp. Ag, Cr(VI)) CN, VOs, TPH O&Gs, NH <sub>3</sub>
3	28C	NDI	Metals, VOs, CN, NH <sub>3</sub>
4	39C	Fuel Cell, TMO Transient Alert	Metals, VOs, TPH, O&Gs, Orthp
5	42	Fire Dept. Phase Dock	Metals, VOs, Phenols, Surfs, O&Gs, Orthp,TPH
6	3669 (lifts fot	Admin, O'Club Chow Hall	Metals, VOs, Orthp
7	108	Dental Clinic	Metals, VOs
8	76	CE, Welding Shop	Metals, VOs, TPH, O&Gs
9	79	Army Area mito pool	Metals, VOs, TPH, O&Gs
*10	126	Photoleb (Mobile)	Metals, VOs, CN, NH <sub>3</sub>
11	46	Lockheed waste	Metals, VOs, Orthp, O&Gs
12	70	Lockheed waste	Metals, VOs, Orthp O&Gs
13	WWTP Inf.	Influent as it enters the plant	Metals, Phenols, Surfs, CN, O&Gs, VOs, AL, Orthp, NH <sub>3</sub>
14	WWTP Eff.	Effluent as it leaves the plant	Metals, Phenols, TTO, Surfs, CN, O&Gs, VOs, AL, Orthp, NH <sub>3</sub>
15	B-747	Oil/Water Separator C130 Nose Dock	O&Gs, TPH
16	B-819	Oil/Water Separator Engine Shop	0&GS, TPH 🔨 🔨

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	B-1011		
17	-B-965-	Oil/Water Separator	O&Gs, TPH
		Vehicle Maintenance	
18	B-731	0il/Water Separator	O&Gs, TPH
		Fuel System Maint	
19	17	an ana lychicle mantenan	1~,
Key to	Abbreviations	CErnemtinance, bragons le	riply
VOs:	Volatile Organic Hyd	rocarbons and Volatile Or	ganic Aromatics
TPH:	Total Petroleum Hydr	ocarbons	•
CN:	Cyanides (Total)		
O&Gs:	Oils and Greases		
Surfs:	Surfactants		
NH_:	Ammonia		
Ag:	Silver		
Cr(VI):	Hexavalent Chromium		
A1:	Aluminum		
TTO:	Total Toxic Organics		
Orthp:	Orthophosphates		

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\*Due to this site being mobile, sampling may or may not be conducted.




#### APPENDIX D

Sampling Methods

### ANALYSES AND PRESERVATION METHOD

Analysis	Preservation	EPA Method	Holding days
Oil and Grease	H <sub>2</sub> S0 <sub>4</sub> , 4°C	413.2	28
Hydrocarbons, Total	H <sub>2</sub> SO <sub>4</sub> , 4°C	418.1	28
Ammonia	H <sub>2</sub> SO <sub>4</sub> , 4°C	350.1	28
Nitrates, Nitrites	H <sub>2</sub> SO <sub>4</sub> , 4°C	353	28
Orthophosphate	H <sub>2</sub> SO <sub>4</sub> , 4°C	365	2
Phosphorus, Total	H <sub>2</sub> SO <sub>4</sub> , 4°C	365	2
Cyanide, Total	NaOH	335.3	14
Phenols	H <sub>2</sub> SO <sub>4</sub> , 4°C	420.2	28
Arsenic	hno <sub>3</sub>	206.2	28
Barium	HNO3	200.7	28
Beryllium	hno <sub>3</sub>	210.2	28
Cadmium	hno <sub>3</sub>	213.2	28
Chromium	HNO3	218.1	28
Copper	hno <sub>3</sub>	220.1	28
Iron	HNO 3	220.1	28
Lead	ниоз	239.2	28
Magnesium	hno <sub>3</sub>	242.1	28
Manganese	hno <sub>3</sub>	243.1	28
Mercury	hno <sub>3</sub>	245.1	28
Nickel	hno 3	249.1	28
Selenium	hno 3	270.2	28
Silver	hno <sub>3</sub>	272.2	28
Zínc	HNO3	289.1	28
Surfactants, MBAS	4°C	425.1	2
Volatile Organic Aromatics	4°C	602	14
Volatile Halocarbons	4 ° C	601	14
Total Toxic Organics (TTO)	4 ° C	.624	14

APPENDIX E

Laboratory Certification

# Georgia Department of Natural Resources

205 Butler Street, S.E., Floyd Towers East, Atlanta, Georgia 30334

J Leonard Ledbetter Commission Harold F Reheis Assistant Dire Environmental Protection Divis

November 23, 1987



Henry May, MSGT, USAF NCOIC, Quality Assurance Occupational & Environmental Health Laboratory Brooks Air Force Base, Texas 78235

Dear Commander May

Reference your letter dated November 2, 1987 concerning certification status of the USAF Occupational and Environmental Health Laboratory at Brooks Air Force Base.

Please have the Environmental Protection Agency, Region VI, forward directly to this office copies of the August 6-7, 1987 on-site evaluation plus certification documents listing parameters and expiration dates.

<u>Certification by reciprocity remains</u> in effect per our conditions page of the certification document of December 1, 1983.

Very truly yours, Induct, Matte

Loretta M. Lambert Laboratory Certification Coordinator Surface Water Program (404) 656-4807

LML:hw

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APPENDIX F

Quality Assurance/Quality Control

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### SAMPLE SITE IDENTIFICATION: Equipment Field Blanks

#### DATE SAMPLED: 18 Jun 91

### Equipment Field Blanks

METALS ARSENIC BARIUN BERTILIUM CADMUM CALCIUM CALCIUM COPPER IRON MANGANESE ZINC NICKEL ALUMINUM COBALT TITANIUN VANADICM MOLTBDENUN MERCURT MAGNESIUM	CNIIS ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	Site 9 <10.0 <100 <10.0 <10.0 <10.0 <20 <100 <50 <50 <50 <100 <100 <100 <100 <	Site 13 <10.0 <100 <10.0 <10.0 <10.0 <10.0 <20 200 <50 <50 <50 <50 <50 <100 <100 <100 <1
Ortho phosphate Chronium VI Chronium Silver Lead Oils & Greases Total hydrocarbons	ng/L ug/L ug/L ug/L ug/L ng/L ng/L	<0.1 <50 <10.0 <20 0.6 <1.0	<0.1 1.9 1.9
1,4-Dichlorobenzene 1,3-Dichlorobenzene Ethyl Benzene Chlorobenzene Toluene Benzene 1,2-Dichlorobenzene	ug,/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	61 <0.5 <0.3 <0.6 5.9 <0.5 <1.0	<0.7 <0.5 <0.3 <0.6 <0.3 <0.5 <1.0
Chloroform 1,4-Dichlorobenzene Bronodichlorobenzene Bronoform Carbon Tetrachloride Chlorobenzene Chlorobenzene Chloromethane Chloromethane 1,2-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropropane Cis-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1,2-Trichloroethane 1,1,2-Trichloroethane Trichlorofluoromethane Vinyl chloride Bronomethane 2-Chloroethylvinyl ether	ug.L ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/	<pre>&lt;0.4 26 &lt;0.5 &lt;0.6 &lt;0.8 &lt;0.5 &lt;1.0 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.3 &lt;0.5 &lt;0.3 &lt;0.5 &lt;0.4 &lt;0.5 &lt;0.5 &lt;0.4 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.4 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.4 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.4 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.4 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.4 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.5 &lt;0.5</pre>	4.1 4.0.7 4.0.5 5.5 4.0.5 5.5 4.0.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5

## SAMPLE SITE IDENTIFICATION: Reagent Blanks

DATE SAMPLED: 19 Jun 91

### Reagent Blanks

METALS	INTE	
ARSENIC	UNITS	
BARIUM	ug/L	<10.0
BERYLLTUM	ug/L	<100
	ug/L	<10.0
CALCTUM	ug/L	<10.0
CHROMIUM	mg/L	<0.1
COPPER	ug/L	<50
TRON	ug/L	<20
MANCANECE	ug/L	<100
ANGANESE	ug/L	<50
ZINC	uq/L	<50
NICKEL	ug/L	<50
ALUMINUM	ug/I.	<100
COBALT	-9/2	<100
TITANIUM		<100
VANADIUM		<100
MOLYBDENUM	ug/L	<100
MERCURY	ug/L	<100
MAGNESTIM	ug/L	<1.0
	mg/L	<10.0
Ammonia		
Cyanide	mg/1	<0.2
-	mg/l	<0.005

### SAMPLE SITE IDENTIFICATION: Spikes

DATE SAMPLED: 19 Jun 91

Spikes					
ĩ	Spike	÷	Reported	Reported	Range
METALS	Conc (ng l)	UNIIS	D= 1	Dev 2	Reported 3
ARSENIC	$\overline{10}$	ua L	55	65	<b>`</b> 1
BARIUM	10	ūσ́L	590	400	5-6
BERYLLIUN	10	uấL	<10.0	<10.0	0
CADMIUN	10	uấ L	<10.0	<10.0	0
CALCIUM	10	Da L	0.4	0.1	1-4
CHRONIUM	10	ugL	150	70	1-2
COPPER	10	uấL	<20	<20	0
IRON	10	ug L	1100	<100	0-11
MANGANESE	10	uq́L	<50	<50	0
ZINC	10	uģ L	<50	<50	0
NICKEL	10	ug L	<50	<51)	0
ALUNINUM	10	uģĽ	1300	<100	0-13
COBALT	10	ug L	<100	<100	0
TITANIUM	10	ug L	100	<100	0
VANADIUN	10	ug L	<100	<100	0
NOLYBDENUN	10	uģ L	<100	<100	0
HERCURI	10	ug L	5.3	5.7	0
MAGNESIUM	10	ng L	2.0	<0.1	0-20
Surfactants-MBAS	3	ng l	9.8	9.0	300-330
Chroniun VI	10	ūdĪ	480	470	5
Cyanide	10	ng l	1.35	1.38	14

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Average Delta for Duplicates

NETNIC	1317 - 0	_A::erage
IDSFNIC	UNITS	Delta ()
BIDIEN	ug	_0
DERICH DEDVIITIN	ug L	11
	ug L	Q
CHCIUM	ugL	5
CHECIUM	ng L	7
CODDED	ug L	0
	ug L	70
TRON MANCANECE	ug L	2000
7 INC	ugĽ	100
NICKEI	ugʻL	544
11 I I I I I I I I I I I I I I I I I I	ug L	1020
COBIT	ug L	1830
TITANIIN	ug L ugʻl	06
VANADTEM	ug L	60
MOLVBDENIEN	ug L ug T	U O
NERCERV	ug:L	U
NACNESTIC	uy L marit	U
1	my; L	Ţ
Ortho phosphate	ng T	2
Phenol	ugľ	10
Surfactants-MBAS	ng L	Õ
Chroniun VI	ugil	õ
Silver	ug I	õ
Cyanide	ug I	ŏ
Oils & Greases	ng L	16
Total hydrocarbons	ng L	3
1 1-Dichlorobonzono		
1 3-Dichlorobenzene	ug L	1.6
The Renzona	ug L	U O
Chlorobanzana	ug L	U
Tolueno	ug:L	0
Ronzono	ug/L	U
1,2-Dichlorobenzene	ug : L ug / l	0
	- 3/ 4	Ũ
Chloroform	ug/L	1
1,4-Dichlorobenzene	ug∉L	2
Bromodichiorobenzene	ug/L	0
Brodotorn	ug/L	0
Carbon Tetrachloride	ug /L	0
Chioropenzene	ug⊥L	0
Choloroechane	ug/L	0
Chlorodethane	ug L	0
	ug	0
1,2-Dichlorobenzene	ug	Ŭ
1, 5-Dichlorobenzene Dichlorodiflouwenethere	ug/L	Ŭ
	ug/L	0
1,1-Dichloroothano	ug (L	0
1,2-Dichloroothopo		U
trans-1 2-Dichloroothono	ug/L	U
1 2-Dichloropropago		U O
cis-1 3-Dichloropropopo	uy, L ng T	U 0
trans-1 3-Dichloropropon	uy L	0
1 1 2 2-Tetrachloroothan	uy.L na T	0
Tetrachloroethulopo		U O
1.1.1-Trichloroethano	ug L na T	0
1.1.2-Trichloroethano	uy L ng T	0
Trichloroethylepo	uy L no L	Ň
Trichlorofluoromethane	uy, L 110 T	Ň
Vinvl chloride		ŏ
Bronomethane	ug, L	ŏ
2-Chloroethylvinyl ether	ua L	ŏ
1	-1 -	-

APPENDIX G

Site Descriptions and Sampling Data

#### Site 1, Manhole 21 Army National Guard and Army Reserve Area

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#### DATE SAMPLED: 12 Jun ^\*

DAYS OF SAMPLING: 3 Days

WETHIC	כי דונים	Day 1	Day 2	Day 3
IDCTNIC		210 0	210 D	(10 0
ARGENIC	ug L	360.0	140.0	2100
DAKIUN	uy/L	230	140	/10 0
BERILLIUN	ugʻi	20.0	(10.0	20.0
CADILUR	ug/L	20	K10.0	20
CALCIUM	∎g, L	21	19	15
CHROMIUN	ug/L	60	<50	00
COPPER	ug/L	130	110	50
IRON	ug/L	3200	4300	1900
NANGANESE	ug/L	<b>6</b> 0	60	<50
ZINC	ug/L	420	420	200
NICKEL	ug/L	<50	<b>(5</b> 0	<50
ALUNINUN	ug/L	1000	1200	400
COBALT	ug 'L	<100	<100	<100
TITANIUN	uq L	<100	<100	<100
VANADIUN	ug/L	<100	<100	<100
NOLYBDENUN	ua/L	<100	<100	<100
WERTERY	uo/L	(1.0	0.0	<1.0
NACHESTEN	ng (l.	3.1	1 4	2 2
Research ton	-y, c	3.1	2.1	
Oils & Creases	<b>m</b> n /1	176	12.6	352.0
Eatal hydrogarhong	99/L	05 7	10 1	107 6
TOTAL INVERSE	By/L	33.2	10.1	13/10
1 4 Dishlawahaanaa	ng /T	rea and	can and	<i>m</i> 7
1,4-Dichlorobenzene	ug/L	see end	see enu	(Q. /
1,3-Dichloropenzene	ugjL	see end	see end	(0.5
Ethyl Benzene	ug/L	see end	see end	<0.3
Chlorobenzene	ug/L	see end	see end	Q.6
Toluene	ug/L	64	64	<0.3
Benzene	ug/L	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	ug/L	see end	see end	<1.0
	-		••	_
Chloroforn	ug/L	18	30	.9
Chloroform 1,4-Dichlorobenzene	ug/L ug/L	18 70.8	30 91	<b>.9</b> <0.7
Chloroform 1,4-Dichlorobenzene Bromodichloromethane	ug/L ug/L ug/L	18 70.8 <0.4	30 91 <0.4	.9 <0.7 ≪0.4
Chloroform 1,4-Dichlorobenzene Bromodichloromethane Bromoform	ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7	30 91 <0.4 <0.7	.9 <0.7 <0.4 <0.7
Chloroform 1,4-Dichlorobenzene Bromodichloromethane Bromoform Carbon Tetrachloride	ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5	30 91 <0.4 <0.7 <0.5	.9 <0.7 <0.4 <0.7 <0.5
Chloroform 1,4-Dichlorobenzene Bromodichloromethane Bromoform Carbon Tetrachloride Chlorobenzene	ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5 <0.6	30 91 <0.4 <0.7 <0.5 <0.6	.9 <0.7 <0.4 <0.7 <0.5 <0.6
Chloroform 1,4-Dichlorobenzene Bromodichloromethane Bromoform Carbon Tetrachloride Chlorobenzene Choloroethane	ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5 <0.6 <0.9	30 91 <0.4 <0.7 <0.5 <0.6 <0.9	.9 (0.7 (0.4 (0.7 (0.5 (0.6 (0.9
Chloroform 1,4-Dichlorobenzene Bromodichloromethane Bromoform Carbon Tetrachloride Chlorobenzene Choloroethane Chloromethane	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8	30 91 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8	.9 (0.7 (0.4 (0.7 (0.5 (0.6 (0.9) (0.8
Chloroforn 1,4-Dichlorobenzene Bromodichloromethane Bromoforn Carbon Tetrachloride Chlorobenzene Choloroethane Chloromethane Chloromethane	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5	30 91 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5	.9 (0.7 (0.4 (0.7 (0.5 (0.6 (0.9) (0.8 (0.5)
Chloroforn 1,4-Dichlorobenzene Bromodichloromethane Bromoforn Carbon Tetrachloride Chlorobenzene Chloromethane Chloromethane Chlorodibromomethane 1,2-Dichlorobenzene	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0	30 91 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0	.9 (0.7 (0.4 (0.7 (0.5 (0.6 (0.9) (0.8 (0.5) (1.0)
Chloroforn 1,4-Dichlorobenzene Bromodichloromethane Bromoforn Carbon Tetrachloride Chlorobenzene Chloromethane Chloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5	30 91 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5	.9 (0.7 (0.4 (0.7 (0.5 (0.6 (0.9 (0.5 (0.5) (0.5) (0.5)
Chloroform 1,4-Dichlorobenzene Bromodichlorobethane Bromoform Carbon Tetrachloride Chlorobenzene Chloromethane Chloromethane Chlorodibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <1.0 <0.5 <0.9	30 91 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <0.9	.9 (0.7 (0.4 (0.7 (0.5 (0.6 (0.9) (0.5) (0.5) (0.9)
Chloroforn 1,4-Dichlorobenzene Bromodichlorobethane Bromoforn Carbon Tetrachloride Chlorobenzene Chlorobenzene Chlorodibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,1-Dichlorobenzene	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <1.0 <0.5 <0.9 <0.9	30 91 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <1.0 <0.5 <0.9 <0.4	.9 (0.7 (0.4 (0.7 (0.5 (0.9 (0.8 (0.5) (0.9 (0.5) (0.9 (0.4
Chloroforn 1,4-Dichlorobenzene Bromodichloropethane Bromoforn Carbon Tetrachloride Chlorobenzene Chlorobenzene Chloronethane Chlorodibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,1-Dichloroethane	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <1.0 <0.5 <0.9 <0.4 <0.1	30 91 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <0.9 <0.4 <0.3	.9 (0.7 (0.4 (0.7 (0.5 (0.9 (0.8 (0.5) (0.9 (0.5) (0.9 (0.4) (0.3)
Chloroforn 1,4-Dichlorobenzene Bromodichloropethane Bromoforn Carbon Tetrachloride Chlorobenzene Chlorodethane Chlorodibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <1.0 <0.5 <0.9 <0.4 <0.3 <0.3	30 91 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <1.0 <0.5 <0.9 <0.4 <0.3 <0.3 <0.3	.9 (0.7 (0.4 (0.7) (0.5) (0.6) (0.9) (0.5) (0.9) (0.5) (0.9) (0.5) (0.9) (0.5) (0.9) (0.1) (0.5) (0.9) (0.7)
Chloroforn 1,4-Dichlorobenzene Bromodichloromethane Bromoforn Carbon Tetrachloride Chlorobenzene Chloromethane Chloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5) (0.5) (0.5) (0.5) (0.9 (0.4) (0.3) (0.5) (0.3) (0.5)	30 91 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <0.9 <0.4 <0.3 <0.5 <0.5	.9 (0.7 (0.7 (0.6 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5))))))))))))))))))))))))))))))))))))
Chloroforn 1,4-Dichlorobenzene Bromodichloromethane Bromoforn Carbon Tetrachloride Chlorobenzene Chloromethane Chloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane	ug/L ug/L ug/L ug/L/L ug/L ug/L ug/L ug/	18 70.8 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <1.0 <0.5 <0.9 <0.4 <0.3 <0.3 <0.3	30 91 <0.4 <0.7 <0.5 <0.6 <0.9 <0.8 <0.5 <1.0 <0.5 <0.9 <0.4 <0.3 <0.3 <0.5 <0.3	.9 0.7 0.4 0.7 0.6 0.9 0.8 0.5 0.9 0.8 0.9 0.4 0.9 0.4 0.9 0.4 0.9 0.3 0.3 0.3 0.3 0.5 0.9
Chloroforn 1,4-Dichlorobenzene Bromodichloropethane Bromoforn Carbon Tetrachloride Chlorobenzene Chloromethane Chloromethane 1,2-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropenae	ug/L ug/L/L ug/L/L ug/L ug/L ug/L ug/L u	18         70.8         <0.4	30 91 (0.4 (0.7 (0.5 (0.6 (0.9) (0.8 (0.5) (0.5) (0.4 (0.3) (0.5) (0.3) (0.5) (0.3) (0.5) (0.3) (0.5) (0.3) (0.5)	.9 0.7 0.4 0.7 0.5 0.6 0.8 0.0 0.8 0.5 0.4 0.3 0.5 0.4 0.3 0.5 0.5 0.5 0.5 0.5
Chloroforn 1,4-Dichlorobenzene Bromodichloropethane Bromoforn Carbon Tetrachloride Chlorobenzene Chlorodibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropenae cis-1,3-Dichloropropene	ug/L ug/L/L ug/L/L ug/L/L ug/L/L ug/L/L ug/L/L ug/L/L ug/L/L ug/L/L ug/L/L ug/L/L	18 70.8 (0.4 (0.5) (0.6) (0.5) (0.5) (0.5) (0.5) (0.9) (0.4) (0.3) (0.5) (0.3) (0.5) (0.5) (0.5)	30 91 (0.4 (0.7 (0.5 (0.6 (0.9) (0.8 (0.5) (0.9) (0.4 (0.3) (0.5) (0.3) (0.5)(	.9 0.4 0.5 0.5 0.5 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
Chloroforn 1,4-Dichlorobenzene Bromodichloropethane Bromoforn Carbon Tetrachloride Chlorobenzene Chloromethane Chloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,3-Dichlorobenzene 1,1-Dichloroethane 1,1-Dichloroethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,3-Dichloropethane 1,3-Dichloropethane 1,3-Dichloropethane 1,3-Dichloropethane 1,3-Dichloropethane 1,3-Dichloropethane 1,3-Dichloropethane 1,3-Dichloropethane	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	18 70.8 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5) (0.5) (0.5) (0.3) (0.5) (0.3) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.4) (0.7) (0.5) (0.6) (0.7) (0.5) (0.6) (0.7) (0.5) (0.6) (0.7) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5	30 91 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5) (0.5 (0.3) (0.5) (0.3) (0.5) (0.3) (0.5) (0.5) (0.5) (0.5) (0.4) (0.5) (0.6) (0.6) (0.7) (0.5) (0.6) (0.7) (0.5) (0.6) (0.7) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5) (	.9 0.7 0.7 0.5 0.6 0.9 0.5 0.5 0.5 0.4 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
Chloroforn 1,4-Dichlorobenzene Bromodichloropethane Bromoforn Carbon Tetrachloride Chlorobenzene Chlorobenzene Chlorodibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,3-Dichloropropen Methylene chloride	ug/L ug/L/L ug/L/L ug/L/L ug/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L	18 70.8 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5 (0.9 (0.4 (0.3) (0.5) (0.3) (0.5 (0.3) (0.5) (0.5 (0.4) (0.5) (0.4) (0.5) (0.4) (0.7) (0.5) (0.6) (0.6) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.	30 91 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5) (0.5) (0.5) (0.3) (0.5) (0.3) (0.5) (0.3) (0.5) (0.5) (0.4) (0.5) (0.4) (0.7) (0.5) (0.6) (0.7) (0.5) (0.6) (0.7) (0.5) (0.6) (0.7) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5)(	.9 0.7 0.4 0.5 0.6 0.9 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
Chloroforn 1,4-Dichlorobenzene Bromodichloropethane Bromoforn Carbon Tetrachloride Chlorobenzene Chlorodibronomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroptopane cis-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,2-Dichloroptopene Methylene chloride 1,1,2,2-Tetrachloroethan	ug/L ug/L/L ug/L/L ug/L/L ug/L/L ug/L/L/L/L/L ug/L/L ug/L ug/L	18 70.8 (0.4 (0.7 (0.5 (0.6 (0.9) (0.8 (0.5) (0.5) (0.5) (0.3) (0.5) (0.3) (0.5) (0.3) (0.5) (0.3) (0.5) (0.4) (0.5) (0.4) (0.5) (0.6) (0.6) (0.6) (0.6) (0.6) (0.6) (0.6) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5) (0.	30 91 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5 (0.9 (0.3) (0.5) (0.3) (0.5) (0.3) (0.5) (0.5) (0.4 (0.5) (0.4) (0.5) (0.6) (0.6) (0.6) (0.6) (0.6) (0.6) (0.5) (0.6) (0.6) (0.5) (0.6) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5) (0.	.9 (0.7 (0.5 (0.6 (0.5 (0.9 (0.5 (0.9 (0.5 (0.5 (0.9 (0.5 (0.5 (0.9 (0.5))))))))))))))))))))))))))))))))))))
Chloroforn 1,4-Dichlorobenzene Bromodichloropethane Bromoforn Carbon Tetrachloride Chlorobenzene Chlorobenzene Chlorodibronomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethene trans-1,2-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Dichloropropene	ug/L ug/L/L ug/L/L ug/L/L ug/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L	18 70.8 (0.4 (0.7 (0.5 (0.6 (0.9 (0.5 (0.9 (0.5 (0.9 (0.4 (0.5) (0.5 (0.3) (0.5 (0.5) (0.5 (0.5) (0.5 (0.5) (0.5 (0.5) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5) (	30 91 (0.4 (0.5 (0.6 (0.9 (0.5 (0.9 (0.5 (0.9 (0.3) (0.5 (0.5) (0.5 (0.3) (0.5 (0.5) (0.5 (0.5) (0.5 (0.5) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5) (	.9 (0.7 (0.5 (0.6 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5))))))))))))))))))))))))))))))))))))
Chloroform 1,4-Dichlorobenzene Bromodichlorobethane Bromoform Carbon Yetrachloride Chlorobenzene Chloromethane Chloromethane 1,2-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropropane cis-1,3-Dichloropropane cis-1,3-Dichloropropane trans-1,3-Dichloropropane Methylene chloride 1,1,2,2-Tetrachloroethan Tetrachloroethane 1,1,1-Trichloroethane	ug/L ug/L ug/L/L ug/L/L ug/L/L ug/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L	18 70.8 (0.4 (0.7 (0.5 (0.6 (0.9) (0.8 (0.5) (0.5) (0.9) (0.4 (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.6) (0.6) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5	30 91 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5 (0.9 (0.4 (0.3) (0.5) (0.4 (0.3) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.6) (0.6) (0.6) (0.6) (0.6) (0.5) (0.6) (0.6) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5	.9 (0.7 (0.7 (0.5 (0.9 (0.5 (0.9 (0.5 (0.9 (0.5)) (0.5 (0.5)) (0.5 (0.5)) (0.5)) (0.5) (0.5)) (0.5) (0.5)) (0.5) (0.5)) (0.
Chloroforn 1,4-Dichlorobenzene Bromodichlorobethane Bromoforn Carbon Tetrachloride Chlorobenzene Chloroethane Chloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,2-Dichloropthane 1,1,2-Tetrachloropthan Tetrachloroethane 1,1,2-Trichloroethane 1,1,2-Trichloroethane	ug/L ug/L ug/L/L ug/L/L ug/L/L ug/L/L/L/L/L ug/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L/L	18 70.8 (0.7 (0.5 (0.6 (0.9) (0.8 (0.5) (0.9) (0.4 (0.5) (0.9) (0.4 (0.3) (0.5) (0.3) (0.5) (0.3) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5	30 91 0.4 0.5 0.6 0.9 0.8 0.5 0.9 0.4 0.5 0.5 0.4 0.3 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	.9 0.7 0.7 0.5 0.5 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.5 0.4 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
Chloroforn 1,4-Dichlorobenzene Bromodichlorobenzene Bromoforn Carbon Tetrachloride Chlorobenzene Chloroethane Chloromethane Chlorodibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene Methylene chloride 1,1,2,2-Tetrachloroethan Tetrachloroethylene 1,1,2-Trichloroethane Trichloroethylene	ug/L $ug/L$ $ug/L$ $L$ $L$ $L$ $L$ $L$ $L$ $L$ $L$ $L$	18 70.8 (0.5 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5 (0.9) (0.4 (0.3) (0.5 (0.3) (0.5)(	30 91 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.8 (0.5) (0.4 (0.3) (0.5) (0.4 (0.3) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5) (0.	.9 0.7 0.5 0.5 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.5 0.4 0.5 0.5 0.4 0.5 0.5 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
Chloroforn 1,4-Dichlorobenzene Bromodichlorobenzene Bromoforn Carbon Tetrachloride Chlorobenzene Chloromethane Chloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,3-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Tetrachloroethan Tetrachloroethylene 1,1-Trichloroethane 1,1,2-Trichloroethane 1,2-Trichloroethane Trichlorofluoronethane	ug/L ug/L ug/L ug/L L ug/L ug/	18 70.8 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5 (0.9 (0.4 (0.3) (0.5) (0.4 (0.3) (0.5)(0.5) (0.	30 91 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5 (0.5) (0.4 (0.3) (0.5) (0.4 (0.3) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.	.9 0.7 0.7 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
Chloroforn 1,4-Dichlorobenzene Bromodichloropethane Bromoforn Carbon Tetrachloride Chlorobenzene Chlorodibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,3-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichloropethane 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,2-Dichloropropene trans-1,2-Tetrachlorobenane 1,1,1-Trichlorobethane 1,1,2-Trichlorobethane Trichloroblylene Vinyl chloride	ug/L $ug/L$ $ug/L$ $L$ $L$ $L$ $L$ $L$ $L$ $L$ $L$ $L$	18 70.8 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5) (0.4 (0.3) (0.5) (0.3) (0.5) (0.4 (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5)(	30 91 (0.4 (0.7 (0.5 (0.6 (0.9 (0.8 (0.5) (0.5) (0.4 (0.3) (0.5) (0.3) (0.5) (0.4 (0.3) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5)(0.5) (0.	.9 0.7 0.7 0.5 0.9 0.5 0.9 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
Chloroforn 1,4-Dichlorobenzene Bromodichloropethane Bromoforn Carbon Tetrachloride Chlorobenzene Chlorobenzene Chlorodibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,2-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene Methylene chloride 1,1,2-Trichloroethane 1,1,2-Trichloroethane 1,1,2-Trichloroethane Trichlorofluoromethane Trichlorofluoromethane Vinyl chloride Bromomethane	ug/L $ug/L$ $L$ $ug/L$ $L$ $ug/L$ $L$ $L$ $L$ $L$ $L$ $L$ $L$ $L$ $L$	18 70.8 (0.4 (0.7) (0.5) (0.6) (0.9) (0.5) (0.5) (0.5) (0.5) (0.3) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5)	30 91 (0.4 (0.5 (0.6 (0.9 (0.5 (0.5 (0.5 (0.5 (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.6) (0.5)(0.5) (0.	.9 0.7 0.5 0.9 0.5 0.9 0.5 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5
Chloroform 1,4-Dichlorobenzene Bromodichlorobenzene Bromoform Carbon Tetrachloride Chlorobenzene Chloromethane Chloromethane 1,2-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichlorobenzene Dichlorodiflouromethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,2-Dichloropethane 1,1,2,2-Tetrachloroethan Tetrachloroethylene 1,1,2-Trichloroethane 1,1,2-Trichloroethane Trichlorofluoromethane Vinyl chloride Bromomethane 2-Chloroethylvinvl ether	ug/LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL	18 70.8 (0.4 (0.7 (0.5 (0.6 (0.9 (0.5 (0.9 (0.5 (0.9 (0.3) (0.5 (0.9 (0.3) (0.5 (0.3) (0.5 (0.5 (0.5) (0.5 (0.5) (0.5 (0.6 (0.9) (0.5) (0.6 (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5	30 91 (0.4 (0.5 (0.6 (0.9 (0.5 (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.6) (0.5) (0.5) (0.5) (0.6) (0.5)	$\begin{array}{c} .9 \\ (0,7) \\ (0$

Due to interfering compounds, cannot accurately identify peaks. Sample diluted 1:10. LOD should be adjusted by a factor of 10

#### SAMPLE SITE IDENTIFICATION: Site 2, Manhole 24

# Army National Guard and Army Reserve Photolab

#### DATE SAMPLED: 12 Jun 91

DAYS OF	SAMPLING:	3 Davs
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MET LIC	(DIT T		• •	
REIALD	UNIT	S Day I	Day 2	Dejs
ARSENIC	ua T.	<10.0	0 01	<10.0
RIDTIN		100	(100	(10)0
DARICH	ug L	<100	<100	<100
BERYLLIUM	uo 'L	<10.0	<10.0	<10.0
CADWEETER		.10.0	-10.0	.10.0
CATHICH	ug/L	<10.0	(10.0	10
CALCIUM	bo / L	24	19	14
CUDONTIN				14
Caronich	ag/L	<50	<50	<50
COPPER	uc/L	20	20	50
Thow	ug, L		0.7	<b>J</b> ()
IRON	uq,′L	1800	3200	1600
MANGANPSE	no T	Z50	<b>6</b> 0	28.3
	uy, L	<b>N</b> .	50	(50
2 LNC	uc/L	240	440	260
NTCKEL	່ນຕໍ່ໄ	250	450	450
	ugi	(30	00	100
ALUNINCH	ua/L	600	700	600
CORLET	June 1	<100	100	(100
	ապյո	(100	<100	<100
TITANIUN	ua/L	<100	<100	<100
VANANTIN		(100	(100	1100
VERADIUR	ug : L	<100	<100	<100
NOLYBDENTN	J' DU	<100	<100	<100
WEDCTIDY	-3:-			100
ALECCE:	ug, L	<1.0	<1.0	<1.0
NAGNESIUN	no i	4.5	36	23
	<b>-</b> 9/ -	1.7	3.0	2.5
Chronium VI	ng (I	<u>(50</u>	/50	<b>25</b> 0
Ciluan	uy L	<u> </u>	<b>NU</b>	00
Silver	uq /L	<10.0	213	89
Cyanide	1 mg / I	010	007	007
cjuirde	uy L	.010	.007	.007
011s & Greases	DC /L	42.4	12.1	224.0
Total hudrocarbone		12.0	10.1	102.0
Total number total	BG:L	32.0	12.1	192.0
Amonia	no. T	25.38	25 43	25 39
	-9 <i>/</i> ~	23.30	20.45	23.37
1.4-Dichlorobenzene	1/ D((	caa and	cao ond	(0.5
1.2 Diskland success	uy L	300 010	ace end	<b>NO. 5</b>
1,3-Dichlorobenzene	uq/L	see end	see end	<b>&lt;0</b> .7
Pthyl Benzene	11/1	roo and	can and	<i>m</i> 2
Mala and a second	uy, L	See end	See end	NO. 5
Coloropenzene	uq/L	see end	see end	<0.6
Toluene	11/T	20 E	0.2	20.2
Tornelle	uy) L	NO.5	70	<b>NOUS</b>
Benzene	υα/L	see end	(0.5	<0.5
1.2-Dichlorobonzono				
1,2°Dichiorobenzene	ug/L	see end	see ena	<1.0
Chloroform		10	20	
CHIOLOLOLU	ug/L	19	20	1.7
1.4-Dichlorobenzene	nri/I.	17 3	25	<u> (0</u> 7
Dramadiable use abbene	urg/ L	11.3	2.3	N. /
propodicatoromethane	ug/L	<0.4	<0.4	<0.4
Bronoform	nu/L	<b>(</b> ) 7	(0.7	(0.7
Andrew Baters (1)	eg/L			NU. /
Carbon Tetrachioride	uq/L	<b>&lt;0.5</b>	<b>(0.5</b>	<0.5
Chlorobenzene	107/1	<i>(</i> ) 6	(0.6	6
				10.0
Choloroethane	uq/L	<b>(0.9</b>	<b>(0.9</b>	<b>(0.9</b>
Chloromethano	107/1	<i>/</i> 0 #	/0.9	<b>20 9</b>
	uy/L	10.0	10.0	10.0
Chlorodibromomethane	uq/L	<0.5	<0.5	<0.5
1 2-Dichlorobenzene	11/1	Z1 0	110	<b>1</b> 0
	wy/L	1.0	11.0	1.0
1,3~Dichlorobenzene	uq/L	<0.5	<0.5	<0.5
Dichloredifluerenethane	1	<i>/</i> <b>^ ^</b>	<i>(</i> <b>) (</b> )	10.0
Diculoroutificoroneculane	ug/L	<b>KU.9</b>	<b>KU.9</b>	<b>KU.9</b>
1.1-Dichloroethane	ua/L	<0.4	<b>(0.4</b>	<0.4
1 7-Dichloroothana		<i>(</i> <b>)</b> )		
1,2-Dictioroethane	ug/L	<b>KU.</b> 3	<b>(0.3</b>	<0.3
1.1-Dichloroethene	ug/L	(0.3	(0) 3	<b>ന</b> 3
Awang 1 3-Dishlawaakhana		-0.5		.0.5
trans-1,2-picnioroethene	ug,∕L	<b>(0.5</b>	<0.5	<0.5
1.2-Dichloropropage	107/1	(0.3	<i>(</i> <b>)</b> 3	10.3
and 1 2 Dichlemona	<b>u</b> g/u	10.5		
cis-i, s-bichioropropene	ug/L	<0.5	<b>(U.5</b>	<0.5
trans-1.3-Dichloronronon	11/1	(0.5	<b>c</b> fi 5	(0.5
Makhulana ahl	A.A. 17	-0.3	-0.3	-0.5
metnylene chioride	uq/L	<0.4	<0.4	<0.4
1 1 2 2-Tetrachloroethan	100 /T	10 5	10 5	10 5
	wy/L	NU.J	×0.5	×0.1
Tetrachloroethylene	ua/L	<0.6	<b>&lt;0.6</b>	<0.6
1 1 1-Trichlorosthans		11 0	17	2.1
r'r''1-IIIcurolognique	ug/L	11.0	17	3.1
1.1.2-Trichloroethane	<b>υσ/</b> Ι.	<0.5	<b>(0.5</b>	<b>(0.5</b>
Trichloroothulano	/1	20 5	/0 E	/0 E
TTTOTOGOTATEUS	ug/L	<b>VU.D</b>	<b>vu.</b> 5	<b>VU.</b> 5
Trichlorofluoromethane	ua/L	<0.4	<0.4	<0.4
Vinul ablamide				-0-1
ATHAT CUTOLIDE	ug/L	<u.9< td=""><td>&lt;0.9</td><td>Q.9</td></u.9<>	<0.9	Q.9
Brononethane	uo/1	(0.9	<b>(</b> 0.9	(0.9
A Ablancable to the th	wy/ 11			
2-Chloroethylvinyl ether	uq/L	<0.9	<0.9	<b>&lt;0</b> .9
• •	• •			

Due to interfering compounds, cannot accurately identify peaks. Sample diluted 1:10. LOD should be adjusted by a factor of 10.

## SAMPLE SITE IDENTIFICATION: Site 3, Manhole 26

Air Force Reserve Photolab, Structure Shop, Age Shop, Battery/Electric Shop, and Propulsion Shop

#### DATE SAMPLED: 18 Jun 91

DAYS OF SAMPLING: 3 Days

METALS	UNI	S Day 1	Day 2	Day 3
ARSENIC	ug/I	. <10.0	<10.0	<10.0
BARICH	ug, I	. <100	<100	<100
CIDNTEN	ug/L	<10.0	(10.0	<10.0
CLICTIN	ug/L nor/L	13.0	12	<10.0
CHRONIUN	ug/L	<50	450	(50
COPPER	ua/L	20	30	40
IRON	ug/L	600	700	2200
NANGANESE	ug/L	<50	<50	<50
ZINC	ug/L	80	70	150
NLCKEL 31 FRATRITA	UG/L	<50	<50 200	<50
COBILT	ug/L ng/L	200	200	1600
TITANTON	ug/t tio/f.	<100	<100	200
VANADIUN	uq/L	<100	<100	<100
NOLYBDENUN	ug/L	<100	<100	<100
MERCURY	ug/L	<1.0	<1.0	<1.0
NAGNESIUN	∎g,′L	1.7	19.0	3.8
Lead Chronium VI	ug/L	<20	<20	<20
Silver	ug/L ug/L	20	14	<50 <10.0
Cvanide	ug/L	<0.005	<0.005	<0.005
Oils & Greases	DQ/L	8.2	19.2	8.8
Total hydrocarbons	∎g/L	6.1	10.7	7.0
Amonia	ng/L	5.81	21.85	21.95
1,4-Dichlorobenzene	ug/L	25	49	15
1,3-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5
Chlorobenzene	ug/L ng/T	(0.3	<0.3	<0.3
Toluene	ug/L ug/L	(0.0	(0.0	<0.0 <0.3
Benzene	ua/L	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0
Chloroforn	ug/L	27	25	<b>&lt;</b> 0.3
1,4-Dichloropenzene	ug/L	32	50	<6.1
Bromoform	ug/L	<0.4	<0.4	<0.4
Carbon Tetrachloride	ug/L un/L	<0.7	(0.7	(0.7 (0.5
Chlorobenzene	ug/L	<0.6	<0.6	<0.6
Choloroethane	uq/L	(0.9	<0.9	<0.9
Chloromethane	ug/L	<0.8	0.8	<0.8
Chlorodibromomethane	ug/L	<0.5	<0.5	<b>&lt;0.5</b>
1,2-Dichlorobenzene	ug/L	(1.0	(1.0	<1.0
1,3-Dictiforobenzene	ug/L	(U.5 (0.4)	<0.5	(0.5
1 1-Dicbloroethane	ug/L ug/L	(0.5 (0.4	(0.7	(0.9 (0.4
1,2-Dichloroethane	ug/L	<0.3	<0.3	<0.3
1,1-Dichloroethene	uq/L	<b>&lt;</b> 0.3	<0.3	<0.3
trans-1,2-Dichloroethene	ug/L	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<b>&lt;0.3</b>	<b>&lt;</b> 0.3	<b>&lt;</b> 0.3
Cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0.5
Lians-1,3-Dichloropropen	ug/L	<0.5	(0.5	<0.5
1 1 2 2-Tetrachloroethan	ug/L 100/L	(0.1	(0.4	(0.4
Tetrachloroethylene	ug/L	<0.6	<0.6	<0.6
1,1,1-Trichloroethane	ug/L	<0.5	<0.5	20
1,1,2-Trichloroethane	ug/L	<0.5	<0.5	<0.5
Trichloroethylene	ug/L	<0.5	<0.5	<0.5
Trichlorofluoromethane	ng/L	<0.4	<0.4	<0.4
Vinyl Chioride	ug/L	<0.9	<0.9	<0.9
2-Chloroethylvinvl ether	ury/L 1uci/L	<0.9	(0.9	<0.9

# Air Force Reserve NDI Shop

#### DATE SAMPLED: 12 Jun 91

#### DAYS OF SAMPLING: 3 Days

NETALS	010	ITS Day 1	Day 2	Day 3
ARSENIC	ug/	L <10.0	<10.0	<10.0
BARICH	ug;	′L <100	<100	<100
BERYLLIGH	ug	L <10.0	<10.0	<10.0
CADATCA	ug,	L <10.0	<10.0	20
CALCIUM	DG;	L 15.0	19.0	14.0
CODDEP	ug/	L <50	<50	<50
TDON	ug/	L <20	60	30
VINCINESE	ug;	L 590	2100	1300
7TNC	ug,	L (50	00	<50
MICKI	ug;		<240	160
AT DRIVIN	<b>ug</b> /1	L 30	60	(50
COBLET	ug/I		400	300
TERANTEN	ug/I	L (100	<100	<100
VININTEN	ug/i		<100	<100
NOI VEDENEN	ug/l	(100	<100	<100
NEDCEDY	ug/1	. (100	<100	<100
MACHESTIN	ug/1	1 (1.0	<1.0	<1.0
nach (Sich	od / r	2.3	3.4	2.1
Cyanide	ug/L	<0.005	.007	.007
Amon1a	∎g/L	24.12	24.11	24.10
1,4-Dichlorobenzene	ua/L	see end	see end	<b>(</b> 0.7
1,3-Dichlorobenzene	uci/L	see end	l see end	<0.5
Ethyl Benzene	uc. L	See end	see end	(0.3
Chlorobenzene	ug/L	See end	see end	<0.5
Toluene	ua/L	25	45	(0 3
Benzene	ua/L	<0.5	<b>(0.5</b>	<0.5
1,2-Dichlorobenzene	ug/L	see end	see end	<1.0
Chloroform	wa/I.	10 4	<u>8</u> 8	17
1.4-Dichlorobenzene	ыq/L	26.2	18	<b>(</b> ) 7
Bronodichloronethane	ug/L	<0.4	0.4	<0.1
Bronoform	ua/L	<0.7	<0.7	<b>K</b> 0.7
Carbon Tetrachloride	ug/L	<b>&lt;0.5</b>	<0.5	<0.5
Chlorobenzene	ua/1.	<b>&lt;</b> 0.6	(0.6	<0 6
Choloroethane	uci/L	<0.9	<0.9	<b>(0.9</b>
Chloromethane	ua/L	<0.8	<0.8	<0.8
Chlorodibroponethane	ua/L	<0.5	<b>(0.5</b>	<b>&lt;0.5</b>
1,2-Dichlorobenzene	ua/L	(1.0	<1.0	<1.0
1,3-Dichlorobenzene	ug/L	(0.5	<b>&lt;</b> 0.5	<0.5
Dichlorodiflouropethane	uq/L	<b>(0.9</b>	<0.9	<0.9
1,1-Dichloroethane	ua/L	<0.4	<0.4	<0.4
1,2-Dichloroethane	uq/L	<0.3	<0.3	<0.3
1,1-Dichloroethene	ug/L	(0.3	<b>(0.3</b>	<0.3
trans-1,2-Dichloroethene	ug/L	<0.5	<0.5	<b>&lt;0.5</b>
1,2-Dichloropropane	uq/L	<b>&lt;0.3</b>	<0.3	<b>(0.3</b>
cis-1,3-Dichloropropene	uq/L	<0.5	<0.5	<0.5
trans-1,3-Dichloropropen	uq̃/L	<0.5	<0.5	<0.5
Methylene chloride	ua/L	<0.4	<0.4	<0.4
1,1,2,2-Tetrachloroethan	uq/L	<0.5	<0.5	<0.5
Tetrachloroethylene	uq/L	<0.6	<0.6	<0.6
1,1,1-Trichloroethane	QC/L	5.5	16	2.3
1,1,2-Trichloroethane	uq/L	<0.5	<0.5	<0.5
Trichloroethylene	uq/L	<0.5	<b>&lt;0.5</b>	<0.5
Trichlorofluoromethane	uq/L	<0.4	<0.4	<b>(0.4</b>
Vinyl chloride	ug/L	<b>&lt;0.9</b>	<0.9	<b>(0.9</b>
Bronomethane	ug/L	<0.9	<0.9	(0.9
2-Chloroethylvinyl ether	ug/L	<0.9	<0.9	<b>(0.9</b>

Due to interfering compounds', cannot accurately identify peaks.

# SAMPLE SITE IDENTIFICATION: Site 5, Manhole 39C Air Force Reserve Fuel Cell, Transient Alert, and TMO Facilities

## DATE SAMPLED: 18 Jun 91

DAYS OF SAMPLING: 3 Days

KETALS	CN	ITS Day	1 Dav 2	Day 3
ARSENIC	UQ	L <10.	0 <10.0	<10.0
BARIUN	uq	L <100	90	<100
BERYLLIUN	ua	L <10.	0 <100	<10.0
CADHICH	uq	L (10.	0 <10.0	<10.0
CLLCTUN	DO	L 17.0	15.0	13.0
CHROMIUN		L (50	(50	50
COPPER	יב- ער	I 40	50	20
LRON	יב- / סוו	1 2700	2100	1200
HANGANESE	ug/	L 200	70	1500
ZIRC	ug/	1 210	170	60
NICKEL	uy; im/	1 210	170	50
ALENTHEN	uy: ng/	L 130	(50	<50
CORLIT	uy j	L 1/00	600	300
TTTANTIM	ug/l		<100	<100
VANADTEN	ug/	L (100	<100	<100
NOI VEDENTW	ug/i	<100	<100	<100
NED CENT	ug/I	L <100	<100	<100
MLAUDA:	ug/1	4.0	<1.0	<1.0
RAGNESIUR	ng/1	2.1	2.1	19.0
tood				
Lezo	ug/I	. <20	<20	<20
Ortho phosphate	∎g/I	. 1.55	4.25	3.5
Chroniun VI	ug/L	. (50	<50	<50
Silver	ug/L	<10.0	<10.0	<10.0
011s & Greases	Dq/L	9.3	44.8	13.3
Total hydrocarbons	BQ/L	2.2	11.4	13.3
1,4-Dichlorobenzene	ນດ/ໄ	12	30	9 A
1,3-Dichlorobenzene	ud/L	<b>x0.5</b>	(0.5	(0.5
Ethyl Benzene	ua/L	(0.3	(0.3	(0.3
Chlorobenzene		(0.6	(0.5	×0.5
Toluene	ug/1	(0.0	3.6	<0.0
Benzene	107/1	(0.5 (0.5	20 E	(0.5
1.2-Dichlorobenzene	uy, L na /I	(0.5	(0.5	KU.5
The promotopentene	uy/u	1.0	(1.0	<1.0
Chloroform	ne /T	6 6	<i>4</i> 0 2	<i>(</i> <b>0</b> )
1 4-Dichlorobenzene	uug/L	10	10.3	<b>(U.3</b>
Brosodichlorosothano	uy/L	10	52	10
Bronoform	ug/L	<b>(U.4</b>	<u.1< td=""><td>&lt;0.4</td></u.1<>	<0.4
Carbon Tetrachlenide	ug/L	<0./	<b>(0.7</b>	<b>&lt;0.</b> 7
Carbon letrachtoride	ug/L	Q.5	«0.5	<0.5
Childrobenzene	ug/L	<0.6	<0.6	<0.6
Chotoroethane	ug/L	«0.9	<0.9	<0.9
Chioromethane	ug/L	<0.8	<0.8	<0.8
Chlorodibromomethane	ug/L	<0.5	<b>&lt;0.5</b>	<b>&lt;0.5</b>
1,2-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	ug/L	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<0.5
Dichlorodiflouromethane	ug/L	<0.9	<0.9	<0.9
1,1-Dichloroethane	uq/L	<0.4	<0.4	<0.4
1,2-Dichloroethane	uq/L	<0.3	<0.3	(0.3
1,1-Dichloroethene	ug/L	(0.3	0.3	(0.3
trans-1,2-Dichloroethene	ug/L	0.5	(0.5	(0.5
1.2-Dichloropropane	un/L	(1) 1	<i>d</i> 3	20.3
cis-1.3-Dichloropropene		0.5	20.5	(U.)
trans-1.3-Dichloropropen	urg, 2	(0.5	20.5	(0.5 /0.5
Methylene chloride	uo/1.	<0.5 <0.4	<0.J	<0.J
1 1 2 2-Tetrachloroethan	100/1	X0.4	(U.4 20 E	(0.4
Totrachioroathulana	ung / L	NU.3	(U.) /0 /	<b>VU.</b> D
1 1 1-Trichloroothan	ug/L	V.0	(U.6	<b>VU.6</b>
1 1 2-Trichloroethan	ug/L	<u.5< td=""><td><b>(U.5</b></td><td>&lt;0.5</td></u.5<>	<b>(U.5</b>	<0.5
1,1,2-111CHIOLOGUDANE	ug/L	<v.5< td=""><td><u.5< td=""><td><b>(0.5</b></td></u.5<></td></v.5<>	<u.5< td=""><td><b>(0.5</b></td></u.5<>	<b>(0.5</b>
Trichloroethylene	ug/L	<0.5	<b>(U.5</b>	<0.5
Trichlorofluoromethane	ug/L	<0.4	(0.4	<0.4
VINYI Chloride	ug/L	<b>&lt;0.9</b>	<0.9	<0.9
Bromodetnane -	ug/L	<0.9	<b>&lt;0.9</b>	<0.9
2-Chloroethylvinyl ether	ug/L	<b>(0.9</b>	<0.9	<0.9

# SAMPLE SITE IDENTIFICATION: Site 6, Manhole 42 Air Force Reserve Fire Department and Phase Dock

### DATE SAMPLED: 18 Jun 91

### DAYS OF SAMPLING: 3 Days

NETALS	UNITS	Day 1	Dav 2	Day 3	Duplicate
ARSENTC	ng T	<10.0	<10.0	<10.0	<10.0
RIDIN	109/L	<100	70	220	100
DEDVITIN	wa/I	<10.0	(10.0	2100	<10.0
CIDULUN	wg/D	<10.0	10.0	<10.0	(10.0
CADRIUN	ug/L	12 0	16 0	10.0	12 0
CALCIUM	∎g/L	15.0	10.0	10.0	12.0
CHROMIUM	ug/L	<u>50</u>	<50	<50	<50
COPPER	ug/L	50	60	80	30
IRON	ug/L	900	1800	5400	3200
MANGANESE	ug/L	<50	60	90	<b>6</b> 0
ZINC	uq/L	80	150	<b>3</b> 30	80
NICKEL	ug/L	<50	<50	<50	<50
ALENTHUM	ua/L	200	600	1800	300
COBILT	ug/L	<100	<100	<100	<100
TTINTN	$\frac{10}{10}$	<100	<100	<100	<100
VINIDIEN	ug/1	2100	2100	(100	<100
VALUE/LOA	ug/L 100/I	2100	2100	(100	(100
MED.CODY	ug/L	<1.0	<1.0		<1 0
HLRUUK!	09/L	1.0	2.0	2.0	1.0
RAGNESIUR	DG/L	1.8	2.2	2.2	1.0
Ortho phosphate	na/L	3.15	3.7	3.5	3.6
Phono)	na/L	14	18	20	(10.0
Surfactants_WRIS	mg/L	see end	see and	see end	0.6
	mg/1	16.0	0.0	15 0	5 7
VIIS & GLESSED	109/1L 109/1	10.0	2.0	10.0	1 0
Total hydrocarbons	By/L	0.4	2.7	1.0	1.7
1.4-Dichlorobenzene	uq/L	26	29	45	44
1.3-Dichlorobenzene	ua/L	<0.5	<0.5	<0.5	<0.5
Fthy] Benzene	жа/Т.	(0.3	<0.3	<b>(0.3</b>	<0.3
Chlorobenzene	ug/L	<0.6	<0.6	<0.6	<0.6
Toluoto	107/L	(0.3	(0) 3	(0.3	<0.3
Repropo	ug/1	20.5	20.5	/0.5	<0.5
Dellicene	uy/L	10.5	21.0	<0.5 /1 0	<1.0
1,2-Dichiorobenzene	ug/L	(1.0	(1.0	1.0	1.0
Chlorofor <b>a</b>	ug/L	4.5	<0.3	4.0	3.9
1,4-Dichlorobenzene	ug/L	30	33	46	47
Bronodichloromethane	uq/L	<0.4	<0.4	<0.4	<0.4
Bronoforn	ua/L	<0.7	<0.7	<0.7	<0.7
Carbon Tetrachloride	ud/L	<b>(0.5</b>	<0.5	<0.5	<0.5
Chlorobenzene	107/L	(0.6	(0.6	(0.6	<0.6
Choloroethane	101/L	(0.9	(0.9	(0.9	<0.9
Chloropothano	not/L	(1) 1	(0.8	<0.8	<0.8
Chloredibrenerothano	149/11 143/1	/0 5	(0.5	(0.5	(0.5
	ug/0	<0.5 <1.0	21.0	/1 0	(1.0
1,2-Dichiorobenzene	ug/L	X1.0	20.5	A 5	20.5
1, 3-D1Chlorobenzene	ug/L	(0.5	(0.5		x0.5
Dichlorodifiouromethane	ug/L	<b>KU.9</b>	(0.9	(U.) (0.1	NU. 7
1,1-Dichloroethane	ug/L	(0.4	<0.4	<u.+< td=""><td><b>VU.1</b></td></u.+<>	<b>VU.1</b>
1,2-Dichloroethane	ug/L	Q.3	<0.3	<0.3	<b>KU.3</b>
1,1-Dichloroethene	ug/L	<b>«0.3</b>	<0.3	<0.3	<0.3
trans-1,2-Dichloroethene	ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<0.3	<0.3	<b>&lt;0.</b> 3	<0.3
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropen	ug/L	<0.5	<0.5	<0.5	<0.5
Methylene chloride	uq/L	<0.4	<0.4	28	28
1.1.2.2-Tetrachloroethan	ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	ud/L	<0.6	<0.6	<0.6	<0.6
1 1 1-Trichloroethane	ud/L	<0.5	<0.5	<0.5	<b>&lt;0.5</b>
1 1 2-Trichloroethane	ud/L	<0.5	<0.5	<0.5	<0.5
Prichloroethylene	ud/I.	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethano	ng/1.	<0.4	<0.4	(0.4	<0.4
Ninul chlorida	$n \sigma / L$	(0.9	<0.9	<0.9	<0.9
Propostbaso	ug/1 101/1	(0.9	(0.9	(0.9	<0.9
DECOUCECLIGHE	ug/1	(0.9	(0.9	(0.9	(0.9
T-THORACHIATATILAT CONCT	ury/4				

#### SAMPLE SITE IDENTIFICATION: Site 7, Manhole 69 Lift Station

### DATE SAMPLED: 12 Jun 91

#### DAYS OF SAMPLING: 3 Days

NETALS	UNI	IIS Day ;	I Day 2	Dev 3
ARSENIC	UC.	L <10.0	(10.0	<10.0
BARIUN	ug	L <100	<100	<100
BERYLLIUN	ug/	L <10.0	) <10.0	<10.0
CIDNICH	ug/	L <10.0	<10.0	<10.0
CALCIUM	bg/	L 11.0	13.0	12.0
CHRONIUN	ug/	L <50	<50	<b>(50</b>
COPPER	ug/	L 30	20	<20
IROH	ug/	L 1000	1100	1000
NANGANESE	ug/	L 90	90	70
ZINC	ug/	L <50	<50	70
NICKEL	ug/I	L <50	<50	<50
ALCHINCH	ug/l	L 100	200	200
COBALT	ug/l	L <100	<100	<100
TITENION	ug/l	L <100	<100	<100
VANADIUR	ug/l	L <100	<100	<100
NULIBUENUN	ug/I	. <100	<100	<100
MERCUR!	ug/I	. <1.0	<1.0	<1.0
REGRESIUN	ng/I	1.7	2.1	1.9
Ortho phosphate	ng/I	3.55	3.6	2.9
VIIS & breases	ng/L	6.4	6.1	38.4
Total Bydrocarboils	ng/L	3.8	1.9	2.6
1,4-Dichlorobenzene	ug/L	1174	75	<0.7
1,3-Dichlorobenzene	ug/L	<0.5	<0.5	<0.5
Chlorobenzene	ug/L	<0.3	<0.3	<0.3
Chioropenzene	ug/L	<0.6	<0.6	<0.6
loluene	ug/L	<0.3	<0.3	<0.3
DellZene	ug/L	<0.5	<0.5	<0.5
1,2-Dichiorodenzene	ug/L	<1.0	<1.0	<1.0
Chloroform	ug/L	5.5	9.7	2.2
1,4-Dichlorobenzene	ug/L	685.9	41	<0.7
Bronodichloromethane	ug/L	<0.4	<0.4	<0.4
Bronotorn	ug/L	<0.7	<0.7	<b>&lt;</b> 0.7
Carbon Tetrachioride	ug/L	<0.5	<0.5	<0.5
Chlorobenzene	ug/L	<0.6	<0.6	<0.6
Choloroethane	ug/L	<0.9	<0.9	<0.9
Chiorobethane	ug/L	<0.8	<0.8	<0.8
Chiorodibrobolethane	ug/L	<0.5	<0.5	<0.5
1,2-Dichloropenzene	ug/L	<1.0	<1.0	<1.0
1, 3-Dichloropenzene	ug/L	<0.5	<0.5	<0.5
1 1-Digblographane	ug/L	<0.9	<b>&lt;0.9</b>	<0.9
1,1-Dichioroethane	ug/L	<0.4	<0.4	<0.4
1 1-Dichloroothene	ug/L	(0.3	<u.3< td=""><td>&lt;0.3</td></u.3<>	<0.3
trans-1 2-Dichloroethono	ury/L	(0.5	(0.5	<0.3
L 2-Dichloropropage	ug/L	(0.5	(0.5	<b>(U.5</b>
Cis-1.3-Dichloropropere	109/10	X0.3	(0.3 /0 E	<0.5
trans-1 3-Dictioropropene	10g/1.	20.5	<0.5 20 5	<b>VU.5</b>
Methylene chloride	ug/L	20.4	20.4	VU.5
1.1.2.2-Tetrachloroethan	00/L	(0.5	(0.4	NU.4 20 5
Tetrachloroethylene		<0.6	<0.6	<0.5 <0.6
1,1,1-Trichloroethane	ug/L	(0.5	12	(0.5
1,1,2-Trichloroethane	uq/L	<b>&lt;0.5</b>	<b>x</b> 0.5	<0.5
Trichloroethylene	uq/L	(0.5	<0.5	<0.5
Trichlorofluoromethane	ug/L	<0.4	<0.4	<0.4
Vinyl chloride	ug/L	<0.9	<0.9	<b>(0.9</b>
Bronomethane	ug/L	<0.9	<0.9	<0.9
2-Chloroethylvinyl ether	ug/L	<0.9	<0.9	¢0.9

# SAMPLE SITE IDENTIFICATION: Site 8, Manhole 108 US Navy Dental Clinic

#### DATE SAMPLED: 18 Jun 91

DAYS OF SAMPLING: 3 Days

METALS	CNI	TS Day 1	Dav 2	Dav 3	Duplicate	s
ARSENIC	ug/l	L <10.0	<10.0	<10.0	<10.0	-
BARICH	ug/i	L <100	<100	<100	<100	
BERYLLIUM	ug/l	L <10.0	<10.0	<10.0	<10.0	
CADHIUN	ug/l	L <10.0	<10.0	<10.0	<10.0	
CALCIUM	∎g/1	L 17.0	12.0	13.0	14.0	
CHROMIUN	ug/I	50	<50	<50	<50	
COPPER	ug/I	30	<20	<20	<20	
IRON	ug/I	4300	4900	1300	5600	
NANGANESE	ug/I	100	110	60	120	
ZIIK	ug/L	80	80	50	90	
NICKEL	ug/I	<b>. &lt;5</b> 0	<50	<50	<50	
ALCHINCH	ug/L	4900	6100	1100	6900	
COBALT	ug/L	<100	<100	<100	<100	
TITANION	ug/L	200	200	<100	200	
VANADIUN	ug/L	<100	<100	<100	<100	
NOLTBDENCH	ug/L	<100	<100	<100	<100	
NERCURY	ug/L	<1.0	<1.0	<1.0	<1.0	
NAGNESIUN	ng/L	2.5	1.9	1.9	2.2	
1,4-Dichlorobenzene	ua/L	<0.7	<0.7	<b>(</b> 0.7	<0.7	
1,3-Dichlorobenzene	ud/L	<0.5	<0.5	(0.5	<0.5	
Ethyl Benzene	uq/L	<0.3	<0.3	<0.3	<0.3	
Chlorobenzene	uq/L	<0.6	<0.6	<0.6	<0.6	
Toluene	uq/L	27	<0.3	<0.3	<0.3	
Benzene	uq/L	<0.5	<0.5	<0.5	<0.5	
1,2-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0	
Chloroform	ua/L	<0.3	<b>(0</b> .3	(0.3	<0.3	
1,4-Dichlorobenzene	ug/L	<0.7	<0.7	<0.7	<b>&lt;0.7</b>	
Bronodichloronethane	ua/L	<0.4	<0.4	(0.4	40.4	
Bronoform	uq/L	<0.7	<b>&lt;0.7</b>	<0.7	<0.7	
Carbon Tetrachloride	ua/L	<0.5	<0.5	<b>(0.5</b>	(0.5	
Chlorobenzene	uq/L	<0.6	<0.6	<0.6	<0.6	
Choloroethane	uq/L	<0.9	<0.9	<0.9	<0.9	
Chloropethane	ug/L	<0.8	<0.8	<0.8	<0.8	
Chlorodibronomethane	uq/L	<0.5	<0.5	<0.5	<0.5	
1,2-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0	
1,3-Dichlorobenzene	uq/L	<0.5	<0.5	<0.5	(0.5	
Dichlorodiflouromethane	uq/L	<0.9	<0.9	<0.9	<0.9	
1,1-Dichloroethane	uq/L	<b>4</b>	<0.4	<0.4	<0.4	
1,2-Dichloroethane	uq/L	<0.3	<0.3	<b>&lt;</b> 0.3	<0.3	
1,1-Dichloroethene	uq/L	<0.3	<0.3	<0.3	<0.3	
trans-1,2-Dichloroethene	uq/L	<b>&lt;0.5</b>	<0.5	<0.5	<0.5	
1,2-Dichloropropane	uq/L	<0.3	<0.3	<0.3	<0.3	
cis-1,3-Dichloropropene	uq/L	<b>&lt;0.5</b>	<0.5	<0.5	<0.5	
trans-1,3-Dichloropropen	uq/L	<b>&lt;0.5</b>	<0.5	<0.5	<0.5	
Methylene chloride	uq/L	15	<0.4	0.4	0.4	
1,1,2,2-Tetrachloroethan	uq/L	<0.5	<0.5	<0.5	<0.5	
Tetrachloroethylene	uq/L	<0.6	<b>&lt;0.6</b>	<0.6	<0.6	
1,1,1-Trichloroethane	uq/L	<0.5	<0.5	<0.5	<0.5	
1,1,2-Trichloroethane	uq/L	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>(0.5</b>	<b>&lt;0.5</b>	
Trichloroethylene	ug/L	<0.5	<0.5	<0.5	<0.5	
Trichlorofluoromethane	ug/L	<0.4	<0.4	<0.4	<0.4	
Vinyl chloride	uq/L	<0.9	<0.9	<0.9	<0.9	
Bromonethane	ug/L	<0.9	<0.9	<0.9	<b>40.9</b>	
2-Chloroethylvinyl ether	ug/L	<0.9	<0.9	<0.9	<0.9	

## SAMPLE SITE IDENTIFICATION: Site 9, Manhole 76

Site 9, Manhole 76 Air Force Reserve Civil Engineering and Welding Shop

### DATE SAMPLED: 18 Jun 91

DAYS OF SAMPLING: 3 Days

METALS	បារ	TS Day	l Dav 2	Day 3	. Dunlicate
ARSENIC	UG	L <10.0			
BARION	ua,	L <100	<100	<100	<100
BERYLLICH	uq/	L <10.0	) <10.0	<10.0	
CADHIUM	uq/	L <10.0	) <10.0	<10.0	<10.0
CALCIUM	Del /	L 12.0	15.0	12.0	12 0
CHROMIUN	uq/	L <50	<50	<50	<50
COPPER	uq/.	L 10.0	120	40	40
IRON	uq/	L <10.0	600	600	600
NANGANESE	<b>u</b> q//	L <50	<50	<50	<b>\$50</b>
ZINC	ug/l	L 90	90	110	110
NICKEL	ug/l	L <50	<50	<50	<50
ALCHEINUM	uq/I	300	300	400	400
COBALT	uq/l	<100	<100	<100	<100
TITANICH	uq/I	<100	<100	<100	<100
VANADION	uq/I	<100	<100	<100	<100
<b>WOLTBDENCH</b>	ug/l	. <100	<100	<100	<100
MERCURY	ug/L	<1.0	<1.0	<1.0	<1.0
NAGNESICK	ng/L	1.6	2.3	1.9	1.9
Chronium VI					
Silver	ug/L	<50	<50	<50	<50
Oile ( Creases	ug/L	<10.0	<10.0	<10.0	<10.0
Total budwaarshara	BG/L	169.6	105.6	56.8	56.8
Load	bg/L	102.4	38.4	17.6	17.6
read	ug/L	<20	<20	<20	<20
1,4-Dichlorobenzene	<b>η</b> σ/1.	<b>(</b> ) 7	61	20	20
1,3-Dichlorobenzene	ug/L	(0.5	<0 5	,0 5	20 5
Ethyl Benzene	ua/L	16	(0.3	(0.5	(0.3
Chlorobenzene	ua/L	<b>C</b> O 6	(0.6	20.J	10.5
Toluene	9/E	137	4 3	(0.0	×0.0
Benzene	ug/L	56	4.J 70 5	(0.5 (0.5	(0.3
1,2-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	na /t	17	<i>(</i> 0, 2)		••
1.4-Dichlorobenzene	ug/D	1/	<0.5 TE	13	13
Bronodichloropethane	ug/1/	×0.7	25	21	21
Bronoform	vg/D vg/l	20.7	(U.4 /0 7	(0.4	<u.4< td=""></u.4<>
Carbon Tetrachloride	uy/L 11/1	NU.7	(U. /	<u. <="" td=""><td>&lt;0.7</td></u.>	<0.7
Chlorobenzene	wy/D	(0.5	(0.5	<b>VU.5</b>	<0.5
Choloroethane	ug/L 101/I	20.0	<0.0	(0.0	<0.6
Chloromethane	ug/L	20.9	20.9	(0.9	(0.9
Chlorodibronomethane	ng/L	(0.5	(0.6	(U, 8 /0 5	KU.8
1.2-Dichlorohenzene	wy/L wg/L	(1 0	(0.5	(0.5	(0.5
1.3-Dichlorobenzene	њу/Ц 1ют/1	<05	(0.5	(1.0	<1.0 <0.5
Dichlorodiflouromethane	109/L 101/L	<0.9	<0.J	20.0	(0.5
1,1-Dichloroethane	ug/1	<0.5 <0.4	<0.3 <0.4	11	11
1,2-Dichloroethane	ug/L	<0.3	(0.3	<u>70</u> 3	(0.2
1,1-Dichloroethene	uc /1.	<0.3	(0.3	20.3	(0.3
trans-1,2-Dichloroethene	ug/L Ug/L	(0.5	(0.5	(0.5	XU. 3
1,2-Dichloropropane	10g/L	(0.7	(0 3	(0.3	(0.5
Cis-1.3-Dichloropropene	no/L	(0.5	(0.5	(0.5	(U.)
trans-1,3-Dichloropropen	uci/i.	<0.5	(0.5	(0.5	X0.5
Methylene chloride	149/10 140/1	<0.5 <0.4	(0.5 (0.4	X0.J	X0.5
1,1,2,2-Tetrachloroethan	υσ/L	(Û. 5	(0.5	20.5	20.5
Tetrachloroethvlene	ug/L	<0.6	() F	77	נ.ט. ל ד
1,1,1-Trichloroethane	ug/1	7.1	67	76	76
1.1.2-Trichloroethane	wy/D Bot/I	<0.5	<0.2 <0.5	/0 /0 5	/0 /0 5
Trichloroethylene	10g / L	(0.5	20.5	×0.J	10.5 20 E
Trichlorofluoromethane	ug/L DG/L	(0.4	<0.J	<0.5 <0.4	20.5
Vinvl chloride	ug/1.	() 9	() 0	20.4	20.4
Brononethane	ug/D BC/L	(0.9	(0.9	20.7	×0.7 20 0
2-Chloroethylvinvl ether	uo/L	(0.9	(0.9	20.9	(0.0
	ug/ U		·V· 7	<b>NO.7</b>	10.7

# SAMPLE SITE IDENTIFICATION: Site 10, Manhole 79 Air Force Reserve Motor Pool

#### DATE SAMPLED: 12 Jun 91

DAYS OF SAMLING: 3 Days

NETALS	UNI	IS Day 1	Day 2	Day 3
ARSENIC	ug/	L <10.0	<10.0	<10.0
BARICH	ug	L <100	<100	<100
BERYLLIUM	<b>ม</b> ฎ/.	L <10.0	<10.0	<10.0
CADALUA	ug/i	L <10.0	<10.0	<10.0
CALCIUN	∎g/l	L 11.0	11.0	11.0
CHROALUA	ug/l	. 50	<50	<50
CUPPER	ug/l	30	48000	430
I KUN	ug/l	. 700	400	500
RANGANESE	ug/l	200	130	170
2 LNC	ug/I	. <50	<50	50
NICKEL	ug/I	. <50	<50	<50
ALUALINUA	ug/L	. 100	200	<100
ODALI GIGINGON	ug/L	<100	<100	<100
TLIANUM WWWDTCW	ug/L	<100	<100	<100
VARADIUR NAT ZEDTER	ug/L	, <b>&lt;</b> 100	<100	<100
NULIDULIUN NEDOTOV	ug, L	<100	8200	<100
NARCUK!	ug/L	<1.0	<1.0	<1.0
NAGNEOTON	ng/L	1.7	1.7	1.6
Oils & Greases	ng/L	8.8	1.6	28
Total hydrocarbons	na L	<1.0	(1.0	1 9
Surfactants	ng/L	0.6	-2.0	
Glycol	ug/L	40400		
1 d-Dichlenshansan	_ /•			
1,4-Dichiorobenzene	ug/L	<b>KO</b> .7	<b>&lt;0.</b> 7	<b>&lt;0.</b> 7
1,3-Dichiorobenzene	ug/L	<0.5	<0.5	<0.5
Chierobenzene	ug/L	(0.3	<b>(0.3</b>	<0.3
Taluara	ug/L	<b>(U.</b> 6	<0.6	<0.6
Banzana	ug/L	218	<0.3	<0.3
1 2-Dighiorobontono	ug/L	(0.5	(0.5	<0.5
1,2-DICHTOLOBEUSEUS	ug/L	<1.0	<1.0	<1.0
Chloroform	uq/L	8.8	<0.3	1.4
1,4-Dichlorobenzene	uq/L	<0.7	<0.7	<0.7
Bromodichloromethane	uq/L	<0.4	<0.4	<0.4
Bronoform	uq/L	<0.7	<0.7	<0.7
Carbon Tetrachloride	ug/L	<0.5	<0.5	<0.5
Chlorobenzene	uq/L	<0.6	<0.6	<0.6
Choloroethane	ug/L	<0.9	<0.9	<0.9
Chloromethane	ug/L	<0.8	<0.8	<0.8
Chlorodibronomethane	uq/L	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	uq/L	<0.5	<0.5	<0.5
Dichlorodiflouromethane	ug/L	<0.9	<0.9	<0.9
1,1-Dichloroethane	ug/L	<0.4	<0.4	<0.4
1,2-Dichloroethane	ug/L	<0.3	<0.3	<0.3
1,1-Dichloroethene	ug/L	<b>&lt;0.3</b>	<0.3	<0.3
trans-1,2-Dichloroethene	uq/L	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<0.3	<0.3	<0.3
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0.5
trans-1,3-Dichloropropen	ug/L	<0.5	<0.5	<0.5
Methylene chloride	ug/L	<0.4	<0.4	<0.4
1,1,2,2-Tetrachloroethan	ug/L	<0.5	<0.5	<0.5
Tetrachloroethylene	ug/L	<0.6	<0.6	Q.6
1,1,1-Trichloroethane	ug/L	<0.5	9.1	2.4
1,1,2-Trichloroethane	$\mathbf{ug}/\mathbf{L}$	<b>&lt;0.5</b>	<0.5	<0.5
richloroethylene	ug/L	<0.5	<0.5	<0.5
Irichlorofluoromethane	ug/L	<0.4	<0.4	<0.4
Inyi Chioride	ug/L	<0.9	<0.9	<0.9
Bromomethane	ug/L	<b>&lt;0.9</b>	<0.9	<0.9
-Chioroethylvinyl ether	ug/L	<0.9	<0.9	<0.9

Lockheed Waste

#### DATE SAMPLED: 12 Jun 91

#### DAYS OF SAMPLING: 3 Days

NETALS	UNITS	Day 1	Dav 2	Dav 3
ARSENIC	ug/L	c10.0	<10.0	<10.0
BARICH	uq/L	<100	<100	<100
BERYLLICH	ug/L	<10.0	<10.0	<10.0
CADHIUN	υα/L	<10.0	(10.0	(10.0
CALCIUM	DQ/L	13.0	15.0	14.0
CHRONITUN	ug/I.	<50	<50	(50
COPPER	uci/L	30	560	150
TRON	100. L	800	1100	1000
NANGANESE	ug/L	80	<b>9</b> 0	70
ZINC	и <u>ч</u> у/Ц 107/П	70	110	20
NICKFI	ug/L	250	250	<u>750</u>
AT CONTINUES	10/1	300	300	100
OBLLT	100/1	2100	2100	2100
TITINIT	ug, L ug/T	2100	/100	2100
VANADIUM	ug/1	<100	/100	2100
	49/L 101/T	2100	100	<100
MED/TDV	ug/L	<1.0	21.0	×1.0
NEACONT NO.	uy/L 100/I	1 2	2.0	2.0
RAGHESTUR	nd'r	2.2	2.0	2.2
Ortho phosphate	<b>n</b> n (3	2 75	27	77
Oils & Crosses	By/L	2.75	164 8	16 0
Total hydrocarbons	BG/L BG/L	20	104.0	10.0
rotar hydrocarboils	by/ b	0.7	01.0	0.2
1 A-Dichlorobenzene	na /1	the cas	cao and	<i>(</i> 0 7
1,4 Dichlorobenzene	uy/1:	See end	See end	XU.7
Thul Banzana	uq/L	see end	See end	(0.5
Chlorohonzono	ug/L	See end	See enu	(0.5
Taluara	ug/L	see end	See end	(0.0
Bontono	ug/L	see end	see end	<0.3
	ug/L	<0.5	<b>W.5</b>	<u.5< td=""></u.5<>
1,2-Diciliorobenzene	ug/L	see end	see end	<1.U
Chloroform	11/ T	60	<i>/</i> 0 2	1 7
1 A-Dichlorobonzono	ug/L	10.0	•0.3	1.7
Propodichleropothane	09/L	10.0	<b>0</b> 0	<u>(U.</u> /
Bronefarm	ug/L	(0.1	(0.7	(0.4
Diodololu Carban Saturahlanida	ug/L	(U. /	(U. /	KU./
	ug/L	(0.5	(0.5	(0.5
Chiloropenzene	ug/L	(V.b	<b>(U.6</b>	<b>(U.b</b>
Choloroethane	ug/L	<0.9	(0.9	<b>(0.9</b>
Chloropethane	ug/L	<0.8	<0.8	<0.8
Chlorodibronobethine	ug/L	<0.5	<0.5	<b>(0.5</b>
1,2-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0
1,3-Dichiorobenzene	ug/L	<0.5	<0.5	<0.5
Dichlorodiflouromethane	ug/L	<0.9	<0.9	<b>&lt;0.9</b>
1,1-Dichloroethane	ug/L	<0.4	<0.4	<0.4
1,2-Dichloroethane	ug/L	<b>&lt;</b> 0.3	<0.3	<0.3
1,1-Dichloroethene	ug/L	<0.3	<0.3	<0.3
trans-1,2-Dichloroethene	ug/L	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/L	<0.3	<0.3	<0.3
cis-1,3-Dichloropropene	ug/L	<0.5	<b>&lt;0.5</b>	<0.5
trans-1,3-Dichloropropen	ug/L	<0.5	<0.5	<0.5
Methylene chloride	ug/L	<0.4	<0.4	<0.4
1,1,2,2-Tetrachloroethan	ug/L	<0.5	<0.5	<0.5
Tetrachloroethylene	uğ/L	<0.6	<0.6	<0.6
1,1,1-Trichloroethane	uq/L	<0.5	<0.5	1.3
1,1,2-Trichloroethane	ug/L	<0.5	<0.5	<0.5
Trichloroethylene	uq/L	<0.5	<0.5	<0.5
Trichlorofluoromethane	ug/L	<0.4	<0.4	<0.4
Vinyl chloride	ug/L	<0.9	<0.9	<0.9
Bronomethane	uq/L	<0.9	<0.9	<b>&lt;0.9</b>
2-Chloroethylvinyl ether	ug/L	<0.9	<0.9	<0.9

Sample diluted 1:10. DOD should be adjusted by a factor of 10. Due to interfering compounds, cannot accurately identify peaks.

Lockheed Waste

#### DATE SAMPLED: 18 Jun 91

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#### DAYS OF SAMPLING: 3 Days

METALS	DIIIS	Day 1	Day 2	Day 3	Dupiicate
IRSENTC	110 <sup>'</sup> I	<10.0	<10.0	14	<10.0
DIDIEN		<100	2100	440	<100
DARICH	ug/L	100	100	440	10.0
BERYLLIUN	ug/L	<10.0	<10.0	<10.0	(10.0
CADHIUN	uq L	<10.0	<10.0	40	<10.0
CALCIEN	BCT /T	13.0	16.0	48.0	15.0
CALCIUM CALCIUM	=9/4 	450	450	420	250
CHRONIUM	ug/L	<b>K</b> 50	<b>K</b> 50	430	100
COPPER	ug/L	30	20	290	<20
IRON	ua/L	1000	700	48000	500
NANCANESE	ng/L	<50	<50	530	<50
TTNC		100	150	2000	100
618C	ug/L	100	1.50	3000	100
NICKEL	ugiL	<50	<50	90	<50
ALUNTINUH	uq/L	700	300	29000	300
COBILT	ua/L	<100	<100	<100	<100
TTT NTEN	100/0	2100	<100	500	2100
TLIANIUM	ug/L	(100	100	500	100
VANADICN	ug/L	<100	<100	<100	<100
NOLTBOENCH	uq L	<100	<100	<100	<100
NPD/TIDV	INC (	<1.0	<1.0	<1.0	<1.0
NEROUX:		2.1	2.4	7.0	1 2
HACHESIUN	DOG, L	2.1	2.4	1.0	2.3
Ortho phosphate	ng /L	5	1.95	4.78	2.1
		2 2	14 1	30.2	16.0
VIIS & GIESSES	My L	0.2	14.1	2 2	5 4
Total hydrocarbons	∎g/L	2.0	3.8	3.2	2.0
1 A-Dichlorobenzene	na/I	<b>(0.7</b>	<b>&lt;</b> 0.7	9.5	<0.7
1 2 Dishlambanana	ug/~	20 E	20.5	<i>x</i> 0 5	10.5
1,3-Dichiorobenzene	ug/L	<b>NU.5</b>	(0.5	0.5	
Ethyl Benzene	ug/L	<0.3	<b>&lt;0.3</b>	<0.3	<b>(0.3</b>
Chlorobenzene	ug L	<0.6	<0.6	<0.6	<0.6
Tolueno	noit	(0.3	<03	<0.3	<0.3
Denses		×0.5	×0.5	(0.5	(0.5
benzene	ug/L	(0.5	(0.5	10.5	
1,2-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0	Q.0
•	•				
Chloroform	10.71	3 0	(0.3	12	4.5
	ung / C	10.7	×0.5	17	(0.7
1,4-Dichiorobenzene	ug/L	<b>KU.</b> /	KU. /	12	10.7
Bronodichloronethane	ug/L	<0.4	<0.1	<0.4	<0.1
Bronoform	ua/L	<0.7	<0.7	<0.7	<0.7
Carbon Totrachlorido	1 mg/1	(0.5	(0.5	(0.5	(0.5
Carbon recracinoritie	adin .	10.5			(Q. )
Chlorobenzene	ug/L	<0.6	<b>(U.6</b>	<b>KU.6</b>	<b>KU.0</b>
Choloroethane	UC/L	<0.9	<0.9	<0.9	<0.9
Chloropothano	nei/1	K () X	<b>(</b> ), 8	<o.8< td=""><td>&lt;0.8</td></o.8<>	<0.8
Chiorode chane	wg/ 5	×0.0	20 E	20.5	(0.5
Chlorodibronomethane	ug/L	<b>VU.5</b>	(0.5	10.5	
1,2-Dichlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0
1.3-Dichlorobenzene	ua/L	<0.5	<0.5	<0.5	<b>(0.5</b>
Dichlorodiflouropethane	ng/L	(0.9	(0.9	<0.9	<0.9
Dichiologii logi one chane	ury/ L	×0. /	20.4	(0.1	<b>m</b> 1
1,1-Dichloroethane	ug/L	<b>CU.4</b>	(0.4	10.4	10.4
1,2-Dichloroethane	ug/L	<b>&lt;0.3</b>	<0.3	<0.3	<0.3
1.1-Dichloroethene	DC/L	<0.3	<0.3	<0.3	<0.3
trancal 2-Dichloroothone	101/L	(0.5	<0.5	(0.5	<b>&lt;0.5</b>
	ug/ti	20.2	20.3	(0.3	(0.3
1,2-Dichioropropane	ug/L	0.3	<b>VU.</b> 3	10.5	10.5
cis-1,3-Dichloropropene	ug/L	<0.5	<0.5	<0.5	<0.5
trans-1.3-Dichloropropen	uq/L	<0.5	<0.5	<0.5	<0.5
Wathulana ghlavida	1 1	<0 A	() 4	<0 4	<0.4
neury tene cutoride	uryy Lu war /T	-V-T	/0 5	10 5	(0.5
1,1,2,2-Tetrachloroethan	ug/L	\$0.5	V.5	10.5	10.5
Tetrachloroethylene	ug/L	<0.6	<0.6	<0.6	KU.6
1 1 1-Trichloroothane	ua/L	<0.5	<0.5	<0.5	<0.5
1 1 2-Twichlowesthing	1011	(0.5	(1) 5	(0.5	<0.5
1,1,2-If icutoroechane	847 E	· · · · ·	-0.5	-0.5 -0.5	-0 E
Trichloroethylene	ug/L	<u.5< td=""><td><u.5< td=""><td>VU.5</td><td>10.5</td></u.5<></td></u.5<>	<u.5< td=""><td>VU.5</td><td>10.5</td></u.5<>	VU.5	10.5
Trichlorofluoromethane	ug 🗋	<0.4	<0.4	<b>&lt;</b> 0.4	<b>(0.4</b>
Vinvl chloride	ua/L	<0.9	<0.9	<0.9	<0.9
	1/100	(0.9	(1.9	(1) 9	<n. 9<="" td=""></n.>
Bronomernane	uy/L	V.7	10.7	×0.9	20.0
2-Chioroethylvinyl ether	ug/L	<b>KU.</b> 9	<0'à	10.3	10.9

#### SAMPLE SITE IDENTIFICATION: Site 14, Influent

Wastewater Treatment Plant

#### DATE SAMPLED: 12 Jun 91

#### DAYS OF SAMPLING: 6 Days

NETALS ARSENIC BARICM BERVILIUN CADMIUN CALCIUN CHROMIUN COPPER IRON NANGANESE ZINC NICKEI ALUMINUN COBALT	CHI 19, L 19, L 19	S D2; 1 <10.0 <100 <10.0 54.0 200 50 1100 <50 50 <50 50 <50 900 <100	Day 2 <10.0 <100 <10.0 62.0 540 270 2800 90 110 50 1800 <100	Dey 3 <10.0 <100 <10.0 <10.0 49.0 850 250 4100 110 170 <50 3000 <100	Duplic <10.0 <10.0 <10.0 48.0 520 150 2700 80 100 <50 1900 <100	cateDay 4 <10.0 <100 <10.0 <10.0 51.0 730 100 3500 80 140 50 2600 <100	D₂; 5 <10.0 <100 <10.0 <10.0 48.0 80 30 600 <50 <50 <50 <50 <100	D≥; 6 <10.0 260 20 58.0 2600 540 1400 270 380 <50 9100 <100
VANADUM VANADUM NOLYBDENUN NERCURY NAGNESIUN	ug/L ug/L ug/L ng/L	<100 <100 <1.0 1.4	<100 <100 <100 <1.0 2.0	<100 <100 <100 <1.0 1.8	<100 <100 <100 <1.0 1.6	<100 <100 <100 <1.0 1.2	<100 <100 <100 <1.0 1.4	100 <100 <100 <1.0 2.4
Amponia Ortho phosphate Phenol Surfactants-WBAS Chronium VI Silver Cyanide Oils & Greases Total hydrocarbons Lead	ng,/L ng,L ng,L ng,L ng,L ng,L ng,L ng,L	5.86 .88 114 0.2 <0.005 see end see end	7.67 3.2 84 <50 <10.0 <0.005 13.9 5.7 <20	1.39 1.45 44 0.5 <0.005 12.6 4.8	56.8 15.0	6.36 1.9 50 <50 <10.0 <0.005 19.2 13.9	5.81 6.8 37 0.4 <10.0 <0.005 23.6 12.8 <20	7.17 1.25 25 0.7 <50 10 <0.005 81.6 52.0 43
1,4-Dichlorobenzene 1,3-Dichlorobenzene Eth;1 Benzene Chlorobenzene Toluene Benzene 1,2-Dichlorobenzene o-Y;1ene	ug/L ug/L ug/L ug/L ug/L ug/L	5 <0.5 <0.3 <0.6 7 <0.5 <1.0	see end see end see end see end see end see end see end	<0.7 <0.5 <0.3 <0.6 <0.3 <0.5 <1.0	<0.7 <0.5 <0.3 <0.6 <0.3 <0.5 <1.0	<0.7 <0.5 <0.3 <0.6 <0.3 <0.5 <1.0 9.7	<0.7 <0.5 <0.3 <0.6 <0.3 <0.5 <1.0	<0.7 <0.5 <0.3 <0.6 <0.3 <0.5 <1.0
Chloroform 1,4-Dichlorobenzene Bromoform Carbon Tetrachloride Chlorobenzene Chloroethane Chloroethane Chloroethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,3-Dichlorobenzene 1,1-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloroethane 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,2-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene 1,1,2-Trichloroethane 1,1,2-Trichloroethane 1,1,2-Trichloroethane Trichloroflworomethane Trichloroflworomethane Vinyl chloride Bromomethane 2-Chloroethylvinyl ether	99999999999999999999999999999999999999	19.5 0.4 0.7 0.6 9.5 0.5 9.4 0.5 9.4 0.5 9.4 0.5 9.4 0.5 9.4 0.5 9.4 0.5 9.4 0.5 9.4 0.5 9.5 0.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 9.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0	16 (0.4 (0.7 (0.9)) (0.9)) (0.9)) (0.9)) (0.9)) (0.9) (0.9)	2.9 9.7 0.14 0.0.5 0.9 0.9 0.10.5 0.0.5 0.5	$\begin{array}{c} 3.7 \\ <0.7 \\ <0.7 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.5 \\ <0.9 \\ <0.3 \\ <0.5 \\ <0.5 \\ <0.5 \\ <0.5 \\ <0.5 \\ <0.5 \\ <0.5 \\ <0.5 \\ <0.5 \\ <0.9 \\ <0.5 \\ <0.5 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.9 \\ <0.$	1°.07 0.7 0.7 0.9 0.9 0.5 0.9 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.7 0.7 0.5 0.9 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	8.9 <sup>7</sup> 0.4 0.7 0.69 <sup>8</sup> 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5

No sample submitted per Nr. Almanza. Sample diluted 1:10. LOD shloud be adjusted by a factor of 10. Sample vas improperly collected vas preserved G group isn't preserved Due to interfering compounds cannot accurately identify peaks. Method blank methylene chloride result of 0.9 yg/L. Analyzed by megabore capillary column. Analyzed greater than 14 days after collection.

# SAMPLE SITE IDENTIFICATION: Site 15, Effluent Wastewater Treatment Plant

#### DATE SAMPLED: 12 Jun 91

## DAYS OF SAMPLING: 6 Days

METALS	DЛI	S Day 1	Dey 2	Dey	3 Duplic	ate Day	4 Day	5 L.
ARSENIC	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.
BARIUM	ug L	<100	<100	<100	<100	<100	<100	<100
BERYLLICH	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
CADHICH	ug L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
CALCIUM	BG L	53.0	65.0	57.0	55.0	49.0	48.0	53.0
CHRONIUM	ug/L	<50	<50	<50	<50	<50	<50	<50
COPPER	ug, L	<20	20	<b>2</b> 0	<20	<50	<20	<10.0
IRON	ug/L	<100	100	<100	<100	<100	<100	100
MANGANESE	ug/L	<50	<50	<50	<50	<50	<50	<50
ZINC	ug, L	<b>(5</b> 0	<50	<50	<50	<50	<50	<50
NICKEL	ug/L	<50	<50	<50	<50	<50	<50	<50
ALCHINCH	ug L	<100	100	100	<100	<100	<100	<100
COBALT	ug (L	<100	<100	<100	<100	<100	<100	<100
TITANICH	ug, L	<100	<100	<100	<100	<100	<100	<100
VANADICH	ug/L	<100	<100	<100	<100	<100	<100	<100
NOLTBDENUN	ug, L	<100	<100	<100	<100	<100	<100	<100
MERCURY	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HAGNESIUM	∎g/L	1.2	1.3	1.2	1.2	1.1	1.2	1.3
Amonia	ma /I	<i>(</i> 0.2	(0.1	<i>(</i> <b>0</b> )		<i>(</i> 0, 2)	<i>(</i> <b>0 )</b>	<i>(</i> <b>0</b> ,
Ortho phosphate	∎G,'L ™n 'T	vu.2	×0.2	<u.2< th=""><th></th><th>&lt;0.2</th><th>&lt;0.2</th><th>&lt;0.2</th></u.2<>		<0.2	<0.2	<0.2
Phenol	109 L	.23	.3	.4		.3	.2;	.3
Surfactants-WR19	ucj, L pos T	V 1 V	10.0	(10.0		(10.0	<10.0	(10.0
Chroniun VI	BG L	0.1	(0.1	<b>KU.</b> I		0.1	0.1	<u.1< th=""></u.1<>
Silver	uy/L		210 0			<00 <10 0	10 0	VC/
Cyanide	uy/L	20.005	(10.0	01.2		<10.0	(10.0	(10.0
Oils & Croscoc	ug, L	1 2	1 2	.012		.010	<0.005	(0.005
Total hudrocarbons	DG L	1.5	1.3	1.9	1.3	2.2	5./	(0.3
Laid	ug/L ang/L	1.0	1.0	1.0	<1.0	(1.0	2.1	(1.0
EC30	uy, c		(20			<20	<b>C</b> 20	<20
1,4-Dichlorobenzene	uq/L	<0.7	<0.7	<b>&lt;0</b> .7	<0.7	12	<0.7	<0.7
1,3-Dichlorobenzene	uq/L	<0.5	<0.5	<0.5	<0.5	<0.5	<b>(0.5</b>	<0.5
Ethyl Benzene	uq/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chlorobenzene	ug/L	<0.6	<0.6	<b>&lt;0.6</b>	<0.6	<0.6	<0.6	<0.6
Toluene	uq/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzene	uq/L	<b>&lt;0.</b> 5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	ug, L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform							• •	
	ug/L	99.8	1/	<0.3	<0.3	<0.3	8.1	<0.3
1,4-Dichlorobenzene Propodichloropethano	ug/L	<b>KU.</b> 7	<0.7	<0.7	<b>(0.</b> 7	<b>(0.</b> 7	<b>(0</b> .7	<b>KU.</b> 7
Propoform	ug/L	/0.2	<u.4< th=""><th>(0.4</th><th>&lt;0.1</th><th>&lt;0.4</th><th>/0.2</th><th>(4.5</th></u.4<>	(0.4	<0.1	<0.4	/0.2	(4.5
Carbon Totrachlorido	ug/L	<u. <="" th=""><th>&lt;0.7</th><th><b>(</b>0.7</th><th>&lt;0./</th><th>&lt;0./</th><th>KU./</th><th><b>(U.</b>7</th></u.>	<0.7	<b>(</b> 0.7	<0./	<0./	KU./	<b>(U.</b> 7
	ug/L	<0.5	<b>(0.5</b>	<0.5	KU.5	<b>(U.5</b>	<0.5	<0.5
Chalereethane	ug/L	<u.6< th=""><th>&lt;0.6</th><th><b>(U.6</b></th><th>&lt;0.5</th><th>&lt;0.6</th><th>&lt;0.6</th><th>&lt;0.6</th></u.6<>	<0.6	<b>(U.6</b>	<0.5	<0.6	<0.6	<0.6
Chloresethane	ug/L	<0.9	<0.9	K0.9	(0.9	<0.9	<0.9	<0.9
Chlorodibrononothano	ug/L	(U.8	<0.8	<0.8	KU.8	×0.8	KU.8	<0.8
1 2-Dichlorobonzono	ug/L	<0.5	<0.5	(0.5	(0.5	<0.5	(0.5	<b>(0.5</b>
1,2-Dichlerobenzene	ug/L	(1.0	<1.0	<1.0	(1.0	Q1.0	(1.0	0.0
Dichlorodiflouropothano	ug 1	(0.5	<0.5	<0.5	<b>(U.5</b>	(0.5	<0.5	<0.5
1 l-Dichloroothano	ug/L vg/L	(0.9	<0.9	(0.9	(U.)	(0.9	<0.9	(0.9
1, 1-Dichloroothano	<b>U</b> G/L	<0.1	<0.4	<0.4	(U.4	(0.4	<0.1	<0.4
1 1-Dichloroetheno	ug/L	(0.3	(U.)	(0.3	(0.3	(0.3	(0.3	(0.3
trans-1 2-Dichloroothono	ug/L	(0.5	(U.)	<0.5	(0.5	(0.5	(0.5	(U, J (0, E
1 2-Dichloropropage	ug, L	<0.5	<0.5	(U.5	(0.5	(0.5	<0.5	(0.5
cical 3-Dichloropropane	ug/L	(0.3	<0.3	<b>KU.</b> 3	(U.)	<0.5	(U.S	(U, J
transal 3-Dichloropropene	ug, L	<0.5	<0.5	(U.5	<0.5	(0.5	<b>KU.5</b>	<0.5
Methylene chloride	ug/L	<0.5	<0.5	(0.5	<u.5< th=""><th>(0.5</th><th>(0.5</th><th><b>VU.</b>D</th></u.5<>	(0.5	(0.5	<b>VU.</b> D
1 1 2 2 Totasoblesse	ug/L	10.1	(U.1 (0.5	(U.1	NU.1	NV.1	VU.1	0.2 70 5
Tetrachloroethuleno	ug/L 1157/1	KU.5	(U.)	(U.) (0.6	XU.5	(U.5)	(0.5	VU.5
1 1 1-Trichloroothan	uy, L 110 / 1	(U.0	<b>VU.0</b>	(U.0	NU.0	V.0	VU.0	NU.0
1 1 2-Trichloroethane	uy/L	VU.3	11	<0.5	NU.3	(U.) (A E	10.5	VU.5
Trichloroothyland	ug/L	(U.)	(U.) (0.5	(U.)	NU.3	NU.3	NU.3	NU.3
Trichlorofluoromethese	ug/L	<u.5< th=""><th>(0.5</th><th>KU.5</th><th>(0.5</th><th>V.5</th><th>(0.5</th><th>×0.5 20 ▲</th></u.5<>	(0.5	KU.5	(0.5	V.5	(0.5	×0.5 20 ▲
Vinyl chlorido	ug/L	<b>V.</b> 4	<u.1< th=""><th>KU.4</th><th>VU.1</th><th>NU.#</th><th>20.0</th><th>V.4</th></u.1<>	KU.4	VU.1	NU.#	20.0	V.4
Bromonothano	ug/L	<b>VU.9</b>	KU.Y	10.9	20.0	NU.7 70.0	VU.7	10.9
2-Chloroethylvinul ether	ษ⊈/L มช⊭โ	<0.9 <0.9	<0.9 <0.9	<0.7 <0.9	(0.9	<0.9	<0.9 <0.9	<0.9
		- V + 2	·v·/					· • • •

SAMPLE SITE IDENTIFICATION: Site 15, Effluent (Continued) Wastewater Treatment Plant

DATE SAMPLED: 12 Jun 91

DAYS OF SAMPLING: 1 Day

Pesticides		
Aldrin	ug/L	<0.02
alpha-BEC	ug 'L	<0.02
beta-BBC	ug/L	<0.02
deltz-BEC	ug/L	<0.02
gama-BHC	ug/L	<0.02
Chlordane	ug/L	<.16
DDD	ug/L	<0.02
DDE	ug/L	<0.02
p,p-DDT	นจี/L	<0.02
Dieldrin	ug/L	<0.02
Endosulfan I	uq./L	<0.02
Endosulfan II	uq/L	<0.02
Endosulfan sulfate	uq/L	<0.02
Endrin	uq/L	<0.02
Endrin aldehyde	uq/L	<0.02
Heptachlor	uq/L	<0.02
Heptachlor epoxide	ug/L	<0.02
Toxaphene	uq/L	<1.0
Aroclor 1016	ug/L	<0.2
Aroclor 1221	ug/L	<0.2
Aroclor 1232	ug/L	<0.2
Aroclor 1242	uq/L	<0.2
roclor 1248	ug/L	<0.2
roclor 1254	ug/L	<0.2
troclor 1260	uq/L	<0.2

APPENDIX H

Discharge Limitations for Various Waste Sources

#### TYPICAL DISCHARGE LIMITATIONS FOR VARIOUS VASTE SOURCES

		DEEEDENCE	TYPICAL EFFLUENT
WASTE SOURCE	I ANAME I DN		LINITATION
Air Force	Cadmium	40 CFR 433	0.69  mg/l
Industrial	Chromium	40 CFR 433	2.77 mg/l
<b>Facilities</b> <sup>2</sup>	Copper	40 CFR 433	3.38 mg/l
	Lead	40 CFR 433	0.69 mg/l
	Nickel	40 CFR 433	3.98 mg/l
	Silver	40 CFR 433	0.43 mg/l
	Zinc	40 CFR 433	2.61 mg/l
	Cyanide	40 CFR 433	1.20 mg/l
	TTO	40 CFR 433	2.13 mg/l
	рН	40 CFR 403	5.0
Hospital	BOD	40 CFR 460	$41.0^{3}$
Facilities	TSS	40 CFR 460	55.6 <sup>3</sup>
	рН	40 CFR 460	6.0-9.0
Photographic	Silver	40 CFR 459	0.14
and NDI	Cyanide	40 CFR 459	0.184
Facilities	рН	40 CFR 459	6.0-9.0
Sewage Treatment	BOD	OEHL	20-30 mg/l
Plant	COD	OEHL	125.00 mg/l
	TSS	OEHL	20-30 mg/l
	<b>Oil and Grease</b>	OEHL	15.00 mg/l
	Phosphorus	OEHL	8.00 mg/l
	Ammonia as N	OEHL	14.00 mg/l
	Phenols	OEHL	50-500 µg/l
	MBAS	OEHL	4.00  mg/l
	Fecal Coliforms	OEHL	200 per 100 ml

<sup>1</sup>Pretreatment standards (40 CFR 403-471) apply only to industrial facilities discharging to publicly owned treatment works. <sup>2</sup>Includes all facilities except (NDI), hospital and photolab. <sup>3</sup>Metric units (kilograms per 1,000 occupied beds) <sup>5</sup>Metric units (kilograms per 1,000 m square of product) <sup>5</sup>Typical NPDES effluent limitations for sewage treatment plants located on Air Force installations.

Ref: AFOEHL Sampling Guide, March 1989

#### AIRCRAFT WASHRACK WASTEWATER CONTAMINANT CONCENTRATIONS

Pollutant or Property	Concentration (mg/l)
BOD	100-2,500
COD	700-2,500
TOC	130-1,200
Oil and Grease	2-55
Cadmium	0-0.2
Chromium (total)	0-4
Phenol	0-210
Methylene Chloride	Trace
Surfactants	0-2
Ammonia Nitrogen	80
Suspended Solids	50-90

#### MOTORPOOL WASHRACK WASTEWATER CONTAMINANT CONCENTRATIONS

Pollutant or Property	Concentration (mg/l)			
Total Solids	570-12,900			
COD	64-3,400			
TOC	24–1,700			
Oil and Grease	20-8,700			
Surfactants	0-2			

#### BATTERY SHOP WASTEWATER CONTAMINANT CONCENTRATIONS

Pollutant or Property	Concentration (mg/l)			
Lead	14.9			
рН	7.5*			
Copper	3.4			
Iron	15.0			
Zinc	21.5			
the Manual Annual Land Alam and /1				

\*pH units rather than mg/l

#### NDI WASTEWATER CONTAMINANT CONCENTRATIONS

Pollutant or	Concentration			
Property	(mg/l)			
COD	1,510			
BOD	1,110			
Ammonia Nitrogen	74			
Suspended Solids	560			

### PHOTO PROCESSING WASTEWATER CONTAMINANT CONCENTRATIONS

Pollutant or Property	Concentration (mg/l)			
COD	37-6.700			
TOC	5–140			
Cvanide	<0.01-12.5			
Silver	<0.1-1.11			
pH	4.3-4.4*			
Boron	7.0-7.5			
*pH units rather than mg/l				

APPENDIX I

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Water Quality Criteria

Water C	lua	16	ty (	Cri	ter	ia	Su	mr	na	ry	
		Note: 1	This chart is	for general is	normation; p	inene use cr	ilerla document	ts or detailed			
· .			Summerige (	n "Quelity Cr	iteria for Wat	er 1986" for	regulatory purp		· · · · · ·		
		·	CONCENT	RATIONS IN	μgL		UNITS PER LITER				States Wath
	Priority Pollutant	Carci- riògen	Fresh Acute Criteria	Chronic Chronic Critena	Marine Acute Criteria	Marine Chronic Criteria	Fish	Fish Con sumption Only	Drinking Water M.C.L.	Date Rater- ance	Aquatic Life Stan- dard
ACENAPTHENE ACROLEN ACRYLONTRILE	Y	NNY	*1 700 *58 *7.550	*\$20 *21	*970 *55	*710	320.ug 0.058ug‴	Ωبير 780 0 65ي.c**		1980 FR 1980 FR 1980 FR	1
ALDRIN ALKALINITY AMMONIA	Y Z Z	Y N N	3.0 CRITERIA	20.000			0.074mg**	0 079mg		1980 FR 1976 RB 1985 FR	16
ANTIMONY ARSENC ARSENC (PENT)	¥ *	N Y Y	19.000 1850	1,600	-7 319	.13	146 µg 2.2ng*	45 000 µg 17 5ng**	9.05mg	1980 FR 1980 FR 1985 FR	1 27
ARSENIC (TRI) ASBESTOS BACTERIA	Y Y N	Y Y N	360			36	30kH1"		<1/100m	1985 FR 1980 FR 1986 FR	21
BARUM BENZENE BENZIDINE	N Y Y	N Y	*5,300 *2,500		*5.100	*700	0 66 µg"	40 µg** 0 53mc**	3 Omg	1976 RB 1980 FR 1980 FR	
BERYLLIUM BMC CADMUM	Y Y Y	Y N N	130 100 39-	*53	°0 34 43	91	6 âng"	117 ng.	0.010mc	1980 FR 1980 FR 1985 FR	8
CARBON TETRACHLORIDE CHLORDANE CHLORINATED BENZENES	¥ ¥	Y Y Y	*35.200 2.4 *250	0 0043	50 00C 0 09	0.004	0 4µg ' 0 46ng ''	6 94µç'' 0 48ng '		1980 FR 1980 FR 1980 FR	1 12
CHLORINATED NAPHTHALENES CHLORINE CHLOROALKYL ETHERS	N N	2 2 2	*1.600 19 *238.000	11	7 5 13	75		!	• • • • • • • • • • • • • • • • • • •	1980 FR 1985 FR 1980 FR	2.
CHLOROETHYL ETHER (BIS-2) CHLOROFORM CHLOROSOPROPYL ETH ER (BIB-2)	: 2	Y Y N	"28 900	1.240	,		0 03.46'' 0 19.40'' 34 7.40	1 36ug** 15 7ug** 4 38mg		1980 FR 1980 FR 1980 FR	1
CHLOROMETHYL ETHER (BIB) CHLOROPHENOL 2 CHLOROPHENOL 4	2 Y 2		*4,380	*2 000	-29 700		0 00000378mg**	0.00184µg**		1980 FR 1980 FR 1980 FR	, , ,
CHLOROPHENOXY HERBICIDES (2.4.5TP) CHLOROPHENOXY HERBICIDES (2.4-D) CHLORPYRIFOS	NNN		0 080	0.041	0 011	0 0056	10 ան 100 ան			1960 FR 1976 RB 1986 FR	7
CHLORO-4 METHYL-3 PHENOL CHROMUM (HEX) CHROMUM (TB)	N Y N	222	16 1700 -	11 210 -	1,100	50	50.µg 170 mg	3 433 mg	0.05mg 0.05mg	1980 FR 1985 FR 1985 FR	24 24
COLOR COPPER CYANDE	N Y Y	222	INARRATIVE	STATEMENT-	SEE DOCUM	ENT 29	200 µg			1976 RB 1985 FR 1985 FR	20 ! 20
DOT DOT METABOLITE (DDE) DOT METABOLITE (TDE)	Y Y Y	Y Y Y	1 1 *1.050 *0.06	0.001	0 13 *14 *36	0.001	0.02eng~	0.024mg~		1860 FR 1960 FR 1960 FR	16
DEMETON DIBUTYL PHTHALATE DICHLOROBENZENES	Y Y	N N N	*1.120	01	·1,970	01	35 mg 400 µg	154 mg 2 8mg		1976 RB 1980 FR 1980 FR	,
DICHLOROBERZDE:2 DICHLOROETHANE 1,2 DICHLOROETHYLENES	Y Y Y	Y Y Y	118,000	-20.000	*113.000 *274.000		0 01 wg~ 0 94 wg~ 0 033 wg~	0 020ug" 243.ug" 1 85ug"		1980 FR 1980 FR 1980 FR	1
DICHLORCPHENOL 2.4 DICHLOROPROPANE DICHLOROPROPENE	N I	2 2 2	12 020 123 000 16 060	*365 *5 700 *244	10.300 790	3.040	3 09mg 97 uc	14 1mg		1980 FR 1980 FR 1980 FR	1
DIELDRIN DIETHYL PHTHALATE DMETHYL PHENOL 24	¥ ¥		25	0.0019	0.71	0019	0 071ng~ 350 mg	0.078ng 1.8g		1960 FR	16
DIMETHYL PHTHALATE DINITROTOLUENE 2.4 DINITROTOLUENE	N	N Y N		i			313 mg 0 11µg <sup></sup>	2.90 8 1µg''	·····	1960 FR 1960 FR 1960 FR	
DINITROTOLUENE DINITRO-O-CRESOL 2.4 DIOJON (2.3.7.8-TCDO)	N I	Y N Y	0000	7230	*590	<b>'3</b> 70	13 4µg	785 wg		1980 FR 1980 FR 1984 FR	
DIPHENYLHYDRAZINE DIPHENYLHYDRAZINE 1.2 DI-3.ETHYI HEYYY HYTHALATE	÷ ÷	N N	*270			i	42 ng"	0 56ug"		1980 FR 1980 FR	1

APPENDIX J

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Oil/Water Separator Sampling Data

### SAMPLE SITE IDENTIFICATION: 0il/Water Separator Building 747

#### DATE SAMPLED: 13 Jun 91

#### SITE 16

	UNITS	INFLUEN'T	EFFLUENT
Oils & Greases	mg/L	9.40	2.20
Total hydrocarbons	mg/L	6.10	1.00
1,3-Dichlorobenzene	ug/L	<0.7	<0.7
Ethyl Benzene	uq/L	<0.3	<0.3
Chlorobenzene	ug/L	<0.6	<0.6
Toluene	ug/L	<0.3	<0.3
Benzene	uq/L	<0.5	<0.5
1,2-Dichlorobenzene	ug/L	<0.1	<0.1
Chloroform	ug/l	5.20	<0.3
1,4-Dichlorobenzene	uq/1	<0.7	<0.7
Bromodichlorobenzene	ug/l	<0.5	<0.5
Bromoform	ug/l	<0.7	<0.7
Carbon Tetrachloride	uq/1	<0.5	<0.5
Chlorobenzene	ug/l	<0.6	<0.6
Choloroethane	ug/l	<0.9	<0.9
Chloromethane	ug/1	<0.8	<0.8
Chlorodibromomethane	ug/l	<0.5	<0.5
1,2-Dichlorobenzene	ug/l	<1.0	<1.0
1,3-Dichlorobenzene	uq/1	<0.5	<0.5
Dichlorodiflouromethane	$u\sigma/1$	<0.9	<0.9
1,1-Dichloroethane	ug/l	<0.4	<0.4
1,2-Dichloroethane	uq/1	<0.3	<0.3
1,1-Dichloroethene	uq/1	<0.3	<0.3
trans-1,2-Dichloroethene	$u\alpha/1$	<0.5	<0.5
1,2-Dichloropropane	ug/1	<0.3	<0.3
cis-1,3-Dichloropropene	ug/1	<0.5	<0.5
trans-1,3-Dichloropropen	ug/l	<0.5	<0.5
1,1,2,2-Tetrachloroethan	$u\alpha/1$	<0.5	<0.5
Tetrachloroethylene	$u\sigma/1$	<0.6	<0.6
1,1,1-Trichloroethane	$u\sigma/1$	<0.5	<0.5
1,1,2-Trichloroethane	ug/1	<0.5	<0.5
Trichloroethylene	ug/1	<0.5	<0.5
<b>Trichlorofluoromethane</b>	ug/1	<0.4	<0.4
Vinyl chloride	$u\sigma/1$	<0.9	<0.9
Bromomethane	ug/l	<0.9	<0.9
2-Chloroethylvinyl ether	$u\alpha/l$	<0.9	<0.9
fethylene chloride	ua/1	<0.4	<0.4

# SAMPLE SITE IDENTIFICATION: 0il/Water Separator Building 819

#### DATE SAMPLED: 13 Jun 91

SITE 17

	UNITS	INFLUENT	EFFLUENT
Oils & Greases	mg/L	214.40	198.40
Total hydrocarbons	mg/L	6.40	6.40
1,3-Dichlorobenzene	ug/L	<0.7	<0.7
Ethyl Benzene	ug/L	<0.3	<0.3
Chlorobenzene	ug/L	<0.6	<0.6
Toluene	ug/L	<0.3	<0.3
Benzene	ug/L	<0.5	<0.5
1,2-Dichlorobenzene	ug/L	<0.1	<0.1
Chloroform	ug/l	<0.3	3.40
1,4-Dichlorobenzene	ug/l	<0.7	<0.7
Bromodichlorobenzene	ug/l	<0.5	<0.5
Bromoform	ug/l	<0.7	<0.7
Carbon Tetrachloride	ug/l	<0.5	<0.5
Chlorobenzene	ug/l	<0.6	<0.6
Choloroethane	ug/l	<0.9	<0.9
Chloromethane	ug/l	<0.8	<0.8
Chlorodibromomethane	ug/l	<0.5	<0.5
1,2-Dichlorobenzene	ug/l	<1.0	<1.0
1,3-Dichlorobenzene	ug/l	<0.5	<0.5
Dichlorodiflouromethane	ug/l	<0.9	<0.9
1,1-Dichloroethane	ug/l	<0.4	<0.4
1,2-Dichloroethane	ug/l	<0.3	<0.3
1,1-Dichloroethene	ug/l	<0.3	<0.3
trans-1,2-Dichloroethene	ug/l	<0.5	<0.5
1,2-Dichloropropane	ug/l	<0.3	<0.3
cis-1,3-Dichloropropene	ug/l	<0.5	<0.5
trans-1,3-Dichloropropen	ug/l	<0.5	<0.5
1,1,2,2-Tetrachloroethan	ug/l	<0.5	<0.5
Tetrachloroethylene	ug/l	<0.6	<0.6
1,1,1-Trichloroethane	ug/l	<0.5	<0.5
1,1,2-Trichloroethane	ug/l	<0.5	<0.5
Trichloroethylene	ug/l	<0.5	<0.5
Trichlorofluoromethane	uq/1	<0.4	<0.4
Vinvl chloride	ug/l	<0.9	<0.9
Bromomethane	ug/1	<0.9	<0.9
2-Chloroethylvinyl ether	ug/l	<0.9	<0.9
Napthalene	ug/l		4.90
Methylene chloride	ug/l	<0.4	<0.4

# SAMPLE SITE IDENTIFICATION: Oil/Water Separator Army Reserve Area Aircraft Maintenance

DATE SAMPLED: 17 Jun 91

SITE 18			
	· UNITS	INFLUENT	EFFLUENT
Oils & Greases	mg/L	12.20	1.30
Total hydrocarbons	mg/L	2.60	<1.0
1,3-Dichlorobenzene	ug/L	<0.7	<0.7
Ethyl Benzene	ug/L	<0.3	<0.3
Chlorobenzene	ug/L	<0.6	<0.6
Toluene	ug/L	<0.3	<0.3
Benzene	ug/L	<0.5	<0.5
1,2-Dichlorobenzene	ug/L	<0.1	<0.1
Chloroform	ug/l	22.00	<0.3
1,4-Dichlorobenzene	ug/l	<0.7	<0.7
Bromodichlorobenzene	ug/l	<0.5	<0.5
Bromoform	ug/l	<0.7	<0.7
Carbon Tetrachloride	ug/l	<0.5	<0.5
Chlorobenzene	ug/l	<0.6	<0.6
Choloroethane	ug/l	<0.9	<0.9
Chloromethane	ug/l	<0.8	<0.8
Chlorodibromomethane	ug/l	<0.5	<0.5
1,2-Dichlorobenzene	ug/l	<1.0	<1.0
1,3-Dichlorobenzene	ug/l	<0.5	<0.5
Dichlorodiflouromethane	ug/l	<0.9	<0.9
1,1-Dichloroethane	ug/l	<0.4	<0.4
1,2-Dichloroethane	ug/l	<0.3	<0.3
1,1-Dichloroethene	ug/l	<0.3	<0.3
trans-1,2-Dichloroethene	ug/l	<0.5	<0.5
1,2-Dichloropropane	ug/l	<0.3	<0.3
cis-1,3-Dichloropropene	ug/l	<0.5	<0.5
trans-1,3-Dichloropropen	ug/1	<0.5	<0.5
1,1,2,2-Tetrachloroethan	ug/l	<0.5	<0.5
Tetrachloroethylene	ug/l	<0.6	<0.6
1,1,1-Trichloroethane	ug/l	<0.5	<0.5
1,1,2-Trichloroethane	ug/l	<0.5	<0.5
Trichloroethylene	uq/l	<0.5	<0.5
Trichlorofluoromethane	ug/l	<0.4	<0.4
Vinyl chloride	ug/l	<0.9	<0.9
Bromomethane	ug/1	<0.9	<0.9
2-Chloroethylvinyl ether	ug/1	<0.9	<0.9
Methylene chloride	ug/l	<0.4	<0.4
SAMPLE SITE IDENTIFICATION: 0il/Water Separator Building 731

DATE SAMPLED: 17 Jun 91

SITE 19

	UNITS	INFLUENT E	FFLUENT
Olls & Greases	mg/L	252.80	5.70
local hydrocarbons	mg/L	252.80	5.00
1,3-Dichlorobenzene	ug/L	<0.7	<0.7
Ethyl Benzene	ug/L	<0.3	<0.3
Chlorobenzene	ug/L	<0.6	<0.6
Toluene	ug/L	<0.3	<0.3
Benzene	ug/L	<0.5	<0.5
1,2-Dichlorobenzene	ug/L	<0.1	<0.1
Chloroform	ug/l	3.00	<0.3
1,4-Dichlorobenzene	ug/l	<0.7	<0.7
Bromodichlorobenzene	ug/l	<0.5	<0.5
Bromoform	ug/l	<0.7	<0.7
Carbon Tetrachloride	ug/l	<0.5	<0.5
Chlorobenzene	ug/l	<0.6	<0.6
Choloroethane	ug/l	<0.9	<0.9
Chloromethane	ug/l	<0.8	<0.8
Chlorodibromomethane	ug/l	<0.5	<0.5
1,2-Dichlorobenzene	ug/l	<1.0	<1.0
1,3-Dichlorobenzene	ug/l	<0.5	<0.5
Dichlorodiflouromethane	ug/l	<0.9	<0.9
1,1-Dichloroethane	ug/l	<0.4	<0.4
1,2-Dichloroethane	ug/l	<0.3	<0.3
1,1-Dichloroethene	ug/l	<0.3	<0.3
trans-1,2-Dichloroethene	ug/l	<0.5	<0.5
1,2-Dichloropropane	ug/l	<0.3	<0.3
cis-1,3-Dichloropropene	ug/l	<0.5	<0.5
trans-1,3-Dichloropropen	ug/l	<0.5	<0.5
1,1,2,2-Tetrachloroethan	ug/l	<0.5	<0.5
Tetrachloroethylene	ug/l	<0.6	<0.6
1,1,1-Trichloroethane	ug/l	<0.5	<0.5
1,1,2-Trichloroethane	ug/l	<0.5	<0.5
Trichloroethylene	ug/l	<0.5	<0.5
Trichlorofluoromethane	ug/l	<0.4	<0.4
Vinyl chloride	ug/l	<0.9	<0.9
Bromomethane	ug/l	<0.9	<0.9
2-Chloroethylvinyl ether	ug/l	<0.9	<0.9
Methylene chloride	ug/l	<0.4	<0.4
Naphathelene	ug/l	2.80	