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SOUTHERN MARYLAND WOOD TREATING SITE
HOLLYWOOD, MARYLAND

LOW TEMPERATURE THERMAL DESORPTION UNITS

PROOF OF PERFORMANCE REPORT- FINAL

October 1998

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LIST OF ACRONYMS

acfm.....actual cubic feet per minute
B(a)P.....benzo(a)pyrene
BTDU.....batch thermal desorption unit
CPM.....continuous process monitor
CTDU.....continuous thermal desorption
DO.....dissolved oxygen
FID.....Flame Ionization Detector
EPA.....Environmental Protection Agency
FTO.....flameless thermal oxidizer
HCl.....hydrochloric acid
ND.....not detected
MDE.....Maryland Department of the Environment
PAH.....polynuclear aromatic hydrocarbon
PCP.....pentachlorophenol
PID.....Photoionization Detector
POP.....Proof of Performance
ppb.....parts per billion
ppbv.....parts per billion by volume
ppm.....parts per million
RBC.....risk-based concentration
ROD.....Record of Decision
SMWT.....Southern Maryland Wood Treating Site
SOP.....Standard Operating Procedures
SVOC.....semi-volatile organic compound
TAP.....Toxic Air Pollutants
TCLP.....Toxicity Characteristic Leachate Procedure
TDU.....Thermal Desorption Unit
TKN.....total kjeldahl nitrogen
THC.....total hydrocarbons
TPH.....tons per hour
TSS.....Total Suspended Solids
UCL.....Upper Confidence Limit
VFD.....variable frequency drive
VOC.....volatile organic compound
VRS.....vapor recovery system
WESP.....wet electrostatic precipitate
WTP.....water treatment plant

UNIT CONVERSIONS

pg.....picogram (10^{-12} grams)
ng.....nanogram (10^{-9} grams)
ug.....microgram (10^{-6} grams)
mg.....milligram (10^{-3} grams)
g.....gram
kg.....kilogram (10^{+3} grams)

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1.0 EXECUTIVE SUMMARY

ICF Kaiser has been authorized to conduct remedial actions at the Southern Maryland Wood Treating Site (SMWT) under contract DACA31-95-D-0083, Delivery Order 0016. Remedial actions at the SMWT consist of on-site treatment of contaminated soil and sediment, as well as on-site treatment of contaminated groundwater, surface water, and wastewater generated during the soil and sediment treatment. Contaminated soil and sediments will be excavated and treated using thermal desorption. The treated soil will be back-filled on-site once testing has confirmed that the soil has met the performance standards established in the September 1995 Record of Decision (ROD). Two on-site water treatment systems will treat groundwater extracted from areas that will be excavated, surface water from the on-site pond, and wastewater generated from the thermal desorption process. A major portion of the treated water will be reused in the thermal desorption process. The remainder will be discharged to the on-site stream in accordance with effluent standards established by the Maryland Department of the Environment (MDE).

The purpose of this report is to summarize the results of the proof of performance (POP) test of the thermal desorption process. This test, including performance standards, is described in detail in the document *Proof of Performance, Summary of Full-scale Operations*, dated April 1998. The test was successful and showed that the thermal desorption units (TDUs) produce clean soil while meeting applicable air emission standards.

During proof of performance (POP) testing, one batch and one continuous TDU were tested to demonstrate attainment of soil performance, wastewater treatment plant discharge and air emission standards. The goal of the POP testing was to demonstrate that each type of thermal desorption system can achieve backfill criteria and stack emissions while processing maximum throughput.

Following is an overview of the test results:

a. Both batch and continuous TDUs produced soil that met the most stringent cleanup criteria for the site. The untreated soil used during the test was representative of the worst case contamination expected at the site. The CTDU also produced hot cyclone dust that met all cleanup criteria except during one of the three tests which did not meet surface benzo(a)pyrene equivalent criteria. Both CTDUs have been re-configured to re-introduce hot cyclone dust back into the treatment system. Hot cyclone dust and impinger sludge generated during the BTDU test did not meet criteria. This material will not be mixed with treated soil but will be retreated in the thermal desorption process or shipped offsite for disposal.
b. Both batch and continuous TDUs produced air emissions that met applicable air emission standards. All contaminants of concern met emission limits with a large margin of safety. In most cases, several orders of magnitude below standards. The smallest margin was for benzene, which was approximately five times less than allowable limits, even if assumed that the highest levels of benzene measured during the test occur on all four units at the same time.
c. The waste water treatment plant produced water that met all applicable discharge standards except nitrogen (in the form of ammonia and total). This was due to higher than expected nitrogen levels in the untreated soil. Typical levels are expected to be lower, and the water will not be discharged to the on-site stream until confirmation has been received that all limits have been met. In the interim, all water is being re-used in the TDU process.

Summaries of the batch and continuous units' POP test results are provided in Table 1-1 and 1-2, respectively. Results indicate that the process, thermal desorption with condensate treatment, removed and treated contamination as expected. High concentrations of contaminants were measured in the untreated soil and TDU condensate, but concentrations were below criteria (delisting and hazardous waste characterization) in the treated soil, water treatment plant effluent (except nitrogen-containing compounds) and stack gases. This indicates that the contaminants (along with water) in the untreated soil were desorbed in the TDU, captured in the vapor recovery system (VRS) with the condensate and treated by ultra-violet (UV) oxidation and carbon adsorption at the water treatment plant (except nitrogen-containing compounds). In the batch process, contaminants were also captured in the impinger sludge. Contaminants remaining in the gas phase after the vapor recovery system were further removed in the FTO. All stack gas emissions after the FTO met all air emission standards.

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2.0 PERFORMANCE TEST PROGRAM SUMMARY

2.1 PROCESS DESCRIPTION

In overview, the thermal desorption system is comprised of multiple components to treat contaminated feed materials (soils and sediment) and contaminated vapor and liquid streams that result from the treatment process. There are a total of four individual desorption systems. Two of these systems are continuous and two are batch. A description of each system is included below. Individual components of the treatment systems and pollution control equipment are linked together on separate trailers/skids and controlled by system operators. Refer to Figures 2-1 and 2-2 for a layout of the system, which includes the following:

- Untreated materials-feed system.
- Indirectly heated batch or continuous thermal desorption units for volatilizing contaminants from feed materials.
- Treated material discharge system.
- Vapor recovery system (VRS) to remove particulates, and condense steam and contaminants from the vapor stream exiting the desorption units. The condensate will be treated at the on-site water treatment plant.
- Flameless thermal oxidizer (FTO) for final vapor polishing.

2.1.1 Continuous Thermal Desorption Systems

Contaminated soil from the site is excavated, and stored in the soil storage area. The soil is screened to less than 2 inches in diameter and then transferred via a front-end loader into a feed hopper. From the feed hopper, soil is placed inside a rotating drum in one of two indirectly heated, continuous thermal desorption units (CTDUs). Soil feed rate to the CTDU will be measured by a calibrated feeder with a Variable Frequency Drive (VFD) controller. In the CTDU, the temperature of the soil is increased by indirect heat (i.e., heat applied outside of the drum walls) to desorb contaminants as they travel from the feed to the discharge end. The indirect heat is supplied to the CTDU by #2 fuel oil burners. Nitrogen is added to the CTDU at the inlet and outlet face seals. This minimizes the intake of oxygen at these rotating seals, which helps in maintaining a low oxygen, non-combustible environment. A portion of the burner exhaust gas from the middle stack is recycled to the CTDU feed end as sweep gas. Sweep gas keeps the air flowing consistently through the drum and helps maintain a low oxygen environment.

The hot, treated soil from the CTDU is transferred (utilizing a discharge conveyor) to a double paddle mixer which mixes, cools, and hydrates the soil. Water is sprayed into the mixer to cool and hydrate the soils. Steam generated during the cooling of the soils, carryover particulates, and a small amount of air that is drawn into the conveyor flow to the inlet of the scrubber in the VRS. The hydrated soils are conveyed to the treated soil stockpile area. The treated soils will be sampled and analyzed to ensure the backfill criteria is met.

CTDU exhaust gases, consisting of sweep gas, steam, desorbed contaminants, and particulate carryover, pass through a hot cyclone to remove larger sized particulates. The removed particulates were collected in a container for cooling and hydration during the POP tests. Since then both units have been reconfigured to reintroduce hot cyclone dust back into the treatment system.

The exhaust gases then enter a direct-contact quencher/scrubber, where water contacts the vapor stream, thus cooling the vapor stream to begin condensing steam and contaminants from the vapor phase. Additional particulates are also removed in the scrubber system. The quencher/scrubber recycle stream is cooled by a plate type heat exchanger using water as the cooling medium. A cooling tower delivers non-contact cooling water to the plate heat exchanger and wet electrostatic precipitator (WESP) cooling jacket. Contaminants and remaining particulates are further removed in the WESP. Water sprays inside the WESP to help further remove particulates. The gas then enters the FTO for final polishing. Through the process of oxidation, the FTO virtually eliminates non-condensable and residual organics

not removed by the VRS. The cleaned air stream is then vented to the atmosphere through a stack. A continuous process monitor (CPM) is provided to measure and record total hydrocarbons in the stack exhaust. The VRS induced draft stack fan is expected to provide a nominal 700 acfm of vapor flow.

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The condensate slurry collected in the quencher/scrubber recycle tank overflows to the WESP, where it mixes with particulate matter and organic mist removed by the WESP. The condensate is then pumped from the WESP to the condensate storage tank(s). Condensate transfer pumps convey the slurry to the water treatment plant (WTP).

Refer to Figures 2-3 and 2-4 for process flow diagrams of the continuous systems.

2.1.2 Batch Thermal Desorption Systems

Contaminated soil from the site is excavated, and stored in the soil storage area. The soil is screened to less than 2 inches diameter and then transferred via a front-end loader into a feed hopper. From there, the soil is placed inside a rotating drum in one of two indirectly heated, batch thermal desorption units (BTDUs). In the BTDU, a vacuum is applied and the temperature of the soil is increased by the indirect heat to initially release steam and desorb organic compounds with low boiling points, and then desorb organic compounds with higher boiling points. The vacuum and mild agitation enhance the desorption of the contaminants from the soil. The vacuum also helps maintain an oxygen deficient, non-combustible environment.

During the cycle, vapors from the BTDUs pass through a hot cyclone to remove particulates. In BTDU #1, the vapors then pass through two impingers to further remove the particulates. In BTDU #2, the vapors pass through a second cyclone to further remove particulates (Note: The second cyclone on BTDU #2 is functionally equivalent to the two impingers on BTDU #1). The removed particulates are collected in a container for cooling and hydration.

Vapors from the BTDUs then pass through primary and secondary shell-and-tube condensers where steam and contaminants are condensed. The liquid condensate is collected in the condensate collection tank(s) and the gases continue, through a liquid ring vacuum pump to a tertiary shell-and-tube condenser on the positive side of the vacuum pump. The vapors are further condensed and the condensate is collected in a tertiary condensate collection tank.

A cooling tower, common to both batch systems, delivers non-contact cooling water to a pre-cooler as well as the primary shell-and-tube condenser. In BTDU #1, the secondary condenser also receives cooling water from the cooling tower. In BTDU #2, the secondary condenser receives cooling water from a chiller. The chiller unit, common to both batch systems, also delivers chilled water to both tertiary condensers.

Both gas streams exiting the tertiary condensate collection tanks enter a single FTO for final polishing. The FTO virtually eliminates non-condensable and residual organics not removed by the VRS. The cleaned air stream is then vented to the atmosphere. A CPM is provided to measure and record total hydrocarbons in the stack exhaust. Vacuum pumps are expected to provide a nominal 400 acfm of air flow at 24 to 26 inches of mercury.

At the end of the batch cycle, the treated soil is removed by reversing the rotation of the thermal desorber drums. This hot soil is mixed with water in a conveyor where it is cooled and hydrated. Steam and dust generated during transfer of the soil moves to a series of steam scrubbers. The scrubbers maintain control of dust particles during unloading operations. The liquid discharged from the scrubbers is sent to the conveyor to help hydrate the clean soil. The hydrated soil is transferred to the treated soil stockpile area using a common stockpile conveyor. The treated soil will be sampled and analyzed for meeting the backfill criteria. The condensate slurry from the condensate collection tanks is pumped to the condensate storage tanks(s). Condensate transfer pump(s) convey the slurry to the WTP.

Refer to Figures 2-4, 2-5a, and 2-5b for process flow diagrams of the batch systems.

2.2 PERFORMANCE TEST IMPLEMENTATION SUMMARY

POP testing was conducted on one of each type of thermal desorption system (i.e. batch and continuous). There is uniformity between the two continuous systems and two batch systems and therefore POP testing for one of each type of system is appropriate. Three replicate tests were conducted for each type of TDU. Prior to any system treating contaminated soil, a pre-operational checklist was filled out to confirm that all pre-operational activities had been completed. Copies of these checklists are included in Appendix A.

2.2.1 Percent Moisture Tests

Prior to POP testing, a statistical test was conducted to check the accuracy and precision of moisture content sampling of feed soil piles. The range or variation in measured moisture contents provides an indication of the accuracy and precision with which a single grab sample can characterize the moisture content of the feed soils. Twelve grab samples were collected from a stockpile following procedures outlined in Standard Operating Procedure (Appendix N, SOP) 30.3. Samples of soil that was used for shakedown testing were analyzed on-site for percent moisture. Results are presented in Table 2-1. The average moisture content was 8.325% with a standard deviation of 0.97. Only one sample will be collected for percent moisture content from feed soil piles.

2.2.2 Thermal Desorption System Shakedown

The purpose of the clean soil testing was to verify mechanical operation of the thermal desorption systems. Prior to operations with contaminated soil, both CTDUs and BTDUs processed clean soil for a minimum of 8 hours at anticipated feed rates and retention times. This amount of time was the minimum needed to ensure that all mechanical components were functioning properly. Key information collected for the CTDU clean soil test included: retention time, soil feed rate, soil exit temperature, and material handling and VRS equipment performance. The maximum soil feed rate obtained was 11 tons/hr. Key information collected for the BTDU clean soil test included; batch volume, vacuum pressure at the first cyclone over time, soil exit temperature, and material handling and VRS equipment performance. Approximately 200 cubic yards of soil were used during shakedown.

2.2.3 Ramp Up

A ramp up was performed to compare various feed rates with treatment efficiencies. For the ramp up, one stockpile was created from soil obtained from Pit #1 and sampled following the procedures in Appendix N, SOP 30.7. One composite sample was analyzed on-site for polynuclear aromatic hydrocarbons (PAHs) and carbazole and four grab samples were sent off-site for volatile organic compound (VOC) analysis. VOCs were collected to confirm site investigation results from which emission control equipment was designed. The stockpile soil sample contained 11.8 ppm benzo(a)pyrene (B(a)P) equivalent concentration (calculations and significance of B(a)P equivalent concentration is explained in Section 3.4.1). Samples contained low or non-detectable concentrations of VOCs, except for naphthalene (61-12,000 ppb). These results compared well with site investigation results. Results are presented in Table 2-2.

CTDU #1 started with the contaminated soil and slowly ramped up to maximum throughput conditions (11 tons/hr). For each feed rate (6, 7, 8, 9 and 11 tons/hr), a grab sample was collected from the treated soil and analyzed on-site for PAHs. All treated soil samples contained non-detectable concentrations of PAHs. Results are presented in Table 2-3. This data was compared with soil performance standards to determine the optimum throughput rate of 11 tons/hr that was used for the POP tests. Ramp up time took approximately 24 hours to complete over a 3-day period (6/1/98 to 6/3/98). The unit was then shutdown for analysis of operational control parameters. In parallel with this analysis, testing of the batch system began.

2.2.4 POP Testing

After the CTDU ramp up test was complete, POP testing began on BTDU #1. Approximately 10 tons of soil was added to the BTDU, heat was applied to the unit and the test was started on 6/4/98. The second and third BTDU POP tests were started on 6/6/98 and 6/7/98, respectively. All three POP tests were conducted at maximum load volume (i.e., largest possible feed to the unit expected during full-scale operations). Because of a malfunction of the FTO and laboratory error in analyzing the stack emissions,

the first batch test was repeated on 6/13/98 and completed on 6/14/98. Each batch of soil was treated for 12 hours. Air samples were collected for eight hours during each batch test.

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After the initial 3 days of batch tests were complete, POP testing began on CTDU #1. The test started on the morning of 6/8/98. Several mechanical problems occurred, such that a stable feed rate was not obtained until the morning of 6/10/98. The first test and the first half of the second test were completed that day. The eight-hour time period for the second and third tests were divided into two parts. The second test began promptly at the completion of the first test at 1930 on 6/10/98 and ran for four hours. During that time a portion of the required air samples were collected for the second test. The air sampling and the second test were completed on 6/11/98 from 1130 to 1530. The third test began promptly at 1530 on 6/11/98 and ran for four hours. A portion of the required air samples were collected during this time. The third test and air sampling was completed by running on 6/12/98 from 1045 to 1445. Dividing the tests between two days did not compromise the air sampling since the same operating conditions were held throughout all testing. No samples were continued after shut down. All three POP tests were conducted at maximum throughput operating conditions (approximately 11 tons per hour) and lasted eight hours for a total throughput volume of approximately 88 tons per test.

Soil, air, and condensate were sampled during the six POP tests. Samples were labeled and packaged following procedures outlined in Appendix N, SOPs 50.1, 50.2 and 50.3, and sent to an off-site laboratory for detailed analyses. Untreated and treated soil was also analyzed on-site for B(a)P equivalent concentration. In addition, critical process control data was monitored and recorded during each test and is presented in Appendix B.

3.0 PERFORMANCE RESULTS

3.1 PROCESS OPERATING PARAMETERS

Operating parameters were monitored to assure the efficient operation of system components and maintenance of operating conditions. Table 3-1 identifies the parameter, instrument, acceptance range (which may have been adjusted based on data obtained during the POP tests), frequency, range and accuracy of equipment, and calibration for the continuous thermal desorption system. Table 3-2 presents the same categories of information for the batch thermal desorption system. These tables also indicate which parameters are recorded. The values for these parameters were stored in a computer during the POP tests.

Summaries of the values recorded for each parameter for the batch and continuous tests, including explanations of anomalies or adjustments, are presented in Appendix B, Tables B-1 and B-2, respectively. Summaries for each individual test including batch load volumes and residence times and continuous start and stop times are presented in Appendix B, Tables B-3 through B-8 for first-repeat, second and third batch tests and the first, second and third continuous tests, respectively. Actual real-time computer printouts of this data are also included in Appendix B. Parameters measured during stack sampling, including temperature, flow rate and percent moisture, are presented in Appendix G, Table G-3.

Actual values for each operating parameter and the total hydrocarbon analyzers during the POP tests were continuously monitored by the operators. If the operating parameters drifted beyond the allowable limits during the POP tests, an alarm was triggered warning the operator. The operator then made the necessary adjustments to allow the system to operate within normal parameters. In addition to the operating parameters shown on Tables 3-1 and 3-2, the total hydrocarbon analyzer in the stacks' continuous process monitoring systems was checked for calibration each day.

In order to ensure that air emission limits will not be exceeded during full-scale operations, a correlation was made between stack emission rates and CPM readings obtained during the POP tests. From this information, a maximum allowable CPM reading for total hydrocarbons was calculated (including a safety margin) for the combined stack of the two batch units (1,400 ppm) and each continuous unit stack (800 ppm). These calculations are explained in detail in Appendix C. During full-scale operations, continuous monitoring of the THC levels in stack emissions will provide indirect confirmation that air emission standards continue to be met.

3.2 FEED CHARACTERISTICS

Material to be used for the POP tests was sampled and analyzed for PAHs and carbazole on-site to verify that it was representative of material to be treated in the units throughout the cleanup. Contaminated soil from Pit #1 (Figure 3-1) was considered to be representative of the majority of material that will be encountered at the site (on-site analysis B(a)P equivalent concentration of 11.8 ppm) and was used to evaluate the CTDU.

For the BTDU, previously excavated pond sediment located under an impermeable liner in the containment area was excavated, sampled and analyzed (on-site analysis B(a)P equivalent concentration of 6.9 ppm). This soil was not as contaminated as expected (near highest concentration found during the remedial investigation, total PAH concentration of 28,000 ppm). Therefore, the historical data was reviewed to locate areas with high concentrations of contamination. Based on the historical data, soil was excavated near MW-28 and MW-29 located in the center of Pit #4. Samples collected at 5, 10 and 15 feet bgs contained on-site B(a)P equivalent concentrations of 6.8, 3.9 and 0.1 ppm, respectively. This still was not acceptable to represent the worst case scenario for site contamination.

Soil near the french drain system in Pit #4 was excavated based on the assumption that this soil would be highly contaminated, since water pumped from the french drain system during the water treatment plant acceptance test was highly contaminated. This excavation did not reveal the amount of contamination desired based on visual observation and flame ionization detector (FID) and photoionization detector (PID) readings. While in this area, the edge of the pond was excavated and sampled (Figure 3-2). Results of this sample indicated that the sediment material in the pond was highly contaminated (on-site analysis B(a)P equivalent concentration of 107 ppm) and representative of worst case site contamination.

Since the sediment was apparently grossly contaminated (possibly containing free product), a sample was collected for oil and grease analysis to prevent creation of a hazardous atmosphere in the batch TDU. Results of the oil and grease analysis indicated that the material would not cause a potential hazard to personnel or equipment. The sediment did pose a handling problem because of the high moisture content. To make handling easier, the sediment was blended with contaminated soil from Pit #1 (Figure 3-3). The dilution for the first batch test was one part pond sediment blended with one part Pit #1 contaminated soil. For each other batch test (second, third and first-repeat) feed was blended at a ratio of three parts pond sediment to one part Pit #1 contaminated soil.

Chemical and physical analyses were performed on the untreated feed to assess feed characteristics and provide physical data for unit optimization. Additionally, this information was used to evaluate handling methods and requirements before and after treatment. Untreated feed material was sampled following procedures in Appendix N, SOP 30.7. For each stockpile, four grab VOC samples were collected from four random locations directly into sample jars. The remaining samples (non-VOC) were collected from ten locations in the stockpile and homogenized before being placed in the appropriate sampling container. Ten random locations from each stockpile were selected so that representative soil types and contaminant concentrations were sampled.

One additional composite sample was collected and analyzed on-site for PAHs, carbazole and percent moisture. Stockpiles for the first, second, third and first-repeat tests for the batch unit contained 25.2, 15.5, 37.0 and 13.9 ppm on-site laboratory B(a)P equivalent concentrations, respectively. Stockpiles for the first, second and third tests for the continuous units contained 21.4, 34.3, and 16.1 ppm on-site laboratory B(a)P equivalent concentrations, respectively. Percent moistures of the feed soil for the continuous unit were consistent (10.7, 11.6 and 11.3%). In order to demonstrate that the batch unit is capable of handling wetter soil, percent moisture of the feed soil were higher but also consistent (18.8, 17.9 and 15.8%).

Samples were labeled and packaged following procedures outlined in Appendix N, SOPs 50.1, 50.2 and 50.3. Untreated soil samples for the first-repeat and second batch tests and the second and third continuous tests were received within 24 hours of collection at the laboratory between 10-11°C. These samples exceeded the recommended 4±2°C limit. Excessive temperatures increase volatilization and biodegradation of organic compounds, therefore results for these samples may be lower than actual. One

indication that temperature exceedences did not significantly affect results is the good correspondence between on-site and off-site results (discussed below). The untreated soil sample collected for dioxin/furan analysis for the second batch test was received at the laboratory after three days at a temperature of 18°C. Although untreated soil data provides useful information for comparison to treated soil, it does not provide critical data needed to determine whether performance standards were achieved.

Samples were analyzed for PAHs, pentachlorophenol (PCP), semivolatile organic compounds (SVOCs), VOCs, dioxin/furans, total chlorides, metals, and density. Due to high contaminant levels, PAH concentrations could not be determined by Method 8310. This method is extremely sensitive (reporting limits as low as 2 ppb), but has a narrow calibration range. Untreated soils had to be diluted (up to 100,000x) in order to get the compounds with the highest peaks (phenanthrene and benzo(a)anthracene) in range. At these high dilutions, other compounds (present, but at lower concentrations) could not be detected.

PAH compounds can also be analyzed by Method 8270. This method is less sensitive (reporting limit equal to 330 ppb), but has a broader calibration range and detects a larger number of compounds. In the case of untreated soil, a low detection limit is not required. Therefore, PAH concentrations and B(a)P equivalent concentration were determined by Method 8270. In the future, untreated soils will not be analyzed by 8310; PAH concentrations will be determined by 8270 (which is already being used to determine carbazole concentrations).

Untreated soil results are presented in Tables 3-3 to 3-8 (first-repeat, second and third batch tests and first, second and third continuous tests, respectively). Results indicate high concentrations of carcinogenic PAHs. Feed for the batch unit tests contained 13.9 to 37.4 ppm B(a)P equivalent concentrations. Feed for the continuous unit tests contained 7.1 to 14.2 ppm B(a)P equivalent concentrations. On-site results compared well to off-site, fixed laboratory results, except for two samples (continuous first and second tests). These variations may be due to different dilutions used and some carcinogenic compounds, especially benzo(a)pyrene and dibenzo(a,h)anthracene which have scaling factors of 1.0, being diluted below detection limits at the fixed laboratory. Dilution may have also biased B(a)P equivalent concentrations low due to the increase in reporting limits. It was necessary to dilute samples as much as 500 times to get the high concentrations of noncarcinogenic PAHs in calibration range. This may have diluted the carcinogenic compounds used in the B(a)P calculations below reporting limits. A value of zero was used in calculations for all B(a)P equivalence compounds that were not detected.

All untreated soil samples contained low levels of VOCs (except for naphthalene which is a PAH), PCP, and metals. SVOC concentrations were also low (excluding PAHs) except for dibenzofuran (61-320 mg/kg) and carbazole (which is factored into the B(a)P equivalent concentration). Total chloride concentrations ranged from 7.1 to 13 mg/kg. Densities of all the untreated soil were consistent, ranging from 1.8 to 2.2 g/ml.

2,3,7,8 TCDD toxicity equivalent concentrations were calculated for each stockpile from the dioxin/furan analyses. To calculate 2,3,7,8 TCDD toxicity equivalent concentrations, seventeen compounds are used. The concentration obtained from laboratory analysis for each compound is multiplied by a scaling factor to obtain a scaled concentration. The scaled concentrations are summed to obtain the 2,3,7,8 TCDD toxicity equivalent concentration. The seventeen compounds and their scaling factors are shown in Table 3-9. 2,3,7,8 TCDD toxicity equivalent concentrations ranged from 0.3 to 0.5 ppb in untreated soil.

3.3 AIR MONITORING

3.3.1 Stack Gases

During full-scale operation, there will be three stack discharge points from the thermal desorption processes. The two BTDUs will have one combined stack discharge point, while each CTDU will have a separate stack discharge point. The emission control equipment was designed based on the results of pilot scale testing on soil that contained typical levels of contamination. This design was oversized to handle variability in site soil conditions to ensure compliance with emission limits. Throughout all of the POP testing, airflow was periodically monitored with an FID before the FTO in the CTDU. During the ramp up and throughout all of the POP testing, airflow was also continuously monitored with an FID after

the FTO. FID inlet readings are presented in Appendix D and outlet readings are presented in Appendix B under the tag name FTO/CPMS_LEVEL.

For batch units, four stack tests were conducted. The additional stack test (i.e., first batch test-repeat) was conducted to compensate for a laboratory error in analyzing an air sample collected during the first batch test. To account for potentially varying levels of emissions with increase in temperature during the batch unit operation, stack air samples were collected (Figure 3-4) during three operational time intervals (beginning, middle, end). Each of these time intervals corresponded to approximately a third of the batch operating time and associated temperature. For continuous units, three stack tests were conducted. Stack tests for the continuous unit did not follow a time interval based format since the emission rates were expected to remain fairly similar with time.

Samples for VOCs, SVOCs, metals, dioxins/furans, hydrogen chloride (HCl) and particulates were collected at the outlet following procedures outlined in Appendix N, SOP 30.10. The laboratory experienced method limitations in quantifying VOC concentrations from the air samples collected during the first batch test (6/4/98). Therefore, samples for VOC analysis were diluted using EPA Method 18 as required, and an additional stack test (first batch test-repeat) was conducted to compensate for the potentially invalid VOC data from the first stack test. Temperature, moisture, flow rate and opacity of the stack gases were also measured. Stack samples were also collected before the FTO (inlet) for the same parameters, except particulate matter, and metals to determine the effectiveness of the oxidizer. All samples, except particulate matter, were shipped to the laboratories for analysis. Air samples for particulate matter were analyzed on-site.

Samples collected for SVOC and dioxin analyses from the inlet during the third continuous test (6/12/98) and from the inlet and outlet during the first batch test-repeat (6/13/98) were compromised by the laboratory. Because inlet parameters were analyzed for informational purposes only, the third continuous test was not repeated and no results are presented for SVOC or dioxin analyses.

During analysis, blanks were not run between VOC samples, which exceeded the calibration curve as required by EPA Method 30. Reported values for VOC results may therefore be higher than actual due to potential carry over of contamination from preceding samples.

The regulations for stack emissions include standards for visible emissions, particulate matter, and toxic air pollutants (TAPs). TAPs include SVOCs, VOCs, and dioxin/furans. The MDE Air and Radiation Management Administration has established TAPs screening levels that provide an off-site, risk-based concentration for each TAP. The applicable Environmental Protection Agency (EPA) and State of Maryland regulations for stack emissions are presented in Appendix E.

In order to demonstrate that TAPs emissions were within regulated limits, air dispersion modeling and stack sampling and analysis were used. Through the air dispersion modeling using worst case flow rates and temperatures measured during the tests, allowable concentrations of each TAP emitted at the stack were established so that off-site concentrations would not exceed the risk-based TAPs screening level. A table of the Maryland TAPs screening levels, details of the air dispersion model (including input parameters) and resultant stack emission limits are presented in Appendix F.

For each TAP analyte, the mass measured during each POP test was compared to the allowable stack emission rate limit to ensure that the limit was not exceeded. Mass was converted to rate using sample volume and flow rate. For each dioxin/furan analysis, a 2,3,7,8-TCDD toxicity equivalent rate was calculated by multiplying the emission rates of dioxin/furan compounds by the corresponding toxicity equivalent (scaling) factors. A value of zero was used for analytes not detected. The sum of the scaled rates was then compared to the allowable emission rate limit.

Results are presented in Tables 3-10 to 3-16 (first, second, third and fourth batch tests and first, second and third continuous tests, respectively). Although three complete sets of TAPs data are not available for the BTDU, all emission rates for the two complete sets of data for the BTDU and for all three sets of data for the CTDU are well within standards, several orders of magnitude below, in most cases. FTO inlet concentrations are generally below emission standards (except for benzene). Since the POP tests were near worst case scenario, this indicates that the FTO will act as a polishing step more than as an

emission control (the function of the VRS) during full-scale operations.

All opacity readings were zero (Table G-9) and all particulate concentrations were below the action level. Temperature, flow rate and percent moisture readings collected during each test are presented in Table G-3. Calculations used to convert mass (laboratory reporting unit) to concentration or rate are presented in Appendix G. A list of 2,3,7,8-TCDD toxicity equivalent compounds and corresponding scaling factors are presented in Appendix H.

Since all four TDUs (two batch and two continuous) are likely to operate during full-scale production, POP test emissions data (for one batch TDU and one continuous TDU) was multiplied by two, combined, and then compared to the sum of the individual emissions limits. Table 3-17 shows the comparison of the combined actual emission rates. Based on this comparison, it is concluded that even when all four TDUs operate simultaneously, emissions will be well within allowable limits for pollutants of concern.

3.3.2 Site Perimeter

Air was monitored at the perimeter of the site during each day of the ramp up and POP tests to ensure that emissions from excavation and materials handling activities were at acceptable levels. Baseline monitoring was conducted for three days prior to the POP tests (May 9, 10 and 11, 1998) to determine air quality.

Based on the types of contaminants found at the site, creosote and pentachlorophenol, the most likely sources of airborne contaminants resulting from remedial activities would be VOCs released from the soil directly into the air and SVOCs adsorbed to particulate matter that might become airborne. Therefore, the perimeter air-monitoring program was designed to address these two possible off-site emissions sources and included monitoring for VOCs and particulate matter.

A meteorological survey, presented in Appendix I, was used to design the air-monitoring network to take into account local wind patterns. Wind direction was checked immediately before monitoring activities and when major weather fronts occurred. Because topographic relief across the site is approximately 35 feet, three windsocks were placed on-site to ensure a representative measurement of wind direction was obtained. Additional meteorological information (i.e., wind speed, wind direction, temperature, barometric pressure and relative humidity) was obtained from an on-site weather station prior to monitoring activities. One upgradient and three downgradient sample locations were established each day of monitoring based on the observed wind direction. The fifteen potential air-monitoring locations are presented in Figure 3-6.

Perimeter air monitoring measurements for VOCs and particulates were compared to human health risk-based action levels developed by the EPA. The risk-based concentrations (RBC) were adjusted to a 2 year exposure for a child (the most sensitive population that could be affected by activities at the site). The RBC calculations, including the input parameters, are presented in Appendix J.

3.3.2.1 VOCs

VOC monitoring was conducted on a time-weighted basis using summa canisters. During each day of monitoring, VOC samples were collected at each sampling location following the procedures outlined in Appendix N, SOP 30.6. For VOCs, the RBC was the action level. Benzene was selected as the preliminary target compound because of its volatility and toxicity relative to other VOCs present at the site. The action level for benzene is 1.57 $\mu g/m^3$ (0.5 ppbv). Calculations used to convert units of ppbv to $\mu g/m^3$ are located in Appendix K. Initial sampling and analysis included all VOCs to determine if benzene is the appropriate target compound. If necessary, a new target compound will be selected and an action level developed.

During the baseline, ramp up and POP tests, the detection limit for benzene in non-diluted samples was 0.6 ppbv, which is above the action level. The laboratory performed a method detection limit study after the POP tests and benzene was reported with a detection limit of 0.5 ppbv in non-diluted samples during the July and August monthly sampling events.

During baseline sampling, benzene was not detected at or above the reporting limit in any of the 12

samples (3 days x 4 locations). Low concentrations of other VOCs were detected and all results are listed in Table 3-18.

During the three days of ramp up and six days of POP testing, benzene was not detected at or above the reporting limit in any of the 36 samples (9 days x 4 locations). High concentrations of toluene (0-330 ppbv; RBC 148.61 µg/m^3 or 39.5 ppbv) and methylene chloride (1-6100 ppbv; RBC 27.65 µg/m^3 or 8.0 ppbv) were detected in several of the samples. Samples with elevated levels included those located upwind as well as downwind of the site. Methylene chloride is a common laboratory contaminant, but was not detected in any of the laboratory blanks. Methylene chloride and toluene are common components in paint and paint removers. Low concentrations of other VOCs were detected and all results are listed in Table 3-19 for ramp up and Table 3-20 for POP tests.

During the July monthly sampling event, methylene chloride was detected in concentrations above the RBC, but lower than found during the POP sampling. Benzene was also detected above the RBC at air monitoring stations #13 and #15. This may be due to TDU fuel oil, which was delivered and pumped into a tank near air monitoring station #13 on the day of sampling. No toluene was detected above the RBC. A paint storage shed located near air monitoring station #14 (the location of the highest methylene chloride concentration during the POP) was moved away from the site fenceline after the POP test and July monthly air results were obtained and analyzed.

During the August monthly sampling event, an additional canister (split sample) was placed at two locations in order to verify that the methylene chloride was not attributed to laboratory contamination or error. Methylene chloride was again detected in concentrations above the RBC, but lower than found during the POP sampling, except in air monitoring station #14 split sample which contained 760 ppbv methylene chloride (the other sample at this location contained methylene chloride below the RBC). This sample also contained benzene above the RBC (3.1 ppbv), although the other sample at this location did not contain benzene at or above the detection limit (0.5 ppbv). No toluene was detected above the RBC.

The source and validity of the methylene chloride results are still being investigated. Future monthly sampling results will continue to be monitored for trends. The results for untreated soil and stack gases indicate that these are not sources (methylene chloride in untreated soil has been attributed to laboratory contamination). A possible source of methylene chloride is the on-site laboratory, and further investigation will be performed to verify this source.

3.3.2.2 Particulates

Particulate monitoring targeted the respirable dust fraction (i.e. particles less than 10 microns in size) of total dust generated. During each day of monitoring, particulates were monitored at each sampling location using a dust monitor three times per day (eight hours) following the procedures outlined in Appendix N, SOP 30.5. For particulates, the RBC was used in combination with an evaluation of soil contaminant concentrations to develop the action level. B(a)P was selected as the target compound because it is the most toxic semi-volatile present on-site and found in the highest concentrations relative to other SVOCs. The action level (2.75 mg soil/m^3 air) was developed by dividing the RBC of B(a)P (0.01 µg/m^3) by the 95% upper confidence level (UCL) of B(a)P concentration in the containment area (3,640 µg/kg soil). This approach is very conservative in that it assumes that all the particulates identified in the monitoring device contain this high concentration of B(a)P. Appendix L describes the methodology used to determine the 95% UCL. Readings for particulate air monitoring are included in Table 3-21.

Except for one isolated instance (129.9 mg/m^3 at air monitoring station #14 during the third batch test, 6/7/98), there were no particulate levels measured above the action level of 2.75 mg/m^3. Even though one instantaneous reading was above the action level, the eight-hour time weighted average concentration for this day and location was 1.349 mg/m^3, well below the action level. The exceedence occurred at a location close to a highly traveled dirt road. In order to minimize the amount of airborne particulates, roads are wetted with a water truck during hot and dry weather conditions.

During the POP test monitoring, several instrumental complications occurred. During the second and third continuous tests, measurements were only taken at three locations due to an inoperable instrument. During the second and third continuous tests and the first batch test-repeat, no particulate levels were recorded for middle/maximum, take down or average due to instrument power failure after setup.

Particulate data collected while the continuous units have been operational since the POP show no exceedences. This data is presented in Table 3-22.

3.4 TREATED MATERIAL

3.4.1 Treated Soil

The purpose of sampling treated soil was to demonstrate the ability of the TDUs to treat soil to meet the performance standards listed below. Data is presented in Tables 3-23 through 3-28.

- B(a)P equivalent concentration: surface soil < 0.1 mg/kg; subsurface soil < 1.0 mg/kg
- Delisting criteria as identified in the ROD: toxicity characteristics leachate procedure (TCLP)-PAHs; TCLP-SVOCs; TCLP-VOCs
- Hazardous Waste Characteristics: ignitability; reactivity, corrosivity; toxicity (TCLP-metals, TCLP-herbicides, TCLP-pesticides, TCLP-SVOCs, TCLP-VOCs)

For each POP test of the continuous system, the conveyor deposited treated material creating five stockpiles (Figure 3-5). For each POP test of the batch system, the treated material was deposited into one stockpile. Wastewater discharge from the TDUs was treated by the on-site water treatment plant (WTP) and used to cool and re-hydrate the treated soil. Soil sampling for compliance with the soil performance standards was conducted after the treated process water was added to the soil.

Treated soil was sampled following procedures in Appendix N, SOP 30.7. For each POP test, four TCLP-VOC samples were collected from four random locations directly into sample jars. The remaining samples (non-VOC) were collected from ten random locations (two in each stockpile for the continuous POP tests) and homogenized before being placed in the appropriate sampling container. One additional composite sample was collected and analyzed on-site for PAHs, carbazole and percent moisture. This analysis was used to give an indication of whether the treated soil was expected to meet performance standards.

Samples were labeled and packaged following procedures outlined in Appendix N, SOPs 50.1, 50.2 and 50.3. Samples were analyzed for PAHs, SVOCs, TCLP-pesticides, TCLP-herbicides, TCLP-metals, TCLP-SVOCs, TCLP-VOCs, TCLP-PAHs, dioxins/furans, ignitability, corrosivity by pH, reactive cyanide and sulfide. Treated soil samples for all continuous tests were received at the laboratory within 24 hours of collection between 8-11°C. This exceeds the recommended 4±2°C limit. These samples were collected while soil was still hot, which may account for the elevated temperatures upon receipt by the laboratory. The purpose of the temperature requirement is to prevent biodegradation of organics in the soil. Since the soil was treated at such high temperatures in the thermal process, it is essentially sterile, so microbes are not present to biodegrade organics. Therefore temperature excursions should not have effected sample results. Samples are now kept on ice overnight before shipping in order to prevent excessive temperatures.

To calculate B(a)P equivalent concentrations, eight compounds are used. The concentration obtained from laboratory analysis for each compound is multiplied by a scaling factor to obtain a scaled concentration. The eight compounds and their scaling factors are shown in Table 3-29. If the sum of the eight scaled concentrations exceeds 0.1 mg/kg, then the action level is exceeded for surface soil. If the sum of the eight scaled concentrations exceeds 1.0 mg/kg, then the action level is exceeded for subsurface soil.

B(a)P equivalent concentrations were calculated from off-site analytical results using one half the reporting limit for compounds not detected. For on-site analytical results, a value of zero was used for compounds not detected. Results are presented in Tables 3-23 to 3-28 (First-repeat, second and third batch tests and first, second and third continuous tests, respectively).

All on-site results contained concentrations of PAHs (used in B(a)P equivalent concentration calculations) and carbazole below reporting limits (0.4 mg/kg), except for the second batch test which contained 0.02 mg/kg B(a)P equivalent concentration. These results indicated that soil met performance standards. Off-site results confirmed all treated soils contained PAHs and carbazole in concentrations which resulted in B(a)P equivalent concentrations less than 0.1 mg/kg.

Treated soil also met all delisting and hazardous waste characterization criteria. However, TCLP benzo(a)anthracene and dibenzo(a,h)anthracene were analyzed with reporting limits greater than the delisting concentrations. All six piles were resampled on 7/28/98 and analyzed with the required reporting limits. These samples did not contain detectable concentrations of TCLP benzo(a)anthracene and dibenzo(a,h)anthracene. Also, treated soil from the third continuous test was mistakenly analyzed for total (not TCLP) VOCs. A TCLP value was calculated for each analyte by dividing the concentration obtained from the total VOC analysis by the leachate procedure dilution factor, 20 (SW846 Method 1311, Section 7.2.11 and 7.3). This is a conservative estimate in that it assumes complete desorption of the analyte from the soil to the leachate. Calculated results were below delisting criteria for all VOC TCLP analytes. All treated soil had significantly reduced 2,3,7,8 TCDD equivalent concentrations (less than 10 pg/g) compared to untreated soil (300 to 500 pg/g).

During full-scale operations, treated soil may be back-filled on-site once testing has confirmed that the soil has met performance standards.

3.4.2 Hot Cyclone

Particulates from the hot cyclones in the batch and continuous systems were segregated from the treated soil and stockpiled during the POP tests and sampled separately for soil performance criteria in accordance with Appendix N, SOP 30.7. Samples were labeled and packaged following procedures outlined in Appendix N, SOPs 50.1, 50.2 and 50.3. Samples were analyzed for the same parameters as treated soil. Hot cyclone samples for the third batch test were received at the laboratory five days after collection at 20°C. This exceeds the recommended 4±2°C limit. Excessive temperatures increase volatilization and biodegradation, therefore results for these samples may be lower than actual. Although actual concentrations may be higher, this sample did not meet performance standards even at the potentially lower concentrations reported (see below).

Hot cyclone samples for all continuous tests were received at the laboratory within 24 hours of collection between 10-11°C. These also exceed the recommended 4±2°C limit. These samples were collected while soil was still hot, which may account for the elevated temperatures upon receipt by the laboratory. The purpose of the 4°C temperature requirement is to prevent biodegradation of organics in the soil. Since the soil was treated at such high temperatures in the thermal process, it is essentially sterile, so microbes are not present to biodegrade organics. Therefore temperature excursions should not have effected sample results.

Results are presented in Tables 3-30 to 3-35 (first-repeat, second and third batch tests and first, second and third continuous tests, respectively). Due to high contaminant levels in hot cyclone dust from batch units, PAH concentrations could not be determined by Method 8310. In order to calculate B(a)P equivalent concentrations, PAH values obtained from SVOC analysis were used and a value of zero was used for compounds not detected. Hot cyclone dust from batch units did not meet performance standards for B(a)P equivalent concentration (3.69, 1,726 and 1,450 mg/kg for first-repeat, second and third tests, respectively) and some hazardous waste characteristics or delisting criteria. The maximum recorded hot cyclone temperatures for the first-repeat, second and third batch tests were 430°F, 289°F and 347°F, respectively. At these temperatures, high boiling point PAHs will tend to condense and drop out along with the dust in the hot cyclone. The quantity of dust collected in the hot cyclones (estimated at 55 to 80 lbs.) is a small fraction of the total batch feed (19,000 to 23,000 lbs.). This tends to concentrate the PAHs in the hot cyclone dust. Higher hot cyclone operating temperature will result in lower PAH concentration in the hot cyclone dust. This may explain the variation in B(a)P equivalent concentrations between the first-repeat test and the second and third tests. Material that does not conform to specifications will be reprocessed, and backfill or disposal options will be evaluated. Hot cyclone dust generated during the batch tests contained high 2,3,7,8 TCDD equivalent concentrations, although the second and third tests contained significantly higher concentrations (7.4 and 7.1 ppb, respectively) than the first-repeat test (0.6 ppb).

All three continuous tests met hazardous waste characteristics and delisting criteria. However, TCLP benzo(a)anthracene and dibenzo(a,h)anthracene were analyzed with reporting limits greater than the delisting concentrations. Because hot cyclone dust was not kept segregated after the POP tests, these

piles could not be resampled and analyzed. Therefore, three samples of the hot cyclone dust were collected on 8/11/98, 8/12/98 and 8/13/98 while the continuous unit was operational and analyzed with the required reporting limits. These samples did not contain detectable concentrations of TCLP benzo(a)anthracene and dibenzo(a,h)anthracene. Also, hot cyclone dust from the second continuous test was mistakenly analyzed for total (not TCLP) VOCs. A TCLP value was calculated for each analyte by dividing the concentration obtained from the total VOC analysis by the leachate procedure dilution factor, 20 (SW846 Method 1311, Section 7.2.11 and 7.3). This is a conservative estimate in that it assumes complete desorption of the analyte from the soil to the leachate. Calculated results were below delisting criteria for all analytes. Calculations used to convert total VOC concentrations in soil to VOC TCLP concentrations are presented in Appendix M.

In calculating B(a)P equivalent concentrations for the hot cyclone dust from the continuous units, one half of the reporting limit was used for compounds not detected. The second and third tests met the performance standards for B(a)P equivalent concentration for surface and subsurface soil. The first test contained a B(a)P equivalent concentration of 0.3 mg/kg. This met the B(a)P performance standard for subsurface soil but was above the criteria for surface soil. Hot cyclone dust generated during the continuous tests contained 2,3,7,8 TCDD equivalent concentrations less than 0.12 ppb. Both continuous units have been reconfigured to reintroduce hot cyclone dust back into the treatment stream.

3.4.3 Impinger Sludge

Impinger sludge from the BTDU was segregated and stockpiled during the POP tests and sampled separately for soil performance criteria in accordance with Appendix N, SOP 30.7. Samples were labeled and packaged following procedures outlined in Appendix N, SOPs 50.1, 50.2 and 50.3. Samples were analyzed for the same parameters as treated soil. Sludge samples for the third batch test were received at the laboratory after 5 days at 20°C. This exceeds the recommended 4±2°C limit. Excessive temperatures increase volatilization and biodegradation, therefore results for these samples may be lower than actual. Although actual concentrations may be higher, these samples did not meet performance standards even at the potentially lower concentrations reported (see below).

Results are presented in Tables 3-36 to 3-38 (first-repeat, second and third batch tests, respectively). Due to high contaminant levels in impinger sludge from batch units, PAH concentrations could not be determined by Method 8310. In order to calculate B(a)P equivalent concentrations, PAH values obtained from SVOC analysis were used and a value of zero was used for compounds not detected. Impinger sludge from batch units did not meet the performance standard for B(a)P equivalent concentration and some hazardous waste characteristics or delisting criteria. Impinger sludge contained high 2,3,7,8 TCDD equivalent concentrations (16 to 25 ppb). Material that does not conform to specifications will be reprocessed, and backfill or disposal options will be evaluated.

3.5 INFLUENT CONDENSATE/WASTEWATER AND TREATED EFFLUENT

Process wastewater was generated from the TDU condensers, air scrubbers, and WESPs. Process wastewater was routed to two, approximately 10,000-gallon, vertical tanks located at the TDU area. From there, water was transferred to an approximately 20,000-gallon horizontal tank (T-112) at the new WTP. Process wastewater was treated by the WTP for re-use by the thermal desorption systems. In order to discharge treated water to the Western Tributary, analyses must show that effluent meets the standards established by the MDE.

3.5.1 Condensate Water

Condensate wastewater generated by the thermal desorption process during the POP tests was transported to the on-site wastewater treatment facility for treatment. Approximately 7,000 gallons of condensate water was generated from each test of the continuous unit. While only 200 gallons of condensate water was generated from each test of the batch unit. For each test, a grab sample was collected from both the batch and continuous lines to the first vertical condensate tank (see Appendix N, SOP 30.8). No sample was collected for total suspended solids (TSS) analysis from the third test of the batch unit. Samples were labeled and packaged following procedures outlined in Appendix N, SOPs 50.1, 50.2 and 50.3.

Condensate samples for the first continuous test were received at the laboratory within 24 hours of collection between 10-11°C. Condensate samples for the second and third continuous tests were received at the laboratory within 24 hours of collection at 20°C. This exceeds the recommended 4±2°C limit. Excessive temperatures increase volatilization and biodegradation, therefore results for these samples may be lower than actual. Samples were analyzed for PAHs, PCP, VOCs, SVOCs, dioxin/furans and TSS.

Total suspended solid loading on the WTP was evaluated for each test through the analysis of discharge from the second vertical condensate tank and the horizontal holding tank (T-112) as well as influent to the first vertical condensate tank (see above). Results are presented in Tables 3-39 to 3-44 (first-repeat, second and third batch tests and first, second and third continuous tests, respectively).

Condensate water contained high concentrations of naphthalene (12 to 23 ppm batch and 2.8 to 4 ppm continuous) and phenol (10 to 160 ppm batch and 25 to 37 ppm continuous) and low levels of PCP (13-290 ppb). Condensate water from batch unit tests also contained high levels of benzene (670-1700 ppb) and methylethyl ketone (10-14 ppm). Condensate from the batch unit tests contained contaminant levels two to six times greater than from continuous unit tests. The condensate from the BTDU would be expected to be more contaminated than from the CTDU. The condensate generated in the BTDU treatment process is generated in a closed system (i.e. nothing is added). In the CTDU treatment process, treated (i.e. clean) water is added to the scrubber system which reduces the concentration of contamination in the condensate.

Dioxin concentrations in condensate from batch and continuous tests were similar with 2,3,7,8 TCDD equivalent concentrations ranging from 2.5 to 6.9 ng/L. Condensate from batch unit tests contain low TSS. TSS dropped significantly from condensate lines to the vertical tanks to the horizontal holding tanks during the continuous tests.

3.5.2 Water Treatment Plant

In order to evaluate system performance and the ability of the plant to achieve the requirements of the discharge during the proof of performance, samples of the influent, effluent and mid carbon were collected in accordance with Appendix N, SOP 30.9. Grab samples were collected during the first day that condensate from POP testing was received at the plant (6/10/98). Samples were labeled and packaged following procedures outlined in Appendix N, SOPs 50.1, 50.2 and 50.3. WTP samples were received at the laboratory within 24 hours of collection between 10-11°C. This exceeds the recommended 4±2°C limit. Excessive temperatures increase volatilization and biodegradation, therefore results for these samples may be lower than actual. Although results may be biased low due to temperature excursions, WTP samples will be collected monthly throughout the process to monitor the quality of the treated water.

The influent and effluent were analyzed for all compounds listed in Table 3-45 and the effluent from the first carbon was analyzed for VOCs, SVOCs, phenols, and TSS. Table 3-45 also presents results from WTP sampling and analysis.

The influent to the WTP contained high concentrations of cyanide, total kjeldahl nitrogen (TKN), ammonia, phenol and naphthalene (other PAH compounds were probably present but not detected due to high dilution factors needed to bring naphthalene in calibration range), low levels of VOCs (except benzene and toluene) and metals (except copper and iron, which were above discharge criteria). Effluent met all discharge criteria except for DO, TKN and ammonia. Effluent was sampled and analyzed for dissolved oxygen (DO) on 6/17/98, 6/30/98 and 7/6/98; DO levels (5.42, 5.31 and 6.10 mg/L, respectively) met criteria at these times. Effluent will only be used for soil re-wetting and recirculation to the VRS system of the TDUs and not discharged to the West Tributary until the ammonia/nitrogen effluent levels meet the discharge criteria.

Table 1-1
SUMMARY OF BATCH POP TESTS (Off-site Laboratory Results)

	Total PAHs	Carcinogenic PAHs	B(a)P equivalents	Total dioxin/furans	2,3,7,8 TCDD equivalents	Total SVOCs	Total VOCs	Comments
FIRST TEST-REPEAT								
untreated soil	1,340 mg/kg	90.6 mg/kg	13.9 mg/kg	195,163.05 pg/g	465. pg/g	1,470 mg/kg	5.83 mg/kg	moisture =18.85 %
treated soil	0.673 mg/kg	0.072 mg/kg	0.039 mg/kg	97 pg/g	2.01 pg/g	0.967 mg/kg	N/A	Met all criteria[2]
hot cyclone	173 mg/kg	27.3 mg/kg	3.69 mg/kg	19,900 pg/g	633 pg/g	179 mg/kg	N/A	Did not meet criteria[2]
impinger sludge	426,200 mg/kg	15,700 mg/kg	771.9 mg/kg	484,000 pg/g	23,000 pg/g	466,200 mg/kg	N/A	Did not meet criteria[2]
condensate	42.8 mg/L	N/A	N/A	80,200 pg/L	2,910 pg/L	228 mg/L	144 mg/L	
FTO inlet	N/A	N/A	N/A	N/A	N/A	N/A	$3.9X10^{-3}$ g/s	
FTO outlet	N/A	N/A	N/A	N/A	N/A	N/A	$4.81X10^{-4}$ g/s	Met all criteria[1]
SECOND TEST								
untreated soil	1,312.4 mg/kg	118.4 mg/kg	16.2 mg/kg	122,000 pg/g	309 pg/g	1420 mg/kg	186 mg/kg	moisture =17.9 %
treated soil	11.7 mg/kg	1.24 mg/kg	0.086 mg/kg	759 pg/g	8.32 pg/g	11.27 mg/kg	N/A	Met all criteria[2]
hot cyclone	106,000 mg/kg	13,830 mg/kg	1,726 mg/kg	361,000 pg/g	7,480 pg/g	108,000 mg/kg	N/A	Did not meet criteria[2]
impinger sludge	652,000 mg/kg	15,300 mg/kg	876 mg/kg	626,000 pg/g	25,300 pg/g	729,000 mg/kg	N/A	Did not meet criteria[2]
condensate	46.19 mg/L	N/A	N/A	89,300 pg/L	5,320 pg/g	35.3 mg/L	24.5 mg/L	
FTO inlet	N/A	N/A	N/A	$6.45X10^{-13}$ g/s	$2.96X10^{-15}$ g/s*	$4.86X10^{-4}$ g/s	$5.26X10^{-3}$ g/s	
FTO outlet	N/A	N/A	N/A	$5.84X10^{-13}$ g/s	$2.54X10^{-14}$ g/s*	$3.36X10^{-5}$ g/s	$3.69X10^{-4}$ g/s	Met all criteria
THIRD TEST								
untreated soil	4,050 mg/kg	210 mg/kg	37.4 mg/kg	157,000 pg/g	372 pg/g	4,440 mg/kg	120 mg/kg	moisture =15.8 %
treated soil	6.31 mg/kg	0.76 mg/kg	0.055 mg/kg	220 pg/g	3.81 pg/g	7.86 mg/kg	N/A	Met all criteria[2]
hot cyclone	103,000 mg/kg	12,500 mg/kg	1,450 mg/kg	114,000 pg/g	7,125 pg/g	105,570 mg/kg	N/A	Did not meet criteria[2]
impinger sludge	403,000 mg/kg	6,230 mg/kg	58.7 mg/kg	406,000 pg/g	16,200 pg/g	447,000 mg/kg	N/A	Did not meet criteria[2]
condensate	27.5 mg/L	N/A	N/A	199,000 pg/L	6,810 pg/L	2,350 mg/L	28.9 mg/L	
FTO inlet	N/A	N/A	N/A	$1.79X10^{-11}$ g/s	$1.31X10^{-13}$ g/s	$1.64X10^{-4}$ g/s	$1.30X10^{-3}$ g/s	
FTO outlet	N/A	N/A	N/A	$2.68X10^{-12}$ g/s	$6.83X10^{-14}$ g/s	$1.45X10^{-3}$ g/s	$1.64X10^{-4}$ g/s	Met all criteria

1- Missing data for dioxins and SVOC's
2- Criteria includes delisting and hazardous waste characterization
*- While the outlet data shows the dioxin level to be higher coming out of the FTO than going in, this is most likely not the case. Because the values are so extremely low, obtaining a precise value can be difficult. Therefore, the apparent error is most likely due to sampling accuracy.

Table 1-2
SUMMARY OF CONTINUOUS POP TESTS (Off-site Laboratory Results)

	Total PAHs	Carcinogenic PAHs	B(a)P equivalents	Total dioxin/furans	2,3,7,8 TCDD equivalents	Total SVOCs	Total VOCs	Comments
FIRST TEST								
untreated soil	1,950 mg/kg	109 mg/lkg	7.1 mg/kg	150,000 pg/g	354 pg/g	2,200 mg/kg	1.76 mg/kg	moisture =10.7%
treated soil	0.233 mg/kg	0.0516 mg/kg	0.011 mg/kg	93.3 pg/g	0.6 pg/g	0.153 mg/kg	N/A	Met all criteria[1]
hot cyclone	19.8 mg/kg	3.70 mg/kg	0.3 mg/kg	4,920 pg/g	112 pg/g	23.35 mg/kg	N/A	Met all criteria[1,2]
condensate	5.5 mg/L	N/A	N/A	65,600 pg/L	4,260 pg/L	52.6 mg/L	6.82 mg/L	
FTO inlet	N/A	N/A	N/A	8.89×10^{-10} g/s	4.01×10^{-11} g/s	4.11×10^{-2} g/s	3.69×10^{-2} g/s	
FTO outlet	N/A	N/A	N/A	1.88×10^{-10} g/s	1.06×10^{-11} g/s	5.05×10^{-4} g/s	6.31×10^{-4} g/s	Met all criteria[1]
SECOND TEST								
untreated soil	939 mg/kg	78.0mg/kg	12.5 mg/kg	133,000 pg/g	303 pg/g	1,050 mg/kg	1.88 mg/kg	moisture =11.6%
treated soil	0.23 mg/kg	0.05 mg/kg	0.039 mg/kg	189 pg/g	2.42 pg/g	0.984 mg/kg	N/A	Met all criteria[1]
hot cyclone	0.77 mg/kg	0.078 mg/kg	0.038 mg/kg	549 pg/g	10.7 pg/g	0.404 mg/kg	N/A	Met all criteria[1]
condensate	6.34 mg/L	N/A	N/A	154,000pg/L	6,510 pg/L	65.65 mg/L	51.9 mg/L	
FTO inlet	N/A	N/A	N/A	7.15×10^{-8} g/s	2.39×10^{-9} g/s	6.71×10^{-2} g/s	3.83×10^{-2} g/s	
FTO outlet	N/A	N/A	N/A	2.01×10^{-9} g/s	7.13×10^{-11} g/s	6.07×10^{-4} g/s	4.24×10^{-4} g/s	Met all criteria[1]
THIRD TEST								
untreated soil	1,160 mg/kg	96.1 mg/kg	14.2mg/kg	138,000 pg/g	334 pg/g	1,290 mg/kg	0.986 mg/kg	moisture =11.3%
treated soil	0.194 mg/kg	0.026 mg/kg	0.040 mg/kg	259 pg/g	3.08 pg/g	0.275 mg/kg	N/A	Met all criteria[1]
hot cyclone	0.292 mg/kg	0.027 mg/kg	0.005 mg/kg	111 pg/g	2.67 pg/g	0.112 mg/kg	N/A	Met all criteria[1]
condensate	4.4mg/L	N/A	N/A	39,400 pg/L	2,480 pg/L	26.7 mg/L	19.0 mg/L	
FTO inlet	N/A	N/A	N/A	N/A	N/A	N/A	5.19×10^{-2} g/s	
FTO outlet	N/A	N/A	N/A	1.04×10^{-10} g/s	1.04×10^{-13} g/s	4.84×10^{-4} g/s	3.24×10^{-4} g/s	Met all criteria[1]

1- Criteria includes delisting and hazardous waste characterization

2- Except surface B(a)P

Table 2-1
Percent Moisture Tests

Sample ID	Percent Moisture
01	7.96
02	8.58
03	7.85
04	7.10
05	8.59
06	8.62
07	11.0
08	8.53
09	7.68
10	7.76
11	7.81
12	8.42
mean	8.325
standard deviation	0.97

TABLE 2-2 – Ramp Up
Feed Soil

Parameter	On-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	12	8
Benzo[b]fluoranthene	9.7	8
Benzo[k]fluoranthene	7.1J	8
Benzo[a]pyrene	7.6J	8
Chrysene	16	8
Dibenzo[a,h]anthracene	1.6J	8
Indeno[1,2,3-cd]pyrene	3.1J	8
Carbazole	26	8
Benzo(a)Pyrene Equivalence	11.8	
Total Carcinogenic PAHs	74.1	
Acenaphthene	41	8
Acenaphthylene	1.4J	8
Anthracene	85	8
Fluoranthene	67	8
Fluorene	35	8
Naphthalene	15	8
2-Methylnaphthalene	NT	NT
Phenanthrene	67	8
Pyrene	54	8
Total PAHs	439.5	

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TABLE 2-2 (cont.)– Ramp Up Feed Soil

Volatile Organic Compounds by 5030A/8260B	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)
Acetone	16B	20	910B	2,500	21B,J	40	450B	2,500
Benzene	ND	5	ND	630	ND	10	ND	630
2-Butanone (MEK)	ND	20	130J	2,500	ND	40	ND	2,500
N-Butylbenzene	ND	5	ND	630	ND	10	ND	630
Carbon tetrachloride	ND	5	ND	630	ND	10	ND	630
Chlorobenzene	ND	5	ND	630	ND	10	ND	630
Chloroform	ND	5	ND	630	ND	10	ND	630
Chloromethane	ND	10	ND	1,300	ND	20	ND	1,300
1,2-Dichloroethane	ND	5	ND	630	ND	10	ND	630
1,1-Dichloroethene	ND	5	ND	630	ND	10	ND	630
2-Hexanone	1.1B	20	ND	2,500	ND	40	ND	2,500
Isopropylbenzne	ND	5	ND	630	ND	10	ND	630
p-Isopropyltoluene	15	5	63J	630	14	10	79J	630
Methylene Chloride	7.4B	5	450J,B	630	12B	10	450B	630
4-Methyl-2-pentanone	ND	10	ND	1,300	ND	20	81J	1,300
Sec-Butylbenzene	ND	5	ND	630	1.5J	10	ND	630
Tertbutylbenzene	9.9	5	44J	630	12	10	51J	630
Tetrachloroethene	ND	5	ND	630	ND	10	ND	630
Toluene	0.42J	5	ND	630	ND	10	ND	630
1,2,3-Trichlorobenzene	0.57J	5	ND	630	ND	10	ND	630
1,2,4-Trichlorobenzene	0.41B	5	ND	630	ND	10	ND	630
Trichloroethene	ND	5	ND	630	ND	10	ND	630
1,2,4-Trimethylbenzene	34	5	120J	630	23	10	130J	630
1,3,5-Trimethylbenzene	28	5	70J	630	28	10	90J	630
Ethylbenzene	1.3J	5	ND	630	1.2J	10	ND	630
Styrene	ND	5	ND	31630	ND	10	ND	630
Xylene(s)	12.2	5	43J	630	7.4J	10	49J	630
Vinyl chloride	ND	10	ND	1,300	ND	20	ND	1,300

TABLE 2-3 – Ramp Up
Treated Soil

Parameter	Reporting Limit (ug/kg)	6TPH 38% speed	7TPH 45% speed	7TPH 45% speed	7TPH 45% speed	8TPH 53% speed	8TPH 53% speed	8TPH 53% speed	9TPH 62% speed	9TPH 62% speed	9TPH 62% speed	11TPH 75% speed
benzo(a)anthracene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzo(b)fluoranthene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzo(a)fluoranthene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzo(a)pyrene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chrysene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibenzo(a,h)anthracene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
indeno(1,2,3-cd)pyrene	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbazole	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B(a)P equivalent conc.	NA	0	0	0	0	0	0	0	0	0	0	0

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Table 3-1 Summary of Operational Parameter Instrumentation for Continuous Thermal Desorption Units

#	Parameter	Instrument	Accept. Range/ Maximum	Range of Test Data	Frequency	Range and Accuracy of Equipment	Calibration	Recorded (Yes/No)
1	Soil Feed Rate	Variable Speed Screw Feeder	12.1TPH	11 TPH	Continuous	0-60 tph ± 5% per 24 hr. period	Vol. measurement converted to tons on calibration curve	Yes
2	Thermal Desorber Face Pressure	Pressure Transmitter	< 0.25 - 2"	-0.25 - -2"	Continuous	-10" to 15" w.c. ± 0.25% of full scale	Factory calibrated	Yes
3	Thermal Desorber Shell Temperature	Thermocouples	1000 -1500°F	1000 -1500°F, some >1500°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75% (559-2,200°F)	Factory calibrated	Yes
4	Soil Exit Temperature	Thermocouples	875 -950°F, not < 850°F for 20 min.	900 - 1000°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75% (559-2,200°F)	Factory calibrated	Yes
5	Cyclone Temperature	Thermocouples	750 - 1150°F	900°F - 1000°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75% (559-2,200°F)	Factory calibrated	Yes
6	Scrubber Outlet O_2 Level	O_2 Level Analyzer	1 – 10%	0 – 20%	Continuous	0-100% O2 +/- 0.1% O2	Automatically Checked Daily	Yes
7	Scrubber Recycle Water Temperature	Thermocouple	50-120°F	100-117°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75% (559-2,200°F)	Factory calibrated	Yes
8	Cooling Tower Inlet Water Temperature	Thermocouple	50-140°F	75 - 89°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75% (559-2,200°F)	Factory calibrated	Yes
9	WESP Gas Exit Temperature	Thermocouple	50-150°F*	80 -99°F	Continuous	0-2,200°F±4°F (0-55°F) ± 0.75% (559-2,200°F)	Factory calibrated	Yes
10	FTO Bed Temperature	Thermocouple	1500- 1800°F	1178 - 1600°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75% (559-2,200°F)	Factory calibrated	Yes
11	CPM THC Level	FID Analyzer	800 ppm	0 - 300ppm	Continuous	3-10,000 PPM <1% of full span in 24 hours	Timed Automatic Calibration Check	Yes

* Note: If WESP exit temperature begins drifting significantly upward, the operator shall check the vapor recovery system and take actions necessary to keep the temperature as low as reasonably feasible.

should be lower
didn't go above 99°F dur. Pop Test

See Table 3-1 also

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Table 3-2 Summary of Operational Parameter Instrumentation for the Batch Thermal Desorption Units

#	Parameter	Instrument	Accept. Range/ Maximum	Range of Test Data	Frequency	Range and Accuracy of instrument	Calibration	Recorded (yes/no)
1	Batch Size (tons)	vol. measure of mass in BTDU converted to tons	12.36 tons	9.52 – 11.24 tons	Per Batch	10-25 tons per batch ±5% per batch	Volumetric measurement converted to tons	Yes
2	Burner Box Exit Gas Temp.	Thermocouple	1000° - 2000°F	100 - 2136°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75%(559-2,200°F)	Factory calibrated	Yes
3	Burner Stack Gas Temperature	Thermocouple	800° - 1100°F	800- 958°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75%(559-2,200°F)	Factory calibrated	Yes
4	Hot Cyclone Temperature	Thermocouple	Ambient - 900°	Ambient - 900°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75%(559-2,200°F)	Factory calibrated	Yes
5	Hot Cyclone Vacuum	Vacuum Transmitter	10" Hg - 28" Hg	10" Hg - 28" Hg	Continuous	0-30" Hg ±1% Full scale	Factory calibrated	Yes
6	Chiller Coolant Temperature	Thermocouple	35°-50°F	35°-50°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75%(559-2,200°F)	Factory calibrated	Yes
7	Cooling Tower Coolant Temperature	Thermocouple	35-110°F	35-110°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75%(559-2,200°F)	Factory calibrated	Yes
8	Vacuum Pump Inlet Temp.	Thermocouple	Ambient - 110° F	Ambient - 110° F	Once every 12 hours	0-2,200°F±4°F (0-559°F) ± 0.75%(559-2,200°F)	Factory calibrated	Yes manually
9	Vacuum Pump Inlet Pressure	Gauge	15" Hg - 30" Hg	15" Hg - 30" Hg	Once every 12 hours	0 to 30" Hg ±1.5%	Factory calibrated	Yes manually
10	FTO Inlet Temperature	Thermocouple	Ambient - 135° F*	Ambient - 135° F*	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75%(559-2,200°F)	Factory calibrated	Yes
11	FTO Bed Temperature	Thermocouple	1500° - 1800°F	1500° - 1800°F	Continuous	0-2,200°F±4°F (0-559°F) ± 0.75%(559-2,200°F)	Factory calibrated	Yes
12	CPM THC Level	FID Analyzer	1400 ppm	100 - 400 ppm	Continuous	3-10,000 PPM <1% of full span in 24 hrs	Timed Automatic Calibration Check	Yes

* Note: If FTO inlet temperature begins drifting significantly upward, the operator shall check the vapor recovery system and take actions necessary to keep the temperature as low as reasonably feasible.

Look at Table 5.2 also

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TABLE 3-3 – Untreated Soil
First Batch Test-Repeat, 6/13-14/98

Parameter	On-site 8270		Off-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	22	12	33J	79
Benzo[b]fluoranthene	12	12	19J	79
Benzo[k]fluoranthene	7.5J	12	ND	79
Benzo[a]pyrene	8.6J	12	8.6J	79
Chrysene	24	12	30J	79
Dibenzo[a,h]anthracene	1.4J	12	ND	79
Indeno[1,2,3-cd]pyrene	3.5J	12	ND	79
Carbazole	36	12	32J	79
Benzo(a)Pyrene Equivalence	13.9		13.9	
Total Carcinogenic PAHs	79.0		90.6	
Acenaphthene	86	12	140	79
Acenaphthylene	3.2J	12	ND	79
Anthracene	98	12	140	79
Fluoranthene	140	12	200	79
Fluorene	86	12	130	79
Naphthalene	42	12	84	79
2-Methylnaphthalene	NT	NT	65J	79
Phenanthrene	190	12	380	79
Pyrene	79	12	110	79
Total PAHs	803.2		1,339.6	

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	ND	0.94-EMPC
2378-TCDF	4.72	1.0
12378-PeCDF	15.79	2.5
12378-PeCDD	9.78	2.5
23478-PeCDF	ND	1.35-EDL
123478-HxCDF	37.55	2.5
123678-HxCDF	58.14	2.5
123478-HxCDD	30.79	2.5
123678-HxCDD	502.95	2.5
123789-HxCDD	123.14	2.5
234678-HxCDF	39.47	2.5
123789-HxCDF	4.45	2.5
1234678-HpCDF	2,138.39	2.5
1234678-HpCDD	18,124.94	2.5
1234789-HpCDF	291.05	2.5
OCDD	158,589.6	5.0
OCDF	15,192.29	5.0
2,3,7,8 TCDD Toxicity Equivalence	465.13	

A key to data flags is included in Appendix M.

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TABLE 3-3 (cont.)– Untreated Soil
First Batch Test-Repeat, 6/13-14/98

Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Semivolatile Organic Compounds by 3540C/8270		
Carbazole	32J	79
4-Chloro-3-methylphenol	ND	160
2-Chlorophenol	ND	79
Dibenzofuran	95	79
1,4-Dichlorobenzene	ND	79
2,4-Dimethylphenol	ND	79
2,4-Dinitrophenol	ND	400
2,4-Dinitrotoluene	ND	79
Hexachlorobenzene	ND	79
Hexachlorobutadiene	ND	79
Hexachloroethane	ND	79
2-Methylphenol	ND	79
4-Methylphenol	ND	79
Nitrobenzene	ND	79
Pentachlorophenol	ND	79
Phenol	ND	79
2,3,4,6-Tetrachlorophenol	ND	400
2,4,5-Trichlorophenol	ND	400
2,4,6-Trichlorophenol	ND	79
Mercury by 7471A	0.04UL	0.006
Metals by 6010B		
Arsenic	2.7	0.2
Barium	25.5	0.02
Cadmium	ND	0.04
Chromium	12.4	0.06
Copper	6.2	0.08
Lead	8.9	0.15
Selenium	0.58B	0.37
Silver	0.28B	0.14
Total Chlorides by 9056	13	2.4
Pentachlorophenol by 8151A	4.9	2.4

Parameter	Results	Reporting Limit
Density by 213E	1.8 g/mL	0.01 g/mL
Percent Moisture (on-site)	18.8%	

A key to data flags is included in Appendix M.

TABLE 3-3 (cont.)– Untreated Soil
First Batch Test-Repeat, 6/13-14/98

Volatile Organic Compounds by 5030A/8260B	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)
Actetone	1,200B	5,000	1,400B	12,000	5,100B	25,000	740B	2,900
Benzene	ND	1,300	ND	3,100	ND	6,100	ND	720
2-Butanone (MEK)	ND	5,000	ND	12,000	ND	25,000	ND	2,900
N-Butylbenzene	ND	1,300	ND	3,100	850J	6,100	ND	720
Carbon tetrachloride	ND	1,300	ND	3,100	ND	6,100	ND	720
Chlorobenzene	ND	1,300	ND	3,100	ND	6,100	ND	720
Chloroform	ND	1,300	ND	3,100	ND	6,100	ND	720
Chloromethane	360J	2,500	ND	6,100	ND	12,000	ND	1,400
1,2-Dichloroethane	ND	1,300	ND	3,100	ND	6,100	ND	720
1,1-Dichloroethene	ND	1,300	ND	3,100	ND	6,100	ND	720
Isopropylbenzne	ND	1,300	ND	3,100	1,000J	6,100	ND	720
p-Isopropyltoluene	ND	1,300	ND	3,100	ND	6,100	180J	720
Methylene Chloride	670B	1,300	1900B	3,100	2,600J	6,100	320B	720
4-Methyl-2-pentanone	ND	2,500	ND	6,100	ND	12,000	ND	1,400
Tertbutylbenzene	ND	1,300	210J	3,100	ND	6,100	140J	720
Tetrachloroethene	ND	1,300	ND	3,100	ND	6,100	ND	720
1,2,3-Trichlorobenzene	ND	1,300	ND	3,100	ND	6,100	ND	720
Trichloroethene	ND	1,300	ND	3,100	ND	6,100	ND	720
1,2,4-Trimethylbenzene	390J	1,300	430J	3,100	2,200J	6,100	ND	720
1,3,5-Trimethylbenzene	260J	1,300	420J	3,100	1,300J	6,100	590J	720
Ethylbenzene	ND	1,300	ND	3,100	610J	6,100	ND	720
Styrene	ND	1,300	ND	3,100	ND	6,100	ND	720
Xylene(s)	ND	1,300	ND	3,100	450J	6,100	ND	720
Vinyl chloride	ND	2,500	ND	6,100	ND	12,000	ND	1,400

A key to data flags is included in Appendix M.

ORIGINAL (Red)

ORIGINAL (Red)

TABLE 3-4 – Untreated Soil
Second Batch Test, 6/6/98

Parameter	On-site 8270		Off-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	29	8	24J	39
Benzo[b]fluoranthene	13	8	22J	39
Benzo[k]fluoranthene	12	8	ND	39
Benzo[a]pyrene	11	8	11J	39
Chrysene	30	8	24J	39
Dibenzo[a,h]anthracene	ND	8	ND	39
Indeno[1,2,3-cd]pyrene	ND	8	4.4J	39
Carbazole	38	8	33J	39
Benzo(a)pyrene Equivalence	15.5		16.2	
Total Carcinogenic PAH	95		118.4	
Acenaphthene	150	8	140	39
Acenaphthylene	ND	8	4.8	39
Anthracene	76	8	96	39
Fluoranthene	170	8	170	39
Fluorene	120	8	120	39
Naphthalene	290	8	190	39
2-Methylnaphthalene	NT	NT	99	39
Phenanthrene	270	8	280	39
Pyrene	100	8	95	39
Total PAH	1,271		1312.4	

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	ND	0.59-EMPC
2378-TCDF	ND	2.30-EMPC
12378-PeCDF	3.53	2.5
12378-PeCDD	7.34	2.5
23478-PeCDF	3.20	2.5
123478-HxCDF	29.75	2.5
123678-HxCDF	ND	8.92-EMPC
123478-HxCDD	33.27	2.5
123678-HxCDD	348.99	2.5
123789-HxCDD	45.82	2.5
234678-HxCDF	16.79	2.5
123789-HxCDF	1.65J	2.5
1234678-HpCDF	1735.54	2.5
1234678-HpCDD	13138.94	2.5
1234789-HpCDF	ND	69.60-EMPC
OCDD	92665.17	5.0
OCDF	14173.44	5.0
2,3,7,8 TCDD Toxicity Equivalence	308.66	

A key to data flags is included in Appendix M.

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TABLE 3-4 (cont.) – Untreated Soil
Second Batch Test, 6/6/98

Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Semivolatile Organic Compounds by 3540C/8270		
Benzo(g,h,i)perylene	4.1J	39
Carbazole	33J	39
4-Chloro-3-methylphenol	ND	79
2-Chlorophenol	ND	39
Dibenzofuran	100	39
1,4-Dichlorobenzene	ND	39
2,4-Dimethylphenol	ND	39
2,4-Dinitrophenol	ND	200
2,4-Dinitrotoluene	ND	39
Hexachlorobenzene	ND	39
Hexachlorobutadiene	ND	39
Hexachloroethane	ND	39
2-Methylphenol	ND	39
4-Methylphenol	ND	39
Nitrobenzene	ND	39
Pentachlorophenol	4.3J	39
Phenol	ND	39
2,3,4,6-Tetrachlorophenol	ND	200
2,4,5-Trichlorophenol	ND	200
2,4,6-Trichlorophenol	ND	39
Mercury by 7471A	0.04L	0.006
Metals by 6010B		
Arsenic	3.2	0.2
Barium	24.7	0.02
Cadmium	ND	0.04
Chromium	12.1	0.06
Copper	5.4	0.08
Lead	7.1	0.15
Selenium	1.2B	0.37
Silver	ND/UL	0.14
Total Chlorides by 9056	7.1	2.4
Pentachlorophenol by 8151A	2.60	2.40

Parameter	Results	Reporting Limit
Density by 213E	2.0 g/mL	0.01 g/mL
Percent Moisture (on-site)	17.9%	

A key to data flags is included in Appendix M.

TABLE 3-4 (cont.) – Untreated Soil
Second Batch Test, 6/6/98

Volatile Organic Compounds by 5030A/8260B	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)
Acetone	140,000B	150,000	110,000B	150,000	110,000B	160,000	98,000B	150,000
Benzene	ND	38,000	ND	38,000	ND	39,000	ND	37,000
2-Butanone (MEK)	ND	150,000	ND	150,000	ND	160,000	ND	15,000
Carbon tetrachloride	ND	38,000	ND	38,000	ND	39,000	ND	37,000
Chlorobenzene	ND	38,000	ND	38,000	ND	39,000	ND	37,000
Chloroform	ND	38,000	ND	38,000	ND	39,000	ND	37,000
1,2-Dichloroethane	ND	38,000	ND	38,000	ND	39,000	ND	37,000
1,1-Dichloroethene	ND	38,000	ND	38,000	ND	39,000	ND	37,000
p-Isopropyltoluene	3,900J	38,000	ND	38,000	ND	39,000	ND	37,000
4-Methyl-2-pentanone	7,000J	76,000	ND	75,000	ND	78,000	ND	75,000
Methylene Chloride	76,000B	38,000	54,000B	38,000	53,000B	39,000	54,000B	37,000
Tertbutylbenzene	3,700J	38,000	ND	38,000	ND	39,000	ND	37,000
Tetrachloroethene	ND	38,000	ND	38,000	ND	39,000	ND	37,000
1,2,3-Trichlorobenzene	3,400J	38,000	ND	38,000	ND	39,000	ND	37,000
1,2,4-Trichlorobenzene	ND	38,000	ND	38,000	ND	39,000	ND	37,000
Trichloroethene	ND	38,000	ND	38,000	ND	39,000	ND	37,000
1,2,4-Trimethylbenzene	3,700J	38,000	3,900J	38,000	3,900J	39,000	2,500J	37,000
Ethylbenzene	2,500J	38,000	2,500J	38,000	2,700J	39,000	ND	37,000
Styrene	ND	38,000	ND	38,000	ND	39,000	ND	37,000
Xylene(s)	3,300J	38,000	2,600J	38,000	3,300J	39,000	ND	37,000
Vinyl chloride	ND	76,000	ND	75,000	ND	78000	ND	75000

A key to data flags is included in Appendix M.

TABLE 3-5 – Untreated Soil
Third Batch Test, 6/7/98

Parameter	On-site 8270		Off-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	57	24	79J	200
Benzo[b]fluoranthene	30	24	42J	200
Benzo[k]fluoranthene	20J	24	ND	200
Benzo[a]pyrene	24	24	25J	200
Chrysene	54	24	64J	200
Dibenzo[a,h]anthracene	2.7J	24	ND	200
Indeno[1,2,3-cd]pyrene	12J	24	ND	200
Carbazole	58	24	71J	200
Benzo(a)Pyrene Equivalence	37.0		37.4	
Total Carcinogenic PAHs	199.7		210	
Acenaphthene	260	24	450	200
Acenaphthylene	12J	24	ND	200
Anthracene	120	24	220	200
Fluoranthene	340	24	470	200
Fluorene	220	24	360	200
Naphthalene	430	24	780	200
2-Methylnaphthalene	NT	NT	310	200
Phenanthrene	480	24	920	200
Pyrene	200	24	330	200
Total PAHs	2,261.7		4,050	

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	2.58J	1.0
2378-TCDF	3.28J	1.0
12378-PeCDF	5.55J	2.5
12378-PeCDD	9.10J	2.5
23478-PeCDF	5.61J	2.5
123478-HxCDF	59.43	2.5
123678-HxCDF	7.45J	2.5
123478-HxCDD	34.80	2.5
123678-HxCDD	389.31	2.5
123789-HxCDD	ND	66.7-EMPC
234678-HxCDF	23.67	2.5
123789-HxCDF	6.22J	2.5
1234678-HpCDF	2,047.03	2.5
1234678-HpCDD	14,851.14	2.5
1234789-HpCDF	87.21	2.5
OCDD	125,860.6	5.0
OCDF	13,817.11	5.0
2,3,7,8 TCDD Toxicity Equivalence	372.16	

A key to data flags is included in Appendix M.

TABLE 3-5 (cont.)– Untreated Soil
Third Batch Test, 6/7/98

Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Semivolatile Organic Compounds by 3540C/8270		
Carbazole	71J	200
4-Chloro-3-methylphenol	ND	400
2-Chlorophenol	ND	200
Dibenzofuran	320	200
1,4-Dichlorobenzene	ND	200
2,4-Dimethylphenol	ND	200
2,4-Dinitrophenol	ND	1,000
2,4-Dinitrotoluene	ND	200
Hexachlorobenzene	ND	200
Hexachlorobutadiene	ND	200
Hexachloroethane	ND	200
2-Methylphenol	ND	200
4-Methylphenol	ND	200
Nitrobenzene	ND	200
Phenol	ND	200
2,3,4,6-Tetrachlorophenol	ND	1,000
2,4,5-Trichlorophenol	ND	1,000
2,4,6-Trichlorophenol	ND	200
Mercury by 7471A	0.04L	0.006
Metals by 6010B		
Arsenic	3.3L	0.2
Barium	24.4	0.02
Cadmium	ND	0.04
Chromium	11.1	0.06
Copper	5.6	0.08
Lead	7.8	0.15
Selenium	1.3	0.37
Silver	ND/UL	0.14
Total Chlorides by 9056	9.2	2.4
Pentacholorphenol by 8151A	4.8	4.8

Parameter	Results	Reporting Limit
Density by 213E	2.0 g/mL	0.01 g/mL
Percent Moisture (on-site)	15.8%	

A key to data flags is included in Appendix M.

TABLE 3-5 (cont.) – Untreated Soil
Third Batch Test, 6/7/98

Volatile Organic Compounds by 5030A/8260B	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)
Acetone	96,000B	150,000	76,000B	150,000	88,000B	150,000	84,000B	150,000
Benzene	ND	38,000	ND	38,000	ND	37,000	ND	37,000
2-Butanone (MEK)	ND	150,000	ND	150,000	ND	150,000	ND	150,000
Carbon tetrachloride	ND	38,000	ND	38,000	ND	37,000	ND	37,000
Chlorobenzene	ND	38,000	ND	38,000	ND	37,000	ND	37,000
Chloroform	ND	38,000	ND	38,000	ND	37,000	ND	37,000
1,2-Dichloroethane	ND	38,000	ND	38,000	ND	37,000	ND	37,000
1,1-Dichloroethene	ND	38,000	ND	38,000	ND	37,000	ND	37,000
p-Isopropyltoluene	ND	38,000	ND	38,000	ND	37,000	ND	37,000
Methylene Chloride	45,000B	38,000	22,000JB	38,000	23,000B	37,000	22,000B	37,000
4-Methyl-2-pentanone	ND	75,000	ND	75,000	ND	75,000	ND	74,000
Tertbutylbenzene	ND	38,000	ND	38,000	ND	37,000	ND	37,000
Tetrachloroethene	ND	38,000	ND	38,000	ND	37,000	ND	37,000
1,2,3-Trichlorobenzene	ND	38,000	ND	38,000	ND	37,000	ND	37,000
Trichloroethene	ND	38,000	ND	38,000	ND	37,000	ND	37,000
1,2,4-Trimethylbenzene	2,800J	38,000	4,100J	38,000	3,100J	37,000	3,400J	37,000
Ethylbenzene	ND	38,000	2,600J	38,000	ND	37,000	ND	37,000
Styrene	ND	38,000	ND	38,000	ND	37,000	ND	37,000
Xylene(s)	ND	38,000	3,200J	38,000	2,400J	37,000	2,400J	37,000
Vinyl chloride	ND	75,000	ND	75,000	ND	75,000	ND	74,000

A key to data flags is included in Appendix M.

TABLE 3-6 – Untreated Soil
First Continuous Test, 6/10/98

Parameter	On-site 8270		Off-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	32	9.6	43J	190
Benzo[b]fluoranthene	17	9.6	24J	190
Benzo[k]fluoranthene	14	9.6	ND	190
Benzo[a]pyrene	13	9.6	ND	190
Chrysene	38	9.6	42J	190
Dibenzo[a,h]anthracene	2.5J	9.6	ND	190
Indeno[1,2,3-cd]pyrene	6.4J	9.6	ND	190
Carbazole	65	9.6	120J	190
Benzo(a)Pyrene Equivalence	21.4		7.1	
Total Carcinogenic PAHs	122.9		109	
Acenaphthene	80	9.6	170J	190
Acenaphthylene	3J	9.6	ND	190
Anthracene	170	9.6	480	190
Fluoranthene	150	9.6	260	190
Fluorene	88	9.6	200	190
Naphthalene	5.4J	9.6	15J	190
2-Methylnaphthalene	NT	NT	46J	190
Phenanthrene	200	9.6	470	190
Pyrene	110	9.6	200	190
Total PAHs	929.3		1,950	

Dioxins/Furans by 8290	Result (pg/g)	Reporting Limit (pg/g)
2378-TCDD	ND	0.77-EMPC
2378-TCDF	ND	2.03-EMPC
12378-PeCDF	ND	5.11-EMPC
12378-PeCDD	7.94	2.5
23478-PeCDF	ND	30.96-EDL
123478-HxCDF	ND	56.71-EDL
123678-HxCDF	ND	51.52-EDL
123478-HxCDD	ND	37.88-EMPC
123678-HxCDD	472.29	2.5
123789-HxCDD	59.24	2.5
234678-HxCDF	ND	66.16-EDL
123789-HxCDF	ND	89.98-EDL
1234678-HpCDF	2,068.59	2.5
1234678-HpCDD	14,285.58	2.5
1234789-HpCDF	82.41	2.5
OCDD	122,442.3	5.0
OCDF	10,409.80	5.0
2,3,7,8 TCDD Toxicity Equivalence	354.34	

A key to data flags is included in Appendix M.

TABLE 3-6 (cont.) – Untreated Soil
First Continuous Test, 6/10/98

Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Semivolatile Organic Compounds by 3540C/8270		
Carbazole	120J	190
4-Chloro-3-methylphenol	ND	370
2-Chlorophenol	ND	190
Dibenzofuran	130J	190
1,4-Dichlorobenzene	ND	190
2,4-Dimethylphenol	ND	190
2,4-Dinitrophenol	ND	940
2,4-Dinitrotoluene	ND	190
Hexachlorobenzene	ND	190
Hexachlorobutadiene	ND	190
Hexachloroethane	ND	190
2-Methylphenol	ND	190
4-Methylphenol	ND	190
Nitrobenzene	ND	190
Phenol	ND	190
2,3,4,6-Tetrachlorophenol	ND	940
2,4,5-Trichlorophenol	ND	940
2,4,6-Trichlorophenol	ND	190
Mercury by 7471A	0.08B	0.006
Metals by 6010B		
Arsenic	3.5	0.2
Barium	28.3	0.002
Cadmium	ND	0.04
Chromium	13.8	0.06
Copper	6.9	0.08
Lead	9.4	0.15
Selenium	0.68	0.37
Silver	0.33B	0.14
Total Chlorides by 9056	8.3	2.2
Pentachlorophenol by 8151A	15	9

Parameter	Result	Reporting Limit
Density by 213E	2.2 g/mL	0.01 g/mL
Percent Moisture (on- site)	10.7%	

A key to data flags is included in Appendix M.

TABLE 3-6 (cont.)– Untreated Soil
First Continuous Test, 6/10/98

Volatile Organic Compounds by 5030A/8260B	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)
Acetone	1,700B	5,600	880B	1,400	170B	940	1,000B	1,400
Benzene	ND	1,400	ND	350	ND	230	ND	350
2-Butanone (MEK)	ND	5,600	ND	1,400	ND	940	110J	1,400
Sec-Butylbenzene	ND	1,400	ND	350	27J	230	ND	350
Carbon tetrachloride	ND	1,400	ND	350	ND	230	ND	350
Chlorobenzene	ND	1,400	ND	350	ND	230	ND	350
Chloroform	ND	1,400	ND	350	ND	230	ND	350
Chloromethane	ND	2,800	ND	700	ND	470	140J	1,700
2-Chlorotoluene	ND	1,400	ND	350	24J	230	ND	350
1,2-Dichloroethane	ND	1,400	ND	350	ND	230	ND	350
1,1-Dichloroethene	ND	1,400	ND	350	ND	230	ND	350
p-Isopropyltoluene	220J	1,400	150J	350	160J	230	170J	350
Methylene Chloride	360J	1,400	140J	350	93J	230	170J	350
4-Methyl-2-pentanone	ND	2,800	ND	700	ND	470	ND	700
Tertbutylbenzene	ND	1,400	ND	350	ND	230	110J	350
Tetrachloroethene	ND	1,400	ND	350	ND	230	ND	350
1,2,3-Trichlorobenzene	ND	1,400	ND	350	ND	230	ND	350
Trichloroethene	ND	1,400	ND	350	ND	230	ND	350
1,2,4-Trimethylbenzene	210J	1,400	32J	350	84J	230	44J	350
1,3,5-Trimethylbenzene	340J	1,400	290J	350	240	230	340J	350
Ethylbenzene	ND	1,400	ND	350	ND	230	ND	350
Styrene	ND	1,400	ND	350	ND	230	ND	350
Xylene(s)	90J	1,400	24J	350	19J	230	23J	350
Vinyl chloride	ND	2,800	ND	700	ND	470	ND	700

A key to data flags is included in Appendix M.

TABLE 3-7 – Untreated Soil
Second Continuous Test, 6/10-11/98

Parameter	On-site 8270		Off-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	43	9.6	25J	37
Benzo[b]fluoranthene	32	9.6	18J	37
Benzo[k]fluoranthene	26	9.6	ND	37
Benzo[a]pyrene	22	9.6	8J	37
Chrysene	53	9.6	27J	37
Dibenzo[a,h]anthracene	3.3J	9.6	ND	37
Indeno[1,2,3-cd]pyrene	9.5	9.6	ND	37
Carbazole	72	9.6	46	37
Benzo(a)Pyrene Equivalence	34.3		12.5	
Total Carcinogenic PAH	188.8		78	
Acenaphthene	91	9.6	94	37
Acenaphthylene	3.9J	9.6	ND	37
Anthracene	180	9.6	200	37
Fluoranthene	200	9.6	150	37
Fluorene	95	9.6	90	37
Naphthalene	4.9J	9.6	3.5J	37
2-Methylnaphthalene	NT	NT	8.1J	37
Phenanthrene	220	9.6	220	37
Pyrene	170	9.6	95	37
Total PAH	1,153.6		938.6	

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	0.92J	1.0
2378-TCDF	2.29	1.0
12378-PeCDF	6.90	2.5
12378-PeCDD	ND	9.21-EMPC
23478-PeCDF	ND	35.24-EDL
123478-HxCDF	ND	42.89-EDL
123678-HxCDF	ND	38.96-EDL
123478-HxCDD	36.35	2.5
123678-HxCDD	430.77	2.5
123789-HxCDD	48.67	2.5
234678-HxCDF	ND	50.04-EDL
123789-HxCDF	ND	68.06-EDL
1234678-HpCDF	ND	16.41-EDL
1234678-HpCDD	13,036.63	2.5
1234789-HpCDF	ND	26.43-EDL
OCDD	108,893.6	5.0
OCDF	10,628.32	5.0
2,3,7,8 TCDD Toxicity Equivalence	302.96	

A key to data flags is included in Appendix M.

TABLE 3-7 (cont.)– Untreated Soil
Second Continuous Test, 6/10-11/98

Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Semivolatile Organic Compounds by 3540C/8270		
Carbazole	46	37
4-Chloro-3-methylphenol	ND	74
2-Chlorophenol	ND	37
Dibenzofuran	61	37
1,4-Dichlorobenzene	ND	37
2,4-Dimethylphenol	ND	37
2,4-Dinitrophenol	ND	190
2,4-Dinitrotoluene	ND	37
Hexachlorobenzene	ND	37
Hexachlorobutadiene	ND	37
Hexachloroethane	ND	37
2-Methylphenol	ND	37
4-Methylphenol	ND	37
Nitrobenzene	ND	37
Phenol	ND	37
2,3,4,6-Tetrachlorophenol	ND	190
2,4,5-Trichlorophenol	ND	190
2,4,6-Trichlorophenol	ND	37
Mercury by 7471A	0.07B	0.006
Metals by 6010B		
Arsenic	5.8B	0.2
Barium	29.6	0.02
Cadmium	ND	0.03
Chromium	14.1	0.06
Copper	8.5	0.08
Lead	9.4	0.15
Selenium	0.96	0.37
Silver	[0.44]	0.14
Total Chlorides by 9056	8.1	2.2
Pentachlorophenol by 8151A	22	8.9

Parameter	Result	Reporting Limit
Density by 213E	1.9 g/mL	0.01 g/mL
Percent Moisture (on-site)	11.6%	

A key to data flags is included in Appendix M.

TABLE 3-7 (cont.)– Untreated Soil
Second Continuous Test, 6/10-11/98

Volatile Organic Compounds by 5030A/8260B	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)	Result (ug/kg)	Reporting Limit (ug/kg)
Acetone	ND	2300	ND	4500	390B	1100	1200B	4500
Benzene	ND	570	ND	1100	ND	280	ND	1100
Bromomethane	ND	1100	ND	2300	64J	560	ND	2200
2-Butanone (MEK)	ND	2300	ND	4500	ND	1100	ND	4500
Carbon tetrachloride	ND	570	ND	1100	ND	280	ND	1100
Chlorobenzene	ND	570	ND	1100	ND	280	ND	1100
Chloroform	ND	570	ND	1100	ND	280	ND	1100
1,2-Dichloroethane	ND	570	ND	1100	ND	280	ND	1100
1,1-Dichloroethene	ND	570	ND	1100	ND	280	ND	1100
p-Isopropyltoluene	ND	570	570J	1100	ND	280	170J	1100
Methylene Chloride	ND	570	1200 B	1100	450B	280	1200 B	1100
4-Methyl-2-pentanone	ND	1100	ND	2300	ND	560	ND	2200
Tertbutylbenzene	ND	570	360J	1100	ND	280	ND	1100
Tetrachloroethene	ND	570	ND	1100	ND	280	ND	1100
1,2,3-Trichlorobenzene	ND	570	ND	1100	ND	280	ND	1100
1,2.3-Trichloropropane	ND	570	ND	1100	310J	280	ND	1100
Trichloroethene	ND	570	ND	1100	ND	280	ND	1100
1,2,4-Trimethylbenzene	ND	570	220J	1100	ND	280	ND	1100
1,3,5-Trimethylbenzene	ND	570	950J	1100	230J	280	310J	1100
Ethylbenzene	ND	570	ND	1100	ND	280	ND	1100
Styrene	ND	570	ND	1100	ND	280	ND	1100
Xylene(s)	ND	570	ND	1100	ND	280	ND	1100
Vinyl chloride	ND	1100	ND	2300	ND	560	ND	2200

A key to data flags is included in Appendix M.

TABLE 3-8 – Untreated Soil
Third Continuous Test, 6/11-12/98

Parameter	On-site 8270		Off-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	26	12	33J	75
Benzo[b]fluoranthene	14	12	17J	75
Benzo[k]fluoranthene	10	12	6.2J	75
Benzo[a]pyrene	10	12	8.9J	75
Chrysene	29	12	31J	75
Dibenzo[a,h]anthracene	1.4J	12	ND	75
Indeno[1,2,3-cd]pyrene	4.3J	12	ND	75
Carbazole	51	12	63J	75
Benzo(a)Pyrene Equivalence	16.1		14.2	
Total Carcinogenic PAH	94.7		96.1	
Acenaphthene	91	12	110	75
Acenaphthylene	3.2J	12	ND	75
Anthracene	150	12	260	75
Fluoranthene	150	12	190	75
Fluorene	91	12	110	75
Naphthalene	6.2J	12	ND	75
2-Methylnaphthalene	NT	NT	8.3J	75
Phenanthrene	190	12	290	75
Pyrene	92	12	94	75
Total PAH	868.1		1,158.4	

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	ND	1.32-EMPC
2378-TCDF	3.64	1.0
12378-PeCDF	5.75	2.5
12378-PeCDD	ND	8.95-EMPC
23478-PeCDF	ND	13.08-EDL
123478-HxCDF	ND	31.20-EMPC
123678-HxCDF	ND	11.49-EMPC
123478-HxCDD	31.64	2.5
123678-HxCDD	396.47	2.5
123789-HxCDD	ND	68.22-EMPC
234678-HxCDF	23.49	2.5
123789-HxCDF	ND	6.16-EMPC
1234678-HpCDF	1,865.79	2.5
1234678-HpCDD	14,774.17	2.5
1234789-HpCDF	80.75	2.5
OCDD	110,025.2	5.0
OCDF	11,207.48	5.0
2,3,7,8 TCDD Toxicity Equivalence	334.25	

A key to data flags is included in Appendix M.

TABLE 3-8 (cont.) – Untreated Soil
Third Continuous Test, 6/11-12/98

Parameter	Results (mg/kg)	Reporting Limit (mg/kg)
Semivolatile Organic Compounds by 3540C/8270		
Carbazole	63J	75
4-Chloro-3-methylphenol	ND	150
2-Chlorophenol	ND	75
Dibenzofuran	74J	75
1,4-Dichlorobenzene	ND	75
2,4-Dimethylphenol	ND	75
2,4-Dinitrophenol	ND	370
2,4-Dinitrotoluene	ND	75
Hexachlorobenzene	ND	75
Hexachlorobutadiene	ND	75
Hexachloroethane	ND	75
2-Methylphenol	ND	75
4-Methylphenol	ND	75
Nitrobenzene	ND	75
Phenol	ND	75
2,3,4,6-Tetrachlorophenol	ND	370
2,4,5-Trichlorophenol	ND	370
2,4,6-Trichlorophenol	ND	75
Mercury by 7471A	0.07UL	0.006
Metals by 6010B		
Arsenic	2.9	0.2
Barium	25.6	0.02
Cadmium	ND	0.03
Chromium	12.4	0.06
Copper	6.6	0.08
Lead	8.2	0.15
Selenium	0.53B	0.37
Silver	0.39B	0.14
Total Chlorides by 9056	8.4	2.2
Pentachlorophenol by 8151A	13	9

Parameter	Result	Reporting Limit
Density by 213E	2.0 g/mL	0.01 g/mL
Percent Moisture	11.3%	

A key to data flags is included in Appendix M.

TABLE 3-8 (cont.) – Untreated Soil
Third Continuous Test, 6/11-12/98

Volatile Organic Compounds by 5030A/8260B	Result (mg/kg)	Reporting Limit (mg/kg)	Result (um/kg)	Reporting Limit (mg/kg)	Result (mg/kg)	Reporting Limit (mg/kg)	Result (mg/kg)	Reporting Limit (ug/kg)
Acetone	570BJ	4500	ND	2800	250B	1400	ND	710
Benzene	ND	1100	ND	710	ND	360	ND	180
2-Butanone (MEK)	ND	4500	ND	2800	ND	1400	ND	710
Carbon tetrachloride	ND	1100	ND	710	ND	360	ND	180
Chlorobenzene	ND	1100	ND	710	ND	360	ND	180
Chloromethane	250J	2200	ND	1400	ND	720	ND	350
Chloroform	ND	1100	ND	710	ND	360	ND	180
1,2-Dichloroethane	ND	1100	ND	710	ND	360	ND	180
1,1-Dichloroethene	ND	1100	ND	710	ND	360	ND	180
p-Isopropyltoluene	160J	1100	ND	710	120J	360	200J	180
Methylene Chloride	570B	1100	420B	710	220B	360	89B	180
4-Methyl-2-pentanone	ND	2200	ND	1400	ND	720	ND	350
Tertbutylbenzene	ND	1100	ND	710	ND	360	76J	180
Tetrachloroethene	ND	1100	ND	710	ND	360	ND	180
1,2,3-Trichlorobenzene	ND	1100	ND	710	ND	360	ND	180
Trichloroethene	ND	1100	ND	710	ND	360	ND	180
1,2,4-Trimethylbenzene	ND	1100	ND	710	ND	360	ND	180
1,3,5-Trimethylbenzene	290J	1100	150J	710	240J	360	300J	180
Ethylbenzene	ND	1100	ND	710	ND	360	ND	180
Styrene	ND	1100	ND	710	ND	360	ND	180
Xylene(s)	ND	1100	ND	710	ND	360	38J	180
Vinyl chloride	ND	2200	ND	1400	ND	720	ND	350

A key to data flags is included in Appendix M.

TABLE 3-9: 2,3,7,8 TCDD Equivalence Scaling Factors

Compound	2,3,7,8 TCDD
2378-TCDD	1.0
2378-TCDF	0.1
12378-PeCDF	0.05
12378-PeCDD	0.5
23478-PeCDF	0.5
123478-HxCDF	0.1
123678-HxCDF	0.1
123478-HxCDD	0.1
123678-HxCDD	0.1
123789-HxCDD	0.1
234678-HxCDF	0.1
123789-HxCDF	0.1
1234678-HpCDF	0.01
1234678-HpCDD	0.01
1234789-HpCDF	0.01
OCDD	0.001
OCDF	0.001

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TABLE 3-10 Stack Gases
First Batch Test-6/4/98

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
VOCs*					1-Hour	8-Hour	Annual
Dichlorodifluoromethane	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloromethane	N/A	N/A	N/A	N/A	1.60E-02	5.14E-03	N/A
Vinyl chloride (ccc)	N/A	N/A	N/A	N/A	N/A	6.37E-03	5.02E-05
Bromomethane	N/A	N/A	N/A	N/A	N/A	1.91E-03	N/A
Chloroethane	N/A	N/A	N/A	N/A	4.46E-04	1.27E-04	N/A
Acetone	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Disulfide	N/A	N/A	N/A	N/A	N/A	1.52E-02	N/A
1,1-Dichloroethene (ccc)	N/A	N/A	N/A	N/A	2.71E-02	9.80E-03	N/A
Iodomethane	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Butanone (MEK)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,1-Trichloroethane	N/A	N/A	N/A	N/A	8.44E-01	9.36E-01	N/A
Benzene	N/A	N/A	N/A	N/A	2.74E-03	7.84E-04	5.19E-04
trans1,3Dichloropropene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Methyl-2-Pentanone	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Hexanone	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethene	N/A	N/A	N/A	N/A	2.35E-01	8.33E-02	N/A
1-Chlorohexane	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene (ccc)	N/A	N/A	N/A	N/A	N/A	9.21E-02	N/A
Chlorobenzene	N/A	N/A	N/A	N/A	N/A	2.25E-02	N/A
Ethyl benzene (ccc)	N/A	N/A	N/A	N/A	1.86E-01	2.13E-01	N/A
Styrene	N/A	N/A	N/A	N/A	5.83E-02	4.16E-02	N/A
m,p-Xylene	N/A	N/A	N/A	N/A	2.23E-01	2.13E-01	N/A
o-Xylene	N/A	N/A	N/A	N/A	2.23E-01	2.13E-01	N/A
1,4-Dichlorobenzene	N/A	N/A	N/A	N/A	N/A	2.94E-02	6.26E-04
n-Butyl benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Isopropyl benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n-Propylbenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3,5-Trimethyl benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
tert-Butyl benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4-Trimethyl benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
sec-Butyl benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Isopropyl toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Naphthalene	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Sample analysis exceeded method calibration range.

A key to data flags is included in Appendix M.

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TABLE 3-10 Stack Gases
First Batch Test-6/4/98
(Continued)

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
SVOCs					1-Hour	8-Hour	Annual
Dibenzofuran	2.23E-05	3.27E-06	3.49E-07	6.29E-08	N/A	N/A	N/A
Diethylphthalate	ND	3.98E-06	2.20E-07B	7.65E-08	N/A	N/A	N/A
Fluorene	9.49E-06	4.49E-06	1.63E-07	8.63E-08	N/A	9.80E-05	N/A
Pentachlorophenol	ND	1.81E-05	ND	3.47E-07	N/A	2.45E-04	N/A
Phenanthrene	7.94E-06	3.00E-06	2.74E-07	5.74E-08	N/A	4.80E-04	N/A
Anthracene	9.29E-07	3.07E-06	3.08E-08J	5.89E-08	N/A	9.80E-05	N/A
Di-n-butylphthalate	ND	2.25E-06	ND	4.32E-08	N/A	N/A	N/A
Fluoranthene	ND	3.30E-06	1.95E-08J	6.34E-08	N/A	4.02E-03	N/A
Carbazole	ND	3.03E-06	ND	5.81E-08	N/A	2.74E-04	N/A
Pyrene	ND	2.67E-06	ND	5.30E-08	N/A	9.80E-05	N/A
bis(2-Ethylhexyl)phthalate	ND	3.18E-06	8.50E-07B	6.31E-08	N/A	9.90E-03	N/A
Benzo(a)anthracene	ND	3.19E-06	ND	6.32E-08	N/A	N/A	2.47E-05
Chrysene	ND	3.30E-06	ND	6.56E-08	N/A	9.80E-05	N/A
Benzo(b)fluoranthene	ND	2.03E-06	ND	4.40E-08	7.08E-03	N/A	2.47E-05
Benzo(k)fluoranthene	ND	2.26E-06	ND	4.89E-08	N/A	N/A	2.47E-05
Benzo(a)pyrene	ND	2.42E-06	ND	5.23E-08	N/A	9.80E-05	2.05E-06
Indeno(1,2,3-cd)pyrene	ND	1.74E-06	ND	3.76E-08	N/A	N/A	2.47E-05
Dibenz(a,h)anthracene	ND	2.16E-06	ND	4.66E-08	N/A	N/A	2.47E-05
Phenol	ND	7.34E-06	9.44E-07B	1.38E-07	N/A	9.31E-03	N/A
1,2-Dichlorobenzene	ND	7.58E-06	ND	1.42E-07	1.03E-01	7.35E-02	N/A
2-Methylphenol	ND	1.03E-05	ND	1.93E-07	N/A	1.08E-02	N/A
3/4-Methylphenol	ND	9.57E-06	2.32E-07	1.80E-07	N/A	1.08E-02	N/A
Nitrobenzene	ND	9.97E-06	ND	1.79E-07	N/A	2.45E-03	N/A
2,4-Dimethylphenol	ND	1.14E-05	ND	2.05E-07	N/A	6.43E-03	N/A
Naphthalene	1.12E-03	2.99E-06	3.36E-05B	5.37E-08	2.71E-02	2.55E-02	N/A
2-Methylnaphthalene	2.38E-04	4.92E-06	5.02E-06	8.83E-08	N/A	N/A	N/A
Acenaphthylene	2.15E-06	2.76E-06	6.79E-08	5.31E-08	N/A	1.21E-03	N/A
Acenaphthene	3.10E-05	4.49E-06	3.21E-07	8.63E-08	N/A	9.80E-05	N/A
Dioxins							
Dioxin Equivalence	4.16E-13	N/A	1.32E-12	N/A	N/A	9.80E-09	1.29E-10
Metals							
Lead	N/A	N/A	4.42E-08	N/A	N/A	N/A	N/A
Mercury	N/A	N/A	ND/UL	N/A	N/A	N/A	N/A
HCl							
HCl	1.31E-06J	1.67E-06	9.06E-06	7.93E-06	N/A	N/A	N/A
Particulates*							
Particulates (gr/SCFD)	N/A	N/A	N/A	N/A	2.50E-02	N/A	N/A

* Particulates not collected

A key to data flags is included in Appendix M.

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TABLE 3-11 Stack Gases
Second Batch Test-6/6/98

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
VOCs*					1-Hour	8-Hour	Annual
Dichlorodifluoromethane	ND/UJ	4.44E-06	ND/UJ	8.89E-07	N/A	N/A	N/A
Chloromethane	2.42E-05J	4.44E-06	7.94E-06J	8.89E-07	1.60E-02	5.14E-03	N/A
Vinyl chloride (ccc)	ND/UJ	4.44E-06	ND/UJ	8.89E-07	N/A	6.37E-03	5.02E-05
Bromomethane	ND/UJ	4.44E-06	2.15E-08J	8.89E-07	N/A	1.91E-03	N/A
Methylene Chloride	ND/UJ	4.44E-06	5.90E-03J	8.89E-07	N/A	8.53E-05	N/A
Chloroethane	ND/UJ	4.44E-06	ND/UJ	8.89E-07	4.46E-04	1.27E-04	N/A
Acetone	2.04E-03J	4.44E-06	9.46E-05J	8.89E-07	N/A	N/A	N/A
Carbon Disulfide	3.98E-06J	4.44E-06	6.50E-07J	8.89E-07	N/A	1.52E-02	N/A
1,1-Dichloroethene (ccc)	ND/UJ	4.44E-06	ND/UJ	8.89E-07	2.71E-02	9.80E-03	N/A
Iodomethane	ND/UJ	4.44E-06	8.78E-09J	8.89E-07	N/A	N/A	N/A
1,2-Dichloroethane	9.40E-06J	4.44E-06	ND/UJ	8.89E-07	N/A	N/A	N/A
2-Butanone (MEK)	5.36E-04J	4.44E-06	3.27E-05J	8.89E-07	N/A	N/A	N/A
1,1,1-Trichloroethane	ND/UJ	4.44E-06	ND/UJ	8.89E-07	8.44E-01	9.36E-01	N/A
Benzene	1.14E-03J	4.44E-06	1.04E-04J	8.89E-07	2.74E-03	7.84E-04	5.19E-04
trans-1,3Dichloropropene	1.62E-06J	4.44E-06	ND/UJ	8.89E-07	N/A	N/A	N/A
4-Methyl-2-Pentanone	3.23E-05J	4.44E-06	1.26E-06J	8.89E-07	N/A	N/A	N/A
2-Hexanone	2.07E-05J	4.44E-06	1.06E-06J	8.89E-07	N/A	N/A	N/A
Tetrachloroethene	ND/UJ	4.44E-06	ND/UJ	8.89E-07	2.35E-01	8.33E-02	N/A
1-Chlorohexane	ND/UJ	4.44E-06	ND/UJ	8.89E-07	N/A	N/A	N/A
Toluene (ccc)	8.10E-04J	4.44E-06	5.96E-05J	8.89E-07	N/A	9.21E-02	N/A
Chlorobenzene	ND/UJ	4.44E-06	ND/UJ	8.89E-07	N/A	2.25E-02	N/A
Ethyl benzene (ccc)	2.70E-04J	4.44E-06	1.59E-05J	8.89E-07	1.86E-01	2.13E-01	N/A
Styrene	1.78E-05J	4.44E-06	5.52E-06J	8.89E-07	5.83E-02	4.16E-02	N/A
m,p-Xylene	2.34E-04J	4.44E-06	1.61E-05J	8.89E-07	2.23E-01	2.13E-01	N/A
o-Xylene	7.91E-05J	4.44E-06	8.90E-06J	8.89E-07	2.23E-01	2.13E-01	N/A
1,4-Dichlorobenzene	ND/UJ	4.44E-06	ND/UJ	8.89E-07	N/A	2.94E-02	6.26E-04
n-Butyl benzene	ND/UJ	4.44E-06	1.68E-07J	8.89E-07	N/A	N/A	N/A
Isopropyl benzene	1.33E-05J	4.44E-06	3.45E-06J	8.89E-07	N/A	N/A	N/A
n-Propylbenzene	9.85E-06J	4.44E-06	6.54E-07J	8.89E-07	N/A	N/A	N/A
1,3,5-Trimethyl benzene	1.33E-05J	4.44E-06	3.66E-06J	8.89E-07	N/A	N/A	N/A
tert-Butyl benzene	ND/UJ	4.44E-06	4.60E-07J	8.89E-07	N/A	N/A	N/A
1,2,4-Trimethyl benzene	5.92E-06J	4.44E-06	6.29E-06J	8.89E-07	N/A	N/A	N/A
sec-Butyl benzene	ND/UJ	4.44E-06	ND/UJ	8.89E-07	N/A	N/A	N/A
4-Isopropyl toluene	ND/UJ	4.44E-06	3.11E-06J	8.89E-07	N/A	N/A	N/A
Naphthalene	ND/UJ	4.44E-06	2.63E-06J	8.89E-07	N/A	N/A	N/A

***Data is qualified (J or UJ) because blanks were not run during analysis between VOC samples which exceeded the calibration curve as required by EPA Method 30. Reported values for VOC results may therefore be higher than actual due to potential carry over of contamination from preceding samples.**

A key to data flags is included in Appendix M.

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TABLE 3-11 Stack Gases
Second Batch Test-6/6/98
(Continued)

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
SVOCs					1-Hour	8-Hour	Annual
Dibenzofuran	6.98E-06	9.95E-07	7.40E-07	6.92E-08	N/A	N/A	N/A
Diethylphthalate	ND	1.16E-06	ND	8.36E-08	N/A	N/A	N/A
Fluorene	2.36E-06	1.33E-06	1.93E-07	9.69E-08	N/A	9.80E-05	N/A
Pentachlorophenol	ND	5.08E-06	ND	4.32E-07	N/A	2.45E-04	N/A
Phenanthrene	1.01E-06	7.97E-07	2.35E-07	7.19E-08	N/A	4.80E-04	N/A
Anthracene	ND	7.93E-07	ND	7.49E-08	N/A	9.80E-05	N/A
Di-n-butylphthalate	ND	5.44E-07	1.23E-07B	5.09E-08	N/A	N/A	N/A
Fluoranthene	ND	8.91E-07	ND	7.82E-08	N/A	4.02E-03	N/A
Carbazole	ND	8.17E-07	ND	7.93E-08	N/A	2.74E-04	N/A
Pyrene	ND	6.79E-07	ND	7.00E-08	N/A	9.80E-05	N/A
bis(2-Ethylhexyl)phthalate	ND	7.46E-07	7.57E-07B	7.74E-08	N/A	9.90E-03	N/A
Benzo(a)anthracene	ND	8.61E-07	ND	8.27E-08	N/A	N/A	2.47E-05
Chrysene	ND	8.27E-07	ND	8.11E-08	N/A	9.80E-05	N/A
Benzo(b)fluoranthene	ND	5.58E-07	ND	5.06E-08	7.08E-03	N/A	2.47E-05
Benzo(k)fluoranthene	ND	5.91E-07	ND	5.52E-08	N/A	N/A	2.47E-05
Benzo(a)pyrene	ND	6.90E-07	ND	5.47E-08	N/A	9.80E-05	2.05E-06
Indeno(1,2,3-cd)pyrene	ND	5.02E-07	ND	4.04E-08	N/A	N/A	2.47E-05
Dibenz(a,h)anthracene	ND	7.06E-07	ND	5.29E-08	N/A	N/A	2.47E-05
Phenol	ND	2.00E-06	8.55E-07	1.47E-07	N/A	9.31E-03	N/A
1,2-Dichlorobenzene	ND	2.23E-06	ND	1.77E-07	1.03E-01	7.35E-02	N/A
2-Methylphenol	ND	2.71E-06	ND	2.11E-07	N/A	1.08E-02	N/A
3/4-Methylphenol	ND	2.47E-06	ND	1.95E-07	N/A	1.08E-02	N/A
Nitrobenzene	ND	2.43E-06	ND	1.90E-07	N/A	2.45E-03	N/A
2,4-Dimethylphenol	ND	2.87E-06	ND	2.28E-07	N/A	6.43E-03	N/A
Naphthalene	3.72E-04	8.13E-07	2.51E-05B	6.13E-08	2.71E-02	2.55E-02	N/A
2-Methylnaphthalene	9.30E-05	1.22E-06	5.62E-06	9.59E-08	N/A	N/A	N/A
Acenaphthylene	9.02E-07	7.67E-07	1.27E-07	5.42E-08	N/A	1.21E-03	N/A
Acenaphthene	9.36E-06	1.32E-06	7.78E-07	1.01E-07	N/A	9.80E-05	N/A
Dioxins							
Dioxin Equivalence	2.96E-15	N/A	2.54E-14	N/A	N/A	9.80E-09	1.29E-10
Metals							
Lead	N/A	N/A	4.98E-08B	N/A	N/A	N/A	N/A
Mercury	N/A	N/A	ND	N/A	N/A	N/A	N/A
HCl							
HCl	6.58E-07J	7.28E-07	7.57E-06	7.64E-06	N/A	N/A	N/A
Particulates							
Particulates (gr/SCFD)	N/A	N/A	3.02E-03	8.09E-05	2.50E-02	N/A	N/A

A key to data flags is included in Appendix M.

ORIGINAL (Red)

TABLE 3-12 Stack Gases
Third Batch Test-6/7/98

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
VOCs*					1-Hour	8-Hour	Annual
Dichlorodifluoromethane	ND/UJ	2.73E-06	ND/UJ	1.00E-06	N/A	N/A	N/A
Chloromethane	3.30E-06J	2.73E-06	7.67E-06J	1.00E-06	1.60E-02	5.14E-03	N/A
Vinyl chloride (ccc)	ND/UJ	2.73E-06	ND/UJ	1.00E-06	N/A	6.37E-03	5.02E-05
Bromomethane	ND/UJ	2.73E-06	ND/UJ	1.00E-06	N/A	1.91E-03	N/A
Chloroethane	ND/UJ	2.73E-06	ND/UJ	1.00E-06	4.46E-04	1.27E-04	N/A
Acetone	3.22E-04J	2.73E-06	2.99E-05J	1.00E-06	N/A	N/A	N/A
Carbon Disulfide	1.13E-06J	2.73E-06	2.53E-06J	1.00E-06	N/A	1.52E-02	N/A
1,1-Dichloroethene (ccc)	ND/UJ	2.73E-06	ND/UJ	1.00E-06	2.71E-02	9.80E-03	N/A
Iodomethane	ND/UJ	2.73E-06	ND/UJ	1.00E-06	N/A	N/A	N/A
1,2-Dichloroethane	ND/UJ	2.73E-06	ND/UJ	1.00E-06	N/A	N/A	N/A
2-Butanone (MEK)	1.92E-04J	2.73E-06	9.63E-06J	1.00E-06	N/A	N/A	N/A
1,1,1-Trichloroethane	ND/UJ	2.73E-06	ND/UJ	1.00E-06	8.44E-01	9.36E-01	N/A
Benzene	2.39E-04J	2.73E-06	2.38E-05J	1.00E-06	2.74E-03	7.84E-04	5.19E-04
4-Methyl-2-Pentanone	1.09E-05J	2.73E-06	ND/UJ	1.00E-06	N/A	N/A	N/A
2-Hexanone	9.46E-06J	2.73E-06	ND/UJ	1.00E-06	N/A	N/A	N/A
Tetrachloroethene	ND/UJ	2.73E-06	ND/UJ	1.00E-06	2.35E-01	8.33E-02	N/A
1-Chlorohexane	ND/UJ	2.73E-06	1.70E-06J	1.00E-06	N/A	N/A	N/A
Toluene (ccc)	2.51E-04J	2.73E-06	1.75E-05J	1.00E-06	N/A	9.21E-02	N/A
Chlorobenzene	ND/UJ	2.73E-06	ND/UJ	1.00E-06	N/A	2.25E-02	N/A
Ethyl benzene (ccc)	8.29E-05J	2.73E-06	1.27E-05J	1.00E-06	1.86E-01	2.13E-01	N/A
Styrene	1.67E-05J	2.73E-06	6.00E-06J	1.00E-06	5.83E-02	4.16E-02	N/A
m,p-Xylene	9.34E-05J	2.73E-06	1.59E-05J	1.00E-06	2.23E-01	2.13E-01	N/A
o-Xylene	4.96E-05J	2.73E-06	9.60E-06J	1.00E-06	2.23E-01	2.13E-01	N/A
1,4-Dichlorobenzene	ND/UJ	2.73E-06	ND/UJ	1.00E-06	N/A	2.94E-02	6.26E-04
n-Butyl benzene	ND/UJ	2.73E-06	3.60E-07J	1.00E-06	N/A	N/A	N/A
Isopropyl benzene	1.19E-05J	2.73E-06	4.57E-06J	1.00E-06	N/A	N/A	N/A
n-Propylbenzene	3.92E-06J	2.73E-06	7.54E-07J	1.00E-06	N/A	N/A	N/A
1,3,5-Trimethyl benzene	7.37E-06J	2.73E-06	4.61E-06J	1.00E-06	N/A	N/A	N/A
tert-Butyl benzene	ND/UJ	2.73E-06	8.18E-07J	1.00E-06	N/A	N/A	N/A
1,2,4-Trimethyl benzene	4.11E-06J	2.73E-06	8.14E-06J	1.00E-06	N/A	N/A	N/A
sec-Butyl benzene	ND/UJ	2.73E-06	ND/UJ	1.00E-06	N/A	N/A	N/A
1,2-Dibromo3chloropropane	ND/UJ	2.73E-06	5.28E-07J	1.00E-06	N/A	N/A	N/A
4-Isopropyl toluene	ND/UJ	2.73E-06	4.72E-06J	1.00E-06	N/A	N/A	N/A
Naphthalene	ND/UJ	2.73E-06	2.76E-06J	1.00E-06	N/A	N/A	N/A

***Data is qualified (J or UJ) because blanks were not run during analysis between VOC samples which exceeded the calibration curve as required by EPA Method 30. Reported values for VOC results may therefore be higher than actual due to potential carry over of contamination from preceding samples.**

A key to data flags is included in Appendix M.

ORIGINAL

TABLE 3-12 Stack Gases
Third Batch Test-6/7/98
(Continued)

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
SVOCs					1-Hour	8-Hour	Annual
Dibenzofuran	1.28E-05	1.37E-06	1.08E-05	1.66E-06	N/A	N/A	N/A
Diethylphthalate	ND	1.66E-06	ND	2.04E-06	N/A	N/A	N/A
Fluorene	5.65E-06	1.92E-06	3.62E-06	2.33E-06	N/A	9.80E-05	N/A
Pentachlorophenol	ND	8.45E-06	ND	9.51E-06	N/A	2.45E-04	N/A
Phenanthrene	5.50E-06	1.37E-06	2.49E-06	1.59E-06	N/A	4.80E-04	N/A
Anthracene	ND	1.43E-06	ND	1.65E-06	N/A	9.80E-05	N/A
Di-n-butylphthalate	ND	9.71E-07	ND	1.14E-06	N/A	N/A	N/A
Fluoranthene	ND	1.49E-06	ND	1.72E-06	N/A	4.02E-03	N/A
Carbazole	ND	1.51E-06	ND	1.75E-06	N/A	2.74E-04	N/A
Pyrene	ND	1.19E-06	ND	1.43E-06	N/A	9.80E-05	N/A
bis(2-Ethylhexyl)phthalate	ND	1.32E-06	ND	1.59E-06	N/A	9.90E-03	N/A
Benzo(a)anthracene	ND	1.41E-06	ND	1.66E-06	N/A	N/A	2.47E-05
Chrysene	ND	1.38E-06	ND	1.69E-06	N/A	9.80E-05	N/A
Benzo(b)fluoranthene	ND	8.63E-07	ND	1.06E-06	7.08E-03	N/A	2.47E-05
Benzo(k)fluoranthene	ND	9.41E-07	ND	1.15E-06	N/A	N/A	2.47E-05
Benzo(a)pyrene	ND	9.33E-07	ND	1.14E-06	N/A	9.80E-05	2.05E-06
Indeno(1,2,3-cd)pyrene	ND	6.90E-07	ND	8.58E-07	N/A	N/A	2.47E-05
Dibenz(a,h)anthracene	ND	9.03E-07	ND	1.11E-06	N/A	N/A	2.47E-05
Phenol	ND	2.92E-06	ND	3.35E-06	N/A	9.31E-03	N/A
1,2-Dichlorobenzene	ND	3.50E-06	ND	4.01E-06	1.03E-01	7.35E-02	N/A
2-Methylphenol	ND	4.17E-06	ND	4.79E-06	N/A	1.08E-02	N/A
3/4-Methylphenol	ND	3.86E-06	ND	4.43E-06	N/A	1.08E-02	N/A
Nitrobenzene	ND	3.50E-06	ND	4.35E-06	N/A	2.45E-03	N/A
2,4-Dimethylphenol	ND	4.19E-06	ND	5.22E-06	N/A	6.43E-03	N/A
Naphthalene	4.81E-04	1.13E-06	1.30E-03	1.40E-06	2.71E-02	2.55E-02	N/A
2-Methylnaphthalene	1.18E-04	1.76E-06	1.15E-04	2.19E-06	N/A	N/A	N/A
Acenaphthylene	1.22E-06	1.08E-06	9.56E-07J	1.31E-06	N/A	1.21E-03	N/A
Acenaphthene	1.89E-05	2.01E-06	1.51E-05	2.44E-06	N/A	9.80E-05	N/A
Dioxins							
Dioxin Equivalence	1.31E-13	N/A	6.83E-14	N/A	N/A	9.80E-09	1.29E-10
Metals							
Lead	N/A	N/A	6.80E-08	N/A	N/A	N/A	N/A
Mercury	N/A	N/A	ND/UL	N/A	N/A	N/A	N/A
HCl							
HCl	5.35E-07J	7.29E-07	6.14E-06J	8.24E-06	N/A	N/A	N/A
Particulates							
Particulates (gr/SCFD)	N/A	N/A	2.78E-03	8.23E-05	2.50E-02	N/A	N/A

A key to data flags is included in Appendix M.

ORIGINAL

TABLE 3-13 Stack Gases
First Batch Test-Repeat-6/13-14/98

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
VOCs*					1-Hour	8-Hour	Annual
Dichlorodifluoromethane	ND/UJ	4.94E-06	ND/UJ	1.78E-06	N/A	N/A	N/A
Chloromethane	4.20E-04J	4.94E-06	5.63E-05J	1.78E-06	1.60E-02	5.14E-03	N/A
Vinyl chloride (ccc)	ND/UJ	4.94E-06	ND/UJ	1.78E-06	N/A	6.37E-03	5.02E-05
Bromomethane	1.10E-05J	4.94E-06	ND/UJ	1.78E-06	N/A	1.91E-03	N/A
Chloroethane	ND/UJ	4.94E-06	ND/UJ	1.78E-06	4.46E-04	1.27E-04	N/A
Acetone	7.46E-04J	4.94E-06	7.04E-05J	1.78E-06	N/A	N/A	N/A
Carbon Disulfide	8.51E-05J	4.94E-06	6.15E-06J	1.78E-06	N/A	1.52E-02	N/A
1,1-Dichloroethene (ccc)	ND/UJ	4.94E-06	ND/UJ	1.78E-06	2.71E-02	9.80E-03	N/A
Iodomethane	1.94E-05J	4.94E-06	1.33E-06J	1.78E-06	N/A	N/A	N/A
1,2-Dichloroethane	ND/UJ	4.94E-06	ND/UJ	1.78E-06	N/A	N/A	N/A
2-Butanone (MEK)	2.91E-04J	4.94E-06	3.11E-05J	1.78E-06	N/A	N/A	N/A
1,1,1-Trichloroethane	ND/UJ	4.94E-06	ND/UJ	1.78E-06	8.44E-01	9.36E-01	N/A
Benzene	8.30E-04J	4.94E-06	1.12E-04J	1.78E-06	2.74E-03	7.84E-04	5.19E-04
4-Methyl-2-Pentanone	1.38E-05J	4.94E-06	1.26E-06J	1.78E-06	N/A	N/A	N/A
2-Hexanone	1.25E-05J	4.94E-06	2.07E-06J	1.78E-06	N/A	N/A	N/A
Tetrachloroethene	ND/UJ	4.94E-06	1.41E-06J	1.78E-06	2.35E-01	8.33E-02	N/A
1-Chlorohexane	2.16E-06J	4.94E-06	2.57E-06J	1.78E-06	N/A	N/A	N/A
Toluene (ccc)	6.76E-04J	4.94E-06	9.18E-05J	1.78E-06	N/A	9.21E-02	N/A
Chlorobenzene	ND/UJ	4.94E-06	ND/UJ	1.78E-06	N/A	2.25E-02	N/A
Ethyl benzene (ccc)	2.13E-04J	4.94E-06	1.88E-05J	1.78E-06	1.86E-01	2.13E-01	N/A
Styrene	8.12E-05J	4.94E-06	1.45E-05J	1.78E-06	5.83E-02	4.16E-02	N/A
m,p-Xylene	2.68E-04J	4.94E-06	2.87E-05J	1.78E-06	2.23E-01	2.13E-01	N/A
o-Xylene	1.31E-04J	4.94E-06	1.50E-05J	1.78E-06	2.23E-01	2.13E-01	N/A
1,4-Dichlorobenzene	ND/UJ	4.94E-06	ND/UJ	1.78E-06	N/A	2.94E-02	6.26E-04
n-Butyl benzene	ND/UJ	4.94E-06	ND/UJ	1.78E-06	N/A	N/A	N/A
Isopropyl benzene	3.63E-05J	4.94E-06	4.63E-06J	1.78E-06	N/A	N/A	N/A
n-Propylbenzene	1.46E-05J	4.94E-06	2.01E-06J	1.78E-06	N/A	N/A	N/A
1,3,5-Trimethyl benzene	2.42E-05J	4.94E-06	3.40E-06J	1.78E-06	N/A	N/A	N/A
tert-Butyl benzene	1.87E-06J	4.94E-06	3.28E-07J	1.78E-06	N/A	N/A	N/A
1,2,4-Trimethyl benzene	2.05E-05J	4.94E-06	5.99E-06J	1.78E-06	N/A	N/A	N/A
sec-Butyl benzene	ND/UJ	4.94E-06	ND/UJ	1.78E-06	N/A	N/A	N/A
4-Isopropyl toluene	7.12E-06J	4.94E-06	1.53E-05J	1.78E-06	N/A	N/A	N/A
Naphthalene	ND/UJ	4.94E-06	3.03E-07J	1.78E-06	N/A	N/A	N/A

***Data is qualified (J or UJ) because blanks were not run during analysis between VOC samples which exceeded the calibration curve as required by EPA Method 30. Reported values for VOC results may therefore be higher than actual due to potential carry over of contamination from preceding samples.**

A key to data flags is included in Appendix M.

TABLE 3-13 Stack Gases
First Batch Test-Repeat-6/13-14/98
(Continued)

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
SVOCs*					1-Hour	8-Hour	Annual
Dibenzofuran	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Diethylphthalate	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluorene	N/A	N/A	N/A	N/A	N/A	9.80E-05	N/A
Pentachlorophenol	N/A	N/A	N/A	N/A	N/A	2.45E-04	N/A
Phenanthrene	N/A	N/A	N/A	N/A	N/A	4.80E-04	N/A
Anthracene	N/A	N/A	N/A	N/A	N/A	9.80E-05	N/A
Di-n-butylphthalate	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluoranthene	N/A	N/A	N/A	N/A	N/A	4.02E-03	N/A
Carbazole	N/A	N/A	N/A	N/A	N/A	2.74E-04	N/A
Pyrene	N/A	N/A	N/A	N/A	N/A	9.80E-05	N/A
bis(2-Ethylhexyl)phthalate	N/A	N/A	N/A	N/A	N/A	9.90E-03	N/A
Benzo(a)anthracene	N/A	N/A	N/A	N/A	N/A	N/A	2.47E-05
Chrysene	N/A	N/A	N/A	N/A	N/A	9.80E-05	N/A
Benzo(b)fluoranthene	N/A	N/A	N/A	N/A	7.08E-03	N/A	2.47E-05
Benzo(k)fluoranthene	N/A	N/A	N/A	N/A	N/A	N/A	2.47E-05
Benzo(a)pyrene	N/A	N/A	N/A	N/A	N/A	9.80E-05	2.05E-06
Indeno(1,2,3-cd)pyrene	N/A	N/A	N/A	N/A	N/A	N/A	2.47E-05
Dibenz(a,h)anthracene	N/A	N/A	N/A	N/A	N/A	N/A	2.47E-05
Phenol	N/A	N/A	N/A	N/A	N/A	9.31E-03	N/A
1,2-Dichlorobenzene	N/A	N/A	N/A	N/A	1.03E-01	7.35E-02	N/A
2-Methylphenol	N/A	N/A	N/A	N/A	N/A	1.08E-02	N/A
3/4-Methylphenol	N/A	N/A	N/A	N/A	N/A	1.08E-02	N/A
Nitrobenzene	N/A	N/A	N/A	N/A	N/A	2.45E-03	N/A
2,4-Dimethylphenol	N/A	N/A	N/A	N/A	N/A	6.43E-03	N/A
Naphthalene	N/A	N/A	N/A	N/A	2.71E-02	2.55E-02	N/A
2-Methylnaphthalene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acenaphthylene	N/A	N/A	N/A	N/A	N/A	1.21E-03	N/A
Acenaphthene	N/A	N/A	N/A	N/A	N/A	9.80E-05	N/A
Dioxins*							
Dioxin Equivalence	N/A	N/A	N/A	N/A	N/A	9.80E-09	1.29E-10
Metals							
Lead	N/A	N/A	8.66E-08	N/A	N/A	N/A	N/A
Mercury	N/A	N/A	2.37E-07	N/A	N/A	N/A	N/A
HCl							
HCl	3.12E-07J	5.60E-07	2.93E-04	1.62E-05	N/A	N/A	N/A
Particulates							
Particulates (gr/SCFD)	N/A	N/A	5.60E-04	9.10E-05	2.50E-02	N/A	N/A

***Samples compromised by laboratory**

A key to data flags is included in Appendix M.

ORIGINAL

TABLE 3-14 Stack Gases
First Continuous Test- 6/10/98

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
VOCs*					1-Hour	8-Hour	Annual
Dichlorodifluoromethane	ND/UJ	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
Chloromethane	3.31E-03J	3.15E-05	1.63E-05J	5.86E-06	2.51E-01	7.17E-02	N/A
Vinyl chloride (ccc)	ND/UJ	3.15E-05	ND/UJ	5.86E-06	N/A	8.88E-02	6.99E-04
Bromomethane	8.24E-05J	3.15E-05	ND/UJ	5.86E-06	N/A	2.66E-02	N/A
Chloroethane	ND/UJ	3.15E-05	ND/UJ	5.86E-06	6.22E-03	1.78E-03	N/A
Acetone	6.36E-03JB	3.15E-05	1.04E-04JB	5.86E-06	N/A	N/A	N/A
Carbon Disulfide	1.15E-05J	3.15E-05	ND/UJ	5.86E-06	N/A	2.12E-01	N/A
1,1-Dichloroethene (ccc)	ND/UJ	3.15E-05	ND/UJ	5.86E-06	3.78E-01	1.37E-01	N/A
Iodomethane	1.17E-04J	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
1,2-Dichloroethane	ND/UJ	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
2-Butanone (MEK)	9.60E-04JB	3.15E-05	1.63E-05JB	5.86E-06	N/A	N/A	N/A
1,1,1-Trichloroethane	ND/UJ	3.15E-05	ND/UJ	5.86E-06	1.18E+01	1.30E+01	N/A
Benzene	8.33E-03J	3.15E-05	2.83E-04J	5.86E-06	3.83E-02	1.09E-02	7.23E-03
4-Methyl-2-Pentanone	5.64E-05J	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
2-Hexanone	8.37E-05J	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
Tetrachloroethene	ND/UJ	3.15E-05	ND/UJ	5.86E-06	3.28E+00	1.16E+00	N/A
1-Chlorohexane	ND/UJ	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
Toluene (ccc)	4.94E-03J	3.15E-05	1.24E-04J	5.86E-06	N/A	1.28E+00	N/A
Chlorobenzene	9.36E-06J	3.15E-05	ND/UJ	5.86E-06	N/A	3.14E-01	N/A
Ethyl benzene (ccc)	2.15E-03J	3.15E-05	1.41E-05J	5.86E-06	2.60E+00	2.97E+00	N/A
Styrene	1.94E-03J	3.15E-05	2.30E-05J	5.86E-06	8.13E-01	5.81E-01	N/A
m,p-Xylene	2.93E-03J	3.15E-05	2.43E-05J	5.86E-06	3.11E+00	2.97E+00	N/A
o-Xylene	1.33E-03J	3.15E-05	1.14E-05J	5.86E-06	3.11E+00	2.97E+00	N/A
1,4-Dichlorobenzene	ND/UJ	3.15E-05	ND/UJ	5.86E-06	N/A	4.10E-01	8.73E-03
n-Butyl benzene	1.16E-05J	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
Isopropyl benzene	5.15E-04J	3.15E-05	3.08E-06J	5.86E-06	N/A	N/A	N/A
n-Propylbenzene	2.77E-04J	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
1,3,5-Trimethyl benzene	1.14E-03J	3.15E-05	7.34E-06J	5.86E-06	N/A	N/A	N/A
tert-Butyl benzene	1.07E-04J	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
1,2,4-Trimethyl benzene	6.96E-04J	3.15E-05	3.96E-06J	5.86E-06	N/A	N/A	N/A
sec-Butyl benzene	1.18E-05J	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
4-Isopropyl toluene	4.30E-04J	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A
Naphthalene	9.72E-04J	3.15E-05	ND/UJ	5.86E-06	N/A	N/A	N/A

***Data is qualified (J or UJ) because blanks were not run during analysis between VOC samples which exceeded the calibration curve as required by EPA Method 30. Reported values for VOC results may therefore be higher than actual due to potential carry over of contamination from preceding samples.**

A key to data flags is included in Appendix M.

TABLE 3-14 Stack Gases
First Continuous Test- 6/10/98
(Continued)

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
SVOCs					1-Hour	8-Hour	Annual
Dibenzofuran	2.59E-03	1.43E-04	1.19E-04	6.12E-07	N/A	N/A	N/A
Diethylphthalate	ND	1.74E-04	ND	5.68E-07	N/A	N/A	N/A
Fluorene	1.30E-04J	2.04E-04	1.22E-05	8.41E-07	N/A	1.37E-03	N/A
Pentachlorophenol	ND	1.22E-03	ND	3.43E-06	N/A	3.42E-03	N/A
Phenanthrene	4.32E-04	1.88E-04	3.15E-05	5.23E-07	N/A	6.70E-03	N/A
Anthracene	ND	1.88E-04	1.01E-06	5.13E-07	N/A	1.37E-03	N/A
Di-n-butylphthalate	ND	1.07E-04	ND	3.53E-07	N/A	N/A	N/A
Fluoranthene	ND	1.60E-04	1.56E-06	5.74E-07	N/A	5.60E-02	N/A
Carbazole	ND	1.82E-04	ND	5.26E-07	N/A	3.83E-03	N/A
Pyrene	ND	1.54E-04	7.39E-07	5.19E-07	N/A	1.37E-03	N/A
bis(2-Ethylhexyl)phthalate	ND	1.41E-04	5.46E-07J	5.92E-07	N/A	1.38E-01	N/A
Benzo(a)anthracene	ND	1.72E-04	ND	6.79E-07	N/A	N/A	3.44E-04
Chrysene	ND	1.64E-04	ND	6.44E-06	N/A	1.37E-03	N/A
Benzo(b)fluoranthene	ND	1.14E-04	ND	5.07E-07	9.87E-02	N/A	3.44E-04
Benzo(k)fluoranthene	ND	1.15E-04	ND	5.35E-07	N/A	N/A	3.44E-04
Benzo(a)pyrene	ND	1.19E-04	ND	5.90E-07	N/A	1.37E-03	2.86E-05
Indeno(1,2,3-cd)pyrene	ND	1.03E-04	ND	6.08E-07	N/A	N/A	3.44E-04
Dibenz(a,h)anthracene	ND	1.17E-04	ND	5.97E-07	N/A	N/A	3.44E-04
Phenol	1.44E-04J	3.23E-04	2.90E-06	1.25E-06	N/A	1.30E-01	N/A
1,2-Dichlorobenzene	ND	3.39E-04	ND	1.40E-06	1.44E+00	1.02E+00	N/A
2-Methylphenol	ND	4.36E-04	ND	1.62E-06	N/A	1.50E-01	N/A
3/4-Methylphenol	ND	4.37E-04	ND	1.62E-06	N/A	1.50E-01	N/A
Nitrobenzene	ND	3.86E-04	ND	1.55E-06	N/A	3.42E-02	N/A
2,4-Dimethylphenol	ND	4.71E-04	ND	1.66E-06	N/A	8.96E-02	N/A
Naphthalene	3.21E-02	1.25E-04	2.30E-04	4.57E-07	3.78E-01	3.55E-01	N/A
2-Methylnaphthalene	4.70E-03	2.01E-04	6.39E-05	7.64E-07	N/A	N/A	N/A
Acenaphthylene	7.84E-04	1.16E-04	3.49E-05	4.98E-07	N/A	1.68E-02	N/A
Acenaphthene	2.04E-04J	1.88E-04	7.01E-06	8.26E-07	N/A	1.37E-03	N/A
Dioxins							
Dioxin Equivalence	4.01E-11	N/A	1.06E-11	N/A	N/A	1.37E-07	1.79E-09
Metals							
Lead	N/A	N/A	2.49E-07J	N/A	N/A	N/A	N/A
Mercury	N/A	N/A	4.82E-05L	N/A	N/A	N/A	N/A
HCl							
HCl	3.20E-05J	3.57E-05	1.22E-04	2.09E-05	N/A	N/A	N/A
Particulates							
Particulates (gr/SCFD)	N/A	N/A	1.42E-02	7.87E-05	5.00E-02	N/A	N/A

A key to data flags is included in Appendix M.

ORIGINAL

TABLE 3-15 Stack Gases
Second Continuous Test- 6/10-11/98

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
VOCs*					1-Hour	8-Hour	Annual
Dichlorodifluoromethane	ND/UJ	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
Chloromethane	3.05E-03J	4.08E-05	8.30E-06J	8.12E-06	2.51E-01	7.17E-02	N/A
Vinyl chloride (ccc)	ND/UJ	4.08E-05	ND/UJ	8.12E-06	N/A	8.88E-02	6.99E-04
Bromomethane	3.25E-05J	4.08E-05	ND/UJ	8.12E-06	N/A	2.66E-02	N/A
Chloroethane	ND/UJ	4.08E-05	ND/UJ	8.12E-06	6.22E-03	1.78E-03	N/A
Acetone	8.88E-03JB	4.08E-05	7.32E-05JB	8.12E-06	N/A	N/A	N/A
Carbon Disulfide	1.24E-04J	4.08E-05	ND/UJ	8.12E-06	N/A	2.12E-01	N/A
1,1-Dichloroethene (ccc)	ND/UJ	4.08E-05	ND/UJ	8.12E-06	3.78E-01	1.37E-01	N/A
Iodomethane	1.22E-04J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
1,2-Dichloroethane	ND/UJ	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
2-Butanone (MEK)	1.44E-03JB	4.08E-05	1.11E-05JB	8.12E-06	N/A	N/A	N/A
1,1,1-Trichloroethane	ND/UJ	4.08E-05	ND/UJ	8.12E-06	1.18E+01	1.30E+01	N/A
Benzene	1.04E-02J	4.08E-05	2.16E-04J	8.12E-06	3.83E-02	1.09E-02	7.23E-03
4-Methyl-2-Pentanone	3.36E-05J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
2-Hexanone	6.32E-05J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
Tetrachloroethene	ND/UJ	4.08E-05	ND/UJ	8.12E-06	3.28E+00	1.16E+00	N/A
1-Chlorohexane	ND/UJ	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
Toluene (ccc)	4.69E-03J	4.08E-05	6.95E-05J	8.12E-06	N/A	1.28E+00	N/A
Chlorobenzene	ND/UJ	4.08E-05	ND/UJ	8.12E-06	N/A	3.14E-01	N/A
Ethyl benzene (ccc)	1.95E-03J	4.08E-05	8.56E-06J	8.12E-06	2.60E+00	2.97E+00	N/A
Styrene	1.64E-03J	4.08E-05	1.14E-05J	8.12E-06	8.13E-01	5.81E-01	N/A
m,p-Xylene	2.62E-03J	4.08E-05	1.44E-05J	8.12E-06	3.11E+00	2.97E+00	N/A
o-Xylene	1.22E-03J	4.08E-05	6.67E-06J	8.12E-06	3.11E+00	2.97E+00	N/A
1,4-Dichlorobenzene	ND/UJ	4.08E-05	ND/UJ	8.12E-06	N/A	4.10E-01	8.73E-03
n-Butyl benzene	ND/UJ	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
Isopropyl benzene	2.69E-04J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
n-Propyl benzene	1.33E-04J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
1,3,5-Trimethyl benzene	6.59E-04J	4.08E-05	4.95E-06J	8.12E-06	N/A	N/A	N/A
tert-Butyl benzene	4.74E-05J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
1,2,4-Trimethyl benzene	3.82E-04J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
sec-Butyl benzene	ND/UJ	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
4-Isopropyl toluene	1.66E-04J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
Carbon Tetrachloride	2.15E-05J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
4-Chlorotoluene	2.09E-05J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A
Naphthalene	2.64E-04J	4.08E-05	ND/UJ	8.12E-06	N/A	N/A	N/A

***Data is qualified (J or UJ) because blanks were not run during analysis between VOC samples which exceeded the calibration curve as required by EPA Method 30. Reported values for VOC results may therefore be higher than actual due to potential carry over of contamination from preceding samples.**

A key to data flags is included in Appendix M.

TABLE 3-15 Stack Gases
Second Continuous Test- 6/10-11/98
(Continued)

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
SVOCs					1-Hour	8-Hour	Annual
Dibenzofuran	4.70E-03	1.60E-04	1.17E-04	5.65E-07	N/A	N/A	N/A
Diethylphthalate	ND	1.92E-04	5.68E-07BJ	6.62E-07	N/A	N/A	N/A
Fluorene	4.08E-04	2.28E-04	1.50E-05	7.76E-07	N/A	1.37E-03	N/A
Pentachlorophenol	ND	1.21E-03	ND	3.29E-06	N/A	3.42E-03	N/A
Phenanthrene	1.50E-03	1.87E-04	7.90E-05	5.02E-07	N/A	6.70E-03	N/A
Anthracene	1.11E-04J	1.87E-04	4.16E-06	4.93E-07	N/A	1.37E-03	N/A
Di-n-butylphthalate	ND	1.06E-04	5.28E-07	3.37E-07	N/A	N/A	N/A
Fluoranthene	2.36E-04	1.59E-04	1.52E-05	5.51E-07	N/A	5.60E-02	N/A
Carbazole	ND	1.82E-04	5.69E-07	5.05E-07	N/A	3.83E-03	N/A
Pyrene	1.12E-04	1.64E-04	5.78E-06	4.64E-07	N/A	1.37E-03	N/A
bis(2-Ethylhexyl)phthalate	ND	1.50E-04	5.35E-07B	5.30E-07	N/A	1.38E-01	N/A
Benzo(a)anthracene	ND	1.83E-04	ND	6.08E-07	N/A	N/A	3.44E-04
Chrysene	ND	1.74E-04	1.82E-06	5.76E-07	N/A	1.37E-03	N/A
Benzo(b)fluoranthene	ND	1.27E-04	ND	4.91E-07	9.87E-02	N/A	3.44E-04
Benzo(k)fluoranthene	ND	1.27E-04	ND	5.18E-07	N/A	N/A	3.44E-04
Benzo(a)pyrene	ND	1.32E-04	ND	5.70E-07	N/A	1.37E-03	2.86E-05
Indeno(1,2,3-cd)pyrene	ND	1.15E-04	ND	5.87E-07	N/A	N/A	3.44E-04
Dibenz(a,h)anthracene	ND	1.30E-04	ND	5.77E-07	N/A	N/A	3.44E-04
Phenol	ND	3.38E-04	2.03E-06	1.21E-06	N/A	1.30E-01	N/A
1,2-Dichlorobenzene	ND	3.56E-04	ND	1.35E-06	1.44E+00	1.02E+00	N/A
2-Methylphenol	ND	4.86E-04	ND	1.56E-06	N/A	1.50E-01	N/A
3/4-Methylphenol	ND	4.58E-04	ND	1.56E-06	N/A	1.50E-01	N/A
Nitrobenzene	ND	3.87E-04	ND	1.52E-06	N/A	3.42E-02	N/A
2,4-Dimethylphenol	ND	4.73E-04	ND	1.66E-06	N/A	8.96E-02	N/A
Naphthalene	4.87E-02	1.26E-04	2.51E-04B	4.48E-07	3.78E-01	3.55E-01	N/A
2-Methylnaphthalene	9.47E-03	2.01E-04	7.42E-05	7.48E-07	N/A	N/A	N/A
Acenaphthylene	1.21E-03	1.30E-04	2.77E-05	4.59E-07	N/A	1.68E-02	N/A
Acenaphthene	6.98E-04	2.10E-04	1.13E-05	7.62E-07	N/A	1.37E-03	N/A
Dioxins							
Dioxin Equivalence	2.39E-9	N/A	7.13E-11	N/A	N/A	1.37E-07	1.79E-09
Metals							
Lead	N/A	N/A	3.22E-07	N/A	N/A	N/A	N/A
Mercury	N/A	N/A	5.53E-05	N/A	N/A	N/A	N/A
HCl							
HCl	5.19E-05	3.57E-05	1.92E-03	3.49E-05	N/A	N/A	N/A
Particulates							
Particulates (gr/SCFD)	N/A	N/A	1.67E-03	8.50E-05	5.00E-02	N/A	N/A

A key to data flags is included in Appendix M.

ORIGINAL (Red)

TABLE 3-16 Stack Gases
Third Continuous Test- 6/11-12/98

Parameter	Inlet Result (g/s)	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
VOCs*					1-Hour	8-Hour	Annual
Dichlorodifluoromethane	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
Chloromethane	3.25E-03J	1.54E-04	8.55E-06J	7.66E-06	2.51E-01	7.17E-02	N/A
Vinyl chloride (ccc)	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	8.88E-02	6.99E-04
Bromomethane	2.40E-05J	1.54E-04	ND/UJ	7.66E-06	N/A	2.66E-02	N/A
Chloroethane	ND/UJ	1.54E-04	ND/UJ	7.66E-06	6.22E-03	1.78E-03	N/A
Acetone	8.38E-03J	1.54E-04	6.87E-05J	7.66E-06	N/A	N/A	N/A
Carbon Disulfide	8.92E-05J	1.54E-04	ND/UJ	7.66E-06	N/A	2.12E-01	N/A
1,1-Dichloroethene (ccc)	ND/UJ	1.54E-04	ND/UJ	7.66E-06	3.78E-01	1.37E-01	N/A
Iodomethane	1.05E-04J	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
1,2-Dichloroethane	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
2-Butanone (MEK)	1.20E-03J	1.54E-04	1.04E-05J	7.66E-06	N/A	N/A	N/A
1,1,1-Trichloroethane	ND/UJ	1.54E-04	ND/UJ	7.66E-06	1.18E+01	1.30E+01	N/A
Benzene	2.21E-02J	1.54E-04	1.55E-04J	7.66E-06	3.83E-02	1.09E-02	7.23E-03
4-Methyl-2-Pentanone	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
2-Hexanone	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
Tetrachloroethene	ND/UJ	1.54E-04	ND/UJ	7.66E-06	3.28E+00	1.16E+00	N/A
1-Chlorohexane	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
Toluene (ccc)	8.93E-03J	1.54E-04	5.09E-05J	7.66E-06	N/A	1.28E+00	N/A
Chlorobenzene	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	3.14E-01	N/A
Ethyl benzene (ccc)	3.19E-03J	1.54E-04	6.35E-06J	7.66E-06	2.60E+00	2.97E+00	N/A
Styrene	1.37E-03J	1.54E-04	7.73E-06J	7.66E-06	8.13E-01	5.81E-01	N/A
m,p-Xylene	2.69E-03J	1.54E-04	1.08E-05J	7.66E-06	3.11E+00	2.97E+00	N/A
o-Xylene	1.20E-03J	1.54E-04	4.97E-06J	7.66E-06	3.11E+00	2.97E+00	N/A
1,4-Dichlorobenzene	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	4.10E-01	8.73E-03
n-Butyl benzene	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
Isopropyl benzene	1.97E-04J	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
n-Propylbenzene	1.26E-04J	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
1,3,5-Trimethyl benzene	4.14E-04J	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
tert-Butyl benzene	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
1,2,4-Trimethyl benzene	2.93E-04J	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
sec-Butyl benzene	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
4-Isopropyl toluene	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A
Naphthalene	ND/UJ	1.54E-04	ND/UJ	7.66E-06	N/A	N/A	N/A

***Data is qualified (J or UJ) because blanks were not run during analysis between VOC samples which exceeded the calibration curve as required by EPA Method 30. Reported values for VOC results may therefore be higher than actual due to potential carry over of contamination from preceding samples.**

A key to data flags is included in Appendix M.

TABLE 3-16 Stack Gases
Third Continuous Test- 6/11-12/98
(Continued)

Parameter	Inlet Result (g/s)*	Reporting Limit (g/s)	Outlet Result (g/s)	Reporting Limit (g/s)	Regulatory Level (g/s)		
SVOCs					1-Hour	8-Hour	Annual
Dibenzofuran	N/A	N/A	1.05E-04	5.81E-07	N/A	N/A	N/A
Diethylphthalate	N/A	N/A	ND	6.81E-07	N/A	N/A	N/A
Fluorene	N/A	N/A	8.61E-06	7.98E-07	N/A	1.37E-03	N/A
Pentachlorophenol	N/A	N/A	ND	3.22E-06	N/A	3.42E-03	N/A
Phenanthrene	N/A	N/A	5.16E-05	4.91E-07	N/A	6.70E-03	N/A
Anthracene	N/A	N/A	8.22E-07	4.82E-07	N/A	1.37E-03	N/A
Di-n-butylphthalate	N/A	N/A	ND	3.29E-07	N/A	N/A	N/A
Fluoranthene	N/A	N/A	3.93E-06	5.39E-07	N/A	5.60E-02	N/A
Carbazole	N/A	N/A	ND	4.93E-07	N/A	3.83E-03	N/A
Pyrene	N/A	N/A	1.10E-06	4.78E-07	N/A	1.37E-03	N/A
bis(2-Ethylhexyl)phthalate	N/A	N/A	ND	5.45E-07	N/A	1.38E-01	N/A
Benzo(a)anthracene	N/A	N/A	ND	6.25E-07	N/A	N/A	3.44E-04
Chrysene	N/A	N/A	ND	5.92E-07	N/A	1.37E-03	N/A
Benzo(b)fluoranthene	N/A	N/A	ND	4.76E-07	9.87E-02	N/A	3.44E-04
Benzo(k)fluoranthene	N/A	N/A	ND	5.01E-07	N/A	N/A	3.44E-04
Benzo(a)pyrene	N/A	N/A	ND	5.52E-07	N/A	1.37E-03	2.86E-05
Indeno(1,2,3-cd)pyrene	N/A	N/A	ND	5.69E-07	N/A	N/A	3.44E-04
Dibenz(a,h)anthracene	N/A	N/A	ND	5.59E-07	N/A	N/A	3.44E-04
Phenol	N/A	N/A	2.55E-06	1.23E-06	N/A	1.30E-01	N/A
1,2-Dichlorobenzene	N/A	N/A	ND	1.38E-06	1.44E+00	1.02E+00	N/A
2-Methylphenol	N/A	N/A	ND	1.60E-06	N/A	1.50E-01	N/A
3/4-Methylphenol	N/A	N/A	ND	1.60E-06	N/A	1.50E-01	N/A
Nitrobenzene	N/A	N/A	ND	1.56E-06	N/A	3.42E-02	N/A
2,4-Dimethylphenol	N/A	N/A	ND	1.71E-06	N/A	8.96E-02	N/A
Naphthalene	N/A	N/A	2.29E-04	4.60E-07	3.78E-01	3.55E-01	N/A
2-Methylnaphthalene	N/A	N/A	5.56E-05	7.69E-07	N/A	N/A	N/A
Acenaphthylene	N/A	N/A	2.02E-05	4.73E-07	N/A	1.68E-02	N/A
Acenaphthene	N/A	N/A	5.64E-06	7.85E-07	N/A	1.37E-03	N/A
Dioxins							
Dioxin Equivalence	N/A*	N/A	1.04E-13	N/A	N/A	1.37E-07	1.79E-09
Metals							
Lead	N/A	N/A	3.28E-07	N/A	N/A	N/A	N/A
Mercury	N/A	N/A	6.04E-05L	N/A	N/A	N/A	N/A
HCl							
HCl	3.63E-05J	4.13E-05	2.82E-03	3.57E-05	N/A	N/A	N/A
Particulates							
Particulates (gr/SCFD)	N/A	N/A	2.87E-03	6.91E-05	5.00E-02	N/A	N/A

*Samples compromised by laboratory

A key to data flags is included in Appendix M.

TABLE 3-17
Comparison of Worst-Case Total Facility Mass Emission Rate with Maximum Allowable Mass Emission Rates

	Worst-case Continuous	Worst-case Batch	Total Facility	Total Facility			
	Both units	Both units	All 4 units	Maximum Allowable			Pass/Fail
Analytes	Mass Emission Rate	Mass Emission Rate	Mass Emission Rate	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Outlet
	g/s	g/s	g/s	g/s	g/s	g/s	
VOCs							
Chloromethane	3.26E-05	1.59E-05	4.85E-05	5.09E-01	1.45E-01	NA	pass
Vinyl chloride (ccc)	ND	ND	ND	NA	1.80E-01	1.42E-03	pass
Bromomethane	ND	4.31E-08	4.31E-08	NA	5.40E-02	NA	pass
Chloroethane	ND	ND	ND	1.26E-02	3.60E-03	NA	pass
Methylene chloride	ND	1.18E-07	1.18E-07	NA	2.41E-03	NA	pass
Acetone	2.08E-04	1.89E-04	3.97E-04	1.73E+01	1.65E+01	NA	pass
Carbon Disulfide	ND	1.30E-06	1.30E-06	NA	4.29E-01	NA	pass
1,1-Dichloroethene (ccc)	ND	ND	ND	7.66E-01	2.77E-01	NA	pass
Iodomethane	ND	1.76E-08	1.76E-08	NA	1.66E-01	NA	pass
2-Butanone	3.26E-05	6.54E-05	9.81E-05	8.58E+00	8.17E+00	NA	pass
1,1,1-Trichloroethane	ND	ND	ND	2.38E+01	2.65E+01	NA	pass
Carbon tetrachloride	ND	ND	ND	NA	4.29E-04	NA	pass
Benzene	5.67E-04	2.08E-04	7.75E-04	7.76E-02	2.22E-02	1.47E-02	pass
4-Methyl-2-Pentanone	ND	2.51E-06	2.51E-06	2.98E+00	2.84E+00	NA	pass
2-Hexanone	ND	2.12E-06	2.12E-06	NA	2.77E-01	NA	pass
Tetrachloroethene	ND	ND	ND	6.64E+00	2.35E+00	NA	pass
Toluene (ccc)	2.48E-04	1.19E-04	3.67E-04	NA	2.60E+00	NA	pass
Chlorobenzene	ND	ND	ND	NA	6.37E-01	NA	pass
Ethyl benzene (ccc)	2.81E-05	3.18E-05	5.99E-05	5.26E+00	6.01E+00	NA	pass
Styrene	4.60E-05	1.10E-05	5.70E-05	1.65E+00	1.18E+00	NA	pass
m,p-Xylene	4.85E-05	3.23E-05	8.08E-05	6.31E+00	6.01E+00	NA	pass
o-Xylene	2.28E-05	1.78E-05	4.06E-05	6.31E+00	6.01E+00	NA	pass
1,4-Dichlorobenzene	ND	ND	ND	NA	8.31E-01	1.77E-02	pass
n-Butyl benzene	ND	3.36E-07	3.36E-07	NA	4.89E-01	NA	pass
1,2-Dichlorobenzene	ND	ND	ND	2.92E+00	2.08E+00	NA	pass
Isopropyl benzene	6.17E-06	6.89E-06	1.31E-05	NA	3.41E+00	NA	pass
n-Propylbenzene	ND	1.31E-06	1.31E-06	NA	3.43E-01	NA	pass
1,3,5-Trimethyl benzene	1.47E-05	7.32E-06	2.20E-05	NA	1.70E+00	NA	pass
tert-Butyl benzene	ND	9.20E-07	9.20E-07	NA	4.93E-01	NA	pass
1,2,4-Trimethyl benzene	7.92E-06	1.26E-05	2.05E-05	NA	2.49E+00	NA	pass
4-Isopropyl toluene	ND	6.22E-06	6.22E-06	NA	2.70E-01	NA	pass
Naphthalene*	ND	5.26E-06	5.26E-06	7.66E-01	7.20E-01	NA	pass
SVOCs							
Dibenzofuran	2.34E-04	2.17E-05	2.56E-04	NA	NA	NA	NA**
Diethylphthalate	1.14E-06	4.40E-07	1.58E-06	NA	6.92E-02	NA	pass
Fluorene	3.01E-05	7.25E-06	3.73E-05	NA	2.77E-03	NA	pass
Pentachlorophenol	ND	ND	ND	NA	6.92E-03	NA	pass
Phenanthrene	1.58E-04	4.98E-06	1.63E-04	NA	1.36E-02	NA	pass
Anthracene	8.38E-06	6.16E-08	8.44E-06	NA	2.77E-03	NA	pass
Di-n-butylphthalate	1.06E-06	2.46E-07	1.31E-06	NA	6.92E-02	NA	pass
Fluoranthene	7.86E-06	3.90E-08	7.90E-06	NA	1.14E-01	NA	pass
Carbazole	1.14E-06	ND	ND	NA	7.76E-03	NA	pass
Pyrene	1.16E-05	ND	ND	NA	2.77E-03	NA	pass
Benzo(a)anthracene	ND	ND	ND	NA	NA	6.97E-04	pass
Chrysene	3.64E-06	ND	ND	NA	2.77E-03	NA	pass
Benzo(b)fluoranthene	ND	ND	ND	2.00E-01	NA	6.97E-04	pass
Benzo(k)fluoranthene	ND	ND	ND	NA	NA	6.97E-04	pass

ORIGINAL

TABLE 3-17
Comparison of Worst-Case Total Facility Mass Emission Rate with Maximum Allowable Mass Emission Rates

	Worst-case Continuous	Worst-case Batch	Total Facility	Total Facility			
	Both units	Both units	All 4 units	Maximum Allowable			Pass/Fail
Analytes	Mass Emission Rate	Mass Emission Rate	Mass Emission Rate	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Outlet
	g/s	g/s	g/s	g/s	g/s	g/s	
Benzo(a)pyrene	ND	ND	ND	NA	2.77E-03	5.79E-05	pass
Indeno(1,2,3-cd)pyrene	ND	ND	ND	NA	NA	6.97E-04	pass
Phenol	5.80E-06	1.89E-06	7.69E-06	NA	2.63E-01	NA	pass
1,4-Dichlorobenzene	ND	ND	ND	NA	8.31E-01	1.77E-02	pass
1,2-Dichlorobenzene	ND	ND	ND	2.92E+00	2.08E+00	NA	pass
2-Methylphenol	ND	ND	ND	NA	3.05E-01	NA	pass
Nitrobenzene	ND	ND	ND	NA	6.92E-02	NA	pass
2,4-Dimethylphenol	ND	ND	ND	NA	1.82E-01	NA	pass
Naphthalene*	5.03E-04	2.61E-03	3.11E-03	7.66E-01	7.20E-01	NA	pass
2-Methylnapthalene	1.48E-04	2.30E-04	3.78E-04	NA	9.28E-02	NA	pass
Acenaphthylene	6.98E-05	1.91E-06	7.17E-05	NA	3.41E-02	NA	pass
Acenaphthene	2.26E-05	3.02E-05	5.28E-05	NA	2.77E-03	NA	pass
Dioxins TEF							
Dioxins and Furans	1.43E-10	1.37E-13	1.43E-10	NA	2.77E-07	3.64E-09	pass

*Note: Naphthalene is analyzed by two different methods (i.e., VOC and SVOC methods).Those methods are different and therefore the reported values for napthalene are also different. Both values are reported for information.

**Note: There are no available limits for dibenzofuran.

ICF Kaiser Engineers

Memo

To: Kirk Ticknor, P.E. and Joseph Kelleher

From: Wendy Werkheiser

Date: 10/19/98

Re: Perimeter Air Monitoring Results

Attached are the results for the September monthly perimeter air-monitoring event that occurred on September 29, 1998. One sample was collected upwind and three samples were collected downwind. An additional sample was collected in the on-site laboratory trailer. The sample locations were 14 (upwind), 7, 8, and 9 (downwind). All samples were analyzed by Air Toxics for volatile organic compounds using Method TO-14.

The results show that the downwind samples had detectable benzene, but below the action level of 0.50 ppbv. The other two samples (upwind and laboratory trailer) had no detectable benzene but the detection limits were above the action level due to required dilutions for other compounds. All samples had concentrations of methylene chloride above the action level of 8 ppbv. The laboratory had the highest concentration (8,200 ppbv). Sample location 14 (upwind) contained 550 ppbv methylene chloride. This location has consistently shown elevated levels of methylene chloride. The source of this contamination (potentially the laboratory trailer) is still being investigated. Concentrations of toluene detected in the downwind locations were below the action level of 38.5 ppbv. Locations also showed elevated levels of acetone. At this time there is no action level for acetone at this site.

Please transmit a copy of this memo to the USACE.

Site Perimeter VOC Air Monitoring
September Monthly

Parameter	September monthly 9/29/98				
	up-14	down-7	down-8	down-9	lab trailer
chlorobenzene	ND	ND	0.97	ND	ND
methylene chloride	**550**	0.24J	**10**	**20**	**8200**
m,p-xylene	ND	0.77	0.33J	0.21J	ND
o-xylene	ND	0.25	0.19	ND	ND
2-butanone	ND	ND	1.3	2.6	ND
toluene	ND	0.42	0.22	0.88	ND
carbon disulfide	17	ND	ND	ND	ND
acetone	230	4.1	11	24	1800
chloromethane	ND	0.47	0.42	0.55	ND
benzene	ND	0.22	0.22	0.27	ND
all else ND at ...	1.5/7.3	0.18/0.92	0.18/0.92	0.16/0.81	33/160
benzene reporting limit	1.5	0.18	0.18	0.16	33

all results in ppbv

ND- not detected

J- value is less than reporting limit but greater than zero

ICF Kaiser Engineers

Memo

To: Kirk Ticknor, P.E. and Joseph Kelleher

From: Wendy Werkheiser

Date: 11/02/98

Re: Perimeter Air Monitoring Results

Attached are the results for the October monthly perimeter air-monitoring event that occurred on October 21, 1998. This event also coincided with the opening of Pit #2. One sample was collected upwind and three samples were collected downwind. The sample locations were 14 (upwind), 4, 5, and 6 (downwind). All samples were analyzed by Air Toxics for volatile organic compounds using Method TO-14.

The results show that all samples had concentrations of benzene below the action level of 0.50 ppbv. Samples did not contain any detectable concentrations of methylene chloride. Canisters were stored in the main trailer (not in the laboratory trailer as during previous sampling). This is an indication that the methylene chloride detected during previous sampling events may have been due to contamination from the laboratory trailer during storage (during the last sampling event methylene chloride was detected in the laboratory trailer at a concentration of 8,200 ppbv). Locations also showed elevated levels (greater than 1 ppbv) of acetone, 2-butanone and carbon disulfide. At this time there is no action level for acetone, 2-butanone or carbon disulfide at this site.

Please transmit a copy of this memo to the USACE.

ICF Kaiser Engineers

Memo

To: Eric Brandt

Thru: Joe Kelleher

From: Wendy Werkheiser

Date: 12/02/98

Re: Perimeter Air Monitoring Results

Attached are the results for the November monthly perimeter air-monitoring event that occurred on November 20, 1998. One sample was collected upwind and three samples were collected downwind. The sample locations were 3 (upwind), 13, 14, and 15 (downwind). All samples were analyzed by Air Toxics for volatile organic compounds using Method TO-14.

The results show that all samples had concentrations of benzene below the action level of 0.50 ppbv. Samples did not contain any detectable concentrations of methylene chloride, except at sampling location 14 where the result (0.17 ppbv) was well below the action level (8 ppbv). Canisters were stored in the main trailer. Locations also showed elevated levels (greater than 1 ppbv) of acetone and 2-butanone. At this time there is no action level for acetone or 2-butanone at this site.

Site Perimeter VOC Air Monitoring
November Monthly

Parameter	November Monthly 11/20/98			
	up-3	down-13	down-14	down-15
methylene chloride	ND	ND	0.17	ND
2-butanone	0.96	1.2	ND	2.7
toluene	0.4	0.43	0.24	0.52
acetone	2.9	3.6	2.4	12
trichloroethene	ND	ND	0.33	ND
benzene	0.36	0.32	0.38	0.39
all else ND at ...	0.17/0.86	0.17/0.84	0.17/0.84	0.16/0.82
benzene detection limit	0.17	0.17	0.17	0.16

all results in ppbv

ND- not detected

~~[illegible]~~

Talk to Dawn
Berta
Pat F.

July data

Benzene - probably not a problem

toluene / tie in w/ $MeCl_2$

will look for a source w/ Draeger tubes

Not due to soil treating process
Not in soil or stack gases

Suggest continuing to do all VOCs

- Could be on sampler's clothes from onsite lab, then when seal broken it picks up contamination. Wash hands too.
- Not in blank which would not have been open

(Are consultants getting contaminated [illegible])

Looked at Draeger tubes for source and didn't find anything onsite
50 ppm detection limit

11/12/98
- will sample in more locations onsite (WIP, TDU, PIT) and offsite
- try FID to look for source
- talk to Gab for other explanations

RECORD OF COMMUNICATION	☐ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE ☐ OTHER (SPECIFY) (Record of item checked above)	
TO:	FROM:	DATE TIME
SUBJECT		
SUMMARY OF COMMUNICATION		
CONCLUSIONS, ACTION TAKEN OR REQUIRED		
INFORMATION COPIES TO:		

EPA Form 1300-6 (7-72) REPLACES EPA HQ FORM 6300-3 WHICH MAY BE USED UNTIL SUPPLY IS EXHAUSTED.

Site Perimeter VOC Air Monitoring
October Monthly

Parameter	October monthly 10/21/98			
	up-14	down-4	down-5	down-6
bromomethane	0.45	ND	ND	0.99
methylene chloride	ND	ND	ND	ND
2-butanone	ND	9.8	1.4	2.4
toluene	0.31	0.58	0.74	0.65
carbon disulfide	4.4	8.7	13	8.5
acetone	4.9	24	6.8	9.8
chloromethane	0.34	0.4	0.58	0.46
benzene	0.28	0.31	0.35	0.33
all else ND at ...	0.19/0.94	0.19/0.94	0.19/0.94	0.19/0.94
benzene reporting limit	0.19	0.19	0.19	0.19

all results in ppbv

ND- not detected

Table 3-18
Site Perimeter VOC Air Monitoring-Baseline

Parameter	Baseline Day 1 (5/9/98)				Baseline Day 2 (5/10/98)				Baseline Day 3 (5/11/98)				Highest Concentration
	up-15	down-7	down-8	down-9	up-14	down-6	down-7	down-8	up-1	down-9	down-10	down-11	
TCF-methane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	2	2	5	ND	6	4	4	3	ND	ND	ND	2	6
tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-xylene	ND	1	1J	ND	1J	2	2	ND	2J	ND	ND	ND	2
o-xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCTF-ethane	ND	1J	ND	ND	ND	ND	ND	ND	ND	ND	ND	1J	1J
toluene	ND	18	2J	1J	1J	3	1J	ND	ND	2	ND	5	18
chloroform	ND	ND	2	ND	2	1J	2	2	ND	ND	ND	ND	2
ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.9
benzene ND at...	0.9	0.7	1	1	0.8	0.9	1	1	1	1	1	0.8	
all else ND at ...	2	1	2	2	1	2	2	2	2	2	3	1	

all results in ppbv

ND- not detected

TCTF-ethane- 1,1,2-trichloro-1,2,2-trifluoroethane

TCF-methane- trichloromethane

J- value is less than reporting limit but greater than zero

Table 3-19
Site Perimeter VOC Air Monitoring-Ramp Up

Parameter	Ramp Up (6/1/98)				Ramp Up (6/2/98)				Ramp Up (6/3/98)			
	up-14	down-5	down-6	down-7	up-7	down-1	down-14	down-15	up-14	down-4	down-5	down-6
TCF-methane	ND	ND	ND	ND	ND	ND	ND	ND	3	ND	ND	ND
methylene chloride	**8**	2	**10**	**64**	**24**	**16**	**26**	**190**	**6,100**	1J	**820**	**4,600**
tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1J	ND	ND	ND
m,p-xylene	ND	ND	ND	3	ND	1J	ND	3	2	ND	16	1J
o-xylene	ND	ND	ND	ND	ND	ND	ND	1J	ND	ND	6	ND
styrene	ND	ND	ND	ND	ND	ND	ND	ND	1	ND	1	ND
TCTF-ethane	ND	ND	ND	2	ND	4	ND	1J	7	ND	2	ND
toluene	ND	2J	ND	**80**	1J	2	2	**22**	**330**	ND	15	6
chloroform	ND	ND	ND	ND	1J	ND	ND	ND	ND	ND	2	ND
ethylbenzene	ND	ND	ND	1J	ND	ND	ND	1J	ND	ND	3	ND
benzene ND at...	1	2	1	1	2	1	2	2	1	0.8	0.9	1/UJ
all else ND at ...	1	2	1	1	2	1	2	2	1	2	1	2

all results in ppbv

ND- not detected

TCTF-ethane- 1,1,2-trichloro-1,2,2-trifluoroethane

TCF-methane- trichloromethane

J- value is less than reporting limit but greater than zero

Table 3-20
Site Perimeter VOC Air Monitoring-Batch and Continuous POP Tests

	First Batch Test-Repeat (6/13/98)				Second Batch Test (6/6/98)				Third Batch Test (6/7/98)			
Parameter	up-12	down-1	down-2	down- 15	up-15	down-6	down-7	down-8	up-14	down-3	down-4	down-5
TCF-methane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	**100**	**79**	**40**	**85**	**28**	**52**	**310**	**61**	**4600**	**210**	**35**	**38**
tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-xylene	ND	ND	ND	1J	ND	ND	ND	ND	ND	ND	ND	ND
o-xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCTF-ethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	ND	ND	ND	5	ND	ND	ND	ND	3	ND	ND	ND
chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene ND at...	1	0.8	0.6/UJ	0.9	0.8	0.9	0.9	0.9	0.8	1	0.9	0.9
all else ND at ...	2	2	1	2	1	2	2	2	1	2	2	1

	First Continuous Test (6/10/98)				Second Continuous Test (6/11/98)				Third Continuous Test (6/12/98)			
Parameter	up-1	down-10	down-11	down-12	up-4	down-12	down-13	down-14	up-4	down-12	down-13	down-14
TCF-methane	ND	ND	ND	ND	ND/UJ	ND	ND	ND	ND	ND	ND	ND
methylene chloride	**67**	**45**	**140**	**31**	**280**	**32**	**25**	**100**	**36**	**3500**	**18**	**13**
tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-xylene	ND	ND	ND	ND	3	ND	ND	ND	ND	2	ND	ND
o-xylene	ND	ND	ND	ND	1J	ND	ND	ND	ND	ND	ND	ND
styrene	ND	ND	ND	ND	2	ND	ND	ND	ND	ND	ND	ND
TCTF-ethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	ND	ND	ND	ND	**43**	ND	ND	ND	ND	7	ND	ND
chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	ND	ND	ND	ND	1	ND	ND	ND	ND	ND	ND	ND
benzene ND at...	0.9	1	0.7	1	0.6/UJ	0.8	0.6	0.6	0.8	0.7	0.8	0.6
all else ND at ...	2	2	1	2	1	2	1	1	2	1	2	1

all results in ppbv

ND- not detected

TCTF-ethane- 1,1,2-trichloro-1,2,2-trifluoroethane

TCF-methane- trichloromethane

J- value is less than reporting limit but greater than zero

Table 3-20A
Site Perimeter VOC Air Monitoring- July and August Monthly

Parameter	July monthly 7/16/98				August monthly 8/26/1998					
	up-13	down-15	down-1	down-2	down-13	down-13S	down-14	down-14S	up-5	up-6
TCF-methane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	20	12	14	5	18	16	6	760	10	62
tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-xylene	6	3	ND	ND	ND	0.21	ND	ND	ND	ND
o-xylene	2J	0.9J	ND	ND	ND	ND	ND	ND	ND	ND
styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCTF-ethane	ND	1J	ND	ND	ND	ND	ND	ND	ND	1J
toluene	6	3	ND	ND	ND	0.36	ND	ND	ND	ND
chloroform	ND	1J	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	2J	0.8J	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	N/A	N/A	N/A	N/A	N/A	10	N/A	ND	N/A	N/A
acetone	N/A	N/A	N/A	N/A	N/A	14	N/A	150	N/A	N/A
trichloroethene	ND	ND	ND	ND	ND	0.42	ND	ND	ND	ND
chloromethane	ND	ND	ND	ND	ND	0.64	6	ND	ND	ND
benzene	12	5	ND	ND	ND	0.37	ND	3.1	ND	ND
all else ND at ...	2	2	2	1	3	0.2/1.0	3	2/10	3	2
benzene reporting limit	1.2	0.85	1	0.6	0.5	0.85	0.5	2	0.5	0.5

all results in ppbv

ND- not detected

TCTF-ethane- 1,1,2-trichloro-1,2,2-trifluoroethane

TCF-methane- trichloromethane

J- value is less than reporting limit but greater than zero

S- split sample

Table 3-21 Site Perimeter Particulate Air Monitoring
(all results in mg/m3)

Date	Locations		Reading			8-Hour Time Weighted Average
			Setup	Middle/Max	Take Down	
5/9/98 Baseline-Day 1	up	15	0.000	0.000	0.000	0.000
	down1	7	0.000	0.020	0.070	0.040
	down2	8	0.000	0.000	0.220	0.120
	down3	9	0.000	0.000	0.000	0.000
5/10/98 Baseline-Day 2	up	14	0.000	0.000	0.010	NR
	down1	6	0.050	0.000	0.040	NR
	down2	7	0.000	0.000	0.000	0.000
	down3	8	0.000	0.100	0.110	NR
5/11/98 Baseline-Day 3	up	1	0.000	0.000	0.000	0.000
	down1	9	0.010	0.000	0.000	0.000
	down2	10	0.000	0.000	0.060	0.040
	down3	11	0.000	0.000	0.000	0.000
6/1/98 Ramp Up	up	14	0.033	0.093	0.028	0.028
	down1	5	0.000	0.085	0.009	0.002
	down2	6	0.006	0.009	0.006	0.009
	down3	7	0.026	0.091	0.026	0.013
6/2/98 Ramp Up	up	7	0.019	0.11	0.035	0.020
	down1	1	OFF	0.13	0.010	0.007
	down2	15	0.050	0.18	0.062	0.053
	down3	14	0.021	1.39	0.025	0.029
6/3/98 Ramp Up	up	14	0.026	0.062	0.024	0.025
	down1	4	0.031	0.211	0.029	0.030
	down2	5	0.013	0.083	0.016	0.017
	down3	6	0.048	0.135	0.052	0.052
6/6/98 Second Batch Test	up	15	0.058	0.108	0.052	0.052
	down1	6	0.032	0.215	0.014	0.015
	down2	7	0.022	0.155	0.035	0.038
	down3	8	0.022	0.057	0.014	0.012
6/7/98 Third Batch Test	up	14	0.034	**129.900**	1.840	1.349
	down1	3	0.070	0.179	0.061	0.058
	down2	4	0.012	0.096	0.016	0.014
	down3	5	0.013	0.066	0.014	0.013
6/10/98 First Continuous Test	up	1	0.782	0.097	0.046	0.043
	down1	10	0.088	1.067	0.067	0.066
	down2	11	0.046	0.147	0.067	0.071
	down3	12	0.043	0.164	0.065	0.070
6/11/98 Second Continuous Test	up	4	0.032	OFF	OFF	OFF
	down1	12	0.000	OFF	OFF	OFF
	down2	13	0.041	OFF	OFF	OFF
	down3	14	NR	NR	NR	NR
6/11/98 Third Continuous Test	up	4	0.000	OFF	OFF	OFF
	down1	12	0.040	OFF	OFF	OFF
	down2	13	0.042	OFF	OFF	OFF
	down3	14	NR	NR	NR	NR
6/13/98 First-Repeat Batch Test	up	12	0.063	OFF	OFF	OFF
	down1	15	0.336	OFF	OFF	OFF
	down2	1	0.000	OFF	OFF	OFF
	down3	2	0.126	OFF	OFF	NR

Table 3-22
Site Perimiter Particulate Air Monitoring
(all results in mg/m3)

Date	Locations		Reading			Time Weighted Average
			Setup	Middle	Take Down	
6/18/98	up	14	0.022	0.009	0.031	0.018
	down1	1	0.041	0.022	off	NR
	down2	2	0.040	0.025	0.033	0.027
	down3	3	0.018	0.017	off	NR
6/19/98	up	14	0.111	0.156	0.039	0.106
	down1	1	0.145	0.114	0.025	0.100
	down2	2	0.105	0.122	0.011	0.103
	down3	3	0.095	0.182	0.032	0.117
6/20/98	up	13	0.020	0.013	off	NR
	down1	15	0.037	0.026	off	NR
	down2	1	0.019	0.014	0.002	0.009
	down3	2	0.012	0.007	0.000	0.007
6/21/98	up	3	0.019	0.055	off	NR
	down1	13	0.021	0.031	off	NR
	down2	14	0.035	0.046	off	NR
	down3	1	0.023	0.049	0.025	0.031
6/22/98	up	1	0.132	0.063	0.097	0.123
	down1	10	0.137	0.097	off	NR
	down2	11	0.146	0.136	off	NR
	down3	none	NR	NR	NR	NR
6/23/98	up	1	0.168	0.234	off	NR
	down1	10	0.028	0.123	0.040	0.001
	down2	9	0.203	0.097	off	NR
	down3	none	NR	NR	NR	NR
6/24/98	up	15	0.300	0.167	off	NR
	down1	7	NR	0.143	0.149	0.208
	down2	8	0.656	0.175	off	NR
	down3	none	NR	NR	NR	NR
6/25/98	up	3	0.370	0.107	off	NR
	down1	13	0.860	0.087	off	NR
	down2	14	0.794	0.142	0.130	0.172
	down3	none	NR	NR	NR	NR
6/26/98	up	10	0.261	0.490	1.147	0.448
	down1	15	0.866	0.165	0.088	0.241
	down2	1	0.246	0.097	0.167	0.144
	down3	none	NR	NR	NR	NR
6/27/98	up	10	0.165	0.076	0.237 (off)	NR
	down1	15	0.158	0.063	0.030 (off)	NR
	down2	1	0.151	0.068	0.025 (off)	NR
	down3	none	NR	NR	NR	NR
6/29/98	up	4	0.028	0.041	off	NR
	down1	14	0.038	0.074	off	NR
	down2	15	0.010	0.053	off	NR
	down3	none	NR	NR	NR	NR
6/30/98	up	10	0.000	0.000	off	NR
	down1	14	0.050	0.030	off	NR
	down2	15	0.094	0.020	off	NR
	down3	none	NR	NR	NR	NR

Table 3-22
Site Perimiter Particulate Air Monitoring
(all results in mg/m3)

Date	Locations		Reading			Time Weighted Average
			Setup	Middle	Take Down	
7/1/98	up	13	0.027	0.036	off	NR
	down1	15	0.014	0.042	off	NR
	down2	1	0.017	0.050	off	NR
	down3	none	NR	NR	NR	NR
7/2/98	up	10	0.072	0.028	off	NR
	down1	15	0.054	0.027	off	NR
	down2	1	0.041	0.005 (off)	off	NR
	down3	none	NR	NR	NR	NR
7/3/98	up	13	0.041	NR	off	NR
	down1	1	0.086	NR	0.045	0.042
	down2	2	0.063	NR	0.075	0.076
	down3	none	NR	NR	NR	NR
7/4/98	up	10	0.163	0.047	0.061	0.065
	down1	14	0.149	0.063	off	NR
	down2	15	0.166	0.141	0.077	0.134
	down3	none	NR	NR	NR	NR
7/5/98	up	10	0.051	0.011	off	NR
	down1	1	0.075	0.080	off	NR
	down2	3	0.123	0.014	off	NR
	down3	none	NR	NR	NR	NR
7/6/98	up	1	0.019	0.011	off	NR
	down1	9	0.042	0.023 (off)	off	NR
	down2	10	0.016	0.011 (off)	off	NR
	down3	11	0.006	0.035 (off)	off	NR
7/7/98	up	3	0.023	0.019	0.021	0.018
	down1	13	0.025	0.056	0.022	0.057
	down2	14	0.025	0.013	0.025	0.028
	down3	15	0.026	0.013	off	NR
7/8/98	up	3	0.046	0.099	0.097	0.101
	down1	13	0.017	0.055	0.098	0.048
	down2	14	0.010	0.070	0.097	0.101
	down3	15	0.044	0.122	0.164	0.080
7/9/98	up	1	0.036	NR	0.098	0.058
	down1	9	0.027	0.059	0.151	0.080
	down2	10	0.059	0.056	0.104	0.065
	down3	11	0.063	0.040	0.210	0.092
7/10/98	up	14	0.243	0.030	0.031	0.065
	down1	1	0.132	0.012	0.019	0.059
	down2	2	0.120	0.042	0.022	0.059
	down3	3	0.544	0.017	0.023	0.078
7/11/98	up	14	0.004	0.002	0.015	0.003
	down1	4	0.000	0.000	0.089	0.001
	down2	5	0.000	0.000	0.005	0.000
	down3	7	0.003	0.021	0.016	0.010
7/12/98	up	1	0.025	0.000	0.025	0.000
	down1	7	0.027	0.010	off	NR
	down2	10	0.010	0.000	0.004	0.002
	down3	13	0.061	0.000	off	NR

Table 3-22
Site Perimiter Particulate Air Monitoring
(all results in mg/m3)

Date	Locations		Reading			Time Weighted Average
			Setup	Middle	Take Down	
7/13/98	up	3	0.009	0.024	0.021	0.024
	down1	13	0.036	0.054	0.196	0.046
	down2	14	0.017	0.179	0.067	0.042
	down3	15	0.003	0.029	0.013	0.030
7/14/98	up	3	0.003	0.032	0.055	0.031
	down1	13	0.008	0.014	0.041	0.021
	down2	14	0.036	0.059	0.087	0.041
	down3	15	0.011	0.030	0.044	0.036
7/15/98	up	3	0.015	0.024	0.016	0.017
	down1	13	0.018	0.124	0.032	0.022
	down2	14	0.075	0.024	0.010	0.013
	down3	15	0.061	0.009	0.003	0.011
7/16/98	up	13	0.026	0.067	0.036	0.038
	down1	15	0.038	0.076	0.070	0.042
	down2	1	0.040	0.036	0.061	0.035
	down3	2	0.052	0.030	off	off
7/17/98	up	13	0.302	0.109	0.156	0.184
	down1	1	0.235	0.117	0.184	0.111
	down2	2	0.245	0.167	0.225	0.178
	down3	3	0.024	0.159	0.196	0.138
7/18/98	up	13	NR	0.011	0.001	0.005
	down1	3	0.110	0.823	1.492	0.787
	down2	7	0.011	0.010	0.002	0.009
	down3	8	0.041	0.017	0.014	0.020
7/19/98	up	3	0.063	0.074	0.176	0.123
	down1	13	0.096	0.084	0.163	0.126
	down2	14	0.095	0.076	0.058	0.056
	down3	15	0.025	0.042	0.095	0.068
7/20/98	up	7	0.081	0.082	0.172	0.117
	down1	14	0.109	0.065	0.066	0.072
	down2	15	0.081	0.073	0.074	0.078
	down3	1	0.153	0.122	0.137	0.130
7/21/98	up	13	0.053	0.044	0.048	0.041
	down1	1	0.056	0.044	0.042	0.051
	down2	2	0.012	0.068	0.069	0.069
	down3	3	0.046	0.061	0.312	0.077
7/22/98	up	7	0.095	0.082	0.067	0.068
	down1	14	0.162	0.055	0.046	0.057
	down2	15	0.082	0.073	0.051	0.070
	down3	1	0.129	0.092	0.066	0.080
7/23/98	up	10	0.093	0.070	0.037	0.051
	down1	15	0.109	0.096	0.047	0.071
	down2	1	0.103	0.155	0.072	0.094
	down3	2	0.077	0.090	0.062	0.254
7/24/98	up	14	0.047	0.009	0.055	0.017
	down1	3	0.123	0.017	0.177	0.029
	down2	4	0.057	0.043	0.069	0.049
	down3	5	0.078	0.111	0.058	0.525

Table 3-22
Site Perimiter Particulate Air Monitoring
(all results in mg/m3)

Date	Locations		Reading			Time Weighted Average
			Setup	Middle	Take Down	
7/25/98	up	15	0.026	0.008	0.015	0.017
	down1	3	0.016	0.013	0.019	0.013
	down2	4	0.073	0.007	0.013	0.016
	down3	7	0.038	0.021	0.020	0.020
7/26/98	up	3	0.046	0.047	0.054	0.020
	down1	13	0.092	0.007	0.171	0.095
	down2	14	0.030	0.011	0.019	0.024
	down3	15	0.035	0.025	0.049	0.031
7/27/98	up	10	0.157	0.013	0.016	0.017
	down1	15	0.077	0.047	0.237	0.030
	down2	1	0.053	0.013	0.014	0.020
	down3	2	0.031	0.011	0.011	0.017
7/28/98	up	3	0.043	0.049	0.072	0.059
	down1	13	0.027	0.066	0.068	0.055
	down2	14	0.036	0.048	0.055	0.037
	down3	15	0.051	0.060	0.082	0.062
7/29/98	up	3	0.298	0.390	0.134	0.118
	down1	13	0.171	0.078	0.157	0.083
	down2	14	0.222	0.088	0.125	0.096
	down3	15	0.205	0.106	0.128	0.111
7/30/98	up	14	0.336	0.101	0.105	0.127
	down1	1	0.263	0.107	0.073	0.102
	down2	2	0.164	0.082	0.079	0.105
	down3	3	0.649	0.118	0.094	0.143
7/31/98	up	1	0.084	0.006	0.000	0.031
	down1	10	0.020	0.009	0.018	0.036
	down2	9	0.054	0.042	0.024	0.063
	down3	7	0.094	0.039	0.022	0.057
8/1/98	up	15	0.002	0.001	0.000	0.000
	down1	7	0.002	0.000	0.000	0.000
	down2	8	0.000	0.000	0.000	0.000
	down3	9	0.000	0.000	0.000	0.000
8/2/98	up	1	0.002	0.000	0.000	0.000
	down1	7	0.000	0.000	0.000	0.000
	down2	9	0.006	0.106	0.000	0.000
	down3	10	0.005	0.036	0.000	0.000
8/3/98	up	2	0.035	0.000	0.000	0.000
	down1	12	0.164	0.006	0.000	0.000
	down2	13	0.000	0.500	0.000	0.011
	down3	14	0.000	0.000	0.000	0.000
8/4/98	up	14	0.182	0.038	0.016	0.018
	down1	2	0.021	0.006	0.006	0.009
	down2	3	0.013	0.014	0.013	0.012
	down3	4	0.020	0.022	0.013	0.014
8/5/98	up	15	0.198	0.005	0.109	0.005
	down1	7	0.039	0.008	0.005	0.010
	down2	9	0.039	0.008	0.069	0.009
	down3	10	0.040	0.002	0.001	0.004

Table 3-22
Site Perimiter Particulate Air Monitoring
(all results in mg/m3)

Date	Locations		Reading			Time Weighted Average
			Setup	Middle	Take Down	
8/6/98	up	2	0.015	0.004	0.003	0.006
	down1	14	0.026	0.035	0.015	0.029
	down2	13	0.052	0.066	0.034	0.048
	down3	12	0.020	0.015	0.013	0.013
8/7/98	up	2	0.034	0.020	0.019	0.027
	down1	13	0.029	0.027	0.029	0.029
	down2	12	0.124	0.238	0.143	0.181
	down3	14	0.026	0.029	0.010	0.020
8/8/98	up	1	0.034	0.026	0.023	0.029
	down1	13	0.049	0.060	0.110	0.059
	down2	7	0.014	0.029	0.005	0.017
	down3	10	0.024	0.032	0.028	0.027
8/9/98	up	3	0.017	0.025	0.015	0.017
	down1	13	0.023	0.019	0.066	0.046
	down2	14	0.003	0.010	0.054	0.017
	down3	15	0.012	0.009	0.003	0.004
8/10/98	up	7	0.028	0.027	0.033	0.041
	down1	13	0.184	0.046	0.049	0.057
	down2	14	0.037	0.037	0.072	0.074
	down3	15	0.064	0.062	0.038	0.055
8/11/98	up	7	0.058	0.044	0.066	0.049
	down1	14	0.082	0.016	0.050	0.031
	down2	15	0.168	0.018	0.053	0.033
	down3	1	0.074	0.022	0.040	0.025
8/12/98	up	15	0.112	0.052	0.069	0.062
	down1	5	0.100	0.022	0.070	0.055
	down2	6	0.161	0.040	0.061	0.296
	down3	7	0.112	0.045	0.066	0.059
8/13/98	up	15	0.072	0.030	0.058	0.036
	down1	7	0.113	0.036	0.033	0.035
	down2	8	0.087	0.018	0.016	0.025
	down3	9	0.183	0.077	0.061	0.057
8/14/98	up	5	0.048	0.028	0.022	0.026
	down1	13	0.058	0.024	0.045	0.045
	down2	14	0.043	0.029	0.053	0.053
	down3	15	0.037	0.033	0.030	0.037
8/15/98	up	2	0.016	0.011	0.000	0.024
	down1	13	0.022	0.290	0.011	0.042
	down2	14	0.033	0.107	0.017	0.040
	down3	15	0.030	0.035	0.026	0.027
8/16/98	up	2	0.095	0.058.	0.066	0.067
	down1	12	0.059	0.044	0.042	0.039
	down2	13	0.219	0.095	0.040	0.050
	down3	14	0.160	0.055	0.045	0.043
8/17/98	up	10	0.198	0.066	0.052	0.072
	down1	15	0.125	0.064	0.035	0.069
	down2	1	0.099	0.121	0.030	0.053
	down3	2	0.100	0.055	0.021	0.061

Table 3-22
Site Perimiter Particulate Air Monitoring
(all results in mg/m3)

Date	Locations		Reading			Time Weighted Average
			Setup	Middle	Take Down	
8/18/98	up	2	0.069	0.132	0.286	0.131
	down1	13	0.055	0.118	0.143	0.110
	down2	14	0.018	0.105	0.155	0.103
	down3	15	0.053	0.135	0.165	0.133
8/19/98	up	14	0.005	0.005	0.006	0.012
	down1	7	0.011	0.009	0.006	0.004
	down2	8	0.009	0.012	0.045	0.014
	down3	9	0.625	0.021	0.021	0.025
8/20/98	up	2	0.017	0.004	0.001	0.004
	down1	13	0.034	0.033	0.013	0.030
	down2	14	0.004	0.007	0.018	0.015
	down3	15	0.022	0.022	0.022	0.023
8/21/98	up	1	0.019	0.082	0.009	0.050
	down1	7	0.019	0.021	0.016	0.019
	down2	8	0.020	0.031	0.025	0.025
	down3	9	0.005	0.019	0.028	0.016
8/22/98	up	13	0.026	0.033	0.054	0.04
	down1	15	0.040	0.058	0.083	0.06
	down2	1	0.054	0.157	0.076	0.06
	down3	2	0.038	0.050	0.058	0.05
8/23/98	up	7	0.074	0.049	0.084	0.08
	down1	15	0.048	0.037	0.074	0.08
	down2	1	0.076	0.075	0.043	0.05
	down3	2	0.072	0.076	0.056	0.06
8/24/98	up	1	0.123	0.046	0.028	0.06
	down1	15	0.079	0.074	0.065	0.09
	down2	14	0.070	0.053	0.134	0.07
	down3	10	0.081	0.078	0.080	0.07
8/25/98	up	14	0.124	0.050	0.248	0.09
	down1	8	0.157	0.079	0.076	0.10
	down2	9	0.107	0.092	0.012	0.11
	down3	10	0.133	0.074	0.098	0.09

TABLE 3-23 – Treated Soil
First Batch Test – Repeat, 6/13-14/98

Parameter	On-site by 8270		Off-site by 8310/8270*	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	ND	0.4	0.029	0.033
Benzo[b]fluoranthene	ND	0.4	ND	0.033
Benzo[k]fluoranthene	ND	0.4	ND	0.022
Benzo[a]pyrene	ND	0.4	ND	0.033
Chrysene	ND	0.4	0.043	0.022
Dibenzo[a,h]anthracene	ND	0.4	ND	0.033
Indeno[1,2,3-cd]pyrene	ND	0.4	ND	0.022
Carbazole*	ND	0.4	ND	0.37
Benzo(a)Pyrene Equivalence	0		0.039	
Total Carcinogenic PAH	0		.072	
Acenaphthene	ND	0.4	ND	0.220
Acenaphthylene	ND	0.4	ND	0.330
Anthracene	ND	0.4	0.038	0.022
Fluoranthene	ND	0.4	0.230B	0.033
Fluorene	ND	0.4	0.017B	0.033
Naphthalene	ND	0.4	ND	0.170
2-Methylnaphthalene	NT	NT	ND	0.330
Phenanthrene	ND	0.4	0.230B	0.022
Pyrene	ND	0.4	0.086B	0.022
Total PAH	0		0.673	
Pentachlorophenol *	ND	0.4	ND	0.37

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	7.9	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND/UL	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND/UL	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-23 (cont.) – Treated Soil
First Batch Test – Repeat, 6/13-14/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	0.65J	1.0
2378-TCDF	0.60J	1.0
12378-PeCDF	0.34J	2.5
12378-PeCDD	1.14J	2.5
23478-PeCDF	ND	0.32-EMPC
123478-HxCDF	0.31J	2.5
123678-HxCDF	ND	0.27-EMPC
123478-HxCDD	1.03J	2.5
123678-HxCDD	ND	1.37-EMPC
123789-HxCDD	1.90J	2.5
234678-HxCDF	0.38J	2.5
123789-HxCDF	0.51J	2.5
1234678-HpCDF	1.11J	2.5
1234678-HpCDD	1.11J	2.5
1234789-HpCDF	ND	0.11-EDL
OCDD	84.46	5.0
OCDF	3.44J	5.0
2,3,7,8 TCDD Toxicity Equivalence	2.01	

A key to data flags is included in Appendix M.

TABLE 3-23 (cont.) – Treated Soil
First Batch Test – Repeat, 6/13-14/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	10	100,000
Acenaphthylene	ND	10	--
Anthracene	ND	1	600,000
Benz[a]anthracene	ND	0.2*	0.2
Benzo[b]fluoranthene	ND	1	6
Benzo[k]fluoranthene	ND	0.5	200
Benzo[a]pyrene	ND	1	10
Chrysene	ND	0.5	60
Dibenzo[a,h]anthracene	ND	0.1*	0.1
Fluoranthene	ND	1	60,000
Fluorene	ND	1	--
Indeno[1,2,3-cd]pyrene	ND	1	6
Naphthalene	ND	5	60,000
2-Methylnaphthalene	ND	10	--
Phenanthrene	ND	0.5	100
Pyrene	ND	0.5	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	100	10,000
2-Chlorophenol	ND	100	10,000
2,4-Dimethylphenol	ND	100	40,000
2,4-Dinitrophenol	ND	100	4,000
Carbazole	ND	100	200
Phenol	ND	100	100,0000
2,3,4,6-Tetrachlorophenol	ND	100	60,000
1,4-Dichlorobenzene	ND	100	7,500
2,4-Dinitrotoluene	ND	100	130
Hexachlorobenzene	ND	100	130
Hexachlorobutadiene	ND	100	500
Hexachloroethane	ND	100	3,000
2-Methylphenol	ND	100	200,000
3-Methylphenol	ND	100	200,000
4-Methylphenol	ND	100	200,000
Nitrobenzene	ND	100	2,000
Pyridine	ND	100	5,000
2,4,5-Trichlorophenol	ND	100	200,000
2,4,6-Trichlorophenol	ND	100	500

* Treated soil was resampled on 7/28/98 and analyzed for benz[a]anthracene and dibenzo[a,h]anthracene in order to obtain required reporting limits

TABLE 3-23 (cont.) – Treated Soil
First Batch Test – Repeat, 6/13-14/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B						
Benzene	ND	ND	ND	ND	25	300
2-Butanone (MEK)	ND	ND	ND	ND	25	200,000
Carbon tetrachloride	ND	ND	ND	ND	25	500
Chlorobenzene	ND	ND	ND	ND	25	100,000
Chloroform	ND	ND	ND	ND	25	6,000
1,2-Dichloroethane	ND	ND	ND	ND	25	500
1,1-Dichloroethene	ND	ND	ND	ND	25	700
Tetrachloroethene	ND	ND	ND	ND	25	700
Trichloroethene	ND	ND	ND	ND	25	500
Ethylbenzene	ND	ND	ND	ND	25	40,000
Styrene	ND	ND	ND	ND	25	6000
Xylene	ND	ND	ND	ND	25	600,000
Vinyl chloride	ND	ND	ND	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	1,000
Pentachlorophenol	ND				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND/UL				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	ND				17	5,000
Barium	[224]				2	100,000
Cadmium	ND				3	1,000
Chromium	[16.8]B				5	5,000
Lead	ND/UL				13	5,000
Selenium	[39.2]				31	1,000
Silver	ND				12	5,000

A key to data flags is included in Appendix M.

TABLE 3-24– Treated Soil
Second Batch Test, 6/6/98

Parameter	On-site by 8270		Off-site by 8310/8270*	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	0.15J	0.4	0.36J	0.034
Benzo[b]fluoranthene	ND	0.4	0.14	0.034
Benzo[k]fluoranthene	ND	0.4	0.041	0.022
Benzo[a]pyrene	ND	0.4	ND0.023J	0.034
Chrysene	0.24J	0.4	0.54B	0.22
Dibenzo[a,h]anthracene	ND	0.4	ND	0.034
Indeno[1,2,3-cd]pyrene	ND	0.4	ND	0.022
Carbazole*	ND	0.4	ND	0.37
Benzo(a)Pyrene Equivalence	0.020		0.086	
Total Carcinogenic PAH	0.39		1.104	
Acenaphthene	ND	0.4	ND	0.22
Acenaphthylene	ND	0.4	ND	0.34
Anthracene	0.17J	0.4	0.47J	0.22
Fluoranthene	1.3	0.4	4.3b	3.4
Fluorene	ND	0.4	0.1J	0.034
Naphthalene	ND	0.4	ND	0.17
2-Methylnaphthalene	NT	NT	ND	0.34
Phenanthrene	1.4	0.4	4.8B	2.2
Pyrene	0.6	0.4	1.7B	0.22
Total PAH	3.86		12.474	
Pentachlorophenol *	ND	0.4	ND	0.37

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	8.1	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND/UL	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846 –7.3.2	ND/UL	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-24 (cont.) – Treated Soil
Second Batch Test, 6/6/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	2.50J	1.0
2378-TCDF	ND	0.82-EMPC
12378-PeCDF	ND	2.73-EDL
12378-PeCDD	6.44J	2.5
23478-PeCDF	ND	2.99-EDL
123478-HxCDF	ND	0.52-EDL
123678-HxCDF	ND	0.48-EDL
123478-HxCDD	5.45J	2.5
123678-HxCDD	ND	9.59-EMPC
123789-HxCDD	ND	12.73-EMPC
234678-HxCDF	ND	0.61-EDL
123789-HxCDF	ND	0.83-EDL
1234678-HpCDF	ND	5.42-EMPC
1234678-HpCDD	145.70	2.5
1234789-HpCDF	ND	1.56-EDL
OCDD	581.32	5.0
OCDF	17.63J	5.0
2,3,7,8 TCDD Toxicity Equivalence	8.32	

A key to data flags is included in Appendix M.

TABLE 3-24 (cont.) – Treated Soil
Second Batch Test, 6/6/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	10	100,000
Acenaphthylene	ND	10	--
Anthracene	ND	1	600,000
Benz[a]anthracene	ND	0.2*	0.2
Benzo[b]fluoranthene	ND	1	6
Benzo[k]fluoranthene	ND	0.5	200
Benzo[a]pyrene	ND	1	10
Chrysene	ND	0.5	60
Dibenzo[a,h]anthracene	ND	0.1*	0.1
Fluoranthene	ND	1	60,000
Fluorene	ND	1	--
Indeno[1,2,3-cd]pyrene	ND	1	6
Naphthalene	ND	5	60,000
2-Methylnaphthalene	ND	10	--
Phenanthrene	ND	0.5	100
Pyrene	ND	0.5	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	100	10,000
2-Chlorophenol	ND	100	10,000
2,4-Dimethylphenol	ND	100	40,000
2,4-Dinitrophenol	ND	100	4000
Carbazole	ND	100	200
Phenol	ND	100	1,000,000
2,3,4,6-Tetrachlorophenol	ND	100	60,000
1,4-Dichlorobenzene	ND	100	7500
2,4-Dinitrotoluene	ND	100	130
Hexachlorobenzene	ND	100	130
Hexachlorobutadiene	ND	100	500
Hexachloroethane	ND	100	3000
2-Methylphenol	ND	100	200,000
3-Methylphenol	ND	100	200,000
4-Methylphenol	ND	100	200,000
Nitrobenzene	ND	100	2000
Pyridine	ND	100	5000
2,4,5-Trichlorophenol	ND	100	200,000
2,4,6-Trichlorophenol	ND	100	500

* Treated soil was resampled on 7/28/98 and analyzed for benz[a]anthracene and dibenzo[a,h]anthracene in order to obtain required reporting limits

TABLE 3-24 (cont.)– Treated Soil
Second Batch Test, 6/6/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B						
Benzene	ND	ND	ND	ND	25	300
2-Butanone (MEK)	ND	ND	ND	ND	25	200,000
Carbon tetrachloride	ND /UJ	ND /UJ	ND /UJ	ND /UJ	25	500
Chlorobenzene	ND	ND	ND	ND	25	100,000
Chloroform	ND	ND	ND	ND	25	6,000
1,2-Dichloroethane	ND	ND	ND	ND	25	500
1,1-Dichloroethene	ND	ND	ND	ND	25	700
Tetrachloroethene	ND	ND	ND	ND	25	700
Trichloroethene	ND	ND	ND	ND	25	500
Ethylbenzene	ND	ND	ND	ND	25	40,000
Styrene	ND	ND	ND	ND	25	6,000
Xylene	ND	ND	ND	ND	25	600,000
Vinyl chloride	ND	ND	ND	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	1,000
Pentachlorophenol	ND				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND/UL				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	ND/UL				17	5,000
Barium	[251]				2	100,000
Cadmium	ND/UL				3	1,000
Chromium	[26.4]B				5	5,000
Lead	ND				13	5,000
Selenium	ND				31	1,000
Silver	ND				12	5,000

A key to data flags is included in Appendix M.

TABLE 3-25 – Treated Soil
Third Batch Test, 6/7/98

Parameter	On-site by 8270		Off-site by 8310/8270*	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	ND	0.4	0.24	0.032
Benzo[b]fluoranthene	ND	0.4	0.11	0.032
Benzo[k]fluoranthene	ND	0.4	0.031	0.0021
Benzo[a]pyrene	ND	0.4	0.017	0.0032
Chrysene	ND	0.4	0.35	0.21
Dibenzo[a,h]anthracene	ND	0.4	ND	0.32
Indeno[1,2,3-cd]pyrene	ND	0.4	0.0076	0.0021
Carbazole*	ND	0.4	ND	0.36
Benzo(a)Pyrene Equivalence	0		0.055	
Total Carcinogenic PAH	0		0.7556	
Acenaphthene	ND	0.4	.018J	0.021
Acenaphthylene	ND	0.4	ND	0.032
Anthracene	ND	0.4	0.19	0.021
Fluoranthene	1.1	0.4	2.1B	0.32
Fluorene	ND	0.4	0.037	0.032
Naphthalene	ND	0.4	0.17	0.16
2-Methylnaphthalene	NT	NT	0.091B	0.032
Phenanthrene	1.0	0.4	2.0B	0.21
Pyrene	0.56	0.4	0.95B	0.21
Total PAH	2.66		6.31	
Pentachlorophenol *	ND	0.4	ND	0.36

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	8.0	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND/UL	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND/UL	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-25 (cont.) – Treated Soil
Third Batch Test, 6/7/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	ND	1.73-EMPC
2378-TCDF	ND	0.83-EMPC
12378-PeCDF	ND	0.19-EMPC
12378-PeCDD	4.49J	2.5
23478-PeCDF	ND	0.23-EMPC
123478-HxCDF	ND	0.51-EDL
123678-HxCDF	ND	0.46-EDL
123478-HxCDD	3.40J	2.5
123678-HxCDD	4.98J	2.5
123789-HxCDD	ND	8.19-EMPC
234678-HxCDF	ND	0.60-EDL
123789-HxCDF	ND	0.81-EDL
1234678-HpCDF	ND	1.95-EMPC
1234678-HpCDD	57.41	2.5
1234789-HpCDF	ND	0.57-EDL
OCDD	149.71	5.0
OCDF	ND	1.92-EMPC
2,3,7,8 TCDD Toxicity Equivalence	3.81	

A key to data flags is included in Appendix M.

TABLE 3-25 (cont.) – Treated Soil
Third Batch Test, 6/7/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	10	100,000
Acenaphthylene	ND	10	--
Anthracene	ND	1	600,000
Benz[a]anthracene	ND	0.2*	0.2
Benzo[b]fluoranthene	ND	1	6
Benzo[k]fluoranthene	ND	0.5	200
Benzo[a]pyrene	ND	1	10
Chrysene	ND	0.5	60
Dibenzo[a,h]anthracene	ND	0.1*	0.1
Fluoranthene	ND	1	60,000
Fluorene	ND	1	--
Indeno[1,2,3-cd]pyrene	ND	1	6
Naphthalene	ND	5	60,000
2-Methylnaphthalene	ND	10	--
Phenanthrene	0.31B	0.5	100
Pyrene	ND	0.5	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	100	10,000
2-Chlorophenol	ND	100	10,000
2,4-Dimethylphenol	ND	100	40,000
2,4-Dinitrophenol	ND	100	4,000
Carbazole	ND	100	200
Phenol	ND	100	10,00,000
2,3,4,6-Tetrachlorophenol	ND	100	60,000
1,4-Dichlorobenzene	ND	100	7,500
2,4-Dinitrotoluene	ND	100	130
Hexachlorobenzene	ND	100	130
Hexachlorobutadiene	ND	100	500
Hexachloroethane	ND	100	3,000
2-Methylphenol	ND	100	200,000
3-Methylphenol	ND	100	200,000
4-Methylphenol	ND	100	200,000
Nitrobenzene	ND	100	2,000
Pyridine	ND	100	5000
2,4,5-Trichlorophenol	ND	100	200,000
2,4,6-Trichlorophenol	ND	100	500

* Treated soil was resampled on 7/28/98 and analyzed for benz[a]anthracene and dibenzo[a,h]anthracene in order to obtain required reporting limits

TABLE 3-25 (cont.) – Treated Soil
Third Batch Test, 6/7/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B						
Benzene	ND	ND	ND	ND	25	300
2-Butanone (MEK)	ND	ND	ND	ND	25	200000
Carbon tetrachloride	ND /UJ	ND /UJ	ND /UJ	ND /UJ	25	500
Chlorobenzene	ND	ND	ND	ND	25	100000
Chloroform	ND	ND	ND	ND	25	6000
1,2-Dichloroethane	ND	ND	ND	ND	25	500
1,1-Dichloroethene	ND	ND	ND	ND	25	700
Tetrachloroethene	ND	ND	ND	ND	25	700
Trichloroethene	ND	ND	ND	ND	25	500
Ethylbenzene	ND	ND	ND	ND	25	40000
Styrene	ND	ND	ND	ND	25	6000
Xylene	ND	ND	ND	ND	25	600000
Vinyl chloride	ND	ND	ND	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10000
2,4,5-TP	ND				0.5	1000
Pentachlorophenol	ND				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND/UL				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	ND/UL				17	5000
Barium	[244]				2	100000
Cadmium	ND/UL				3	1000
Chromium	[27.4]B				5	5000
Lead	ND				13	5000
Selenium	ND				31	1000
Silver	ND				12	5000

A key to data flags is included in Appendix M.

TABLE 3-26 – Treated Soil
First Continuous Test, 6/10/98

Parameter	On-site 8270		Off-site by 8310/8270*	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	ND	0.4	0.0061	0.0040
Benzo[b]fluoranthene	ND	0.4	0.017	0.0040
Benzo[k]fluoranthene	ND	0.4	0.0031	0.0027
Benzo[a]pyrene	ND	0.4	0.0063	0.0040
Chrysene	ND	0.4	0.016	0.0027
Dibenzo[a,h]anthracene	ND	0.4	ND	0.0040
Indeno[1,2,3-cd]pyrene	ND	0.4	0.0031	0.0027
Carbazole*	ND	0.4	ND	0.45
Benzo(a)Pyrene Equivalence	0		0.011	
Total Carcinogenic PAH	0		0.0516	
Acenaphthene	ND	0.4	0.020J	0.027
Acenaphthylene	ND	0.4	ND	0.040
Anthracene	ND	0.4	0.018B	0.0027
Fluoranthene	ND	0.4	0.043	0.004
Fluorene	ND	0.4	0.0067	0.004
Naphthalene	ND	0.4	0.044B	0.020
2-Methylnaphthalene	NT	NT	ND	0.040
Phenanthrene	ND	0.4	0.036B	0.0027
Pyrene	ND	0.4	0.014	0.0027
Total PAH	0		0.2333	
Pentachlorophenol *	ND	0.4	ND	0.45

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	7.4	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND/UL	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND/UL	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-26 (cont.) – Treated Soil
First Continuous Test, 6/10/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limits (pg/g)
2378-TCDD	ND	0.54-EDL
2378-TCDF	ND	0.83-EDL
12378-PeCDF	ND	2.21-EDL
12378-PeCDD	ND	1.16-EMPC
23478-PeCDF	ND	2.42-EDL
123478-HxCDF	ND	0.62-EDL
123678-HxCDF	ND	0.57-EDL
123478-HxCDD	ND	1.56-EMPC
123678-HxCDD	ND	2.80-EMPC
123789-HxCDD	2.80	2.5
234678-HxCDF	ND	0.73-EDL
123789-HxCDF	ND	0.99-EDL
1234678-HpCDF	1.59J	2.5
1234678-HpCDD	23.73	2.5
1234789-HpCDF	ND	0.78-EDL
OCDD	65.20	5.0
OCDF	ND	4.03-EDL
2,3,7,8 TCDD Toxicity Equivalence	0.60	

A key to data flags is included in Appendix M.

TABLE 3-26 (cont.) – Treated Soil
First Continuous Test, 6/10/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	10	100,000
Acenaphthylene	ND	10	--
Anthracene	ND	1	600,000
Benz[a]anthracene	ND	0.2*	0.2
Benzo[b]fluoranthene	ND	1	6
Benzo[k]fluoranthene	ND	0.5	200
Benzo[a]pyrene	ND	1	10
Chrysene	ND	0.5	60
Dibenzo[a,h]anthracene	ND	0.1*	0.1
Fluoranthene	ND	1	60,000
Fluorene	ND	1	--
Indeno[1,2,3-cd]pyrene	ND	1	6
Naphthalene	ND	5	60,000
2-Methylnaphthalene	ND	10	--
Phenanthrene	ND	0.5	100
Pyrene	ND	0.5	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	100	10,000
2-Chlorophenol	ND	100	10,000
2,4-Dimethylphenol	ND	100	40,000
2,4-Dinitrophenol	ND	100	4,000
Carbazole	ND	100	200
Phenol	ND	100	1,000,000
2,3,4,6-Tetrachlorophenol	ND	100	60,000
1,4-Dichlorobenzene	ND	100	7,500
2,4-Dinitrotoluene	ND	100	130
Hexachlorobenzene	ND	100	130
Hexachlorobutadiene	ND	100	500
Hexachloroethane	ND	100	3,000
2-Methylphenol	ND	100	200,000
3-Methylphenol	ND	100	200,000
4-Methylphenol	ND	100	200,000
Nitrobenzene	ND	100	2,000
Pyridine	ND	100	5,000
2,4,5-Trichlorophenol	ND	100	200,000
2,4,6-Trichlorophenol	ND	100	500

* Treated soil was resampled on 7/28/98 and analyzed for benz[a]anthracene and dibenzo[a,h]anthracene in order to obtain required reporting limits

TABLE 3-26 (cont.) – Treated Soil
First Continuous Test, 6/10/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B						
Benzene	ND	ND*	ND	ND	25	300
2-Butanone (MEK)	ND	ND*	ND	ND	25	200,000
Carbon tetrachloride	ND	ND*	ND	ND	25	500
Chlorobenzene	ND	ND*	ND	ND	25	100,000
Chloroform	ND	ND*	ND	ND	25	6,000
1,2-Dichloroethane	ND	ND*	ND	ND	25	500
1,1-Dichloroethene	ND	ND*	ND	ND	25	700
Tetrachloroethene	ND	ND*	ND	ND	25	700
Trichloroethene	ND	ND*	ND	ND	25	500
Ethylbenzene	ND	ND*	ND	ND	25	40,000
Styrene	ND	ND*	ND	ND	25	6000
Xylene	ND	ND*	ND	ND	25	600,000
Vinyl chloride	ND	ND*	ND	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	1,000
Pentachlorophenol	ND				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND/UL				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	[25.6]L				17	5,000
Barium	[271]B				2	100,000
Cadmium	[3.6]B				3	1,000
Chromium	[31.5]B				5	5,000
Lead	ND				13	5,000
Selenium	ND				31	1,000
Silver	ND				12	5,000

* Reporting Limit of 13 was used for these samples

previously 630

TABLE 3-27 – Treated Soil
Second Continuous Test, 6/10-11/98

Parameter	On-site by 8270		Off-site by 8310/8270*	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	ND	0.4	ND	0.034
Benzo[b]fluoranthene	ND	0.4	0.02	0.034
Benzo[k]fluoranthene	ND	0.4	ND	0.023
Benzo[a]pyrene	ND	0.4	ND	0.034
Chrysene	ND	0.4	0.03	0.023
Dibenzo[a,h]anthracene	ND	0.4	ND	0.034
Indeno[1,2,3-cd]pyrene	ND	0.4	ND	0.023
Carbazole*	ND	0.4	ND	0.38
Benzo(a)Pyrene Equivalence	0		0.039	
Total Carcinogenic PAH	0		0.05	
Acenaphthene	ND	0.4	ND	0.23
Acenaphthylene	ND	0.4	ND	0.34
Anthracene	ND	0.4	0.015J	0.023
Fluoranthene	ND	0.4	0.065B	0.034
Fluorene	ND	0.4	ND	0.034
Naphthalene	ND	0.4	ND	0.17
2-Methylnaphthalene	NT	NT	ND	0.34
Phenanthrene	ND	0.4	0.068B	0.023
Pyrene	ND	0.4	0.028B	0.023
Total PAH	0		0.23	
Pentachlorophenol *	ND	0.4	ND	0.038

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	7.5	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND/UL	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND/UL	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-27cont.)– Treated Soil
Second Continuous Test, 6/10-11/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limits (pg/g)
2378-TCDD	ND	0.64-EMPC
2378-TCDF	0.59J	1.0
12378-PeCDF	ND	0.18-EMPC
12378-PeCDD	ND	0.44-EDL
23478-PeCDF	0.43J	2.5
123478-HxCDF	0.43J	2.5
123678-HxCDF	0.52J	2.5
123478-HxCDD	2.48J	2.5
123678-HxCDD	5.14	2.5
123789-HxCDD	5.51	2.5
234678-HxCDF	0.59J	2.5
123789-HxCDF	0.23J	2.5
1234678-HpCDF	3.58	2.5
1234678-HpCDD	49.47	2.5
1234789-HpCDF	ND	0.48-EMPC
OCDD	120.51	5.0
OCDF	ND	3.35-EMPC
2,3,7,8 TCDD Toxicity Equivalence	2.42	

A key to data flags is included in Appendix M.

TABLE 3-27 (cont.) – Treated Soil
Second Continuous Test, 6/10-11/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	10	100,000
Acenaphthylene	ND	10	--
Anthracene	ND	1	600,000
Benz[a]anthracene	ND	0.2*	0.2
Benzo[b]fluoranthene	ND	1	6
Benzo[k]fluoranthene	ND	0.5	200
Benzo[a]pyrene	ND	1	10
Chrysene	ND	0.5	60
Dibenzo[a,h]anthracene	ND	0.1*	0.1
Fluoranthene	ND	1	60,000
Fluorene	ND	1	--
Indeno[1,2,3-cd]pyrene	ND	1	6
Naphthalene	ND	5	60,000
2-Methylnaphthalene	ND	10	--
Phenanthrene	ND	0.5	100
Pyrene	ND	0.5	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	100	10,000
2-Chlorophenol	ND	100	10,000
2,4-Dimethylphenol	ND	100	40,000
2,4-Dinitrophenol	ND	100	4,000
Carbazole	ND	100	200
Phenol	ND	100	1,000,000
2,3,4,6-Tetrachlorophenol	ND	100	60,000
1,4-Dichlorobenzene	ND	100	7,500
2,4-Dinitrotoluene	ND	100	130
Hexachlorobenzene	ND	100	130
Hexachlorobutadiene	ND	100	500
Hexachloroethane	ND	100	3,000
2-Methylphenol	ND	100	200,000
3-Methylphenol	ND	100	200,000
4-Methylphenol	ND	100	200,000
Nitrobenzene	ND	100	2,000
Pyridine	ND	100	5,000
2,4,5-Trichlorophenol	ND	100	200,000
2,4,6-Trichlorophenol	ND	100	500

* Treated soil was resampled on 7/28/98 and analyzed for benz[a]anthracene and dibenzo[a,h]anthracene in order to obtain required reporting limits

TABLE 3-27 (cont.) – Treated Soil
Second Continuous Test, 6/10-11/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B						
Benzene	ND	ND	ND	ND	25	300
2-Butanone (MEK)	ND	ND	ND	ND	25	200,000
Carbon tetrachloride	ND	ND	ND	ND	25	500
Chlorobenzene	ND	ND	ND	ND	25	100,000
Chloroform	ND	ND	ND	ND	25	6,000
1,2-Dichloroethane	ND	ND	ND	ND	25	500
1,1-Dichloroethene	ND	ND	ND	ND	25	700
Tetrachloroethene	ND	ND	ND	ND	25	700
Trichloroethene	ND	ND	ND	ND	25	500
Ethylbenzene	ND	ND	ND	ND	25	40,000
Styrene	ND	ND	ND	ND	25	6,000
Xylene	ND	ND	ND	ND	25	600,000
Vinyl chloride	ND	ND	ND	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	1,000
Pentachlorophenol	ND				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND/L				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	ND				17	5,000
Barium	[239]				2	100,000
Cadmium	ND				3	1,000
Chromium	[15]B				5	5,000
Lead	ND/UL				13	5,000
Selenium	ND				31	1,000
Silver	ND				12	5,000

A key to data flags is included in Appendix M.

TABLE 3-28 – Treated Soil
Third Continuous Test, 6/11-12/98

Parameter	On-site by 8270		Off-site by 8310/8270*	
	Results (mg/kg)	Reporting Limit (mg/kg)	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	ND	0.4	ND	0.035
Benzo[b]fluoranthene	ND	0.4	ND	0.035
Benzo[k]fluoranthene	ND	0.4	ND	0.023
Benzo[a]pyrene	ND	0.4	ND	0.035
Chrysene	ND	0.4	0.026	0.023
Dibenzo[a,h]anthracene	ND	0.4	ND	0.035
Indeno[1,2,3-cd]pyrene	ND	0.4	ND	0.023
Carbazole*	ND	0.4	ND	0.38
Benzo(a)Pyrene Equivalence	0		0.040	
Total Carcinogenic PAH	0		0.026	
Acenaphthene	ND	0.4	ND	0.2
Acenaphthylene	ND	0.4	ND	0.35
Anthracene	ND	0.4	0.015	0.023
Fluoranthene	ND	0.4	0.057	0.035
Fluorene	ND	0.4	ND	0.035
Naphthalene	ND	0.4	ND	0.17
2-Methylnaphthalene	NT	NT	ND	0.35
Phenanthrene	ND	0.4	0.067	0.023
Pyrene	ND	0.4	0.029	0.023
Total PAH	0		0.194	
Pentachlorophenol *	ND	0.4	ND	0.038

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	7.3	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-28 (cont.) – Treated Soil
Third Continuous Test, 6/11-12/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limits (pg/g)
2378-TCDD	ND	0.63-EMPC
2378-TCDF	ND	0.35-EMPC
12378-PeCDF	ND	0.23-EMPC
12378-PeCDD	ND	2.81-EMPC
23478-PeCDF	ND	0.38-EDL
123478-HxCDF	0.74J	2.5
123678-HxCDF	ND	1.04-EMPC
123478-HxCDD	4.28	2.5
123678-HxCDD	8.35	2.5
123789-HxCDD	7.79	2.5
234678-HxCDF	0.81J	2.5
123789-HxCDF	ND	0.91-EDL
1234678-HpCDF	6.08	2.5
1234678-HpCDD	65.51	2.5
1234789-HpCDF	0.59J	2.5
OCDD	157.75	5.0
OCDF	6.81	5.0
2,3,7,8 TCDD Toxicity Equivalence	3.08	

A key to data flags is included in Appendix M.

TABLE 3-28 (cont.) – Treated Soil
Third Continuous Test, 6/11-12/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	10	100,000
Acenaphthylene	ND	10	--
Anthracene	ND	1	600,000
Benz[a]anthracene	ND	0.2*	0.2
Benzo[b]fluoranthene	ND	1	6
Benzo[k]fluoranthene	ND	0.5	200
Benzo[a]pyrene	ND	1	10
Chrysene	ND	0.5	60
Dibenzo[a,h]anthracene	ND	0.1*	0.1
Fluoranthene	ND	1	60,000
Fluorene	ND	1	--
Indeno[1,2,3-cd]pyrene	ND	1	6
Naphthalene	ND	5	60,000
2-Methylnaphthalene	ND	10	--
Phenanthrene	ND	0.5	100
Pyrene	ND	0.5	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	100	10,000
2-Chlorophenol	ND	100	10,000
2,4-Dimethylphenol	ND	100	40,000
2,4-Dinitrophenol	ND	100	4,000
Carbazole	ND	100	200
Phenol	ND	100	1,000,000
2,3,4,6-Tetrachlorophenol	ND	100	60,000
1,4-Dichlorobenzene	ND	100	7,500
2,4-Dinitrotoluene	ND	100	130
Hexachlorobenzene	ND	100	130
Hexachlorobutadiene	ND	100	500
Hexachloroethane	ND	100	3,000
2-Methylphenol	ND	100	200,000
3-Methylphenol	ND	100	200,000
4-Methylphenol	ND	100	200,000
Nitrobenzene	ND	100	2,000
Pyridine	ND	100	5,000
2,4,5-Trichlorophenol	ND	100	200,000
2,4,6-Trichlorophenol	ND	100	500

* Treated soil was resampled on 7/28/98 and analyzed for benz[a]anthracene and dibenzo[a,h]anthracene in order to obtain required reporting limits

TABLE 3-28 (cont.) – Treated Soil
Third Continuous Test, 6/11-12/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B*						
Benzene	0.09J	0.11J	0.13J	ND	1.25	300
2-Butanone (MEK)	ND	ND	ND	ND	5	200,000
Carbon tetrachloride	ND	ND	ND	ND	1.25	500
Chlorobenzene	ND	ND	ND	ND	1.25	100,000
Chloroform	ND	ND	ND	ND	1.25	6,000
1,2-Dichloroethane	ND	ND	ND	ND	1.25	500
1,1-Dichloroethene	ND	ND	ND	ND	1.25	700
Tetrachloroethene	ND	ND	ND	ND	1.25	700
Trichloroethene	ND	ND	ND	ND	1.25	500
Ethylbenzene	ND	ND	ND	ND	1.25	40,000
Styrene	ND	ND	ND	ND	1.25	6,000
Xylene	ND	ND	0.09J	ND	5	600,000
Vinyl chloride	ND	ND	ND	ND	2.5	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	1,000
Pentachlorophenol	ND				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	ND				17	5,000
Barium	231B				2	100,000
Cadmium	ND				3	1,000
Chromium	17.1B				5	5,000
Lead	ND				13	5,000
Selenium	ND				31	1,000
Silver	ND				12	5,000

* TCLP are calculated from total VOC concentrations in soil, assuming 100% leaching

A key to data flags is included in Appendix M.

Table 3-29: B(a)P Equivalence Scaling Factors

Compound	Benzo(a)pyrene Scaling Factor
benzo(a)anthracene	0.1
benzo(b)fluoranthene	0.1
benzo(k)fluoranthene	0.01
benzo(a)pyrene	1.0
chrysene	0.001
dibenzo(a,h)anthracene	1.0
indeno(1,2,3-cd)pyrene	0.1
carbazole	0.003

TABLE 3-30 – Hot Cyclone
First Batch Test-Repeat, 6/13-14/98

Parameter	Off-site by 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	5J	6.7
Benzo[b]fluoranthene	6.8	6.7
Benzo[k]fluoranthene	ND	6.7
Benzo[a]pyrene	2.5J	6.7
Chrysene	13	6.7
Dibenzo[a,h]anthracene	ND	6.7
Indeno[1,2,3-cd]pyrene	ND	6.7
Carbazole	ND	6.7
Benzo(a)Pyrene Equivalence	3.69	
Total Carcinogenic PAH	27.3	
Acenaphthene	ND	6.7
Acenaphthylene	ND	6.7
Anthracene	1J	6.7
Fluoranthene	68	6.7
Fluorene	0.49J	6.7
Naphthalene	0.51J	6.7
2-Methylnaphthalene	ND	6.7
Phenanthrene	66	6.7
Pyrene	9.3	6.7
Total PAH	172.6	
Pentachlorophenol	ND	6.7

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	7.5	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND/UL	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND/UL	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-30 (cont.) – Hot Cyclone
First Batch Test-Repeat, 6/13-14/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	116.15	1.0
2378-TCDF	ND	1.14-EMPC
12378-PeCDF	18.1	2.5
12378-PeCDD	502.2	2.5
23478-PeCDF	ND	2.11-EDL
123478-HxCDF	23.73	2.5
123678-HxCDF	21.02	2.5
123478-HxCDD	494.49	2.5
123678-HxCDD	505.86	2.5
123789-HxCDD	875.87	2.5
234678-HxCDF	20.22	2.5
123789-HxCDF	9.81	2.5
1234678-HpCDF	166.14	2.5
1234678-HpCDD	5,671.46	2.5
1234789-HpCDF	18.56	2.5
OCDD	11,283.20	5.0
OCDF	172.76	5.0
2,3,7,8 TCDD Toxicity Equivalence	633.28	

A key to data flags is included in Appendix M.

TABLE 3-30 (cont.) – Hot Cyclone
First Batch Test-Repeat, 6/13-14/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	10	100,000
Acenaphthylene	ND	10	--
Anthracene	ND	1	600,000
Benz[a]anthracene	0.36J	0.5	0.2
Benzo[b]fluoranthene	ND	1	6
Benzo[k]fluoranthene	ND	0.5	200
Benzo[a]pyrene	ND	1	10
Chrysene	0.29J	0.5	60
Dibenzo[a,h]anthracene	ND	1	0.1
Fluoranthene	2	1	60,000
Fluorene	ND	1	--
Indeno[1,2,3-cd]pyrene	ND	1	6
Naphthalene	3.2J	5	60,000
2-Methylnaphthalene	ND	10	--
Phenanthrene	6.3J	0.5	100
Pyrene	0.57	0.5	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	100	10,000
2-Chlorophenol	ND	100	10,000
2,4-Dimethylphenol	ND	100	40,000
2,4-Dinitrophenol	ND	100	4,000
Carbazole	ND	100	200
Phenol	ND	100	1,000,000
2,3,4,6-Tetrachlorophenol	ND	100	60,000
1,4-Dichlorobenzene	ND	100	7,500
2,4-Dinitrotoluene	ND	100	130
Hexachlorobenzene	ND	100	130
Hexachlorobutadiene	ND	100	500
Hexachloroethane	ND	100	3,000
2-Methylphenol	ND	100	200,000
3-Methylphenol	ND	100	200,000
4-Methylphenol	ND	100	200,000
Nitrobenzene	ND	100	2,000
Pyridine	ND	100	5,000
2,4,5-Trichlorophenol	ND	100	200,000
2,4,6-Trichlorophenol	ND	100	500

A key to data flags is included in Appendix M.

TABLE 3-30 (cont.) – Hot Cyclone
First Batch Test-Repeat, 6/13-14/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A			
γ-BHC (Lindane)	ND	0.5	400
Chlordane	ND	10	30
Endrin	ND	1	20
Heptachlor (and its oxides)	ND	0.5	8
Methoxychlor	ND	5	10,000
Toxaphene	ND	50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B			
Benzene	ND	25	300
2-Butanone (MEK)	ND	25	200,000
Carbon tetrachloride	ND	25	500
Chlorobenzene	ND	25	100,000
Chloroform	ND	25	6,000
1,2-Dichloroethane	ND	25	500
1,1-Dichloroethene	ND	25	700
Tetrachloroethene	ND	25	700
Trichloroethene	ND	25	500
Ethylbenzene	ND	25	40,000
Styrene	ND	25	6000
Xylene	ND	25	600,000
Vinyl chloride	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A			
2,4-D	ND	5	10,000
2,4,5-TP	ND	0.5	1,000
Pentachlorophenol	ND	1	60
TCLP Metals by 1311/3005A/7470A			
Mercury	ND	0.2	200
TCLP Metals by 1311/3005A/6010B			
Arsenic	ND	17	5,000
Barium	[313]	2	100,000
Cadmium	ND	3	1,000
Chromium	[19.5]B	5	5,000
Lead	ND/UL	13	5,000
Selenium	ND	31	1,000
Silver	ND	12	5,000

A key to data flags is included in Appendix M.

TABLE 3-31 – Hot Cyclone
Second Batch Test, 6/6/98

Parameter	Off-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	4,500	3,600
Benzo[b]fluoranthene	2,700J	3,600
Benzo[k]fluoranthene	ND	3,600
Benzo[a]pyrene	1,000J	3,600
Chrysene	5,200	3,600
Dibenzo[a,h]anthracene	ND	3,600
Indeno[1,2,3-cd]pyrene	ND	3,600
Carbazole	430J	3,600
Benzo(a)Pyrene Equivalence	1,726	
Total Carcinogenic PAH	13,830	
Acenaphthene	1,200J	3,600
Acenaphthylene	ND	3,600
Anthracene	7,000	3,600
Fluoranthene	31,000	3,600
Fluorene	3,000J	3,600
Naphthalene	490J	3,600
2-Methylnaphthalene	430J	3,600
Phenanthrene	35,000	3,600
Pyrene	14,000	3,600
Total PAH	105,950	
Pentachlorophenol	ND	3,600

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	8.6	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND/UL	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND/UL	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

ORIGINAL (Red)

TABLE 3-31 (cont.) – Hot Cyclone
Second Batch Test, 6/6/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	1,779.45	1.0
2378-TCDF	ND	403.16-EDL
12378-PeCDF	462.77	2.5
12378-PeCDD	6,109.15	2.5
23478-PeCDF	ND	15.75-EMPC
123478-HxCDF	ND	1972.92-EDL
123678-HxCDF	ND	1792.19-EDL
123478-HxCDD	5,941.36	2.5
123678-HxCDD	8,121.17	2.5
123789-HxCDD	4,712.32	2.5
234678-HxCDF	ND	2301.74-EDL
123789-HxCDF	ND	3130.36-EDL
1234678-HpCDF	ND	1158.51-EDL
1234678-HpCDD	45,522.28	2.5
1234789-HpCDF	ND	1865.82-EDL
OCDD	288,157.0	5.0
OCDF	584.82	5.0
2,3,7,8 TCDD Toxicity Equivalence	7,483.11	

A key to data flags is included in Appendix M.

TABLE 3-31 (cont.) – Hot Cyclone
Second Batch Test, 6/6/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by HPLC-SW-846 1311/3520C/8310			
Acenaphthene	ND	1,000	100,000
Acenaphthylene	ND	1,000	--
Anthracene	ND	100	600,000
Benz[a]anthracene	ND	50	0.2
Benzo[b]fluoranthene	ND	100	6
Benzo[k]fluoranthene	ND	50	200
Benzo[a]pyrene	ND	100	10
Chrysene	ND	50	60
Dibenzo[a,h]anthracene	ND	100	0.1
Fluoranthene	120	100	60,000
Fluorene	130	100	--
Indeno[1,2,3-cd]pyrene	ND	100	6
Naphthalene	ND	500	60,000
2-Methylnaphthalene	800J	1,000	--
Phenanthrene	580	50	100
Pyrene	38J	50	60,000
TCLP Semivolatile Organic Compounds by GC/MS - SW-846 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	1,000	10,000
2-Chlorophenol	ND	1,000	10,000
2,4-Dimethylphenol	ND	1,000	40,000
2,4-Dinitrophenol	430J	1,000	4,000
Carbazole	100J	1,000	200
Phenol	5,600	1,000	1,000,000
2,3,4,6-Tetrachlorophenol	ND	1,000	60,000
1,4-Dichlorobenzene	ND	1,000	7,500
2,4-Dinitrotoluene	ND	1,000	130
Hexachlorobenzene	ND	1,000	130
Hexachlorobutadiene	ND	1,000	500
Hexachloroethane	ND	1,000	3,000
2-Methylphenol	1,100	1,000	200,000
3-Methylphenol	2,400	1,000	200,000
4-Methylphenol	2,400	1,000	200,000
Nitrobenzene	ND	1,000	2,000
Pyridine	580J	1,000	5,000
2,4,5-Trichlorophenol	ND	1,000	200,000
2,4,6-Trichlorophenol	ND	1,000	500

A key to data flags is included in Appendix M.

TABLE 3-31 (cont.) – Hot Cyclone
Second Batch Test, 6/6/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides GC/ECD - SW-846 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by GC/MS – SW-846 1311/5030/8260B						
Benzene	41	36	13J	24J	25	300
2-Butanone (MEK)	74	89	62	61	25	200,000
Carbon tetrachloride	ND/ UL	ND/ UL	ND/ UL	ND/ UL	25	500
Chlorobenzene	ND	ND	ND	ND	25	100,000
Chloroform	ND	ND	ND	ND	25	6,000
1,2-Dichloroethane	ND	ND	ND	ND	25	500
1,1-Dichloroethene	ND	ND	ND	ND	25	700
Tetrachloroethene	ND	ND	ND	ND	25	700
Trichloroethene	ND	ND	ND	ND	25	500
Ethylbenzene	6.9J	6.9J	3.4J	5.8J	25	40,000
Styrene	6.9J	7.2J	3.7J	6.2J	25	6,000
Xylene	22J	21J	9.2J	18.6J	25	600,000
Vinyl chloride	ND	ND	ND	ND	25	200
TCLP Herbicides and Pentachlorophenol by GC/ECD - SW-846 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	1,000
Pentachlorophenol	1.9				1	60
TCLP Metals by Cold Vapor - SW-846 1311/3005A/7470A						
Mercury	ND/UL				0.2	200
TCLP Metals by ICP - SW-846 1311/3005A/6010B						
Arsenic	ND/UL				17	5,000
Barium	[382]				2	100,000
Cadmium	ND/UL				3	1,000
Chromium	[59.4]				5	5,000
Lead	ND				13	5,000
Selenium	ND				31	1,000
Silver	ND				12	5,000

A key to data flags is included in Appendix M.

TABLE 3-32 – Hot Cyclone
Third Batch Test, 6/7/98

Parameter	Off-site by 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	4,800J	6,000
Benzo[b]fluoranthene	2,000J	6,000
Benzo[k]fluoranthene	ND	6,000
Benzo[a]pyrene	770J	6,000
Chrysene	4,900J	6,000
Dibenzo[a,h]anthracene	ND	6,000
Indeno[1,2,3-cd]pyrene	ND	6,000
Carbazole	ND	6,000
Benzo(a)Pyrene Equivalence	1,450	
Total Carcinogenic PAH	12,470	
Acenaphthene	990J	6,000
Acenaphthylene	ND	6,000
Anthracene	7,100	6,000
Fluoranthene	31,000	6,000
Fluorene	2400J	6,000
Naphthalene	610J	6,000
2-Methylnaphthalene	ND	6,000
Phenanthrene	36,000	6,000
Pyrene	12,000	6,000
Total PAH	102,570	
Pentachlorophenol	ND	6,000

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	8.3	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-32 (cont.) – Hot Cyclone
Third Batch Test, 6/7/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	2,982.30	1.0
2378-TCDF	ND	150.16-EDL
12378-PeCDF	519.37	2.5
12378-PeCDD	5,653.64	2.5
23478-PeCDF	ND	1760.17-EDL
123478-HxCDF	ND	3801.48-EMPC
123678-HxCDF	ND	2410.59-EDL
123478-HxCDD	4,314.46	2.5
123678-HxCDD	5,988.22	2.5
123789-HxCDD	ND	2748.20-EMPC
234678-HxCDF	ND	3095.95-EDL
123789-HxCDF	ND	4210.49-EDL
1234678-HpCDF	ND	464.71-EDL
1234678-HpCDD	18,309.26	2.5
1234789-HpCDF	ND	748.43-EDL
OCDD	76,190.62	5.0
OCDF	ND	2849.08-EDL
2,3,7,8 TCDD Toxicity Equivalence	7,124.64	

A key to data flags is included in Appendix M.

TABLE 3-32 (cont.) – Hot Cyclone
Third Batch Test, 6/7/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	1,000	100,000
Acenaphthylene	ND	1,000	--
Anthracene	ND	100	600,000
Benz[a]anthracene	ND	50	0.2
Benzo[b]fluoranthene	ND	100	6
Benzo[k]fluoranthene	ND	50	200
Benzo[a]pyrene	ND	100	10
Chrysene	ND	50	60
Dibenzo[a,h]anthracene	ND	100	0.1
Fluoranthene	59J	100	60,000
Fluorene	86J	100	--
Indeno[1,2,3-cd]pyrene	ND	100	6
Naphthalene	ND	500	60,000
2-Methylnaphthalene	ND	1,000	--
Phenanthrene	410	50	100
Pyrene	ND	50	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	2,000	10,000
2-Chlorophenol	ND	2,000	10,000
2,4-Dimethylphenol	230J	2,000	40,000
2,4-Dinitrophenol	ND	2,000	4,000
Carbazole	ND	2,000	200
Phenol	4,100	2,000	1,000,000
2,3,4,6-Tetrachlorophenol	ND	2,000	60,000
1,4-Dichlorobenzene	ND	2,000	7,500
2,4-Dinitrotoluene	ND	2,000	130
Hexachlorobenzene	ND	2,000	130
Hexachlorobutadiene	ND	2,000	500
Hexachloroethane	ND	2,000	3,000
2-Methylphenol	600J	2,000	200,000
3-Methylphenol	1,700J	2,000	200,000
4-Methylphenol	1,700J	2,000	200,000
Nitrobenzene	ND	2,000	2,000
Pyridine	360J	2,000	5,000
2,4,5-Trichlorophenol	ND	2,000	200,000
2,4,6-Trichlorophenol	ND	2,000	500

A key to data flags is included in Appendix M.

TABLE 3-32 (cont.) – Hot Cyclone
Third Batch Test, 6/7/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B						
Benzene	14J	17J	13J	14J	25	300
2-Butanone (MEK)	31B	35B	30B	32B	25	200,000
Carbon tetrachloride	ND	ND	ND	ND	25	500
Chlorobenzene	ND	ND	ND	ND	25	100,000
Chloroform	ND	ND	ND	ND	25	6,000
1,2-Dichloroethane	ND	ND	ND	ND	25	500
1,1-Dichloroethene	ND	ND	ND	ND	25	700
Tetrachloroethene	ND	ND	ND	ND	25	700
Trichloroethene	ND	ND	ND	ND	25	500
Ethylbenzene	ND	ND	ND	ND	25	40,000
Styrene	ND	ND	ND	ND	25	6,000
Xylene	ND	ND	ND	ND	25	600,000
Vinyl chloride	ND	ND	ND	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	1,000
Pentachlorophenol	ND				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND/UL				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	ND/UL				17	5,000
Barium	[264]				2	100,000
Cadmium	ND				3	1,000
Chromium	[15.1]				5	5,000
Lead	ND/UL				13	5,000
Selenium	ND				31	1,000
Silver	ND				12	5,000

A key to data flags is included in Appendix M.

TABLE 3-33– Hot Cyclone
First Continuous Test, 6/10/98

Parameter	Off-site by 8310/8270*	
	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	0.72	0.3
Benzo[b]fluoranthene	1.0	0.3
Benzo[k]fluoranthene	0.28	0.02
Benzo[a]pyrene	0.086	0.03
Chrysene	1.4	0.2
Dibenzo[a,h]anthracene	0.019J	0.03
Indeno[1,2,3-cd]pyrene	0.16	0.02
Carbazole*	ND	3.3
Benzo(a)Pyrene Equivalence	0.30	
Total Carcinogenic PAH	3.7	
Acenaphthene	ND	0.2
Acenaphthylene	ND	0.3
Anthracene	0.62	0.2
Fluoranthene	6.3B	3
Fluorene	0.027J	0.03
Naphthalene	0.10J	0.15
2-Methylnaphthalene	0.73	0.3
Phenanthrene	5.7B	2
Pyrene	2.6B	2
Total PAH	19.8	
Pentachlorophenol *	ND	3.3

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	7.4	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND/UL	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND/UL	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-33 (cont.)– Hot Cyclone
First Continuous Test, 6/10/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limits (pg/g)
2378-TCDD	17.76	1.0
2378-TCDF	ND	0.67-EMPC
12378-PeCDF	3.62	2.5
12378-PeCDD	67.97	2.5
23478-PeCDF	6.37	2.5
123478-HxCDF	11.85	2.5
123678-HxCDF	8.18	2.5
123478-HxCDD	84.78	2.5
123678-HxCDD	109.74	2.5
123789-HxCDD	165.20	2.5
234678-HxCDF	11.17	2.5
123789-HxCDF	6.07	2.5
1234678-HpCDF	51.43	2.5
1234678-HpCDD	1,363.12	2.5
1234789-HpCDF	18.60	2.5
OCDD	2,924.98	5.0
OCDF	72.06	5.0
2,3,7,8 TCDD Toxicity Equivalence	112.14	

A key to data flags is included in Appendix M.

TABLE 3-33 (cont.) – Hot Cyclone
First Continuous Test, 6/10/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	10	100,000
Acenaphthylene	ND	10	--
Anthracene	ND	1	600,000
Benz[a]anthracene	ND	0.5	0.2
Benzo[b]fluoranthene	ND	1	6
Benzo[k]fluoranthene	ND	0.5	200
Benzo[a]pyrene	ND	1	10
Chrysene	ND	0.5	60
Dibenzo[a,h]anthracene	ND	1	0.1
Fluoranthene	0.51J	1	60,000
Fluorene	ND	1	--
Indeno[1,2,3-cd]pyrene	ND	1	6
Naphthalene	ND	5	60,000
2-Methylnaphthalene	ND	10	--
Phenanthrene	0.46J	0.5	100
Pyrene	ND	0.5	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	100	10,000
2-Chlorophenol	ND	100	10,000
2,4-Dimethylphenol	ND	100	40,000
2,4-Dinitrophenol	ND	100	4,000
Carbazole	ND	100	200
Phenol	8J	100	1,000,000
2,3,4,6-Tetrachlorophenol	ND	100	60,000
1,4-Dichlorobenzene	ND	100	7,500
2,4-Dinitrotoluene	ND	100	130
Hexachlorobenzene	ND	100	130
Hexachlorobutadiene	ND	100	500
Hexachloroethane	ND	100	3,000
2-Methylphenol	ND	100	200,000
3-Methylphenol	ND	100	200,000
4-Methylphenol	ND	100	200,000
Nitrobenzene	ND	100	2,000
Pyridine	ND	100	5,000
2,4,5-Trichlorophenol	ND	100	200,000
2,4,6-Trichlorophenol	ND	100	500

A key to data flags is included in Appendix M.

TABLE 3-33 (cont.) – Hot Cyclone
First Continuous Test, 6/10/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B						
Benzene	ND*	3.1	3.2	2.6	25	300
2-Butanone (MEK)	ND*	ND	ND	ND	25	200,000
Carbon tetrachloride	ND*	ND	ND	ND	25	500
Chlorobenzene	ND*	ND	ND	ND	25	100,000
Chloroform	ND*	ND	ND	ND	25	6,000
1,2-Dichloroethane	ND*	ND	ND	ND	25	500
1,1-Dichloroethene	ND*	ND	ND	ND	25	700
Tetrachloroethene	ND*	ND	ND	ND	25	700
Trichloroethene	ND*	ND	ND	ND	25	500
Ethylbenzene	ND*	ND	ND	ND	25	40,000
Styrene	ND*	ND	ND	ND	25	6,000
Xylene	ND*	ND	ND	ND	25	600,000
Vinyl chloride	ND*	ND	ND	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	10,00
Pentachlorophenol	ND				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND/UL				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	[17.2]L				17	5,000
Barium	[326]				2	100,000
Cadmium	[3.6]B				3	1,000
Chromium	[32.6]B				5	5,000
Lead	ND				13	5,000
Selenium	ND				31	1,000
Silver	ND				12	5,000

* Reporting Limit of 630 was used for these samples

TABLE 3-34 – Hot Cyclone
Second Continuous Test, 6/10-11/98

Parameter	Off-site by 8310/8270*	
	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	ND	0.03
Benzo[b]fluoranthene	0.046	0.03
Benzo[k]fluoranthene	ND	0.02
Benzo[a]pyrene	ND	0.03
Chrysene	0.032	0.02
Dibenzo[a,h]anthracene	ND	0.03
Indeno[1,2,3-cd]pyrene	ND	0.02
Carbazole*	ND	0.33
Benzo(a)Pyrene Equivalence	0.038	
Total Carcinogenic PAH	0.078	
Acenaphthene	ND	0.2
Acenaphthylene	ND	0.3
Anthracene	ND	0.02
Fluoranthene	0.082B	0.03
Fluorene	ND	0.03
Naphthalene	0.52	0.15
2-Methylnaphthalene	ND	0.3
Phenanthrene	0.077B	0.02
Pyrene	0.013JB	0.02
Total PAH	0.77	
Pentachlorophenol *	ND	0.033

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	7.4	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-34 (cont.) – Hot Cyclone
Second Continuous Test, 6/10-11/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limits (pg/g)
2378-TCDD	1.52	1.0
2378-TCDF	ND	0.15-EMPC
12378-PeCDF	0.51J	2.5
12378-PeCDD	6.75	2.5
23478-PeCDF	ND	0.28-EMPC
123478-HxCDF	1.53J	2.5
123678-HxCDF	1.23J	2.5
123478-HxCDD	7.99	2.5
123678-HxCDD	12.29	2.5
123789-HxCDD	15.09	2.5
234678-HxCDF	1.35J	2.5
123789-HxCDF	ND	0.71-EMPC
1234678-HpCDF	9.75	2.5
1234678-HpCDD	140.15	2.5
1234789-HpCDF	1.20J	2.5
OCDD	340.10	5.0
OCDF	9.18	5.0
2,3,7,8 TCDD Toxicity Equivalence	10.72	

A key to data flags is included in Appendix M.

TABLE 3-34 (cont.) – Hot Cyclone
Second Continuous Test, 6/10-11/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	10	100,000
Acenaphthylene	ND	10	--
Anthracene	ND	1	600,000
Benz[a]anthracene	ND	0.5	0.2
Benzo[b]fluoranthene	ND	1	6
Benzo[k]fluoranthene	ND	0.5	200
Benzo[a]pyrene	ND	1	10
Chrysene	ND	0.5	60
Dibenzo[a,h]anthracene	ND	1	0.1
Fluoranthene	ND	1	60,000
Fluorene	ND	1	--
Indeno[1,2,3-cd]pyrene	ND	1	6
Naphthalene	ND	5	60,000
2-Methylnaphthalene	ND	10	--
Phenanthrene	ND	0.5	100
Pyrene	ND	0.5	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	100	10,000
2-Chlorophenol	ND	100	10000
2,4-Dimethylphenol	ND	100	40,000
2,4-Dinitrophenol	ND	100	4,000
Carbazole	ND	100	200
Phenol	ND	100	1,000,000
2,3,4,6-Tetrachlorophenol	ND	100	60,000
1,4-Dichlorobenzene	ND	100	7,500
2,4-Dinitrotoluene	ND	100	130
Hexachlorobenzene	ND	100	130
Hexachlorobutadiene	ND	100	500
Hexachloroethane	ND	100	3000
2-Methylphenol	ND	100	200,000
3-Methylphenol	ND	100	200,000
4-Methylphenol	ND	100	200,000
Nitrobenzene	ND	100	2,000
Pyridine	ND	100	5,000
2,4,5-Trichlorophenol	ND	100	200,000
2,4,6-Trichlorophenol	ND	100	500

A key to data flags is included in Appendix M.

TABLE 3-34 (cont.) – Hot Cyclone
Second Continuous Test, 6/10-11/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B*						
Benzene	ND	2.25J	ND	ND	31.5	300
2-Butanone (MEK)	ND	ND	ND	19J	12.5	200,000
Carbon tetrachloride	ND	ND	ND	ND	31.5	500
Chlorobenzene	ND	ND	ND	ND	31.5	100,000
Chloroform	ND	ND	ND	ND	31.5	6,000
1,2-Dichloroethane	ND	ND	ND	ND	31.5	500
1,1-Dichloroethene	ND	ND	ND	ND	31.5	700
Tetrachloroethene	ND	ND	ND	ND	31.5	700
Trichloroethene	ND	ND	ND	ND	31.5	500
Ethylbenzene	ND	ND	ND	ND	31.5	40,000
Styrene	ND	ND	ND	ND	31.5	6,000
Xylene	ND	ND	ND	ND	31.5	600,000
Vinyl chloride	ND	ND	ND	ND	65	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	1,000
Pentachlorophenol	ND				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND/UL				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	ND				17	5,000
Barium	294B				2	100,000
Cadmium	ND				3	1,000
Chromium	15.1B				5	5,000
Lead	ND/UL				13	5,000
Selenium	ND				31	1,000
Silver	ND				12	5,000

* TCLP are calculated from total VOC concentrations in soil, assuming 100% leaching

A key to data flags is included in Appendix M.

ORIGINAL (Red)

TABLE 3-35 – Hot Cyclone
Third Continuous Test, 6/11-12/98

Parameter	Off-site by 8310/8270*	
	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	0.0026J	0.003
Benzo[b]fluoranthene	0.011	0.003
Benzo[k]fluoranthene	0.0012J	0.002
Benzo[a]pyrene	ND	0.003
Chrysene	0.012	0.002
Dibenzo[a,h]anthracene	ND	0.003
Indeno[1,2,3-cd]pyrene	ND	0.002
Carbazole*	ND	0.33
Benzo(a)Pyrene Equivalence	0.0050	
Total Carcinogenic PAH	0.027	
Acenaphthene	ND	0.020
Acenaphthylene	ND	0.030
Anthracene	0.0011J	0.002
Fluoranthene	0.027	0.003
Fluorene	ND	0.003
Naphthalene	0.140	0.015
2-Methylnaphthalene	0.051	0.030
Phenanthrene	0.033B	0.002
Pyrene	0.013B	0.002
Total PAH	0.292	
Pentachlorophenol *	ND	0.033

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	7.4	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-35 (cont.) Hot Cyclone
Third Continuous Test, 6/11-12/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limits (pg/g)
2378-TCDD	0.48J	1.0
2378-TCDF	0.45J	1.0
12378-PeCDF	0.15J	2.5
12378-PeCDD	1.60J	2.5
23478-PeCDF	ND	0.21-EMPC
123478-HxCDF	0.42J	2.5
123678-HxCDF	0.35J	2.5
123478-HxCDD	1.64J	2.5
123678-HxCDD	2.74	2.5
123789-HxCDD	4.08	2.5
234678-HxCDF	0.37J	2.5
123789-HxCDF	ND	0.24-EMPC
1234678-HpCDF	1.80J	2.5
1234678-HpCDD	28.61	2.5
1234789-HpCDF	0.42J	2.5
OCDD	64.72	5.0
OCDF	2.97J	5.0
2,3,7,8 TCDD Toxicity Equivalence	2.67	

A key to data flags is included in Appendix M.

TABLE 3-35 (cont.) – Hot Cyclone
Third Continuous Test, 6/11-12/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	ND	10	100,000
Acenaphthylene	ND	10	--
Anthracene	ND	1	600,000
Benz[a]anthracene	ND	0.5	0.2
Benzo[b]fluoranthene	ND	1	6
Benzo[k]fluoranthene	ND	0.5	200
Benzo[a]pyrene	ND	1	10
Chrysene	ND	0.5	60
Dibenzo[a,h]anthracene	ND	1	0.1
Fluoranthene	ND	1	60,000
Fluorene	ND	1	--
Indeno[1,2,3-cd]pyrene	ND	1	6
Naphthalene	ND	5	60,000
2-Methylnaphthalene	ND	10	--
Phenanthrene	ND	0.5	100
Pyrene	ND	0.5	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	100	10,000
2-Chlorophenol	ND	100	10,000
2,4-Dimethylphenol	ND	100	40,000
2,4-Dinitrophenol	ND	100	4,000
Carbazole	ND	100	200
Phenol	ND	100	1,000,000
2,3,4,6-Tetrachlorophenol	ND	100	60,000
1,4-Dichlorobenzene	ND	100	7,500
2,4-Dinitrotoluene	ND	100	130
Hexachlorobenzene	ND	100	130
Hexachlorobutadiene	ND	100	500
Hexachloroethane	ND	100	3,000
2-Methylphenol	ND	100	200,000
3-Methylphenol	ND	100	200,000
4-Methylphenol	ND	100	200,000
Nitrobenzene	ND	100	2,000
Pyridine	ND	100	5,000
2,4,5-Trichlorophenol	ND	100	200,000
2,4,6-Trichlorophenol	ND	100	500

A key to data flags is included in Appendix M.

TABLE 3-35 (cont.) – Hot Cyclone
Third Continuous Test, 6/11-12/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B						
Benzene	ND	ND	ND	ND/UJ	25	300
2-Butanone (MEK)	18B	ND	ND	ND/UJ	25	200,000
Carbon tetrachloride	ND	ND	ND	ND/UJ	25	500
Chlorobenzene	ND	ND	ND	ND/UJ	25	100,000
Chloroform	ND	ND	ND	ND/UJ	25	6,000
1,2-Dichloroethane	ND	ND	ND	ND/UJ	25	500
1,1-Dichloroethene	ND	ND	ND	ND/UJ	25	700
Tetrachloroethene	ND	ND	ND	ND/UJ	25	700
Trichloroethene	ND	ND	ND	ND/UJ	25	500
Ethylbenzene	ND	ND	ND	ND/UJ	25	40,000
Styrene	ND	ND	ND	ND/UJ	25	6,000
Xylene	ND	ND	ND	ND/UJ	25	600,000
Vinyl chloride	ND	ND	ND	ND/UJ	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	1,000
Pentachlorophenol	ND				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND/UL				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	ND				17	5,000
Barium	[270]				2	100,000
Cadmium	ND				3	1,000
Chromium	[19.4]B				5	5,000
Lead	ND/UL				13	5,000
Selenium	ND				31	1,000
Silver	ND				12	5,000

A key to data flags is included in Appendix M.

TABLE 3-36 - Impinger Sludge
First Batch Test-Repeat, 6/13-14/98

Parameter	Off-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	5,400J	16,000
Benzo[b]fluoranthene	2,200J	16,000
Benzo[k]fluoranthene	ND	16,000
Benzo[a]pyrene	ND	16,000
Chrysene	6,200J	16,000
Dibenzo[a,h]anthracene	ND	16,000
Indeno[1,2,3-cd]pyrene	ND	16,000
Carbazole	1,900J	16,000
Benzo(a)Pyrene Equivalence	771.9	
Total Carcinogenic PAH	15,700	
Acenaphthene	34,000	16,000
Acenaphthylene	2,500J	16,000
Anthracene	36,000	16,000
Fluoranthene	77,000	16,000
Fluorene	37,000	16,000
Naphthalene	15,000J	16,000
2-Methylnaphthalene	13,000J	16,000
Phenanthrene	170,000	16,000
Pyrene	26,000	16,000
Total PAH	426,200	
Pentachlorophenol	ND	16,000

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	8.0	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND/UL	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND/UL	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-36 (cont.) - Impinger Sludge
First Batch Test-Repeat, 6/13-14/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	8,375.92	1.0
2378-TCDF	27.40	1.0
12378-PeCDF	299.86	2.5
12378-PeCDD	19,578.35	2.5
23478-PeCDF	ND	6.97-EDL
123478-HxCDF	448.58	2.5
123678-HxCDF	618.21	2.5
123478-HxCDD	9,003.51	2.5
123678-HxCDD	12,691.73	2.5
123789-HxCDD	10,765.95	2.5
234678-HxCDF	718.23	2.5
123789-HxCDF	ND	193.11-EDL
1234678-HpCDF	4,214.15	2.5
1234678-HpCDD	12,0328	2.5
1234789-HpCDF	1,431.39	2.5
OCDD	286,651.5	5.0
OCDF	8,374.15	5.0
2,3,7,8 TCDD Toxicity Equivalence	23,162.21	

A key to data flags is included in Appendix M.

TABLE 3-36 (cont.) - Impinger Sludge
First Batch Test-Repeat, 6/13-14/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	710J	1,000	100,000
Acenaphthylene	ND	1,000	--
Anthracene	ND	100	600,000
Benz[a]anthracene	ND	50	0.2
Benzo[b]fluoranthene	ND	100	6
Benzo[k]fluoranthene	ND	50	200
Benzo[a]pyrene	ND	100	10
Chrysene	ND	50	60
Dibenzo[a,h]anthracene	ND	100	0.1
Fluoranthene	ND	100	60,000
Fluorene	210	100	--
Indeno[1,2,3-cd]pyrene	ND	100	6
Naphthalene	1,600	500	60,000
2-Methylnaphthalene	1,100	1,000	--
Phenanthrene	410	50	100
Pyrene	ND	50	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	2,000	10,000
2-Chlorophenol	ND	2,000	10,000
2,4-Dimethylphenol	1,200J	2,000	40,000
2,4-Dinitrophenol	ND	2,000	4,000
Carbazole	ND	2,000	200
Phenol	7,800	2,000	1,000,000
2,3,4,6-Tetrachlorophenol	ND	2,000	60,000
1,4-Dichlorobenzene	ND	2,000	7,500
2,4-Dinitrotoluene	ND	2,000	130
Hexachlorobenzene	ND	2,000	130
Hexachlorobutadiene	ND	2,000	500
Hexachloroethane	ND	2,000	3,000
2-Methylphenol	2,000J	2,000	200,000
3-Methylphenol	5,000	2,000	200,000
4-Methylphenol	5,000	2,000	200,000
Nitrobenzene	ND	2,000	2,000
Pyridine	390J	2,000	5,000
2,4,5-Trichlorophenol	ND	2,000	200,000
2,4,6-Trichlorophenol	ND	2,000	500

A key to data flags is included in Appendix M.

TABLE 3-36 (cont.) - Impinger Sludge
First Batch Test-Repeat, 6/13-14/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A			
γ-BHC (Lindane)	ND	0.5	400
Chlordane	ND	10	30
Endrin	ND	1	20
Heptachlor (and its oxides)	ND	0.5	8
Methoxychlor	ND	5	10,000
Toxaphene	ND	50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B			
Benzene	25	25	300
2-Butanone (MEK)	58	25	200,000
Carbon tetrachloride	ND	25	500
Chlorobenzene	ND	25	100,000
Chloroform	ND	25	6000
1,2-Dichloroethane	ND	25	500
1,1-Dichloroethene	ND	25	700
Tetrachloroethene	ND	25	700
Trichloroethene	ND	25	500
Ethylbenzene	3.7J	25	40,000
Styrene	4.8J	25	6,000
Xylene	11.5J	25	600,000
Vinyl chloride	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A			
2,4-D	ND	5	10,000
2,4,5-TP	ND	0.5	1,000
Pentachlorophenol	2	1	60
TCLP Metals by 1311/3005A/7470A			
Mercury	ND/UL	0.2	200
TCLP Metals by 1311/3005A/6010B			
Arsenic	ND	17	5,000
Barium	[242]	2	100,000
Cadmium	ND	3	1,000
Chromium	[17.6]B	5	5,000
Lead	ND/UL	13	5,000
Selenium	ND	31	1,000
Silver	ND	12	5,000

A key to data flags is included in Appendix M.

TABLE 3-37 - Impinger Sludge
Second Batch Test, 6/6/98

Parameter	Off-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	6,100J	25,000
Benzo[b]fluoranthene	2,500J	25,000
Benzo[k]fluoranthene	ND	25,000
Benzo[a]pyrene	ND	25,000
Chrysene	6,700J	25,000
Dibenzo[a,h]anthracene	ND	25,000
Indeno[1,2,3-cd]pyrene	ND	25,000
Carbazole	3,100J	25,000
Benzo(a)Pyrene Equivalence	876	
Total Carcinogenic PAH	15,300	
Acenaphthene	75,000	25,000
Acenaphthylene	4,200J	25,000
Anthracene	51,000	25,000
Fluoranthene	88,000	25,000
Fluorene	73,000	25,000
Naphthalene	20,000J	25,000
2-Methylnaphthalene	21,000J	25,000
Phenanthrene	260,000	25,000
Pyrene	44,000	25,000
Total PAH	651,500	
Pentachlorophenol	ND	25,000

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	7.9	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND/UL	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND/UL	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-37 (cont.) – Impinger Sludge
Second Batch Test, 6/6/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	7,333.78	1.0
2378-TCDF	236.18	1.0
12378-PeCDF	483.63	2.5
12378-PeCDD	21,637.42	2.5
23478-PeCDF	159.96	2.5
123478-HxCDF	882.22	2.5
123678-HxCDF	734.08	2.5
123478-HxCDD	14,679.75	2.5
123678-HxCDD	16,677.04	2.5
123789-HxCDD	15,887.50	2.5
234678-HxCDF	215.81	2.5
123789-HxCDF	116.90	2.5
1234678-HpCDF	5,981.66	2.5
1234678-HpCDD	175,044.9	2.5
1234789-HpCDF	100.42	2.5
OCDD	362,029.5	5.0
OCDF	3,731.81	5.0
2,3,7,8 TCDD Toxicity Equivalence	25,275.13	

A key to data flags is included in Appendix M.

TABLE 3-37 (cont.) - Impinger Sludge
Second Batch Test, 6/6/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	750J	1,000	100,000
Acenaphthylene	ND	1,000	--
Anthracene	ND	100	600,000
Benz[a]anthracene	ND	50	0.2
Benzo[b]fluoranthene	ND	100	6
Benzo[k]fluoranthene	ND	50	200
Benzo[a]pyrene	ND	100	10
Chrysene	ND	50	60
Dibenzo[a,h]anthracene	ND	100	0.1
Fluoranthene	53	100	60,000
Fluorene	250	100	--
Indeno[1,2,3-cd]pyrene	ND	100	6
Naphthalene	1,500	500	60,000
2-Methylnaphthalene	1,300	1,000	--
Phenanthrene	570	50	100
Pyrene	ND	50	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	500	10,000
2-Chlorophenol	ND	500	10,000
2,4-Dimethylphenol	670	500	40,000
2,4-Dinitrophenol	ND	500	4,000
Carbazole	72J	500	200
Phenol	4,100	500	1,000,000
2,3,4,6-Tetrachlorophenol	ND	500	60,000
1,4-Dichlorobenzene	ND	500	7,500
2,4-Dinitrotoluene	ND	500	130
Hexachlorobenzene	ND	500	130
Hexachlorobutadiene	ND	500	500
Hexachloroethane	76J	500	3,000
2-Methylphenol	840	500	200,000
3-Methylphenol	2,000	500	200,000
4-Methylphenol	2,000	500	200,000
Nitrobenzene	ND	500	2,000
Pyridine	220J	500	5,000
2,4,5-Trichlorophenol	ND	500	200,000
2,4,6-Trichlorophenol	ND	500	500

A key to data flags is included in Appendix M.

TABLE 3-37 (cont.) - Impinger Sludge
Second Batch Test, 6/6/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B						
Benzene	16J	8.5J	25J	12J	25	300
2-Butanone (MEK)	87	45J	120	110	25	200,000
Carbon tetrachloride	ND/ UJ	ND/ UJ	ND /UJ	ND/ UJ	25	500
Chlorobenzene	ND	ND	ND	ND	25	100,000
Chloroform	ND	ND	ND	ND	25	6,000
1,2-Dichloroethane	ND	ND	ND	ND	25	500
1,1-Dichloroethene	ND	ND	ND	ND	25	700
Tetrachloroethene	ND	ND	ND	ND	25	700
Trichloroethene	ND	ND	ND	ND	25	500
Ethylbenzene	ND	ND	ND	ND	25	40,000
Styrene	ND	ND	ND	ND	25	6000
Xylene	ND	ND	ND	ND	25	600,000
Vinyl chloride	ND	ND	ND	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				2.5	10,000
2,4,5-TP	ND				2.5	1,000
Pentachlorophenol	6.5				5	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	ND				17	5,000
Barium	274B				2	100,000
Cadmium	ND				3	1,000
Chromium	29.1B				5	5,000
Lead	ND				13	5,000
Selenium	ND				31	1,000
Silver	ND				12	5,000

A key to data flags is included in Appendix M.

TABLE 3-38 – Impinger Sludge
Third Batch Test, 6/7/98

Parameter	Off-site 8270	
	Results (mg/kg)	Reporting Limit (mg/kg)
Benzo[a]anthracene	5,300J	30,000
Benzo[b]fluoranthene	ND	3,000
Benzo[k]fluoranthene	ND	30,000
Benzo[a]pyrene	ND	30,000
Chrysene	5,700J	30,000
Dibenzo[a,h]anthracene	ND	30,000
Indeno[1,2,3-cd]pyrene	ND	30,000
Carbazole	ND	30,000
Benzo(a)Pyrene Equivalence	58.7 (ND=0)	
Total Carcinogenic PAH	6,230	
Acenaphthene	37,000	30,000
Acenaphthylene	2,500J	30,000
Anthracene	35,000	30,000
Fluoranthene	58,000	30,000
Fluorene	40,000	30,000
Naphthalene	20,000J	30,000
2-Methylnaphthalene	15000J	30,000
Phenanthrene	160,000	30,000
Pyrene	24,000J	30,000
Total PAH	402,500	
Pentachlorophenol	ND	30,000

Parameter	Results	Reporting Limit	Regulatory Level
Ignitability by 1010 (Flashpoint)	>205.7°F	±0.1°F	>140°F
Corrosivity by 9045 (pH)	7.9	±0.1	2-12.5
Total Reactive Cyanide by SW846-7.3.1	ND	0.1 mg/kg	250 mg/kg
Total Reactive Sulfide by SW846-7.3.2	ND	50 mg/kg	500 mg/kg

A key to data flags is included in Appendix M.

TABLE 3-38 (cont.)– Impinger Sludge
Third Batch Test, 6/7/98

Dioxins/Furans by 8290	Results (pg/g)	Reporting Limit (pg/g)
2378-TCDD	5,120.50	1.0
2378-TCDF	ND	276.34-EDL
12378-PeCDF	ND	840.18-EMPC
12378-PeCDD	12,450.43	2.5
23478-PeCDF	ND	59.37-EMPC
123478-HxCDF	6,509.57	2.5
123678-HxCDF	ND	3125.84-EDL
123478-HxCDD	8,935.69	2.5
123678-HxCDD	10,571.23	2.5
123789-HxCDD	6,304.78	2.5
234678-HxCDF	2,072.69	2.5
123789-HxCDF	4,362.13	2.5
1234678-HpCDF	3,556.33	2.5
1234678-HpCDD	64,328.84	2.5
1234789-HpCDF	ND	703.92-EDL
OCDD	279,680.3	5.0
OCDF	2,524.06	5.0
2,3,7,8 TCDD Toxicity Equivalence	16,182.38	

A key to data flags is included in Appendix M.

TABLE 3-38 (cont.)– Impinger Sludge
Third Batch Test, 6/7/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Polynuclear Aromatic Hydrocarbons by 1311/3520C/8310			
Acenaphthene	750J	1,000	100,000
Acenaphthylene	ND	1,000	--
Anthracene	ND	100	600,000
Benz[a]anthracene	ND	50	0.2
Benzo[b]fluoranthene	ND	100	6
Benzo[k]fluoranthene	ND	50	200
Benzo[a]pyrene	ND	100	10
Chrysene	ND	50	60
Dibenzo[a,h]anthracene	ND	100	0.1
Fluoranthene	ND	100	60,000
Fluorene	230	100	--
Indeno[1,2,3-cd]pyrene	ND	100	6
Naphthalene	1,800	500	60,000
2-Methylnaphthalene	1,100	1,000	--
Phenanthrene	420	50	100
Pyrene	ND	50	60,000
TCLP Semivolatile Organic Compounds by 1311/3520C/8270C			
4-Chloro-3-methylphenol	ND	2,000	10,000
2-Chlorophenol	ND	2,000	10,000
2,4-Dimethylphenol	1,000J	2,000	40,000
2,4-Dinitrophenol	ND	2,000	4,000
Carbazole	ND	2,000	200
Phenol	6,200B	2,000	1,000,000
2,3,4,6-Tetrachlorophenol	ND	2,000	60,000
1,4-Dichlorobenzene	ND	2,000	7,500
2,4-Dinitrotoluene	ND	2,000	130
Hexachlorobenzene	ND	2,000	130
Hexachlorobutadiene	ND	2,000	500
Hexachloroethane	ND	2,000	3,000
2-Methylphenol	1,700J	2,000	200,000
3-Methylphenol	4,000	2,000	200,000
4-Methylphenol	4,000	2,000	200,000
Nitrobenzene	ND	2,000	2,000
Pyridine	300J	2,000	5,000
2,4,5-Trichlorophenol	ND	2,000	20,0000
2,4,6-Trichlorophenol	ND	2,000	500

A key to data flags is included in Appendix M.

TABLE 3-38 (cont.)– Impinger Sludge
Third Batch Test, 6/7/98

Parameter	Results (ug/L)				Reporting Limit (ug/L)	Regulatory Level (ug/L)
TCLP Pesticides by 1311/8081A						
γ-BHC (Lindane)	ND				0.5	400
Chlordane	ND				10	30
Endrin	ND				1	20
Heptachlor (and its oxides)	ND				0.5	8
Methoxychlor	ND				5	10,000
Toxaphene	ND				50	500
TCLP Volatile Organic Compounds by 1311/5030/8260B						
Benzene	ND	9.4J	15J	9.2J	25	300
2-Butanone (MEK)	27B	51B	110B	96B	25	200,000
Carbon tetrachloride	ND	ND	ND	ND	25	500
Chlorobenzene	ND	ND	ND	ND	25	100,000
Chloroform	ND	ND	ND	ND	25	6,000
1,2-Dichloroethane	ND	ND	ND	ND	25	500
1,1-Dichloroethene	ND	ND	ND	ND	25	700
Tetrachloroethene	ND	ND	ND	ND	25	700
Trichloroethene	ND	ND	ND	ND	25	500
Ethylbenzene	ND	ND	ND	ND	25	40,000
Styrene	ND	ND	ND	ND	25	6,000
Xylene	ND	ND	ND	ND	25	600,000
Vinyl chloride	ND	ND	ND	ND	25	200
TCLP Herbicides and Pentachlorophenol by 1311/8151A						
2,4-D	ND				5	10,000
2,4,5-TP	ND				0.5	1,000
Pentachlorophenol	2.4				1	60
TCLP Metals by 1311/3005A/7470A						
Mercury	ND/UL				0.2	200
TCLP Metals by 1311/3005A/6010B						
Arsenic	ND				17	5,000
Barium	[250]				2	100,000
Cadmium	ND				3	1,000
Chromium	[18.5]B				5	5,000
Lead	ND/UL				13	5,000
Selenium	[31.5]B				31	1,000
Silver	ND				12	5,000

A key to data flags is included in Appendix M.

TABLE 3-39 – TDU Condensate
First Batch Test-Repeat, 6/13-14/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Polynuclear Aromatic Hydrocarbons by 3540C/8310		
Acenaphthene	ND	10,000
Acenaphthylene	ND	10,000
Anthracene	920J	1,000
Benz[a]anthracene	ND	500
Benzo[b]fluoranthene	ND	1,000
Benzo[k]fluoranthene	ND	500
Benzo[a]pyrene	ND	1,000
Chrysene	ND	500
Dibenzo[a,h]anthracene	ND	1,000
Fluoranthene	1,600B*	1,000
Fluorene	2,300B*	1,000
Indeno[1,2,3-cd]pyrene	ND	1,000
Naphthalene	20,000B*	5,000
2-Methylnaphthalene	9,600J	10,000
Phenanthrene	7,500B*	500
Pyrene	840	500
Semivolatile Organic Compounds by 3540C/8270		
4-Chloro-3-methylphenol	ND	20,000
2-Chlorophenol	ND	10,000
2,4-Dimethylphenol	5,300J	10,000
2,4-Dinitrophenol	ND	50,000
Carbazole	ND	10,000
Dibenzofuran	6,800J	10,000
Phenol	93,000	10,000
2,3,4,6-Tetrachlorophenol	ND	50,000
1,4-Dichlorobenzene	ND	10,000
2,4-Dinitrotoluene	ND	10,000
Hexachlorobenzene	ND	10,000
Hexachlorobutadiene	ND	10,000
Hexachloroethane	ND	10,000
2-Methylphenol	15,000	10,000
4-Methylphenol	31,000	10,000
Nitrobenzene	ND	10,000
2,4,5-Trichlorophenol	ND	50,000
2,4,6-Trichlorophenol	ND	10,000

* - Samples were diluted for analysis. Analyte was present in the undiluted blank. However, it is the data validator's professional judgement that these compounds are present and native to these samples.

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TABLE 3-39 (cont.) – TDU Condensate First Batch Test-Repeat, 6/13-14/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Volatile Organic Compounds by 5030A/8260B		
Acetone	60,000B	10,000
Benzene	950J	2,500
2-Butanone (MEK)	14,000J	10,000
Carbon tetrachloride	ND/UJ	2,500
Chlorobenzene	ND/UJ	2,500
Chloroform	ND/UJ	2,500
1,2-Dibromomethane	500J*	2,500
1,2-Dichloroethane	ND/UJ	2,500
1,1-Dichloroethene	ND/UJ	2,500
2-Hexanone	650J*	10,000
P-Isopropyltoluene	220J*	2,500
4-Methyl-2-Pentanone	770J*	5,000
1,2,4-Trichlorobenzene	710J*	2,500
1,2,4-Trimethylbenzene	480J*	2,500
1,3,5-Trimethylbenzene	230J*	2,500
Tetrachloroethene	ND/UJ	2,500
Toluene	980J*	2,500
Trichloroethene	ND/UJ	2,500
Ethylbenzene	190J*	2,500
Styrene	260J*	2,500
Xylene	570J*	2,500
Vinyl chloride	ND/UJ	5,000
Pentachlorophenol by 8151A	190	100
Total Suspended Solids by 160.2	Results (mg/L)	Reporting Limit (mg/L)
Condensate water	180	0.2
Second vertical tank effluent	11,000	0.2
WTP influent	120	0.2

Dioxins/Furans by 8290	Results (pg/L)	Reporting Limit (pg/L)
2378-TCDD	903.08	10
2378-TCDF	ND	19.92-EDL
12378-PeCDF	53.40	25
12378-PeCDD	2,055.19	25
23478-PeCDF	ND	15.86-EDL
123478-HxCDF	86.83	25
123678-HxCDF	ND	84.13-EMPC
123478-HxCDD	1,669.70	25
123678-HxCDD	2,036.79	25
123789-HxCDD	3,166.09	25
234678-HxCDF	111.25	25
123789-HxCDF	63.24	25
1234678-HpCDF	699.69	25
1234678-HpCDD	20,523.68	25
1234789-HpCDF	107.89	25
OCDD	47,697.82	50
OCDF	1,077.82	50
2,3,7,8 TCDD Toxicity Equivalence	2,908.82	

A key to data flags is included in Appendix M.

TABLE 3-40 – TDU Condensate
Second Batch Test, 6/6/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Polynuclear Aromatic Hydrocarbons by 3540C/8310		
Acenaphthene	ND	10,000
Acenaphthylene	ND	10,000
Anthracene	1,300	1,000
Benz[a]anthracene	ND	500
Benzo[b]fluoranthene	ND	1,000
Benzo[k]fluoranthene	ND	500
Benzo[a]pyrene	ND	1,000
Chrysene	ND	500
Dibenzo[a,h]anthracene	ND	1,000
Fluoranthene	2,600B*	1,000
Fluorene	2,000J	1,000
Indeno[1,2,3-cd]pyrene	ND	1,000
Naphthalene	23,000B*	5,000
2-Methylnaphthalene	8,800JB*	10,000
Phenanthrene	7,600B*	500
Pyrene	890B*	500
Semivolatile Organic Compounds by 3540C/8270		
Benzoic Acid	2,800J	5,000
4-Chloro-3-methylphenol	ND	2,000
2-Chlorophenol	ND	1,000
2,4-Dimethylphenol	380J	1,000
2,4-Dinitrophenol	ND	5,000
Dibenzofuran	1,200	1,000
Carbazole	ND	1,000
Phenol	10,000	1,000
2,3,4,6-Tetrachlorophenol	ND	5,000
1,4-Dichlorobenzene	ND	1,000
2,4-Dinitrotoluene	ND	1,000
Hexachlorobenzene	ND	1,000
Hexachlorobutadiene	ND	1,000
Hexachloroethane	ND	1,000
2-Methylphenol	1,000	1,000
4-Methylphenol	1,800	1,000
Nitrobenzene	ND	1,000
2,4,5-Trichlorophenol	ND	5,000
2,4,6-Trichlorophenol	ND	1000

* - Samples were diluted for analysis. Analyte was present in the undiluted blank. However, it is the data validator's professional judgement that these compounds are present and native to these samples.

TABLE 3-40 (cont.) – TDU Condensate
Second Batch Test, 6/6/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Volatile Organic Compounds by 5030A/8260B		
Acetone	5,300B	2,000
Benzene	420J	500
2-Butanone (MEK)	9,900	2,000
Carbon tetrachloride	ND/UJ	500
Chlorobenzene	ND	500
Chloroform	ND	500
Chloromethane	300J	1,000
1,2-Dichloroethane	ND	500
1,1-Dichloroethene	ND	500
Methylene Chloride	170B	500
Tetrachloroethene	ND	500
Toluene	370J	500
Trichloroethene	ND	500
Ethylbenzene	75J	500
Styrene	51J	500
Xylene	195J	500
Vinyl chloride	ND	1,000
Pentachlorophenol by 8151A	290	100
Total Suspended Solids by 160.2	Results (mg/L)	Reporting Limit (mg/L)
Condensate water	370	0.2
Second vertical tank effluent	8	0.2
WTP influent	460	0.2

Dioxins/Furans by 8290	Results (pg/L)	Reporting Limit (pg/L)
2378-TCDD	1,772.86	10
2378-TCDF	61.57	10
12378-PeCDF	131.52	25
12378-PeCDD	4,102.00	25
23478-PeCDF	232.29	25
123478-HxCDF	196.05	25
123678-HxCDF	172.36	25
123478-HxCDD	2,694.78	25
123678-HxCDD	2,768.31	25
123789-HxCDD	4,439.22	25
234678-HxCDF	202.37	25
123789-HxCDF	92.41	25
1234678-HpCDF	947.56	25
1234678-HpCDD	25,877.21	25
1234789-HpCDF	112.66	25
OCDD	44,081.45	50
OCDF	1,377.48	50
2,3,7,8 TCDD Toxicity Equivalence	5,324.12	

A key to data flags is included in Appendix M.

TABLE 3-41 – TDU Condensate
Third Batch Test, 6/7/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Polynuclear Aromatic Hydrocarbons by 3540C/8310		
Acenaphthene	ND	10,000
Acenaphthylene	ND	10,000
Anthracene	830	1,000
Benz[a]anthracene	ND	500
Benzo[b]fluoranthene	ND	1,000
Benzo[k]fluoranthene	ND	500
Benzo[a]pyrene	ND	1,000
Chrysene	ND	500
Dibenzo[a,h]anthracene	ND	1,000
Fluoranthene	2,100B*	1,000
Fluorene	860J	1,000
Indeno[1,2,3-cd]pyrene	ND	1,000
Naphthalene	12,000B*	5,000
2-Methylnaphthalene	5,400B*	10,000
Phenanthrene	5,500B*	500
Pyrene	840B*	500
Semivolatile Organic Compounds by 3540C/8270		
4-Chloro-3-methylphenol	ND	150,000
2-Chlorophenol	ND	75,000
2,4-Dimethylphenol	11,000J	75,000
2,4-Dinitrophenol	ND	380,000
Dibenzofuran	180,000	75,000
Carbazole	ND	75,000
Phenol	160,000	75,000
2,3,4,6-Tetrachlorophenol	ND	380,000
1,4-Dichlorobenzene	ND	75,000
2,4-Dinitrotoluene	ND	75,000
Hexachlorobenzene	ND	75,000
Hexachlorobutadiene	ND	75,000
Hexachloroethane	ND	75,000
2-Methylphenol	26,000J	75,000
4-Methylphenol	46,000J	75,000
Nitrobenzene	ND	75,000
2,4,5-Trichlorophenol	ND	380,000
2,4,6-Trichlorophenol	ND	75,000

* - Samples were diluted for analysis. Analyte was present in the undiluted blank. However, it is the data validator's professional judgement that these compounds are present and native to these samples.

TABLE 3-41 (cont.) – TDU Condensate
Third Batch Test, 6/7/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Volatile Organic Compounds by 5030A/8260B		
Benzene	1,700J	500
2-Butanone (MEK)	12,000	2,000
Carbon tetrachloride	ND/UJ	500
Chlorobenzene	ND	500
Chloroform	ND	500
1,2-Dichloroethane	ND	500
1,1-Dichloroethene	ND	500
Tetrachloroethene	ND	500
Trichloroethene	ND	500
Ethylbenzene	84J	500
Styrene	59J	500
Xylene	216J	500
Vinyl chloride	ND	1,000
Pentachlorophenol by 8151A	41	20
Total Suspended Solids by 160.2	Results (mg/L)	Reporting Limit (mg/L)
Condensate water	NT	0.2
Second vertical tank effluent	10	0.2
WTP influent	610	0.2

Dioxins/Furans by 8290	Results (pg/L)	Reporting Limit (pg/L)
2378-TCDD	1,947.48	10
2378-TCDF	ND	52.26-EMPC
12378-PeCDF	130.33	25
12378-PeCDD	5,222.50	25
23478-PeCDF	215.46	25
123478-HxCDF	191.68	25
123678-HxCDF	232.78	25
123478-HxCDD	3,595.18	25
123678-HxCDD	4,346.16	25
123789-HxCDD	6,181.34	25
234678-HxCDF	244.32	25
123789-HxCDF	122.76	25
1234678-HpCDF	1,678.60	25
1234678-HpCDD	50,840.53	25
1234789-HpCDF	ND	93.65-EMPC
OCDD	121,479.4	50
OCDF	3,196.64	50
2,3,7,8 TCDD Toxicity Equivalence	6,814.27	

A key to data flags is included in Appendix M.

TABLE 3-42 – TDU Condensate
First Continuous Test, 6/10/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Polynuclear Aromatic Hydrocarbons by 3540C/8310		
Acenaphthene	ND	10,000
Acenaphthylene	ND	10,000
Anthracene	ND	1,000
Benz[a]anthracene	ND	500
Benzo[b]fluoranthene	ND	1,000
Benzo[k]fluoranthene	ND	500
Benzo[a]pyrene	ND	1,000
Chrysene	ND	500
Dibenzo[a,h]anthracene	ND	1,000
Fluoranthene	ND	1,000
Fluorene	ND	1,000
Indeno[1,2,3-cd]pyrene	ND	1,000
Naphthalene	4,000B*	5,000
2-Methylnaphthalene	ND	10,000
Phenanthrene	1,500B*	500
Pyrene	ND	500
Semivolatile Organic Compounds by 3540C/8270		
Benzoic Acid	11,000J	25,000
4-Chloro-3-methylphenol	ND	10,000
2-Chlorophenol	ND	5,000
2,4-Dimethylphenol	ND	5,000
2,4-Dinitrophenol	ND	25,000
Carbazole	ND	5,000
Dibenzofuran	1,500J	5,000
Phenol	30,000	5,000
2,3,4,6-Tetrachlorophenol	ND	25,000
1,4-Dichlorobenzene	ND	5,000
2,4-Dinitrotoluene	ND	5,000
Hexachlorobenzene	ND	5,000
Hexachlorobutadiene	ND	5,000
Hexachloroethane	ND	5,000
2-Methylphenol	ND	5,000
4-Methylphenol	1,900J	5,000
Nitrobenzene	ND	5,000
2,4,5-Trichlorophenol	ND	25,000
2,4,6-Trichlorophenol	ND	5,000

* - Samples were diluted for analysis. Analyte was present in the undiluted blank. However, it is the data validator's professional judgement that these compounds are present and native to these samples.

TABLE 3-42 (cont.) – TDU Condensate
First Continuous Test, 6/10/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Volatile Organic Compounds by 5030A/8260B		
Acetone	5,000	1,000
Benzene	670	250
2-Butanone (MEK)	ND	1,000
Carbon tetrachloride	ND	250
Chlorobenzene	ND	250
Chloroform	ND	250
1,2-Dichloroethane	ND	250
1,1-Dichloroethene	ND	250
Tetrachloroethene	ND	250
Toluene	240J	250
Trichloroethene	ND	250
Ethylbenzene	ND	250
Styrene	ND	250
Xylene	ND	250
Vinyl chloride	ND	500
Pentachlorophenol by 8151A	13	5
Total Suspended Solids by 160.2	Results (mg/L)	Reporting Limit (mg/L)
Condensate water	29,000	0.2
Second vertical tank effluent	5,500	0.2
WTP influent	1,200	0.2

Parameter	Results (pg/L)	Reporting Limits (pg/L)
Dioxins/Furans by 8290		
2378-TCDD	1,236.54	10
2378-TCDF	84.06	10
12378-PeCDF	215.6	25
12378-PeCDD	3,056.87	25
23478-PeCDF	ND	173.06-EDL
123478-HxCDF	304.23	25
123678-HxCDF	366.41	25
123478-HxCDD	2,751.09	25
123678-HxCDD	3,142.41	25
123789-HxCDD	4,697.92	25
234678-HxCDF	506.92	25
123789-HxCDF	302.85	25
1234678-HpCDF	1,024.27	25
1234678-HpCDD	22,749.16	25
1234789-HpCDF	356.48	25
OCDD	24,157.2	50
OCDF	704.98	50
2,3,7,8 TCDD Toxicity Equivalence	4,257.51	

A key to data flags is included in Appendix M.

TABLE 3-43 – TDU Condensate
Second Continuous Test, 6/10-11/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Polynuclear Aromatic Hydrocarbons by 3540C/8310		
Acenaphthene	ND	10,000
Acenaphthylene	ND	10,000
Anthracene	560J	1,000
Benz[a]anthracene	ND	500
Benzo[b]fluoranthene	ND	1,000
Benzo[k]fluoranthene	ND	500
Benzo[a]pyrene	ND	1,000
Chrysene	ND	500
Dibenzo[a,h]anthracene	ND	1,000
Fluoranthene	680B*	1,000
Fluorene	ND	1,000
Indeno[1,2,3-cd]pyrene	ND	1,000
Naphthalene	2,800B*	5,000
2-Methylnaphthalene	ND	10,000
Phenanthrene	2,000B*	500
Pyrene	300B*	500
Semivolatile Organic Compounds by 3540C/8270		
4-Chloro-3-methylphenol	ND	20,000
2-Chlorophenol	ND	10,000
Dibenzofuran	1,200J	10,000
2,4-Dimethylphenol	ND	10,000
2,4-Dinitrophenol	ND	50,000
Carbazole	ND	10,000
Phenol	50,000	10,000
2,3,4,6-Tetrachlorophenol	ND	50,000
1,4-Dichlorobenzene	ND	10,000
2,4-Dinitrotoluene	ND	10,000
Hexachlorobenzene	ND	10,000
Hexachlorobutadiene	ND	10,000
Hexachloroethane	ND	10,000
2-Methylphenol	1,300J	10,000
4-Methylphenol	6,500J	10,000
Nitrobenzene	ND	10,000
2,4,5-Trichlorophenol	ND	50,000
2,4,6-Trichlorophenol	ND	10,000

* - Samples were diluted for analysis. Analyte was present in the undiluted blank. However, it is the data validator's professional judgement that these compounds are present and native to these samples.

TABLE 3-43 (cont.) – TDU Condensate
Second Continuous Test, 6/10-11/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Volatile Organic Compounds by 5030A/8260B		
Acetone	41,000J	1,000
Benzene	900J	250
2-Butanone (MEK)	5,500J	1,000
Carbon tetrachloride	ND	250
Chlorobenzene	ND	250
Chloroform	ND	250
1,2-Dichloroethane	ND	250
1,1-Dichloroethene	ND	250
Methylene Chloride	ND	250
Tetrachloroethene	ND	250
1,2,4-Trimethylbenzene	ND	250
1,3,5-Trimethylbenzene23J	ND	250
Toluene	380J	250
Trichloroethene	ND	250
Ethylbenzene	ND	250
Styrene	170J	250
Xylene	47J	250
Vinyl chloride	ND	500
Pentachlorophenol by 8151A	55	20
Total Suspended Solids by 160.2	Results (mg/L)	Reporting Limit (mg/L)
Condensate water	31,000	0.2
Second vertical tank effluent	5,800	0.2
WTP influent	900	0.2

Dioxins/Furans by 8290	Results (pg/L)	Reporting Limit (pg/L)
2378-TCDD	1,633.03	10
2378-TCDF	ND	63.74-EMPC
12378-PeCDF	227.90	25
12378-PeCDD	4,596.28	25
23478-PeCDF	ND	374.50-EMPC
123478-HxCDF	389.87	25
123678-HxCDF	470.04	25
123478-HxCDD	4,368.99	25
123678-HxCDD	5,331.49	25
123789-HxCDD	8,197.66	25
234678-HxCDF	627.67	25
123789-HxCDF	330.62	25
1234678-HpCDF	2,217.28	25
1234678-HpCDD	48,607.09	25
1234789-HpCDF	576.34	25
OCDD	74,810.87	50
OCDF	2,036.72	50
2,3,7,8 TCDD Toxicity Equivalence	6,505.05	

A key to data flags is included in Appendix M.

TABLE 3-44 – TDU Condensate
Third Continuous Test, 6/11-12/98

Parameter	Results (ug/L)	Reporting Limit (ug/L)
Polynuclear Aromatic Hydrocarbons by 3540C/8310		
Acenaphthene	ND	10,000
Acenaphthylene	ND	10,000
Anthracene	ND	1,000
Benz[a]anthracene	ND	500
Benzo[b]fluoranthene	ND	1,000
Benzo[k]fluoranthene	ND	500
Benzo[a]pyrene	ND	1,000
Chrysene	ND	500
Dibenzo[a,h]anthracene	ND	1,000
Fluoranthene	ND	1,000
Fluorene	ND	1,000
Indeno[1,2,3-cd]pyrene	ND	1,000
Naphthalene	3,000B*	5,000
2-Methylnaphthalene	ND	10,000
Phenanthrene	1,400B*	500
Pyrene	ND	500
Semivolatile Organic Compounds by 3540C/8270		
4-Chloro-3-methylphenol	ND	10,000
2-Chlorophenol	ND	5,000
2,4-Dimethylphenol	ND	5,000
2,4-Dinitrophenol	ND	25,000
Carbazole	ND	5,000
Dibenzofuran	1,500J	5,000
Phenol	19,000	5,000
2,3,4,6-Tetrachlorophenol	ND	25,000
1,4-Dichlorobenzene	ND	10,000
2,4-Dinitrotoluene	ND	10,000
Hexachlorobenzene	ND	10,000
Hexachlorobutadiene	ND	10,000
Hexachloroethane	ND	10,000
2-Methylphenol	ND	10,000
4-Methylphenol	1,300J	10,000
Nitrobenzene	ND	5,000
2,4,5-Trichlorophenol	ND	25,000
2,4,6-Trichlorophenol	ND	5,000

* - Samples were diluted for analysis. Analyte was present in the undiluted blank. However, it is the data validator's professional judgement that these compounds are present and native to these samples.

TABLE 3-44 (cont.) – TDU Condensate
Third Continuous Test, 6/11-12/98

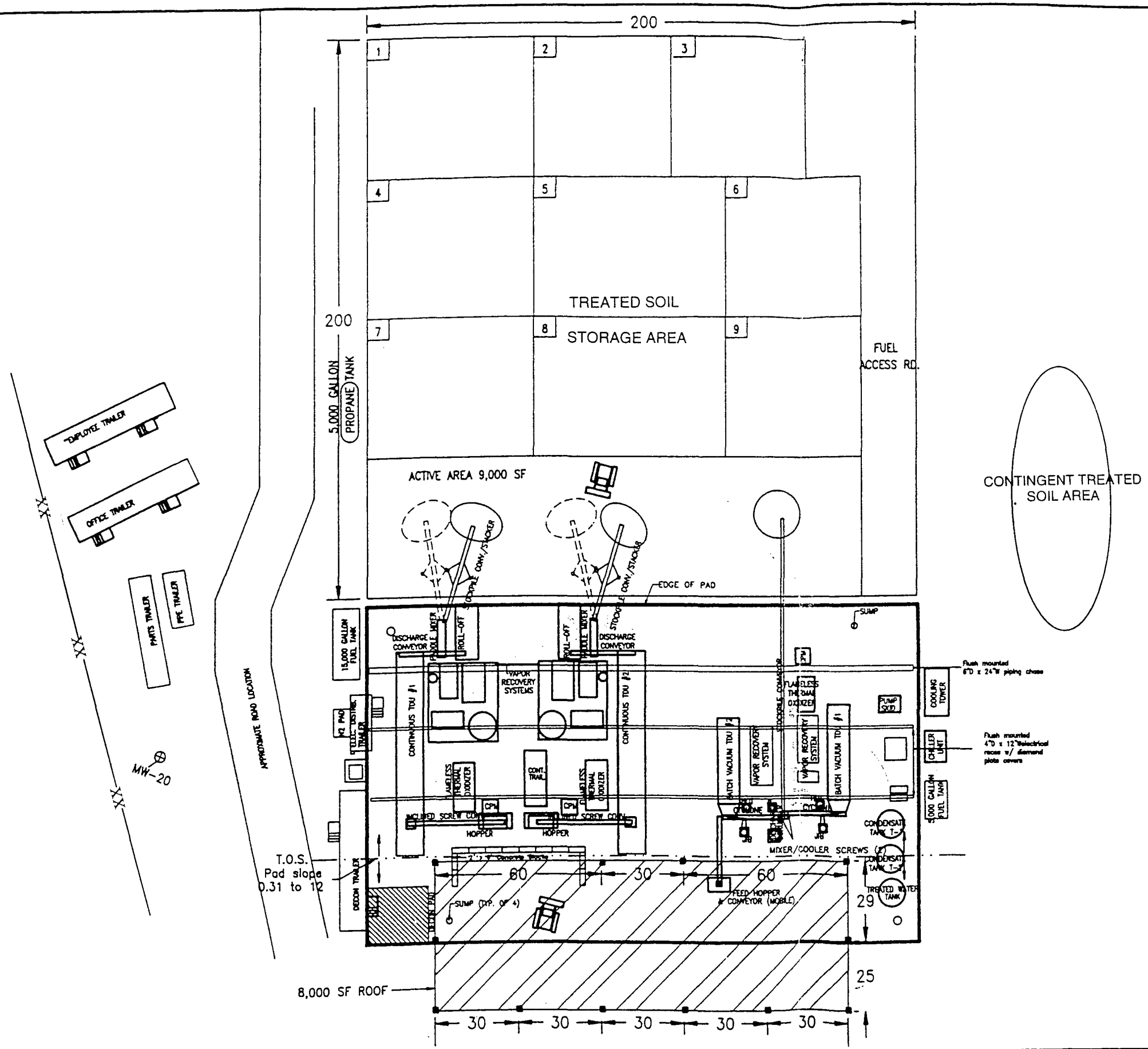
Parameter	Results (ug/L)	Reporting Limit (ug/L)
Volatile Organic Compounds by 5030A/8260B		
Acetone	14,000J	1,000
Benzene	400J	250
2-Butanone (MEK)	1,000J	1,000
Carbon tetrachloride	ND	250
Chlorobenzene	ND	250
Chloroform	ND	250
1,2-Dichloroethane	ND	250
1,1-Dichloroethene	ND	250
Methylene Chloride	180JB	250
Tetrachloroethene	ND	250
Toluene	130J	250
Trichloroethene	ND	250
Ethylbenzene	ND	250
Styrene	ND	250
Xylene	ND	250
Vinyl chloride	ND	500
Pentachlorophenol by 8151A	27	10
Total Suspended Solids by 160.2	Results (mg/L)	Reporting Limit (mg/L)
Condensate water	23,000	0.2
Second vertical tank effluent	8,400	0.2
WTP influent	920	0.2

Dioxins/Furans by 8290	Results (pg/L)	Reporting Limit (pg/L)
2378-TCDD	713.85	10
2378-TCDF	54.78	10
12378-PeCDF	109.12	25
12378-PeCDD	1,725.93	25
23478-PeCDF	234.62	25
123478-HxCDF	154.61	25
123678-HxCDF	177.79	25
123478-HxCDD	1,424.91	25
123678-HxCDD	1,632.85	25
123789-HxCDD	2,516.24	25
234678-HxCDF	249.74	25
123789-HxCDF	126.07	25
1234678-HpCDF	687.13	25
1234678-HpCDD	12,050.80	25
1234789-HpCDF	235.33	25
OCDD	16,704.68	50
OCDF	577.05	50
2,3,7,8 TCDD Toxicity Equivalence	2,480.29	

A key to data flags is included in Appendix M.

TABLE 3-45
SMWT Water Treatment Plant POP Test Sampling (6/10/98)

Parameter	Results (µg/L)			Reporting Limit* (µg/L)	Average Discharge Limit (µg/L)	Maximum Discharge Limit (µg/L)
	Influent	Mid-Carbon	Effluent			
Polynuclear Aromatic Hydrocarbons (PAHs) by 3540B/8310						
Acenaphthene	ND	NT	ND	1	22	59
Acenaphthylene	ND	NT	ND	1	22	59
Anthracene	ND	NT	ND	0.1	22	59
Benzo(a)anthracene	ND	NT	ND	0.05	22	59
Benzo(b)fluoranthene	ND	NT	ND	0.1	--	--
Benzo(k)fluoranthene	ND	NT	ND	0.05	22	59
Benzo(a)pyrene	ND	NT	ND	0.1	23	61
Chrysene	ND	NT	ND	0.05	22	59
Dibenzo(a,h)anthracene	ND	NT	ND	0.1	--	--
Fluoranthene	ND	NT	ND	0.1	25	68
Fluorene	ND	NT	ND	0.1	22	59
Indeno(1,2,3-cd)pyrene	ND	NT	ND	0.1	--	--
Naphthalene	3,700B	NT	ND	0.5	22	59
Phenanthrene	1,200B	NT	0.05B	0.05	22	59
Pyrene	ND	NT	ND	0.05	25	67
Semivolatile Organic Compounds by 8270C						
Carbazole	ND	ND	ND	10	--	--
Bis(2-ethylhexyl) phthalate	ND	ND	ND	10	103	279
Di-n-butyl phthalate	ND	ND	ND	10	27	57
Diethyl phthalate	ND	ND	ND	10	81	203
Dimethyl phthalate	ND	ND	ND	10	19	47
Phenol	23,000	ND	ND	10	15	26
2-Methylphenol	ND	ND	ND	10	--	--
4-Methylphenol	1,800J	ND	ND	10	--	--
2,4-Dimethylphenol	ND	ND	ND	10	18	36
Pentachlorophenol by 8151A	NT	NT	ND	0.11	13	20
Volatile Organic Compounds by 5030/8260B						
Toluene	110J	ND	ND	5	26	80
Chloroform	ND/UJ	ND	ND	5	21	46
Methylene chloride	ND/UJ	ND/UJ	ND	5	32	89
Benzene	250J	ND	ND	5	37	136
Ethylbenzene	ND/UJ	ND	ND	5	32	108
Styrene	64J	ND	ND	5	--	--
Xylenes (total)	ND/UJ	ND	3.2J	5	--	--
Metals by 6010B						
Arsenic	24.9	NT	ND	1.7	200	400
Barium	154	NT	[46.1]	0.1	1,000	2,000
Cadmium	ND	NT	ND	0.3	1.1	3.9
Chromium	53.2	NT	15.9	0.9	500	1,000
Copper	263	NT	ND	0.7	12	18
Iron	52,300	NT	422	15.9	1,500	3,000
Lead	41.5	NT	ND	1.3	3.2	82
Nickel	62.3	NT	[10.6]	0.7	160	1,400
Selenium	9.8	NT	ND	3.1	5	20
Silver	[3.2]	NT	ND	1.2	--	4.1
Zinc	81.4	NT	[5.4]	0.8	110	120
Mercury by 7470A	2.2UL	NT	ND/UL	0.02	0.012	2.4



LIST OF ACRONYMS

CPM	Continuous Process Monitor
DCV	Differential Control Valve
FCV	Flow Control Valve
FD	Forced Draft
FT	Flow Transmitter
FTO	Flameless Thermal Oxidizer
HCV	Hand Control Valve
LCV	Level Control Valve
M	Motor Control Valve
OA	Oxygen Analyzer
PCV	Pressure Control Valve
PI	Pressure Gauge
PT	Pressure Transmitter
S	Solenoid Valve
SP	Sample Point
TDU	Thermal Desorption Unit
TI	Temperature Gauge
TT	Temperature Transmitter
VRS	Vapor Recovery System
WESP	Wet Electrostatic Precipitator

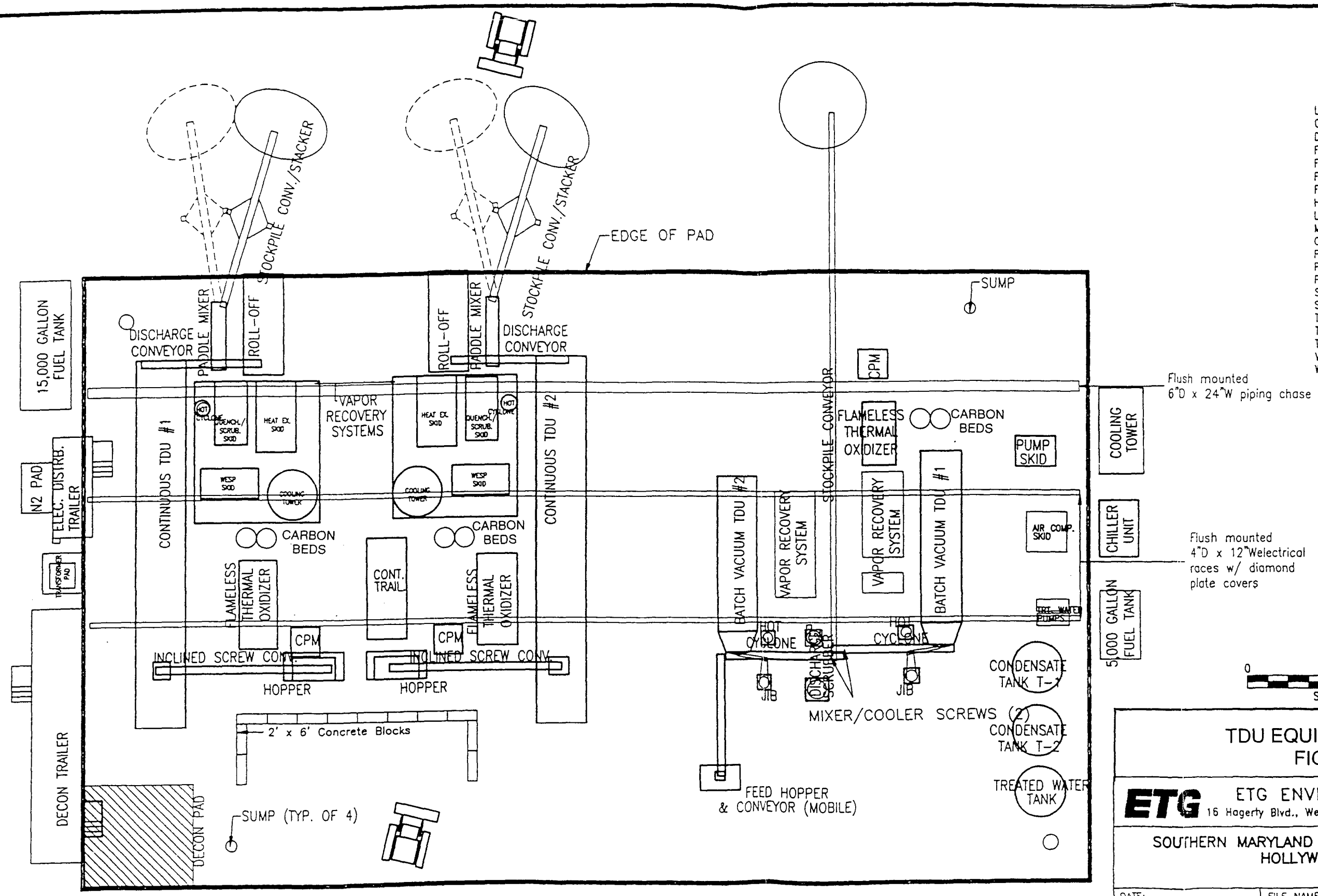
0 40 80
SCALE IN FEET

TDU PROCESS AREA LAYOUT
FIGURE 2-1

ETG ENVIRONMENTAL, INC.
16 Hagerty Blvd., West Chester PA 19382•(610)431-9100

SOUTHERN MARYLAND WOOD TREATMENT SITE
HOLLYWOOD, MD

DATE: 4/15/98	FILE NAME: DWG\4800\ASBUILT	REV 2
Scale as shown	Drawn by: MR	Sheet FIGURE 2-1



LIST OF ACRONYMS

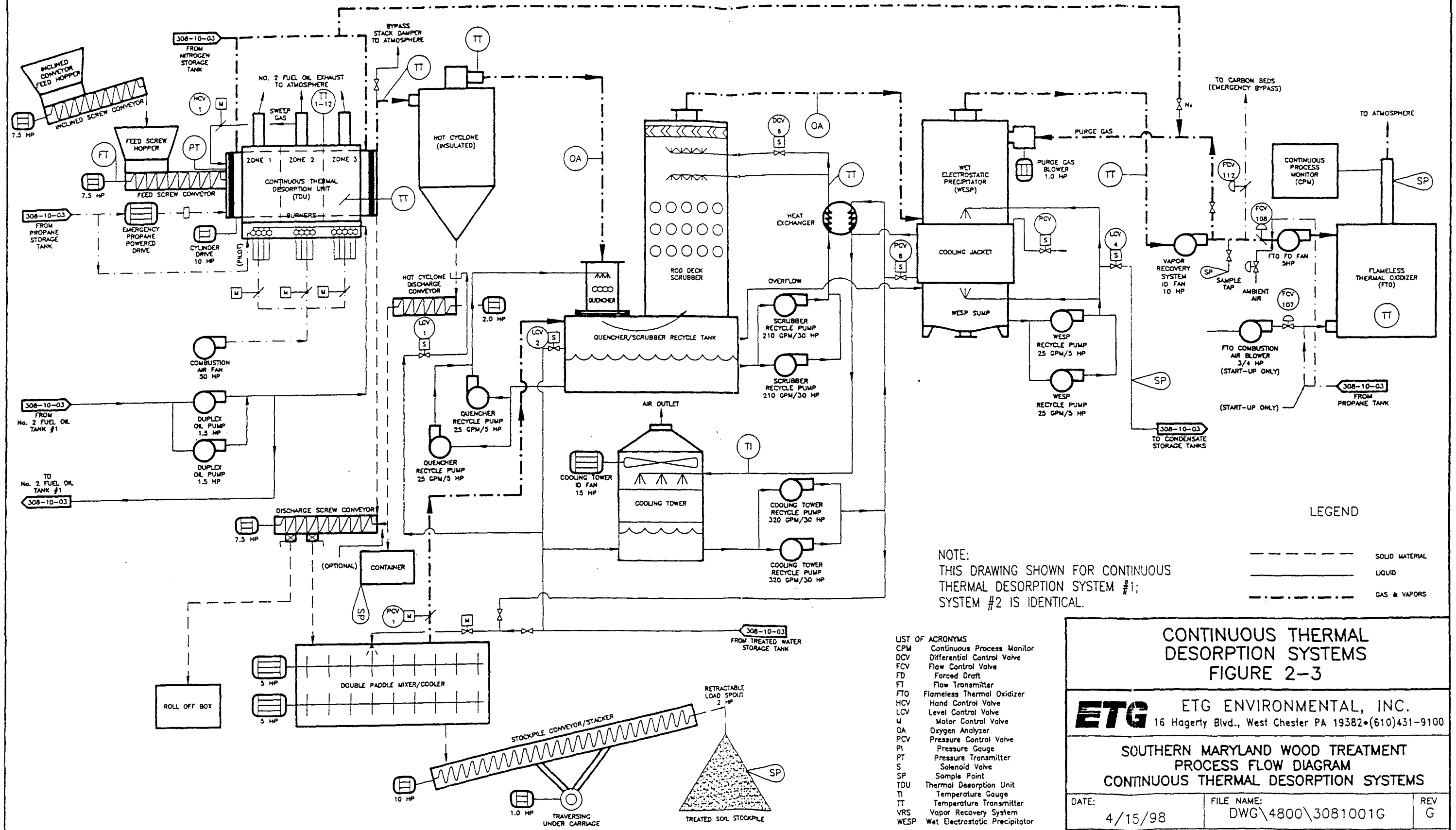
CPM	Continuous Process Monitor
DCV	Differential Control Valve
FCV	Flow Control Valve
FD	Forced Draft
FT	Flow Transmitter
FTO	Flameless Thermal Oxidizer
HCV	Hand Control Valve
LCV	Level Control Valve
M	Motor Control Valve
OA	Oxygen Analyzer
PCV	Pressure Control Valve
PI	Pressure Gauge
PT	Pressure Transmitter
S	Solenoid Valve
SP	Sample Point
TDU	Thermal Desorption Unit
TI	Temperature Gauge
TT	Temperature Transmitter
VRS	Vapor Recovery System
WESP	Wet Electrostatic Precipitator

TDU EQUIPMENT LAYOUT
FIGURE 2-2

ETG ENVIRONMENTAL, INC.
16 Hagerty Blvd., West Chester PA 19382•(610)431-9100

SOUTHERN MARYLAND WOOD TREATMENT SITE
HOLLYWOOD, MD

DATE:	FILE NAME:	REV
4/15/98	DWG\4800\ASBUILT	3
Scale as shown	Drawn by: MR	Sheet FIGURE 2-2



NOTE:
THIS DRAWING SHOWN FOR CONTINUOUS THERMAL DESORPTION SYSTEM #1; SYSTEM #2 IS IDENTICAL.

LEGEND

- SOLID MATERIAL
- LIQUID
- GAS & VAPORS

LIST OF ACRONYMS

CPM	Continuous Process Monitor
DCV	Differential Control Valve
FCV	Flow Control Valve
FD	Forced Draft
FT	Flow Transmitter
FTO	Flameless Thermal Oxidizer
HCV	Hand Control Valve
LCV	Level Control Valve
M	Motor Control Valve
OA	Oxygen Analyzer
PCV	Pressure Control Valve
PI	Pressure Gauge
PT	Pressure Transmitter
S	Solenoid Valve
SP	Sample Point
TDU	Thermal Desorption Unit
TI	Temperature Gauge
TT	Temperature Transmitter
VRS	Vapor Recovery System
WESP	Wet Electrostatic Precipitator

CONTINUOUS THERMAL DESORPTION SYSTEMS FIGURE 2-3

ETG ENVIRONMENTAL, INC.
16 Hagerty Blvd., West Chester PA 19382•(610)431-9100

SOUTHERN MARYLAND WOOD TREATMENT
PROCESS FLOW DIAGRAM
CONTINUOUS THERMAL DESORPTION SYSTEMS

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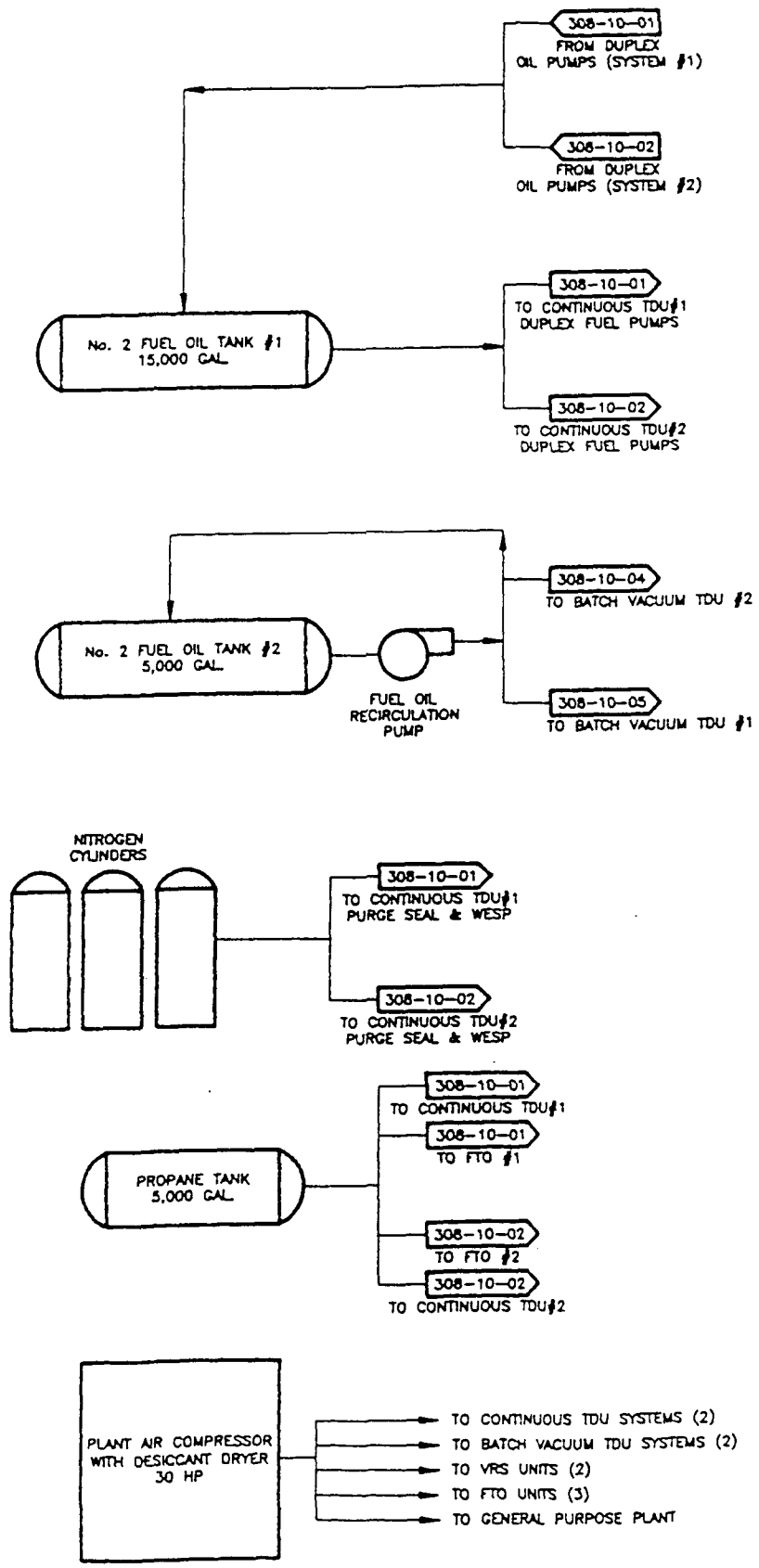
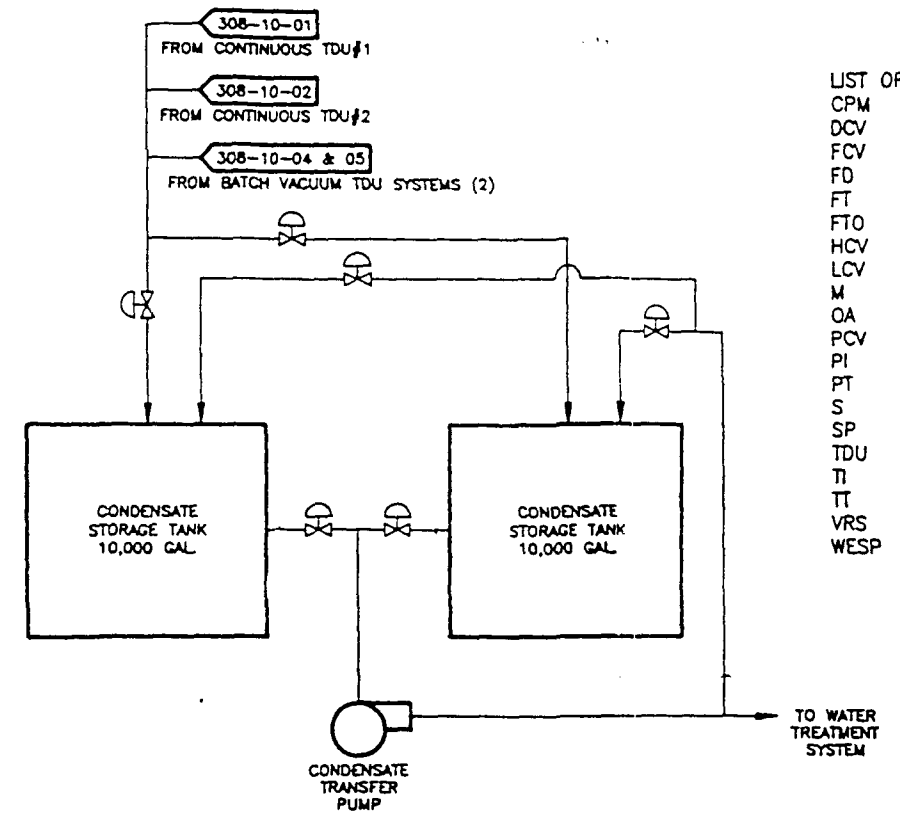
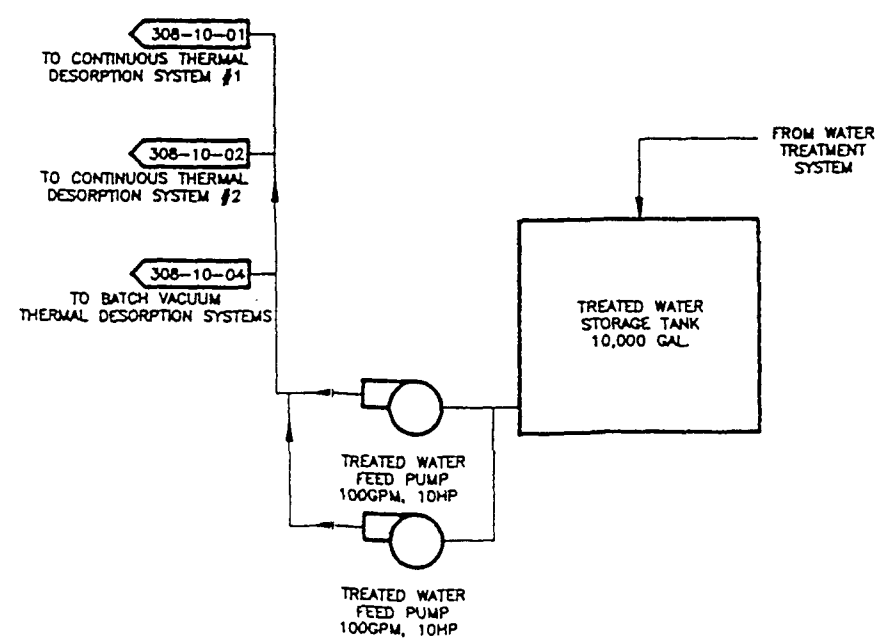




LIST OF ACRONYMS

CPM	Continuous Process Monitor
DCV	Differential Control Valve
FCV	Flow Control Valve
FD	Forced Draft
FT	Flow Transmitter
FTO	Flameless Thermal Oxidizer
HCV	Hand Control Valve
LCV	Level Control Valve
M	Motor Control Valve
OA	Oxygen Analyzer
PCV	Pressure Control Valve
PI	Pressure Gauge
PT	Pressure Transmitter
S	Solenoid Valve
SP	Sample Point
TDU	Thermal Desorption Unit
TI	Temperature Gauge
TT	Temperature Transmitter
VRS	Vapor Recovery System
WESP	Wet Electrostatic Precipitator



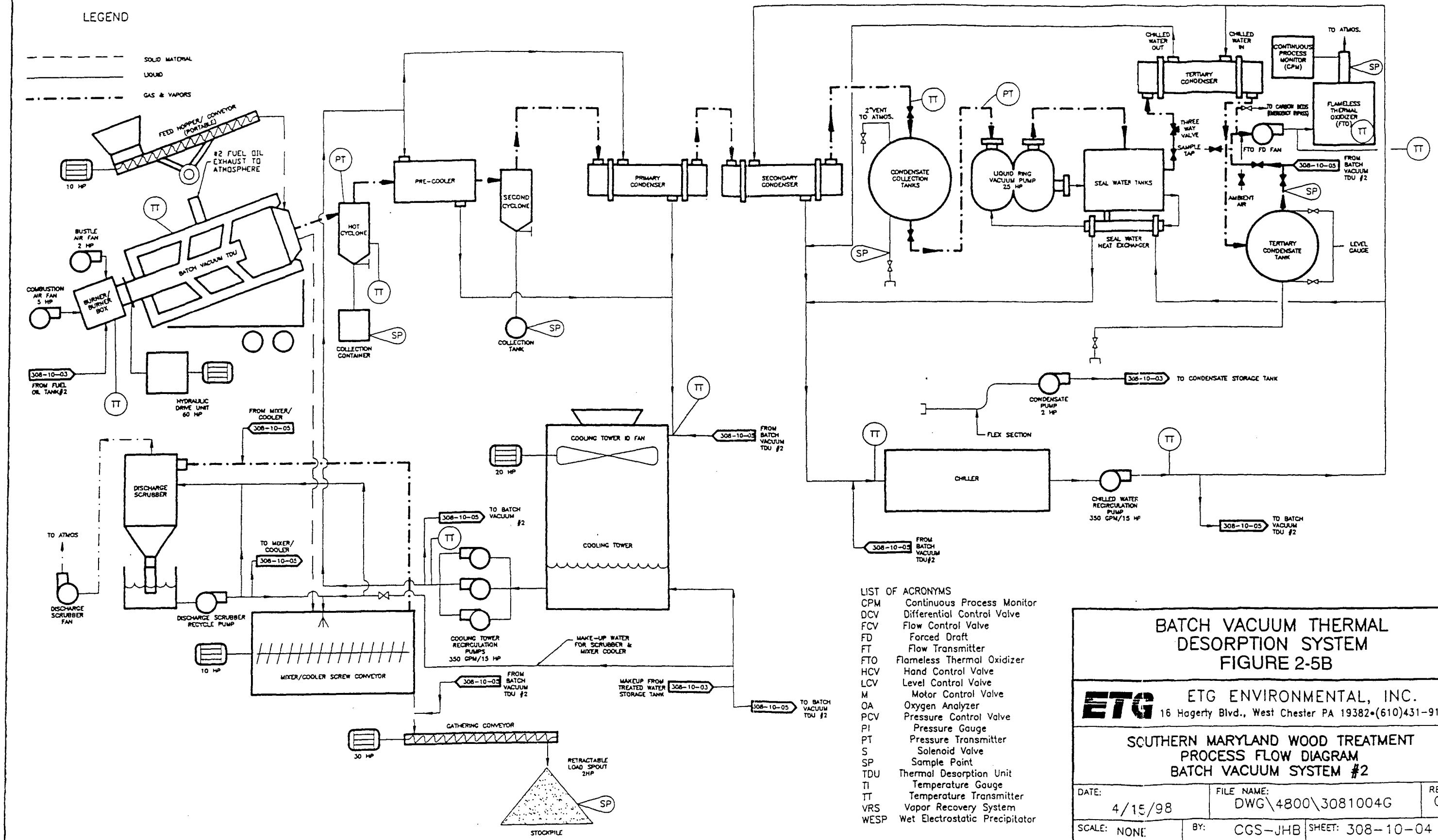
COMMON SYSTEMS
FIGURE 2-4

ETG ENVIRONMENTAL, INC.
16 Hagerty Blvd., West Chester PA 19382•(610)431-9100

SOUTHERN MARYLAND WOOD TREATMENT
PROCESS FLOW DIAGRAM
COMMON SYSTEMS

DATE:	FILE NAME:	REV
4/15/98	DWG\4800\3081003D	D

SCALE:	BY:	SHEET:
NONE	CGS-JHB	308-10-03



LIST OF ACRONYMS

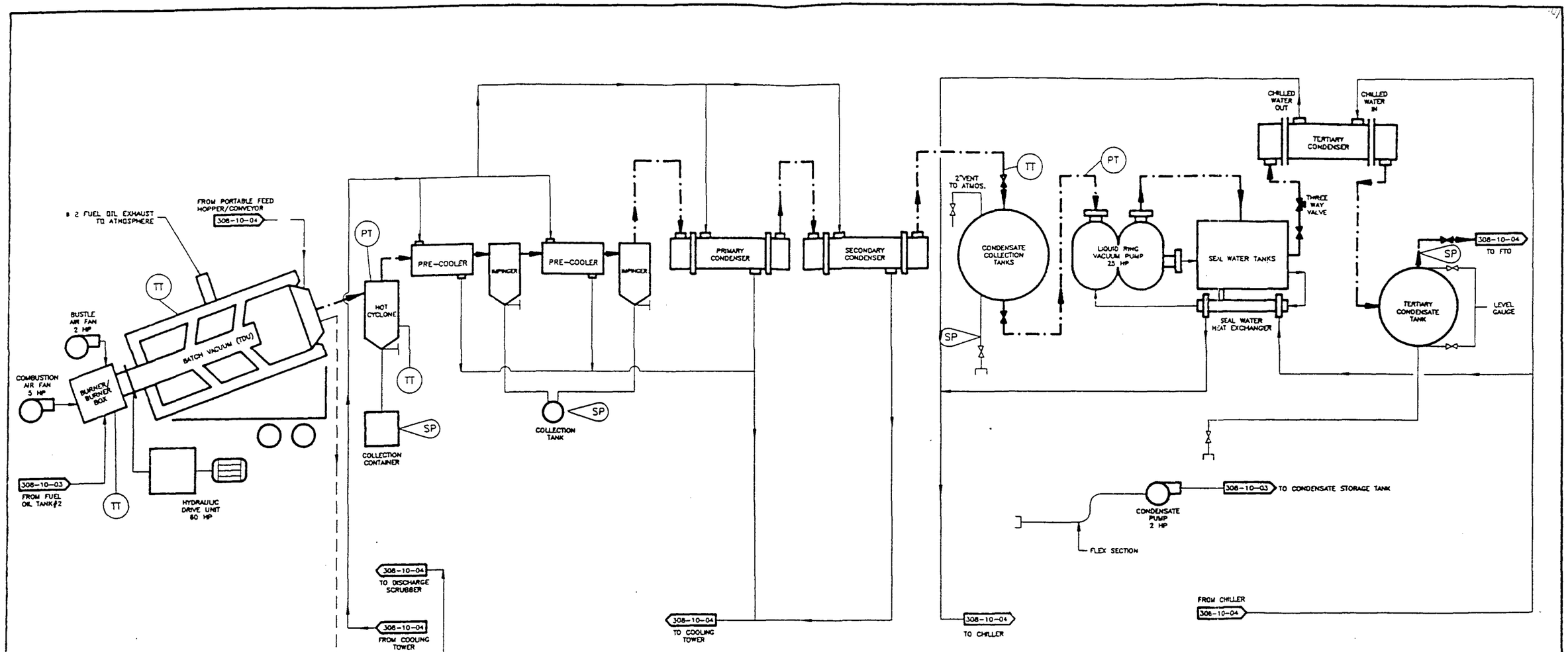
CPM	Continuous Process Monitor
DCV	Differential Control Valve
FCV	Flow Control Valve
FD	Forced Draft
FT	Flow Transmitter
FTO	Flameless Thermal Oxidizer
HCV	Hand Control Valve
LCV	Level Control Valve
M	Motor Control Valve
OA	Oxygen Analyzer
PCV	Pressure Control Valve
PI	Pressure Gauge
PT	Pressure Transmitter
S	Solenoid Valve
SP	Sample Point
TDU	Thermal Desorption Unit
TI	Temperature Gauge
TT	Temperature Transmitter
VRS	Vapor Recovery System
WESP	Wet Electrostatic Precipitator

BATCH VACUUM THERMAL DESORPTION SYSTEM FIGURE 2-5B

ETG ENVIRONMENTAL, INC.
16 Hagerty Blvd., West Chester PA 19382•(610)431-9100

SOUTHERN MARYLAND WOOD TREATMENT
PROCESS FLOW DIAGRAM
BATCH VACUUM SYSTEM #2

DATE: 4/15/98	FILE NAME: DWG\4800\3081004G	REV G
SCALE: NONE	BY: CGS-JHB	SHEET: 308-10-04



LIST OF ACRONYMS

CPM	Continuous Process Monitor
DCV	Differential Control Valve
FCV	Flow Control Valve
FD	Forced Draft
FT	Flow Transmitter
FTO	Flameless Thermal Oxidizer
HCV	Hand Control Valve
LCV	Level Control Valve
M	Motor Control Valve
OA	Oxygen Analyzer
PCV	Pressure Control Valve
PI	Pressure Gauge
PT	Pressure Transmitter
S	Solenoid Valve
SP	Sample Point
TDU	Thermal Desorption Unit
TI	Temperature Gauge
TT	Temperature Transmitter
VRS	Vapor Recovery System
WESP	Wet Electrostatic Precipitator

LEGEND

SOLID MATERIAL

LIQUID

GAS & VAPORS

BATCH VACUUM THERMAL DESORPTION SYSTEM FIGURE 2-5A

ETG ENVIRONMENTAL, INC.
16 Hagerty Blvd., West Chester PA 19382•(610)431-9100

SOUTHERN MARYLAND WOOD TREATMENT
PROCESS FLOW DIAGRAM
BATCH VACUUM SYSTEM #1

DATE:	FILE NAME:	REV
4/15/98	DWG\4800\3081005G	G

SCALE:	BY:	SHEET:
NONE	CGS-JHB	308-10-05

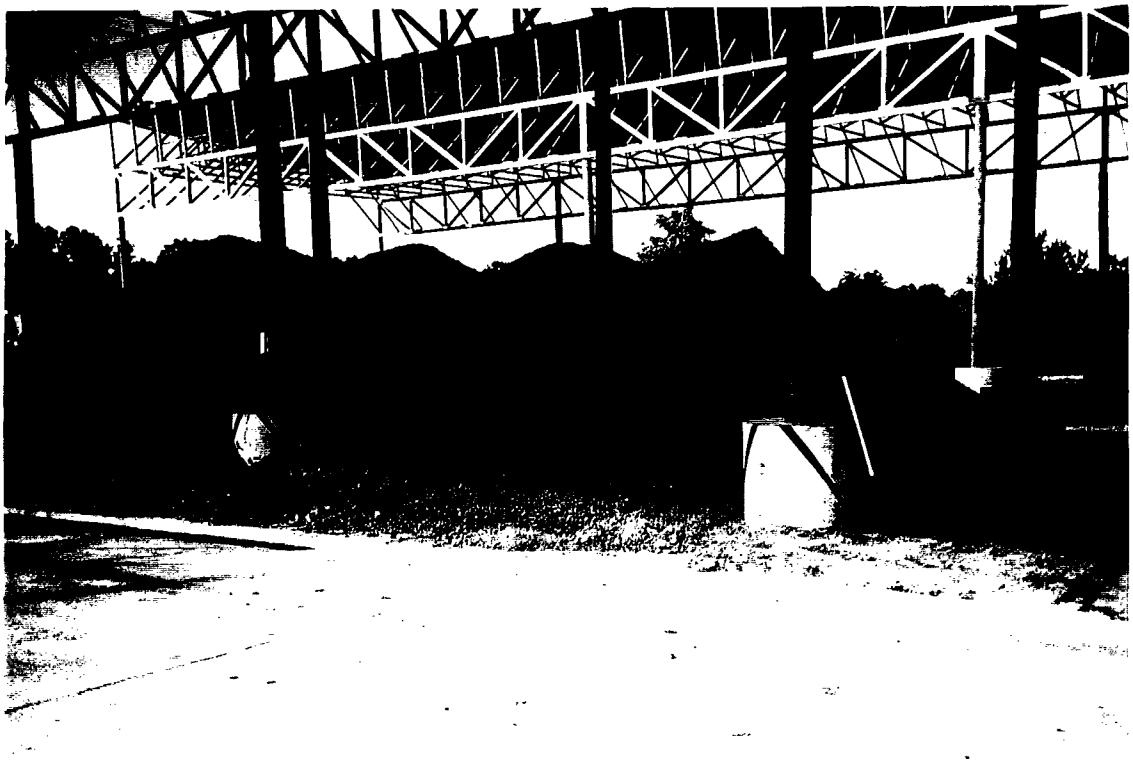


Figure 3-1 Screened contaminated soil from Pit #1. Soil is staged in the pole barn for treatment in the Continuous Thermal Desorption Units.

Figure 3-2 Contaminated pond sediment that was used to test the Batch Thermal Desorption Units during the Proof of Performance Test. This material was blended with Pit #1 soil to make handling easier.

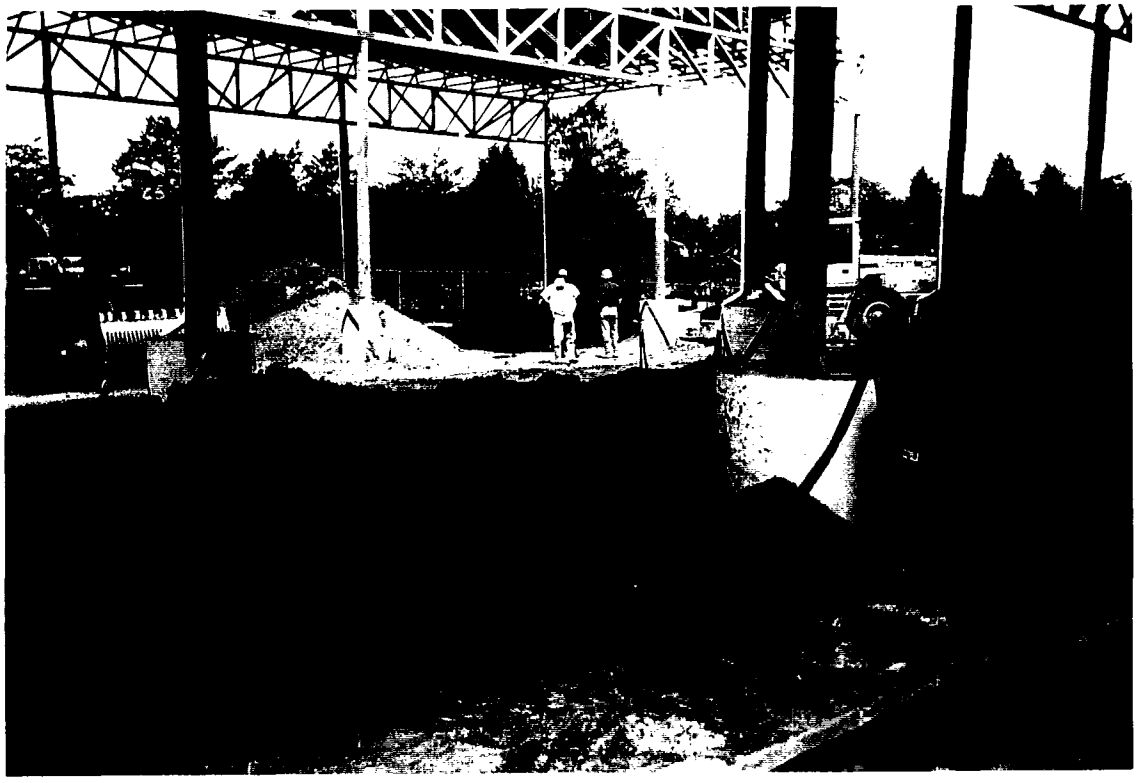


Figure 3-3 Blended soil staged for treatment in the BTDU. Pond sediment and Pit #1 soils were blended to make handling of the material easier.

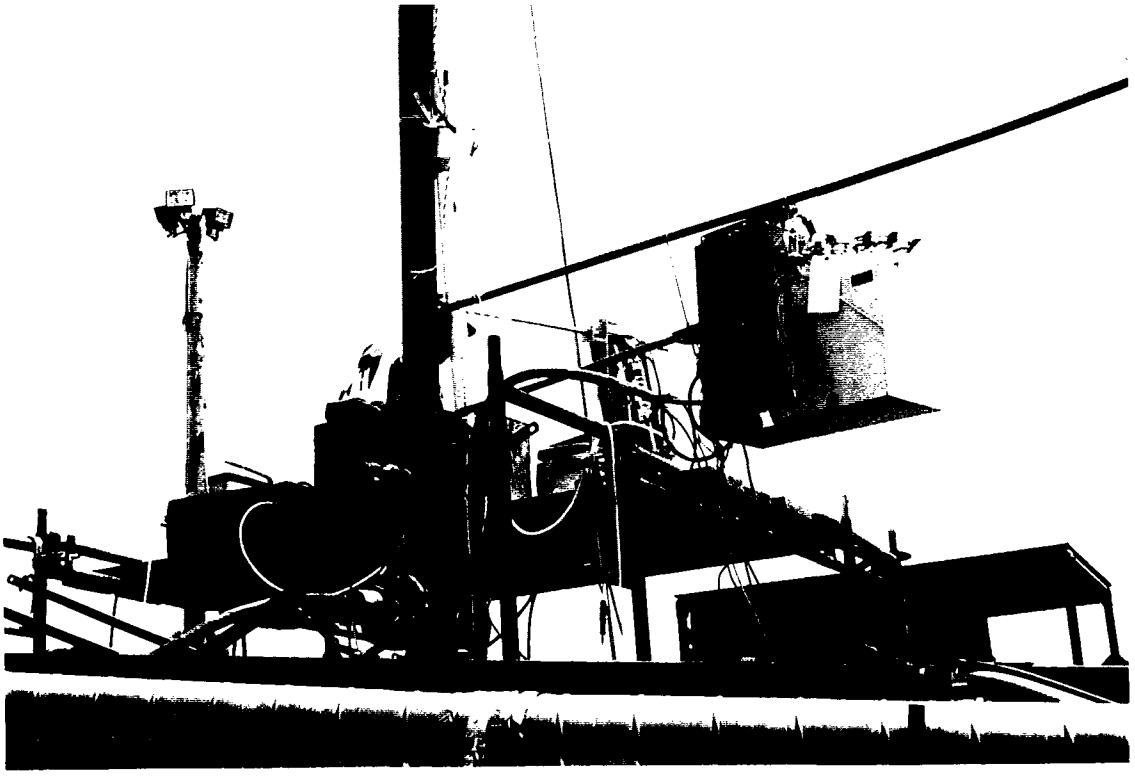


Figure 3-4 Batch Unit stack sampling.

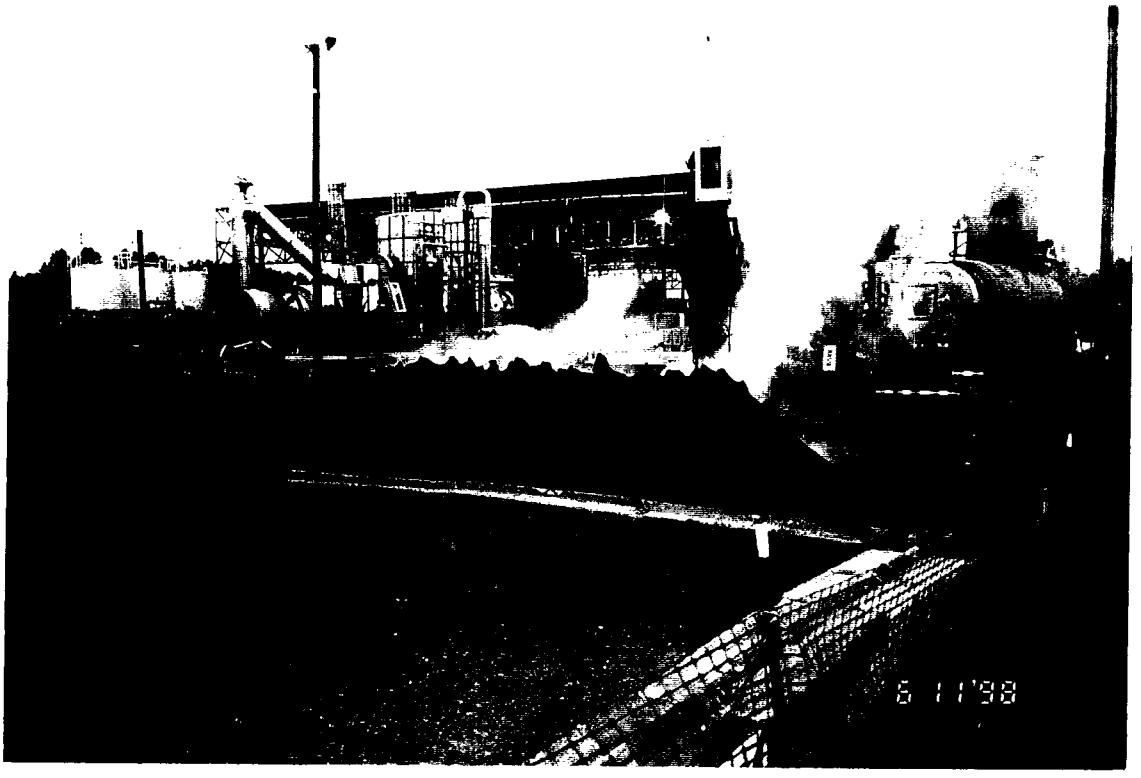
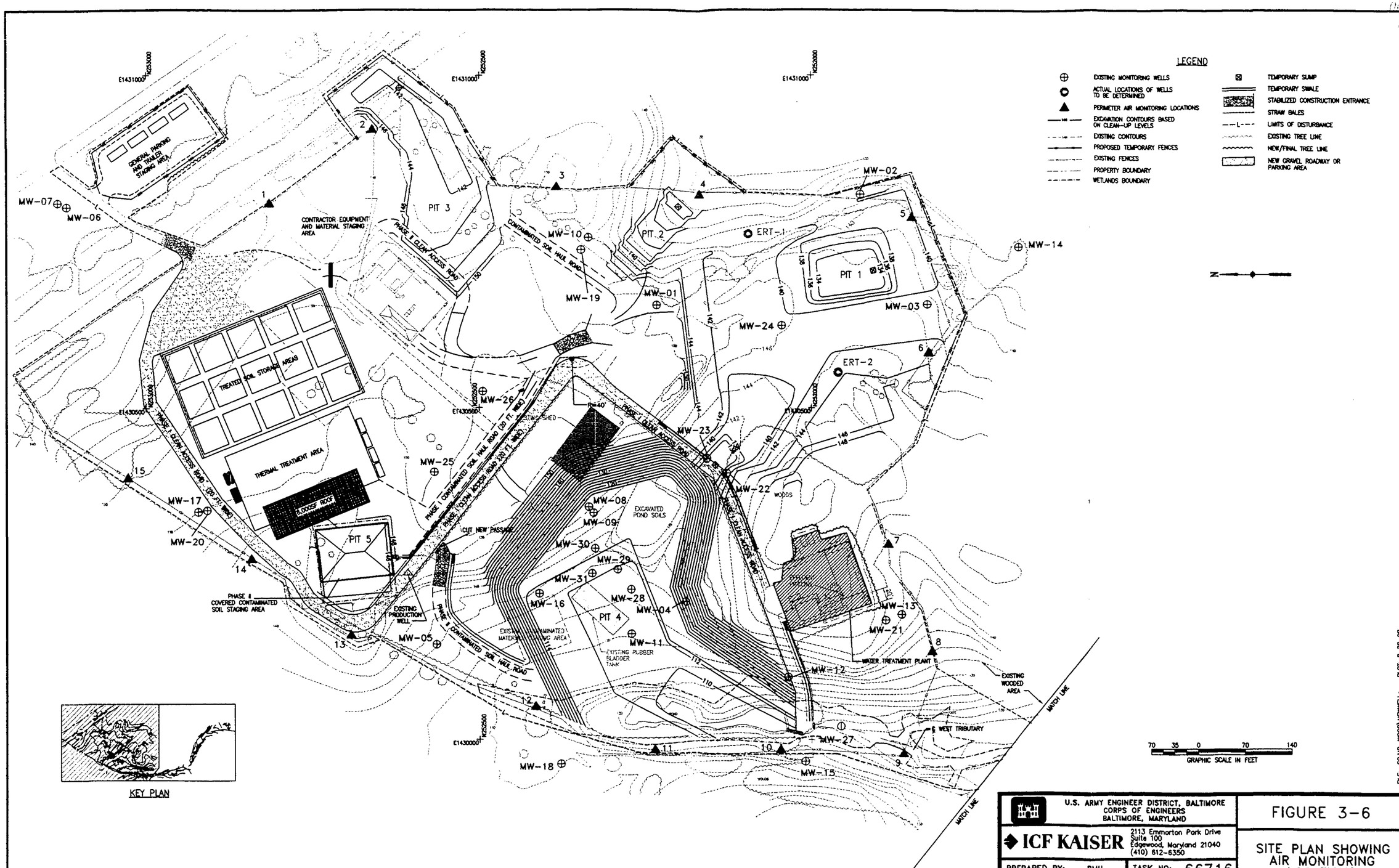


Figure 3-5 Treated soil piles generated during the POP test.


LEGEND
EXISTING MONITORING WELLS
ACTUAL LOCATIONS OF WELLS TO BE DETERMINED
PERIMETER AIR MONITORING LOCATIONS
EXCAVATION CONTOURS BASED ON CLEAN-UP LEVELS
EXISTING CONTOURS
PROPOSED TEMPORARY FENCES
EXISTING FENCES
PROPERTY BOUNDARY
WETLANDS BOUNDARY
TEMPORARY SUMP
TEMPORARY SWALE
STABILIZED CONSTRUCTION ENTRANCE
STRAW BALES
LIMITS OF DISTURBANCE
EXISTING TREE LINE
NEW/FINAL TREE LINE
NEW GRAVEL ROADWAY OR PARKING AREA
GENERAL PARKING AND TRAILER STAGING AREA
CONTRACTOR EQUIPMENT AND MATERIAL STAGING AREA
PIT 1
PIT 2
PIT 3
PIT 4
PIT 5
ERT-1
ERT-2
TREATED SOIL STORAGE AREAS
THERMAL TREATMENT AREA
4,000SF ROOF
PHASE I CLEAN ACCESS ROAD
PHASE I CONTAMINATED SOIL HAUL ROAD
CUT NEW PASSAGE
EXCAVATED POND SOILS
PHASE II COVERED CONTAMINATED SOIL STAGING AREA
EXISTING PRODUCTION WELL
EXISTING RUBBER BLADDER TANK
WATER TREATMENT PLANT
EXISTING WOODED AREA
WEST TRIBUTARY
WOODS
MATCH LINE
GRAPHIC SCALE IN FEET
KEY PLAN
U.S. ARMY ENGINEER DISTRICT, BALTIMORE
CORPS OF ENGINEERS
BALTIMORE, MARYLAND
ICF KAISER
2113 Emmorton Park Drive
Suite 100
Edgewood, Maryland 21040
(410) 612-6350
PREPARED BY: PMH
TASK NO: 66716
CHECKED: S. SALAN
ICF DWG NO:
DATE: 8-28-98
NEWWELLa
FIGURE 3-6
SITE PLAN SHOWING AIR MONITORING LOCATIONS
SOUTHERN MARYLAND WOOD TREATMENT SITE
HOLLYWOOD, MARYLAND
FILE: SO.MD. WOOD\NEWWELLa PLOT: 8-28-98

ORIGINAL (Red)

Daily Quality Control Report for Continuous Unit Operations Ramp-Up

Date: 6/1/98 **Time of Burner Startup :**

1. Has the material to be treated been properly sampled before loading? yes - W. DAVIS

   Sample ID? RUD1

2. Have samples been delivered to the onsite lab? yes Date/time: 6/1/98 ~ 0800

   Expected turn around time: ~ 1000 AM 6/2/98

Attach — 3. Has meteorological data been recorded? yes. W. DAVIS.

Attach — 4. Has the soil been sampled for moisture %? yes By EEG Results? 14%

Attach — 5. Has the soil been sampled for density? yes By EEG Results?

6. Are continuous operations personnel in proper PPE? yes

7. Are the stack dampers open? yes

8. Is the face pressure on the unit acceptable (must be greater than .25" and less than 1" water column)? -0.5" WC @ 12:33

9. Is the VRS operational? yes Rod deck scrubber? yes WESP? yes

   Cooling system? yes

10. Have grease fittings been checked? yes

11. Is there enough fuel in the fuel tank? yes Level? 1/2 TANK

12. Is the continuous process monitor operational in the control trailer? yes

13. Is the continuous emission monitor (THC) operational? yes Date/time of last calibration (attach)? 6/1/98 11:30 Date/time last zeroed? 6/1/98 1130 Check gas cylinders for volume/psi? All Approx 1700-2000 psi changed out H2/He cylinder

14. Are all safety (belt/chain/electric panel) guards in place? yes

15. Do condensate tanks have capacity? yes Capacity volume? No water > 3000 G.

16. Is there an ample supply of treated water available for operations? yes

17. Is the nitrogen system operational with sufficient nitrogen? yes Rep(Ac) 3 cylinders 6/1

18. Does the propane tank have enough capacity for the operation? yes Level? 65% Full

19. Are the combustion air fans operating? yes

6/1/98

ORIGINAL COPY

20. Any visible leaks in VRS system? NO

21. Are all burner zones firing properly? YES

~~22. Any visible leaks in hydraulic drive units.~~

23. Any visible fuel oil leaks. NO

24. What is the treating temperature? Shell? Z1(~1,500F) 1476 Z2(~1,500F) 1505

Z3(~900F) 865

25. Are there any alarm conditions?
HIGH O_2 @ WESP ~~at~~ prior to feeding soil. This is normal and O_2 will not be within spec until soil is fed to the unit.

Provided that all above checks are satisfactory, the speed rate of the horizontal screw must be set. What is speed setting? Note the speed and the time that the test begins.

Test#	Time Started	Approx. Feed Rate	Approx. Duration	Approx. Vol. Soil Treated	Samples Collected?
~~1~~	~~1633~~	~~7 T/HR~~			
1	1720	7T/HR	1HR 40MIN	~11	
~~2~~	~~1900~~	~~9T/HR~~			
2	1935	9T/HR	2 HR 30MIN		

#1 ~ 7T/HR = 45% motor speed.
#2 ~ 62% motor speed.

ORIGINAL

Daily Quality Control Report for Continuous Unit Operations Ramp-Up

Date: 6/2/98 **Time of Burner Startup :**

1. Has the material to be treated been properly sampled before loading? yes

   Sample ID?

2. Have samples been delivered to the onsite lab? yes 6/1/98 Date/time:

   Expected turn around time: DUE 6/2/98

3. Has meteorological data been recorded? yes - w. DAVIS.

4. Has the soil been sampled for moisture %? yes Results? 14 % will RE-RUN

5. Has the soil been sampled for density? Results?

6. Are continuous operations personnel in proper PPE? yes.

7. Are the stack dampers open? yes -

8. Is the face pressure on the unit acceptable (must be greater than .25" and less than 1" water column)? -.40 " WC

9. Is the VRS operational? yes Rod deck scrubber? yes WESP? yes

   Cooling system? yes

10. Have grease fittings been checked? yes

11. Is there enough fuel in the fuel tank? yes Level? 1/2 TANK

12. Is the continuous process monitor operational in the control trailer? yes

13. Is the continuous emission monitor (THC) operational? yes Date/time of last calibration (attach)? 6/2/98 1020 Date/time last zeroed? 6/2/98 1020 Check gas cylinders for volume/psi? OK

14. Are all safety (belt/chain/electric panel) guards in place? yes

15. Do condensate tanks have capacity? yes Capacity volume? >10,000

16. Is there an ample supply of treated water available for operations? yes

17. Is the nitrogen system operational with sufficient nitrogen? yes - ON

18. Does the propane tank have enough capacity for the operation? yes Level? 60%

19. Are the combustion air fans operating? yes

6/2

20. Any visible leaks in VRS system? NO

21. Are all burner zones firing properly? yes

22. ~~Any visible leaks in hydraulic drive units.~~

23. Any visible fuel oil leaks. NO

24. What is the treating temperature? Shell? Z1(~1,500F) Z2(~1,500F) Z3(~900F) @ 1110 Z-1 = 1,419, Z-2 = 1,370 Z-3 = 93c

25. Are there any alarm conditions?

Provided that all above checks are satisfactory, the speed rate of the horizontal screw must be set. What is speed setting? 9T/HR Note the speed and the time that the test begins.

Test#	Time Started	Approx. Feed Rate	Approx. Duration	Approx. Vol. Soil Treated	Samples Collected?
3	1110	62%	1 HR 30	12 T	yes
4	1615	~~[illegible]~~ 75%	2 HR 20 m	~20 T	yes

1615
1835

Retest of 9T/HR BASED on output of soil colum for 9T/HR test performed 6/1/98

Daily Quality Control Report for Batch Unit Operations

Date: June 2, 1998 **Time of Burner Startup :** 0835

1. Has the material to be treated been properly sampled before loading? yes- W. Davis

   Sample ID? PPUSB01

2. Are Dataram and Summa canisters in place? DATA RAM OK Summa OK

   LOCATIONS #1, 15, 14 upwind #7

3. Has meteorological data been recorded?

4. Are batch operations personnel in proper PPE? yes - HATS, BOOTS

5. Total weight of soil loaded? 22,140 #

6. Has the door been properly sealed? yes Is the vacuum line installed and tightened? yes

7. Are personnel wearing personal air monitoring pumps? yes Who is wearing pumps? HAROLD HAS LIST. - PASSIVE ARE WEARING PASSIVE DOSIMETERS

8. Is Air–Recon ready to sample? Method, 23 - VOC, method 30

9. What is the vacuum at the hot cyclone? 23.5" (should be greater then 10" of Hg)

10. Have fittings been greased? yes Drive sprocket jackshaft, Trunion roller bearings and thrust roller shaft bearings? yes @ Night shift

11. Is there enough fuel in the fuel tank? yes Level? 5/8 TANK.

12. Is the batch Operations summary sheet on site and being filled out by the operator? yes. Kevin Britingh

13. Is the Continuous process monitor operational in the control trailer? yes

14. Is the Continuous emission monitor operational? yes Date/time of last calibration (attach)? 6/2/98 0815 Date/time last zeroed? 6/2/98 0815 Check gas cylinders for volume/psi? All 900 - 2500 psi

15. Are all safety (belt/chain) guards in place? yes OK

16. Are the bussel fans operating? yes.

17. Has the unit been operated on low fire for 1 hour?

18. Do condensate tanks have capacity? Empty

19. Any visible leaks in VRS system? NO

20. Any visible leaks in hydraulic drive units. NO

21. Any visible fuel oil leaks. NO

22. What is the treating temperature? Shell? Internal?

23. What is the duration of treatment?

Start Burner low fire: 6/2/98 0835

Start High Fire: 1000

T = 400F:

T = 500F:

T = 600F:

T = 700F:

T = 800F:

T = 900F:

TEST WAS CANCELLED SINCE THE SOIL WAS DETERMINED, BASED ON A SAMPLE COLLECTED FROM THE EXCAVATION, ON 6/2/98. THE SAMPLE WAS COLLECTED FROM 10-15' BGS WITH OVERSITE BY ERIC BRANDT AND THE EPA.

Daily Quality Control Report for Continuous Unit Operations Ramp-Up

Date: 6/3/98 **Time of Burner Startup :**

1. Has the material to be treated been properly sampled before loading? yes
   Sample ID? sampled 6/1 and 6/2 - at night.
2. Have samples been delivered to the onsite lab? yes Date/time: 6/1 6/2
   Expected turn around time:
3. Has meteorological data been recorded? yes
4. Has the soil been sampled for moisture %? yes Results? ~~~13.2%~~ 12%
5. Has the soil been sampled for density? yes Results? ~ ~~20.2~~ 68.26
6. Are continuous operations personnel in proper PPE? yes
7. Are the stack dampers open? yes
8. Is the face pressure on the unit acceptable (must be greater than .25" and less than 1" water column)? ~.8" wc
9. Is the VRS operational? yes Rod deck scrubber? yes WESP? yes
   Cooling system? yes
10. Have grease fittings been checked? yes
11. Is there enough fuel in the fuel tank? yes Level? 1/2 tank
12. Is the continuous process monitor operational in the control trailer? yes
13. Is the continuous emission monitor (THC) operational? 6/3 Date/time of last calibration (attach)? 6/3 Date/time last zeroed? 6/3 Check gas cylinders for volume/psi? ok
14. Are all safety (belt/chain/electric panel) guards in place? yes
15. Do condensate tanks have capacity? yes Capacity volume? 20,000 G
16. Is there an ample supply of treated water available for operations? yes 10,000G.
17. Is the nitrogen system operational with sufficient nitrogen? yes
18. Does the propane tank have enough capacity for the operation? yes Level?
19. Are the combustion air fans operating? yes

6/3

20. Any visible leaks in VRS system? NO

21. Are all burner zones firing properly? YES

~~22. Any visible leaks in hydraulic drive units.~~ JA

23. Any visible fuel oil leaks. NO

24. What is the treating temperature? Shell? Z1(~1,500F) 1565 Z2(~1,500F) 1530 Z3(~900F) 1029

25. Are there any alarm conditions?

Provided that all above checks are satisfactory, the speed rate of the horizontal screw must be set. What is speed setting? Note the speed and the time that the test begins.

Test#	Time Started	Approx. Feed Rate	Approx. Duration	Approx. Vol. Soil Treated	Samples Collected?
5	1428	83% 12T	~35		NO - High Amps on Cylinder
6	1615	53% 8T	1hr 41min		
8	1838	68% 10T	~40		NO - High Amps on Cylinder

Summary CALS @ 4, 5, 6, 14

Daily Quality Control Report for Batch Unit Operations

Date: 6/4/98 **Time of Burner Startup :** 515

1. Has the material to be treated been properly sampled before loading? yes- 6/4/98 ~ 13.

   Sample ID? QPUSB01-3

2. Are Dataram and Summa canisters in place? yes - 14, 15, 1, 11 - STATIC

3. Has meteorological data been recorded? yes- WAYNE DAVIS

4. Are batch operations personnel in proper PPE? yes

5. Total weight of soil loaded? 20,060 #

6. Has the door been properly sealed? yes Is the vacuum line installed and tightened? yes - 17.5" Hg

7. ~~Are personnel wearing~~ personal air monitoring pumps? Who is wearing pumps? Jim

8. Is Air–Recon ready to sample? yes 1250

9. What is the vacuum at the hot cyclone? 17.5" (should be greater then 10" of Hg)

10. Have fittings been greased? yes Drive sprocket jackshaft, Trunion roller bearings and thrust roller shaft bearings? All GREASED

11. Is there enough fuel in the fuel tank? yes Level? 7/8 TANK

12. Is the batch Operations summary sheet on site and being filled out by the operator? yes- Mike & Kevin will fill

13. Is the Continuous process monitor operational in the control trailer? yes

14. Is the Continuous emission monitor operational? yes Date/time of last calibration (attach)? 6/4/98 1410 Date/time last zeroed? 6/4/98 1410 Check gas cylinders for volume/psi? ~~6/4/98~~ 6/4/98

15. Are all safety (belt/chain) guards in place? yes

16. Are the bussel fans operating? yes

17. Has the unit been operated on low fire for 1 hour?

18. Do condensate tanks have capacity? yes EMPTY

6/4

19. Any visible leaks in VRS system? ND

20. Any visible leaks in hydraulic drive units. ND

21. Any visible fuel oil leaks. ND

22. What is the treating temperature? Shell? Internal?

23. What is the duration of treatment? 12 HOURS

Start Burner low fire: 1515

Start High Fire: 1830

T = 400F:

T = 500F:

T = 600F:

T = 700F:

T = 800F:

T = 900F:

CHECK ON IMPINGER AND CYCLONE TRAPS - BOTH ARE EMPTY

Daily Quality Control Report for Batch Unit Operations

Date: 6/6/98 **Time of Burner Startup :** 0800

1. Has the material to be treated been properly sampled before loading? Yes. W. Davis
   Sample ID? PPUS B - Ø 2
2. Are Dataram and Summa canisters in place? Yes
3. Has meteorological data been recorded? yes
4. Are batch operations personnel in proper PPE? Yes
5. Total weight of soil loaded? 19640 #
6. Has the door been properly sealed? Yes Is the vacuum line installed and tightened? yes
7. Are personnel wearing personal air monitoring pumps? Who is wearing pumps? No. This will be done during full-scale ops.
8. Is Air–Recon ready to sample? — called + notified.
9. What is the vacuum at the hot cyclone? 17 (should be greater then 10" of Hg)
10. Have fittings been greased? Yes Drive sprocket jackshaft, Trunion roller bearings and thrust roller shaft bearings? Yes
11. Is there enough fuel in the fuel tank? Yes Level? 7/8
12. Is the batch Operations summary sheet on site and being filled out by the operator? Yes.
13. Is the Continuous process monitor operational in the control trailer? Yes
14. Is the Continuous emission monitor operational? Yes Date/time of last ~~6/6/98~~ calibration (attach)? 6/6/98 Date/time last zeroed? 6/6/98 7:45 Check gas cylinders for volume/psi? Yes
15. Are all safety (belt/chain) guards in place? Yes
16. Are the bussel fans operating? Yes
17. Has the unit been operated on low fire for 1 hour? yes
18. Do condensate tanks have capacity? Yes. Empty.

19. Any visible leaks in VRS system? NO

20. Any visible leaks in hydraulic drive units. NO

21. Any visible fuel oil leaks. NO

22. What is the treating temperature? Shell? 0945 - 184°F Internal? 1045 - 321°F

23. What is the duration of treatment? 12 HRS.

Start Burner low fire: 0800

Start High Fire: 0930

T = 400F: 0900

T = 500F:

T = 600F:

T = 700F: 0930 *** High Fire

T = 800F: 1530

T = 900F: 1630

Daily Quality Control Report for Batch Unit Operations

Date: 6/7/98 **Time of Burner Startup :** 0800

1. Has the material to be treated been properly sampled before loading? yes W. DAVIS 6/6

   Sample ID? PP USB-03

2. Are Dataram and Summa canisters in place? yes 3,4,5,14 - LOCATIONS

3. Has meteorological data been recorded? 0733 - 37°F P = 30.10" WIND = 260° - 2mph 51% HUMIDITY

4. Are batch operations personnel in proper PPE? yes.

5. Total weight of soil loaded? 19,040

6. Has the door been properly sealed? yes Is the vacuum line installed and tightened? yes

7. Are personnel wearing personal air monitoring pumps? Who is wearing pumps? NO, THIS WILL BEGIN DURING full SCALE OPERATION

8. Is Air–Recon ready to sample? yes.

9. What is the vacuum at the hot cyclone? 18" (should be greater then 10" of Hg)

10. Have fittings been greased? yes Drive sprocket jackshaft, Trunion roller bearings and thrust roller shaft bearings?

11. Is there enough fuel in the fuel tank? yes Level? 3/4 full

12. Is the batch Operations summary sheet on site and being filled out by the operator? yes - Kevin Brentlinger

13. Is the Continuous process monitor operational in the control trailer? yes

14. Is the Continuous emission monitor operational? 6/7/98 0730 - Eli Date/time of last calibration (attach)? 6/7/98 0730 Date/time last zeroed? Check gas cylinders for volume/psi?

15. Are all safety (belt/chain) guards in place? yes

16. Are the bussel fans operating? yes

17. Has the unit been operated on low fire for 1 hour?

18. Do condensate tanks have capacity? yes empty

19. Any visible leaks in VRS system? ~~yes~~ da NO

20. Any visible leaks in hydraulic drive units. NO

21. Any visible fuel oil leaks. NO

22. What is the treating temperature? Shell? Internal?

23. What is the duration of treatment? 12 HOURS

Start Burner low fire: 0800

Start High Fire:

T = 400F:

T = 500F:

T = 600F:

T = 700F:

T = 800F:

T = 900F:

AIR. Recon is starting sampling during the first four hours

0815 Diox + Voc 1st 11 HR - 4 HOUR Break.

METAL + PM last 4 HR

Daily Quality Control Report for Continuous Unit Operations Ramp-Up

Date: 6/8/98 **Time of Burner Startup :**

1. Has the material to be treated been properly sampled before loading? yes- WAYNE DAVIS

   Sample ID? PPUSC04

2. Have samples been delivered to the onsite lab? yes Date/time: 6/8/98

   Expected turn around time:

3. Has meteorological data been recorded? yes- W. DAVIS Wind = 7 mph
   Temp = 64° BAROmeter = 30.17" Humidity = 51% Direction = 270°

4. Has the soil been sampled for moisture %? yes (chist) Results? 13%

5. Has the soil been sampled for density? Results?

6. Are continuous operations personnel in proper PPE? yes

7. Are the stack dampers open? yes

8. Is the face pressure on the unit acceptable (must be greater than .25" and less than 1" water column)? .62" WC

9. Is the VRS operational? yes Rod deck scrubber? yes WESP? yes

   Cooling system? yes

10. Have grease fittings been checked? yes

11. Is there enough fuel in the fuel tank? yes Level? Full - 15,000 G

12. Is the continuous process monitor operational in the control trailer? yes

13. Is the continuous emission monitor (THC) operational? yes Date/time of last calibration (attach)? 6/8/98 Date/time last zeroed? 6/8/98 Check gas cylinders for volume/psi? yes All ~ 16,000 psi

14. Are all safety (belt/chain/electric panel) guards in place? yes

15. Do condensate tanks have capacity? yes Capacity volume? ~ 17,000 GAL

16. Is there an ample supply of treated water available for operations? yes ~ 10,000 G.

17. Is the nitrogen system operational with sufficient nitrogen? yes

18. Does the propane tank have enough capacity for the operation? yes Level?

19. Are the combustion air fans operating? yes

20. Any visible leaks in VRS system? NO

21. Are all burner zones firing properly? yes

22. ~~Any visible leaks in hydraulic drive units.~~ JH

23. Any visible fuel oil leaks. NO

24. What is the treating temperature? Shell? Z1(~1,500F) yes Z2(~1,500F) yes Z3(~900F) yes

25. Are there any alarm conditions?

Provided that all above checks are satisfactory, the speed rate of the horizontal screw must be set. What is speed setting? 76% Note the speed and the time that the test begins.

Test#	Time Started	Approx. Feed Rate	Approx. Duration	Approx. Vol. Soil Treated	Samples Collected?
POP#1	1330	17/HR 76%			

TEST CANCELLED DUE TO problems with THE Discharge conveyor.
Also THE cylinder DRIVE ~~Also~~ WAS DRAWING High AMPS @ 76% Drive motor speed. THE speed WAS TURNED DOWN TO 67%

1600 THE TEST WAS ABORTED.

Daily Quality Control Report for Continuous Unit Operations Ramp-Up

Date: 6/9/98 **Time of Burner Startup :**

1. Has the material to be treated been properly sampled before loading?

   Sample ID?

2. Have samples been delivered to the onsite lab? Date/time:

   Expected turn around time:

3. Has meteorological data been recorded?

4. Has the soil been sampled for moisture %? ~~13.2~~ Yes Results? ~ 13.2 %.

5. Has the soil been sampled for density? N/D. Results?

6. Are continuous operations personnel in proper PPE? Yes

7. Are the stack dampers open? Yes

8. Is the face pressure on the unit acceptable (must be greater than .25" and less than 1" water column)? Yes

9. Is the VRS operational? Rod deck scrubber? Yes WESP? Yes

   Cooling system? Yes

10. Have grease fittings been checked? Yes

11. Is there enough fuel in the fuel tank? Yes Level? 1/2 tank

12. Is the continuous process monitor operational in the control trailer?

13. Is the continuous emission monitor (THC) operational? Yes Date/time of last calibration (attach)? 6/9/98 Date/time last zeroed? 6/9/98 Check gas cylinders for volume/psi? yes

14. Are all safety (belt/chain/electric panel) guards in place? yes

15. Do condensate tanks have capacity? Yes Capacity volume? 20K gal.

16. Is there an ample supply of treated water available for operations? Yes

17. Is the nitrogen system operational with sufficient nitrogen? Yes

18. Does the propane tank have enough capacity for the operation? Yes Level?

19. Are the combustion air fans operating? Yes.

6/9

20. Any visible leaks in VRS system? Very minor leaks in WESP pumps.

21. Are all burner zones firing properly? Yes

22. Any visible leaks in hydraulic drive units. NO

23. Any visible fuel oil leaks. NO.

24. What is the treating temperature? Shell? Z1(~1,500F) Z2(~1,500F) Z3(~900F)

25. Are there any alarm conditions?

Provided that all above checks are satisfactory, the speed rate of the horizontal screw must be set. What is speed setting? Note the speed and the time that the test begins.

Test#	Time Started	Approx. Feed Rate	Approx. Duration	Approx. Vol. Soil Treated	Samples Collected?

We then secured the cost to put bigger breaker and pulleys and drive on disch conv

We fed for approx 2 hours at 8 TPH with all parameters within spec. Main drive motor amps were good (7-8 amps) and ~~conveu~~ discharge conveyor motor amps were OK.

We then increased speed to 10 TPH, and the discharge conveyor motor tripped out ~~at~~ on high amps

Daily Quality Control Report for Continuous Unit Operations Ramp-Up

Date: 6/9/98 **Time of Burner Startup :**

1. Has the material to be treated been properly sampled before loading? yes, But will not Be Analyzed.

   Sample ID?

2. Have samples been delivered to the onsite lab? Date/time:

   Expected turn around time:

3. Has meteorological data been recorded? yes @ 1900

4. Has the soil been sampled for moisture %? yes Results? 13.2%

5. Has the soil been sampled for density? Results?

6. Are continuous operations personnel in proper PPE? yes

7. Are the stack dampers open? yes.

8. Is the face pressure on the unit acceptable (must be greater than .25" and less than 1" water column)? – .25" wc

9. Is the VRS operational? yes Rod deck scrubber? yes WESP? yes

   Cooling system? yes

10. Have grease fittings been checked? yes

11. Is there enough fuel in the fuel tank? yes Level? 1/2 TANK

12. Is the continuous process monitor operational in the control trailer? yes

13. Is the continuous emission monitor (THC) operational? 6/9/98 Date/time of last calibration (attach)? Date/time last zeroed? Check gas cylinders for volume/psi?

14. Are all safety (belt/chain/electric panel) guards in place? yes

15. Do condensate tanks have capacity? yes Capacity volume? > 10000 Gallon

16. Is there an ample supply of treated water available for operations? yes

17. Is the nitrogen system operational with sufficient nitrogen? yes

18. Does the propane tank have enough capacity for the operation? yes Level?

19. Are the combustion air fans operating? yes

6/9

20. Any visible leaks in VRS system? yes on west pups

21. Are all burner zones firing properly? yes

22. ~~Any visible leaks in hydraulic drive units. NO~~

23. Any visible fuel oil leaks. NO

24. What is the treating temperature? Shell? Z1(~1,500F) 1450 Z2(~1,500F) 1450

Z3(~900F) 1000

25. Are there any alarm conditions? NO

Provided that all above checks are satisfactory, the speed rate of the horizontal screw must be set. What is speed setting? Note the speed and the time that the test begins.

Test#	Time Started	Approx. Feed Rate	Approx. Duration	Approx. Vol. Soil Treated	Samples Collected?
6/9	1900	67% = 10T/HR			

1930 Test stopped - problem with Discharge conveyor

[illegible]

6/10/98 10 45

Daily Quality Control Report for Continuous Unit Operations

Date: **Time of Burner Startup :**

1. Has the material to be treated been properly sampled before loading?

   Sample ID?

2. Are Dataram and Summa canisters in place? Yes

3. Has meteorological data been recorded?

4. Has the soil been sampled for moisture %? Results?

5. Are continuous operations personnel in proper PPE?

6. Are personnel wearing calibrated personal air monitoring pumps? Who is wearing pumps?

7. Are the stack dampers open?

8. Is the face pressure on the unit acceptable (must be greater than .25" and less than 1" water column)?

9. Is the VRS operational? Rod deck scrubber? WESP?

   Cooling system?

10. Is Air–Recon ready to sample? Yes

11. Have grease fittings been checked?

12. Is there enough fuel in the fuel tank? Level?

13. Is the continuous process monitor operational in the control trailer?

14. Is the continuous emission monitor (THC) operational? Date/time of last calibration (attach)? Date/time last zeroed? Check gas cylinders for volume/psi?

15. Are all safety (belt/chain/electric panel) guards in place?

16. Do condensate tanks have capacity?

17. Is the nitrogen system operational with sufficient nitrogen?

18. Does the propane tank have enough capacity for the operation? Level?

19. Are the combustion air fans operating?

6 / 6

20. Any visible leaks in VRS system?

21. Are all burner zones firing properly?

22. Any visible leaks in hydraulic drive units.

23. Any visible fuel oil leaks.

24. What is the treating temperature? Shell? Z1(~1,500F) Z2(~1,500F) Z3(~900F)

25. Is there any alarm conditions?

Provided that all above checks are satisfactory, the speed rate of the horizontal screw must be set. What is speed setting? 76% 11 TPH. Note the speed and the time that the test begins. Let Air-Recon know when test starts.

Time of Test Start:
10:45

Feed rate:
11 TPH (76% speed)

Note: We started feeding soil at 11 TPH at 10:00 before starting the test.

6/10/98 1045

POP Test

Daily Quality Control Report for Continuous Unit Operations ~~Ramp-Up~~

Date: **Time of Burner Startup :**

1. Has the material to be treated been properly sampled before loading? Yes

   Sample ID? PPUSC04

2. Have samples been delivered to the onsite lab? Date/time:

   Expected turn around time:

3. Has meteorological data been recorded? Yes

4. Has the soil been sampled for moisture %? Yes Results? ~12%

5. Has the soil been sampled for density? No Results? NA

6. Are continuous operations personnel in proper PPE? Yes

7. Are the stack dampers open? Yes

8. Is the face pressure on the unit acceptable (must be greater than .25" and less than 1" water column)? Yes

9. Is the VRS operational? Yes Rod deck scrubber? Yes WESP? Yes

   Cooling system? Yes

10. Have grease fittings been checked? Yes

11. Is there enough fuel in the fuel tank? Yes Level? 5/8

12. Is the continuous process monitor operational in the control trailer? Yes

13. Is the continuous emission monitor (THC) operational? Yes Date/time of last calibration (attach)? 6/10 Date/time last zeroed? 6/10 Check gas cylinders for volume/psi? Yes

14. Are all safety (belt/chain/electric panel) guards in place? Yes

15. Do condensate tanks have capacity? Yes, MT Capacity volume? ~~20K~~ 18K gallon

16. Is there an ample supply of treated water available for operations? Yes

17. Is the nitrogen system operational with sufficient nitrogen? Yes

18. Does the propane tank have enough capacity for the operation? Yes Level? NA

19. Are the combustion air fans operating? Yes

6 / 10

20. Any visible leaks in VRS system? NO

21. Are all burner zones firing properly? YES

22. Any visible leaks in hydraulic drive units. NO

23. Any visible fuel oil leaks. NO

24. What is the treating temperature? Shell? Z1(~1,500F) Z2(~1,500F) Z3(~900F)

25. Are there any alarm conditions?

Provided that all above checks are satisfactory, the speed rate of the horizontal screw must be set. What is speed setting? Note the speed and the time that the test begins.

Test#	Time Started	Approx. Feed Rate	Approx. Duration	Approx. Vol. Soil Treated	Samples Collected?
1	10:45	11 (28 speed)			

Air Recon started
first samples @ approx noon.

3rd Test CTDU 6/11/98

ORIGINAL

Daily Quality Control Report for Continuous Unit Operations

Date: **Time of Burner Startup :** 6/11/98 early am.

✓ 1. Has the material to be treated been properly sampled before loading? Yes

Sample ID? PPUS C-06

✓ 2. Are Dataram and Summa canisters in place? Yes

✓ 3. Has meteorological data been recorded? Yes

4. Has the soil been sampled for moisture %? Yes Results? ~ 13%

5. Are continuous operations personnel in proper PPE? Yes

6. ~~Are personnel wearing calibrated personal air monitoring pumps? Who is wearing pumps?~~ NA

7. Are the stack dampers open? Yes

8. Is the face pressure on the unit acceptable (must be greater than .25" and less than 1" water column)? 0.9" H_2O

9. Is the VRS operational? Yes Rod deck scrubber? Yes WESP? Yes Cooling system? Yes

10. Is Air–Recon ready to sample? Yes

11. Have grease fittings been checked? Yes 6/11/98

12. Is there enough fuel in the fuel tank? Yes Level? 7/8

13. Is the continuous process monitor operational in the control trailer? Yes

14. Is the continuous emission monitor (THC) operational? Yes. Date/time of last calibration (attach)? 6/11/98 Date/time last zeroed? 6/11/98 Check gas cylinders for volume/psi? Yes

15. Are all safety (belt/chain/electric panel) guards in place? Yes

16. Do condensate tanks have capacity? Yes

✓ 17. Is the nitrogen system operational with sufficient nitrogen? Yes

18. Does the propane tank have enough capacity for the operation? Yes Level? 9 psi

19. Are the combustion air fans operating? Yes

6/11

20. Any visible leaks in VRS system? NO

21. Are all burner zones firing properly? YES

22. Any visible leaks in hydraulic drive units. NO

23. Any visible fuel oil leaks. NO

24. What is the treating temperature? Shell? Z1(~1,500F) 1390°F Z2(~1,500F) 1493°F

Z3(~900F) 1098°F

25. Is there any alarm conditions?

NO

Provided that all above checks are satisfactory, the speed rate of the horizontal screw must be set. What is speed setting? 76% Note the speed and the time that the test begins. Let Air-Recon know when test starts.

Summa canisters were picked up after 8 hours.

Time of Test Start: **Feed rate:**

6/11/98 15:30 76% (11 tons/hr)

19:30 — stopped test when feed shoving rod was dropped into the feed hopper.

6/12/98 - ~ 10 am - Started feed.

6/12/98 10:45 am - Re started Test 76% (11 tons/hr)

6/12/98 2:45 pm - Ended 3rd test!

ORIGINAL (Red)

Daily Quality Control Report for Batch Unit Operations

Date: 6/13/98 **Time of Burner Startup :** 8:00

1. Has the material to be treated been properly sampled before loading? yes.
   Sample ID? The material was loaded on 6/12/98
2. Are Dataram and Summa canisters in place? yes Station 1, 2, 12, 1
3. Has meteorological data been recorded? YES
4. Are batch operations personnel in proper PPE? yes
5. Total weight of soil loaded?
6. Has the door been properly sealed? YES Is the vacuum line installed and tightened? YES
7. Are personnel wearing personal air monitoring pumps? N/A Who is wearing pumps? —
8. Is Air–Recon ready to sample? YES gave go ahead
9. What is the vacuum at the hot cyclone? 20 (should be greater then 10" of Hg)
10. Have fittings been greased? YES Drive sprocket jackshaft, Trunion roller bearings and thrust roller shaft bearings? YES
11. Is there enough fuel in the fuel tank? YES Level? 3/4
12. Is the batch Operations summary sheet on site and being filled out by the operator? YES
13. Is the Continuous process monitor operational in the control trailer? YES
14. Is the Continuous emission monitor operational? YES Date/time of last calibration (attach)? 6/13/98 Date/time last zeroed? Spare Check gas cylinders for volume/psi?
15. Are all safety (belt/chain) guards in place? YES
16. Are the bussel fans operating? YES
17. Has the unit been operated on low fire for ~~1~~ 2 hour?
18. Do condensate tanks have capacity? Empty

6/14

19. Any visible leaks in VRS system? NO

20. Any visible leaks in hydraulic drive units. NO

21. Any visible fuel oil leaks. YES

22. What is the treating temperature? Shell? 800 Internal?

23. What is the duration of treatment? 12 hrs

Start Burner low fire: 8:00

Start High Fire: 10:00

T = 400F: - 0900

T = 500F:

T = 600F:

T = 700F: - 1000 - start High Fire.

T = 800F: - 1430

T = 900F: - 1530

Table B-1: Summary of Continuous Test Operations Parameters (comparison of data recorded during POP tests to acceptable ranges)

Soil Feed Rate
The value in the data is the percent of 60Hz that is output from the Variable Frequency Drive. The value of 76% was determined from Ramp Up and Volumetric Calibrations. 76% corresponds to 11 TPH.

Thermal Desorber Face Pressure
Within defined operating parameters of –0.25" and –2" w.c. for entire test period.

Thermal Desorber Shell Temperature
There is a total of 13 Thermocouples that determine shell temperatures in three separate zones. Due to factors of heat distribution and the process of how set points are maintained by PLC logic, certain thermocouples will be above 1500.

Soil Exit Temperature
Soil exit temperatures did exceed 950°F for extended periods of time. Small fluctuations in feed rate and moisture content will change soil exit temperature considerably when set points for zones 1, 2, 3 are held constant. Operators were instructed to err on the high side of soil exit temperature. There is considerable lag time when a set point is changed and the effect on soil temperature is seen. Temperature did not go below 850°F except during Test 3 (flame failure in zone three had to purge burners and relight raised burner set point in zones 1 and 2).

Cyclone Temperature
The acceptable temperature range for the hot cyclone in the POP plan was between 750^{0}F and 1150^{0}F. The actual average operating range during the three CTDU POP tests was between 900^{0}F and 1000^{0}F. The maximum temperature was recorded during the second test at a temperature of 1131^{0}F

Scrubber Outlet O_2 Level
The acceptable oxygen level at the scrubber in the POP Plan was 1%- 10%. The actual average operating range during the three CTDU POP tests was between 0% and 11%. During the second test, O_2 levels were recorded to be greater than the acceptable O_2 range of 10%. There were several recorded peaks of up to 20 % oxygen. These peaks were brought quickly back into acceptable operating range upon notice.

Scrubber Recycle Water Temperature
The acceptable temperature range for the scrubber recycle water in the POP plan was between 50^{0}F and 120^{0}F. The actual average operating range during the three CTDU POP tests was between 100^{0}F and 110^{0}F. A peak was recorded at 117^{0}F during the day one CTDU test.

Cooling Tower Inlet Water Temperature
The acceptable temperature at the cooling tower water inlet in the POP plan was between 50^{0}F and 140^{0}F. The actual average operating range during the three CTDU POP tests was between 75^{0}F and 85^{0}F. A peak was recorded at 89^{0}F during the day one CTDU test.

WESP Gas Exit Temperature
The acceptable temperature at the WESP gas exit in the POP plan was between 50^{0}F and 170^{0}F. The actual average operating range during the three CTDU POP tests was between 80^{0}F and 90^{0}F. A peak was recorded at 99^{0}F during the day one CTDU test. A lower WESP gas exit temperature results in lower emissions because more contaminants will condense at lower temperatures. Based on current operating experience, the lowest reasonably achievable level for this parameter is 150°F. Therefore, the acceptable limit for this parameter will be lowered from 170°F to 150°F to limit emissions to the lowest practical limit.

FTO Bed Temperature

The acceptable temperature for the FTO bed in the POP plan was between 1500^{0}F and 1800^{0}F. The actual average operating range during the three CTDU POP tests was between 1500^{0}F and 1600^{0}F. A low peak was recorded at 1178^{0}F during the day two CTDU test.

CPM THC level

The acceptable THC level was determined after reviewing the stack testing data collected during the POP. The actual THC levels recorded during the POP Tests were between 0 and 300ppm. The new maximum allowable THC emission limit is 800.

Table B-2: Summary of Batch Test Operating Parameters (comparison of data recorded during POP tests to acceptable ranges)

Batch Size (tons)
The POP batch tests were operated with approximately 10 tons of soil treated, each. Batch #2 soil weighed 9.82 tons, Batch #3 weighed 9.52 tons and Batch #1 Repeat weighed 11.24 tons.

Burner Box Exit Temperature
The temperature was with in range for each of the batch POP tests while the soil was being treated. The temperature range varied based upon the firing rate of the burner. The temperature reported on the continuous process monitor data reports are reported as Type C thermocouple temperature reading. The temperature needs to be converted to a Type K reading. Actual temperature range was between 100^0 F and 2136^0 F

Burner Stack Gas Temperature
The burner stack gas temperature corresponded with the burner set point. The acceptable range is between 800^0 F and 1100^0 F. Actual values ranged from 800^0F to 958^0F.

Hot Cyclone Temperature
The hot cyclone temperature remained with in the acceptable range during each batch POP test run. The acceptable range is between ambient and 900^0 F.

Hot Cyclone Vacuum
The hot cyclone vacuum operated with in the acceptable range through out the treating process. The acceptable range for the hot cyclone vacuum is from –10" of Hg to –28 " of Hg.

Chiller Coolant Temperature
The chiller coolant temperature stayed within the operating range during the residence time. The coolant temperature acceptable operating range is from 35^0 F to 50^0 F. The vacuum did fluctuate during a power outage during the Day 1 Repeat test.

Cooling Tower Coolant Temperature
The cooling tower coolant temperatures were within the acceptable range of 35^0 F to 110^0 F throughout soil treatment residence time.

Vacuum Pump Inlet Temperature
The vacuum pump inlet temperatures were within the acceptable range of ambient to 110^0 F throughout the soil treatment residence time. This information is not recorded on the continuous process monitor, but it is recorded manually by the operator.

Vacuum Pump Inlet Pressure
The vacuum pump inlet pressures were within the acceptable range of 15" of Hg to 30" of Hg throughout the soil treatment residence time. This information is not recorded on the continuous process monitor, but it is recorded manually by the operator.

FTO Inlet Temperature
The FTO inlet temperature exceeded the acceptable range at various intervals throughout the Batch tests. The high temperature that was recorded was 135^0 F. This is 25^0 F higher than the expected acceptable range for the POP. This is most likely due to the higher than expected moisture content of the soil used during the POP. This results in higher gas flow rate due to the increased amounts of steam. Since the condenser's maximum heat exchanging capacity is fixed, a higher gas flow will exit the condenser at a higher temperature. Because the higher temperature still resulted in acceptable emissions, the acceptable limit for this parameter will be raised to 135°F. However, it is lower than the maximum design inlet temperature of 225^0 F.

FTO Bed Temperature

The FTO bed temperature stayed within the acceptable operating range throughout the residence time. The acceptable bed temperature range is between 1500^0 F and 1800^0 F.

CPM THC Level

The acceptable THC level was determined after reviewing the stack testing data collected during the POP. The average THC levels recorded during the POP Tests were between 100 to 400 ppm. The new maximum allowable THC emission limit is 1400 ppm.

Table B-3

Process Operating Parameter Evaluation — *Total Weight:* *9.82 Tons*
Proof of Performance, June 6, 1998 — *Residence Time:* *12 Hours*
Batch Thermal Desorption Unit, Batch Unit #1, Load #2

Data Acquistion System Tagname	Tagname Process Description	Units of Measurement	Average	Peak	Anomolies	Comments
BATCH\CHILL_TE1	Chiller Water Supply Temperature	°F	40 - 50	None	None	Chiller unit functioned within operating parameters during entire residence time.
BATCH\COOL_TOW_TE2	Cooling Tower Supply Water Temperature	°F	50 -70	None	None	Cooling tower functioned within operating parameters during entire residence time.
BATCH\CPMS_LEVEL	Continuous Process Monitor Level	°F	Variable	442	Variability Expected	Recommended operating ranges have been provided seperately.
BATCH\FTO_BED_AVG_TEMP	Average Bed Temperature Flameless Thermal Oxidizer	°F	1600 - 1700	1713	None	Flameless Thermal Oxidizer functioned within operating parameters.
BATCH\FTO_GAS_IN_TEMP	Flameless Thermal Oxidizer Gas Inlet Temperature	°F	110 - 130	135	None	Maximum design inlet temperature 225°F.
BATCH\FTO_GAS_OUT_TEMP	Flameless Thermal Oxidizer Gas Outlet Temperature	°F	110 - 130	139	None	Within design parameters of the FTO.
BATCH\TDU1_DRUM_RPM	Revolutions Per Minute, Drum	RPM	0.62	0.62	None	Drum normally rotated at less than 1.5 RPM.
BATCH\TDU1_HC_VAC	Vacuum Level at Hot Cyclone	Inches Mercury	-22	-24	-21, -24	There were no significant flucuations of vacuum.
BATCH\TDU1_SOIL_TE13	Soil Temperature in Drum	°F	Variable	800	None	Within expected range.
BATCH\TDU1_TE1	Burner Set Point	°F	Variable	900	None	Within expected range.
BATCH\TDU1_TE10	Primary Condenser Water Exit Temperature	°F	50 - 70	107	None	Peak values occur during condensation of vaporized contaminants.
BATCH\TDU1_TE11	Secondary Condenser Water Exit Temperature	°F	60 - 80	82	None	Peak values occur during condensation of vaporized contaminants.
BATCH\TDU1_TE12	Teritiary Condenser Water Exit Temperature	°F	40 - 60	51	None	Peak values occur during condensation of vaporized contaminants.
BATCH\TDU1_TE2	Burner Box Gas Temperature(Type C Thermocouple)	*	Variable	958	None	Values range based upon firing rate of the burner. *
BATCH\TDU1_TE3	Stack Gas Temperature	°F	NA	894	None	Stack gas temperature corresponds with the burner set point.
BATCH\TDU1_TE4	Hot Cyclone Inlet Temperature, Process Gas	°F	Variable	289	None	All values within expected operating ranges.
BATCH\TDU1_TE5	Hot Cyclone Outlet Temperature, Process Gas	°F	Variable	262	None	All values within expected operating ranges.
BATCH\TDU1_TE6	Impinger Temperature, Process Gas	°F	Variable	158	None	All values within expected operating ranges.
BATCH\TDU1_TE7	Primary Condenser Process Gas Temperature	°F	Variable	85	None	All values within expected operating ranges.
BATCH\TDU1_TE8	Secondary Condenser Process Gas Temperature	°F	Variable	67	None	All values within expected operating ranges.
BATCH\TDU1_TE9	Not Utilized	N/A	N/A	N/A	N/A	Spare thermocouple not utilized.

* Note: Recorded values represent a milli-volt conversion to a type K-Thermocouple scale. Values obtained from a type C-Thermocouple which cannot be directly converted to read temperature with the software in use on the CPM.

Actual temperature range is ambient (100°F) to 2136°F.

Table B-4

Process Operating Parameter Evaluation
Proof of Performance, June 7, 1998
Batch Thermal Desorption Unit, Batch Unit #1, Load #3

Total Weight: *9.52 Tons*
Residence Time: *12 Hours*

Data Acquistion System Tagname	Tagname Process Description	Units of Measurement	Average	Peak	Anomolies	Comments
BATCH\CHILL_TE1	Chiller Water Supply Temperature	°F	40 - 50	45	None	Chiller unit functioned within operating parameters during entire residence time.
BATCH\COOL_TOW_TE2	Cooling Tower Supply Water Temperature	°F	50 - 70	67	None	Cooling tower functioned within operating parameters during entire residence time.
BATCH\CPMS_LEVEL	Continuous Process Monitor Level	°F	Variable	590.9	Variability Expected	Recommended operating ranges have been provided seperately.
BATCH\FTO_BED_AVG_TEMP	Average Bed Temperature Flameless Thermal Oxidizer	°F	1600 - 1700	1727	None	Flameless Thermal Oxidizer functioned within operating parameters.
BATCH\FTO_GAS_IN_TEMP	Flameless Thermal Oxidizer Gas Inlet Temperature	°F	110 - 130	128	None	Maximum design inlet temperature 225°F.
BATCH\FTO_GAS_OUT_TEMP	Flameless Thermal Oxidizer Gas Outlet Temperature	°F	110 - 130	129	None	Within design parameters of the FTO.
BATCH\TDU1_DRUM_RPM	Revolutions Per Minute, Drum	RPM	0.7	0.74	None	Drum normally rotated at less than 1.5 RPM.
BATCH\TDU1_HC_VAC	Vacuum Level at Hot Cyclone	Inches Mercury	-22	-22	-19, -24	There were no significant flucuations of vacuum.
BATCH\TDU1_SOIL_TE13	Soil Temperature in Drum	°F	Variable	750	None	Within expected range.
BATCH\TDU1_TE1	Burner Set Point	°F	Variable	900	None	Within expected range.
BATCH\TDU1_TE10	Primary Condenser Water Exit Temperature	°F	50 - 70	118	118	Peak values occur during condensation of vaporized contaminants.
BATCH\TDU1_TE11	Secondary Condenser Water Exit Temperature	°F	60 - 80	76	None	Peak values occur during condensation of vaporized contaminants.
BATCH\TDU1_TE12	Teritiary Condenser Water Exit Temperature	°F	40 - 60	54	None	Peak values occur during condensation of vaporized contaminants.
BATCH\TDU1_TE2	Burner Box Gas Temperature(Type C Thermocouple)	-	Variable	943	None	Values range based upon firing rate of the burner. *
BATCH\TDU1_TE3	Stack Gas Temperature	°F	NA	898	None	Stack gas temperature corresponds with the burner set point.
BATCH\TDU1_TE4	Hot Cyclone Inlet Temperature, Process Gas	°F	Variable	347	None	All values within expected operating ranges.
BATCH\TDU1_TE5	Hot Cyclone Outlet Temperature, Process Gas	°F	Variable	329	None	All values within expected operating ranges.
BATCH\TDU1_TE6	Impinger Temperature, Process Gas	°F	Variable	157	None	All values within expected operating ranges.
BATCH\TDU1_TE7	Primary Condenser Process Gas Temperature	°F	Variable	96	None	All values within expected operating ranges.
BATCH\TDU1_TE8	Secondary Condenser Process Gas Temperature	°F	Variable	79	None	All values within expected operating ranges.
BATCH\TDU1_TE9	Not Utilized	N/A	NA	NA	NA	Spare thermocouple not utilized.

* Note: Recorded values represent a milli-volt conversion to a type K-Thermocouple scale. Values obtained from a type C-Thermocouple which cannot be directly converted to read temperature with the software in use on the CPM.

Actual temperature range is ambient (100°F) to 2136°F.

Table B-5

Process Operating Parameter Evaluation — *Total Weight:* *11.24 Tons*
Proof of Performance, June 13, 1998 — *Residence Time:* *12 Hours*
Batch Thermal Desorption Unit, Batch Unit #1, Load #4 (Repeat of P.O.P. #1)

Data Acquistion System Tagname	Tagname Process Description	Units of Measurement	Average	Peak	Anomolies	Comments
BATCH\CHILL_TE1	Chiller Water Supply Temperature	°F	40 - 50	51	None	Chiller unit functioned within operating parameters during entire residence time.
BATCH\COOL_TOW_TE2	Cooling Tower Supply Water Temperature	°F	50 - 70	78	None	Cooling tower functioned within operating parameters during entire residence time.
BATCH\CPMS_LEVEL	Continuous Process Monitor Level	°F	Variable	807.8	Variability Expected	Recommended operating ranges have been provided seperately.
BATCH\FTO_BED_AVG_TEMP	Average Bed Temperature Flameless Thermal Oxidizer	°F	1600 - 1700	1749	None	Flameless Thermal Oxidizer functioned within operating parameters.
BATCH\FTO_GAS_IN_TEMP	Flameless Thermal Oxidizer Gas Inlet Temperature	°F	110 - 130	135	None	Maximum design inlet temperature 225°F.
BATCH\FTO_GAS_OUT_TEMP	Flameless Thermal Oxidizer Gas Outlet Temperature	°F	110 - 130	286	None	Within design parameters of the FTO, corresponds well with THC readings.
BATCH\TDU1_DRUM_RPM	Revolutions Per Minute, Drum	RPM	0.54	0.54	None	Drum normally rotated at less than 1.5 RPM.
BATCH\TDU1_HC_VAC	Vacuum Level at Hot Cyclone	Inches Mercury	-20	-21	See Comment	Vacuum flucuations related to power failure and leaking hose.
BATCH\TDU1_SOIL_TE13	Soil Temperature in Drum	°F	Variable	835	None	Within expected range.
BATCH\TDU1_TE1	Burner Set Point	°F	Variable	900	None	Within expected range.
BATCH\TDU1_TE10	Primary Condenser Water Exit Temperature	°F	50 - 70	118	118	Peak values occur during condensation of vaporized contaminants.
BATCH\TDU1_TE11	Secondary Condenser Water Exit Temperature	°F	60 - 80	97	None	Peak values occur during condensation of vaporized contaminants.
BATCH\TDU1_TE12	Teritiary Condenser Water Exit Temperature	°F	40 - 60	58	None	Peak values occur during condensation of vaporized contaminants.
BATCH\TDU1_TE2	Burner Box Gas Temperature(Type C Thermocouple)	*	Variable	1546	None	Values range based upon firing rate of the burner. *
BATCH\TDU1_TE3	Stack Gas Temperature	°F	NA	907	None	Stack gas temperature corresponds with the burner set point.
BATCH\TDU1_TE4	Hot Cyclone Inlet Temperature, Process Gas	°F	Variable	430	None	All values within expected operating ranges.
BATCH\TDU1_TE5	Hot Cyclone Outlet Temperature, Process Gas	°F	Variable	311	None	All values within expected operating ranges.
BATCH\TDU1_TE6	Impinger Temperature, Process Gas	°F	Variable	171	None	All values within expected operating ranges.
BATCH\TDU1_TE7	Primary Condenser Process Gas Temperature	°F	Variable	95	None	All values within expected operating ranges.
BATCH\TDU1_TE8	Secondary Condenser Process Gas Temperature	°F	Variable	80	None	All values within expected operating ranges.
BATCH\TDU1_TE9	Not Utilized	N/A	NA	NA	NA	Spare thermocouple not utilized.

* Note: Recorded values represent a milli-volt conversion to a type K-Thermocouple scale. Values obtained from a type C-Thermocouple which cannot be directly converted to read temperature with the software in use on the CPM.

Actual temperature range is ambient (100°F) to 2136°F.

** See attached narrative regarding the completion of Batch Unit #1, Load #4 (Repeat of Batch P.O.P. Test #1).

Table B-6

Process Operating Parameter Evaluation
Proof of Performance, June 10, 1998 — *Start Time:* *10:45* *10-Jun*
Continuous Thermal Desorption Unit, P.O.P., Day 1 — *Stop Time:* *22:45* *10-Jun*

Data Acquistion System Tagname	Tagname Process Description	Units of Measurement	Average	Peak	Anomolies	Comments
TDU1/CYL_FEED_SPEED_SET	Soil Feed Rate Tons/Hour	Ton/Hour	76	76	None	Test performed at 11.0 Tons Per Hour.
TDU1/PV_P1C1	Thermal Desorber Face Pressure	Inches Water Column	Variable	-1.1	None	Negative pressure sustained throughout test period, variablility observed was expected.
TDU1/ZONE1_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1518	Variable	See attached narrative.
TDU1/ZONE2_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1582	Variable	See attached narrative.
TDU1/ZONE3_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1358	Variable	See attached narrative.
TDU1/TE_14_TEMP	Soil Exit Temperature	°F	900 - 1000	1117	None	See attached summary.
VRS1/HC_INLETGASTEMP	Cyclone Temperature	°F	900 - 1000	1040	None	Within expected ranges.
VRS1/RD_OXYGEN	Scrubber Outlet Oxygen Level	Percent Oxygen	0 - 7	7	None	Within expected ranges.
VRS1/RD_SCRUBLIQUIDTEMP	Scrubber Recycle Water Temperature	°F	100 - 120	117	None	Within expected ranges.
VRS1/CT_LIQUIDOUTLETTEMP	Cooling Tower Outlet Water Temperature	°F	75 - 85	87	None	Within expected ranges.
VRS1/WESP_OUTLETGASTEMP	WESP Gas Exit Temperature	°F	80 - 90	96	None	Within expected ranges.
FTO1/TE108	FTO Bed Temperature	°F	1500 - 1600	1587	None	Within expected ranges.
FTO1/TE109	FTO Bed Temperature	°F	1500 - 1600	1627	None	Within expected ranges.
FTO1/CPMS_LEVEL	CPM THC Level	Parts Per Million	20 - 50	222.3	222.3	Refer to operating parameter determination.

Table B-7

Process Operating Parameter Evaluation
Proof of Performance, June 11, 1998
Continuous Thermal Desorption Unit, P.O.P., Day 2

Start Time:	***10:45***	***11-Jun***
Stop Time:	***13:45***	***11-Jun***
Start Time:	***13:45***	***11-Jun***
Stop Time:	***17:30***	***11-Jun***
Start Time:	***21:00***	***11-Jun***
Stop Time:	***22:00***	***11-Jun***

Data Acquistion System Tagname	*Tagname Process Description*	*Units of Measurement*	*Average*	*Peak*	*Anomolies*	*Comments*
TDU1/CYL_FEED_SPEED_SET	Soil Feed Rate Tons/Hour	Ton/Hour	76	76	None	Test performed at 11.0 Tons Per Hour.
TDU1/PV_P1C1	Thermal Desorber Face Pressure	Inches Water Column	Variable	-1.14	None	Negative pressure sustained throughout test period, variablility observed was expected.
TDU1/ZONE1_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1388	Variable	See attached narrative.
TDU1/ZONE2_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1517	Variable	See attached narrative.
TDU1/ZONE3_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1350	Variable	See attached narrative.
TDU1/TE_14_TEMP	Soil Exit Temperature	°F	900 - 1000	1250	1250	See attached summary.
VRS1/HC_INLETGASTEMP	Cyclone Temperature	°F	900 - 1000	1131	None	Within expected ranges.
VRS1/RD_OXYGEN	Scrubber Outlet Oxygen Level	Percent Oxygen	5	20	None	Within expected ranges.
VRS1/RD_SCRUBLIQUIDTEMP	Scrubber Recycle Water Temperature	°F	100 - 120	112	None	Within expected ranges.
VRS1/CT_LIQUIDOUTLETTEMP	Cooling Tower Outlet Water Temperature	°F	75 - 85	88	None	Within expected ranges.
VRS1/WESP_OUTLETGASTEMP	WESP Gas Exit Temperature	°F	80 - 90	97	None	Within expected ranges.
FTO1/TE108	FTO Bed Temperature	°F	1500 - 1600	1704	None	Within expected ranges.
FTO1/TE109	FTO Bed Temperature	°F	1500 - 1600	1615	None	Within expected ranges.
FTO1/CPMS_LEVEL	CPM THC Level	Parts Per Million	20 - 50	49.3	Variable	Refer to operating parameter determination.

Table B-8

Process Operating Parameter Evaluation
Proof of Performance, June 12, 1998
Continuous Thermal Desorption Unit, P.O.P., Day 3

Start Time: *10:50 12-Jun*
Stop Time: *14:50 12-Jun*

Data Acquistion System Tagname	Tagname Process Description	Units of Measurement	Average	Peak	Anomolies	Comments
TDU1/CYL_FEED_SPEED_SET	Soil Feed Rate Tons/Hour	Ton/Hour	76	76	None	Test performed at 11.0 Tons Per Hour.
TDU1/PV_P1C1	Thermal Desorber Face Pressure	Inches Water Column	Variable	-1.28	None	Negative pressure sustained throughout test period, variablility observed was expected.
TDU1/ZONE1_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1260	Variable	See attached narrative.
TDU1/ZONE2_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1498	Variable	See attached narrative.
TDU1/ZONE3_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1092	Variable	See attached narrative.
TDU1/TE_14_TEMP	Soil Exit Temperature	°F	900 - 1000	1078	None	See attached summary.
VRS1/HC_INLETGASTEMP	Cyclone Temperature	°F	900 - 1000	1034	None	Within expected ranges.
VRS1/RD_OXYGEN	Scrubber Outlet Oxygen Level	Percent Oxygen	3 - 11	11	None	Within expected ranges.
VRS1/RD_SCRUBLIQUIDTEMP	Scrubber Recycle Water Temperature	°F	100 - 120	110	None	Within expected ranges.
VRS1/CT_LIQUIDOUTLETTEMP	Cooling Tower Outlet Water Temperature	°F	75 - 85	89	None	Within expected ranges.
VRS1/WESP_OUTLETGASTEMP	WESP Gas Exit Temperature	°F	80 - 90	99	None	Within expected ranges.
FTO1/TE108	FTO Bed Temperature	°F	1500 - 1600	1631	None	Within expected ranges.
FTO1/TE109	FTO Bed Temperature	°F	1500 - 1600	1659	None	Within expected ranges.
FTO1/CPMS_LEVEL	CPM THC Level	Parts Per Million	10 - 30	28.3	None	Refer to operating parameter determination.

Table B-9

Process Operating Parameter Evaluation
Proof of Performance, June 3, 1998
Continuous Thermal Desorption Unit, P.O.P., Ramp-Up Data
Set Speed @ 38%, 6 Tons Per Hour

Start Time: *19:20* *3-Jun*
Stop Time: *21:20* *3-Jun*

Data Acquistion System Tagname	Tagname Process Description	Units of Measurement	Average	Peak	Anomolies	Comments
TDU1/CYL_FEED_SPEED_SET	Soil Feed Rate Tons/Hour	Ton/Hour	38	38	None	Test performed at 6.0 Tons Per Hour.
TDU1/PV_P1C1	Thermal Desorber Face Pressure	Inches Water Column	Variable	-1.92	None	Negative pressure sustained throughout test period, variablility observed was expected.
TDU1/ZONE1_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1453	Variable	See attached narrative.
TDU1/ZONE2_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1571	Variable	Within expected ranges.
TDU1/ZONE3_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	973	Variable	Within expected ranges.
TDU1/TE_14_TEMP	Soil Exit Temperature	°F	900 - 1000	1227	None	Burner set points modified to lower soil exit temperature.
VRS1/HC_INLETGASTEMP	Cyclone Temperature	°F	900 - 1000	1040	None	Within expected ranges.
VRS1/RD_OXYGEN	Scrubber Outlet Oxygen Level	Percent Oxygen	3 - 11	12	None	Within expected ranges.
VRS1/RD_SCRUBLIQUIDTEMP	Scrubber Recycle Water Temperature	°F	100 - 120	98	None	Within expected ranges.
VRS1/CT_LIQUIDOUTLETTEMP	Cooling Tower Outlet Water Temperature	°F	75 - 85	85	None	Within expected ranges.
VRS1/WESP_OUTLETGASTEMP	WESP Gas Exit Temperature	°F	80 - 90	96	None	Within expected ranges.
FTO1/TE108	FTO Bed Temperature	°F	1500 - 1600	1625	None	Within expected ranges.
FTO1/TE109	FTO Bed Temperature	°F	1500 - 1600	1657	None	Within expected ranges.
FTO1/CPMS_LEVEL	CPM THC Level	Parts Per Million	10 - 30	55.3	None	

Table B-9 (cont'd.)

Process Operating Parameter Evaluation
Proof of Performance, June 1, 1998
Continuous Thermal Desorption Unit, P.O.P., Ramp-Up Data
Set Speed @ 45%, 7 Tons Per Hour

Start Time: *17:00* *1-Jun*
Stop Time: *19:00* *1-Jun*

Data Acquistion System Tagname	Tagname Process Description	Units of Measurement	Average	Peak	Anomolies	Comments
TDU1/CYL_FEED_SPEED_SET	Soil Feed Rate Tons/Hour	Ton/Hour	45	45	None	Test performed at 7.0 Tons Per Hour.
TDU1/PV_P1C1	Thermal Desorber Face Pressure	Inches Water Column	Variable	-1.88	None	Negative pressure sustained throughout test period, variablility observed was expected.
TDU1/ZONE1_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1407	Variable	See attached narrative.
TDU1/ZONE2_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1523	Variable	Within expected ranges.
TDU1/ZONE3_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1356	Variable	Within expected ranges.
TDU1/TE_14_TEMP	Soil Exit Temperature	°F	900 - 1000	1268	None	Bruner Set Points modified to lower soil exit temperature.
VRS1/HC_INLETGASTEMP	Cyclone Temperature	°F	900 - 1000	1072	None	Within expected ranges.
VRS1/RD_OXYGEN	Scrubber Outlet Oxygen Level	Percent Oxygen	3 - 11	15	None	Modified position of pugmill exhaust manifold to lower oxygen content.
VRS1/RD_SCRUBLIQUIDTEMP	Scrubber Recycle Water Temperature	°F	100 - 120	99	None	Within expected ranges.
VRS1/CT_LIQUIDOUTLETTEMP	Cooling Tower Outlet Water Temperature	°F	75 - 85	82	None	Within expected ranges.
VRS1/WESP_OUTLETGASTEMP	WESP Gas Exit Temperature	°F	80 - 90	94	None	Within expected ranges.
FTO1/TE108	FTO Bed Temperature	°F	1500 - 1600	1577	None	Within expected ranges.
FTO1/TE109	FTO Bed Temperature	°F	1500 - 1600	1609	None	Within expected ranges.
FTO1/CPMS_LEVEL	CPM THC Level	Parts Per Million	10 - 30	22.7	None	

Table B-9 (cont'd.)

Process Operating Parameter Evaluation
Proof of Performance, June 3, 1998 — *Start Time:* *16:15* *3-Jun*
Continuous Thermal Desorption Unit, P.O.P., Ramp-Up Data — *Stop Time:* *18:15* *3-Jun*
Set Speed @ 53%, 8 Tons Per Hour

Data Acquistion System Tagname	Tagname Process Description	Units of Measurement	Average	Peak	Anomolies	Comments
TDU1/CYL_FEED_SPEED_SET	Soil Feed Rate Tons/Hour	Ton/Hour	53	53	None	Test performed at 8.0 Tons Per Hour.
TDU1/PV_P1C1	Thermal Desorber Face Pressure	Inches Water Column	Variable	-1.84	None	Negative pressure sustained throughout test period, variablility observed was expected.
TDU1/ZONE1_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1453	Variable	See attached narrative.
TDU1/ZONE2_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1541	Variable	Within expected ranges.
TDU1/ZONE3_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1158	Variable	Within expected ranges.
TDU1/TE_14_TEMP	Soil Exit Temperature	°F	900 - 1000	1132	None	Within expected ranges.
VRS1/HC_INLETGASTEMP	Cyclone Temperature	°F	900 - 1000	1061	None	Within expected ranges.
VRS1/RD_OXYGEN	Scrubber Outlet Oxygen Level	Percent Oxygen	3 - 11	11	None	Within expected ranges.
VRS1/RD_SCRUBLIQUIDTEMP	Scrubber Recycle Water Temperature	°F	100 - 120	108	None	Within expected ranges.
VRS1/CT_LIQUIDOUTLETTEMP	Cooling Tower Outlet Water Temperature	°F	75 - 85	86	None	Within expected ranges.
VRS1/WESP_OUTLETGASTEMP	WESP Gas Exit Temperature	°F	80 - 90	97	None	Within expected ranges.
FTO1/TE108	FTO Bed Temperature	°F	1500 - 1600	1646	None	Within expected ranges.
FTO1/TE109	FTO Bed Temperature	°F	1500 - 1600	1686	None	Within expected ranges.
FTO1/CPMS_LEVEL	CPM THC Level	Parts Per Million	10 - 30	32.4	None	

Table B-9 (cont'd.)

Process Operating Parameter Evaluation
Proof of Performance, June 2, 1998 — *Start Time:* *11:20* *2-Jun*
Continuous Thermal Desorption Unit, P.O.P., Ramp-Up Data — *Stop Time:* *12:40* *2-Jun*
Set Speed @ 62%, 9 Tons Per Hour

Data Acquistion System Tagname	Tagname Process Description	Units of Measurement	Average	Peak	Anomolies	Comments
TDU1/CYL_FEED_SPEED_SET	Soil Feed Rate Tons/Hour	Ton/Hour	62	62	None	Test perfonned at 9.0 Tons Per Hour.
TDU1/PV_P1C1	Thermal Desorber Face Pressure	Inches Water Column	Variable	-2.22	None	Negative pressure sustained throughout test period, variablility observed was expected.
TDU1/ZONE1_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1417	Variable	Within expected ranges.
TDU1/ZONE2_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1526	Variable	Within expected ranges.
TDU1/ZONE3_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	992	Variable	Within expected ranges.
TDU1/TE_14_TEMP	Soil Exit Temperature	°F	900 - 1000	1150	None	Within expected ranges.
VRS1/HC_INLETGASTEMP	Cyclone Temperature	°F	900 - 1000	989	None	Within expected ranges.
VRS1/RD_OXYGEN	Scrubber Outlet Oxygen Level	Percent Oxygen	3 - 11	10	None	Within expected ranges.
VRS1/RD_SCRUBLIQUIDTEMP	Scrubber Recycle Water Temperature	°F	100 - 120	102	None	Within expected ranges.
VRS1/CT_LIQUIDOUTLETTEMP	Cooling Tower Outlet Water Temperature	°F	75 - 85	85	None	Within expected ranges.
VRS1/WESP_OUTLETGASTEMP	WESP Gas Exit Temperature	°F	80 - 90	95	None	Within expected ranges.
FTO1/TE108	FTO Bed Temperature	°F	1500 - 1600	1522	None	Within expected ranges.
FTO1/TE109	FTO Bed Temperature	°F	1500 - 1600	1509	None	Within expected ranges.
FTO1/CPMS_LEVEL	CPM THC Level	Parts Per Million	10 - 30	10.5	None	

Table B-9 (cont'd.)

Process Operating Parameter Evaluation
Proof of Performance, June 2, 1998 — *Start Time:* *17:12* *2-Jun*
Continuous Thermal Desorption Unit, P.O.P., Ramp-Up Data — *Stop Time:* *19:14* *2-Jun*
Set Speed @ 77%, 11 Tons Per Hour

Data Acquistion System Tagname	Tagname Process Description	Units of Measurement	Average	Peak	Anomolies	Comments
TDU1/CYL_FEED_SPEED_SET	Soil Feed Rate Tons/Hour	Ton/Hour	77	77	None	Test performed at 8.0 Tons Per Hour.
TDU1/PV_P1C1	Thermal Desorber Face Pressure	Inches Water Column	Variable	-1.58	None	Negative pressure sustained throughout test period, variablility observed was expected.
TDU1/ZONE1_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1512	Variable	See attached narrative.
TDU1/ZONE2_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1556	Variable	Within expected ranges.
TDU1/ZONE3_TEMP_SET	Thermal Desorber Shell Set Point	°F	1000 - 1500	1062	Variable	Within expected ranges.
TDU1/TE_14_TEMP	Soil Exit Temperature	°F	900 - 1000	1256	None	Bruner Set Points modified to lower soil exit temperature.
VRS1/HC_INLETGASTEMP	Cyclone Temperature	°F	900 - 1000	975	None	Within expected ranges.
VRS1/RD_OXYGEN	Scrubber Outlet Oxygen Level	Percent Oxygen	3 - 11	11	None	Within expected ranges, higher values at end of run due to waste feed cut-off.
VRS1/RD_SCRUBLIQUIDTEMP	Scrubber Recycle Water Temperature	°F	100 - 120	105	None	Within expected ranges.
VRS1/CT_LIQUIDOUTLETTEMP	Cooling Tower Outlet Water Temperature	°F	75 - 85	87	None	Within expected ranges.
VRS1/WESP_OUTLETGASTEMP	WESP Gas Exit Temperature	°F	80 - 90	96	None	Within expected ranges.
FTO1/TE108	FTO Bed Temperature	°F	1500 - 1600	1618	None	Within expected ranges.
FTO1/TE109	FTO Bed Temperature	°F	1500 - 1600	1579	None	Within expected ranges.
FTO1/CPMS_LEVEL	CPM THC Level	Parts Per Million	10 - 30	42.3	None	

ORIGINAL

Proof of Performance, Test #1

Batch Unit data for June 04

Tagname \ Time	11:00	11:06	11:12	11:18	11:24	11:30	11:36	11:42	11:48	11:54	12:00	12:06	12:12	12:18	12:24	12:30	12:36	12:42	12:48	12:54	13:00	13:06
BATCH\CHILL_TE1	68	68	68	68	68	69	69	63	48	46	46	44	46	44	41	43	45	48	50	43	46	49
BATCH\COOL_TOW_TE2	67	67	67	67	67	67	67	67	66	62	64	64	64	64	64	64	62	60	59	58	57	57
BATCH\CPMS_LEVEL	10.72	9.55	8.23	8.77	9.81	10.21	9.87	10.06	10.99	10.99	10.48	10.93	11.6	11.86	13.29	10.83	243.3	0.4	0.37	0.4	-11.7	-12.6
BATCH\FTO_BED_AVG_TEMP	1673	1678	1688	1684	1668	1676	1687	1685	1668	1676	1686	1687	1667	1676	1683	1688	1672	1676	1682	1689	1676	1675
BATCH\FTO_GAS_IN_TEMP	107	106	107	107	108	108	108	108	109	110	112	113	111	111	112	113	113	113	113	112	111	112
BATCH\FTO_GAS_OUT_TEMP	129	124	134	121	137	127	139	124	137	129	143	127	139	131	136	129	132	134	133	133	128	133
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.29	0	0	0	0	0	0	0	1.98	1.98
BATCH\TDU1_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-16	-23	-24	-24	-24	-24
BATCH\TDU1_SOIL_TE13	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	65	66	66	67	67	67	67	67	68	67	65	66	66	66	66	66	64	62	60	59	59	59
BATCH\TDU1_TE11	70	71	71	71	71	71	72	72	73	73	73	74	74	74	73	73	73	72	73	72	73	73
BATCH\TDU1_TE12	68	68	68	69	69	69	71	64	50	48	49	47	48	48	42	45	48	50	53	48	48	51
BATCH\TDU1_TE2	80	81	81	82	82	83	83	84	85	86	87	87	88	90	90	91	91	91	92	92	92	92
BATCH\TDU1_TE3	70	70	70	71	71	71	71	71	72	72	72	73	73	73	73	73	73	73	73	74	74	74
BATCH\TDU1_TE4	72	73	73	74	74	75	75	76	77	77	78	80	80	81	81	81	79	78	74	73	73	74
BATCH\TDU1_TE5	72	73	73	73	74	75	75	76	76	77	78	79	80	80	80	80	76	75	73	73	74	75
BATCH\TDU1_TE6	77	78	79	79	80	81	82	82	84	85	86	88	90	90	90	90	79	84	83	83	82	83
BATCH\TDU1_TE7	71	72	72	72	74	74	76	75	77	80	82	86	86	84	81	80	86	86	86	86	85	86
BATCH\TDU1_TE8	69	69	69	70	70	70	71	71	71	72	72	73	73	73	73	73	71	70	69	69	68	68
BATCH\TDU1_TE9	72	72	73	73	75	75	75	76	77	79	80	82	82	81	80	80	60	63	65	64	64	65

Batch Unit data for June 04

Tagname \ Time	13:12	13:18	13:24	13:30	13:36	13:42	13:48	13:54	14:00	14:06	14:12	14:18	14:24	14:30	14:36	14:42	14:48	14:54	15:00	15:06	15:12	15:18
BATCH\CHILL_TE1	46	43	46	48	41	44	47	48	43	48	49	46	46	46	46	48	46	42	46	48	46	44
BATCH\COOL_TOW_TE2	57	57	57	57	57	57	57	57	57	58	58	58	57	58	58	58	58	58	58	58	59	59
BATCH\CPMS_LEVEL	-12.8	-12.7	-12.6	-12.7	-14.8	229.1	35.78	46.48	41.77	43.63	38.31	46.86	41.23	41.06	34.49	34.39	38.03	124.8	83.81	73.31	71.13	74.95
BATCH\FTO_BED_AVG_TEMP	1678	1689	1685	1669	1677	1686	1688	1667	1675	1682	1689	1675	1674	1679	1689	1680	1672	1679	1690	1685	1673	1677
BATCH\FTO_GAS_IN_TEMP	113	113	113	113	112	113	113	112	113	114	115	114	114	114	115	114	113	114	115	116	115	115
BATCH\FTO_GAS_OUT_TEMP	130	138	126	139	131	145	129	137	133	135	133	130	137	132	138	129	139	132	140	129	142	133
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	0	0	0.29	0.29	0.29	0.29	0.29
BATCH\TDU1_HC_VAC	-24	-24	-24	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-24	-23	-23	-15	-18	-19	-19	-19
BATCH\TDU1_SOIL_TE13	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	59	59	59	59	59	59	59	59	59	60	60	60	60	60	60	60	60	60	60	61	61	61
BATCH\TDU1_TE11	73	72	72	73	72	72	72	72	73	72	72	74	73	73	73	72	73	73	74	75	74	74
BATCH\TDU1_TE12	50	46	49	51	43	46	49	52	45	49	52	50	48	50	48	50	49	44	49	52	51	48
BATCH\TDU1_TE2	92	92	92	92	91	91	91	91	91	91	91	91	92	92	92	92	93	93	93	93	116	464
BATCH\TDU1_TE3	74	74	74	74	74	74	74	75	75	75	75	75	75	76	76	76	76	76	76	76	79	130
BATCH\TDU1_TE4	74	75	75	75	75	75	75	75	76	76	76	77	77	77	77	77	77	76	76	77	77	78
BATCH\TDU1_TE5	76	76	77	77	77	77	77	77	77	78	78	78	78	79	79	79	79	78	79	79	79	80
BATCH\TDU1_TE6	83	81	81	81	81	80	80	80	81	81	81	82	82	82	83	82	82	78	78	79	80	81
BATCH\TDU1_TE7	87	87	87	88	88	87	87	87	87	88	88	88	88	87	87	87	87	89	88	89	90	90
BATCH\TDU1_TE8	67	67	67	67	67	68	66	66	66	66	66	66	66	66	66	66	66	61	61	62	63	63
BATCH\TDU1_TE9	66	65	66	66	65	65	65	66	66	66	67	67	66	67	66	67	67	57	58	60	60	59

ORIGINAL

Batch Unit data for June 04

Tagname \ Time	15:24	15:30	15:36	15:42	15:48	15:54	16:00	16:06	16:12	16:18	16:24	16:30	16:36	16:42	16:48	16:54	17:00	17:06	17:12	17:18	17:24	17:30
BATCH\CHILL_TE1	47	46	44	47	47	46	48	45	43	46	49	43	46	49	46	44	47	49	43	47	49	42
BATCH\COOL_TOW_TE2	59	58	58	58	58	58	59	59	59	59	59	59	59	59	60	60	61	62	63	63	63	63
BATCH\CPMS_LEVEL	58.78	58.35	66.9	66.46	67.18	51.58	69.4	64.38	72.4	69.74	78.15	72.14	68.49	58.46	61.02	71.33	68.88	83.39	58.41	104.8	77.36	76.19
BATCH\FTO_BED_AVG_TEMP	1687	1689	1668	1675	1681	1689	1677	1673	1678	1688	1685	1670	1677	1685	1688	1668	1677	1683	1690	1674	1676	1681
BATCH\FTO_GAS_IN_TEMP	116	115	114	115	114	115	115	115	115	115	115	114	114	115	114	114	115	115	115	114	114	112
BATCH\FTO_GAS_OUT_TEMP	144	131	143	137	136	136	130	139	133	143	129	144	133	149	131	145	135	138	133	134	137	133
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
BATCH\TDU1_HC_VAC	-20	-20	-20	-20	-20	-20	-20	-20	-18	-17	-16	-18	-19	-19	-20	-20	-21	-21	-21	-21	-21	-21
BATCH\TDU1_SOIL_TE13	750	750	750	750	113	113	113	113	113	113	113	155	155	155	155	179	179	179	179	179	177	177
BATCH\TDU1_TE1	900	900	900	900	200	200	200	200	200	200	200	300	300	300	300	300	300	300	300	300	300	300
BATCH\TDU1_TE10	61	61	61	61	61	61	61	62	62	62	62	62	62	62	62	69	76	76	75	75	75	75
BATCH\TDU1_TE11	74	75	75	75	75	75	75	74	74	74	74	74	75	74	74	75	75	75	75	76	75	75
BATCH\TDU1_TE12	51	-51	48	50	52	49	51	51	46	49	52	48	49	51	51	48	50	52	48	49	52	47
BATCH\TDU1_TE2	525	563	594	618	638	655	672	681	692	701	708	714	720	725	729	733	738	741	744	746	749	750
BATCH\TDU1_TE3	153	173	188	199	211	220	232	240	247	254	261	267	273	278	283	287	291	295	299	302	305	310
BATCH\TDU1_TE4	79	80	82	84	85	90	95	102	107	114	122	137	148	154	161	163	161	163	167	170	174	178
BATCH\TDU1_TE5	81	82	83	84	86	88	92	96	99	104	114	130	144	153	161	163	161	162	164	166	170	174
BATCH\TDU1_TE6	81	82	82	82	82	83	83	84	84	85	84	82	88	102	132	160	157	156	156	156	156	156
BATCH\TDU1_TE7	89	89	89	89	89	89	89	88	88	88	88	88	89	88	88	84	81	81	80	79	79	78
BATCH\TDU1_TE8	64	64	65	65	65	65	65	66	68	67	65	65	65	65	65	66	67	66	67	67	68	68
BATCH\TDU1_TE9	60	60	60	60	61	60	61	61	59	58	59	57	58	59	59	59	60	61	60	61	62	60

Batch Unit data for June 04

Tagname \ Time	17:36	17:42	17:48	17:54	18:00	18:06	18:12	18:18	18:24	18:30	18:36	18:42	18:48	18:54	19:00	19:06	19:12	19:18	19:24	19:30	19:36	19:42
BATCH\CHILL_TE1	44	48	50	45	46	49	46	44	47	50	46	49	45	48	51	46	46	49	48	43	46	49
BATCH\COOL_TOW_TE2	63	63	64	64	64	64	64	64	64	64	65	66	66	67	67	67	66	66	66	65	65	66
BATCH\CPMS_LEVEL	58.41	86.95	76.53	74	59.64	63.98	88.22	80.66	46.11	72.02	220.6	126.7	116.3	53.94	61.19	75.51	68.02	77.57	49.78	78.48	58.68	62.09
BATCH\FTO_BED_AVG_TEMP	1691	1682	1676	1680	1691	1684	1674	1679	1687	1692	1675	1681	1684	1694	1688	1672	1678	1685	1692	1676	1677	1681
BATCH\FTO_GAS_IN_TEMP	113	112	112	112	112	111	110	110	111	110	109	110	110	111	110	109	109	110	110	108	109	109
BATCH\FTO_GAS_OUT_TEMP	135	128	137	131	137	126	137	129	144	127	131	131	128	134	123	137	129	136	128	127	133	128
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
BATCH\TDU1_HC_VAC	-21	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-23	-23	-23	-23	-23	-23	-22	-22
BATCH\TDU1_SOIL_TE13	177	177	177	177	177	177	177	177	207	207	207	207	207	248	248	248	248	248	248	248	247	247
BATCH\TDU1_TE1	300	300	300	300	300	300	300	300	300	300	300	300	300	450	450	450	450	450	450	450	700	700
BATCH\TDU1_TE10	76	75	78	76	75	75	74	76	79	85	88	90	92	91	91	88	87	84	83	83	84	90
BATCH\TDU1_TE11	75	75	75	75	75	75	74	74	74	75	74	74	74	74	73	73	74	75	73	73	72	72
BATCH\TDU1_TE12	46	49	52	48	48	50	49	43	48	51	48	50	47	49	52	49	47	50	50	46	47	50
BATCH\TDU1_TE2	753	754	753	754	756	759	758	782	782	737	881	728	686	668	655	650	651	658	658	648	846	861
BATCH\TDU1_TE3	312	316	318	322	323	328	331	385	432	451	492	474	469	465	464	461	461	457	457	458	519	553
BATCH\TDU1_TE4	181	183	188	190	195	200	208	216	232	250	266	282	285	285	286	285	284	283	284	284	297	318
BATCH\TDU1_TE5	177	180	184	186	190	193	196	201	213	229	243	258	262	264	270	269	268	268	268	267	280	301
BATCH\TDU1_TE6	155	155	153	153	153	153	154	154	155	155	154	155	153	152	149	150	153	153	153	155	155	161
BATCH\TDU1_TE7	77	77	75	74	73	74	73	74	73	71	70	68	68	68	68	68	69	69	69	69	70	69
BATCH\TDU1_TE8	68	68	68	68	68	68	68	68	68	69	71	72	73	73	73	72	72	71	71	71	70	72
BATCH\TDU1_TE9	60	61	62	60	60	61	60	59	60	61	60	61	60	61	61	61	60	61	61	60	60	60

ORIGINAL

Batch Unit data for June 04

Tagname / Time	19:48	19:54	20:00	20:06	20:12	20:18	20:24	20:30	20:36	20:42	20:48	20:54	21:00	21:06	21:12	21:18	21:24	21:30	21:36	21:42	21:48	21:54
BATCH\CHILL_TE1	47	45	47	47	41	44	47	48	43	46	49	41	44	46	48	42	44	47	47	42	45	47
BATCH\COOL_TOW_TE2	66	67	68	68	68	67	67	67	66	65	65	64	64	63	62	62	61	61	61	61	60	60
BATCH\CPMS_LEVEL	55.16	49.27	78.36	105.2	72.24	76.23	118.4	132.5	170.1	97.48	171.9	184.7	182.2	114.4	149.4	239.2	266.6	175.3	190.7	301.4	301.4	301.4
BATCH\FTO_BED_AVG_TEMP	1692	1689	1679	1682	1691	1698	1684	1681	1683	1697	1689	1687	1687	1696	1692	1683	1686	1693	1702	1684	1695	1698
BATCH\FTO_GAS_IN_TEMP	110	109	109	108	108	107	106	107	107	108	108	108	107	108	107	107	106	107	107	105	106	107
BATCH\FTO_GAS_OUT_TEMP	134	124	137	128	139	123	139	128	133	126	129	130	128	130	121	132	125	137	122	136	128	127
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.37	0.41	0.37	0.37	0.41	0.41	0.41	0.41
BATCH\TDU1_HC_VAC	-22	-22	-22	-22	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-22
BATCH\TDU1_SOIL_TE13	247	300	300	300	300	377	377	377	377	377	482	482	482	482	482	550	550	550	550	550	610	610
BATCH\TDU1_TE1	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	800	800	800
BATCH\TDU1_TE10	93	96	95	95	95	92	89	85	82	78	74	71	69	67	66	65	64	64	63	63	63	63
BATCH\TDU1_TE11	73	72	72	73	74	74	75	75	74	74	74	74	74	74	73	73	73	73	72	72	72	72
BATCH\TDU1_TE12	50	46	47	49	44	45	48	50	45	47	49	41	44	47	49	45	46	49	51	46	48	50
BATCH\TDU1_TE2	702	837	864	879	888	896	902	882	863	825	805	764	731	710	697	680	666	661	651	844	865	872
BATCH\TDU1_TE3	544	568	594	613	634	649	665	673	680	687	687	688	689	689	691	689	689	690	691	724	743	765
BATCH\TDU1_TE4	331	340	355	370	381	390	399	402	402	395	388	379	370	361	352	343	335	328	320	315	312	310
BATCH\TDU1_TE5	314	323	337	352	362	371	377	379	375	365	356	343	332	318	305	287	269	256	245	239	238	241
BATCH\TDU1_TE6	165	166	168	171	172	173	175	174	172	168	164	160	156	151	146	143	137	133	128	126	125	125
BATCH\TDU1_TE7	67	67	67	67	67	68	68	69	70	70	71	73	74	76	77	78	78	78	78	79	79	80
BATCH\TDU1_TE8	73	74	74	74	74	74	73	72	71	70	69	68	67	66	65	65	64	64	64	64	64	64
BATCH\TDU1_TE9	60	61	60	61	60	60	61	61	60	61	61	60	60	61	61	59	60	60	60	59	59	59

Batch Unit data for June 04

Tagname \ Time	22:00	22:06	22:12	22:18	22:24	22:30	22:36	22:42	22:48	22:54	23:00	23:06	23:12	23:18	23:24	23:30	23:36	23:42	23:48	23:54
BATCH\CHILL_TE1	42	45	48	43	41	46	48	42	43	46	44	41	44	47	46	42	45	48	40	42
BATCH\COOL_TOW_TE2	60	60	60	60	60	60	60	60	60	60	61	60	60	60	60	60	60	61	61	61
BATCH\CPMS_LEVEL	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4
BATCH\FTO_BED_AVG_TEMP	1703	1706	1702	1701	1703	1710	1701	1706	1710	1715	1710	1709	1716	1721	1721	1710	1720	1727	1727	1716
BATCH\FTO_GAS_IN_TEMP	108	107	107	107	108	108	108	109	109	110	109	109	109	110	109	110	109	110	110	110
BATCH\FTO_GAS_OUT_TEMP	129	121	133	125	138	123	137	128	132	128	124	131	127	135	123	140	130	142	127	143
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.41	0.41	0.37	0.37	0.41	0.41	0.37	0.41	0.37	0.37	0.41	0.41	0.37	0.41	0.37	0.41	0.37	0.37	0.41	0.41
BATCH\TDU1_HC_VAC	-22	-22	-22	-22	-22	-22	-22	-21	-21	-22	-22	-22	-22	-22	-23	-23	-23	-24	-23	-23
BATCH\TDU1_SOIL_TE13	610	610	610	672	672	672	672	723	723	723	723	723	723	770	770	770	770	770	770	770
BATCH\TDU1_TE1	800	800	800	800	800	800	800	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63
BATCH\TDU1_TE11	72	72	72	72	72	70	72	72	72	70	70	70	70	70	70	69	69	69	69	70
BATCH\TDU1_TE12	46	47	50	47	44	47	50	46	45	48	45	42	46	49	46	44	47	49	41	44
BATCH\TDU1_TE2	818	786	733	699	854	868	871	863	812	761	696	661	638	624	619	612	606	613	609	615
BATCH\TDU1_TE3	776	784	788	790	817	835	854	870	883	889	891	893	895	894	894	895	895	894	894	895
BATCH\TDU1_TE4	311	311	312	311	310	312	313	318	321	322	320	317	313	311	306	302	298	293	288	283
BATCH\TDU1_TE5	242	253	257	252	250	250	250	251	254	251	245	239	233	227	221	216	211	203	195	189
BATCH\TDU1_TE6	125	124	122	118	117	118	117	117	118	117	115	113	111	109	107	105	104	101	99	97
BATCH\TDU1_TE7	80	80	80	79	80	79	79	79	79	79	79	80	79	79	79	79	79	78	78	77
BATCH\TDU1_TE8	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
BATCH\TDU1_TE9	57	58	58	57	56	57	58	56	56	57	56	56	56	57	57	57	57	58	56	57

Batch Unit data for June 04, 1998

Tagname \ Time	0:00	0:06	0:12	0:18	0:24	0:30	0:36	0:42	0:48	0:54	1:00	1:06	1:12	1:18	1:24	1:30	1:36	1:42	1:48	1:54	2:00	2:06
BATCH\CHILL_TE1	72	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
BATCH\COOL_TOW_TE2	62	62	62	62	62	62	61	63	63	63	64	64	64	64	64	65	65	65	65	65	65	65
BATCH\CPMS_LEVEL	8.36	8.26	13.04	9.23	7.96	7.3	7.31	8.02	7.81	8.05	8.02	8.44	8.29	7.8	7.88	8.34	8.2	7.82	6.74	8.79	7.57	8.5
BATCH\FTO_BED_AVG_TEMP	1687	1687	1669	1675	1681	1688	1679	1671	1678	1687	1685	1669	1677	1687	1687	1668	1676	1684	1688	1668	1676	1683
BATCH\FTO_GAS_IN_TEMP	103	103	101	102	102	103	102	102	102	102	102	102	102	102	102	102	102	102	102	100	100	100
BATCH\FTO_GAS_OUT_TEMP	134	118	124	123	121	123	114	126	119	130	116	131	121	134	118	133	122	133	119	127	123	126
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
BATCH\TDU1_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_SOIL_TE13	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	62	62	61	62	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
BATCH\TDU1_TE11	62	62	62	62	61	61	61	61	61	61	61	61	60	60	60	60	60	60	60	60	60	60
BATCH\TDU1_TE12	65	64	64	64	64	64	64	64	63	63	63	63	63	63	63	62	62	62	62	62	62	62
BATCH\TDU1_TE2	70	70	70	70	70	70	69	69	69	68	68	67	67	67	67	67	67	66	66	66	66	66
BATCH\TDU1_TE3	79	79	78	78	78	78	77	77	77	77	77	77	76	76	76	76	76	75	75	75	75	75
BATCH\TDU1_TE4	66	66	65	65	65	65	65	65	64	64	64	64	64	64	63	63	63	63	63	63	63	62
BATCH\TDU1_TE5	61	61	61	61	61	61	60	60	60	60	60	60	60	60	59	59	59	59	59	59	59	59
BATCH\TDU1_TE6	61	61	61	61	60	60	60	60	60	60	60	59	59	59	59	59	59	59	58	58	58	58
BATCH\TDU1_TE7	62	62	61	61	61	61	61	61	61	61	61	61	61	60	60	60	60	61	61	61	61	61
BATCH\TDU1_TE8	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	60	60	60	60	60
BATCH\TDU1_TE9	62	62	61	61	61	61	61	61	61	60	60	60	60	60	60	60	60	60	59	59	59	59

Proof of Performance, Test #2

Batch Unit data for June 06

Tagname \ Time	4:24	4:30	4:36	4:42	4:48	4:54	5:00	5:06	5:12	5:18	5:24	5:30	5:36	5:42	5:48	5:54	6:00	6:06	6:12	6:18	6:24	6:30
BATCH\CHILL_TE1	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	59
BATCH\COOL_TOW_TE2	60	60	60	60	60	60	60	60	60	60	60	60	60	59	59	60	59	60	59	59	60	57
BATCH\CPMS_LEVEL	-1.81	-1.55	-1.56	-1.88	-2.02	-1.47	-1.56	-1.84	-1.87	-0.96	-0.98	-1.32	-1.34	-0.98	-1.1	-1.39	-1.3	-0.8	-1.17	-2.08	-2.04	55.3
BATCH\FTO_BED_AVG_TEMP	1678	1692	1689	1678	1679	1690	1684	1675	1681	1694	1683	1675	1677	1690	1686	1677	1681	1693	1684	1673	1678	1693
BATCH\FTO_GAS_IN_TEMP	107	107	107	107	107	107	107	107	107	107	107	106	106	106	106	106	106	106	106	106	106	106
BATCH\FTO_GAS_OUT_TEMP	103	102	101	102	103	103	102	103	104	103	103	104	104	104	104	104	105	104	104	104	104	103
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-9
BATCH\TDU1_SOIL_TE13	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	57
BATCH\TDU1_TE11	57	57	57	57	57	57	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
BATCH\TDU1_TE12	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	58
BATCH\TDU1_TE2	65	65	65	64	64	64	64	64	64	63	63	63	63	63	63	63	62	62	62	63	63	63
BATCH\TDU1_TE3	75	75	75	75	75	75	75	75	75	74	74	74	74	74	74	74	74	74	74	74	74	74
BATCH\TDU1_TE4	58	58	58	58	58	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	58
BATCH\TDU1_TE5	56	56	56	56	56	56	56	56	56	56	56	56	56	55	55	55	55	55	55	55	55	56
BATCH\TDU1_TE6	56	56	56	56	56	56	56	56	55	55	55	55	55	55	55	55	55	55	55	55	55	54
BATCH\TDU1_TE7	59	58	58	58	58	58	58	58	58	58	58	58	57	57	57	57	57	57	57	58	58	58
BATCH\TDU1_TE8	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	56	56	56	56	58	57
BATCH\TDU1_TE9	56	56	56	56	56	56	56	56	56	56	56	56	55	55	55	55	55	55	56	56	56	58
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	57	57	57	57	57	57	57	57	57	57	57	56	56	56	56	56	56	56	56	56	56	57
BATCH\TDU2_TE11	57	57	57	57	57	57	57	57	57	57	57	57	56	56	56	56	56	56	56	56	56	59
~~BATCH\TDU2_TE12~~	~~55~~	~~55~~	~~55~~	~~55~~	~~55~~	~~55~~	~~55~~	~~55~~	~~55~~	~~55~~	~~54~~	~~54~~	~~54~~	~~54~~	~~54~~	~~54~~	~~54~~	~~54~~	~~55~~	~~55~~	~~55~~	~~59~~
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454
BATCH\TDU2_TE3	62	62	62	62	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	60	61	61
BATCH\TDU2_TE4	58	58	58	58	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
BATCH\TDU2_TE5	58	58	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
BATCH\TDU2_TE6	60	60	60	60	60	60	60	60	60	60	60	60	59	59	59	59	59	59	59	59	59	58
BATCH\TDU2_TE7	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
BATCH\TDU2_TE8	57	57	57	57	57	57	57	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58
BATCH\TDU2_TE9	57	57	57	57	57	57	57	57	57	57	57	56	56	56	56	56	56	56	56	56	56	56
BATCH\UNIT1_VAPOR_DISCH	13.25	13.33	13.49	13.46	13.76	13.77	13.56	13.31	13.36	13.46	13.63	13.82	13.85	13.95	13.97	13.86	13.57	13.48	12.81	12.68	12.64	82.91
BATCH\UNIT2_VAPOR_DISCH	16.4	16.51	16.54	16.77	16.71	16.83	16.98	16.89	16.65	16.82	16.78	16.91	16.94	17.08	16.83	16.69	16.26	15.81	15.74	15.44	14.95	14.76

Batch Unit data for June 06

Tagname \ Time	6:36	6:42	6:48	6:54	7:00	7:06	7:12	7:18	7:24	7:30	7:36	7:42	7:48	7:54	8:00	8:06	8:12	8:18	8:24	8:30	8:36	8:42
BATCH\CHILL_TE1	60	61	63	65	66	68	69	69	46	46	47	49	47	48	45	47	48	48	49	47	45	47
BATCH\COOL_TOW_TE2	56	56	56	56	56	56	56	56	55	55	55	54	54	54	54	54	54	54	54	54	54	55
BATCH\CPMS_LEVEL	37.7	22.55	19.27	22.59	24.64	24.55	0.11	23.85	0.14	0.51	-0.29	10.11	0.55	8.5	0.08	24.33	4.86	4.04	4.15	3.74	4.2	3.86
BATCH\FTO_BED_AVG_TEMP	1689	1678	1680	1690	1682	1670	1679	1695	1690	1679	1681	1691	1682	1672	1679	1695	1690	1679	1682	1691	1683	1671
BATCH\FTO_GAS_IN_TEMP	106	107	107	107	107	108	108	108	109	109	109	109	110	110	110	111	111	111	111	111	112	112
BATCH\FTO_GAS_OUT_TEMP	102	102	103	103	103	103	104	103	104	104	104	102	103	104	105	104	104	103	103	102	103	104
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0	0	0	0	0.54	0.54	0	0	0	0	0	0	0	0	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
BATCH\TDU1_HC_VAC	-12	-13	-13	-13	-13	-14	-18	0	0	0	0	0	0	-13	-18	-20	-21	-22	-22	-22	-22	-22
BATCH\TDU1_SOIL_TE13	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	733	92	92	92	106	106	106
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	200	200	200	200	200	200
BATCH\TDU1_TE10	56	56	56	56	56	56	56	56	56	55	55	55	55	55	55	55	55	55	56	56	56	56
BATCH\TDU1_TE11	58	57	57	57	57	58	58	59	59	59	59	60	60	61	61	61	62	62	62	63	63	64
BATCH\TDU1_TE12	59	-61	63	64	66	67	68	56	46	48	50	51	47	50	47	50	50	51	51	50	48	51
BATCH\TDU1_TE2	63	63	63	63	63	63	63	63	64	64	64	64	65	65	66	419	486	521	552	577	598	616
BATCH\TDU1_TE3	74	73	74	73	74	75	75	76	76	76	76	76	76	76	76	125	149	166	179	191	200	211
BATCH\TDU1_TE4	59	59	59	59	60	60	61	62	62	63	63	64	64	64	65	66	68	71	73	77	81	87
BATCH\TDU1_TE5	57	57	57	58	59	59	60	62	61	62	62	63	63	64	65	66	67	68	70	73	76	80
BATCH\TDU1_TE6	55	55	56	57	58	59	57	61	62	63	64	65	66	61	62	63	64	65	66	66	67	68
BATCH\TDU1_TE7	59	59	61	64	66	68	71	73	71	69	64	63	62	73	76	76	74	72	75	74	74	75
BATCH\TDU1_TE8	57	57	57	57	57	57	57	62	57	57	57	58	59	59	58	59	59	60	61	61	61	61
BATCH\TDU1_TE9	59	61	62	64	66	67	68	66	66	65	65	67	68	58	56	57	58	59	60	60	59	59
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	57	57	57	58	58	59	59	59	60	60	61	61	61	62	62	62	62	62	63	63	63	64
BATCH\TDU2_TE11	61	62	64	66	68	70	71	56	41	44	46	48	43	47	42	46	46	47	47	44	42	46
BATCH\TDU2_TE12	60	62	64	65	67	69	70	57	43	45	47	48	45	48	44	46	47	47	48	45	43	46
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454
BATCH\TDU2_TE3	60	61	60	61	61	61	61	61	61	62	62	62	63	63	63	64	64	64	65	65	65	66
BATCH\TDU2_TE4	57	58	60	61	62	63	64	65	66	66	66	67	67	68	69	70	69	69	69	69	69	69
BATCH\TDU2_TE5	57	57	57	57	57	58	58	58	59	59	59	60	60	60	61	61	61	61	61	62	62	62
BATCH\TDU2_TE6	57	57	57	57	57	57	57	57	56	56	56	56	56	56	56	56	56	56	56	56	56	57
BATCH\TDU2_TE7	57	57	57	58	58	58	58	59	59	59	59	59	60	60	60	61	61	61	61	62	62	63
BATCH\TDU2_TE8	56	56	56	57	57	57	58	58	58	57	57	57	57	57	57	58	59	59	59	59	60	61
BATCH\TDU2_TE9	56	57	57	57	57	57	58	58	59	59	59	60	60	60	61	61	62	62	62	63	63	64
BATCH\UNIT1_VAPOR_DISCH	28.42	19.03	14.52	16.22	13.86	106.7	36.18	2.49	1.88	1.09	1.15	0.95	0.26	130.1	35.56	18.65	15.06	13.04	11.72	11.78	10.85	11.38
BATCH\UNIT2_VAPOR_DISCH	14.32	13.86	11.44	9.73	7.96	6.96	5.85	5.08	5	4.62	5.65	6.18	5.68	4.15	3.67	4.18	7.08	8.38	8.34	9.46	8.17	8.14

Batch Unit data for June 06

Tagname / Time	8:48	8:54	9:00	9:06	9:12	9:18	9:24	9:30	9:36	9:42	9:48	9:54	10:00	10:06	10:12	10:18	10:24	10:30	10:36	10:42	10:48	10:54
BATCH\CHILL_TE1	47	49	46	49	47	49	45	48	47	49	48	47	46	49	48	49	47	45	43	44	40	43
BATCH\COOL_TOW_TE2	55	55	55	55	55	55	57	60	61	61	62	63	64	64	65	66	66	66	66	66	66	66
BATCH\CPMS_LEVEL	4.03	4.3	4.87	4.92	8.15	8.14	7.99	9.01	10.07	15.19	19.9	26.94	25.07	42.78	26.9	42.96	28.64	27.81	29.86	28.1	36.74	27.17
BATCH\FTO_BED_AVG_TEMP	1678	1695	1690	1680	1683	1693	1673	1679	1690	1697	1684	1690	1699	1688	1684	1688	1696	1683	1690	1700	1698	1694
BATCH\FTO_GAS_IN_TEMP	112	112	112	113	114	114	115	114	115	115	116	117	118	118	118	117	118	117	119	120	121	121
BATCH\FTO_GAS_OUT_TEMP	105	104	103	104	106	105	106	106	106	105	107	111	106	111	107	112	108	109	113	109	111	111
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
BATCH\TDU1_HC_VAC	-22	-22	-22	-22	-21	-22	-22	-22	-22	-22	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21	-21
BATCH\TDU1_SOIL_TE13	106	106	140	140	140	140	140	140	180	180	180	180	180	180	200	200	200	200	299	299	299	299
BATCH\TDU1_TE1	200	200	400	400	400	400	400	400	700	700	700	700	700	700	700	700	700	700	700	700	700	700
BATCH\TDU1_TE10	56	56	56	56	56	60	81	85	85	87	91	95	99	102	103	104	106	106	106	107	106	105
BATCH\TDU1_TE11	63	63	63	64	66	66	66	67	68	69	70	69	72	73	72	71	72	71	72	72	73	73
BATCH\TDU1_TE12	49	53	49	52	52	54	48	52	51	55	53	51	51	55	52	52	52	48	48	48	45	49
BATCH\TDU1_TE2	631	695	689	687	683	724	731	733	888	920	934	943	950	953	957	959	957	957	955	953	958	957
BATCH\TDU1_TE3	219	265	314	339	359	384	406	422	460	497	521	543	567	580	599	608	629	636	655	664	673	689
BATCH\TDU1_TE4	95	104	120	137	151	159	156	156	157	159	161	164	176	188	199	209	218	228	239	253	266	275
BATCH\TDU1_TE5	87	95	110	131	148	157	155	154	155	158	159	161	161	162	163	181	208	222	233	244	253	258
BATCH\TDU1_TE6	68	69	72	79	100	155	152	152	152	154	156	157	158	158	158	158	158	158	158	157	157	156
BATCH\TDU1_TE7	77	79	78	80	84	84	78	74	73	74	75	74	73	74	71	68	68	67	72	77	78	81
BATCH\TDU1_TE8	62	62	63	64	64	65	61	65	66	67	68	70	71	72	73	73	74	74	74	75	75	74
BATCH\TDU1_TE9	59	61	59	61	61	62	61	62	62	63	64	64	64	65	64	64	63	63	65	66	66	67
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	64	64	65	65	65	67	67	67	70	71	72	70	71	74	72	72	72	71	73	74	72	74
BATCH\TDU2_TE11	43	48	43	47	45	48	42	46	44	48	46	44	42	47	45	47	45	41	39	40	35	40
BATCH\TDU2_TE12	44	48	44	47	46	49	43	46	45	49	46	45	43	48	46	47	46	42	40	41	36	41
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454
BATCH\TDU2_TE3	66	66	66	67	67	67	67	68	68	68	69	69	69	70	70	70	70	70	71	70	71	71
BATCH\TDU2_TE4	68	69	69	69	71	72	72	71	71	72	73	73	73	73	73	71	71	71	72	73	73	73
BATCH\TDU2_TE5	62	63	63	63	64	64	65	65	66	68	69	69	70	71	71	70	71	71	72	73	73	73
BATCH\TDU2_TE6	57	57	57	57	57	58	60	63	64	64	65	66	67	67	68	68	68	69	69	69	69	69
BATCH\TDU2_TE7	63	63	64	64	65	66	66	66	67	67	68	69	69	70	70	70	70	70	70	70	71	71
BATCH\TDU2_TE8	63	63	62	63	64	63	63	64	65	66	68	69	72	71	71	70	70	70	71	73	73	76
BATCH\TDU2_TE9	64	65	66	67	69	70	68	67	68	69	69	69	69	70	70	69	69	69	70	71	72	73
BATCH\UNIT1_VAPOR_DISCH	11.15	10.57	12.3	11.02	8.78	4.41	0.75	2.26	2.34	0.29	-2.49	-3.9	-4.85	-5.95	-5.83	-3.75	-4.85	-5.39	-7.37	-11.4	-12.2	-14.4
BATCH\UNIT2_VAPOR_DISCH	7.34	5.8	7.93	5.32	3.14	2.57	2.88	5.81	9.96	8.03	3.5	2.55	1.32	0.15	2.52	7.9	8.45	9.29	4.79	0.03	1.53	-0.41

Batch Unit data for June 06

Tagname / Time	11:00	11:06	11:12	11:18	11:24	11:30	11:36	11:42	11:48	11:54	12:00	12:06	12:12	12:18	12:24	12:30	12:36	12:42	12:48	12:54	13:00	13:06
BATCH\CHILL_TE1	47	42	44	47	42	41	41	43	41	44	48	42	40	44	47	42	42	45	45	42	45	41
BATCH\COOL_TOW_TE2	65	65	64	64	63	62	61	61	60	60	60	59	59	59	58	58	57	57	56	56	56	56
BATCH\CPMS_LEVEL	27.27	27.75	25.97	54.67	23.86	21.87	25.98	22.5	21.71	17.5	16.86	27.1	17.8	17.66	36.64	25.03	16.52	18.29	18.73	19.47	12.29	27.13
BATCH\FTO_BED_AVG_TEMP	1688	1704	1697	1691	1705	1697	1696	1687	1694	1699	1688	1694	1701	1687	1697	1695	1691	1700	1689	1696	1702	1688
BATCH\FTO_GAS_IN_TEMP	122	123	123	123	123	124	124	124	124	124	124	124	125	125	126	126	128	128	128	128	129	129
BATCH\FTO_GAS_OUT_TEMP	109	110	110	114	108	108	109	106	109	106	107	116	108	109	117	114	116	114	116	122	116	118
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.58	0.62	0.62	0.62
BATCH\TDU1_HC_VAC	-21	-21	-22	-22	-22	-23	-23	-23	-23	-23	-23	-23	-23	-24	-23	-23	-23	-23	-23	-23	-23	-23
BATCH\TDU1_SOIL_TE13	299	345	345	345	345	345	345	345	345	345	345	580	580	580	580	580	580	580	580	580	580	580
BATCH\TDU1_TE1	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700
BATCH\TDU1_TE10	101	99	94	90	87	84	81	79	79	76	75	72	70	67	64	62	61	60	59	59	59	58
BATCH\TDU1_TE11	76	74	74	75	76	76	75	75	74	73	73	74	73	74	73	74	74	73	74	75	74	74
BATCH\TDU1_TE12	53	46	49	52	46	45	45	47	44	48	52	44	45	48	52	45	46	50	48	46	48	45
BATCH\TDU1_TE2	924	907	875	839	812	773	768	751	738	732	707	706	678	672	661	658	645	634	634	627	626	630
BATCH\TDU1_TE3	694	698	699	699	700	694	697	695	692	692	695	693	690	692	690	691	692	690	693	691	691	692
BATCH\TDU1_TE4	281	286	289	290	289	289	288	287	286	284	282	279	275	269	263	257	252	248	243	239	234	230
BATCH\TDU1_TE5	261	262	262	260	257	253	250	248	245	243	241	238	234	228	221	214	207	200	195	189	184	179
BATCH\TDU1_TE6	156	155	154	152	151	150	149	149	150	149	149	149	149	148	147	144	141	136	135	133	131	129
BATCH\TDU1_TE7	83	84	85	85	84	83	84	84	83	84	86	87	89	90	92	93	95	98	97	95	91	90
BATCH\TDU1_TE8	74	72	71	70	68	67	66	66	65	64	64	64	63	62	62	61	60	60	60	60	60	60
BATCH\TDU1_TE9	68	69	69	69	69	68	68	68	68	68	69	68	67	67	67	66	65	65	65	64	64	63
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	72	73	70	76	69	68	68	68	69	70	69	69	72	71	72	71	74	73	73	73	73	74
BATCH\TDU2_TE11	45	37	41	45	37	37	36	40	36	41	46	37	36	41	46	37	37	42	41	38	42	36
BATCH\TDU2_TE12	45	38	42	45	38	37	37	41	37	42	46	37	37	42	46	38	38	43	42	38	42	38
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454
BATCH\TDU2_TE3	71	72	72	72	72	72	72	72	73	73	73	73	74	74	74	74	75	75	75	75	76	76
BATCH\TDU2_TE4	73	74	73	74	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	74	74	74
BATCH\TDU2_TE5	73	74	74	73	72	72	72	72	72	72	72	71	71	71	72	71	71	71	71	71	71	71
BATCH\TDU2_TE6	68	68	67	66	65	65	64	63	63	62	63	62	62	61	61	60	60	59	59	59	58	58
BATCH\TDU2_TE7	71	72	72	71	71	71	72	73	73	73	73	73	73	74	74	74	74	75	75	76	76	76
BATCH\TDU2_TE8	77	78	77	81	81	81	82	82	81	82	82	84	82	83	83	83	82	84	84	87	84	83
BATCH\TDU2_TE9	76	78	78	78	77	77	77	78	77	77	77	76	75	74	74	74	74	75	75	75	75	75
BATCH\UNIT1_VAPOR_DISCH	-15.1	-17.7	-19.3	-19.1	-16.7	-16.8	-19.5	-20.4	-19.2	-21.1	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22
BATCH\UNIT2_VAPOR_DISCH	-0.2	-0.31	-0.41	2.13	5.98	8.38	8.28	7.77	8.78	8	5.17	5.23	5.55	4.99	2.56	3.17	1.38	-0.4	0.15	0.54	2.07	1.84

Batch Unit data for June 06

Tagname \ Time	13:12	13:18	13:24	13:30	13:36	13:42	13:48	13:54	14:00	14:06	14:12	14:18	14:24	14:30	14:36	14:42	14:48	14:54	15:00	15:06	15:12	15:18
BATCH\CHILL_TE1	44	48	44	42	46	48	43	42	46	47	40	42	46	48	41	46	48	43	41	46	48	42
BATCH\COOL_TOW_TE2	56	56	56	56	56	56	56	56	56	56	56	56	57	57	57	57	56	56	56	56	56	57
BATCH\CPMS_LEVEL	33.84	30.61	28	87.86	28.7	29.84	29.5	37.55	32.17	33.93	30.69	39.46	30.2	29.49	27.8	34.13	27.54	26.05	27.56	28.04	29.52	29.97
BATCH\FTO_BED_AVG_TEMP	1698	1700	1697	1690	1688	1696	1700	1696	1689	1697	1702	1697	1690	1699	1703	1698	1691	1700	1703	1695	1706	1694
BATCH\FTO_GAS_IN_TEMP	130	130	129	130	131	132	133	132	133	134	134	134	135	135	135	135	133	133	132	133	134	135
BATCH\FTO_GAS_OUT_TEMP	124	122	123	127	124	127	124	125	124	129	126	128	128	131	128	130	127	130	126	128	129	133
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.58	0.62	0.58
BATCH\TDU1_HC_VAC	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23
BATCH\TDU1_SOIL_TE13	688	688	688	688	693	693	693	693	693	693	693	693	693	693	702	702	702	702	702	698	698	698
BATCH\TDU1_TE1	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	750	750	750
BATCH\TDU1_TE10	56	56	56	56	56	56	56	56	56	56	56	59	59	59	59	59	56	56	56	56	59	59
BATCH\TDU1_TE11	75	75	75	75	75	76	76	75	79	80	78	79	80	81	82	82	78	80	79	81	81	82
BATCH\TDU1_TE12	49	53	47	47	50	52	46	47	51	51	44	48	51	51	46	50	53	46	46	51	54	47
BATCH\TDU1_TE2	627	623	627	635	635	639	647	662	665	665	669	677	683	684	692	700	710	720	696	667	650	645
BATCH\TDU1_TE3	692	694	694	694	696	696	695	695	694	694	696	694	695	695	696	696	695	697	727	733	736	737
BATCH\TDU1_TE4	227	225	221	219	216	214	213	210	207	205	203	202	200	198	196	196	194	192	191	189	189	188
BATCH\TDU1_TE5	175	171	168	165	163	161	159	157	154	152	150	151	149	147	145	144	142	141	139	138	137	136
BATCH\TDU1_TE6	127	124	121	120	119	119	118	116	115	114	113	113	112	111	110	110	108	107	105	105	105	105
BATCH\TDU1_TE7	90	91	92	92	93	94	93	92	91	93	94	95	95	95	95	94	93	92	90	90	91	93
BATCH\TDU1_TE8	60	61	60	61	61	62	62	62	62	62	62	63	62	61	61	61	61	61	61	61	61	61
BATCH\TDU1_TE9	64	65	65	65	66	66	66	65	66	66	65	65	66	66	65	66	66	66	65	66	67	66
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	75	75	73	76	76	77	77	76	77	78	77	77	77	78	78	77	76	77	76	77	77	78
BATCH\TDU2_TE11	41	46	39	38	43	46	38	38	43	44	35	39	43	43	37	42	46	37	37	42	46	36
BATCH\TDU2_TE12	42	46	40	39	44	47	39	39	44	45	37	40	44	44	38	43	47	38	38	43	47	38
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454
BATCH\TDU2_TE3	77	77	77	77	77	77	78	77	78	78	78	78	78	78	78	78	78	78	78	79	78	79
BATCH\TDU2_TE4	74	75	75	75	75	76	76	76	76	76	77	77	77	77	77	78	77	77	77	78	78	78
BATCH\TDU2_TE5	71	72	70	71	72	72	72	72	72	73	73	72	73	73	73	73	72	72	71	72	72	73
BATCH\TDU2_TE6	58	59	58	58	59	59	59	59	59	59	59	59	59	60	60	59	59	59	59	59	59	59
BATCH\TDU2_TE7	76	76	76	76	76	77	77	78	78	78	78	78	78	78	78	77	77	76	76	76	77	78
BATCH\TDU2_TE8	85	86	86	85	84	84	84	84	84	84	84	83	82	83	82	82	81	83	79	79	79	79
BATCH\TDU2_TE9	76	76	76	77	79	81	81	81	81	82	82	81	81	81	81	81	80	79	79	79	79	79
BATCH\UNIT1_VAPOR_DISCH	-22	-22	-22	-22	-22	-22	-21.9	-21.9	-22	-21.9	-22	-22	-22	-22	-22	-22	-18	-14.9	-10.1	-10.4	-13.8	-15.4
BATCH\UNIT2_VAPOR_DISCH	-0.68	-3.17	2.49	2.08	-1.09	-2.8	-3.15	-1.65	-0.49	-1.19	-3.11	-2.43	-3.43	-4.56	-5.51	-4.27	1.74	4.1	5.7	4.53	0.95	-1.02

Batch Unit data for June 06

Tagname \ Time	15:24	15:30	15:36	15:42	15:48	15:54	16:00	16:06	16:12	16:18	16:24	16:30	16:36	16:42	16:48	16:54	17:00	17:06	17:12	17:18	17:24	17:30
BATCH\CHILL_TE1	44	47	41	43	47	42	42	41	40	43	46	42	42	46	39	42	46	47	41	42	45	44
BATCH\COOL_TOW_TE2	57	57	57	56	57	57	57	57	57	57	56	56	56	56	56	56	56	56	56	55	56	56
BATCH\CPMS_LEVEL	30.83	32.33	50.49	30.25	34.8	35.8	27.57	25.26	33.69	34.72	29.42	27.99	21.36	31.29	31.55	32.55	86.46	30.05	30.72	29.24	46.48	37.44
BATCH\FTO_BED_AVG_TEMP	1696	1706	1700	1700	1708	1695	1706	1709	1695	1704	1710	1696	1706	1709	1698	1711	1699	1704	1711	1697	1708	1711
BATCH\FTO_GAS_IN_TEMP	136	133	133	133	134	135	135	134	133	131	130	129	128	130	130	130	128	127	126	126	125	125
BATCH\FTO_GAS_OUT_TEMP	131	134	133	133	131	133	139	131	132	139	128	128	134	127	129	128	132	131	124	125	134	123
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.62	0.62	0.62	0.62	0.58	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
BATCH\TDU1_HC_VAC	-23	-22	-23	-23	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22
BATCH\TDU1_SOIL_TE13	698	721	721	721	721	721	721	725	725	725	725	725	725	760	760	760	760	800	800	800	800	800
BATCH\TDU1_TE1	750	800	800	800	800	800	800	850	850	850	850	850	850	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	59	59	59	58	59	59	59	59	59	59	58	58	58	58	58	58	58	58	58	58	58	58
BATCH\TDU1_TE11	80	81	78	77	79	78	78	77	75	75	74	74	74	74	74	73	72	72	71	71	71	71
BATCH\TDU1_TE12	50	53	46	50	55	50	51	49	46	49	51	45	47	49	43	47	49	51	44	46	50	47
BATCH\TDU1_TE2	647	720	683	654	637	628	638	787	720	687	645	631	632	798	752	686	652	637	633	630	631	632
BATCH\TDU1_TE3	740	770	779	784	787	788	791	821	829	836	837	840	866	878	885	888	890	890	892	891	891	892
BATCH\TDU1_TE4	188	187	188	189	189	189	190	190	192	193	194	194	196	197	198	201	202	203	204	204	205	205
BATCH\TDU1_TE5	135	134	134	134	133	134	133	133	135	136	137	137	138	140	142	142	142	143	143	143	142	141
BATCH\TDU1_TE6	104	103	104	104	105	106	108	108	108	109	109	109	109	111	113	114	114	113	113	112	111	110
BATCH\TDU1_TE7	94	93	93	93	93	94	93	94	94	93	92	90	88	88	89	88	87	86	86	85	85	85
BATCH\TDU1_TE8	61	61	62	61	61	62	61	62	62	62	60	61	60	61	61	61	61	61	61	60	60	60
BATCH\TDU1_TE9	67	67	66	66	68	69	68	67	66	66	65	63	63	63	62	61	61	61	61	60	61	60
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	77	76	76	76	77	76	77	76	74	74	74	73	73	75	76	74	72	72	72	72	72	71
BATCH\TDU2_TE11	40	45	35	40	44	38	39	36	36	40	44	36	38	42	33	38	42	45	36	39	43	40
BATCH\TDU2_TE12	42	46	37	41	45	40	40	38	37	41	45	38	40	43	35	39	43	46	37	39	43	41
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454
BATCH\TDU2_TE3	79	78	79	79	79	78	79	79	79	79	79	79	78	78	78	78	78	78	78	78	77	77
BATCH\TDU2_TE4	78	78	78	78	78	79	79	79	78	78	78	78	78	78	78	77	77	77	77	77	77	76
BATCH\TDU2_TE5	73	71	72	71	72	72	73	72	71	70	69	69	69	70	70	69	68	68	67	67	66	66
BATCH\TDU2_TE6	60	59	59	59	60	59	60	59	59	59	59	59	58	59	59	59	59	58	58	58	58	58
BATCH\TDU2_TE7	78	78	78	78	78	80	80	80	79	78	77	77	77	78	79	78	77	76	75	74	73	73
BATCH\TDU2_TE8	78	78	77	76	76	77	76	75	75	75	73	75	74	73	73	72	71	72	72	71	70	70
BATCH\TDU2_TE9	79	79	78	78	79	79	79	79	79	78	77	77	77	77	76	75	74	74	74	74	73	73
BATCH\UNIT1_VAPOR_DISCH	-18.1	-14.4	-12.3	-12.9	-15.8	-17.6	-19.1	-19.2	-11	-13.5	-12.9	-12.2	-9.76	-12.8	-14.9	-18	-12.2	-10.4	-8.57	-8.23	-8.71	-5.29
BATCH\UNIT2_VAPOR_DISCH	-2.2	1.76	3.7	5.4	3.49	2.19	0.7	1.35	3.63	8.2	10.71	12.23	12.79	10.04	7.33	7.38	11.17	13.31	14.03	14.14	14.17	14.5

Batch Unit data for June 06

Tagname \ Time	17:36	17:42	17:48	17:54	18:00	18:06	18:12	18:18	18:24	18:30	18:36	18:42	18:48	18:54	19:00	19:06	19:12	19:18	19:24	19:30	19:36	19:42
BATCH\CHILL_TE1	41	40	43	40	42	46	46	38	40	44	47	41	41	45	39	41	44	46	41	43	46	46
BATCH\COOL_TOW_TE2	55	55	55	55	55	56	56	56	56	56	56	56	55	55	55	55	55	55	55	55	55	55
BATCH\CPMS_LEVEL	26.58	31.22	29.43	16.81	17.98	17.65	18.75	16.01	14.83	17.65	15.75	13.37	12.82	12.79	16.39	11.51	19.43	16.68	16.08	14.62	13.3	48.28
BATCH\FTO_BED_AVG_TEMP	1698	1711	1703	1704	1713	1697	1709	1713	1698	1710	1707	1702	1713	1695	1707	1712	1697	1708	1709	1699	1712	1696
BATCH\FTO_GAS_IN_TEMP	125	124	124	124	125	126	125	125	125	125	125	124	124	124	124	124	124	124	124	124	124	123
BATCH\FTO_GAS_OUT_TEMP	123	128	126	127	124	127	134	126	128	133	128	128	125	127	138	123	125	131	126	127	126	132
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.58	0.62	0.62	0.62	0.58	0.62	0.58	0.62
BATCH\TDU1_HC_VAC	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23
BATCH\TDU1_SOIL_TE13	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	785	785
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	57	57	57	57	57	58	58	57	58	58	58	57	57	57	57	57	57	57	57	57	57	57
BATCH\TDU1_TE11	71	70	70	70	71	71	71	71	71	71	70	70	70	70	70	70	69	70	70	70	69	69
BATCH\TDU1_TE12	44	44	47	44	47	50	50	41	45	48	51	43	45	48	41	45	48	49	44	48	50	47
BATCH\TDU1_TE2	638	635	640	643	641	642	643	643	645	647	647	650	659	665	672	675	677	677	669	665	662	664
BATCH\TDU1_TE3	891	892	892	891	892	892	891	891	891	891	892	892	892	892	892	893	892	892	893	892	893	893
BATCH\TDU1_TE4	205	205	204	204	204	203	203	203	203	202	202	201	201	199	199	198	198	197	197	196	196	196
BATCH\TDU1_TE5	140	138	136	135	134	132	131	130	129	129	128	128	127	127	126	126	126	125	124	124	123	123
BATCH\TDU1_TE6	108	107	106	105	105	104	104	104	104	103	103	103	102	102	102	101	101	101	100	100	99	99
BATCH\TDU1_TE7	83	83	83	83	84	84	85	85	86	85	85	85	83	82	82	81	82	82	82	81	81	81
BATCH\TDU1_TE8	60	60	60	60	60	59	59	60	60	60	60	60	60	60	60	60	59	59	59	59	59	59
BATCH\TDU1_TE9	60	60	60	60	60	61	61	59	60	60	61	59	59	60	59	59	59	59	59	59	60	59
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	70	70	70	72	74	72	72	71	71	71	70	70	69	69	69	69	69	69	69	68	68	67
BATCH\TDU2_TE11	36	36	41	35	40	43	44	32	37	41	45	36	38	42	33	37	41	43	37	41	44	42
~~BATCH\TDU2_TE12~~	~~37~~	~~37~~	~~41~~	~~36~~	~~40~~	~~44~~	~~44~~	~~33~~	~~38~~	~~42~~	~~45~~	~~37~~	~~39~~	~~43~~	~~34~~	~~38~~	~~42~~	~~44~~	~~37~~	~~41~~	~~45~~	~~42~~
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454
BATCH\TDU2_TE3	77	77	77	76	76	76	77	76	76	76	76	76	75	75	75	75	76	75	75	75	74	74
BATCH\TDU2_TE4	76	76	76	76	76	76	76	75	75	75	75	74	74	74	74	74	74	74	74	73	73	73
BATCH\TDU2_TE5	66	65	65	65	65	65	65	65	65	65	65	64	64	64	64	64	64	64	63	63	63	63
BATCH\TDU2_TE6	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	57	58	58	58	58	57	57
BATCH\TDU2_TE7	72	72	72	71	71	71	71	71	71	70	70	70	70	69	69	69	69	69	69	69	68	68
BATCH\TDU2_TE8	70	69	69	69	69	69	68	68	67	67	67	67	67	67	67	65	66	66	66	65	65	64
BATCH\TDU2_TE9	73	72	72	72	72	72	71	71	71	71	71	71	70	70	70	70	70	70	70	69	69	69
BATCH\UNIT1_VAPOR_DISCH	-6.07	-5.75	-6.61	-7.42	-11	-14.5	-13.3	-10.6	-9.75	-8.46	-8.22	-7.34	-5.22	-3.43	-3.61	-3.03	-2.31	-2.81	-2.75	-2.48	-1.02	-0.34
BATCH\UNIT2_VAPOR_DISCH	14.92	15.01	15.06	14.52	12.26	10.4	10.54	11.81	11.61	10.94	12.03	13.71	15.15	16	15.71	15.74	15.87	15.69	15.07	15.75	17.3	17.63

Batch Unit data for June 06

Tagname \ Time	17:36	17:42	17:48	17:54	18:00	18:06	18:12	18:18	18:24	18:30	18:36	18:42	18:48	18:54	19:00	19:06	19:12	19:18	19:24	19:30	19:36	19:42
BATCH\CHILL_TE1	41	40	43	40	42	46	46	38	40	44	47	41	41	45	39	41	44	45	41	43	46	45
BATCH\COOL_TOW_TE2	55	55	55	55	55	56	56	56	56	56	56	56	55	55	55	55	55	55	55	55	55	55
BATCH\CPMS_LEVEL	26.58	31.22	29.49	16.81	17.96	17.65	16.75	16.01	14.83	17.65	16.75	13.37	12.82	12.79	16.39	11.61	19.49	16.66	16.08	14.62	13.3	46.26
BATCH\FTO_BED_AVG_TEMP	1698	1711	1703	1704	1713	1697	1709	1713	1698	1710	1707	1702	1713	1695	1707	1712	1697	1708	1709	1699	1712	1696
BATCH\FTO_GAS_IN_TEMP	125	124	124	124	125	126	125	125	125	125	125	124	124	124	124	124	124	124	124	124	124	123
BATCH\FTO_GAS_OUT_TEMP	123	128	126	127	124	127	134	126	128	133	128	128	125	127	138	123	125	131	126	127	126	132
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.58	0.62	0.62	0.62	0.58	0.62	0.58	0.62
BATCH\TDU1_HC_VAC	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23
BATCH\TDU1_SOIL_TE13	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	785	785
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	57	57	57	57	57	58	58	57	58	58	58	57	57	57	57	57	57	57	57	57	57	57
BATCH\TDU1_TE11	71	70	70	70	71	71	71	71	71	71	70	70	70	70	70	70	69	70	70	70	69	69
BATCH\TDU1_TE12	44	44	47	44	47	50	50	41	45	48	51	43	45	48	41	45	48	49	44	48	50	47
BATCH\TDU1_TE2	638	635	640	643	641	642	643	643	645	647	647	650	659	665	672	675	677	677	669	665	662	664
BATCH\TDU1_TE3	891	892	892	891	892	892	891	891	891	891	892	892	892	892	892	893	892	892	893	892	893	893
BATCH\TDU1_TE4	205	205	204	204	204	203	203	203	203	202	202	201	201	199	199	198	198	197	197	196	196	196
BATCH\TDU1_TE5	140	138	136	135	134	132	131	130	129	129	128	128	127	127	126	126	126	125	124	124	123	123
BATCH\TDU1_TE6	108	107	106	105	105	104	104	104	104	103	103	103	102	102	102	101	101	101	100	100	99	99
BATCH\TDU1_TE7	83	83	83	83	84	84	85	85	86	85	85	85	83	82	82	81	82	82	82	81	81	81
BATCH\TDU1_TE8	60	60	60	60	60	59	59	60	60	60	60	60	60	60	60	60	59	59	59	59	59	59
BATCH\TDU1_TE9	60	60	60	60	60	61	61	59	60	60	61	59	59	60	59	59	59	59	59	59	60	59
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	70	70	70	72	74	72	72	71	71	71	70	70	69	69	69	69	69	69	69	68	68	67
BATCH\TDU2_TE11	36	36	41	35	40	43	44	32	37	41	45	36	38	42	33	37	41	43	37	41	44	42
BATCH\TDU2_TE12	37	37	41	38	40	44	44	33	38	42	45	37	39	43	34	38	42	44	37	41	45	42
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454	-454
BATCH\TDU2_TE3	77	77	77	76	76	76	77	76	76	76	76	76	75	75	75	75	75	75	75	75	74	74
BATCH\TDU2_TE4	76	76	76	76	76	76	76	75	75	75	75	74	74	74	74	74	74	74	74	73	73	73
BATCH\TDU2_TE5	66	65	65	65	65	65	65	65	65	65	65	64	64	64	64	64	64	64	63	63	63	63
BATCH\TDU2_TE6	58	58	58	58	58	58	58	58	58	58	58	58	58	58	58	57	58	58	58	58	57	57
BATCH\TDU2_TE7	72	72	72	71	71	71	71	71	71	70	70	70	70	69	69	69	69	69	69	69	68	68
BATCH\TDU2_TE8	70	69	69	69	69	69	68	68	67	67	67	67	67	67	67	66	66	66	66	65	65	64
BATCH\TDU2_TE9	73	72	72	72	72	72	71	71	71	71	71	71	70	70	70	70	70	70	70	69	69	69
BATCH\UNIT1_VAPOR_DISCH	-8.07	-5.75	-6.61	-7.42	-11	-14.5	-13.3	-10.8	-9.75	-8.46	-8.22	-7.34	-5.22	-3.43	-3.81	-3.03	-2.31	-2.81	-2.75	-2.48	-1.02	-0.34
BATCH\UNIT2_VAPOR_DISCH	14.92	15.01	15.06	14.52	12.26	10.4	10.54	11.81	11.61	10.94	12.03	13.71	15.16	16	15.71	15.74	15.87	15.59	15.07	15.75	17.3	17.53

Batch Unit data for June 06

Tagname / Time	19:48	19:54	20:00	20:06	20:12	20:18	20:24	20:30	20:36	20:42	20:48	20:54	21:00	21:06	21:12	21:18	21:24	21:30	21:36	21:42	21:48	21:54
BATCH\CHILL_TE1	40	43	46	41	41	44	46	39	42	46	43	41	44	48	49	49	50	50	51	51	52	52
BATCH\COOL_TOW_TE2	55	54	54	54	54	54	54	54	53	53	53	53	53	52	51	51	51	51	51	52	54	54
BATCH\CPMS_LEVEL	13.21	14.96	14.5	10.3	5.06	4.87	4.86	6.32	3.64	3.87	3.63	2.95	1.99	0.79	0.64	0.66	0.64	0.47	0.46	0.55	0.36	0.36
BATCH\FTO_BED_AVG_TEMP	1705	1712	1695	1706	1708	1694	1709	1694	1698	1707	1698	1692	1704	1682	1693	1700	1683	1681	1689	1683	1675	1686
BATCH\FTO_GAS_IN_TEMP	122	122	121	120	119	119	119	118	118	117	117	117	117	117	116	116	115	115	115	114	115	115
BATCH\FTO_GAS_OUT_TEMP	133	126	128	141	126	127	130	129	129	125	125	125	125	127	135	123	128	122	129	122	121	123
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	241	62	73	73	68	65	65	62
BATCH\TDU1_DRUM_RPM	0.62	0.62	0.62	0.58	0.62	0.58	0.62	0.58	0.62	0.62	0.04	0	0	0	0	0.62	0.62	0.62	0.62	0.62	0.62	0.62
BATCH\TDU1_HC_VAC	-23	-23	-23	-23	-23	-23	-23	-23	-23	-23	-24	-24	-23	0	0	0	0	0	0	0	0	0
BATCH\TDU1_SOIL_TE13	785	785	795	795	795	795	795	795	795	795	795	795	795	795	795	795	795	795	795	795	795	795
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	56	56	56	56	56	56	55	55	55	55	55	55	54	55	55	56	56	57	57	57	55	55
BATCH\TDU1_TE11	69	69	68	69	67	67	66	66	65	65	65	64	64	64	63	64	65	65	64	64	64	64
BATCH\TDU1_TE12	44	47	50	43	45	48	49	42	45	48	45	44	46	48	49	50	51	52	52	52	52	53
BATCH\TDU1_TE2	662	658	406	164	94	56	35	25	17	13	11	9	7	5	5	5	5	6	6	7	10	16
BATCH\TDU1_TE3	894	893	894	879	866	853	838	825	811	797	782	766	750	736	723	711	701	692	686	680	674	665
BATCH\TDU1_TE4	196	196	195	194	193	192	190	189	187	186	183	179	176	154	153	153	152	150	157	155	153	150
BATCH\TDU1_TE5	122	122	121	120	118	116	114	111	109	106	104	101	97	90	88	85	83	82	81	80	79	79
BATCH\TDU1_TE6	99	98	99	98	96	95	93	90	89	87	85	83	81	75	76	74	72	72	71	71	71	71
BATCH\TDU1_TE7	80	80	80	79	78	78	78	76	76	75	74	73	72	73	72	71	71	71	69	68	68	67
BATCH\TDU1_TE8	59	59	59	59	59	59	58	58	58	58	58	57	57	57	62	59	58	58	58	58	59	59
BATCH\TDU1_TE9	58	58	58	57	57	57	57	56	56	56	56	55	56	57	58	58	59	59	59	60	60	60
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	67	66	66	65	65	64	64	63	63	62	62	62	62	61	61	61	61	61	61	61	61	62
BATCH\TDU2_TE11	37	41	44	36	38	42	44	35	39	43	41	38	41	44	47	48	49	50	51	52	53	54
BATCH\TDU2_TE12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ORIGINAL
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Proof of Performance, Test #3

Batch Unit data for June 07

Tagname / Time	6:12	6:18	6:24	6:30	6:36	6:42	6:48	6:54	7:00	7:06	7:12	7:18	7:24	7:30	7:36	7:42	7:48	7:54	8:00	8:06	8:12	8:18
BATCH\CHILL_TE1	58	57	59	60	62	64	66	43	36	37	40	42	44	36	36	37	40	43	43	38	40	44
BATCH\COOL_TOW_TE2	59	56	54	53	52	52	51	51	51	51	51	51	51	51	51	51	51	52	52	52	52	52
BATCH\CPMS_LEVEL	0.17	12.64	7.81	5.12	3.94	2.81	3.66	3.2	2.46	2.22	2.28	2.33	0.86	0.79	0.72	10.21	4.91	7.53	-0.09	24.13	3.83	4.81
BATCH\FTO_BED_AVG_TEMP	1707	1688	1697	1702	1680	1684	1690	1692	1669	1676	1691	1696	1676	1683	1694	1677	1675	1683	1694	1681	1684	1690
BATCH\FTO_GAS_IN_TEMP	109	109	109	109	110	110	110	110	110	111	111	111	111	111	111	111	111	112	112	112	113	112
BATCH\FTO_GAS_OUT_TEMP	120	122	126	117	122	119	120	116	120	118	119	116	120	125	116	120	117	123	116	120	116	121
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.33	0.33	0.33	0.33
BATCH\TDU1_HC_VAC	-1	-13	-18	-19	-19	-20	-20	-21	-21	-22	-22	-21	-2	0	0	-4	-14	-18	-19	-20	-20	-20
BATCH\TDU1_SOIL_TE13	795	-795	795	795	795	795	0	0	0	0	0	0	0	0	0	0	0	0	0	102	102	102
BATCH\TDU1_TE1	900	900	900	900	900	900	0	0	0	0	0	0	0	0	0	200	200	200	200	200	200	200
BATCH\TDU1_TE10	59	56	54	53	52	52	51	51	51	51	52	52	52	52	52	52	52	52	53	53	53	53
BATCH\TDU1_TE11	58	58	58	58	58	58	58	58	58	58	58	58	58	59	59	59	59	60	61	61	61	61
BATCH\TDU1_TE12	56	58	59	61	62	64	56	43	39	42	44	47	48	39	41	42	45	48	46	43	46	48
BATCH\TDU1_TE2	67	67	68	68	68	67	68	68	68	68	69	69	69	70	70	70	70	70	88	408	473	507
BATCH\TDU1_TE3	107	106	105	105	104	104	103	102	102	102	101	101	100	100	100	99	99	99	99	143	168	188
BATCH\TDU1_TE4	64	70	70	71	72	72	72	73	73	73	73	73	69	71	72	72	73	74	74	74	75	76
BATCH\TDU1_TE5	58	63	65	66	67	68	68	69	69	70	70	70	67	66	66	67	70	71	71	71	72	72
BATCH\TDU1_TE6	57	56	57	58	58	59	59	60	60	60	61	61	62	63	64	61	62	63	64	64	64	64
BATCH\TDU1_TE7	58	60	62	65	69	70	73	73	74	74	75	75	73	70	69	73	75	76	76	76	76	76
BATCH\TDU1_TE8	59	58	57	57	56	57	56	57	57	56	56	56	68	56	54	56	55	55	56	56	56	57
BATCH\TDU1_TE9	57	57	59	60	61	62	60	55	52	53	53	53	56	57	58	52	51	53	53	52	53	54

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Batch Unit data for June 07

Tagname \ Time	8:24	8:30	8:36	8:42	8:48	8:54	9:00	9:06	9:12	9:18	9:24	9:30	9:36	9:42	9:48	9:54	10:00	10:06	10:12	10:18	10:24	10:30
BATCH\CHILL_TE1	38	38	42	44	37	39	42	40	38	41	42	38	41	44	37	40	44	38	38	41	43	38
BATCH\COOL_TOW_TE2	52	52	52	53	53	53	53	53	53	54	54	56	58	58	59	59	60	60	62	64	65	66
BATCH\CPM3_LEVEL	3.66	5.91	3.84	5.17	4.06	6.34	3.62	4.81	4.56	9.29	4.79	4.46	2.74	2.27	2.4	3.49	3.74	4.11	4.17	3.71	5.46	3.76
BATCH\FTO_BED_AVG_TEMP	1697	1679	1676	1683	1693	1680	1681	1688	1696	1677	1677	1688	1685	1680	1692	1668	1678	1693	1696	1678	1684	1695
BATCH\FTO_GAS_IN_TEMP	112	112	113	114	114	114	115	116	117	117	118	119	119	119	120	120	121	121	122	122	122	123
BATCH\FTO_GAS_OUT_TEMP	115	118	115	120	114	119	116	122	116	120	116	121	116	115	115	116	115	116	115	116	125	114
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.33	0.33	0.33	0.33	0.37	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.29	0.33	0.33	0.33	0.33	0.33	0.7
BATCH\TDU1_HC_VAC	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-21	-22	-22	-22	-22	-22	-22	-21	-22	-22	-22	-22
BATCH\TDU1_SOIL_TE13	102	132	132	132	132	132	132	157	157	157	157	157	157	207	207	207	207	212	212	212	212	212
BATCH\TDU1_TE1	200	200	200	200	200	200	200	400	400	400	400	400	400	400	400	400	700	700	700	700	700	700
BATCH\TDU1_TE10	53	53	53	54	54	54	54	54	54	55	62	76	76	75	76	76	79	89	101	107	110	115
BATCH\TDU1_TE11	61	61	62	63	63	63	64	65	65	66	67	68	69	70	71	71	71	72	74	73	75	76
BATCH\TDU1_TE12	40	45	49	50	43	46	49	45	47	50	49	47	50	61	47	51	54	47	49	52	51	47
BATCH\TDU1_TE2	537	560	579	596	609	622	615	590	576	567	563	560	557	558	575	577	864	900	920	929	935	939
BATCH\TDU1_TE3	204	217	230	241	250	258	304	333	351	364	374	383	387	391	395	400	456	498	526	547	566	583
BATCH\TDU1_TE4	78	80	84	89	95	102	111	123	139	155	160	157	156	160	169	173	185	211	237	260	283	306
BATCH\TDU1_TE5	73	75	78	81	86	92	100	113	130	152	159	156	155	155	155	155	156	159	159	180	227	266
BATCH\TDU1_TE6	65	65	66	67	68	70	72	76	83	111	157	153	152	153	153	153	154	156	155	154	154	155
BATCH\TDU1_TE7	76	76	76	78	79	82	83	87	92	96	95	92	91	90	91	92	94	92	90	88	86	83
BATCH\TDU1_TE8	57	57	58	59	60	60	61	61	62	62	62	59	61	61	62	63	63	65	69	72	75	78
BATCH\TDU1_TE9	52	54	56	57	55	57	58	58	58	59	60	61	62	64	64	65	67	67	67	69	70	70

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Batch Unit data for June 07

Tagname \ Time	10:36	10:42	10:48	10:54	11:00	11:06	11:12	11:18	11:24	11:30	11:36	11:42	11:48	11:54	12:00	12:04	12:10	12:16	12:22	12:28	12:34	12:40
BATCH\CHILL_TE1	41	44	42	42	42	42	42	42	42	42	42	42	42	42	42	0	38	41	42	37	40	43
BATCH\COOL_TOW_TE2	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	0	67	66	66	66	66	66
BATCH\CPMS_LEVEL	3.92	3.86	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	0	26.21	27.6	28.86	28.79	37.2	37.85
BATCH\FTO_BED_AVG_TEMP	1675	1682	1676	1676	1676	1676	1676	1676	1676	1676	1676	1676	1676	1676	1676	0	1710	1697	1706	1709	1711	1708
BATCH\FTO_GAS_IN_TEMP	123	122	122	122	122	122	122	122	122	122	122	122	122	122	122	0	119	118	118	118	118	119
BATCH\FTO_GAS_OUT_TEMP	116	120	117	117	117	117	117	117	117	117	117	117	117	117	117	0	117	118	117	117	116	118
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0	0.74	0.7	0.7	0.7	0.74	0.7
BATCH\TDU1_HC_VAC	-21	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	0	-22	-21	-21	-21	-21	-21
BATCH\TDU1_SOIL_TE13	295	295	295	295	295	295	295	295	295	295	295	295	295	295	295	0	553	553	553	553	611	611
BATCH\TDU1_TE1	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	0	700	700	700	700	700	700
BATCH\TDU1_TE10	118	-118	117	117	117	117	117	117	117	117	117	117	117	117	117	0	60	59	59	58	58	58
BATCH\TDU1_TE11	76	75	75	75	75	75	75	75	75	75	75	75	75	75	75	0	69	69	70	70	69	70
BATCH\TDU1_TE12	51	52	49	49	49	49	49	49	49	49	49	49	49	49	49	0	46	49	47	45	48	50
BATCH\TDU1_TE2	943	942	943	943	943	943	943	943	943	943	943	943	943	943	943	0	685	667	648	632	617	604
BATCH\TDU1_TE3	596	606	609	609	609	609	609	609	609	609	609	609	609	609	609	0	695	693	694	692	693	694
BATCH\TDU1_TE4	325	342	347	347	347	347	347	347	347	347	347	347	347	347	347	0	300	294	286	281	276	270
BATCH\TDU1_TE5	294	321	329	329	329	329	329	329	329	329	329	329	329	329	329	0	257	248	238	232	224	219
BATCH\TDU1_TE6	155	154	154	154	154	154	154	154	154	154	154	154	154	154	154	0	150	148	147	147	145	143
BATCH\TDU1_TE7	79	74	73	73	73	73	73	73	73	73	73	73	73	73	73	0	87	85	85	85	86	86
BATCH\TDU1_TE8	78	78	79	79	79	79	79	79	79	79	79	79	79	79	79	0	59	59	58	58	58	58
BATCH\TDU1_TE9	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	0	64	64	64	63	63	63

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Batch Unit data for June 07

Tagname \ Time	12:46	12:52	12:58	13:04	13:10	13:16	13:22	13:28	13:34	13:40	13:46	13:52	13:58	14:04	14:10	14:16	14:22	14:28	14:34	14:40	14:46	14:52
BATCH\CHILL_TE1	37	39	43	38	39	43	40	38	42	44	36	37	41	44	37	38	42	46	38	38	42	41
BATCH\COOL_TOW_TE2	55	56	56	55	55	56	55	55	55	55	55	55	55	55	54	54	53	53	53	53	53	53
BATCH\CPMS_LEVEL	35.97	37.71	39.99	36.76	36.7	37.64	37.41	33.79	34.21	29.81	21.65	29.9	43.08	42.28	40.33	39.29	40.14	41.06	34.15	38.83	42.71	42.72
BATCH\FTO_BED_AVG_TEMP	1706	1708	1707	1704	1704	1710	1707	1702	1708	1713	1715	1703	1710	1710	1716	1704	1710	1715	1711	1710	1715	1706
BATCH\FTO_GAS_IN_TEMP	119	121	122	122	123	124	125	127	128	127	124	125	126	124	123	121	120	119	118	118	118	119
BATCH\FTO_GAS_OUT_TEMP	118	118	116	117	117	118	118	121	122	121	118	120	121	119	118	119	117	117	121	118	116	117
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.74	0.74	0.7	0.74	0.7	0.7	0.7	0.74	0.7	0.7	0.7	0.74	0.7	0.7	0.74	0.7	0.7	0.7	0.74	0.7	0.7	0.7
BATCH\TDU1_HC_VAC	-21	-21	-21	-21	-21	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20
BATCH\TDU1_SOIL_TE13	611	611	611	635	635	635	635	635	644	644	644	644	644	647	647	647	647	647	647	643	643	643
BATCH\TDU1_TE1	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700
BATCH\TDU1_TE10	57	57	57	57	57	56	56	56	57	56	57	57	57	56	56	55	55	54	54	54	54	54
BATCH\TDU1_TE11	69	70	70	71	72	72	72	73	74	72	70	72	72	71	69	69	68	67	67	67	67	68
BATCH\TDU1_TE12	44	48	51	44	47	51	45	47	51	50	41	46	49	51	43	46	49	51	42	46	49	47
BATCH\TDU1_TE2	599	594	596	603	609	613	618	625	631	637	645	656	664	669	676	680	682	680	680	681	682	682
BATCH\TDU1_TE3	694	694	694	694	693	694	693	693	694	695	694	696	695	694	697	699	700	702	704	706	708	711
BATCH\TDU1_TE4	265	259	254	248	244	240	237	233	229	225	221	218	215	212	210	207	204	203	200	198	197	195
BATCH\TDU1_TE5	212	206	198	190	185	179	177	173	168	164	160	158	154	151	148	145	143	141	139	137	136	137
BATCH\TDU1_TE6	141	139	136	133	130	128	125	123	121	118	115	115	114	111	109	106	105	104	102	100	100	100
BATCH\TDU1_TE7	87	89	90	88	88	89	89	90	92	93	92	91	92	92	91	89	88	86	85	84	84	85
BATCH\TDU1_TE8	58	58	58	58	58	58	58	59	59	59	59	59	59	58	58	58	57	57	57	58	58	58
BATCH\TDU1_TE9	62	62	62	61	61	62	61	61	63	63	60	61	61	62	59	59	58	59	56	56	57	57

Continuous Unit 1 for June 07, 1998

Tagname	Time 8:06	8:12	8:18	8:24	8:30	8:36	8:42	8:48	8:54	9:00	9:06	9:12	9:18	9:24	9:30	9:36	9:42	9:48	9:54	10:00	10:06	10:12	10:18	10:24	10:30	10:36	10:42
FTO1\COMB_FAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
FTO1\CPMS_LEVEL	4.42	2.24	5.49	2.59	3.5	2.2	3.04	2.32	2.54	1.03	2.97	3.5	3.25	1.8	4.98	1.81	6.88	2.9	5.88	4.13	2.41	2.27	3.91	4.16	2.36	4.35	2.95
FTO1\TE101	64	64	64	64	64	65	66	66	66	66	67	67	68	68	69	69	70	70	71	71	72	73	73	73	74	74	73
FTO1\TE105	99	125	106	116	102	131	108	118	108	129	111	116	118	125	119	115	136	121	134	115	146	119	131	117	140	119	126
FTO1\TE106	81	145	110	72	92	151	101	76	105	144	94	81	127	135	87	88	153	123	79	98	166	113	83	109	154	104	86
FTO1\TE107	101	70	81	139	97	72	94	135	93	76	109	129	85	81	130	122	80	89	162	112	79	100	151	104	82	112	141
FTO1\TE108	679	631	648	652	603	575	594	584	542	530	548	527	489	492	507	478	446	461	471	436	416	433	431	400	392	407	397
FTO1\TE109	723	729	685	646	661	657	613	595	609	595	554	550	565	541	505	513	525	493	463	481	484	451	436	451	446	416	411
TDU1\CYL_DRIVE_AMPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\CYL_DRIVE_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16	20.16
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21
TDU1\TE_10_TEMP	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
TDU1\TE_11_TEMP	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
TDU1\TE_12_TEMP	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
TDU1\TE_13_TEMP	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
TDU1\TE_14_TEMP	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
TDU1\TE_15_TEMP	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
TDU1\TE_16_TEMP	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
TDU1\TE_17_TEMP	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
TDU1\TE_18_TEMP	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
TDU1\TE_1_TEMP	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
TDU1\TE_2_TEMP	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
TDU1\TE_3_TEMP	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
TDU1\TE_4_TEMP	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
TDU1\TE_5_TEMP	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
TDU1\TE_6_TEMP	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
TDU1\TE_7_TEMP	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
TDU1\TE_8_TEMP	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
TDU1\TE_9_TEMP	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
TDU1\ZONE1_TEMP_SET	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
TDU1\ZONE2_TEMP_SET	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
TDU1\ZONE3_TEMP_SET	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
VRS1\CT_LIQUIDOUTLETTEMP	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
VRS1\RD_SCRUBLIQUIDTEMP	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
VRS1\WESP_OUTLETGASPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

Batch Unit data for June 07

Tagname \ Time	17:10	17:16	17:22	17:28	17:34	17:40	17:46	17:52	17:58	18:04	18:10	18:16	18:22	18:28	18:34	18:40	18:46	18:52	18:58	19:04	19:10	19:16
BATCH\CHILL_TE1	42	44	37	40	43	39	39	42	45	38	39	42	41	38	41	38	36	39	36	39	42	41
BATCH\COOL_TOW_TE2	55	55	54	54	53	53	53	53	53	53	53	53	54	54	54	54	54	54	53	53	53	53
BATCH\CPMS_LEVEL	38.36	32.45	24.72	27.54	25.97	19.44	11.3	16.06	25.58	21.93	23.34	22.35	22.28	19.77	19.2	18.33	17.75	16.42	15.58	15.47	14.81	15.89
BATCH\FTO_BED_AVG_TEMP	1715	1726	1722	1727	1726	1712	1719	1726	1726	1711	1718	1725	1724	1710	1717	1724	1709	1712	1722	1723	1707	1718
BATCH\FTO_GAS_IN_TEMP	123	123	122	122	121	121	121	122	122	122	122	122	121	121	120	120	119	119	119	119	119	118
BATCH\FTO_GAS_OUT_TEMP	121	122	122	122	118	119	120	122	121	123	122	123	121	121	119	119	122	118	123	118	119	123
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.7	0.7	0.7	0.7	0.74	0.74	0.7	0.74	0.7	0.74	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.74	0.7
BATCH\TDU1_HC_VAC	-21	-21	-22	-21	-22	-21	-21	-21	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20
BATCH\TDU1_SOIL_TE13	750	750	750	750	750	750	750	750	750	750	750	750	750	750	730	730	730	730	730	725	725	725
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	56	56	56	55	55	55	54	54	54	55	54	55	55	55	55	55	55	55	55	55	54	54
BATCH\TDU1_TE11	71	70	70	69	68	68	67	67	67	68	67	67	67	68	67	67	67	67	67	67	67	66
BATCH\TDU1_TE12	52	52	46	48	50	44	46	49	51	42	46	49	46	46	48	44	43	46	43	46	49	46
BATCH\TDU1_TE2	602	608	608	606	608	609	617	615	622	625	627	634	638	645	653	660	658	650	645	640	642	644
BATCH\TDU1_TE3	898	898	898	898	897	897	897	897	897	897	898	897	897	897	897	897	896	897	897	897	897	897
BATCH\TDU1_TE4	230	229	227	226	225	224	223	222	220	219	218	217	216	216	214	212	212	213	213	213	213	214
BATCH\TDU1_TE5	154	151	147	143	142	139	137	136	135	134	133	132	131	130	129	128	126	126	125	124	124	123
BATCH\TDU1_TE6	112	110	108	105	105	103	102	101	100	99	98	98	98	97	97	97	97	96	96	96	96	96
BATCH\TDU1_TE7	84	84	83	84	84	82	81	81	81	81	81	81	81	80	80	79	79	79	79	79	80	79
BATCH\TDU1_TE8	59	59	59	58	58	58	58	58	57	58	57	57	57	57	57	57	57	57	57	57	57	57
BATCH\TDU1_TE9	57	58	55	54	55	54	53	54	55	54	53	54	54	53	54	54	53	54	53	54	54	54

ORIGINAL

Batch Unit data for June 07

Tagname \ Time	19:22	19:28	19:34	19:40	19:46	19:52	19:58	20:04	20:10	20:16	20:22	20:28	20:34	20:40	20:46	20:52	20:58	21:04
BATCH\CHILL_TE1	37	40	43	38	39	42	45	40	44	45	41	44	46	39	40	43	47	49
BATCH\COOL_TOW_TE2	53	53	53	53	53	53	52	52	52	52	51	51	51	51	51	51	51	51
BATCH\CPMS_LEVEL	16.28	20.64	12.27	14.61	11.66	11.04	11.14	11.36	9.36	9.32	15.64	7.49	9.26	6.96	10.07	5.76	1.62	1.24
BATCH\FTO_BED_AVG_TEMP	1721	1710	1712	1719	1702	1710	1717	1716	1702	1713	1700	1698	1708	1711	1697	1694	1703	1706
BATCH\FTO_GAS_IN_TEMP	118	116	116	116	116	116	115	115	115	115	115	115	114	114	114	114	114	114
BATCH\FTO_GAS_OUT_TEMP	115	117	116	114	115	114	114	113	114	115	119	115	121	114	119	116	121	114
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.7	0.7	0.7	0.74	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0	0	0	0
BATCH\TDU1_HC_VAC	-20	-21	-22	-22	-22	-22	-22	-22	-22	-22	-22	-22	-23	-22	-23	-23	-12	0
BATCH\TDU1_SOIL_TE13	725	725	750	750	750	750	750	752	752	752	752	752	752	752	752	752	752	752
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	54	54	54	54	54	54	54	54	54	54	53	53	53	53	53	53	53	53
BATCH\TDU1_TE11	66	65	65	64	64	64	64	63	63	63	63	63	63	63	62	62	62	62
BATCH\TDU1_TE12	44	46	49	42	45	48	50	42	45	46	43	46	49	39	43	45	48	49
BATCH\TDU1_TE2	655	670	679	680	677	678	676	209	132	95	71	57	45	37	33	27	23	17
BATCH\TDU1_TE3	898	898	897	897	897	898	898	878	862	848	833	820	807	793	782	764	747	730
BATCH\TDU1_TE4	214	214	213	214	214	213	214	213	213	211	210	208	207	206	204	200	179	176
BATCH\TDU1_TE5	122	121	119	119	117	116	116	114	111	107	105	103	100	98	98	95	88	85
BATCH\TDU1_TE6	95	95	93	93	93	93	91	91	90	88	86	85	83	81	80	79	73	74
BATCH\TDU1_TE7	78	76	75	75	74	74	73	73	73	73	73	73	74	73	73	72	71	70
BATCH\TDU1_TE8	57	57	57	57	57	57	57	56	56	56	56	56	56	56	55	55	66	61
BATCH\TDU1_TE9	53	54	55	53	53	54	54	53	53	53	52	53	53	52	52	52	54	56

Proof of Performance, Test #4

Batch Unit data for June 13, 1998

Tagname \ Time	0:04	0:10	0:16	0:22	0:28	0:34	0:40	0:46	0:52	0:58	1:04	1:10	1:16	1:22	1:28	1:34	1:40	1:46	1:52	1:58	2:04	2:10
BATCH\CHILL_TE1	76	76	76	76	76	75	75	75	75	75	74	74	74	76	76	75	76	76	76	75	75	75
BATCH\COOL_TOW_TE2	77	77	76	77	77	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
BATCH\CPMS_LEVEL	0.25	0.18	0.12	0.01	0.05	0.01	0.05	0.06	0.16	0.08	0.09	0.11	0.12	0.1	0.08	0.09	0.11	0.06	0.09	0.1	0.1	0.18
BATCH\FTO_BED_AVG_TEMP	1669	1674	1680	1686	1672	1672	1681	1686	1677	1673	1680	1687	1675	1673	1679	1687	1678	1672	1678	1687	1680	1670
BATCH\FTO_GAS_IN_TEMP	111	111	112	112	112	112	112	112	112	112	112	112	112	112	113	113	113	114	114	114	114	114
BATCH\FTO_GAS_OUT_TEMP	126	135	127	132	126	136	128	132	126	137	128	134	126	138	129	135	126	140	130	136	127	141
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_SOIL_TE13	762	762	762	762	762	762	762	762	762	762	762	762	762	762	762	762	762	762	762	762	762	762
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	77	77	77	77	77	77	77	77	77	77	77	77	77	77	76	76	76	76	76	76	76	76
BATCH\TDU1_TE11	71	71	71	71	71	71	72	72	72	72	72	71	71	72	72	72	72	73	73	73	73	73
BATCH\TDU1_TE12	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
BATCH\TDU1_TE2	78	78	77	77	77	77	77	76	76	76	76	76	76	77	76	76	76	76	76	76	76	77
BATCH\TDU1_TE3	75	75	75	75	75	75	75	75	75	75	75	75	74	74	74	75	74	75	74	74	74	74
BATCH\TDU1_TE4	73	73	73	73	73	73	73	73	73	73	73	73	72	72	72	72	72	72	72	72	72	72
BATCH\TDU1_TE5	71	71	71	71	70	70	71	71	71	71	71	70	70	71	70	71	71	71	71	71	71	71
BATCH\TDU1_TE6	70	70	70	70	70	70	70	70	70	70	70	70	70	70	71	71	71	71	71	71	71	71
BATCH\TDU1_TE7	69	69	69	69	69	69	69	69	70	70	70	70	70	70	70	70	70	71	71	71	72	72
BATCH\TDU1_TE8	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
BATCH\TDU1_TE9	71	71	71	71	71	71	71	71	71	71	71	71	71	72	72	72	72	72	72	72	72	72
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	70	70	70	70	70	70	71	71	71	71	71	71	71	71	71	72	72	72	72	72	72	72
BATCH\TDU2_TE11	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
BATCH\TDU2_TE12	69	70	70	70	70	70	71	71	71	71	71	70	70	71	71	71	71	72	72	72	72	72
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE3	75	75	75	74	74	75	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
BATCH\TDU2_TE4	73	73	73	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	73	73	72
BATCH\TDU2_TE5	75	75	75	75	75	75	74	75	74	74	74	74	74	74	74	74	74	74	75	75	75	75
BATCH\TDU2_TE6	78	78	78	78	78	78	78	78	78	78	78	77	77	77	77	77	77	77	77	77	77	77
BATCH\TDU2_TE7	72	73	72	72	72	72	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
BATCH\TDU2_TE8	58	59	60	61	62	63	64	65	66	67	68	69	70	71	71	71	71	71	72	72	72	72
BATCH\TDU2_TE9	70	70	71	70	70	71	71	71	71	71	71	71	71	71	71	71	71	71	72	72	72	72
BATCH\UNIT1_VAPOR_DISCH	2.04	1.67	1.15	1.33	1.06	0.43	0.05	-0.29	-0.46	-0.34	-0.24	-0.26	0.05	-0.08	0.81	1.51	-1.9	-2.51	-2.83	-3.23	-3.29	-3.27
BATCH\UNIT2_VAPOR_DISCH	19	18.42	18.01	18.1	17.9	17.66	17.11	16.92	16.94	17.18	16.98	17.32	17.52	17.15	16.85	16.59	16.39	15.74	15.61	15.36	15.19	15.38

Batch Unit data for June 13

Tagname / Time	2:16	2:22	2:28	2:34	2:40	2:46	2:52	2:58	3:04	3:10	3:16	3:22	3:28	3:34	3:40	3:46	3:52	3:58	4:04	4:10	4:16	4:22
BATCH\CHILL_TE1	75	75	75	75	75	75	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
BATCH\COOL_TOW_TE2	76	76	76	76	76	76	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
BATCH\CPMS_LEVEL	0.26	0.38	0.36	0.28	0.15	0.16	0.12	0.08	0.05	0.06	0.05	0.04	0.04	0.06	0.13	0.15	0.09	0.08	0.03	0.04	0.06	0.09
BATCH\FTO_BED_AVG_TEMP	1678	1686	1679	1670	1678	1686	1680	1669	1677	1686	1681	1668	1677	1686	1685	1667	1676	1686	1683	1666	1676	1685
BATCH\FTO_GAS_IN_TEMP	113	113	113	113	113	112	112	112	112	112	112	112	112	112	112	111	111	111	111	111	111	111
BATCH\FTO_GAS_OUT_TEMP	131	138	127	142	130	138	126	142	130	138	125	142	130	137	125	142	130	139	125	143	130	141
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_SOIL_TE13	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	76	76	76	76	76	76	76	76	76	76	76	76	75	75	75	75	75	75	75	75	75	75
BATCH\TDU1_TE11	73	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	71	70
BATCH\TDU1_TE12	73	73	73	73	73	73	73	73	73	73	73	72	72	72	72	72	72	72	72	72	72	72
BATCH\TDU1_TE2	77	77	77	77	77	78	78	78	78	78	78	78	78	78	78	78	78	77	77	77	77	76
BATCH\TDU1_TE3	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	73	74	74	73	74	73
BATCH\TDU1_TE4	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71
BATCH\TDU1_TE5	71	71	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	69
BATCH\TDU1_TE6	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	69	69	69	69	69
BATCH\TDU1_TE7	72	72	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	69	69	69
BATCH\TDU1_TE8	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71
BATCH\TDU1_TE9	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71	70	70	70	70	70
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	72	72	72	71	71	71	71	71	71	71	70	70	70	70	69	69	69	69	69	69	69	69
BATCH\TDU2_TE11	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	71	70
BATCH\TDU2_TE12	71	71	71	71	71	71	71	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE3	74	74	74	74	74	74	74	74	74	74	74	74	74	73	73	73	73	73	73	73	73	73
BATCH\TDU2_TE4	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	71	71
BATCH\TDU2_TE5	75	74	74	74	74	74	74	74	74	74	73	73	73	73	73	73	73	73	72	72	72	72
BATCH\TDU2_TE6	77	77	76	76	76	76	76	76	76	76	76	76	75	75	75	75	75	75	75	75	75	75
BATCH\TDU2_TE7	73	73	73	73	73	73	73	73	73	73	73	72	72	72	72	72	72	72	72	72	71	71
BATCH\TDU2_TE8	72	72	72	72	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70
BATCH\TDU2_TE9	72	71	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70
BATCH\UNIT1_VAPOR_DISCH	-3.09	-2.6	-2.25	-1.99	-1.32	-1.36	-1.21	-0.9	-0.57	-0.89	-0.49	-0.09	0.06	0.34	0.75	1.06	1.32	1.42	1.33	1.47	1.59	1.71
BATCH\UNIT2_VAPOR_DISCH	16.46	16.1	16.46	16.64	17.01	17.17	17.21	17.15	17.29	17.68	18.28	18.8	18.93	19.22	19.22	19.2	18.96	18.99	18.96	18.99	18.99	19.17

Batch Unit data for June 13

Tagname / Time	4:28	4:34	4:40	4:46	4:52	4:58	5:04	5:10	5:16	5:22	5:28	5:34	5:40	5:46	5:52	5:58	6:04	6:10	6:16	6:22	6:28	6:34
BATCH\CHILL_TE1	74	74	74	74	74	73	74	73	73	73	73	73	73	73	73	75	76	77	78	79	80	80
BATCH\COOL_TOW_TE2	75	75	74	74	74	74	74	74	74	74	74	74	74	73	71	70	70	70	70	71	71	71
BATCH\CPMS_LEVEL	0.07	0.11	0.09	0.06	0.08	0.12	0.27	0.2	0.13	0.05	-0.01	-0.06	0.26	17.2	14.08	9.3	7.73	10.15	7.94	9.11	7.27	10.39
BATCH\FTO_BED_AVG_TEMP	1684	1665	1676	1685	1684	1664	1675	1685	1684	1663	1675	1683	1685	1665	1679	1684	1687	1667	1674	1682	1688	1672
BATCH\FTO_GAS_IN_TEMP	110	110	109	110	109	109	109	109	109	110	110	110	109	109	109	110	111	111	111	112	112	112
BATCH\FTO_GAS_OUT_TEMP	126	144	130	141	126	145	131	141	126	143	131	135	127	136	132	129	128	126	133	125	129	126
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.29	0.25	0.25	0.25	0.25	0.25
BATCH\TDU1_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	-15	-19	-19	-20	-20	-20	-20	-20
BATCH\TDU1_SOIL_TE13	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752	752
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	75	75	75	75	75	74	74	74	74	74	74	74	74	73	70	70	70	70	70	70	71	71
BATCH\TDU1_TE11	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	70	70	70	70	70	70
BATCH\TDU1_TE12	72	72	72	71	71	71	71	71	71	71	71	71	71	71	72	74	75	77	78	79	79	80
BATCH\TDU1_TE2	76	76	76	76	76	76	76	76	76	76	75	75	75	75	75	75	75	75	74	74	74	74
BATCH\TDU1_TE3	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
BATCH\TDU1_TE4	71	71	71	71	71	70	70	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69
BATCH\TDU1_TE5	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68
BATCH\TDU1_TE6	69	69	69	69	69	69	69	68	68	68	68	68	68	67	67	68	68	69	69	69	69	69
BATCH\TDU1_TE7	69	69	69	69	69	68	68	68	68	68	68	68	68	67	68	68	69	70	71	71	72	72
BATCH\TDU1_TE8	71	71	71	71	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
BATCH\TDU1_TE9	70	70	70	70	70	69	69	69	69	69	69	69	69	71	72	73	75	76	77	78	79	80
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	69	69	69	70	70	70
BATCH\TDU2_TE11	70	70	70	70	70	70	70	70	70	69	69	69	69	73	74	75	77	79	80	81	82	83
BATCH\TDU2_TE12	69	69	68	68	68	68	68	68	68	67	67	67	67	72	73	75	77	78	79	80	81	82
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE3	73	73	73	73	73	73	73	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
BATCH\TDU2_TE4	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
BATCH\TDU2_TE5	72	72	72	72	72	72	72	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71
BATCH\TDU2_TE6	75	75	75	75	75	75	75	75	75	74	74	74	74	72	71	71	71	71	71	71	72	72
BATCH\TDU2_TE7	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70	70	71	71	71	72	72
BATCH\TDU2_TE8	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	70	70
BATCH\TDU2_TE9	69	69	69	69	69	69	69	69	69	68	69	68	68	68	68	69	69	69	69	69	69	69
BATCH\UNIT1_VAPOR_DISCH	1.74	2.11	2.6	2.68	2.89	2.92	2.86	3.06	3.21	2.94	3.06	3	2.88	240.9	101.5	30.65	20.23	16.49	22.03	17.76	15.44	13.37
BATCH\UNIT2_VAPOR_DISCH	19.19	19.14	19.03	19.2	19.54	19.54	19.52	19.48	19.43	19.61	19.76	19.89	19.68	19.22	19.26	19.05	18.22	17.73	17.67	17.09	16.77	16.59

Batch Unit data for June 13

Tagname / Time	6:40	6:46	6:52	6:58	7:04	7:10	7:16	7:22	7:28	7:34	7:40	7:46	7:52	7:58	8:04	8:10	8:16	8:22	8:28	8:34	8:40	8:46
BATCH\CHILL_TE1	81	81	82	82	72	69	61	47	47	47	45	47	43	47	51	45	44	45	46	46	45	50
BATCH\COOL_TOW_TE2	71	71	71	71	71	71	70	69	69	69	69	69	69	69	69	69	69	69	69	70	69	70
BATCH\CPMS_LEVEL	7.13	8.04	7.42	10.24	6.96	6.67	24.03	6.77	4.98	4.81	4.66	5.09	4.48	0.1	24.01	5.14	4.62	4.77	5.11	5.34	4.83	5.05
BATCH\FTO_BED_AVG_TEMP	1677	1683	1689	1673	1676	1681	1688	1675	1674	1680	1688	1677	1674	1681	1688	1678	1673	1680	1688	1679	1673	1680
BATCH\FTO_GAS_IN_TEMP	112	112	112	113	113	112	112	113	113	113	113	114	114	115	115	116	116	117	117	117	117	118
BATCH\FTO_GAS_OUT_TEMP	134	127	131	126	135	126	131	125	136	127	133	126	138	129	134	127	139	130	136	128	141	132
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.21	0.21	0.25	0.25	0.21	0.21	0.25	0.25	0.25	0.21	0.25
BATCH\TDU1_HC_VAC	-20	-21	-21	-21	-21	-20	-20	-21	-21	-21	-21	-21	-21	-21	-20	-20	-20	-20	-20	-20	-20	-20
BATCH\TDU1_SOIL_TE13	752	752	752	752	752	752	752	752	752	752	752	752	752	91	91	91	91	91	91	104	104	104
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	200	200	200	200	200	200	200	200	200
BATCH\TDU1_TE10	71	71	71	71	71	71	71	71	71	71	71	72	72	72	72	72	72	73	73	73	73	73
BATCH\TDU1_TE11	71	71	71	71	71	71	71	71	71	71	72	72	73	73	74	74	75	75	75	75	76	76
BATCH\TDU1_TE12	81	81	82	82	69	56	48	46	46	47	45	47	44	49	54	46	46	47	48	47	48	54
BATCH\TDU1_TE2	74	74	74	74	74	74	74	74	74	75	75	76	77	395	451	485	511	531	548	563	576	586
BATCH\TDU1_TE3	73	73	73	73	73	73	73	73	73	73	73	73	73	110	137	151	157	166	175	181	187	194
BATCH\TDU1_TE4	68	68	68	68	68	68	68	69	69	69	69	69	69	71	74	75	79	82	86	90	94	98
BATCH\TDU1_TE5	67	67	67	67	67	67	67	67	67	67	67	67	68	69	72	74	76	79	82	85	88	92
BATCH\TDU1_TE6	69	69	70	70	70	70	70	70	70	70	71	71	71	72	73	73	74	75	75	76	76	77
BATCH\TDU1_TE7	73	74	74	74	74	74	74	74	74	75	75	76	77	78	80	82	84	85	85	85	84	85
BATCH\TDU1_TE8	70	70	70	71	71	71	71	71	71	71	71	71	72	72	73	74	74	74	75	75	75	75
BATCH\TDU1_TE9	81	81	82	82	77	71	66	62	61	60	59	60	60	62	65	64	63	64	64	64	63	66
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	70	70	70	70	71	71	71	71	71	72	72	73	73	73	75	76	77	78	79	79	79	80
BATCH\TDU2_TE11	84	84	85	85	70	53	42	39	40	40	38	40	36	42	48	38	37	39	40	39	40	46
BATCH\TDU2_TE12	83	83	84	85	70	53	43	39	40	41	39	41	37	43	48	39	38	39	40	40	40	46
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2497	2497	2497	2497	2497	2497	2497	2497
BATCH\TDU2_TE3	72	72	72	72	72	72	72	72	72	72	72	73	73	73	74	74	75	75	76	76	76	76
BATCH\TDU2_TE4	70	70	70	70	70	71	71	71	71	71	72	72	72	73	75	77	77	77	77	77	77	77
BATCH\TDU2_TE5	71	71	71	71	71	71	71	72	72	72	72	73	73	73	74	75	75	76	76	76	76	76
BATCH\TDU2_TE6	72	72	72	72	72	72	72	72	72	72	72	73	73	73	73	73	74	74	74	74	74	74
BATCH\TDU2_TE7	72	72	73	73	73	72	72	72	72	72	72	72	73	73	73	74	74	75	75	75	75	76
BATCH\TDU2_TE8	70	70	70	71	71	71	71	70	69	69	69	69	69	70	71	71	71	69	69	69	70	70
BATCH\TDU2_TE9	70	70	70	70	70	70	70	70	71	71	71	71	71	72	72	73	73	74	74	74	74	74
BATCH\UNIT1_VAPOR_DISCH	13.71	13.82	13.49	12.99	10.25	11.12	8.54	14.5	11.89	11.22	10.77	9.56	10.11	8.75	5.46	2.63	2.63	1.07	0.81	0.84	1.93	-4.62
BATCH\UNIT2_VAPOR_DISCH	16.28	16.96	16.86	16.62	16.74	16.7	15.24	14.89	14.69	14.37	13.63	12.69	11.86	10.89	14.29	4.36	4.79	3.99	3.35	6.62	7.31	11.35

Batch Unit data for June 13

Tagname / Time	8:52	8:58	9:04	9:10	9:16	9:22	9:28	9:34	9:40	9:46	9:52	9:58	10:04	10:10	10:16	10:22	10:28	10:34	10:40	10:46	10:52	10:58
BATCH\CHILL_TE1	48	44	47	45	46	45	48	41	42	41	41	39	40	45	42	40	42	40	40	40	40	40
BATCH\COOL_TOW_TE2	70	70	70	70	70	71	71	72	73	73	74	74	75	75	76	77	77	78	78	78	78	78
BATCH\CPMS_LEVEL	4.36	4.37	4.16	4.26	4.41	4.12	3.35	3.36	3.45	3.48	3.36	3.84	4.82	7.28	8.14	7.98	8.76	9.12	9.14	9.74	9.6	10.1
BATCH\FTO_BED_AVG_TEMP	1688	1680	1672	1678	1687	1681	1672	1679	1688	1683	1671	1679	1689	1687	1682	1683	1692	1697	1688	1685	1693	1701
BATCH\FTO_GAS_IN_TEMP	119	119	119	120	120	120	120	120	122	123	124	124	123	122	122	121	121	121	121	122	121	121
BATCH\FTO_GAS_OUT_TEMP	138	129	143	134	141	131	146	135	143	133	148	138	146	134	149	138	146	133	149	138	146	134
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.21	0.21	0.26	0.21	0.21	0.25	0.25	0.21	0.21	0.25	0.25	0.25	0.21	0.21	0.21	0.21	0.25	0.25	0.25	0.25	0.21	0.21
BATCH\TDU1_HC_VAC	-20	-20	-20	-20	-20	-20	-20	-21	-21	-21	-21	-21	-20	-19	-19	-19	-19	-19	-18	-19	-18	-18
BATCH\TDU1_SOIL_TE13	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	191	191	191	191	191	191	191
BATCH\TDU1_TE1	200	200	400	400	400	400	400	400	400	400	400	400	700	700	700	700	700	700	700	700	700	700
BATCH\TDU1_TE10	73	74	74	74	74	74	74	75	79	83	88	93	97	101	108	110	111	114	115	118	117	118
BATCH\TDU1_TE11	77	77	77	78	78	78	78	78	80	81	82	82	83	83	82	83	83	83	83	84	84	84
BATCH\TDU1_TE12	50	47	51	48	49	46	50	48	53	51	51	47	50	53	49	49	50	49	49	49	49	49
BATCH\TDU1_TE2	596	586	543	524	511	519	518	515	514	559	633	671	867	900	918	929	934	939	944	947	949	950
BATCH\TDU1_TE3	199	223	254	269	278	288	299	306	311	323	348	363	416	451	473	497	524	535	550	573	582	590
BATCH\TDU1_TE4	103	109	120	131	140	147	151	155	158	158	160	161	163	166	166	167	169	169	170	170	170	171
BATCH\TDU1_TE5	97	103	112	124	136	144	150	154	157	158	159	160	162	165	165	166	167	168	169	169	169	170
BATCH\TDU1_TE6	79	80	83	87	94	105	122	143	153	155	158	158	160	163	163	164	165	166	167	166	166	167
BATCH\TDU1_TE7	89	89	90	90	90	89	88	89	93	95	97	93	88	83	77	73	71	69	68	66	69	68
BATCH\TDU1_TE8	76	76	76	77	77	77	76	77	78	76	77	78	79	80	82	82	83	84	85	86	85	85
BATCH\TDU1_TE9	68	67	69	68	68	67	67	69	72	74	75	74	73	73	72	71	72	71	72	72	72	72
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	82	82	83	84	85	85	84	85	87	89	92	93	93	92	91	90	90	89	89	90	90	89
BATCH\TDU2_TE11	42	37	43	39	40	37	43	39	42	39	40	37	40	45	40	39	42	39	39	39	39	39
BATCH\TDU2_TE12	43	38	43	40	41	38	43	40	43	40	41	38	41	45	41	40	42	40	40	40	40	40
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497
BATCH\TDU2_TE3	77	77	78	78	78	78	79	79	79	79	80	80	81	81	81	81	81	81	81	81	81	81
BATCH\TDU2_TE4	79	78	79	80	79	79	79	80	83	84	85	84	83	82	81	81	81	81	81	81	82	81
BATCH\TDU2_TE5	77	77	78	78	78	78	78	78	80	81	82	82	82	81	82	82	82	82	82	83	83	82
BATCH\TDU2_TE6	74	75	75	75	75	75	75	75	76	76	77	77	78	79	79	80	80	80	81	81	81	81
BATCH\TDU2_TE7	76	77	77	77	77	78	78	78	79	79	80	81	81	81	81	81	81	81	81	81	81	81
BATCH\TDU2_TE8	72	71	71	71	72	71	71	71	72	72	74	74	73	73	73	73	73	73	73	74	73	74
BATCH\TDU2_TE9	75	76	76	77	77	76	76	77	79	79	80	79	79	79	79	78	78	78	78	79	79	79
BATCH\UNIT1_VAPOR_DISCH	-11	-10.9	-10.2	-12.3	-12.1	-11.1	-9.1	-11.6	-20.9	-22.1	-22.1	-22.1	-22.1	-22.1	-20.8	-19.9	-21	-22.1	-22.1	-22.1	-22	-22.1
BATCH\UNIT2_VAPOR_DISCH	3.32	1.93	6.46	0.54	1.01	2.88	5.19	6.55	0.95	11.41	-2.22	-8.74	-3.55	1.44	3.96	6.11	6.95	7.53	6.58	4.1	2.02	3.08

Batch Unit data for June 13

Tagname / Time	11:04	11:10	11:16	11:22	11:28	11:34	11:40	11:46	11:52	11:58	12:04	12:10	12:16	12:22	12:28	12:34	12:40	12:46	12:52	12:58	13:04	13:10
BATCH\CHILL_TE1	40	40	40	40	40	40	40	40	40	40	40	40	40	39	40	40	40	40	40	41	40	44
BATCH\COOL_TOW_TE2	78	78	78	78	77	77	78	78	78	78	77	77	77	77	77	77	77	77	76	76	75	75
BATCH\CPMS_LEVEL	9.93	10.29	10.64	10.98	7.51	7.52	7.79	8.13	9.04	12.96	12.5	16.25	17.35	16.38	15.04	14.17	26.74	11.71	20.81	15.09	17.84	15.6
BATCH\FTO_BED_AVG_TEMP	1688	1684	1689	1697	1686	1686	1691	1699	1684	1684	1688	1697	1686	1688	1696	1702	1690	1688	1694	1700	1693	1687
BATCH\FTO_GAS_IN_TEMP	121	120	120	119	119	118	118	118	117	117	116	116	116	119	120	120	120	120	121	122	123	126
BATCH\FTO_GAS_OUT_TEMP	149	137	146	133	149	136	146	132	149	136	147	132	142	138	142	135	136	140	134	138	134	145
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.25	0.21	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.58	0.54	0.54	0.54	0.54
BATCH\TDU1_HC_VAC	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-18	-19	-19	-19	-20	-20	-20	-20	-20	-20	-20
BATCH\TDU1_SOIL_TE13	197	197	197	197	197	198	198	198	198	198	196	196	196	196	196	189	189	189	189	189	189	183
BATCH\TDU1_TE1	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700	700
BATCH\TDU1_TE10	117	117	117	118	118	118	117	116	116	116	114	114	114	112	110	108	107	105	102	99	97	99
BATCH\TDU1_TE11	84	83	82	82	82	82	81	80	80	80	81	81	81	81	82	81	81	81	81	83	84	85
BATCH\TDU1_TE12	49	49	49	48	48	48	48	48	47	48	48	48	48	48	49	48	48	48	49	50	47	52
BATCH\TDU1_TE2	950	951	950	950	948	947	946	946	935	924	899	846	838	811	795	775	766	747	753	727	714	722
BATCH\TDU1_TE3	614	621	634	644	649	665	675	683	687	698	699	704	699	706	700	700	697	699	695	697	695	697
BATCH\TDU1_TE4	172	172	173	173	173	173	173	173	173	173	174	173	173	176	178	181	183	187	190	194	198	202
BATCH\TDU1_TE5	171	171	172	172	172	172	172	172	172	173	173	172	171	170	170	178	192	196	199	202	204	208
BATCH\TDU1_TE6	168	168	168	168	169	169	169	168	168	168	168	167	165	164	163	162	161	161	161	162	162	161
BATCH\TDU1_TE7	67	67	64	63	62	61	61	61	61	61	62	63	63	65	67	68	69	70	72	75	76	78
BATCH\TDU1_TE8	85	85	85	85	86	86	86	86	85	85	85	85	85	85	84	84	84	83	83	82	81	81
BATCH\TDU1_TE9	72	71	71	70	70	69	69	69	69	69	69	68	68	69	69	69	69	69	69	69	69	70
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	89	88	87	85	84	83	83	82	81	80	80	80	81	82	83	84	84	84	85	87	89	92
BATCH\TDU2_TE11	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	40	36	41
BATCH\TDU2_TE12	40	40	40	40	40	40	40	40	39	39	40	40	40	40	40	40	40	40	40	40	37	42
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497
BATCH\TDU2_TE3	81	81	81	81	81	80	80	80	80	80	79	79	80	80	80	80	80	80	80	80	80	81
BATCH\TDU2_TE4	81	81	80	80	80	79	79	79	79	79	79	79	79	80	80	80	80	80	81	82	82	82
BATCH\TDU2_TE5	82	82	81	81	81	80	80	80	80	79	79	79	80	81	81	81	80	80	81	82	82	84
BATCH\TDU2_TE6	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	79	79	79	79	78	78	78
BATCH\TDU2_TE7	81	81	80	80	80	79	79	79	79	78	78	78	79	79	79	79	79	79	80	80	80	81
BATCH\TDU2_TE8	74	74	72	72	71	71	71	70	71	70	71	70	70	71	71	71	71	71	72	73	75	76
BATCH\TDU2_TE9	78	78	77	77	76	76	76	75	75	75	75	75	75	75	76	76	76	76	77	77	78	79
BATCH\UNIT1_VAPOR_DISCH	-22.1	-22.1	-22.1	-22.1	-22.1	22.1	22.1	22.1	22.1	22.1	22	22	22	22	-22	22	-22	-22	-22	-22	-22	-21.9
BATCH\UNIT2_VAPOR_DISCH	5.1	7.56	9.75	11.81	13.05	13.8	14.2	14.43	14.38	15.25	15.29	14.61	12.33	9.67	7.15	5.91	7.77	8.16	6.66	6.3	0.06	6.55

Batch Unit data for June 13

Tagname / Time	13:16	13:22	13:28	13:34	13:40	13:46	13:52	13:58	14:04	14:10	14:16	14:22	14:28	14:34	14:40	14:46	14:52	14:58	15:04	15:10	15:16	15:22
BATCH\CHILL_TE1	43	42	46	49	43	43	48	45	45	49	50	45	48	52	47	44	48	52	47	45	46	46
BATCH\COOL_TOW_TE2	75	75	74	73	73	73	72	72	72	72	72	71	71	71	71	71	71	71	71	70	70	70
BATCH\CPMS_LEVEL	14.08	13.17	11.72	14.06	12.3	12.71	14.86	12.42	12.35	13.29	15.07	15.67	18.13	23.79	23.57	23.98	29.15	31.8	32.85	33.25	36.6	63.04
BATCH\FTO_BED_AVG_TEMP	1693	1698	1694	1685	1691	1696	1696	1684	1688	1693	1696	1682	1685	1692	1696	1681	1687	1693	1697	1683	1689	1696
BATCH\FTO_GAS_IN_TEMP	128	128	127	126	127	127	127	128	129	130	131	130	131	132	133	131	132	134	135	133	133	133
BATCH\FTO_GAS_OUT_TEMP	138	145	138	150	141	148	139	154	144	156	144	160	150	159	146	164	152	164	149	164	154	149
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
BATCH\TDU1_HC_VAC	-20	-21	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-19	-19	-19	-19	-19	-18	-18
BATCH\TDU1_SOIL_TE13	183	183	183	183	183	183	178	178	175	175	175	175	178	178	178	178	178	178	179	179	179	179
BATCH\TDU1_TE1	700	700	700	700	700	700	700	700	700	700	700	700	800	800	800	800	800	800	850	850	850	850
BATCH\TDU1_TE10	98	96	93	93	91	90	89	88	86	85	84	84	84	86	84	83	83	83	84	83	83	82
BATCH\TDU1_TE11	85	86	85	84	84	85	86	87	91	92	91	93	96	96	95	91	97	96	91	91	95	94
BATCH\TDU1_TE12	50	49	53	55	48	50	55	49	51	55	54	48	53	57	50	48	53	58	51	49	51	52
BATCH\TDU1_TE2	689	685	693	677	699	693	663	674	845	864	852	817	775	904	899	882	836	812	912	907	882	858
BATCH\TDU1_TE3	694	694	696	694	694	692	694	693	709	719	732	737	736	760	774	777	780	784	808	819	822	828
BATCH\TDU1_TE4	206	211	214	218	222	226	231	236	241	246	251	256	261	267	271	275	281	288	293	298	304	309
BATCH\TDU1_TE5	211	214	214	220	222	224	226	228	229	232	236	240	243	250	250	252	259	264	268	272	279	285
BATCH\TDU1_TE6	160	158	161	161	161	160	159	158	159	159	160	161	162	160	159	161	163	164	166	166	168	169
BATCH\TDU1_TE7	80	81	83	84	85	86	86	87	87	88	90	91	92	92	93	93	93	93	93	92	93	94
BATCH\TDU1_TE8	80	80	80	79	79	79	78	78	78	77	77	77	77	77	77	77	76	76	76	76	76	76
BATCH\TDU1_TE9	70	70	70	70	68	68	69	68	68	68	68	67	68	69	67	67	68	68	67	66	66	67
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	95	96	96	94	94	94	95	96	98	102	103	102	105	106	103	102	104	106	105	103	103	103
BATCH\TDU2_TE11	39	38	43	47	37	39	44	38	39	46	44	36	42	47	39	36	42	47	39	37	38	39
BATCH\TDU2_TE12	40	39	44	48	38	40	45	39	40	46	45	37	43	48	40	37	42	48	40	38	39	40
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2497	2441	2496	2435	2468	2497	2497	2497	2410
BATCH\TDU2_TE3	82	82	82	83	83	83	83	83	84	84	84	84	85	85	86	86	86	86	86	87	86	87
BATCH\TDU2_TE4	83	83	83	83	83	83	84	85	85	85	85	85	85	85	85	85	86	86	86	86	87	88
BATCH\TDU2_TE5	85	84	83	82	82	83	83	83	84	85	85	85	85	86	86	84	85	86	85	84	85	85
BATCH\TDU2_TE6	78	78	77	77	76	76	76	76	76	76	75	75	75	75	75	75	75	75	75	75	75	75
BATCH\TDU2_TE7	82	82	82	82	82	82	83	83	84	84	85	86	86	87	87	86	86	87	87	87	87	88
BATCH\TDU2_TE8	77	77	76	76	76	76	76	76	79	79	82	80	81	83	83	81	81	81	81	80	80	82
BATCH\TDU2_TE9	80	80	80	80	80	81	81	82	84	85	86	87	87	87	87	86	87	87	87	87	87	88
BATCH\UNIT1_VAPOR_DISCH	-22	-22	-22	-21.9	-21.9	-22	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9	-21.9
BATCH\UNIT2_VAPOR_DISCH	-12	-13.6	-9.38	-4.85	-4.07	-4.99	-7.14	-10.3	-12.9	-18.6	-21.1	-19.4	-17.3	-18.2	-17.7	-10.9	-11.7	-14.9	-16.5	-11.2	-11.2	-12.4

Batch Unit data for June 13

Tagname \ Time	15:28	15:34	15:40	15:46	15:52	15:58	16:04	16:10	16:16	16:22	16:28	16:34	16:40	16:46	16:52	16:58	17:04	17:10	17:16	17:22	17:28	17:34
BATCH\CHILL_TE1	47	46	46	46	46	47	46	46	45	46	44	46	44	48	47	46	46	44	44	47	48	43
BATCH\COOL_TOW_TE2	68	68	69	69	68	67	67	67	67	67	68	68	67	68	67	65	63	62	61	61	62	61
BATCH\CPMS_LEVEL	41.42	64.74	40.96	39.81	50.63	57.33	57.79	68.41	76.09	79.89	82.37	80.57	78.35	73.79	62.86	105.7	79.93	66.47	123.8	47.44	42.59	34.9
BATCH\FTO_BED_AVG_TEMP	1699	1691	1691	1698	1702	1702	1691	1700	1705	1702	1705	1696	1702	1706	1703	1707	1700	1707	1702	1706	1701	1706
BATCH\FTO_GAS_IN_TEMP	134	133	131	131	129	128	127	124	124	124	122	119	109	100	100	100	102	104	107	110	112	113
BATCH\FTO_GAS_OUT_TEMP	151	147	156	146	157	145	166	151	160	156	148	175	155	165	162	179	178	179	176	221	219	232
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
BATCH\TDU1_HC_VAC	-18	-18	-17	-16	-15	-15	-14	-14	-13	-13	-13	-13	-13	-12	-8	-8	-8	-8	-8	-8	-9	-9
BATCH\TDU1_SOIL_TE13	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179
BATCH\TDU1_TE1	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850
BATCH\TDU1_TE10	81	79	77	75	74	73	73	72	73	73	73	74	71	69	68	66	66	65	65	65	65	64
BATCH\TDU1_TE11	92	91	89	88	87	85	83	81	81	79	78	74	68	66	65	65	65	65	65	65	65	65
BATCH\TDU1_TE12	52	50	50	48	49	50	46	46	47	47	45	45	43	45	44	45	45	44	45	49	49	43
BATCH\TDU1_TE2	877	928	925	911	857	803	771	756	735	711	703	675	672	290	220	185	152	125	99	80	66	58
BATCH\TDU1_TE3	838	855	863	872	876	876	876	877	876	877	876	874	878	864	829	797	771	750	732	715	700	686
BATCH\TDU1_TE4	312	311	308	306	308	313	318	322	327	332	338	340	342	335	334	346	350	353	356	360	358	356
BATCH\TDU1_TE5	288	284	278	273	273	276	279	284	288	290	294	296	292	283	281	288	288	289	291	292	289	286
BATCH\TDU1_TE6	171	170	164	160	158	157	156	156	157	159	161	161	155	139	140	144	142	138	135	130	127	125
BATCH\TDU1_TE7	95	95	95	93	92	92	91	89	86	84	83	81	78	74	69	65	64	63	64	65	66	66
BATCH\TDU1_TE8	76	76	76	75	75	73	72	71	71	72	72	72	71	69	68	66	66	65	64	64	64	64
BATCH\TDU1_TE9	66	66	65	64	63	62	61	60	59	59	58	58	57	56	54	53	53	52	52	54	55	52
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	102	100	99	92	86	84	83	81	79	78	77	72	66	64	64	64	64	64	63	64	64	64
BATCH\TDU2_TE11	40	38	39	38	39	40	37	38	39	40	38	40	38	40	38	39	39	39	39	45	45	37
BATCH\TDU2_TE12	41	39	40	39	40	41	38	39	40	41	39	41	39	41	40	41	41	40	41	45	46	39
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	2435	2411	2443	2497	2497	2497	2497	2497	2497	2497	2497	2497	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE3	87	87	87	86	86	85	85	85	84	84	83	82	80	79	79	79	79	78	78	77	76	76
BATCH\TDU2_TE4	88	87	87	86	86	85	85	84	84	83	83	82	78	76	76	75	74	73	73	72	72	72
BATCH\TDU2_TE5	84	83	82	81	80	79	78	77	75	75	75	74	70	67	67	66	65	65	64	64	64	64
BATCH\TDU2_TE6	74	74	74	73	73	72	72	71	72	72	72	73	70	69	67	66	65	65	65	65	65	65
BATCH\TDU2_TE7	88	88	87	86	85	84	83	83	82	81	80	79	74	70	67	66	66	65	64	63	64	64
BATCH\TDU2_TE8	83	82	82	84	81	80	77	77	76	74	73	73	72	68	66	65	64	64	64	65	63	63
BATCH\TDU2_TE9	88	87	86	86	85	84	83	81	80	79	78	76	70	66	64	64	64	64	63	63	63	63
BATCH\UNIT1_VAPOR_DISCH	-21.9	-21.9	-21.2	-2.02	23	48.69	48.35	59.52	69.58	74.05	71.19	82.90	101.8	165.5	203.9	206.6	204.7	200.1	207.3	203.9	195.4	187.7
BATCH\UNIT2_VAPOR_DISCH	-12.2	-5.74	-0.41	5.13	8.16	9.82	12.38	14.34	16.22	16.36	16.03	17.06	20.01	21.21	21.13	20.87	20.55	20.21	19.69	19.26	18.44	18.51

Batch Unit data for June 13

Tagname \ Time	17:40	17:46	17:52	17:58	18:04	18:10	18:16	18:22	18:28	18:34	18:40	18:46	18:52	18:58	19:04	19:10	19:16	19:22	19:28	19:34	19:40	19:46
BATCH\CHILL_TE1	44	47	48	43	42	44	44	46	40	43	45	48	48	43	47	50	44	44	44	46	44	44
BATCH\COOL_TOW_TE2	61	61	62	62	62	61	62	62	61	61	61	62	62	63	63	63	63	63	63	63	63	63
BATCH\CPMS_LEVEL	47.84	28.76	3.49	3.15	2.57	1.86	2.16	1.09	1.21	1.22	2.24	50.41	29.1	17.91	21.14	14.35	10.64	10.56	12.91	2.41	9.15	8.84
BATCH\FTO_BED_AVG_TEMP	1701	1706	1701	1710	1712	1712	1703	1699	1709	1712	1702	1702	1712	1715	1704	1702	1716	1719	1708	1704	1718	1724
BATCH\FTO_GAS_IN_TEMP	114	115	116	117	117	117	117	117	117	117	118	117	117	117	117	117	117	116	116	117	116	115
BATCH\FTO_GAS_OUT_TEMP	223	274	286	250	265	251	241	268	241	247	222	250	225	232	207	232	209	220	193	219	198	214
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.58	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
BATCH\TDU1_HC_VAC	-9	-9	0	0	0	0	0	0	0	0	0	-5	-8	-8	-8	-8	-8	-8	-8	-3	-8	-8
BATCH\TDU1_SOIL_TE13	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	500	500	500	500	500
BATCH\TDU1_TE1	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	850	900	900	900	900	900
BATCH\TDU1_TE10	64	64	64	64	64	64	64	64	64	64	64	64	65	65	65	66	66	66	66	65	66	66
BATCH\TDU1_TE11	65	65	65	65	65	66	66	65	66	65	65	66	66	67	66	66	67	66	66	66	66	66
BATCH\TDU1_TE12	46	49	48	37	37	40	39	40	33	37	41	44	43	37	43	47	36	39	38	42	38	38
BATCH\TDU1_TE2	51	47	43	44	42	36	33	30	27	25	23	22	23	25	26	27	29	31	32	32	34	36
BATCH\TDU1_TE3	673	661	649	638	627	617	608	599	589	581	573	568	562	554	548	541	535	528	522	515	509	503
BATCH\TDU1_TE4	351	348	315	299	293	288	282	276	267	261	256	266	281	286	291	294	295	295	295	285	291	293
BATCH\TDU1_TE5	283	281	234	168	149	141	135	129	123	119	113	158	201	212	218	223	225	227	227	215	224	228
BATCH\TDU1_TE6	126	123	116	107	102	99	96	93	90	88	86	93	93	94	96	99	100	101	101	100	96	95
BATCH\TDU1_TE7	66	67	67	66	66	66	67	67	67	67	67	69	70	70	71	71	71	71	71	70	70	70
BATCH\TDU1_TE8	64	64	66	65	65	65	65	65	65	65	65	64	64	65	65	65	65	65	65	65	65	65
BATCH\TDU1_TE9	52	54	57	59	60	61	62	63	63	64	64	57	56	54	55	57	53	53	53	56	52	52
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	64	64	64	64	64	64	64	64	64	65	65	66	66	67	67	67	67	67	66	66	66	66
BATCH\TDU2_TE11	39	44	44	38	36	40	39	40	33	38	41	44	44	37	43	47	37	39	38	42	38	38
BATCH\TDU2_TE12	40	45	45	39	38	41	40	41	37	40	43	46	46	40	45	49	40	41	41	44	41	41
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE3	76	76	75	75	75	74	74	74	74	74	73	73	73	73	73	73	73	73	73	73	73	73
BATCH\TDU2_TE4	71	71	71	71	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	68	68
BATCH\TDU2_TE5	64	64	64	64	64	64	64	64	64	65	65	65	66	66	66	66	66	66	66	66	66	66
BATCH\TDU2_TE6	65	65	65	65	65	65	65	65	65	65	65	65	66	66	66	66	67	66	66	66	66	66
BATCH\TDU2_TE7	64	64	64	64	64	64	64	64	64	64	65	65	65	66	66	66	66	66	66	66	66	66
BATCH\TDU2_TE8	62	62	63	62	61	62	62	62	62	61	61	62	62	63	62	63	63	63	63	62	62	62
BATCH\TDU2_TE9	63	63	63	63	63	63	63	64	64	64	64	64	65	65	65	65	65	65	65	65	65	65
BATCH\UNIT1_VAPOR_DISCH	189.4	187.7	3.72	5.58	6.56	7.08	6.56	6.24	6	5.57	4.82	251	228	219.9	222.7	219	221.6	226.5	220.4	3.46	250.4	233
BATCH\UNIT2_VAPOR_DISCH	18.42	18.16	18.28	18.02	17.96	17.89	17.58	17.6	17.47	17.06	16.36	15.56	15.21	14.46	14.29	14.37	14.4	14.72	15.77	16.03	16.6	16.71

Batch Unit data for June 13

Tagname / Time	19:52	19:58	20:04	20:10	20:16	20:22	20:28	20:34	20:40	20:46	20:52	20:58	21:04	21:10	21:16	21:22	21:28	21:34	21:40	21:46	21:52	21:58
BATCH\CHILL_TE1	44	44	44	44	43	43	44	44	43	42	46	49	46	43	46	42	45	49	44	44	47	46
BATCH\COOL_TOW_TE2	63	63	63	62	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61
BATCH\CPMS_LEVEL	9.41	7.63	7.27	7.42	1.57	7.79	7.67	7.27	7.65	4.9	5	5.63	5.94	4.66	4.97	5.23	5.27	5.23	6.94	8.75	12.4	15.36
BATCH\FTO_BED_AVG_TEMP	1715	1707	1721	1727	1718	1707	1721	1729	1721	1707	1721	1729	1722	1706	1720	1729	1723	1706	1719	1729	1724	1706
BATCH\FTO_GAS_IN_TEMP	115	115	114	114	115	115	113	113	113	113	113	113	113	112	112	111	111	111	111	111	111	111
BATCH\FTO_GAS_OUT_TEMP	184	214	191	208	178	207	186	205	173	204	181	200	168	199	176	197	166	196	172	193	161	190
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.64	0.64	0.04	0.04	0.04	0.04	0.04	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.29	0.29	0.41	0.37	0.37
BATCH\TDU1_HC_VAC	-8	-8	-8	-8	0	-4	-6	-7	-9	-12	-14	-14	-14	-14	-14	-14	-14	-14	-14	-13	-13	-13
BATCH\TDU1_SOIL_TE13	500	500	500	500	500	500	500	500	500	500	500	473	473	473	473	473	473	547	547	642	642	642
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	700	700	700	700	700	700	900	900	900	900	900
BATCH\TDU1_TE10	66	66	65	65	65	65	65	65	65	64	64	64	64	64	64	64	64	64	64	64	63	64
BATCH\TDU1_TE11	66	66	66	66	65	65	65	65	65	65	66	66	66	66	65	65	65	65	64	65	66	66
BATCH\TDU1_TE12	38	38	38	39	37	37	39	40	36	36	42	46	38	38	40	37	42	47	38	41	45	42
BATCH\TDU1_TE2	37	38	38	39	39	35	33	35	117	706	727	704	720	686	665	682	661	-454	-11	270	407	296
BATCH\TDU1_TE3	498	494	496	508	498	497	487	474	482	550	598	636	661	686	702	728	747	765	778	796	815	830
BATCH\TDU1_TE4	292	291	288	281	260	256	266	267	267	264	266	268	271	275	280	285	291	295	301	310	317	325
BATCH\TDU1_TE5	228	230	227	218	167	161	196	198	199	194	195	194	196	199	202	206	211	215	219	224	231	239
BATCH\TDU1_TE6	94	94	93	92	88	85	88	88	88	89	90	89	89	89	91	92	99	102	104	107	111	114
BATCH\TDU1_TE7	70	70	69	69	68	68	68	68	68	68	68	68	67	67	67	67	67	68	67	67	67	67
BATCH\TDU1_TE8	65	65	65	65	65	64	64	64	64	64	64	64	64	64	64	63	63	63	63	63	63	63
BATCH\TDU1_TE9	52	52	52	52	56	52	52	52	51	51	52	54	53	53	53	52	54	55	53	54	55	55
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	66	65	65	65	65	65	65	64	64	64	64	64	64	64	63	63	63	63	63	62	63	63
BATCH\TDU2_TE11	38	38	39	39	38	37	40	40	37	36	41	46	39	38	41	37	42	47	39	40	45	43
BATCH\TDU2_TE12	41	41	41	41	41	40	42	42	40	39	43	48	42	40	43	39	44	48	42	42	47	45
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE3	73	73	72	72	72	72	72	71	71	71	71	71	71	71	71	70	70	70	70	70	70	70
BATCH\TDU2_TE4	68	68	68	67	67	67	67	67	67	67	66	66	66	66	66	66	65	65	65	65	65	65
BATCH\TDU2_TE5	67	67	67	66	66	65	65	65	65	64	64	64	64	64	64	64	63	63	63	63	63	63
BATCH\TDU2_TE6	66	66	66	66	66	66	66	65	65	65	65	65	65	65	65	65	64	64	64	64	64	64
BATCH\TDU2_TE7	66	66	66	65	65	65	65	65	65	64	64	64	64	64	64	64	64	64	63	63	63	63
BATCH\TDU2_TE8	62	62	62	62	61	61	61	60	61	61	61	61	60	60	60	60	60	60	60	60	60	60
BATCH\TDU2_TE9	65	65	65	64	64	64	64	64	64	64	63	63	63	63	63	63	63	63	62	62	62	62
BATCH\UNIT1_VAPOR_DISCH	239.9	229.5	228.8	229.2	8.37	249.9	250.9	250.9	226.4	142.2	135.9	123.1	120.2	113.4	113	113	113	114.4	106.5	112.5	117.6	113.6
BATCH\UNIT2_VAPOR_DISCH	16.64	16.63	16.69	16.72	17.2	17.66	17.9	18.18	18.13	18.13	18.13	17.79	17.69	17.73	17.81	17.86	17.98	18.13	17.95	18.07	18.27	17.79

Batch Unit data for June 13

Tagname / Time	22:04	22:10	22:16	22:22	22:28	22:34	22:40	22:46	22:52	22:58	23:04	23:10	23:16	23:22	23:28	23:34	23:40	23:46	23:52	23:58
BATCH\CHILL_TE1	42	43	40	42	46	48	41	42	42	41	44	48	43	41	43	40	43	46	46	41
BATCH\COOL_TOW_TE2	61	61	61	61	61	61	61	60	60	60	60	60	61	60	60	60	60	60	61	61
BATCH\CPMS_LEVEL	21.12	30.74	40.29	45.63	52.36	48.38	42.85	38.07	32.78	29.16	26.34	36.13	50.43	44.15	26.33	19.43	16.93	15.47	14.89	12.82
BATCH\FTO_BED_AVG_TEMP	1722	1731	1728	1716	1726	1731	1725	1716	1727	1735	1732	1718	1732	1737	1735	1720	1733	1742	1738	1720
BATCH\FTO_GAS_IN_TEMP	111	111	111	111	111	112	111	111	111	111	111	112	111	112	112	111	112	112	112	112
BATCH\FTO_GAS_OUT_TEMP	167	189	158	187	166	187	155	182	161	181	153	179	159	179	152	179	160	179	152	181
BATCH\GATH_CONV_AMP_0_100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU1_DRUM_RPM	0.37	0.41	0.37	0.41	0.37	0.37	0.37	0.37	0.41	0.37	0.37	0.37	0.37	0.37	0.37	0.41	0.37	0.37	0.37	0.37
BATCH\TDU1_HC_VAC	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-12	-12	-12	-12	-12	-12	-11	-11
BATCH\TDU1_SOIL_TE13	642	642	730	730	730	730	730	790	790	790	790	790	790	807	807	807	806	806	806	806
BATCH\TDU1_TE1	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
BATCH\TDU1_TE10	64	64	64	64	64	65	64	64	64	64	64	64	64	64	64	64	64	64	64	64
BATCH\TDU1_TE11	66	65	65	65	66	66	65	66	65	66	66	66	65	65	65	65	65	65	66	65
BATCH\TDU1_TE12	37	40	33	39	44	47	35	39	36	37	42	47	38	36	40	35	40	45	43	37
BATCH\TDU1_TE2	545	825	815	804	751	615	539	505	635	631	688	704	777	1489	1546	1335	1095	1365	1127	1159
BATCH\TDU1_TE3	844	863	879	891	896	890	889	991	900	905	906	905	905	904	903	901	900	899	899	898
BATCH\TDU1_TE4	331	340	347	363	370	385	383	386	387	393	392	398	402	406	405	410	410	414	410	412
BATCH\TDU1_TE5	246	256	266	275	286	296	298	298	298	296	296	300	305	305	304	308	310	313	310	311
BATCH\TDU1_TE6	115	124	130	134	139	141	135	135	134	131	128	128	127	122	123	124	125	125	124	123
BATCH\TDU1_TE7	66	66	66	66	66	66	66	65	65	65	65	66	66	65	66	65	66	66	66	66
BATCH\TDU1_TE8	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63
BATCH\TDU1_TE9	53	53	52	53	54	55	52	52	52	52	53	55	53	52	53	51	52	53	54	52
BATCH\TDU2_DRUM_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_HC_VAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_SOIL_TE13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE10	62	63	63	63	63	63	62	62	62	62	62	62	62	62	62	62	62	62	62	63
BATCH\TDU2_TE11	37	40	34	39	44	47	36	39	37	37	42	46	38	37	40	35	40	45	44	37
BATCH\TDU2_TE12	40	42	38	41	45	49	39	41	40	39	44	48	41	39	43	38	42	46	46	40
BATCH\TDU2_TE14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BATCH\TDU2_TE3	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	67	67
BATCH\TDU2_TE4	65	66	64	64	64	64	64	64	64	64	64	63	63	63	63	63	63	63	63	63
BATCH\TDU2_TE5	63	63	63	63	63	63	63	62	62	62	62	62	62	62	62	62	62	62	62	62
BATCH\TDU2_TE6	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
BATCH\TDU2_TE7	63	63	63	63	63	63	62	63	63	63	62	62	62	63	63	63	63	63	63	63
BATCH\TDU2_TE8	60	59	60	59	59	60	60	59	59	59	59	59	59	59	59	59	58	59	59	59
BATCH\TDU2_TE9	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
BATCH\UNIT1_VAPOR_DISCH	109.4	120	109.6	112.1	111.9	117.8	115.9	120.4	110.8	106	111	120.3	131.5	136.4	140.2	152.3	167.5	162.2	161.5	159.5
BATCH\UNIT2_VAPOR_DISCH	17.61	17.72	17.84	17.63	17.46	17.58	17.76	17.76	17.79	17.7	17.79	17.6	17.29	17.2	17.21	17.2	17.21	17.06	17.04	17.03

Continuous Unit 1 for June 01, 1998

Tagname / Time	0:05	0:11	0:17	0:23	0:29	0:35	0:41	0:47	0:53	0:59	1:05	1:11	1:17	1:23	1:29	1:35	1:41	1:47	1:53	1:59	2:05	2:11	2:17	2:23	2:29	2:35	2:41	2:47	2:53
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	10.38	11.12	11.13	11.71	12.36	12.02	12.82	13.21	13.41	12.57	12.6	12.67	12.37	11.76	14.09	11.86	11.59	11.27	11.05	11.48	10.38	12.59	12.36	10.13	11.31	10.22	10.64	10.75	10.04
FTO1\TE101	83	83	83	82	82	82	82	82	81	81	81	81	81	81	81	81	81	80	80	80	80	80	80	80	80	80	79	79	79
FTO1\TE105	86	86	85	84	84	84	83	83	83	83	83	82	82	82	82	82	82	82	82	81	81	82	81	81	82	81	81	81	80
FTO1\TE106	96	95	94	93	93	92	91	91	90	90	90	90	89	89	89	89	89	89	88	88	88	88	88	88	88	88	89	88	88
FTO1\TE107	88	88	88	87	87	87	86	86	86	86	86	86	86	85	85	85	85	85	85	85	85	85	85	85	85	85	84	84	84
FTO1\TE108	1021	1020	1019	1018	1017	1016	1015	1014	1013	1012	1010	1009	1008	1007	1005	1004	1003	1001	1000	999	997	996	994	993	991	990	988	986	985
FTO1\TE109	1027	1024	1022	1019	1017	1015	1012	1010	1008	1006	1004	1002	1000	998	996	994	992	990	988	986	984	982	980	978	976	975	973	971	969
TDU1\CYL_DRIVE_AMPS	2	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
TDU1\CYL_DRIVE_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\CYL_FEED_SPEED_SET	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
TDU1\OXYGEN_DISCHARGE	20.22	20.22	20.23	20.25	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	0.26	0.25	0.26	0.27	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
TDU1\TE_10_TEMP	141	139	138	137	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
TDU1\TE_11_TEMP	127	125	124	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
TDU1\TE_12_TEMP	121	120	119	119	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118
TDU1\TE_13_TEMP	107	106	106	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
TDU1\TE_14_TEMP	126	125	123	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122
TDU1\TE_15_TEMP	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
TDU1\TE_16_TEMP	84	84	83	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
TDU1\TE_17_TEMP	117	117	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116
TDU1\TE_18_TEMP	99	99	97	99	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
TDU1\TE_1_TEMP	113	113	112	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
TDU1\TE_2_TEMP	118	118	117	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116
TDU1\TE_3_TEMP	101	100	100	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
TDU1\TE_4_TEMP	111	110	109	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108
TDU1\TE_5_TEMP	116	116	115	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
TDU1\TE_6_TEMP	121	120	120	119	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118
TDU1\TE_7_TEMP	127	126	125	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124
TDU1\TE_8_TEMP	129	128	126	126	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
TDU1\TE_9_TEMP	140	139	137	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
TDU1\ZONE1_TEMP_SET	68	68	67	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
TDU1\ZONE2_TEMP_SET	71	70	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
TDU1\ZONE3_TEMP_SET	77	75	74	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
VRS1\CT_LIQUIDOUTLETTEMP	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
VRS1\HE_COOLSIDEDIFFPRES	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

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Tagname / Time	2:59	3:05	3:11	3:17	3:23	3:29	3:35	3:41	3:47	3:53	3:59	4:05	4:11	4:17	4:23	4:29	4:35	4:41	4:47	4:53	4:59	5:05	5:11	5:17	5:23	5:29	5:35	5:41	5:47
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	9.83	10.16	10.67	9.95	13.25	11.1	10.78	10.64	11.39	11.19	10.81	10.92	11.36	9.69	9.42	9.5	9.3	9.24	9.72	10.17	11.32	10.52	9.95	10.53	11.92	11.03	11.23	11.88	11.14
FTO1\TE101	78	78	77	77	76	75	72	70	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
FTO1\TE105	80	80	79	78	78	76	73	70	69	69	69	69	69	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69
FTO1\TE106	87	87	86	85	84	84	81	76	73	72	72	71	71	72	72	72	72	72	72	72	72	72	73	73	73	73	73	73	73
FTO1\TE107	84	84	83	82	81	79	76	72	71	70	70	70	71	71	71	72	72	72	72	72	73	73	73	73	73	73	73	73	72
FTO1\TE108	983	981	979	978	976	974	972	970	968	967	965	964	962	960	959	957	956	954	952	951	949	947	946	944	942	941	939	937	935
FTO1\TE109	968	966	964	962	960	958	957	955	953	951	949	947	946	944	942	940	938	937	935	933	931	929	927	926	924	922	920	918	917
TDU1\CYL_DRIVE_AMPS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
TDU1\CYL_DRIVE_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\CYL_FEED_SPEED_SET	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
TDU1\OXYGEN_DISCHARGE	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
TDU1\TE_10_TEMP	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
TDU1\TE_11_TEMP	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
TDU1\TE_12_TEMP	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118
TDU1\TE_13_TEMP	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
TDU1\TE_14_TEMP	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122
TDU1\TE_15_TEMP	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
TDU1\TE_16_TEMP	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
TDU1\TE_17_TEMP	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116
TDU1\TE_18_TEMP	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
TDU1\TE_1_TEMP	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
TDU1\TE_2_TEMP	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116
TDU1\TE_3_TEMP	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
TDU1\TE_4_TEMP	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108
TDU1\TE_5_TEMP	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114
TDU1\TE_6_TEMP	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118
TDU1\TE_7_TEMP	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124
TDU1\TE_8_TEMP	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
TDU1\TE_9_TEMP	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136	136
TDU1\ZONE1_TEMP_SET	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
TDU1\ZONE2_TEMP_SET	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
TDU1\ZONE3_TEMP_SET	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
VRS1\CT_LIQUIDOUTLETTEMP	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
VRS1\HE_COOLSIDEDIFFPRES	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

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Tagname	Time 5:53	5:59	6:05	6:11	6:17	6:23	6:29	6:35	6:41	6:47	6:53	6:59	7:05	7:11	7:17	7:23	7:29	7:35	7:41	7:47	7:53	7:59	8:05	8:11	8:17	8:23	8:29	8:35	8:41
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0
FTO1\CPMS_LEVEL	10.79	11.77	11.95	11.69	10.81	11.12	11.04	10.88	12.36	11.3	10.51	10.03	10.02	10.05	9.23	5.93	7.37	228.5	7.43	8.02	8.45	8.69	13.36	13.41	11.1	10.37	11.74	11.95	10.74
FTO1\TE101	68	68	68	68	68	68	68	68	68	68	68	68	68	68	69	70	70	71	71	71	71	71	72	72	73	73	73	74	74
FTO1\TE105	69	69	69	69	69	69	69	69	69	69	69	69	69	69	184	151	172	142	193	129	113	108	111	144	163	116	106	100	97
FTO1\TE106	73	72	72	72	72	73	73	73	73	73	73	73	74	74	73	105	216	137	87	112	103	92	91	168	190	115	102	104	99
FTO1\TE107	72	72	72	72	72	72	72	72	72	73	73	73	73	73	285	187	87	136	260	115	98	101	114	110	96	95	92	86	86
FTO1\TE108	934	932	930	929	927	925	924	922	920	919	917	915	914	912	935	891	987	1021	1073	1147	1161	1168	1176	1277	1236	1224	1214	1206	1197
FTO1\TE109	915	913	911	909	908	906	904	902	901	899	897	895	894	892	848	856	876	969	1109	1100	1108	1125	1144	1086	1126	1125	1121	1115	1112
TDU1\CYL_DRIVE_AMPS	2	2	2	2	2	2	2	2	2	2	2	2	2	7	7	7	6	6	8	7	7	7	8	8	7	7	8	8	8
TDU1\CYL_DRIVE_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2	1.2	1.2	1.2	1.18	1.2	1.2	1.2	1.2	1.19	1.19	1.19	1.19	1.19	1.18	1.18
TDU1\CYL_FEED_SPEED_SET	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
TDU1\OXYGEN_DISCHARGE	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	18.21	19.23	19.97	20.34	20.57	20.79	21.02	21.24	21.39	21.47	21.3	21.29	21.21	21	20.88	20.79	20.61
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	40	40	40	40	40	40	40	40	40	40	40	40
TDU1\PV_PIC1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-0.21	-0.2	-0.2	-0.19	-0.2	-0.21	-0.19	-0.19	-0.2	-0.19	-0.2	-0.2	-0.2	-0.2	-0.2	-0.21
TDU1\TE_10_TEMP	136	136	136	136	136	136	136	136	136	136	136	136	136	89	88	87	95	108	179	290	421	543	625	643	617	582	559	703	849
TDU1\TE_11_TEMP	123	123	123	123	123	123	123	123	123	123	123	123	123	85	85	84	89	95	127	179	257	350	423	459	465	455	444	573	699
TDU1\TE_12_TEMP	118	118	118	118	118	118	118	118	118	118	118	118	118	86	85	84	85	89	105	141	197	269	338	381	394	391	377	489	600
TDU1\TE_13_TEMP	105	105	105	105	105	105	105	105	105	105	105	105	105	81	81	81	82	84	106	133	166	200	227	239	238	233	226	321	354
TDU1\TE_14_TEMP	122	122	122	122	122	122	122	122	122	122	122	122	122	82	82	82	82	82	82	87	100	119	141	162	176	184	191	205	256
TDU1\TE_15_TEMP	79	79	79	79	79	79	79	79	79	79	79	79	79	68	68	68	68	68	69	69	69	73	69	69	69	70	70	70	70
TDU1\TE_16_TEMP	84	84	84	84	84	84	84	84	84	84	84	84	84	76	80	83	81	80	365	673	446	845	436	282	671	940	562	600	309
TDU1\TE_17_TEMP	116	116	116	116	116	116	116	116	116	116	116	116	116	85	85	85	135	154	913	664	608	623	530	410	408	425	474	1629	1036
TDU1\TE_18_TEMP	100	100	100	100	100	100	100	100	100	100	100	100	100	78	81	81	125	147	367	471	543	583	512	387	338	284	388	1310	819
TDU1\TE_1_TEMP	111	111	111	111	111	111	111	111	111	111	111	111	111	82	82	82	83	83	111	158	209	281	306	325	329	356	386	401	392
TDU1\TE_2_TEMP	116	116	116	116	116	116	116	116	116	116	116	116	116	84	84	84	84	85	111	184	287	404	469	494	516	604	681	701	680
TDU1\TE_3_TEMP	99	99	99	99	99	99	99	99	99	99	99	99	99	87	86	86	86	85	127	239	385	511	584	614	627	721	809	827	794
TDU1\TE_4_TEMP	108	108	108	108	108	108	108	108	108	108	108	108	108	87	87	86	86	86	300	504	621	804	792	727	759	847	871	867	823
TDU1\TE_5_TEMP	114	114	114	114	114	114	114	114	114	114	114	114	114	91	90	89	90	92	190	340	475	534	556	543	516	508	511	692	879
TDU1\TE_6_TEMP	118	118	118	118	118	118	118	118	118	118	118	118	118	91	90	89	93	100	196	325	431	479	502	499	487	481	476	714	910
TDU1\TE_7_TEMP	124	124	124	124	124	124	124	124	124	124	124	124	124	91	90	90	98	108	216	311	420	491	523	521	503	480	474	745	972
TDU1\TE_8_TEMP	125	125	125	125	125	125	125	125	125	125	125	125	125	91	90	90	104	116	368	458	534	593	594	560	522	486	491	878	1002
TDU1\TE_9_TEMP	136	136	136	136	136	136	136	136	136	136	136	136	136	89	89	88	89	97	128	230	396	555	682	736	711	662	614	642	822
TDU1\ZONE1_TEMP_SET	66	66	66	66	66	66	66	66	66	66	66	66	66	34	34	34	34	35	35	35	35	385	418	444	430	430	430	430	430
TDU1\ZONE2_TEMP_SET	68	68	68	68	68	68	68	68	68	68	68	68	68	41	40	39	39	39	39	39	39	39	39	50	50	50	500	750	590
TDU1\ZONE3_TEMP_SET	73	73	73	73	73	73	73	73	73	73	73	73	73	35	35	34	34	34	34	34	244	194	194	194	194	405	240	590	440
VRS1\CT_LIQUIDOUTLETTEMP	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	67	67	67	68	68	68	69	69	69
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	66	66	66	67	67	67	68	68	68
VRS1\HE_COOLSIDEDIFFPRES	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	5	5	5	5	5	6	6	6	6
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	66	66	67	68	68	70	71	71	71
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	89	89	90	87	87	91	87	87	87
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	381	381	35	356	567	83	62	62	62
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	71	71	71	72	72	72	72	72	72
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

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Tagname / Time	8:47	8:53	8:59	9:05	9:11	9:17	9:23	9:29	9:35	9:41	9:47	9:53	9:59	10:05	10:11	10:17	10:23	10:29	10:35	10:41	10:47	10:53	10:59	11:05	11:11	11:17	11:23	11:29	11:35
FTO1\COMB_FAN	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	1	1	1	1	1
FTO1\CPMS_LEVEL	11.52	12.06	8.14	8.92	6.13	5.9	6.78	7.5	8.47	7.83	7.83	7.83	7.83	7.83	9.34	7.83	6.94	8.03	9.98	7.12	8.06	9.12	8.03	8.31	11.02	11.31	8.66	11.13	9.85
FTO1\TE101	74	73	74	74	74	74	75	75	76	76	76	76	76	76	77	79	80	81	82	81	82	83	83	83	83	84	83	83	82
FTO1\TE105	157	144	179	146	181	151	135	121	115	113	113	113	113	113	91	173	164	127	139	215	136	118	118	117	142	164	153	173	159
FTO1\TE106	90	106	219	151	88	129	125	102	95	94	94	94	94	94	83	96	104	104	132	91	99	98	94	92	139	189	124	104	166
FTO1\TE107	211	167	88	117	237	152	119	109	108	106	106	106	106	106	82	239	205	134	141	298	145	115	119	120	138	103	169	212	125
FTO1\TE108	1154	1133	1074	1061	1040	1078	1112	1124	1139	1142	1142	1142	1142	1142	1176	1122	1214	1222	1252	1249	1271	1281	1284	1288	1378	1351	1305	1273	1217
FTO1\TE109	1139	1109	1083	1061	1040	1048	1101	1118	1135	1138	1138	1138	1138	1138	1179	1243	1221	1260	1312	1412	1410	1416	1430	1439	1377	1382	1390	1353	1318
TDU1\CYL_DRIVE_AMPS	7	7	7	7	7	8	8	9	8	7	8	7	8	7	7	7	7	8	8	8	9	9	8	10	9	11	10	10	8
TDU1\CYL_DRIVE_RPM	1.18	1.18	1.18	1.18	1.18	1.17	1.17	1.17	1.17	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.17	1.17	1.17	1.18	1.18	1.19	1.2	1.2	1.19
TDU1\CYL_FEED_SPEED_SET	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
TDU1\OXYGEN_DISCHARGE	20.51	20.51	20.44	20.42	20.4	20.38	20.35	20.33	20.32	20.25	20.15	20.13	20.08	20.06	20.02	19.98	19.98	19.96	19.86	19.89	19.87	19.89	19.85	19.77	19.77	19.83	19.8	19.84	19.84
TDU1\PURGE_DAMPER	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
TDU1\PV_PIC1	-0.21	-0.2	-0.21	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.21	-0.2	-0.21	-0.2	-0.19	-0.19	-0.18	-0.15	-0.09	0.23	0.14	0.02	-0.08	-0.16	-0.22	-0.23	-0.25	-0.25	-0.24	-0.18
TDU1\TE_10_TEMP	907	882	840	837	871	918	967	995	974	921	861	804	752	707	725	775	844	910	970	1019	1055	1044	1006	1001	1029	1068	1111	1131	1140
TDU1\TE_11_TEMP	766	762	735	731	750	785	825	849	841	809	766	723	684	648	648	673	722	775	823	868	902	902	883	880	896	924	958	978	994
TDU1\TE_12_TEMP	669	671	648	641	658	690	728	757	756	729	692	655	622	593	575	584	622	672	722	766	801	807	789	780	791	811	838	860	872
TDU1\TE_13_TEMP	381	377	363	362	374	395	421	436	436	421	401	382	364	348	344	352	373	402	429	454	473	475	467	467	476	493	514	532	548
TDU1\TE_14_TEMP	303	322	326	330	344	364	385	403	408	402	390	378	366	356	354	361	375	392	409	429	451	466	465	466	479	499	521	544	563
TDU1\TE_15_TEMP	70	70	70	71	70	70	70	71	71	72	72	73	73	74	74	75	75	76	76	76	77	77	78	78	78	78	78	78	78
TDU1\TE_16_TEMP	227	191	679	822	938	534	400	302	270	215	189	169	749	923	947	564	409	302	716	880	955	859	602	979	1044	1008	1050	1134	882
TDU1\TE_17_TEMP	723	639	773	851	868	827	820	656	597	561	533	506	568	561	743	729	725	752	786	822	848	748	785	870	905	917	947	1284	1177
TDU1\TE_18_TEMP	608	543	582	711	745	791	823	722	622	568	530	497	420	340	727	715	768	801	818	838	833	691	733	814	848	885	912	828	895
TDU1\TE_1_TEMP	376	358	355	378	424	449	463	459	447	430	411	390	392	423	480	513	522	509	501	515	560	612	629	653	688	735	774	826	861
TDU1\TE_2_TEMP	644	605	596	647	749	800	801	771	732	689	645	600	603	688	801	860	854	813	786	816	898	978	992	1007	1054	1113	1145	1189	1217
TDU1\TE_3_TEMP	749	702	698	769	898	955	937	885	828	774	723	676	685	790	930	995	973	916	887	940	1046	1140	1136	1146	1201	1268	1297	1345	1375
TDU1\TE_4_TEMP	778	729	811	950	1113	1089	1029	951	875	807	747	694	794	945	1111	1106	1048	967	993	1096	1226	1284	1223	1275	1349	1408	1424	1481	1477
TDU1\TE_5_TEMP	940	896	861	871	913	910	876	827	776	726	681	639	631	651	710	743	743	722	725	769	841	894	902	927	969	1013	1047	1136	1251
TDU1\TE_6_TEMP	958	911	871	865	882	875	852	814	770	724	681	642	633	639	674	697	705	700	710	744	793	828	835	857	890	927	959	1063	1182
TDU1\TE_7_TEMP	1036	996	941	913	907	908	907	889	855	811	765	722	688	658	673	701	734	763	785	812	840	845	842	853	879	910	941	1019	1129
TDU1\TE_8_TEMP	1001	954	911	922	934	940	949	918	871	820	769	721	672	630	718	748	787	824	860	899	921	881	881	915	949	982	1015	1072	1183
TDU1\TE_9_TEMP	945	946	900	880	922	983	1040	1086	1076	1015	943	874	812	756	731	791	882	965	1036	1093	1138	1144	1094	1065	1092	1136	1185	1220	1219
TDU1\ZONE1_TEMP_SET	430	430	490	540	535	585	585	585	585	585	585	585	585	585	600	600	600	600	750	750	750	750	900	900	900	900	1040	1005	1005
TDU1\ZONE2_TEMP_SET	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	590	940	940
TDU1\ZONE3_TEMP_SET	440	440	640	640	640	640	640	640	640	640	640	640	640	640	645	645	645	645	645	695	695	695	745	745	745	745	795	745	944
VRS1\CT_LIQUIDOUTLETTEMP	69	70	70	70	70	70	70	71	71	72	72	73	74	75	75	76	77	77	78	79	80	80	81	82	82	82	83	83	83
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	69	70	70	70	71	71	71	71	72	73	74	74	75	77	79	80	81	83	83	83	84	85	85	85	85	85	85	85	84
VRS1\HE_COOLSIDEDIFFPRES	6	5	5	5	5	5	5	6	6	6	6	7	8	9	9	9	9	8	9	8	9	9	9	8	8	8	7	7	7
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	73	73	73	73	73	73	73	74	75	77	78	79	80	83	85	88	90	91	91	91	91	92	93	93	92	91	92	91	90
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	0	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	1	2	2	2	1	1	2	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	89	85	84	83	82	81	80	80	80	79	79	79	79	80	80	81	82	82	82	83	84	84	85	85	85	85	86	86	85
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	71	60	59	58	58	61	60	58	58	58	57	56	55	54	51	51	50	48	46	43	44	41	42	38	41	41	38	37	42
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	74	75	75	76	76	76	76	76	77	77	78	78	79	80	81	82	83	83	84	84	84	84	84	84	84	84	84	84	84
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

Continuous Unit 1 for June 01, 1998

Tagname / Time	11:41	11:47	11:53	11:59	12:05	12:11	12:17	12:23	12:29	12:35	12:41	12:47	12:53	12:59	13:05	13:11	13:17	13:23	13:29	13:35	13:41	13:47	13:53	13:59	14:05	14:11	14:17	14:23	14:29
FTO1\COMB_FAN	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
FTO1\CPMS_LEVEL	10.73	11.84	244.4	3.41	3.69	2.18	1.9	1.94	2.82	-11.5	-13.1	-13.1	1.09	-0.89	0.29	0.18	0.2	0.29	0.29	0.3	-0.06	-1.15	-0.22	-0.44	1.85	2.59	2.7	0.11	0.39
FTO1\TE101	82	83	83	83	84	85	85	85	86	86	87	87	88	88	88	89	89	89	90	92	92	92	95	99	94	93	92	93	92
FTO1\TE105	162	169	164	174	160	191	162	192	160	189	161	146	158	195	169	178	179	190	188	180	212	184	234	319	222	149	180	228	165
FTO1\TE106	178	111	114	198	166	100	126	227	154	103	145	127	127	106	162	196	127	119	211	192	113	133	279	373	260	139	222	276	159
FTO1\TE107	113	206	189	109	123	248	172	100	141	239	153	137	178	248	151	121	213	227	126	134	276	206	108	104	107	129	111	103	136
FTO1\TE108	1187	1172	1121	1053	1051	1050	1010	1003	1015	1016	996	1000	1004	991	1087	1184	1188	1297	1429	1415	1377	1461	1543	1638	1653	1626	1557	1509	1512
FTO1\TE109	1287	1232	1213	1201	1151	1095	1104	1104	1078	1063	1069	1050	1037	1041	1062	1120	1250	1272	1256	1331	1425	1400	1371	1316	1301	1310	1278	1271	1288
TDU1\CYL_DRIVE_AMPS	8	8	9	10	11	10	9	10	8	8	10	10	10	10	10	8	8	10	10	10	11	11	11	10	9	10	9	9	11
TDU1\CYL_DRIVE_RPM	1.19	1.17	1.17	1.19	1.19	1.2	1.2	1.19	1.19	1.19	1.18	1.18	1.18	1.19	1.19	1.2	1.2	1.2	1.19	1.17	1.17	1.19	1.19	1.18	1.19	1.2	1.19	1.19	1.2
TDU1\CYL_FEED_SPEED_SET	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	50	80	80	80	80	80	80	80	80	80
TDU1\OXYGEN_DISCHARGE	19.85	19.77	19.82	19.86	19.82	19.76	19.69	19.66	19.66	19.69	19.76	19.82	19.86	19.88	19.84	19.87	19.88	19.87	19.74	20.05	20.05	20.05	20.07	15.4	19.16	19.24	13.59	14.98	11.57
TDU1\PURGE_DAMPER	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	30	10	5	5
TDU1\PV_PIC1	-0.14	-0.17	-0.22	-0.2	-0.21	-0.31	-0.34	-0.4	-0.49	-0.55	-0.54	-0.66	-0.32	-0.28	-0.24	-0.22	-0.22	-0.21	-0.32	-0.2	-0.21	-0.21	-0.25	-1.02	-1.12	-1.21	-1.25	-1.56	-1.5
TDU1\TE_10_TEMP	1103	1082	1104	1176	1245	1265	1230	1169	1161	1200	1243	1277	1308	1293	1243	1181	1118	1062	1055	1100	1178	1249	1262	1226	1177	1128	1095	1117	1175
TDU1\TE_11_TEMP	968	958	968	1024	1084	1110	1093	1053	1047	1071	1108	1138	1166	1160	1127	1080	1030	980	968	996	1049	1107	1123	1104	1069	1030	1003	1012	1050
TDU1\TE_12_TEMP	856	840	844	877	927	957	951	925	910	929	966	1002	1031	1033	1011	976	937	897	870	882	926	976	999	987	958	927	903	904	932
TDU1\TE_13_TEMP	544	541	548	577	613	640	645	635	632	644	667	699	727	733	726	706	685	666	644	649	674	709	722	715	702	681	671	670	693
TDU1\TE_14_TEMP	572	564	572	602	651	677	670	658	649	663	678	702	733	744	731	708	686	677	680	693	710	725	736	712	725	736	716	721	739
TDU1\TE_15_TEMP	78	79	79	78	79	80	80	79	80	80	80	80	80	81	81	81	81	81	82	83	83	83	83	83	82	81	81	81	81
TDU1\TE_16_TEMP	738	938	1130	1298	978	805	1169	1311	1162	862	1306	1256	1275	1168	908	1053	817	1353	952	826	673	666	1625	1277	1061	836	708	573	1212
TDU1\TE_17_TEMP	952	1033	1261	1622	1488	1229	1158	1082	1126	1088	1322	1477	1555	1266	1133	1062	1410	1635	1399	1424	1267	1198	1479	1529	1267	1129	1481	1506	1567
TDU1\TE_18_TEMP	661	864	913	1029	1038	919	837	782	1228	1009	1029	1050	1037	923	866	802	754	732	1031	980	1022	1066	918	853	805	772	874	962	1012
TDU1\TE_1_TEMP	861	849	864	938	991	995	1022	1079	1137	1137	1151	1176	1215	1250	1234	1185	1135	1181	1200	1171	1108	1044	1124	1195	1244	1220	1158	1079	1063
TDU1\TE_2_TEMP	1188	1142	1148	1237	1296	1277	1281	1335	1392	1374	1367	1395	1439	1477	1445	1373	1315	1358	1397	1361	1291	1215	1300	1404	1457	1418	1337	1248	1224
TDU1\TE_3_TEMP	1322	1259	1273	1384	1449	1406	1404	1475	1540	1494	1471	1513	1573	1616	1559	1463	1397	1445	1497	1450	1367	1282	1358	1502	1570	1515	1416	1316	1280
TDU1\TE_4_TEMP	1382	1340	1401	1530	1550	1470	1516	1607	1643	1538	1568	1622	1688	1712	1604	1507	1439	1567	1582	1506	1413	1331	1542	1651	1665	1562	1448	1349	1393
TDU1\TE_5_TEMP	1269	1232	1221	1358	1537	1548	1496	1446	1408	1362	1342	1410	1528	1578	1537	1456	1400	1530	1617	1623	1555	1455	1480	1567	1609	1555	1517	1500	1512
TDU1\TE_6_TEMP	1205	1180	1175	1333	1520	1526	1465	1397	1346	1301	1285	1361	1485	1525	1483	1405	1366	1526	1598	1610	1545	1453	1472	1541	1563	1504	1491	1498	1527
TDU1\TE_7_TEMP	1147	1136	1137	1302	1499	1518	1449	1365	1303	1262	1253	1330	1453	1486	1437	1358	1316	1471	1547	1577	1534	1462	1468	1511	1513	1449	1451	1503	1560
TDU1\TE_8_TEMP	1127	1139	1160	1340	1511	1476	1388	1295	1274	1252	1272	1372	1479	1457	1383	1296	1266	1431	1487	1533	1496	1445	1449	1469	1441	1365	1405	1480	1556
TDU1\TE_9_TEMP	1200	1153	1164	1222	1294	1342	1320	1258	1205	1237	1293	1337	1377	1382	1334	1267	1197	1132	1094	1138	1233	1317	1353	1319	1262	1206	1159	1165	1231
TDU1\ZONE1_TEMP_SET	1005	1050	1150	1160	1060	1060	1250	1230	1180	1180	1360	1360	1300	1250	1300	1305	1255	1320	1170	1170	1170	1270	1300	1300	1200	1200	1200	1200	1200
TDU1\ZONE2_TEMP_SET	940	940	1190	1395	1275	1275	1275	1275	1275	1275	1280	1280	1280	1280	1200	1200	1350	1485	1370	1450	1450	1455	1355	1355	1355	1355	1340	1340	1340
TDU1\ZONE3_TEMP_SET	918	849	849	894	894	844	844	994	1044	1044	1044	1044	944	754	754	754	754	754	954	954	954	854	854	854	854	854	904	904	954
VRS1\CT_LIQUIDOUTLETTEMP	83	84	84	85	85	85	86	86	68	66	70	69	68	67	67	67	67	67	69	66	65	65	66	66	67	68	67	68	68
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	-1	-2	-2	-2
VRS1\HC_INLETGASTEMP	84	84	85	85	85	86	86	85	84	84	84	84	84	84	84	84	84	84	84	85	86	87	89	456	547	632	621	641	665
VRS1\HE_COOLSIDEDIFFPRES	7	8	8	7	8	8	7	7	7	7	7	8	7	7	7	7	8	7	8	9	8	8	8	8	8	8	8	8	8
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	7	5	4	3	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	89	89	89	90	90	92	94	94	95	95	91	88	87	86	86	86	86	86	89	87	86	86	87	358	391	546	542	565	590
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	17	20	20	16	17	15
VRS1\RD_SCRUBBERDIFFPRES	0	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	0	1	0	0	1	1	2	2	1	1	2
VRS1\RD_SCRUBLIQUIDTEMP	85	86	86	86	86	87	87	87	87	86	75	73	71	70	69	69	69	69	70	72	73	66	68	69	69	70	70	70	70
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	0	0	0	0	0
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	44	41	39	37	34	29	28	26	26	25	14	15	16	1	-7	-9	-2	2	-6	1	0	0	700	584	283	204	134	121	121
VRS1\WESP_OUTLETGASPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	-3	-4	-2	-2	-2	-2	-2
VRS1\WESP_OUTLETGASTEMP	84	84	84	84	85	85	86	86	86	86	87	88	89	90	91	92	93	93	94	91	89	87	86	80	80	80	81	81	82
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	17	19	20	16	16	15
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	0	0	0	0	0

Continuous Unit 1 for June 01, 1998

Tagname / Time	14:35	14:41	14:47	14:53	14:59	15:05	15:11	15:17	15:23	15:29	15:35	15:41	15:47	15:53	15:59	16:05	16:11	16:17	16:23	16:29	16:35	16:41	16:47	16:53	16:59	17:05	17:11	17:17	17:23
FTO1\COMB_FAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	2.11	2.87	2.85	1.38	-0.21	0.84	2.38	1.21	0.14	0.2	0.09	0.22	0.01	0.23	0.25	0.23	0.42	0.27	0.03	10.18	36.31	4.99	8.06	16.51	9.14	14.29	9.38	28.01	10.18
FTO1\TE101	91	91	91	90	89	90	89	89	89	90	89	89	89	89	89	89	89	89	92	93	93	93	93	93	93	94	94	93	93
FTO1\TE105	156	183	189	166	158	160	162	200	168	204	172	196	175	206	180	193	188	180	192	174	218	172	213	150	212	148	188	135	168
FTO1\TE106	124	219	215	124	138	169	161	103	143	247	166	112	174	244	151	123	209	199	115	117	252	173	99	116	235	138	99	121	178
FTO1\TE107	166	114	112	182	164	121	142	262	174	109	159	246	158	115	189	233	131	116	226	183	103	110	255	143	97	113	216	119	97
FTO1\TE108	1523	1518	1486	1463	1408	1415	1430	1424	1421	1466	1471	1494	1539	1553	1535	1552	1579	1566	1518	1529	1528	1509	1476	1499	1520	1507	1479	1501	1518
FTO1\TE109	1328	1315	1337	1327	1305	1314	1379	1403	1375	1369	1429	1483	1464	1482	1533	1538	1511	1521	1553	1530	1465	1496	1529	1487	1429	1494	1504	1464	1449
TDU1\CYL_DRIVE_AMPS	11	11	9	9	9	10	10	9	10	10	10	10	11	10	8	8	7	9	8	11	8	10	8	10	8	10	9	11	11
TDU1\CYL_DRIVE_RPM	1.18	1.19	1.19	1.18	1.19	1.2	1.18	1.2	1.2	1.17	1.17	1.19	1.19	1.2	1.2	1.19	1.18	3.09	3.11	3.09	3.11	1.18	3.11	3.07	3.11	3.09	3.11	3.09	3.1
TDU1\CYL_FEED_SPEED_SET	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	45	45	45	45	60	60	60	60	60	45	45	45
TDU1\OXYGEN_DISCHARGE	15.02	18.11	19.32	19.37	14.99	12.34	10.39	17.49	18.29	18.38	18.51	14.62	12.76	12.68	17.79	18.69	19.46	17.65	10.19	10.8	10.36	19.45	19.72	12.66	10.97	8.03	14.32	3.7	2.22
TDU1\PURGE_DAMPER	4	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	10	10	10	10	10	10	10	10	10	20	20
TDU1\PV_PIC1	-1.43	-1.68	-1.41	-1.39	-1.47	-1.44	-1.58	-1.66	-1.79	-1.9	-1.89	-1.88	-1.86	-1.82	-1.76	-1.67	-1.61	-1.66	-1.68	-1.53	-1.53	-1.64	-1.79	-1.79	-1.73	-1.01	-1.8	-1.69	-1.63
TDU1\TE_10_TEMP	1245	1297	1286	1234	1168	1106	1113	1211	1304	1360	1379	1335	1265	1197	1140	1107	1096	1059	1049	1097	1177	1236	1229	1226	1264	1325	1368	1398	1451
TDU1\TE_11_TEMP	1103	1148	1150	1117	1069	1019	1023	1098	1178	1231	1253	1226	1174	1118	1067	1033	1011	969	960	986	1041	1089	1086	1093	1122	1173	1220	1261	1317
TDU1\TE_12_TEMP	975	1017	1028	1007	970	930	926	987	1058	1106	1131	1117	1078	1033	986	949	922	888	866	874	909	954	967	966	984	1020	1062	1099	1149
TDU1\TE_13_TEMP	725	756	766	753	731	706	707	738	784	827	853	853	828	802	773	746	724	696	678	676	697	722	733	742	760	794	835	877	932
TDU1\TE_14_TEMP	771	793	779	753	724	724	732	781	806	822	828	813	797	787	777	749	731	706	705	734	769	794	785	797	826	879	934	1032	1133
TDU1\TE_15_TEMP	82	81	82	82	82	82	82	82	82	82	83	83	83	83	83	83	83	83	85	85	85	85	85	84	83	83	84	83	81
TDU1\TE_16_TEMP	1088	985	747	584	1444	1317	1263	1000	804	651	927	1112	1167	1228	973	757	660	1085	1331	1340	1302	855	756	1463	1195	1146	1362	1351	1364
TDU1\TE_17_TEMP	1373	1228	1107	1015	1311	1462	1560	1360	1270	1210	1097	1312	1430	1494	1311	1212	1035	1306	1589	1626	1680	1384	1080	1528	1611	1659	1510	1601	1583
TDU1\TE_18_TEMP	1062	1032	925	855	793	735	1357	1105	1130	1146	1055	946	864	818	778	897	769	625	903	969	1025	875	808	1005	1073	1127	1078	1212	1258
TDU1\TE_1_TEMP	1059	1097	1087	1046	1039	1153	1236	1266	1232	1161	1097	1092	1116	1158	1183	1161	1102	1053	1111	1235	1299	1304	1239	1199	1196	1194	1169	1186	1176
TDU1\TE_2_TEMP	1245	1303	1295	1240	1218	1345	1444	1474	1424	1339	1253	1272	1318	1375	1402	1363	1289	1223	1288	1430	1503	1494	1400	1355	1375	1396	1377	1401	1390
TDU1\TE_3_TEMP	1334	1415	1398	1322	1280	1410	1541	1582	1515	1413	1317	1348	1424	1504	1534	1471	1373	1286	1357	1522	1626	1633	1510	1455	1504	1547	1531	1554	1541
TDU1\TE_4_TEMP	1483	1542	1466	1364	1406	1572	1669	1663	1558	1441	1373	1465	1556	1637	1622	1522	1408	1362	1510	1684	1757	1719	1554	1583	1643	1679	1667	1698	1677
TDU1\TE_5_TEMP	1537	1522	1458	1371	1319	1420	1545	1598	1553	1467	1378	1349	1410	1511	1580	1542	1450	1366	1467	1608	1713	1743	1640	1588	1627	1689	1692	1692	1673
TDU1\TE_6_TEMP	1543	1509	1437	1349	1299	1398	1509	1556	1516	1444	1366	1331	1383	1475	1537	1497	1411	1339	1466	1589	1690	1715	1590	1558	1608	1678	1678	1676	1654
TDU1\TE_7_TEMP	1569	1520	1440	1351	1286	1367	1461	1513	1493	1443	1383	1334	1353	1415	1465	1437	1366	1294	1423	1549	1649	1677	1565	1533	1582	1661	1676	1679	1671
TDU1\TE_8_TEMP	1559	1499	1404	1310	1248	1321	1439	1490	1475	1441	1380	1326	1337	1378	1406	1378	1297	1222	1401	1526	1630	1633	1505	1517	1582	1666	1666	1680	1687
TDU1\TE_9_TEMP	1311	1379	1383	1326	1251	1178	1131	1207	1330	1407	1446	1415	1339	1262	1200	1157	1151	1132	1098	1137	1229	1314	1328	1306	1330	1388	1444	1460	1497
TDU1\ZONE1_TEMP_SET	1200	1200	1200	1200	1300	1285	1275	1265	1265	1265	1265	1265	1265	1215	655	655	655	1255	1255	1355	1405	1443	1352	1352	1352	1352	1402	1387	1397
TDU1\ZONE2_TEMP_SET	1290	1290	1290	1290	1340	1325	1325	1325	1325	1325	1325	1325	1325	1325	670	820	820	1420	1410	1465	1515	1663	1539	1538	1538	1488	1538	1518	1518
TDU1\ZONE3_TEMP_SET	954	904	904	904	904	919	1044	1044	1044	1044	1039	1039	1039	1039	1039	1039	961	919	958	958	908	1039	1036	1036	1036	1036	986	1236	1136
VRS1\CT_LIQUIDOUTLETTEMP	68	68	67	67	67	67	67	67	66	67	66	66	66	67	66	66	66	66	66	67	68	68	67	68	68	69	70	71	73
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	-1	-1	-1	-1	-1	-3	-1	-2	-2
VRS1\HC_INLETGASPRES	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-1	-2	-2	-2
VRS1\HC_INLETGASTEMP	696	720	742	744	735	740	754	784	806	816	820	813	808	810	815	818	810	790	788	812	833	868	877	866	877	915	926	950	996
VRS1\HE_COOLSIDEDIFFPRES	8	7	8	8	8	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	-1	-1	-1	-1	-1	0	-1	1	-1	0	-1	0	-1	1	-1	0	0	0	1	2	2	2	2	2	2	2	1	2	1
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	620	641	665	670	663	665	673	696	716	726	729	723	718	720	723	728	722	705	710	735	760	791	800	796	805	853	855	884	930
VRS1\RD_OXYGEN	16	18	21	21	19	14	14	17	20	20	20	18	15	15	17	20	21	21	13	13	13	20	21	15	14	15	19	12	9
VRS1\RD_SCRUBBERDIFFPRES	2	1	2	1	1	1	1	1	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\RD_SCRUBLIQUIDTEMP	70	70	70	70	69	70	69	69	69	69	69	69	69	69	69	69	69	69	69	70	71	72	71	71	72	74	76	77	81
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	111	90	117	141	126	137	133	150	152	159	164	161	150	143	153	151	150	169	219	284	274	291	290	298	366	379	281	285	251
VRS1\WESP_OUTLETGASPRES	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-3	-3	-3	-3	-3	-3	-4	-5	-3	-4	-5
VRS1\WESP_OUTLETGASTEMP	82	83	82	82	82	82	83	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	83	84
VRS1\WESP_OXYGEN	16	17	20	20	19	13	14	16	19	19	20	18	15	15	16	20	20	20	13	13	13	19	20	15	14	15	18	12	9
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname / Time	17:29	17:35	17:41	17:47	17:53	17:59	18:05	18:11	18:17	18:23	18:29	18:35	18:41	18:47	18:53	18:59	19:05	19:11	19:17	19:23	19:29	19:35	19:41	19:47	19:53	19:59	20:05	20:11	20:17
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	28.58	8.73	53.88	5.02	30.81	13.8	42.22	7.61	19.51	13.48	8.82	18.92	13.15	29.7	12.1	28.86	14.53	32.5	11.89	18.08	6.95	59.74	10.1	32.09	20.48	10.53	9.09	8.23	19.19
FTO1\TE101	95	94	93	93	93	93	94	94	94	93	93	93	92	92	92	92	92	92	93	95	91	90	90	91	91	89	89	87	86
FTO1\TE105	135	147	136	145	131	126	145	134	140	120	154	122	133	117	141	118	130	120	137	127	124	137	139	139	125	165	127	145	116
FTO1\TE106	117	101	139	149	105	102	157	134	98	105	167	117	96	109	150	109	96	120	143	104	100	149	144	97	101	180	124	91	102
FTO1\TE107	122	156	103	98	132	127	98	100	153	117	94	103	148	108	94	109	141	103	95	130	125	95	94	152	124	92	98	165	108
FTO1\TE108	1492	1520	1526	1539	1577	1559	1541	1554	1528	1524	1511	1530	1545	1522	1514	1539	1542	1516	1520	1551	1527	1508	1498	1499	1516	1506	1520	1555	1537
FTO1\TE109	1496	1490	1453	1567	1557	1579	1605	1558	1523	1518	1568	1544	1540	1567	1574	1547	1546	1576	1566	1534	1513	1459	1495	1509	1492	1419	1534	1540	1546
TDU1\CYL_DRIVE_AMPS	14	15	14	16	16	17	13	13	13	16	17	16	16	15	16	16	16	17	15	13	13	12	13	13	15	13	15	15	14
TDU1\CYL_DRIVE_RPM	3.07	3.08	3.07	3.1	3.07	3.09	3.08	3.09	3.08	3.06	3.07	3.09	3.08	3.09	3.07	3.07	3.09	3.08	1.23	1.33	2.62	3.29	3.28	3.26	3.29	3.25	3.28	3.28	3.29
TDU1\CYL_FEED_SPEED_SET	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	62	62	62	62	62	62	62	62	62	62	62	62	62	62
TDU1\OXYGEN_DISCHARGE	6.36	2.06	1.46	0.85	1.15	1.36	2.43	3.4	0.72	0.02	0.48	0.71	0.77	1.07	1.07	0.87	1.81	2.82	4.36	9.62	2.16	2.46	3.68	3.12	3.25	1.37	0.94	1.37	1.13
TDU1\PURGE_DAMPER	20	20	15	15	15	15	15	15	15	10	10	10	10	10	10	10	10	10	10	10	10	10	10	15	15	15	15	15	15
TDU1\PV_PIC1	-0.97	-1.53	-1.57	-1.61	-1.57	-1.57	-1.79	-2.37	-1.54	-1.48	-1.48	-1.76	-1.97	-1.98	-1.88	-1.76	-1.86	-1.01	-1.82	-1.66	-2.16	-1.77	-1.43	-1.2	-1.37	-1.64	-1.5	-1.79	-2
TDU1\TE_10_TEMP	1475	1473	1428	1345	1253	1171	1153	1184	1237	1314	1358	1330	1265	1193	1124	1066	1011	1022	1077	1105	1086	1114	1185	1266	1273	1230	1169	1109	1058
TDU1\TE_11_TEMP	1358	1375	1351	1288	1212	1139	1107	1112	1140	1195	1246	1246	1209	1153	1094	1039	982	972	995	1015	1009	1036	1081	1146	1171	1155	1115	1069	1025
TDU1\TE_12_TEMP	1207	1248	1258	1229	1174	1111	1065	1044	1045	1070	1113	1141	1137	1108	1063	1014	961	927	924	933	932	947	975	1015	1054	1069	1058	1032	999
TDU1\TE_13_TEMP	998	1051	1084	1077	1045	996	946	916	904	919	953	986	997	982	950	906	857	817	801	794	787	789	807	839	878	904	908	896	873
TDU1\TE_14_TEMP	1238	1268	1227	1123	1057	1002	978	983	1013	1066	1180	1261	1166	1053	987	955	934	904	922	945	956	963	986	1051	1177	1142	1079	1022	975
TDU1\TE_15_TEMP	80	109	162	211	208	212	212	212	210	187	172	173	212	212	208	184	178	177	173	118	156	146	142	161	238	141	131	155	182
TDU1\TE_16_TEMP	1449	1473	1390	1373	1570	1468	1180	1626	1158	1545	1400	1497	1545	1087	1520	1450	1329	1236	834	790	1617	1199	1209	1390	794	1109	1309	1492	1569
TDU1\TE_17_TEMP	1527	1511	1455	1542	1451	1539	1483	1514	1575	1565	1488	1450	1463	1570	1504	1489	1483	1556	1436	1041	1742	1609	1369	1411	1519	1620	1651	1511	1530
TDU1\TE_18_TEMP	1214	1262	1083	954	867	827	1011	1046	1083	1159	1107	1022	946	846	778	733	649	947	968	857	860	1011	1052	1097	1000	934	885	821	808
TDU1\TE_1_TEMP	1149	1157	1167	1169	1194	1173	1132	1187	1139	1146	1118	1139	1144	1079	1059	1118	1087	1025	1022	950	1045	1075	1051	1028	966	931	916	935	1055
TDU1\TE_2_TEMP	1370	1379	1391	1396	1417	1397	1374	1428	1411	1401	1378	1388	1392	1337	1308	1368	1337	1271	1275	1196	1279	1351	1324	1292	1227	1187	1159	1185	1307
TDU1\TE_3_TEMP	1514	1507	1495	1499	1508	1511	1495	1536	1551	1531	1503	1495	1497	1456	1412	1451	1441	1391	1377	1283	1324	1439	1451	1444	1389	1344	1340	1369	1436
TDU1\TE_4_TEMP	1650	1658	1636	1631	1657	1652	1608	1706	1670	1681	1634	1648	1650	1552	1563	1609	1561	1508	1468	1350	1516	1574	1573	1592	1471	1451	1495	1551	1626
TDU1\TE_5_TEMP	1642	1619	1590	1576	1579	1578	1570	1596	1625	1637	1619	1600	1583	1565	1559	1571	1562	1550	1527	1418	1414	1538	1580	1536	1501	1510	1533	1559	1586
TDU1\TE_6_TEMP	1615	1577	1538	1520	1519	1523	1518	1531	1577	1595	1575	1548	1521	1527	1526	1524	1524	1526	1493	1389	1394	1521	1558	1496	1478	1495	1526	1540	1554
TDU1\TE_7_TEMP	1634	1590	1538	1497	1476	1462	1462	1480	1530	1579	1568	1532	1488	1469	1459	1449	1429	1449	1455	1386	1399	1519	1566	1507	1489	1491	1505	1507	1514
TDU1\TE_8_TEMP	1646	1606	1537	1478	1434	1409	1437	1471	1536	1597	1571	1516	1454	1425	1399	1372	1334	1403	1426	1344	1384	1509	1551	1497	1481	1466	1466	1449	1451
TDU1\TE_9_TEMP	1526	1516	1481	1403	1306	1216	1170	1199	1261	1341	1404	1387	1319	1239	1165	1100	1047	1025	1080	1141	1134	1127	1196	1289	1326	1284	1218	1152	1096
TDU1\ZONE1_TEMP_SET	1377	1222	1407	1407	1407	1407	1387	1407	1407	1407	1387	1387	1387	1297	1297	1347	1147	1312	1212	1212	1272	1267	1172	1127	1232	1212	1212	1217	1262
TDU1\ZONE2_TEMP_SET	1518	1518	1518	1518	1518	1518	1518	1518	1518	1518	1523	1523	1523	1523	1523	1523	1523	1523	1423	1273	1453	1403	1353	1518	1478	1483	1518	1533	1548
TDU1\ZONE3_TEMP_SET	1356	1156	1151	951	1001	1036	1011	1101	1101	1051	1056	1056	1056	1056	1056	989	934	944	844	789	1059	1059	974	924	924	874	874	874	874
VRS1\CT_LIQUIDOUTLETTEMP	75	77	78	79	81	82	81	78	76	78	79	80	81	81	80	82	82	82	81	77	76	76	76	78	78	79	80	80	81
VRS1\HC_GASDIFFPRES	-2	-3	-3	-3	-3	-2	-1	-1	-2	-3	-4	-4	-3	-4	-4	-3	-4	-4	-3	-4	0	0	-2	-2	-2	-2	-2	-3	-4
VRS1\HC_INLETGASPRES	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-1	-2	0	-2	-2	-2	-1	-1	-2	-1	-2	-2
VRS1\HC_INLETGASTEMP	1028	1062	1072	1059	1037	1011	992	965	976	1007	1038	1051	1046	1026	996	969	940	918	915	900	878	879	928	962	977	981	975	966	956
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	3	2	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	2	1	4	1	2	2	2	2	2	2	1	1
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	868	929	990	990	976	958	936	911	927	955	982	999	998	982	958	938	905	887	878	862	843	839	883	917	931	940	936	933	925
VRS1\RD_OXYGEN	15	10	7	7	7	7	5	6	3	3	5	5	6	7	7	8	11	10	12	18	10	8	13	11	14	13	11	9	8
VRS1\RD_SCRUBBERDIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\RD_SCRUBLIQUIDTEMP	86	90	91	94	97	99	97	91	88	92	94	96	97	97	96	99	99	100	97	89	86	86	88	91	91	94	94	96	97
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	70	70	86	67	87	87	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	453	276	113	115	131	142	150	96	145	131	141	128	112	158	121	185	198	291	262	677	236	307	295	388	393	306	318	205	212
VRS1\WESP_OUTLETGASPRES	-5	-5	-5	-5	-5	-5	-4	-3	-4	-5	-5	-5	-5	-4	-4	-4	-4	-5	-4	-5	-3	-4	-4	-4	-4	-5	-5	-5	-5
VRS1\WESP_OUTLETGASTEMP	85	86	88	90	90	91	93	94	94	94	94	94	95	96	94	93	92	92	92	92	90	90	89	88	88	88	88	88	88
VRS1\WESP_OXYGEN	14	10	7	8	9	7	6	7	4	5	6	7	7	8	8	9	11	11	12	18	10	9	13	11	14	13	12	9	7
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	30	31	31	29	33	33	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname / Time	20:23	20:29	20:35	20:41	20:47	20:53	20:59	21:05	21:11	21:17	21:23	21:29	21:35	21:41	21:47	21:53	21:59	22:05	22:11	22:17	22:23	22:29	22:35	22:41	22:47	22:53	22:59	23:05	23:11
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
FTO1\CPMS_LEVEL	9.05	16.07	7.92	13.99	8.57	21.79	21.73	63.05	21.62	69.98	22.08	48.75	28.17	16.97	29.84	14.28	27	12.78	15.42	7.54	0.8	1.06	0.69	0.63	0.54	0.41	1.13	2.12	3.06
FTO1\TE101	86	85	84	84	84	83	84	83	82	82	82	84	84	85	85	85	83	83	79	77	72	70	70	69	69	69	77	78	78
FTO1\TE105	146	115	128	113	132	114	123	121	126	122	117	145	116	148	113	154	114	135	109	102	103	114	109	116	117	120	152	147	198
FTO1\TE106	156	106	89	110	139	96	89	128	128	89	90	158	112	87	97	166	105	86	104	101	94	80	109	122	87	87	178	151	86
FTO1\TE107	88	101	140	97	87	112	132	91	87	130	119	86	92	172	109	86	98	152	89	85	103	125	94	84	132	132	87	91	241
FTO1\TE108	1532	1550	1547	1523	1521	1499	1500	1508	1513	1478	1498	1520	1501	1416	1501	1528	1497	1476	1520	1512	1454	1457	1541	1549	1518	1557	1640	1600	1467
FTO1\TE109	1556	1542	1524	1511	1493	1507	1508	1379	1470	1508	1490	1348	1492	1517	1456	1368	1496	1543	1473	1458	1475	1456	1436	1459	1506	1500	1416	1513	1625
TDU1\CYL_DRIVE_AMPS	15	13	15	13	11	11	10	10	10	9	10	11	9	10	12	13	13	14	13	12	13	11	10	10	9	10	10	10	9
TDU1\CYL_DRIVE_RPM	3.28	3.28	3.28	3.28	3.3	3.28	3.28	3.29	3.3	3.3	3.29	3.28	3.26	3.3	3.3	3.3	3.29	3.03	3.04	3.01	3.01	3.03	3.05	3.05	3.05	3.01	3.01	3.05	3.06
TDU1\CYL_FEED_SPEED_SET	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
TDU1\OXYGEN_DISCHARGE	1.66	2.66	1.21	0.91	2.74	3.56	6.76	10.53	5.4	4.87	3.65	5.98	3.31	2.24	3.36	2.54	2.17	3.09	2.79	5.68	6.93	10.46	8.62	10.52	13.24	14.05	15.56	16.27	15.97
TDU1\PURGE_DAMPER	15	15	15	15	15	15	15	15	0	0	0	0	0	0	10	10	13	13	13	13	15	15	15	2	2	2	2	2	2
TDU1\PV_PIC1	-2.13	-2.06	-2.01	-2.16	-2.16	-2.36	-2	-1.73	-2.06	-1.97	-1.82	-1.82	-1.95	-1.8	-2.13	-1.54	-1.8	-1.79	-1.77	-1.71	-1.67	-1.69	-1.4	-1.51	-1.33	-1.33	-1.65	-1.62	-1.61
TDU1\TE_10_TEMP	1024	1020	1033	1049	1103	1185	1262	1290	1281	1257	1220	1175	1135	1110	1099	1092	1085	1073	1058	1044	1034	1030	1029	1025	1017	1006	991	975	969
TDU1\TE_11_TEMP	991	970	968	972	1008	1068	1133	1169	1178	1170	1149	1118	1086	1063	1049	1043	1037	1028	1017	1003	990	981	975	969	960	947	930	914	902
TDU1\TE_12_TEMP	966	938	918	904	915	949	997	1037	1061	1068	1063	1046	1024	1001	984	975	969	964	956	945	930	917	907	899	889	875	857	838	822
TDU1\TE_13_TEMP	842	817	796	778	778	798	831	862	884	895	892	882	865	848	833	825	818	815	809	800	788	779	770	761	750	738	720	699	678
TDU1\TE_14_TEMP	952	949	971	1002	1009	1027	1054	1084	1078	1051	1067	1057	1037	1030	1044	1055	1062	1058	1046	1024	1010	999	982	955	921	888	856	825	796
TDU1\TE_15_TEMP	198	204	196	193	186	187	153	166	151	131	112	211	135	114	254	122	280	135	188	162	156	171	122	137	103	109	88	85	82
TDU1\TE_16_TEMP	1163	1168	1564	1229	1335	1249	1273	1289	1198	1098	1413	1220	1504	1627	1216	1386	1477	1273	1535	1148	1184	1234	1266	913	733	606	557	488	727
TDU1\TE_17_TEMP	1486	1457	1560	1596	1529	1585	1628	1389	1292	1164	1370	1409	1468	1489	1462	1457	1443	1425	1441	1446	1499	1353	1481	1477	1474	1450	1491	1446	1514
TDU1\TE_18_TEMP	835	681	776	917	1020	1061	1061	1015	990	960	928	869	856	864	857	867	853	814	807	786	772	792	780	780	773	753	738	721	807
TDU1\TE_1_TEMP	1073	1066	1073	1092	1085	1071	1065	1075	1058	1011	1021	1004	1018	1100	1060	1075	1067	1057	1071	1023	1000	1000	1027	1048	1036	999	949	900	855
TDU1\TE_2_TEMP	1333	1311	1312	1341	1335	1338	1346	1365	1349	1291	1284	1277	1291	1354	1324	1331	1328	1322	1340	1303	1284	1293	1325	1335	1295	1226	1157	1092	1037
TDU1\TE_3_TEMP	1461	1443	1428	1453	1459	1500	1545	1589	1581	1511	1462	1458	1470	1500	1484	1474	1466	1459	1468	1460	1472	1509	1555	1544	1463	1364	1275	1200	1142
TDU1\TE_4_TEMP	1583	1562	1596	1588	1602	1653	1697	1735	1703	1614	1610	1601	1637	1688	1607	1624	1622	1598	1634	1592	1618	1663	1702	1634	1522	1415	1325	1253	1230
TDU1\TE_5_TEMP	1585	1593	1595	1595	1598	1628	1683	1690	1639	1545	1487	1490	1530	1568	1571	1574	1566	1555	1556	1553	1583	1619	1627	1633	1615	1579	1553	1527	1500
TDU1\TE_6_TEMP	1546	1570	1570	1559	1563	1599	1663	1658	1598	1498	1434	1436	1476	1509	1519	1519	1509	1496	1491	1497	1538	1573	1575	1591	1593	1578	1580	1571	1551
TDU1\TE_7_TEMP	1493	1511	1517	1508	1521	1562	1629	1627	1570	1476	1403	1387	1418	1454	1469	1474	1463	1445	1439	1435	1464	1497	1492	1509	1533	1547	1571	1584	1579
TDU1\TE_8_TEMP	1432	1442	1456	1467	1503	1562	1628	1595	1524	1431	1364	1348	1375	1410	1425	1428	1415	1395	1386	1383	1409	1427	1411	1429	1452	1469	1494	1503	1513
TDU1\TE_9_TEMP	1053	1044	1055	1072	1114	1201	1297	1349	1346	1319	1276	1223	1173	1140	1126	1119	1112	1100	1084	1067	1056	1055	1059	1061	1057	1048	1036	1023	1013
TDU1\ZONE1_TEMP_SET	1322	1287	1337	1337	1337	1287	1277	1227	1227	1227	1277	1282	1282	1332	1332	1327	1327	1327	1327	1142	1142	1142	1142	1042	1042	1042	1042	1042	1042
TDU1\ZONE2_TEMP_SET	1548	1508	1558	1558	1558	1508	1458	1458	1458	1458	1408	1413	1413	1463	1463	1463	1463	1463	1463	1363	1363	1363	1373	1578	1578	1578	1578	1528	1528
TDU1\ZONE3_TEMP_SET	999	920	918	910	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
VRS1\CT_LIQUIDOUTLETTEMP	80	80	79	79	77	75	73	71	72	73	79	83	84	79	76	76	76	76	76	75	72	71	70	68	68	66	66	66	65
VRS1\HC_GASDIFFPRES	-4	-4	-4	-3	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-1	-1	0	-1	-1	0	0	0	-1	0	-1
VRS1\HC_INLETGASPRES	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-1	-2	-2	-2	-2	-2	-2	-1	-1	-1	-1	-2	-2	-2
VRS1\HC_INLETGASTEMP	944	938	929	931	914	915	922	941	964	975	974	952	949	960	962	967	971	965	953	924	909	902	893	883	874	866	860	854	847
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	0	0	0	12	6	3	1	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	2	1	2	3	4	4	4	5	5	5	5	2	2	2
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	915	912	904	902	879	874	876	894	918	930	932	917	910	922	928	926	933	927	914	883	863	855	842	830	818	808	804	800	792
VRS1\RD_OXYGEN	9	8	7	7	7	7	10	17	16	17	15	15	14	13	13	12	11	11	11	11	12	14	15	17	18	19	19	19	19
VRS1\RD_SCRUBBERDIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\RD_SCRUBLIQUIDTEMP	96	95	94	94	89	85	81	80	81	84	111	127	104	93	88	88	87	89	88	84	81	78	76	75	74	72	71	71	70
VRS1\WESP_CURRENT_AMP	0	0	0	0	68	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	219	214	223	205	241	220	303	365	290	322	344	344	309	351	251	387	243	305	222	235	260	259	305	287	330	304	400	442	466
VRS1\WESP_OUTLETGASPRES	-4	-4	-4	-4	-4	-3	-3	-4	-4	-4	-4	-4	-4	-4	-4	-4	-5	-4	-3	-3	-3	-3	-2	-2	-2	-2	-3	-3	-3
VRS1\WESP_OUTLETGASTEMP	88	88	88	87	88	88	86	84	82	82	82	85	89	89	88	87	85	85	84	84	83	82	81	80	79	78	77	76	75
VRS1\WESP_OXYGEN	8	7	6	7	6	6	10	16	16	16	14	14	14	13	13	12	11	11	10	10	11	13	15	16	18	18	18	19	19
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	29	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Tagname	Time 23:17	23:23	23:29	23:35	23:41	23:47	23:53	23:59
FTO1\COMB_FAN	1	1	0	0	0	0	0	0
FTO1\CPMS_LEVEL	1.8	1.65	2.15	2.57	29.94	1.18	13.25	12.02
FTO1\TE101	78	79	78	77	74	71	70	69
FTO1\TE105	145	228	136	184	120	119	108	108
FTO1\TE106	96	256	125	82	106	117	92	78
FTO1\TE107	149	82	99	217	98	81	95	111
FTO1\TE108	1603	1683	1554	1469	1549	1525	1507	1504
FTO1\TE109	1538	1429	1570	1577	1473	1509	1508	1519
TDU1\CYL_DRIVE_AMPS	7	8	10	7	7	8	8	7
TDU1\CYL_DRIVE_RPM	3.05	3.04	3.04	1.86	1.19	1.19	1.19	1.2
TDU1\CYL_FEED_SPEED_SET	62	62	62	62	62	62	62	62
TDU1\OXYGEN_DISCHARGE	14.92	18	19.47	20.22	19.79	19.83	19.91	19.86
TDU1\PURGE_DAMPER	2	2	2	2	2	2	2	2
TDU1\PV_PIC1	-1.43	-1.38	-1.25	-0.26	-1.03	-0.3	-0.3	-0.29
TDU1\TE_10_TEMP	1011	1089	1174	1206	1179	1125	1063	1004
TDU1\TE_11_TEMP	924	973	1036	1066	1056	1019	972	924
TDU1\TE_12_TEMP	825	852	893	920	915	887	849	809
TDU1\TE_13_TEMP	668	675	693	700	692	669	638	606
TDU1\TE_14_TEMP	783	775	762	745	724	701	668	636
TDU1\TE_15_TEMP	78	77	72	74	74	74	73	73
TDU1\TE_16_TEMP	1036	838	656	517	444	381	316	855
TDU1\TE_17_TEMP	1580	1419	1275	1078	975	890	813	928
TDU1\TE_18_TEMP	923	978	1022	888	816	756	707	664
TDU1\TE_1_TEMP	859	885	890	879	850	812	768	737
TDU1\TE_2_TEMP	1057	1109	1122	1097	1051	993	929	895
TDU1\TE_3_TEMP	1185	1273	1285	1238	1171	1100	1030	1002
TDU1\TE_4_TEMP	1359	1444	1395	1311	1222	1140	1063	1110
TDU1\TE_5_TEMP	1540	1582	1528	1426	1316	1213	1118	1070
TDU1\TE_6_TEMP	1581	1604	1538	1435	1327	1226	1133	1077
TDU1\TE_7_TEMP	1598	1612	1554	1458	1354	1257	1168	1095
TDU1\TE_8_TEMP	1558	1579	1524	1417	1314	1218	1129	1050
TDU1\TE_9_TEMP	1039	1125	1224	1286	1268	1208	1137	1069
TDU1\ZONE1_TEMP_SET	1042	902	902	902	902	907	907	907
TDU1\ZONE2_TEMP_SET	1528	1078	1078	1078	1028	903	903	903
TDU1\ZONE3_TEMP_SET	900	900	800	800	800	900	900	900
VRS1\CT_LIQUIDOUTLETTEMP	65	65	65	65	64	65	65	65
VRS1\HC_GASDIFFPRES	-1	-1	-1	0	-1	0	0	0
VRS1\HC_INLETGASPRES	-1	-1	-1	0	0	0	0	0
VRS1\HC_INLETGASTEMP	849	859	869	841	781	760	745	728
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	3	3	3	-1	2	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	796	805	814	792	717	660	633	615
VRS1\RD_OXYGEN	18	19	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	1	1	1	1	2	1	1	2
VRS1\RD_SCRUBLIQUIDTEMP	71	70	69	70	69	71	75	77
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	-25	-25
VRS1\WESP_DIFFPRES	2	2	2	0	1	0	0	0
VRS1\WESP_OUTLETGASFLOW	522	544	526	152	386	117	118	116
VRS1\WESP_OUTLETGASPRES	-3	-4	-4	0	-2	0	0	0
VRS1\WESP_OUTLETGASTEMP	74	74	73	73	72	72	71	71
VRS1\WESP_OXYGEN	17	19	20	21	20	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	-20	-20

Continuous Unit 1 for June 02, 1998

Tagname / Time	0:05	0:11	0:17	0:23	0:29	0:35	0:41	0:47	0:53	0:59	1:05	1:11	1:17	1:23	1:29	1:35	1:41	1:47	1:53	1:59	2:05	2:11	2:17	2:23	2:29	2:35	2:41	2:47	2:54
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	27.6	9.66	26.77	17.92	55.92	13.14	11.77	22.93	8.98	17.09	16.18	32.11	13.57	19.61	22.23	44.56	17.5	18.83	28.09	74.71	19.26	19.27	36.06	301.4	20.4	21.81	40.28	17.18	21.7
FTO1\TE101	68	67	67	67	67	66	66	66	66	66	65	65	65	65	65	65	65	65	65	65	64	64	64	64	64	64	64	64	64
FTO1\TE105	102	106	99	98	102	98	99	93	107	94	99	91	103	91	94	91	98	90	90	94	93	90	87	99	90	93	86	100	87
FTO1\TE106	97	110	82	77	106	100	74	80	118	92	71	83	112	84	72	89	103	78	74	98	96	76	76	107	90	69	79	110	83
FTO1\TE107	85	76	98	100	79	76	107	90	70	78	109	82	70	82	99	81	70	87	92	77	72	94	85	69	73	102	79	67	77
FTO1\TE108	1502	1503	1503	1503	1498	1496	1508	1518	1490	1503	1517	1515	1493	1509	1525	1504	1497	1515	1527	1494	1502	1522	1523	1489	1507	1527	1516	1492	1514
FTO1\TE109	1507	1499	1499	1505	1502	1510	1501	1495	1489	1498	1492	1493	1501	1506	1498	1498	1510	1513	1502	1500	1505	1512	1507	1490	1512	1505	1503	1494	1502
TDU1\CYL_DRIVE_AMPS	8	7	8	8	8	8	8	8	7	7	8	7	8	8	7	8	8	7	8	8	7	7	7	7	8	7	8	8	9
TDU1\CYL_DRIVE_RPM	1.19	1.19	1.19	1.2	1.19	1.19	1.2	1.2	1.2	1.2	1.19	1.2	1.2	1.2	1.2	1.19	1.19	1.2	1.18	1.18	1.18	1.18	1.19	1.19	1.19	1.18	1.18	1.18	1.18
TDU1\CYL_FEED_SPEED_SET	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
TDU1\OXYGEN_DISCHARGE	19.94	19.87	19.92	19.93	19.84	19.96	20.04	20.05	20.05	20.09	20.09	20.03	20.39	20.29	20.23	20.28	20.32	20.39	20.4	20.42	20.38	20.4	20.43	20.36	20.41	20.39	20.4	20.42	20.42
TDU1\PURGE_DAMPER	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
TDU1\PV_PIC1	-0.3	-0.3	-0.32	-0.29	-0.29	-0.29	-0.3	-0.3	-0.3	-0.29	-0.28	-0.28	-0.28	-0.29	-0.28	-0.29	-0.28	-0.29	-0.29	-0.28	-0.28	-0.27	-0.23	-0.23	-0.25	-0.24	-0.28	-0.27	-0.29
TDU1\TE_10_TEMP	990	1020	1068	1120	1170	1214	1237	1205	1140	1071	1004	946	893	843	798	756	715	694	675	689	756	847	936	1013	1076	1123	1155	1177	1198
TDU1\TE_11_TEMP	907	922	956	998	1041	1082	1107	1087	1040	984	929	877	828	782	739	696	655	630	602	607	645	714	788	860	924	976	1014	1043	1069
TDU1\TE_12_TEMP	790	800	831	872	914	954	979	965	920	867	816	770	726	685	648	616	584	559	536	527	546	592	652	716	779	836	882	915	944
TDU1\TE_13_TEMP	586	582	591	607	628	650	661	654	633	602	568	537	507	480	456	434	404	382	364	356	364	383	408	438	472	505	533	559	583
TDU1\TE_14_TEMP	625	631	638	649	655	649	649	639	618	597	576	557	539	520	500	482	466	455	448	443	446	456	468	482	497	512	527	540	555
TDU1\TE_15_TEMP	71	79	76	78	78	71	68	68	67	67	66	65	65	64	64	63	63	62	62	62	61	61	61	60	60	60	60	59	59
TDU1\TE_16_TEMP	997	1079	1141	765	564	436	313	265	1103	1014	1104	1172	791	597	507	354	304	993	1056	1091	1157	728	584	409	327	268	984	1046	1231
TDU1\TE_17_TEMP	1104	1062	1065	1029	1012	982	842	776	849	834	822	795	728	704	673	913	962	1170	1016	1026	1028	980	963	951	928	879	946	963	753
TDU1\TE_18_TEMP	834	889	917	962	991	1021	939	810	752	693	650	607	545	521	496	265	349	412	238	654	741	801	845	890	917	944	957	957	1002
TDU1\TE_1_TEMP	752	792	838	867	873	849	807	758	739	740	777	834	866	867	841	801	752	735	745	780	826	855	856	832	788	737	724	736	778
TDU1\TE_2_TEMP	946	1026	1109	1147	1129	1078	1010	940	912	946	1027	1114	1148	1121	1063	994	922	907	953	1031	1113	1146	1121	1064	991	914	909	963	1054
TDU1\TE_3_TEMP	1077	1191	1298	1325	1272	1193	1110	1033	1003	1063	1175	1285	1306	1247	1162	1077	999	991	1075	1193	1299	1318	1259	1176	1092	1011	1014	1101	1221
TDU1\TE_4_TEMP	1254	1381	1479	1427	1329	1227	1134	1052	1126	1224	1351	1450	1392	1292	1188	1092	1008	1113	1247	1379	1475	1414	1313	1208	1113	1028	1150	1280	1385
TDU1\TE_5_TEMP	1124	1184	1222	1220	1180	1121	1057	993	969	984	1019	1052	1057	1030	986	953	951	1031	1149	1216	1239	1220	1169	1103	1033	964	969	1013	1053
TDU1\TE_6_TEMP	1118	1151	1170	1164	1138	1098	1050	998	965	959	968	981	975	952	916	906	927	1024	1129	1169	1176	1155	1117	1070	1019	967	964	986	1002
TDU1\TE_7_TEMP	1112	1127	1133	1133	1130	1123	1105	1068	1026	989	957	927	893	857	820	816	843	922	989	1027	1045	1053	1053	1047	1040	1031	1027	1028	1014
TDU1\TE_8_TEMP	1123	1139	1151	1158	1164	1168	1140	1090	1033	978	927	878	830	787	747	751	768	844	873	969	1010	1036	1054	1067	1076	1080	1085	1095	1081
TDU1\TE_9_TEMP	1027	1056	1115	1176	1231	1279	1312	1293	1221	1141	1065	997	937	883	833	788	746	717	703	694	760	873	983	1073	1146	1198	1231	1254	1271
TDU1\ZONE1_TEMP_SET	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907
TDU1\ZONE2_TEMP_SET	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	903	952
TDU1\ZONE3_TEMP_SET	900	900	900	900	900	900	900	900	900	900	900	827	777	732	689	646	605	580	552	547	932	907	907	907	907	907	907	907	907
VRS1\CT_LIQUIDOUTLETTEMP	66	70	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	67	67	67	67	67	67	66	66	66
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	707	689	673	667	667	667	667	667	667	667	667	667	510	484	483	464	456	446	437	430	422	414	408	404	400	393	389	386	380
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	585	557	537	530	530	530	530	530	530	530	530	530	334	277	261	236	217	200	186	176	167	159	152	149	146	141	138	137	132
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	0	1	1	1	1	1	1	1	0	0
VRS1\RD_SCRUBLIQUIDTEMP	78	77	77	76	76	76	76	76	76	76	76	76	81	78	77	76	75	75	74	74	74	73	73	73	73	72	72	72	72
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	123	123	123	122	122	122	122	122	122	122	122	122	122	117	115	114	115	115	113	113	114	117	117	117	116	114	116	115	117
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	71	71	71	71	71	71	71	71	71	71	71	71	70	70	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

Continuous Unit ' [illegible] for June 02, 1998

Tagname	Time 5:54	6:00	6:06	6:12	6:18	6:24	6:30	6:36	6:42	6:48	6:54	7:00	7:06	7:12	7:18	7:24	7:30	7:36	7:42	7:48	7:54	8:00	8:06	8:12	8:18	8:24	8:30	8:36	8:42
FTO1\COMB_FAN	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	0.21	-0.32	-0.2	-0.35	-0.1	-0.85	0.39	-0.17	-0.05	-0.04	0	3.05	1.1	14.95	250.1	14.5	-0.12	250.2	11.81	19.72	17.19	33.9	16.18	20.49	21.72	43.3	16.89	35.32	24.92
FTO1\TE101	62	62	63	62	63	63	64	65	66	66	67	68	68	69	70	70	70	71	71	71	72	73	73	74	74	73	74	74	75
FTO1\TE105	117	118	109	155	122	128	124	154	133	138	148	144	129	120	143	122	124	110	135	113	114	109	122	107	106	109	114	106	103
FTO1\TE106	118	74	105	186	117	82	129	182	112	95	172	157	94	97	166	124	80	99	156	108	82	108	135	97	86	115	123	90	89
FTO1\TE107	80	138	94	71	100	151	99	81	130	158	97	89	137	118	80	90	143	102	78	93	125	92	80	99	111	87	82	105	102
FTO1\TE108	1076	1127	1277	1390	1364	1394	1478	1501	1472	1503	1559	1537	1499	1510	1522	1509	1498	1500	1498	1502	1512	1505	1502	1514	1520	1500	1502	1525	1513
FTO1\TE109	1092	1154	1170	1201	1309	1362	1344	1375	1450	1459	1432	1504	1545	1520	1502	1498	1517	1505	1506	1514	1508	1501	1499	1512	1498	1500	1512	1513	1496
TDU1\CYL_DRIVE_AMPS	8	8	7	7	7	7	7	9	8	8	7	7	8	8	8	10	11	11	11	10	10	9	11	11	10	10	10	10	10
TDU1\CYL_DRIVE_RPM	1.18	1.18	1.18	1.18	1.18	1.18	1.85	1.86	1.18	1.18	1.18	1.18	1.18	1.18	1.19	1.17	1.17	1.2	1.19	1.2	1.19	1.2	1.19	1.19	1.19	1.19	1.18	1.19	1.19
TDU1\CYL_FEED_SPEED_SET	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
TDU1\OXYGEN_DISCHARGE	20.35	20.37	20.37	20.37	20.38	20.35	20.37	20.41	20.34	20.36	20.34	20.34	20.33	20.33	20.32	20.31	20.33	20.32	19.48	19.19	19.54	19.73	20.02	20.1	20.16	20.11	20.11	20.11	20.22
TDU1\PURGE_DAMPER	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
TDU1\PV_PIC1	-0.31	-0.31	-0.31	-0.3	-0.31	-0.31	-0.3	-0.29	-0.29	-0.29	-0.3	-0.28	-0.22	-0.28	-0.28	-0.28	-0.3	-0.3	-0.3	-0.29	-0.29	-0.26	-0.31	-0.31	-0.31	-0.31	-0.31	-0.3	-0.31
TDU1\TE_10_TEMP	1239	1188	1107	1037	980	979	1018	1069	1117	1158	1193	1223	1249	1244	1238	1246	1265	1286	1306	1311	1264	1190	1151	1163	1198	1236	1271	1306	1337
TDU1\TE_11_TEMP	1099	1061	1005	947	897	882	897	930	969	1007	1041	1072	1098	1100	1101	1105	1117	1132	1150	1159	1131	1081	1048	1044	1063	1090	1120	1151	1180
TDU1\TE_12_TEMP	965	931	877	823	775	754	759	780	811	847	883	918	944	952	950	954	964	979	995	1010	1000	963	925	907	908	921	940	964	990
TDU1\TE_13_TEMP	621	607	579	550	523	509	509	518	533	552	573	596	615	617	624	629	638	652	668	687	687	671	650	639	635	639	649	664	683
TDU1\TE_14_TEMP	584	567	547	528	513	505	520	571	587	597	610	621	631	641	640	647	658	669	684	699	697	681	666	675	692	709	721	732	739
TDU1\TE_15_TEMP	56	56	56	56	56	57	57	59	60	60	61	61	62	63	63	64	64	65	65	66	66	67	68	69	69	69	69	70	70
TDU1\TE_16_TEMP	513	388	320	1177	969	1067	1134	821	646	476	388	327	1169	1017	1106	1169	858	642	493	1316	1141	1180	1218	1252	1302	957	703	585	992
TDU1\TE_17_TEMP	826	1054	1132	1284	1068	1072	1061	1019	988	955	917	873	940	911	980	1010	1008	991	946	962	929	909	993	1021	1042	1265	1392	1234	1173
TDU1\TE_18_TEMP	840	765	710	659	696	814	845	882	923	951	971	989	993	874	969	979	987	1001	1024	992	858	790	897	936	972	1002	1031	1044	1062
TDU1\TE_1_TEMP	844	810	766	741	736	770	822	865	877	862	825	776	753	749	787	842	896	915	886	889	885	926	973	1028	1086	1122	1107	1060	1011
TDU1\TE_2_TEMP	1090	1025	949	910	926	1001	1089	1146	1138	1090	1020	942	909	932	1011	1101	1169	1168	1109	1095	1111	1178	1243	1304	1361	1383	1338	1258	1192
TDU1\TE_3_TEMP	1207	1123	1042	1001	1047	1157	1271	1321	1280	1203	1120	1039	1003	1056	1168	1282	1345	1309	1225	1181	1228	1323	1405	1474	1529	1533	1453	1350	1282
TDU1\TE_4_TEMP	1249	1151	1065	1132	1217	1352	1459	1438	1343	1239	1143	1058	1136	1223	1357	1464	1462	1368	1257	1305	1379	1475	1548	1604	1647	1596	1478	1366	1355
TDU1\TE_5_TEMP	1145	1074	1046	1086	1157	1208	1236	1232	1190	1128	1061	994	969	991	1043	1099	1135	1124	1082	1063	1077	1111	1146	1184	1222	1247	1279	1297	1293
TDU1\TE_6_TEMP	1115	1060	1057	1110	1164	1188	1193	1179	1145	1099	1048	996	969	974	1004	1040	1064	1064	1040	1021	1023	1038	1061	1091	1120	1151	1216	1273	1283
TDU1\TE_7_TEMP	1118	1075	1092	1141	1165	1163	1150	1136	1120	1104	1088	1073	1059	1044	1042	1049	1062	1074	1080	1078	1064	1045	1036	1042	1056	1095	1202	1306	1327
TDU1\TE_8_TEMP	1134	1090	1103	1134	1134	1144	1141	1138	1134	1130	1127	1122	1118	1083	1101	1112	1126	1140	1149	1132	1090	1046	1058	1072	1094	1147	1266	1353	1357
TDU1\TE_9_TEMP	1323	1266	1185	1106	1036	1008	1044	1099	1153	1198	1235	1265	1289	1298	1280	1284	1304	1328	1350	1364	1335	1259	1191	1187	1220	1261	1300	1338	1376
TDU1\ZONE1_TEMP_SET	902	902	902	902	902	902	902	902	902	902	902	902	902	927	927	927	927	927	927	1082	1082	1082	1172	1172	1172	1172	1172	1172	1177
TDU1\ZONE2_TEMP_SET	1065	921	921	921	921	921	901	901	901	901	901	901	901	901	901	901	901	901	901	901	901	901	901	1001	1001	1051	1051	996	1001
TDU1\ZONE3_TEMP_SET	902	902	902	902	902	902	902	902	902	902	902	902	902	1102	1007	1007	1007	1007	1007	1057	1057	1057	1072	1072	1072	1072	1072	1072	1072
VRS1\CT_LIQUIDOUTLETTEMP	63	62	62	62	62	62	62	63	63	63	63	64	64	64	65	65	65	65	66	67	67	65	68	67	67	67	67	67	67
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	89	88	86	85	84	83	104	122	135	145	156	172	180	190	200	203	203	208	206	201	204	225	354	411	449	476	495	495	472
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	11	7
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	64	64	64	65	66	67	67	70	73	76	80	86	89	93	97	98	98	97	98	99	95	105	186	230	262	284	303	307	285
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
VRS1\RD_SCRUBLIQUIDTEMP	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	71	68	68	68	71	72	71	70	70	70	71	71
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	109	110	110	109	108	107	111	109	106	104	103	104	102	101	101	101	101	107	97	94	95	87	87	86	88	89	91	90	87
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	64	64	64	64	64	64	66	67	67	68	68	69	69	70	70	70	70	71	72	73	73	74	74	75	74	74	75	75	76
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

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Tagname	Time 14 36	14 42	14 48	14 54	15 00	15 06	15 12	15 18	15 24	15 30	15 36	15 42	15 48	[illegible]	16 00	16 06	16 12	16 18	16 24	16 30	16 36	16 42	16 48	16 54	17 00	17 06	17 12	17 18	[illegible]
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	34 14	53.18	88 15	17 51	42 31	36 58	98 71	22 82	116 1	41.9	12 83	25 59	22.96	46 9	14.41	32.14	24 14	59 28	17.17	37 13	28 83	86 92	19 72	95.75	33.19	155 7	16 79	14 53	28 64
FTO1\TE101	89	89	89	89	89	88	88	88	88	88	87	86	86	86	86	86	85	85	85	85	84	89	90	91	93	94	96	97	96
FTO1\TE105	114	114	114	121	112	110	117	114	111	107	126	110	110	106	120	107	107	106	116	104	103	116	125	118	113	144	125	149	118
FTO1\TE106	105	95	112	122	99	96	121	114	93	98	135	108	90	101	127	101	90	106	120	96	91	125	128	96	100	156	125	98	107
FTO1\TE107	103	115	98	93	108	109	94	94	114	104	89	94	115	98	88	96	109	93	88	99	103	92	93	123	114	95	99	169	115
FTO1\TE108	1505	1501	1503	1511	1499	1512	1506	1507	1492	1511	1500	1500	1504	1506	1500	1505	1497	1501	1504	1493	1497	1517	1527	1479	1568	1540	1540	1376	1494
FTO1\TE109	1432	1525	1464	1473	1545	1546	1480	1495	1552	1537	1470	1497	1542	1519	1484	1509	1537	1507	1492	1520	1532	1433	1478	1550	1531	1387	1524	1542	1419
TDU1\CYL_DRIVE_AMPS	8	7	9	7	8	7	8	7	8	7	8	7	8	7	8	7	8	10	14	15	18	18	19	19	19	18	17	13	13
TDU1\CYL_DRIVE_RPM	3 08	3.09	3 09	3.09	3 09	3.1	3.09	3.09	3.1	3.1	3.09	3.11	3.1	3.1	3.1	3.1	3.1	3.09	3.1	3.11	3.07	3.09	3.07	3.02	3 02	3 02	3 03	3 04	3 03
TDU1\CYL_FEED_SPEED_SET	62	62	62	62	62	62	62	62	62	62	62	62	62	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
TDU1\OXYGEN_DISCHARGE	15.19	19.8	18.14	18.52	18 7	18.69	20.18	20.25	18.84	18.84	19.31	19.99	20.03	19.19	20.02	17.38	13 87	2.8	4.33	2.43	1.45	1.73	0.72	0.59	0.69	0.89	1.64	7 25	4.45
TDU1\PURGE_DAMPER	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	40	40	30
TDU1\PV_PIC1	-0 45	-0.45	-0.5	-0.53	-0.56	-0.6	-0 68	-0.44	-0.43	-0.36	-0.37	-0.37	-0.36	-0.42	-0.69	-0.68	-0.6	-0.6	-0.56	-0.55	-0 54	-1.21	-1.16	-1.11	-1.28	-1.18	-1 65	-1 26	-0 45
TDU1\TE_10_TEMP	1198	1273	1337	1348	1304	1242	1182	1127	1078	1071	1113	1178	1246	1306	1354	1391	1373	1317	1256	1184	1104	1024	1005	1045	1100	1148	1189	1227	1271
TDU1\TE_11_TEMP	1078	1139	1191	1212	1168	1143	1093	1045	1001	983	1000	1044	1094	1145	1196	1229	1228	1194	1154	1102	1040	974	944	953	984	1014	1048	1077	1113
TDU1\TE_12_TEMP	938	982	1033	1064	1055	1025	986	947	907	875	875	911	953	990	1039	1077	1086	1068	1040	1010	974	926	879	848	835	834	844	860	886
TDU1\TE_13_TEMP	749	769	795	811	805	786	760	731	698	675	669	685	708	729	764	789	796	788	777	769	755	728	697	673	656	649	652	659	676
TDU1\TE_14_TEMP	808	814	814	818	800	773	760	738	712	698	698	702	706	716	742	769	762	767	813	903	859	743	703	713	745	786	820	862	920
TDU1\TE_15_TEMP	104	103	90	87	88	87	87	86	86	85	85	85	84	84	82	82	81	81	79	78	103	210	211	210	211	211	212	211	208
TDU1\TE_16_TEMP	1105	1351	989	771	629	598	1270	1400	1299	1078	833	707	588	1348	1218	1122	1193	1437	1141	1577	1478	1531	1615	1645	1565	1611	1599	1476	1158
TDU1\TE_17_TEMP	1536	963	1338	1472	1451	1453	1446	942	1267	1460	1522	1312	1213	1140	835	1432	1491	1549	1415	1480	1573	1451	1518	1513	1531	1536	1640	1520	1563
TDU1\TE_18_TEMP	1013	1104	1110	1018	943	878	831	795	746	882	927	992	1031	1056	1117	1091	1008	943	903	842	748	662	873	913	934	964	1015	1004	1016
TDU1\TE_1_TEMP	971	1029	1080	1085	1050	1001	1088	1153	1202	1229	1204	1150	1082	1045	1038	1064	1098	1213	1209	1237	1215	1215	1239	1306	1314	1313	1296	1261	1193
TDU1\TE_2_TEMP	1187	1273	1335	1318	1253	1178	1262	1352	1414	1440	1401	1325	1238	1191	1213	1259	1305	1411	1393	1419	1399	1413	1447	1511	1513	1518	1511	1496	1441
TDU1\TE_3_TEMP	1321	1435	1491	1442	1352	1264	1339	1466	1547	1576	1510	1409	1310	1252	1298	1372	1446	1542	1506	1485	1479	1486	1503	1543	1551	1550	1560	1579	1565
TDU1\TE_4_TEMP	1495	1577	1569	1480	1385	1300	1496	1580	1636	1638	1539	1433	1335	1361	1371	1475	1570	1690	1573	1609	1591	1609	1644	1679	1655	1668	1687	1704	1673
TDU1\TE_5_TEMP	1448	1472	1427	1460	1476	1469	1536	1526	1466	1485	1513	1498	1427	1353	1266	1295	1409	1547	1553	1550	1551	1562	1572	1590	1593	1597	1607	1617	1636
TDU1\TE_6_TEMP	1439	1437	1395	1456	1493	1505	1557	1503	1433	1454	1497	1500	1438	1361	1263	1296	1402	1523	1518	1512	1520	1530	1530	1535	1537	1537	1549	1555	1590
TDU1\TE_7_TEMP	1425	1419	1388	1462	1519	1546	1569	1486	1392	1394	1470	1508	1468	1403	1293	1323	1404	1500	1497	1484	1470	1460	1470	1486	1498	1501	1517	1517	1549
TDU1\TE_8_TEMP	1448	1420	1404	1473	1507	1519	1521	1423	1324	1368	1457	1492	1456	1405	1313	1389	1436	1495	1467	1439	1398	1359	1400	1433	1458	1467	1492	1501	1547
TDU1\TE_9_TEMP	1211	1293	1367	1405	1374	1314	1253	1198	1148	1113	1145	1218	1296	1361	1409	1444	1446	1394	1327	1256	1173	1088	1027	1048	1109	1167	1215	1257	1303
TDU1\ZONE1_TEMP_SET	1102	1102	1102	1102	1102	1182	1232	1232	1232	1182	1182	1182	1182	1182	1182	1182	1182	1407	1407	1407	1407	1412	1512	1512	1512	1512	1512	1462	1362
TDU1\ZONE2_TEMP_SET	1229	1387	1382	1417	1417	1412	1507	1452	1391	1391	1356	1291	1291	1312	1216	1216	1216	1416	1416	1516	1521	1531	1531	1536	1536	1536	1541	1541	1441
TDU1\ZONE3_TEMP_SET	992	992	992	992	992	992	992	992	992	992	1027	1027	1027	1027	1027	1027	1027	1027	1027	957	967	967	967	967	967	967	967	967	962
VRS1\CT_LIQUIDOUTLETTEMP	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	72	78	81	84	85	86	87	87	87	86	81	80
VRS1\HC_GASDIFFPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-3	-3	-4	-3	-4	-4	-4	-3	-3	-2	-2	-3
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	-1	-1	-2	-1	-2	-1	-2	-1	-1
VRS1\HC_INLETGASTEMP	880	897	899	904	897	885	880	868	849	851	856	856	847	836	833	847	862	889	891	855	825	802	788	793	800	812	822	841	879
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7	6	5	4	3	1	1	1	1	1	2	2	2
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	814	828	829	835	829	820	816	806	789	790	791	791	782	773	768	782	792	832	850	822	795	773	761	767	771	785	786	800	842
VRS1\RD_OXYGEN	17	20	20	19	20	20	21	21	20	20	20	21	21	20	21	19	17	15	15	12	10	8	6	6	6	6	5	8	8
VRS1\RD_SCRUBBERDIFFPRES	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2
VRS1\RD_SCRUBLIQUIDTEMP	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	79	90	96	101	103	106	109	109	108	102	93	91
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	56	70	63	60	61	64
VRS1\WESP_DIFFPRES	1	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	2	5
VRS1\WESP_OUTLETGASFLOW	374	356	353	368	391	392	397	389	388	396	361	368	401	393	399	404	322	280	234	178	146	182	167	177	175	198	287	428	403
VRS1\WESP_OUTLETGASPRES	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-4	-5	-5	-5	-6	-6	-6	-5	-5	-4	-4	-5
VRS1\WESP_OUTLETGASTEMP	83	83	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	83	84	85	87	88	91	93	96	97	98	97	95
VRS1\WESP_OXYGEN	16	20	20	19	19	19	20	21	20	19	20	20	20	20	20	18	17	14	14	11	10	8	6	5	6	6	5	7	7
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	28	31	30	29	30	31

Tagname / Time	17:30	17:36	17:42	17:48	17:54	18:00	18:06	18:12	18:18	18:24	18:30	18:36	18:42	18:48	18:54	19:00	19:06	19:12	19:18	19:24	19:30	19:36	19:42	19:48	19:54	20:00	20:06	20:12	20:18
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	15.02	36.21	17.69	46.07	13.08	27.23	29.16	77.11	13.74	39.97	15.33	63.18	10.23	22.88	21.1	13.77	26.06	14.62	28.81	14.09	32.04	14.42	36.8	13.38	43.1	15.92	44.1	15.42	33.1
FTO1\TE101	95	95	93	94	94	93	92	94	94	93	93	94	95	96	96	93	92	91	91	91	90	89	89	89	88	88	88	88	88
FTO1\TE105	156	122	129	117	155	119	121	123	136	121	118	141	132	149	124	174	126	148	118	173	122	143	122	156	125	130	137	139	145
FTO1\TE106	166	116	96	115	165	108	97	129	140	101	100	154	134	99	105	188	121	94	108	185	110	93	122	163	100	94	148	139	93
FTO1\TE107	96	104	138	104	95	108	125	99	96	122	119	97	99	168	123	95	102	166	108	93	107	155	99	92	121	135	93	92	157
FTO1\TE108	1517	1486	1552	1570	1558	1551	1608	1582	1596	1618	1594	1570	1559	1431	1491	1522	1453	1363	1487	1520	1383	1357	1492	1482	1317	1381	1503	1431	1247
FTO1\TE109	1326	1478	1542	1438	1370	1531	1554	1463	1560	1579	1564	1420	1486	1528	1416	1278	1405	1455	1306	1226	1381	1381	1204	1222	1379	1306	1121	1239	1396
TDU1\CYL_DRIVE_AMPS	15	16	17	19	19	19	20	17	18	18	18	16	13	12	10	10	10	10	8	7	8	10	8	8	7	8	8	7	7
TDU1\CYL_DRIVE_RPM	3.04	3.03	3.02	3.04	3.01	2.99	3.01	3.02	3.02	3.01	3.02	3.03	3.02	3.04	3.05	3.01	3.04	3.05	3.06	3.05	3.02	3.01	3.04	3.04	3.04	3.04	3.02	2.22	1.19
TDU1\CYL_FEED_SPEED_SET	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
TDU1\OXYGEN_DISCHARGE	1.19	1.1	1.3	2.28	2.06	0.51	0.27	1.78	0.5	0.42	1.38	3.06	5.37	7.14	9.21	11.78	14.84	15.48	18.16	17.27	16.5	15.75	14.75	17.25	17.82	18.03	19.76	19.89	18.64
TDU1\PURGE_DAMPER	30	30	30	30	30	30	30	30	30	30	30	30	30	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-1.4	-0.9	-1.17	-0.86	-1.31	-1.27	-1.43	-1.38	-1.56	-1.45	-0.89	-1.1	-1.3	-0.96	-0.69	-1.68	-1.58	-1.57	-1.38	-1.23	-1.24	-1.57	-1.25	-1.11	-1.03	-0.95	-0.94	-0.84	-0.84
TDU1\TE_10_TEMP	1337	1359	1316	1237	1146	1090	1111	1173	1236	1291	1326	1341	1349	1355	1324	1281	1245	1212	1176	1137	1095	1061	1097	1172	1252	1319	1325	1278	1211
TDU1\TE_11_TEMP	1168	1211	1209	1164	1095	1047	1045	1083	1133	1181	1212	1230	1241	1250	1229	1200	1171	1144	1113	1079	1042	1009	1022	1064	1119	1171	1187	1162	1115
TDU1\TE_12_TEMP	927	986	1038	1055	1033	991	953	940	946	971	997	1031	1057	1075	1082	1081	1074	1063	1046	1023	995	964	944	947	966	993	1013	1012	988
TDU1\TE_13_TEMP	707	751	805	844	849	826	798	777	772	778	792	824	847	868	879	884	884	880	870	853	828	798	775	767	768	776	780	777	756
TDU1\TE_14_TEMP	993	1115	1256	1062	912	831	784	851	898	966	1033	1081	1065	1050	1066	1080	1075	1053	1008	962	909	873	854	850	847	845	825	787	745
TDU1\TE_15_TEMP	164	239	208	144	173	211	211	212	211	211	212	212	211	211	156	178	176	129	129	108	130	125	139	109	107	99	93	88	84
TDU1\TE_16_TEMP	1486	1593	1518	1511	1561	1623	1517	1395	1602	1613	1553	1400	1568	1280	1270	1290	1349	1002	804	684	985	1315	1208	1281	1321	1235	895	737	621
TDU1\TE_17_TEMP	1585	1507	1431	1379	1439	1657	1733	1518	1507	1527	1481	1766	1499	1509	1556	1439	1315	1212	1117	1116	1405	1509	1579	1430	1348	1299	1163	1078	1324
TDU1\TE_18_TEMP	1118	1079	997	874	789	1023	1098	1103	1218	1107	1098	1127	1136	1114	1006	978	966	930	897	854	819	835	1018	1013	1059	1067	992	910	844
TDU1\TE_1_TEMP	1171	1205	1222	1184	1184	1213	1240	1274	1257	1286	1259	1219	1175	1151	1146	1155	1178	1204	1181	1130	1065	1077	1101	1141	1190	1237	1238	1198	1136
TDU1\TE_2_TEMP	1420	1454	1462	1412	1414	1444	1471	1504	1486	1513	1481	1440	1411	1407	1410	1422	1444	1456	1408	1326	1240	1265	1313	1366	1417	1462	1447	1381	1292
TDU1\TE_3_TEMP	1551	1561	1551	1494	1483	1503	1526	1547	1532	1555	1531	1515	1490	1522	1564	1604	1644	1635	1541	1423	1318	1357	1451	1539	1606	1651	1599	1493	1378
TDU1\TE_4_TEMP	1693	1704	1669	1610	1619	1651	1644	1656	1665	1695	1659	1624	1630	1656	1696	1738	1771	1707	1572	1441	1370	1506	1605	1690	1740	1761	1642	1514	1393
TDU1\TE_5_TEMP	1654	1651	1616	1561	1553	1577	1589	1606	1608	1616	1597	1593	1593	1605	1641	1681	1666	1610	1520	1420	1400	1474	1571	1632	1626	1594	1531	1447	1393
TDU1\TE_6_TEMP	1615	1599	1552	1497	1498	1531	1536	1546	1546	1546	1527	1538	1535	1549	1597	1642	1611	1551	1468	1380	1398	1470	1561	1610	1586	1542	1478	1402	1372
TDU1\TE_7_TEMP	1595	1588	1532	1460	1444	1479	1495	1511	1516	1515	1502	1519	1512	1518	1547	1584	1555	1493	1416	1337	1362	1422	1504	1555	1534	1489	1429	1358	1346
TDU1\TE_8_TEMP	1608	1584	1504	1415	1379	1428	1458	1482	1495	1505	1497	1523	1509	1512	1526	1550	1499	1430	1352	1280	1314	1370	1474	1521	1500	1466	1395	1319	1315
TDU1\TE_9_TEMP	1364	1408	1377	1297	1201	1117	1103	1155	1220	1282	1325	1346	1354	1362	1352	1318	1290	1263	1230	1190	1146	1105	1109	1191	1283	1360	1393	1355	1285
TDU1\ZONE1_TEMP_SET	1512	1512	1362	1412	1412	1462	1512	1457	1507	1502	1502	1402	1402	1352	1352	1252	1252	1252	1252	1252	1252	1252	1252	1252	1252	1252	1252	1252	1252
TDU1\ZONE2_TEMP_SET	1541	1501	1501	1501	1501	1516	1556	1546	1546	1546	1496	1496	1496	1486	1436	1386	1386	1386	1386	1386	1386	1386	1386	1386	1386	1386	1386	1386	1386
TDU1\ZONE3_TEMP_SET	962	962	962	962	962	1012	1012	1012	1012	1012	1062	1062	1062	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012	1012
VRS1\CT_LIQUIDOUTLETTEMP	81	83	85	86	86	86	87	87	86	85	86	86	85	82	81	79	78	77	76	75	75	74	74	73	73	73	73	73	73
VRS1\HC_GASDIFFPRES	-2	-4	-5	-3	-4	-3	-3	-3	-3	-3	-4	-4	-3	-4	-4	-2	-2	-2	-1	-2	0	-2	-1	0	-1	-1	-1	-1	-1
VRS1\HC_INLETGASPRES	-1	-1	-2	-1	-2	-2	-2	-2	-2	-2	-1	-1	-1	-1	-1	-2	-2	-2	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	917	972	983	957	925	896	884	893	896	920	935	956	957	965	975	963	944	929	913	894	879	870	870	881	890	897	897	884	872
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	2	2	1	1	1	1	-1	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	882	937	951	927	902	875	864	873	873	897	913	932	927	932	940	920	898	885	869	856	839	834	836	851	855	851	853	836	822
VRS1\RD_OXYGEN	6	10	8	10	11	7	5	6	4	5	5	11	9	8	13	17	19	20	20	21	19	18	18	19	19	20	21	21	20
VRS1\RD_SCRUBBERDIFFPRES	2	2	2	2	2	2	2	0	0	0	0	1	1	0	1	1	1	2	2	2	2	3	2	2	2	2	2	2	2
VRS1\RD_SCRUBLIQUIDTEMP	92	97	102	103	102	103	105	105	103	101	102	102	100	94	92	87	86	84	83	82	80	79	79	78	78	78	78	77	77
VRS1\WESP_CURRENT_AMP	87	72	64	65	0	76	20	13	15	17	27	0	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	5	6	6	1	0	0	0	1	1	1	1	1	1	2	3	1	2	2	2	2	2	3	2	2	0	2	2	2	3
VRS1\WESP_OUTLETGASFLOW	294	291	183	235	190	169	169	203	199	185	259	298	351	433	545	346	389	423	500	502	511	728	530	568	574	587	596	604	619
VRS1\WESP_OUTLETGASPRES	-4	-5	-5	-5	-5	-3	-3	-5	-5	-5	-6	-5	-4	-5	-4	-3	-3	-3	-3	-3	-3	-5	-3	-3	0	-4	-4	-4	-4
VRS1\WESP_OUTLETGASTEMP	94	95	95	95	94	94	96	96	97	96	96	96	96	95	93	91	89	88	86	85	84	83	82	81	81	80	80	80	80
VRS1\WESP_OXYGEN	6	10	7	10	11	6	4	5	4	3	4	10	9	8	13	17	18	20	20	21	19	19	18	19	19	19	21	21	20
VRS1\WESP_VOLTAGE_VOLT	34	32	30	31	0	32	20	18	19	19	22	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname	Time 20:24	20:30	20:36	20:42	20:48	20:54	21:00	21:06	21:12	21:18	21:24	21:30	21:36	21:42	21:48	21:54	22:00	22:06	22:12	22:18	22:24	22:30	22:36	22:42	22:48	22:54	23:00	23:06	23:12
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	19.26	15.41	80.56	47.68	102.9	17.59	32.97	66.9	117.6	17.38	49.75	47.91	98.16	21.69	85.62	37.47	301.4	25.82	26.61	49.88	18.18	32.45	29.88	64.8	19.98	42.89	35.08	86.73	23.55
FTO1\TE101	87	87	82	81	81	80	80	80	79	79	79	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
FTO1\TE105	123	182	117	109	104	117	103	100	101	109	100	98	103	103	97	95	109	100	98	95	109	97	95	96	105	96	94	99	102
FTO1\TE106	96	196	109	88	99	123	99	87	102	114	91	86	107	106	86	88	117	100	82	92	117	95	83	96	111	91	84	103	106
FTO1\TE107	121	89	92	107	93	84	90	100	87	82	94	97	84	83	97	92	81	84	101	89	80	86	97	85	81	89	95	83	81
FTO1\TE108	1395	1507	1538	1497	1510	1519	1510	1506	1503	1511	1504	1508	1500	1507	1507	1509	1504	1501	1494	1514	1496	1498	1499	1503	1493	1494	1498	1507	1497
FTO1\TE109	1252	1084	1208	1258	1223	1218	1360	1479	1476	1467	1521	1569	1500	1496	1554	1538	1480	1497	1546	1529	1496	1508	1539	1521	1495	1518	1536	1509	1494
TDU1\CYL_DRIVE_AMPS	8	7	7	7	8	7	8	8	8	8	8	8	8	7	8	7	7	7	7	7	8	8	8	7	7	7	7	7	7
TDU1\CYL_DRIVE_RPM	1.19	1.19	1.19	1.18	1.18	1.18	1.18	1.18	1.19	1.19	1.2	1.2	1.19	1.18	1.18	1.18	1.19	1.19	1.19	1.19	1.19	1.18	1.18	1.18	1.18	1.18	1.17	1.18	1.18
TDU1\CYL_FEED_SPEED_SET	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
TDU1\OXYGEN_DISCHARGE	18.72	18.55	19.63	19.54	19.91	19.78	19.66	20	20.04	20.04	19.5	20.04	20.07	20.09	20.07	20.07	20.11	20.15	20.16	20.12	20.13	20.1	20.1	20.08	20.13	20.15	20.14	20.14	20.14
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.92	-0.96	-0.25	-0.25	-0.24	-0.26	-0.26	-0.25	-0.24	-0.24	-0.01	-0.01	0.15	-0.22	-0.25	-0.28	-0.25	-0.26	-0.27	-0.28	-0.27	-0.26	-0.25	-0.25	-0.26	-0.27	-0.27	-0.26	-0.27
TDU1\TE_10_TEMP	1145	1084	1094	1153	1226	1287	1339	1377	1370	1370	1209	1127	1099	1127	1177	1229	1277	1316	1349	1375	1349	1278	1194	1115	1065	1075	1125	1185	1244
TDU1\TE_11_TEMP	1062	1010	1007	1038	1086	1131	1173	1210	1210	1210	1107	1036	1003	1004	1029	1065	1103	1139	1173	1201	1197	1155	1095	1033	984	970	988	1031	1079
TDU1\TE_12_TEMP	953	913	890	896	925	960	995	1027	1034	1034	990	940	896	876	881	901	927	955	982	1007	1019	998	955	903	858	835	836	861	902
TDU1\TE_13_TEMP	729	696	677	671	679	697	717	737	741	741	702	669	644	629	626	633	645	662	679	697	707	696	672	642	614	596	591	599	618
TDU1\TE_14_TEMP	714	684	699	712	714	721	729	735	734	734	677	646	623	620	636	656	671	683	691	697	694	674	650	628	610	604	610	620	631
TDU1\TE_15_TEMP	83	82	82	82	81	80	78	77	77	77	78	74	74	74	74	74	73	73	73	73	73	73	73	73	73	73	73	73	73
TDU1\TE_16_TEMP	514	466	426	1091	1101	1188	1066	789	699	699	440	440	1173	1054	1139	1200	805	632	527	433	617	1057	1105	1198	1060	711	577	672	498
TDU1\TE_17_TEMP	1344	1333	1454	1520	1369	1292	1245	1165	1098	1098	845	702	1322	1397	1197	1175	1116	1080	1036	976	647	898	869	844	1038	1284	1368	851	1275
TDU1\TE_18_TEMP	795	754	1189	977	1020	1049	1078	1102	1022	1022	742	674	875	907	958	986	1013	1041	1068	1085	953	856	790	728	818	878	923	1003	1018
TDU1\TE_1_TEMP	1063	989	921	885	891	938	1001	1030	1031	1031	962	896	871	886	929	981	1009	1004	970	916	860	845	864	910	972	995	982	939	884
TDU1\TE_2_TEMP	1200	1111	1030	1006	1049	1137	1232	1261	1252	1252	1085	995	982	1040	1128	1212	1248	1222	1158	1078	1010	1007	1060	1142	1227	1242	1199	1130	1054
TDU1\TE_3_TEMP	1274	1182	1101	1086	1177	1310	1424	1424	1396	1396	1095	1001	1006	1118	1261	1383	1405	1347	1260	1170	1085	1092	1185	1302	1400	1388	1312	1220	1135
TDU1\TE_4_TEMP	1295	1212	1146	1238	1381	1518	1588	1505	1457	1457	1149	1044	1185	1317	1459	1559	1493	1392	1287	1191	1106	1217	1345	1459	1522	1439	1338	1241	1156
TDU1\TE_5_TEMP	1369	1352	1336	1372	1446	1477	1473	1426	1394	1394	1180	1088	1112	1234	1322	1358	1342	1291	1222	1150	1071	1038	1046	1073	1104	1152	1201	1200	1155
TDU1\TE_6_TEMP	1370	1373	1379	1424	1480	1479	1451	1399	1369	1369	1178	1077	1114	1229	1293	1313	1294	1254	1201	1144	1066	1030	1020	1022	1030	1088	1168	1178	1151
TDU1\TE_7_TEMP	1369	1395	1444	1499	1535	1504	1455	1403	1375	1375	1199	1106	1129	1223	1273	1280	1268	1248	1224	1197	1113	1063	1020	982	966	1044	1177	1205	1214
TDU1\TE_8_TEMP	1336	1359	1436	1506	1536	1497	1453	1406	1371	1371	1182	1092	1166	1267	1291	1292	1283	1271	1257	1240	1150	1091	1031	977	987	1093	1225	1232	1257
TDU1\TE_9_TEMP	1213	1148	1114	1172	1258	1331	1388	1428	1433	1433	1276	1194	1135	1149	1200	1257	1308	1350	1382	1406	1404	1343	1257	1172	1099	1086	1133	1196	1258
TDU1\ZONE1_TEMP_SET	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1035	948	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003
TDU1\ZONE2_TEMP_SET	1251	1251	1251	1251	1251	1251	1251	1251	1251	1251	1128	1027	1007	1007	1007	1007	1007	1007	1007	1094	1016	980	970	972	972	972	972	1128	1005
TDU1\ZONE3_TEMP_SET	1002	1002	1002	1002	1002	1002	1002	1002	1002	1002	1057	986	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001
VRS1\CT_LIQUIDOUTLETTEMP	73	73	73	72	72	72	71	71	71	71	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	73	73	73	73
VRS1\HC_GASDIFFPRES	-1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	-1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	859	843	766	755	733	711	689	670	652	633	615	604	593	580	572	571	570	573	564	552	543	536	526	524	533	533	532	533	533
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	810	795	692	608	510	454	415	396	382	357	414	386	373	357	359	386	392	411	393	366	352	343	329	335	372	381	386	389	390
VRS1\RD_OXYGEN	20	20	20	21	21	21	21	21	21	21	21	21	21	21	21	21	21	0	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	77	77	76	76	76	75	75	74	74	75	75	74	75	75	75	75	75	88	76	76	75	75	76	76	76	75	75	75	76
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	627	564	94	86	88	92	93	93	95	97	100	102	100	97	97	95	101	128	93	91	92	92	92	99	98	96	93	91	92
VRS1\WESP_OUTLETGASPRES	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	79	79	79	79	79	79	79	78	78	78	77	77	77	77	77	78	78	78	78	77	77	77	77	77	77	77	77	77	78
VRS1\WESP_OXYGEN	20	20	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	0	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Tagname	Time 23:18	23:24	23:30	23:36	23:42	23:48	23:54
FTO1\COMB_FAN	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	68.93	40.54	160.1	30.36	27.9	50.68	19.17
FTO1\TE101	78	78	78	78	78	78	78
FTO1\TE105	95	93	104	99	96	93	109
FTO1\TE106	86	87	111	101	82	89	118
FTO1\TE107	94	92	82	83	100	88	79
FTO1\TE108	1501	1516	1506	1498	1494	1506	1495
FTO1\TE109	1530	1532	1495	1506	1536	1527	1496
TDU1\CYL_DRIVE_AMPS	8	7	9	9	8	7	7
TDU1\CYL_DRIVE_RPM	1.18	1.18	1.18	1.18	1.18	1.18	1.18
TDU1\CYL_FEED_SPEED_SET	77	77	77	77	77	77	77
TDU1\OXYGEN_DISCHARGE	20.11	20.1	20.13	20.07	20.12	20.13	20.17
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.27	-0.26	-0.26	-0.27	-0.25	-0.26	-0.25
TDU1\TE_10_TEMP	1292	1334	1365	1378	1330	1255	1180
TDU1\TE_11_TEMP	1125	1171	1202	1225	1193	1144	1086
TDU1\TE_12_TEMP	941	978	1005	1025	1018	992	963
TDU1\TE_13_TEMP	639	664	681	696	693	694	693
TDU1\TE_14_TEMP	646	660	678	692	687	666	646
TDU1\TE_15_TEMP	73	73	73	73	73	73	73
TDU1\TE_16_TEMP	1182	1084	1063	1332	823	838	839
TDU1\TE_17_TEMP	1062	918	1257	746	893	982	949
TDU1\TE_18_TEMP	1049	1083	1083	1059	855	881	856
TDU1\TE_1_TEMP	849	849	881	938	977	993	985
TDU1\TE_2_TEMP	1007	1036	1102	1192	1229	1202	1154
TDU1\TE_3_TEMP	1082	1142	1241	1353	1375	1323	1250
TDU1\TE_4_TEMP	1196	1241	1371	1452	1413	1345	1264
TDU1\TE_5_TEMP	1134	1097	1158	1191	1188	1174	1158
TDU1\TE_6_TEMP	1147	1110	1172	1174	1162	1152	1134
TDU1\TE_7_TEMP	1232	1185	1220	1195	1174	1158	1135
TDU1\TE_8_TEMP	1278	1233	1299	1248	1210	1179	1142
TDU1\TE_9_TEMP	1308	1347	1378	1400	1378	1308	1229
TDU1\ZONE1_TEMP_SET	1003	1003	1003	1003	1179	1152	1104
TDU1\ZONE2_TEMP_SET	1098	1059	1122	1124	1112	1102	1084
TDU1\ZONE3_TEMP_SET	1001	1001	1021	1021	1143	1094	1036
VRS1\CT_LIQUIDOUTLETTEMP	73	73	73	73	73	73	73
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	532	534	535	537	537	538	537
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	389	390	390	390	390	390	389
VRS1\RD_OXYGEN	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	76	76	76	76	76	76	76
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	88	87	85	84	84	84	87
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	78	78	78	78	79	79	79
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0

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Tagname	Time 0:00	0:06	0:12	0:18	0:24	0:30	0:36	0:42	0:48	0:54	1:00	1:06	1:12	1:18	1:24	1:30	1:36	1:42	1:48	1:54	2:00	2:06	2:12	2:18	2:24	2:30	2:36	2:42	2:48
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	34.22	29.86	60.03	22.32	45.86	34.79	80.28	24.11	62.37	40.23	116.5	26.97	295.7	45.6	17.98	33.33	28.18	55.96	20.27	41.21	33.65	71.49	25.64	58.59	38.35	102.5	28.33	102.4	44.67
FTO1\TE101	78	77	77	77	77	77	77	77	77	77	77	77	76	76	76	76	76	76	76	77	76	77	76	76	76	76	76	76	76
FTO1\TE105	95	94	93	104	94	93	96	101	93	92	100	98	94	91	108	95	94	91	104	93	92	93	101	92	91	97	97	92	90
FTO1\TE106	95	82	93	111	90	82	99	105	86	84	105	100	82	86	117	95	80	89	111	90	82	95	105	86	83	102	100	83	85
FTO1\TE107	84	97	85	79	87	94	82	80	90	91	82	81	96	87	78	82	98	85	78	85	94	82	79	88	90	80	80	93	88
FTO1\TE108	1499	1498	1510	1496	1503	1502	1505	1497	1501	1505	1509	1499	1500	1500	1494	1501	1499	1512	1498	1503	1506	1500	1502	1504	1501	1509	1502	1505	1507
FTO1\TE109	1501	1536	1520	1499	1512	1535	1512	1496	1519	1532	1500	1502	1532	1526	1493	1497	1534	1521	1500	1506	1532	1514	1498	1518	1529	1503	1495	1521	1519
TDU1\CYL_DRIVE_AMPS	7	8	8	7	8	8	8	7	7	8	7	7	8	8	8	7	8	7	8	8	7	7	7	7	8	8	8	8	7
TDU1\CYL_DRIVE_RPM	1.18	1.18	1.19	1.19	1.19	1.2	1.2	1.2	1.2	1.19	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.19	1.19	1.19	1.18	1.18	1.18	1.18	1.18
TDU1\CYL_FEED_SPEED_SET	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
TDU1\OXYGEN_DISCHARGE	20.17	20.17	20.2	20.18	20.19	20.22	20.21	20.19	20.14	20.19	20.17	20.15	20.18	20.26	20.24	20.22	20.22	20.23	20.22	20.21	20.22	20.22	20.21	20.23	20.23	20.22	20.23	20.19	20.22
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.25	-0.25	-0.25	-0.24	-0.25	-0.24	-0.25	-0.24	-0.24	-0.25	-0.25	-0.26	-0.26	-0.27	-0.26	-0.27	-0.27	-0.26	-0.28	-0.29	-0.26	-0.27	-0.27	-0.27	-0.28	-0.27	-0.26	-0.26	-0.25
TDU1\TE_10_TEMP	1115	1056	1004	957	915	876	840	806	767	742	779	867	962	993	969	925	878	832	829	876	936	943	907	859	813	774	740	711	685
TDU1\TE_11_TEMP	1034	985	940	899	861	826	793	756	714	683	702	769	842	868	859	829	795	759	766	784	822	828	807	773	739	708	681	657	635
TDU1\TE_12_TEMP	936	906	876	845	815	786	758	729	691	647	631	664	723	755	748	720	688	659	652	668	700	711	697	672	647	623	602	584	567
TDU1\TE_13_TEMP	689	679	663	644	624	603	582	554	519	481	465	473	492	496	483	464	446	428	428	436	450	449	438	421	401	384	369	356	345
TDU1\TE_14_TEMP	628	610	592	574	557	540	523	508	492	472	464	474	488	498	496	489	480	472	464	464	471	474	466	454	447	442	437	431	424
TDU1\TE_15_TEMP	73	73	73	73	73	73	73	73	72	72	72	72	72	72	72	71	71	71	71	71	71	71	71	71	71	70	70	70	69
TDU1\TE_16_TEMP	782	710	687	657	636	605	573	450	369	437	1440	912	696	967	1088	1128	1212	1017	686	984	883	653	691	1126	1040	1117	1195	848	672
TDU1\TE_17_TEMP	915	885	856	826	798	767	743	671	444	958	1130	647	771	1349	807	831	784	549	590	830	816	725	464	1446	975	876	838	764	715
TDU1\TE_18_TEMP	812	765	732	702	665	637	600	405	413	553	789	869	881	699	632	592	540	548	817	811	767	641	584	545	431	382	345	327	313
TDU1\TE_1_TEMP	964	935	900	864	827	792	757	716	665	618	699	767	797	796	797	826	878	924	925	902	894	871	827	801	816	867	936	951	931
TDU1\TE_2_TEMP	1106	1058	1011	966	924	885	849	811	753	704	833	970	1017	1004	1033	1092	1172	1225	1184	1129	1120	1100	1044	997	1030	1111	1203	1226	1182
TDU1\TE_3_TEMP	1182	1121	1065	1014	968	926	887	838	783	736	869	1063	1115	1090	1131	1219	1321	1375	1304	1236	1238	1209	1131	1076	1129	1238	1345	1356	1283
TDU1\TE_4_TEMP	1194	1131	1076	1027	982	941	903	854	766	795	1128	1207	1187	1173	1226	1338	1443	1446	1305	1295	1322	1257	1151	1156	1252	1380	1482	1424	1317
TDU1\TE_5_TEMP	1137	1110	1080	1048	1015	983	951	911	850	805	933	1011	989	976	1027	1068	1084	1077	1030	991	992	984	938	948	1064	1149	1171	1156	1111
TDU1\TE_6_TEMP	1111	1085	1055	1024	993	961	930	891	821	794	942	985	965	987	1031	1049	1036	998	935	908	906	898	861	931	1047	1100	1095	1064	1019
TDU1\TE_7_TEMP	1108	1079	1047	1015	982	951	920	879	813	792	922	958	948	966	984	979	941	888	848	841	843	831	790	847	932	976	959	921	877
TDU1\TE_8_TEMP	1104	1067	1030	993	958	924	891	836	791	804	940	956	972	970	959	925	878	829	826	863	865	829	787	838	862	860	831	795	757
TDU1\TE_9_TEMP	1159	1097	1042	993	948	907	869	835	800	764	772	867	982	1054	1044	994	940	888	851	889	974	1014	983	929	872	824	783	749	720
TDU1\ZONE1_TEMP_SET	1057	1008	962	917	874	835	799	761	703	679	679	679	679	1004	1004	1004	1004	1004	1135	1110	910	910	910	1000	1000	1000	1000	1000	1000
TDU1\ZONE2_TEMP_SET	1062	1035	1006	974	943	911	880	842	770	735	892	935	914	890	981	999	986	948	886	858	856	848	811	792	792	1007	1007	1007	1007
TDU1\ZONE3_TEMP_SET	984	936	891	849	811	776	743	706	664	638	638	638	638	638	638	638	638	638	813	813	563	563	563	563	563	563	588	588	588
VRS1\CT_LIQUIDOUTLETTEMP	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	535	532	529	526	522	518	513	508	502	494	489	483	475	470	465	460	456	452	448	444	440	438	434	429	425	423	420	416	414
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	386	384	382	381	379	377	376	375	372	371	370	345	321	308	296	286	277	270	263	257	250	248	242	234	228	224	220	215	213
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	90	94	91	93	93	92	92	94	93	95	97	97	98	96	98	99	100	99	98	98	95	97	96	97	96	95	93	93	94
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	78	79	78	78	78	79	79	79	78	78
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname	Time 2:54	3:00	3:06	3:12	3:18	3:24	3:30	3:36	3:42	3:48	3:54	4:00	4:06	4:12	4:18	4:24	4:30	4:36	4:42	4:48	4:54	5:00	5:06	5:12	5:18	5:24	5:30	5:36	5:42
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	265.8	34.45	28.65	53.32	21.56	43.04	32.35	64.97	24.23	53.07	37.41	83.99	27.4	75.61	40.9	177.4	31.74	26.32	48.36	19.05	37.55	30.88	61.32	21.59	44.18	36	78.55	27.27	68.96
FTO1\TE101	76	76	76	76	76	76	75	75	75	75	75	74	74	74	74	74	74	74	74	74	73	73	73	73	73	73	73	73	72
FTO1\TE105	103	95	94	90	104	93	91	91	100	91	90	94	96	90	89	99	93	91	88	102	91	90	89	99	89	88	90	95	88
FTO1\TE106	110	95	79	88	112	91	80	92	105	86	81	98	100	81	82	106	94	78	85	110	90	77	88	105	85	78	93	99	81
FTO1\TE107	78	81	98	85	77	83	94	82	77	85	91	79	78	89	87	77	79	95	83	75	80	93	81	75	82	90	78	76	86
FTO1\TE108	1499	1504	1499	1509	1497	1506	1501	1500	1499	1503	1497	1507	1502	1503	1514	1507	1503	1499	1505	1498	1501	1495	1512	1500	1499	1505	1504	1502	1502
FTO1\TE109	1484	1506	1526	1515	1491	1497	1525	1507	1501	1506	1523	1498	1497	1518	1520	1487	1502	1525	1516	1490	1507	1525	1510	1493	1502	1523	1502	1500	1513
TDU1\CYL_DRIVE_AMPS	7	8	7	7	8	8	8	9	9	8	8	8	9	7	7	8	7	8	8	8	10	10	10	11	8	9	8	9	8
TDU1\CYL_DRIVE_RPM	1.19	1.19	1.18	1.17	1.17	1.17	1.17	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.17	1.17	1.17	1.19	1.18	1.19	1.19	1.18	1.19	1.19
TDU1\CYL_FEED_SPEED_SET	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
TDU1\OXYGEN_DISCHARGE	20.21	20.2	20.23	20.21	20.23	20.16	20.24	20.21	20.2	20.19	20.24	20.2	20.18	20.22	20.24	20.22	20.24	20.13	20.13	20.14	20.12	20.14	20.14	20.15	20.14	20.13	20.13	20.15	20.15
TDU1\PURGE_DAMPER	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TDU1\PV_PIC1	-0.26	-0.26	-0.27	-0.26	-0.26	-0.24	-0.26	-0.27	-0.26	-0.27	-0.27	-0.26	-0.27	-0.28	-0.28	-0.27	-0.27	-0.27	-0.29	-0.28	-0.28	-0.28	-0.29	-0.28	-0.28	-0.29	-0.28	-0.28	-0.28
TDU1\TE_10_TEMP	662	644	677	745	827	863	1026	1237	1412	1424	1347	1250	1157	1077	1000	972	990	1029	1074	1122	1167	1207	1241	1269	1291	1308	1321	1331	1337
TDU1\TE_11_TEMP	612	594	610	653	715	735	869	1054	1238	1278	1231	1156	1079	1008	932	904	908	935	968	1004	1040	1074	1105	1132	1154	1172	1187	1198	1205
TDU1\TE_12_TEMP	552	538	544	576	628	660	760	915	1069	1121	1089	1027	962	899	842	812	817	843	874	905	934	961	984	1007	1028	1046	1062	1074	1082
TDU1\TE_13_TEMP	336	329	337	356	384	395	456	550	659	710	714	690	656	620	582	567	565	576	592	611	630	649	669	689	710	730	749	763	772
TDU1\TE_14_TEMP	415	409	408	420	439	456	475	536	626	663	646	620	593	570	551	535	529	533	543	562	584	603	621	635	645	654	661	667	677
TDU1\TE_15_TEMP	69	69	69	68	68	68	68	68	68	67	67	67	67	67	67	66	66	66	66	66	66	65	65	65	65	65	65	65	64
TDU1\TE_16_TEMP	495	353	1078	1020	1112	1212	824	649	458	362	819	1021	1108	1171	947	724	507	354	541	1002	1098	1178	928	700	555	393	313	1047	1049
TDU1\TE_17_TEMP	1021	1073	1333	1401	1164	986	1065	1039	1001	860	884	898	878	863	765	884	1146	1291	1365	1457	1226	1186	1135	1095	1054	997	949	1020	1029
TDU1\TE_18_TEMP	260	321	656	725	783	561	1379	1489	1308	1007	900	814	742	673	555	817	852	895	927	956	982	1002	1025	1040	1053	1066	1072	1072	1074
TDU1\TE_1_TEMP	886	835	816	824	866	930	953	940	905	857	816	825	865	925	962	961	930	882	829	832	865	918	962	968	943	902	851	833	846
TDU1\TE_2_TEMP	1111	1034	1001	1031	1107	1202	1235	1201	1137	1061	993	1015	1085	1174	1231	1213	1152	1071	993	1009	1076	1164	1232	1228	1178	1108	1027	1001	1039
TDU1\TE_3_TEMP	1189	1100	1068	1138	1252	1364	1383	1316	1229	1142	1075	1112	1213	1319	1376	1329	1242	1150	1071	1102	1207	1324	1398	1365	1284	1198	1113	1086	1154
TDU1\TE_4_TEMP	1208	1112	1184	1308	1437	1532	1471	1363	1257	1161	1151	1251	1375	1474	1473	1374	1264	1162	1114	1249	1394	1509	1525	1430	1320	1219	1129	1202	1317
TDU1\TE_5_TEMP	1071	1060	1117	1240	1320	1337	1308	1249	1180	1108	1054	1053	1077	1104	1117	1100	1069	1061	1084	1201	1297	1344	1352	1310	1242	1166	1091	1067	1093
TDU1\TE_6_TEMP	1002	1017	1101	1228	1283	1274	1245	1207	1163	1107	1055	1036	1035	1041	1037	1023	1011	1036	1097	1227	1298	1319	1311	1273	1221	1162	1102	1075	1081
TDU1\TE_7_TEMP	871	912	1027	1161	1218	1194	1182	1176	1173	1149	1111	1075	1042	1011	970	959	984	1082	1202	1324	1358	1343	1314	1282	1249	1218	1187	1162	1147
TDU1\TE_8_TEMP	772	829	1017	1160	1197	1114	1182	1212	1230	1192	1142	1086	1029	976	905	952	1011	1124	1250	1371	1376	1355	1329	1304	1279	1258	1237	1222	1212
TDU1\TE_9_TEMP	694	671	680	765	874	956	1024	1193	1373	1445	1395	1304	1210	1125	1049	998	1019	1071	1129	1187	1241	1289	1326	1353	1373	1387	1397	1405	1409
TDU1\ZONE1_TEMP_SET	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
TDU1\ZONE2_TEMP_SET	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007
TDU1\ZONE3_TEMP_SET	593	708	1003	1003	1003	683	1003	1003	1003	1003	1003	1003	1003	1003	883	883	883	883	883	883	883	1003	1003	1003	1003	1003	1003	1003	1003
VRS1\CT_LIQUIDOUTLETTEMP	73	73	73	73	73	72	72	72	72	72	72	72	71	72	71	71	71	71	71	71	71	71	71	70	70	70	70	70	70
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	413	410	408	408	407	407	406	407	408	407	408	409	410	409	409	412	411	426	437	445	452	458	465	470	474	478	482	485	488
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	212	210	210	209	207	207	205	204	203	201	201	201	200	200	199	202	200	249	276	290	300	308	315	321	325	329	334	338	341
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	76	76	76	76	76	76	76	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	74	74	74
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	94	95	97	96	95	98	100	102	103	104	102	106	108	109	109	109	108	108	108	109	110	110	108	110	109	111	112	112	113
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	78	78	78	78	78	78	78	78	78	78	78	77	77	77	77	77	77	77	77	77	77	77	77	77	76	76	76	76	76
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-20	-20	-20	-20	-20	-20

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Tagname	Time 5:48	5:54	6:00	6:06	6:12	6:18	6:24	6:30	6:36	6:42	6:48	6:54	7:00	7:06	7:12	7:18	7:24	7:30	7:36	7:42	7:48	7:54	8:00	8:06	8:12	8:18	8:24	8:30	8:36
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	41.41	119.7	29.08	301.4	48.22	19.61	38.67	30.78	59.17	23.13	44.22	33.41	71.31	24.24	64.73	37.69	101	27.96	89.27	45.92	301.4	33.88	29.49	53.66	22.38	39.98	29.42	68.68	29.31
FTO1\TE101	72	72	72	72	72	72	72	72	72	72	73	73	73	73	74	74	74	75	75	76	76	77	77	77	78	78	77	78	78
FTO1\TE105	87	95	92	89	86	102	90	90	87	99	89	88	89	96	89	88	94	95	91	89	101	94	93	90	104	93	94	93	103
FTO1\TE106	79	100	94	77	82	110	90	76	85	105	85	77	90	100	83	80	98	97	81	83	107	94	80	88	110	91	81	92	107
FTO1\TE107	86	78	76	91	83	73	78	94	80	74	81	90	78	76	85	88	78	78	91	87	78	81	97	85	78	84	99	84	79
FTO1\TE108	1513	1512	1499	1496	1501	1494	1499	1502	1512	1501	1503	1509	1502	1494	1505	1502	1510	1498	1494	1514	1499	1500	1497	1507	1494	1496	1491	1507	1522
FTO1\TE109	1521	1492	1494	1523	1516	1487	1510	1524	1511	1492	1500	1522	1505	1500	1509	1521	1495	1496	1519	1518	1486	1502	1524	1512	1492	1499	1524	1507	1490
TDU1\CYL_DRIVE_AMPS	9	9	8	8	8	8	11	10	10	10	10	9	8	8	7	8	11	10	11	10	8	8	8	10	11	9	10	9	9
TDU1\CYL_DRIVE_RPM	1.19	1.17	1.17	1.17	1.17	1.18	1.18	1.2	1.35	1.19	1.19	1.19	1.17	1.17	1.17	1.17	1.19	1.2	1.18	1.2	1.19	1.18	1.18	1.18	1.18	1.19	1.18	1.19	1.18
TDU1\CYL_FEED_SPEED_SET	77	77	77	77	77	77	77	77	77	77	77	77	77	0	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
TDU1\OXYGEN_DISCHARGE	20.15	20.13	20.15	20.16	20.15	20.13	20.15	20.15	20.13	20.1	20.13	20.13	20.12	20.12	20.1	20.08	20.09	20.08	20.06	20.06	20.02	20.01	20.02	19.99	20.01	20	19.87	19.81	19.35
TDU1\PURGE_DAMPER	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.29	-0.27	-0.29	-0.28	-0.27	-0.27	-0.28	-0.28	-0.29	-0.27	-0.28	-0.29	-0.29	-0.29	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.28	-0.27	-0.28	-0.28	-0.28	-0.27	-0.27	-0.26
TDU1\TE_10_TEMP	1300	1232	1156	1084	1033	1036	1154	1244	1288	1316	1339	1322	1263	1188	1113	1092	1113	1155	1198	1199	1162	1109	1066	1069	1104	1149	1192	1232	1245
TDU1\TE_11_TEMP	1177	1126	1064	1003	948	944	1036	1118	1161	1186	1205	1192	1148	1088	1025	1004	1009	1037	1071	1069	1041	999	964	960	983	1016	1053	1088	1102
TDU1\TE_12_TEMP	1058	1007	947	888	846	833	905	984	1024	1048	1067	1058	1017	961	902	869	872	898	931	934	905	864	830	826	848	881	919	952	969
TDU1\TE_13_TEMP	754	725	689	649	620	605	639	677	708	732	753	748	727	696	658	638	632	639	654	649	633	611	593	588	596	611	631	650	656
TDU1\TE_14_TEMP	672	651	627	602	581	562	582	625	672	699	707	706	685	657	628	603	609	626	647	657	645	626	604	601	614	627	637	646	651
TDU1\TE_15_TEMP	64	64	64	64	64	64	64	64	65	64	65	65	65	65	65	66	66	66	67	67	67	68	68	68	69	69	69	69	70
TDU1\TE_16_TEMP	1144	1187	850	696	526	375	960	982	1100	1173	946	730	561	427	339	1219	1089	1160	1007	795	669	495	823	1165	983	743	600	415	330
TDU1\TE_17_TEMP	984	961	895	843	778	1187	1344	1437	1248	1202	1153	1025	944	875	809	1434	1393	1313	1501	1255	1091	980	1131	1419	1218	1137	1085	1029	881
TDU1\TE_18_TEMP	902	820	758	714	632	1259	1245	1058	1064	1082	1090	932	845	777	723	1226	935	960	988	846	783	728	829	892	921	957	998	1020	896
TDU1\TE_1_TEMP	894	956	971	958	921	875	834	831	868	922	968	973	951	911	862	846	913	981	1037	1039	1006	959	914	1002	1064	1060	1026	971	909
TDU1\TE_2_TEMP	1120	1208	1233	1197	1133	1059	998	1013	1080	1167	1235	1230	1180	1113	1037	1012	1101	1201	1281	1281	1229	1160	1092	1187	1273	1275	1225	1149	1064
TDU1\TE_3_TEMP	1263	1368	1378	1309	1218	1129	1066	1104	1211	1328	1400	1366	1285	1198	1113	1088	1191	1324	1417	1399	1323	1239	1165	1254	1372	1373	1308	1223	1134
TDU1\TE_4_TEMP	1437	1527	1456	1348	1239	1141	1157	1255	1399	1514	1525	1431	1323	1221	1130	1195	1354	1490	1540	1469	1371	1274	1233	1410	1507	1443	1346	1247	1157
TDU1\TE_5_TEMP	1136	1173	1173	1138	1086	1039	1054	1165	1287	1348	1359	1318	1248	1170	1092	1076	1184	1333	1445	1486	1434	1341	1254	1306	1381	1370	1307	1227	1145
TDU1\TE_6_TEMP	1095	1108	1102	1074	1033	1018	1066	1190	1289	1325	1322	1282	1220	1152	1082	1072	1170	1304	1415	1467	1420	1332	1251	1295	1347	1334	1283	1218	1149
TDU1\TE_7_TEMP	1130	1110	1079	1040	999	1023	1121	1256	1335	1345	1328	1288	1231	1167	1102	1097	1171	1291	1400	1458	1415	1329	1251	1281	1324	1318	1286	1247	1199
TDU1\TE_8_TEMP	1162	1115	1064	1012	960	1053	1189	1322	1374	1371	1352	1291	1223	1151	1081	1124	1214	1321	1413	1429	1362	1271	1218	1289	1322	1315	1292	1266	1212
TDU1\TE_9_TEMP	1386	1315	1230	1149	1092	1053	1108	1233	1311	1361	1396	1400	1345	1265	1182	1118	1135	1191	1248	1277	1247	1194	1136	1122	1163	1216	1266	1306	1330
TDU1\ZONE1_TEMP_SET	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1005	1005	1100	1100	1100	1100	1100	1150	1050	1050	1050	1050	1050
TDU1\ZONE2_TEMP_SET	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1007	1057	1057	1057	1350	1250	1250	1250	1250	1150	1050	1050	1050	1050	1050
TDU1\ZONE3_TEMP_SET	1003	1003	1003	1003	898	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	949	949	864	864	864	864	874	874	899	899	899	899	899
VRS1\CT_LIQUIDOUTLETTEMP	70	70	69	69	69	69	69	69	69	70	70	70	71	71	71	72	72	73	73	74	74	75	75	76	77	77	78	78	79
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	491	495	497	497	496	495	496	498	499	496	499	499	499	505	506	505	508	512	515	520	522	522	521	522	525	526	482	425	389
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	344	347	350	351	353	353	355	356	356	354	355	354	355	360	363	364	366	369	371	374	376	377	376	378	379	379	311	231	189
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	17	16
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	75	75	75	76	76	77	77	78	78	78	78
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	111	111	112	111	113	113	110	110	108	107	106	104	102	105	103	100	101	96	96	93	91	92	92	89	87	85	76	77	73
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	76	76	76	76	76	76	76	76	76	77	77	77	77	77	78	78	78	79	79	80	80	80	81	81	82	82	82	81	81
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

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Tagname	Time 8:42	8:48	8:54	9:00	9:06	9:12	9:18	9:24	9:30	9:36	9:42	9:48	9:54	10:00	10:06	10:12	10:18	10:24	10:30	10:36	10:42	10:48	10:54	11:00	11:06	11:12	11:18	11:24	11:30
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	65.53	36.54	83.43	29.27	97.95	41.95	129.8	35.44	27.8	50.44	21.23	42.75	27.54	59.3	20.37	53.12	32.2	73.13	26.08	70.82	39.44	104.9	31.66	182.1	46.76	18.01	39.65	27.77	55.16
FTO1\TE101	78	78	78	78	78	78	78	78	78	79	79	79	80	81	81	81	81	82	82	82	82	83	84	84	84	85	85	85	86
FTO1\TE105	94	94	98	101	95	94	104	99	98	94	110	98	99	96	109	99	98	100	106	99	98	106	105	102	99	117	105	105	101
FTO1\TE106	88	83	100	102	84	84	108	98	82	88	116	95	84	94	112	92	86	101	107	89	88	109	104	88	92	122	101	88	97
FTO1\TE107	89	95	82	81	94	92	80	82	102	89	80	85	102	88	82	91	99	86	84	96	97	86	87	104	95	85	91	108	93
FTO1\TE108	1511	1499	1506	1516	1512	1502	1508	1522	1492	1505	1517	1515	1499	1512	1514	1510	1495	1510	1511	1499	1504	1503	1512	1492	1503	1509	1508	1492	1499
FTO1\TE109	1510	1527	1492	1493	1522	1523	1476	1499	1532	1516	1477	1497	1532	1509	1487	1508	1529	1497	1492	1521	1525	1485	1495	1530	1520	1475	1498	1532	1513
TDU1\CYL_DRIVE_AMPS	8	7	7	8	7	7	8	8	8	9	9	9	10	10	8	8	9	8	8	8	7	7	7	8	8	10	9	9	9
TDU1\CYL_DRIVE_RPM	1.18	1.18	1.18	1.18	1.18	1.17	1.17	1.17	1.17	1.17	1.18	1.18	1.18	1.18	1.18	1.18	1.19	1.19	1.19	1.17	1.17	1.17	1.17	1.17	1.18	1.18	1.18	1.2	1.19
TDU1\CYL_FEED_SPEED_SET	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
TDU1\OXYGEN_DISCHARGE	19.07	18.89	18.95	19.03	19.02	19.16	19.19	19.33	19.38	19.44	19.45	19.45	19.49	19.52	19.54	19.52	19.55	19.57	19.57	19.53	19.59	19.59	19.61	19.59	19.6	19.55	19.57	19.58	19.58
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.24	-0.23	-0.22	-0.12	-0.2	-0.01	-0.04	0.09	0.09	0.17	0.12	0.04	-0.09	-0.23	-0.36	-0.51	-0.54	-0.57	-0.59	-0.62	-0.66	-0.57	-0.36	-0.3	-0.31	-0.27	-0.28	-0.27	-0.28
TDU1\TE_10_TEMP	1206	1140	1071	1006	970	937	899	846	804	767	776	835	911	986	1006	982	938	893	855	822	792	765	737	712	712	761	846	936	1009
TDU1\TE_11_TEMP	1079	1033	979	926	891	855	821	769	731	695	695	728	787	850	871	861	834	802	773	745	721	698	676	654	646	670	724	796	860
TDU1\TE_12_TEMP	953	913	867	822	784	753	722	686	653	623	614	634	682	735	760	754	728	700	673	650	631	614	598	583	573	583	618	673	729
TDU1\TE_13_TEMP	646	619	591	560	535	506	483	462	436	414	411	420	443	472	478	473	456	440	427	411	401	389	378	369	366	376	398	432	464
TDU1\TE_14_TEMP	638	618	598	580	562	548	534	520	509	504	499	504	514	524	531	523	515	515	513	507	500	489	476	467	465	475	494	514	533
TDU1\TE_15_TEMP	70	70	71	71	71	72	72	72	73	73	73	74	74	74	75	75	75	76	77	78	78	78	78	78	79	79	79	80	80
TDU1\TE_16_TEMP	1034	1086	1186	1090	744	572	436	426	1020	1080	1128	1047	775	594	450	1336	1046	1146	1238	934	762	576	542	1158	1054	1167	1225	969	747
TDU1\TE_17_TEMP	937	912	889	861	913	1086	1117	1135	1287	1046	1090	1068	1011	983	844	1246	1315	1352	1067	949	879	811	961	1220	1366	1277	1179	1112	1024
TDU1\TE_18_TEMP	811	741	693	639	822	566	480	460	338	292	688	765	835	872	715	648	590	542	508	494	464	439	429	330	570	733	786	848	838
TDU1\TE_1_TEMP	896	919	971	1025	1027	993	940	882	876	906	962	1016	1022	989	938	927	928	976	1040	1066	1051	998	937	925	928	969	1025	1068	1058
TDU1\TE_2_TEMP	1051	1104	1168	1269	1269	1213	1134	1058	1055	1113	1192	1267	1268	1216	1143	1111	1129	1199	1282	1322	1286	1213	1132	1104	1129	1193	1270	1323	1302
TDU1\TE_3_TEMP	1126	1211	1323	1415	1391	1304	1208	1118	1123	1219	1330	1420	1399	1317	1222	1174	1220	1324	1427	1464	1397	1295	1193	1159	1222	1327	1428	1482	1428
TDU1\TE_4_TEMP	1249	1367	1477	1534	1442	1327	1221	1132	1247	1381	1493	1554	1461	1348	1240	1293	1358	1481	1576	1549	1437	1317	1208	1267	1368	1491	1584	1582	1473
TDU1\TE_5_TEMP	1117	1124	1143	1158	1147	1123	1123	1139	1218	1306	1335	1331	1293	1229	1155	1147	1226	1351	1400	1382	1316	1232	1152	1163	1259	1375	1421	1411	1356
TDU1\TE_6_TEMP	1108	1090	1082	1079	1064	1060	1089	1127	1217	1276	1281	1263	1226	1176	1116	1126	1210	1318	1333	1300	1238	1165	1099	1135	1229	1333	1361	1342	1295
TDU1\TE_7_TEMP	1149	1103	1062	1025	998	984	1015	1065	1130	1166	1171	1158	1142	1123	1081	1084	1132	1204	1213	1176	1116	1050	994	1013	1092	1201	1246	1246	1220
TDU1\TE_8_TEMP	1147	1084	1024	972	975	936	963	993	1036	1038	1092	1107	1113	1115	1047	1052	1079	1126	1100	1053	993	931	890	910	1037	1159	1201	1212	1188
TDU1\TE_9_TEMP	1298	1226	1146	1073	1011	986	952	903	852	810	797	860	955	1043	1093	1074	1023	967	921	884	851	821	791	762	739	774	875	985	1078
TDU1\ZONE1_TEMP_SET	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
TDU1\ZONE2_TEMP_SET	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
TDU1\ZONE3_TEMP_SET	899	899	899	899	899	805	771	719	681	645	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642
VRS1\CT_LIQUIDOUTLETTEMP	80	80	81	81	82	82	83	83	84	84	85	86	86	87	88	88	89	89	90	90	91	91	91	92	93	93	94	95	95
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	362	341	322	306	289	274	261	249	238	228	219	210	202	195	189	183	177	171	167	162	159	155	153	150	147	145	143	140	139
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\VD_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\VD_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\VD_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	-1	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	164	147	136	127	121	116	112	110	108	107	106	105	105	104	104	105	104	104	104	104	104	105	105	105	105	105	106	106	107
VRS1\RD_OXYGEN	16	17	18	19	19	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	78	78	78	79	79	79	79	79	79	79	79	79	80	80	81	82	83	84	85	86	87	88	89	90	91	92	93	93	94
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	73	70	70	72	72	75	72	72	70	68	68	66	64	66	63	62	65	66	63	61	57	55	53	52	48	44	40	43	49
VRS1\WESP_OUTLETGASPRES	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	81	81	81	81	81	81	81	81	81	81	82	82	82	82	82	82	83	83	83	83	84	84	84	84	84	84	85	85	85
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

Tagname	Time 11:36	11:42	11:48	11:54	12:00	12:06	12:12	12:18	12:24	12:30	12:36	12:42	12:48	12:54	13:00	13:06	13:12	13:18	13:24	13:30	13:36	13:42	13:44	13:48	13:54	14:00	14:06	14:12	14:18
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	21.32	49.43	31.01	68.92	25.96	64.91	36.87	90.47	28.39	90.24	42.47	267.4	36.05	25.78	49.11	20.52	45.61	29.47	64.21	24.23	58.54	34.41	45.48	0	21.7	47.57	0.5	45.56	11.8
FTO1\TE101	86	86	86	86	87	87	87	87	87	87	88	88	89	89	89	89	89	89	90	90	90	90	91	0	90	90	90	94	96
FTO1\TE105	114	103	103	103	111	104	103	107	109	105	103	117	108	109	104	118	107	108	107	116	107	107	108	0	119	109	110	111	136
FTO1\TE106	118	97	89	103	113	95	92	110	109	92	95	121	106	91	99	123	102	93	103	118	99	94	103	0	123	102	94	104	140
FTO1\TE107	87	94	105	91	88	99	102	90	90	106	99	89	93	113	98	90	97	110	96	91	101	107	98	0	91	99	111	106	98
FTO1\TE108	1509	1506	1499	1510	1511	1501	1505	1500	1510	1494	1497	1507	1508	1489	1513	1509	1506	1503	1504	1510	1502	1496	1506	0	1509	1506	1502	1482	1431
FTO1\TE109	1487	1504	1529	1502	1492	1517	1526	1491	1493	1527	1522	1475	1505	1532	1514	1486	1502	1530	1507	1492	1513	1527	1501	0	1488	1504	1529	1497	1399
TDU1\CYL_DRIVE_AMPS	7	7	7	8	8	11	10	10	10	9	11	10	11	10	10	10	10	10	11	10	10	11	10	0	8	9	11	10	10
TDU1\CYL_DRIVE_RPM	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.17	1.18	1.18	1.19	1.19	1.18	1.19	1.19	1.18	1.17	1.18	1.19	1.18	1.18	1.18	0	1.19	1.19	1.18	1.18	1.36
TDU1\CYL_FEED_SPEED_SET	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	83	83	0	83	83	83	83	83
TDU1\OXYGEN_DISCHARGE	19.56	19.56	19.59	19.58	19.57	19.59	19.58	19.58	19.57	19.58	19.6	19.58	19.61	19.59	19.61	19.57	19.65	19.66	19.83	19.71	19.91	19.71	19.68	0	19.7	19.73	19.75	17.43	19.33
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
TDU1\PV_PIC1	-0.32	-0.3	-0.33	-0.38	-0.4	-0.42	-0.46	-0.41	-0.37	-0.38	-0.31	-0.32	-0.31	-0.31	-0.29	-0.28	-0.28	-0.28	-0.29	-0.29	-0.3	-0.32	-0.31	0	-0.3	-0.29	-0.27	-1.31	-1.32
TDU1\TE_10_TEMP	1025	996	949	899	855	945	1101	1167	1148	1100	1044	990	941	947	1003	1082	1158	1201	1182	1134	1083	1040	1024	0	1045	1106	1176	1245	1300
TDU1\TE_11_TEMP	882	871	840	806	773	851	983	1047	1040	1004	957	912	871	871	908	968	1031	1069	1062	1029	989	951	936	0	947	992	1053	1112	1162
TDU1\TE_12_TEMP	756	749	725	697	672	724	838	903	901	874	842	809	778	771	797	850	908	949	952	921	882	844	831	0	827	865	922	977	1022
TDU1\TE_13_TEMP	476	472	460	445	433	476	534	573	579	569	555	531	513	516	538	571	609	632	636	622	604	588	582	0	589	613	657	699	729
TDU1\TE_14_TEMP	539	531	518	507	505	521	590	624	622	609	592	581	576	582	603	627	645	658	653	645	644	643	642	0	644	653	674	697	677
TDU1\TE_15_TEMP	81	81	82	82	83	83	84	84	85	85	85	85	86	86	86	86	87	86	87	87	88	87	87	0	88	85	84	84	83
TDU1\TE_16_TEMP	648	556	968	1035	1121	1763	1341	1011	843	726	1470	1239	1283	1314	1329	1022	790	639	1337	1188	1242	1304	1336	0	932	686	1240	1193	856
TDU1\TE_17_TEMP	918	849	1051	1265	1321	1594	1399	1218	1095	1004	1236	1353	1425	1538	1400	1279	1202	1070	1419	1470	1523	1346	1272	0	1178	1128	1535	1559	1303
TDU1\TE_18_TEMP	719	663	615	558	485	1358	1045	864	791	738	682	614	581	838	899	965	1008	918	822	760	728	699	682	0	926	966	1023	1061	1068
TDU1\TE_1_TEMP	1019	963	915	924	963	1191	1307	1322	1265	1186	1159	1149	1188	1230	1280	1290	1246	1174	1154	1154	1191	1238	1261	0	1275	1222	1239	1266	1245
TDU1\TE_2_TEMP	1237	1159	1092	1109	1170	1390	1522	1528	1454	1356	1313	1319	1379	1438	1498	1501	1439	1350	1316	1331	1387	1449	1474	0	1471	1392	1398	1439	1424
TDU1\TE_3_TEMP	1331	1231	1154	1189	1287	1499	1660	1641	1537	1419	1355	1400	1495	1577	1646	1634	1538	1424	1375	1424	1510	1594	1626	0	1588	1478	1473	1544	1528
TDU1\TE_4_TEMP	1354	1246	1220	1315	1439	1722	1790	1688	1556	1430	1455	1522	1620	1700	1764	1689	1562	1439	1468	1546	1645	1725	1750	0	1622	1492	1569	1660	1585
TDU1\TE_5_TEMP	1279	1197	1137	1185	1297	1494	1618	1606	1524	1421	1350	1376	1467	1566	1636	1614	1534	1435	1411	1476	1570	1638	1640	0	1545	1450	1484	1582	1580
TDU1\TE_6_TEMP	1229	1157	1108	1163	1260	1454	1562	1542	1465	1373	1306	1329	1415	1511	1578	1552	1484	1399	1393	1457	1539	1588	1577	0	1477	1398	1461	1562	1556
TDU1\TE_7_TEMP	1172	1112	1063	1081	1139	1337	1470	1468	1402	1318	1249	1245	1295	1400	1484	1479	1433	1371	1360	1403	1463	1502	1489	0	1401	1346	1429	1545	1550
TDU1\TE_8_TEMP	1126	1061	1013	1022	1055	1310	1426	1394	1319	1237	1171	1163	1201	1348	1432	1429	1399	1335	1326	1350	1390	1403	1380	0	1337	1308	1427	1544	1526
TDU1\TE_9_TEMP	1118	1090	1036	976	921	915	1066	1193	1204	1165	1109	1051	997	975	1032	1126	1216	1277	1272	1218	1159	1110	1093	0	1089	1154	1225	1297	1362
TDU1\ZONE1_TEMP_SET	1100	1100	1100	1100	1100	1350	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1310	1310	1310	1310	1310	0	1260	1260	1390	1390	1390
TDU1\ZONE2_TEMP_SET	1100	1100	1100	1100	1100	1350	1300	1300	1300	1300	1300	1300	1300	1350	1350	1350	1350	1350	1375	1375	1375	1375	1375	0	1375	1375	1415	1515	1515
TDU1\ZONE3_TEMP_SET	642	642	642	642	642	902	752	752	752	752	752	752	802	852	852	852	852	852	852	852	852	852	852	0	952	952	952	952	952
VRS1\CT_LIQUIDOUTLETTEMP	95	95	95	95	95	96	96	97	97	97	72	68	67	67	67	67	67	68	70	70	69	69	69	0	69	69	69	69	69
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1
VRS1\HC_INLETGASTEMP	136	134	134	134	127	127	126	125	124	122	121	121	120	119	118	117	117	118	116	258	287	339	361	0	365	371	380	473	696
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	15	0	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	7	6	6	0	5	4	4	3	3
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	1	1	1	0	0	-1	0	0	-1	1	1	-1	0	0	-1	1	-1	-1	-1	0	0	0	-1	-1	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	106	106	106	106	104	104	104	105	104	104	104	103	103	103	103	103	103	103	100	181	198	240	259	0	271	276	283	406	651
VRS1\RD_OXYGEN	20	20	20	20	20	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0	20	20	20	20	20
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
VRS1\RD_SCRUBLIQUIDTEMP	94	95	95	95	123	148	103	100	98	96	95	95	94	94	94	93	93	87	74	72	71	71	71	0	71	71	71	71	72
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
VRS1\WESP_OUTLETGASFLOW	54	57	57	57	106	126	52	45	44	38	33	21	15	25	14	-1	-6	-1	0	13	11	7	5	0	1	-18	-34	361	364
VRS1\WESP_OUTLETGASPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	-3	-3
VRS1\WESP_OUTLETGASTEMP	85	85	85	85	84	85	85	86	86	87	87	88	88	89	90	91	92	93	94	94	94	94	95	0	94	94	94	89	84
VRS1\WESP_OXYGEN	21	21	21	21	21	0	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	20	0	21	21	21	20	20
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	0	0	0	0	0	0	0

ORIGINAL (Red)

Continuous Unit 1 June 03, 1998

Tagname	Time 14:24	14:30	14:36	14:42	14:48	14:54	15:00	15:06	15:12	15:18	15:24	15:30	15:36	15:42	15:48	15:54	16:00	16:06	16:12	16:18	16:24	16:30	16:36	16:42	16:48	16:54	17:00	17:06	17:12
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	42.07	22.76	84.48	21.32	84.41	32.11	85.57	21.54	16.16	25.57	12.01	30.47	17.03	40.64	18.12	52.8	20.48	52.69	17.54	63.33	24.17	73.65	11.75	117.6	15.66	7.17	10.23	6.05	13.56
FTO1\TE101	97	97	98	98	98	100	102	100	99	101	101	103	101	100	100	99	99	99	99	98	98	98	98	98	98	100	101	99	99
FTO1\TE105	121	133	127	129	130	126	151	123	153	124	143	125	154	125	146	126	142	128	140	136	136	140	130	144	124	159	127	145	123
FTO1\TE106	104	100	128	128	102	105	161	117	101	109	149	117	103	115	151	110	102	126	142	105	104	146	128	101	108	170	121	102	114
FTO1\TE107	122	141	103	102	138	129	103	109	175	123	102	115	171	116	102	122	153	108	102	144	140	103	105	157	121	100	110	159	115
FTO1\TE108	1273	1381	1579	1557	1515	1665	1602	1529	1398	1588	1553	1436	1366	1489	1507	1396	1400	1499	1475	1332	1456	1560	1527	1552	1582	1577	1568	1586	1566
FTO1\TE109	1477	1489	1399	1535	1589	1593	1462	1570	1559	1537	1442	1503	1500	1395	1361	1481	1477	1341	1373	1494	1453	1332	1488	1559	1568	1530	1565	1544	1562
TDU1\CYL_DRIVE_AMPS	14	15	17	20	20	21	3	17	15	15	13	11	10	10	9	8	8	10	7	9	10	13	14	14	14	15	15	15	17
TDU1\CYL_DRIVE_RPM	3.07	3.09	3.08	3.06	3.07	3.06	0	3.09	3.09	3.05	3.08	1.81	3.29	3.11	3.16	3.16	3.15	3.14	3.12	3.16	3.14	3.14	3.12	3.12	3.14	3.11	3.14	3.14	3.14
TDU1\CYL_FEED_SPEED_SET	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	53	53	53	53	53	53	53	53	53	53
TDU1\OXYGEN_DISCHARGE	5.52	3.5	2.89	1.9	0.72	0.45	7.79	7.26	1.94	1.8	3.28	12.38	11.79	11.23	14.3	8.34	10.92	14.03	15.35	4.47	3.91	3.36	2.7	1.13	0.64	0.67	4.27	0.35	0.82
TDU1\PURGE_DAMPER	15	15	20	20	20	40	40	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	30	30	30	30
TDU1\PV_PIC1	-1.28	-0.84	-0.99	-1.55	-1.62	-1.16	-1.25	-2.3	-2.42	-2.42	-2.3	-1.61	-1.75	-1.78	-1.92	-1.93	-2.29	-1.76	-1.71	-1.49	-1.02	-1.29	-1.52	-1.63	-2.15	-1.74	-0.63	-1.47	-1.48
TDU1\TE_10_TEMP	1293	1249	1183	1109	1093	1127	1127	1065	1055	1105	1177	1236	1247	1241	1215	1222	1264	1317	1368	1412	1443	1457	1409	1332	1304	1315	1340	1370	1345
TDU1\TE_11_TEMP	1163	1138	1094	1040	1022	1036	1032	980	987	1017	1062	1107	1122	1126	1107	1115	1141	1182	1225	1270	1310	1339	1319	1267	1239	1234	1245	1266	1258
TDU1\TE_12_TEMP	1031	1013	985	950	924	919	917	869	881	905	935	960	974	982	983	988	1009	1043	1077	1115	1153	1197	1212	1190	1163	1148	1145	1153	1160
TDU1\TE_13_TEMP	740	737	734	723	715	715	706	687	687	702	720	741	758	775	785	805	825	849	877	904	933	971	1003	1005	995	986	983	985	992
TDU1\TE_14_TEMP	674	733	859	870	803	779	802	831	820	799	830	895	953	990	982	953	935	929	924	922	978	1125	1198	1155	1096	1072	1084	1124	1190
TDU1\TE_15_TEMP	83	82	83	121	208	211	176	214	212	198	206	134	141	144	142	120	136	109	127	124	95	100	98	136	210	212	212	212	212
TDU1\TE_16_TEMP	1603	1637	1559	1569	1551	1569	710	499	1528	1125	1091	1164	1235	1087	858	1208	1176	1247	1156	1580	1596	1540	1519	1329	1521	1552	1259	1416	1414
TDU1\TE_17_TEMP	1502	1462	1583	1528	1524	1539	1011	621	1712	1650	1593	1434	1315	1269	1100	1426	1306	1276	1258	1521	1569	1512	1468	1492	1533	1498	1507	1504	1537
TDU1\TE_18_TEMP	931	883	830	775	971	1022	750	608	988	1031	1051	984	925	1072	804	1033	1059	1111	1133	1178	1198	1172	1046	1007	1117	1121	1137	1172	1024
TDU1\TE_1_TEMP	1272	1347	1332	1308	1287	1281	1180	1047	1038	994	980	989	1018	1059	1057	1096	1129	1179	1220	1231	1224	1220	1191	1179	1150	1140	1113	1097	1083
TDU1\TE_2_TEMP	1430	1501	1488	1470	1465	1469	1386	1213	1201	1223	1245	1274	1317	1361	1341	1354	1381	1425	1461	1457	1445	1442	1413	1406	1382	1384	1373	1354	1341
TDU1\TE_3_TEMP	1505	1545	1535	1521	1522	1528	1443	1257	1216	1288	1356	1426	1502	1551	1496	1489	1530	1589	1628	1591	1557	1552	1527	1519	1494	1505	1511	1494	1479
TDU1\TE_4_TEMP	1636	1684	1640	1643	1647	1657	1480	1228	1380	1407	1500	1593	1663	1674	1556	1602	1655	1718	1733	1704	1691	1694	1664	1656	1639	1668	1646	1643	1617
TDU1\TE_5_TEMP	1570	1582	1578	1579	1586	1595	1505	1317	1303	1457	1570	1629	1622	1579	1502	1470	1499	1513	1509	1525	1572	1601	1591	1588	1584	1590	1591	1588	1578
TDU1\TE_6_TEMP	1546	1531	1531	1537	1544	1552	1460	1269	1307	1469	1571	1624	1594	1537	1458	1428	1456	1459	1448	1478	1535	1553	1540	1536	1537	1537	1541	1537	1531
TDU1\TE_7_TEMP	1535	1513	1493	1479	1491	1510	1434	1264	1318	1479	1571	1614	1575	1510	1426	1392	1414	1417	1404	1446	1527	1554	1532	1515	1512	1511	1515	1520	1507
TDU1\TE_8_TEMP	1504	1472	1439	1406	1441	1470	1360	1221	1317	1469	1551	1582	1524	1466	1364	1375	1408	1412	1406	1465	1554	1566	1523	1497	1502	1507	1522	1534	1494
TDU1\TE_9_TEMP	1379	1334	1264	1181	1126	1143	1171	1131	1077	1099	1170	1254	1297	1292	1278	1263	1295	1349	1402	1448	1477	1494	1462	1383	1327	1327	1350	1379	1380
TDU1\ZONE1_TEMP_SET	1455	1490	1480	1475	1460	1470	1336	1168	1168	1168	1168	1168	1168	1148	1148	1348	1348	1398	1398	1453	1433	1438	1413	1388	1378	1378	1363	1363	1348
TDU1\ZONE2_TEMP_SET	1515	1525	1530	1535	1550	1555	1410	1221	1421	1421	1421	1421	1421	1421	1421	1421	1121	1121	1421	1451	1511	1511	1511	1536	1536	1536	1526	1526	1526
TDU1\ZONE3_TEMP_SET	952	952	952	952	952	1002	982	930	929	929	929	929	929	1129	1058	1058	1058	1058	1058	1058	1158	1058	1058	1108	1108	1108	1108	1008	1008
VRS1\CT_LIQUIDOUTLETTEMP	70	76	81	83	84	86	85	82	81	79	78	76	75	75	74	74	74	73	73	73	77	79	81	82	83	82	82	82	83
VRS1\HC_GASDIFFPRES	3	4	4	4	4	4	2	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	3	2	2	4	3	3
VRS1\HC_INLETGASPRES	-1	-1	-1	-1	-2	-1	-1	-2	-2	-2	-2	-1	-2	-2	-2	-2	-2	-2	-2	-1	-1	-1	-2	-2	-2	-2	-1	-2	-1
VRS1\HC_INLETGASTEMP	778	844	830	820	815	825	810	772	758	769	789	818	836	844	852	855	876	890	906	942	981	1016	1035	1023	1017	1016	1027	1046	1061
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFFPRES	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	-1	0	1	-1	1	0	-1	1	-1	1	0	0	0	-1	1	0	-1	1	-1	1	-1	0	0	-1	0	0	0	-1
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	738	815	802	794	790	800	781	741	723	729	749	767	783	799	809	812	819	832	846	891	931	965	981	973	972	971	985	1003	1016
VRS1\RD_OXYGEN	15	13	13	11	8	6	19	18	7	5	6	13	16	17	19	12	15	16	16	11	10	10	9	7	6	4	4	4	6
VRS1\RD_SCRUBBERDIFFPRES	5	5	5	5	5	6	4	4	3	3	3	2	3	3	3	3	3	3	3	4	5	5	5	5	4	4	5	5	5
VRS1\RD_SCRUBLIQUIDTEMP	76	86	95	100	104	106	105	98	94	91	88	84	82	81	81	80	79	79	78	80	87	92	95	97	99	99	98	98	100
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	25	0	0	7	47	61	0	0	0	0	0	0	0	0	0	0	0	0	71	80	56	46	64	54
VRS1\WESP_DIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	302	236	219	120	106	147	261	73	142	154	153	321	284	237	197	212	172	219	230	232	214	221	189	141	146	195	287	153	162
VRS1\WESP_OUTLETGASPRES	-6	-6	-6	-5	-6	-6	-4	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-5	-5	-5	-5	-5	-4	-4	-6	-5	-5
VRS1\WESP_OUTLETGASTEMP	83	84	86	88	90	93	94	94	94	95	96	94	92	90	90	89	89	88	87	87	87	88	89	91	94	96	97	97	97
VRS1\WESP_OXYGEN	15	13	13	11	7	5	19	18	7	5	5	13	16	17	19	12	14	15	16	11	10	10	9	6	5	3	3	3	5
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	21	0	0	14	26	30	0	0	0	0	0	0	0	0	0	0	0	0	30	32	27	25	28	27

Continuous Unit [illegible]or June 03, 1998

Tagname / Time	17:18	17:24	17:30	17:36	17:42	17:48	17:54	18:00	18:06	18:12	18:18	18:24	18:30	18:36	18:42	18:48	18:54	19:00	19:06	19:12	19:18	19:24	19:30	19:36	19:42	19:48	19:54	20:00	20:06
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	6.06	22.66	11.23	51.59	25.4	82.63	28.84	91.65	27.22	37.08	13.17	9.69	8.04	13.05	57.44	22.73	57.45	38.05	102.9	39.97	140.1	53.91	85.6	21.45	87.16	20.64	44.98	19.9	20.85
FTO1\TE101	98	98	97	97	98	98	99	100	99	98	97	96	91	91	92	94	92	92	94	95	96	95	96	96	96	95	94	93	91
FTO1\TE105	147	124	137	124	138	127	133	141	139	152	134	186	129	157	126	180	129	158	130	157	136	146	161	187	180	169	256	178	226
FTO1\TE106	154	112	101	123	142	106	103	151	141	103	107	204	123	94	107	199	114	96	122	167	111	104	179	203	112	114	300	177	99
FTO1\TE107	100	116	148	107	101	129	140	104	104	172	135	98	107	184	121	96	118	179	113	99	137	156	106	104	202	177	102	115	282
FTO1\TE108	1566	1605	1606	1574	1589	1640	1625	1581	1606	1646	1606	1570	1559	1557	1549	1543	1595	1609	1572	1574	1613	1598	1565	1582	1625	1595	1565	1591	1606
FTO1\TE109	1602	1580	1589	1649	1651	1620	1631	1686	1647	1606	1615	1534	1551	1546	1574	1632	1588	1586	1627	1630	1595	1613	1657	1636	1593	1618	1646	1610	1586
TDU1\CYL_DRIVE_AMPS	17	16	17	17	17	17	17	17	17	13	13	13	14	15	17	17	16	21	20	20	17	17	17	16	16	14	16	17	16
TDU1\CYL_DRIVE_RPM	3.12	3.13	3.12	3.11	3.12	3.12	3.1	3.12	3.12	3.12	3.12	3.12	3.1	3.13	3.11	3.09	3.19	3.18	3.21	3.21	3.21	3.21	3.21	3.22	3.23	3.23	3.21	3.21	3.23
TDU1\CYL_FEED_SPEED_SET	53	53	53	53	53	53	53	53	53	53	53	53	68	68	68	68	68	68	68	60	50	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	1.16	0.99	0.22	0.01	0.01	0.02	0.26	0.01	0.01	3.04	5.63	4.7	0.75	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.22	0.01	0.01	1.93	2.36	0.01	0.01
TDU1\PURGE_DAMPER	30	30	30	30	30	30	30	30	30	30	30	30	0	30	30	30	30	30	30	30	30	30	30	30	30	28	28	28	28
TDU1\PV_PIC1	-1.54	-1.42	-1.33	-1.59	-1.39	-1.84	-1.29	-1.36	-1.71	-1.66	-1.63	-1.57	-2	-1.47	-1.3	-1.31	-1.32	-1.25	-1.18	-1.13	-1	-1.65	-1.39	-1.56	-0.8	-0.78	-1.02	-1.15	-1.56
TDU1\TE_10_TEMP	1277	1200	1140	1149	1195	1195	1151	1126	1148	1193	1230	1235	1230	1232	1214	1171	1116	1112	1144	1179	1207	1228	1252	1285	1317	1325	1311	1278	1222
TDU1\TE_11_TEMP	1213	1153	1098	1088	1107	1107	1079	1059	1066	1093	1122	1130	1131	1136	1133	1108	1068	1055	1064	1085	1105	1123	1141	1166	1195	1215	1220	1208	1173
TDU1\TE_12_TEMP	1143	1105	1059	1028	1019	1014	997	976	971	983	1001	1013	1019	1029	1041	1039	1018	995	984	984	992	1003	1015	1029	1052	1075	1096	1109	1105
TDU1\TE_13_TEMP	984	959	920	889	870	859	844	825	816	817	829	839	849	862	877	884	875	853	836	829	822	825	829	839	861	884	910	939	952
TDU1\TE_14_TEMP	1132	1035	973	944	965	983	988	965	963	974	997	1024	1049	1078	1145	1089	980	910	904	935	949	952	969	1004	1063	1160	1222	1227	1173
TDU1\TE_15_TEMP	213	212	212	212	213	213	188	164	165	154	146	143	197	184	149	136	155	202	194	209	193	212	177	186	131	154	136	147	173
TDU1\TE_16_TEMP	1417	1530	1423	1562	1423	1556	1481	1580	1301	1134	1217	1264	1237	1560	1338	1593	1555	1588	1546	1564	1573	1527	1479	1177	1222	807	429	1348	1206
TDU1\TE_17_TEMP	1505	1522	1570	1489	1471	1427	1405	1486	1478	1516	1571	1626	1464	1492	1435	1414	1639	1593	1489	1557	1534	1485	1514	1584	1567	1479	1363	1440	1565
TDU1\TE_18_TEMP	923	842	924	1047	1065	883	798	977	1000	1029	989	936	948	976	938	866	863	995	997	1008	1027	1035	1048	1086	1043	1043	1033	984	901
TDU1\TE_1_TEMP	1099	1107	1105	1121	1177	1190	1188	1192	1171	1113	1097	1100	1080	1130	1141	1184	1206	1228	1217	1217	1211	1198	1190	1134	1104	1026	922	891	892
TDU1\TE_2_TEMP	1348	1353	1349	1370	1423	1432	1425	1432	1422	1376	1367	1383	1362	1390	1392	1425	1440	1457	1448	1454	1453	1451	1455	1417	1378	1302	1179	1136	1157
TDU1\TE_3_TEMP	1482	1490	1495	1500	1529	1532	1527	1531	1534	1514	1537	1582	1574	1551	1523	1517	1524	1527	1520	1520	1517	1520	1555	1561	1530	1457	1312	1237	1280
TDU1\TE_4_TEMP	1627	1636	1631	1649	1665	1672	1666	1680	1660	1626	1679	1728	1702	1700	1640	1659	1657	1660	1654	1655	1659	1667	1704	1686	1653	1543	1355	1395	1432
TDU1\TE_5_TEMP	1577	1582	1582	1586	1591	1586	1575	1580	1580	1581	1626	1693	1716	1665	1612	1582	1569	1576	1578	1581	1581	1585	1602	1633	1644	1608	1499	1464	1487
TDU1\TE_6_TEMP	1533	1543	1543	1538	1527	1513	1500	1504	1506	1527	1587	1666	1695	1625	1564	1520	1508	1517	1517	1520	1517	1517	1534	1586	1613	1589	1504	1477	1491
TDU1\TE_7_TEMP	1495	1490	1481	1481	1476	1458	1434	1435	1444	1475	1535	1612	1660	1607	1541	1481	1457	1468	1475	1480	1479	1481	1494	1545	1595	1596	1562	1533	1516
TDU1\TE_8_TEMP	1462	1435	1427	1443	1452	1414	1377	1399	1425	1471	1526	1588	1626	1571	1499	1430	1403	1429	1446	1457	1463	1470	1491	1551	1598	1593	1565	1525	1488
TDU1\TE_9_TEMP	1323	1246	1173	1151	1194	1226	1194	1147	1156	1204	1258	1284	1283	1284	1270	1225	1162	1125	1149	1191	1226	1252	1277	1310	1354	1369	1353	1318	1264
TDU1\ZONE1_TEMP_SET	1348	1348	1353	1413	1428	1428	1428	1428	1378	1378	1278	1278	1378	1383	1393	1413	1448	1448	1453	1453	1453	1453	1453	1403	1353	1103	1103	1148	1148
TDU1\ZONE2_TEMP_SET	1536	1541	1541	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1516	1506	1506	1501	1511	1516	1516	1516	1516	1516	1516	1581	1566	1506	1446	1476
TDU1\ZONE3_TEMP_SET	1008	1008	1108	1108	1108	858	858	1008	1008	1008	858	858	858	858	858	858	973	973	973	973	973	973	973	973	923	823	778	778	778
VRS1\CT_LIQUIDOUTLETTEMP	83	83	83	83	84	83	84	86	86	83	80	77	76	78	81	83	84	85	86	86	86	85	82	80	80	79	78	78	79
VRS1\HC_GASDIFFPRES	3	3	3	3	3	3	3	3	1	1	1	1	2	3	2	2	3	2	2	2	2	1	1	2	2	1	3	2	2
VRS1\HC_INLETGASPRES	-2	-2	-2	-2	-2	-2	-1	-1	-2	-2	-2	-2	-3	-2	-1	-1	-2	-2	-2	-2	-1	-2	-2	-2	-1	-1	-1	-1	-2
VRS1\HC_INLETGASTEMP	1050	1029	1001	984	978	974	962	950	939	930	930	938	973	1002	1011	997	976	959	950	944	941	936	923	940	970	993	1012	1033	1040
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_OUTLETPRES	-1	1	0	0	0	1	-1	0	0	0	0	-1	0	0	0	0	0	1	0	1	0	-1	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	1009	993	973	957	951	947	937	924	909	893	890	905	949	977	982	971	953	936	927	921	919	907	885	909	939	957	975	996	1003
VRS1\RD_OXYGEN	5	7	7	5	4	5	8	9	6	9	10	11	9	7	8	12	8	6	7	6	7	4	6	9	10	10	12	9	7
VRS1\RD_SCRUBBERDIFFPRES	5	5	5	5	5	5	4	4	3	3	3	3	4	5	3	4	4	4	4	4	3	3	3	3	3	3	3	4	4
VRS1\RD_SCRUBLIQUIDTEMP	101	101	101	102	103	102	103	108	107	99	93	89	87	92	97	102	105	107	109	109	109	105	98	95	94	94	92	92	95
VRS1\WESP_CURRENT_AMP	77	71	43	68	54	42	44	45	40	36	0	0	0	71	44	0	0	44	30	33	21	33	34	40	33	32	0	0	0
VRS1\WESP_DIFFPRES	1	1	1	1	1	1	1	1	1	2	2	2	1	1	2	2	1	1	1	1	2	1	2	1	2	2	2	1	1
VRS1\WESP_OUTLETGASFLOW	153	164	179	159	175	166	258	285	298	369	376	380	94	195	414	415	263	244	248	222	379	258	339	293	435	430	414	343	241
VRS1\WESP_OUTLETGASPRES	-5	-5	-5	-5	-5	-5	-4	-5	-4	-3	-3	-3	-4	-5	-4	-4	-5	-5	-4	-4	-4	-4	-3	-4	-4	-4	-4	-4	-4
VRS1\WESP_OUTLETGASTEMP	97	96	96	96	97	97	97	96	96	96	94	91	90	89	90	89	90	91	94	96	97	96	96	94	93	91	89	88	87
VRS1\WESP_OXYGEN	5	6	6	4	3	5	8	9	6	9	10	11	7	6	7	12	8	6	6	6	6	3	6	9	9	10	12	9	7
VRS1\WESP_VOLTAGE_VOLT	32	31	26	30	27	26	27	28	27	27	0	0	0	31	28	0	0	27	24	25	23	25	26	28	26	27	0	0	0

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Tagname	Time 20:12	20:18	20:24	20:30	20:36	20:42	20:48	20:54	21:00	21:06	21:12	21:18	21:24	21:30	21:36	21:42	21:48	21:54	22:00	22:06	22:12	22:18	22:24	22:30	22:36	22:42	22:48	22:54	23:00
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	48.33	22.5	38.6	21.81	45.04	20.25	42.8	22.31	54.12	21.53	62.57	21.48	69.19	18.55	50.43	10.46	8.41	11.09	19.42	8.06	22.83	6.51	4.07	5.09	4.07	5.4	4.03	5.69	3.81
FTO1\TE101	90	91	89	88	89	89	89	87	87	88	87	87	86	86	86	86	87	86	84	83	83	81	77	75	74	73	73	72	71
FTO1\TE105	158	244	164	215	167	253	181	206	206	251	216	226	248	234	251	319	309	243	247	212	248	187	170	144	165	138	148	131	144
FTO1\TE106	121	281	152	99	149	292	147	108	223	281	127	113	283	251	121	108	106	119	278	216	102	111	175	128	87	110	164	114	85
FTO1\TE107	149	97	125	268	139	99	164	239	120	106	244	266	117	117	304	417	392	275	114	113	304	192	95	119	200	131	89	120	169
FTO1\TE108	1578	1559	1582	1592	1564	1559	1586	1580	1555	1562	1589	1578	1553	1567	1591	1592	1588	1574	1548	1564	1586	1560	1553	1556	1555	1539	1527	1527	1520
FTO1\TE109	1605	1617	1590	1581	1606	1611	1583	1589	1617	1605	1576	1585	1610	1592	1569	1567	1571	1582	1607	1585	1557	1573	1571	1561	1551	1552	1547	1534	1525
TDU1\CYL_DRIVE_AMPS	15	16	17	15	14	15	15	14	14	16	14	13	13	16	15	13	14	14	11	10	10	8	7	7	7	7	8	9	7
TDU1\CYL_DRIVE_RPM	3.23	3.21	3.22	3.21	3.23	3.21	3.23	3.22	3.25	3.21	3.21	3.24	3.19	3.21	3.21	3.23	3.23	3.26	3.25	3.22	3.25	1.19	1.18	1.18	1.17	1.18	1.18	1.18	1.18
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	0.01	0.01	0.01	0.01	0.01	0.01	0.8	0.01	0.01	0.13	0.01	0.07	0.73	0.45	1.31	2.88	2.84	5.36	6.91	7.64	14.43	19.64	18.66	19.86	20.25	20.29	20.36	20.34	20.39
TDU1\PURGE_DAMPER	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
TDU1\PV_PIC1	-1.53	-1.33	-1.33	-1.65	-1.47	-1.71	-0.89	-1.51	-1.54	-1.65	-1.72	-1.49	-1.5	-1.57	-1.18	-1.57	-1.78	-1.92	-1.72	-1.87	-1.8	-0.32	-0.33	-0.28	-0.25	-0.25	-0.25	-0.24	-0.23
TDU1\TE_10_TEMP	1159	1101	1053	1013	981	957	942	933	928	927	929	932	933	935	939	945	954	966	984	1004	1019	1022	1009	1030	1089	1155	1206	1248	1282
TDU1\TE_11_TEMP	1122	1070	1024	984	952	926	909	898	891	889	890	892	894	895	898	903	911	920	931	945	955	956	944	956	993	1039	1083	1121	1153
TDU1\TE_12_TEMP	1078	1038	996	954	918	887	865	850	841	837	835	835	836	835	835	838	846	854	862	871	879	882	875	875	893	925	959	991	1020
TDU1\TE_13_TEMP	939	909	870	828	794	762	737	719	710	703	697	696	694	697	697	700	703	706	709	717	724	727	717	708	714	724	742	757	773
TDU1\TE_14_TEMP	1056	980	976	952	936	930	930	937	951	947	958	966	964	961	963	987	995	989	985	983	969	933	888	852	834	825	820	817	817
TDU1\TE_15_TEMP	212	163	145	158	146	202	155	165	157	167	159	165	208	205	189	186	165	177	149	156	142	122	93	91	106	89	83	85	83
TDU1\TE_16_TEMP	1055	1372	1208	1158	1391	1119	1260	1171	1471	1203	1182	1068	1109	1321	1432	1230	1342	1101	1164	1161	878	692	603	445	335	996	1040	1117	1181
TDU1\TE_17_TEMP	1493	1524	1529	1489	1499	1625	1453	1560	1593	1559	1623	1512	1502	1484	1475	1484	1489	1513	1566	1542	1255	1119	1060	1062	984	1047	1057	1068	1088
TDU1\TE_18_TEMP	810	797	767	727	709	696	653	706	731	719	739	712	707	726	746	754	752	759	766	804	799	782	756	937	989	997	1016	1052	1062
TDU1\TE_1_TEMP	879	900	899	899	911	907	910	899	923	920	916	906	899	903	915	912	910	902	917	952	962	940	905	858	809	802	823	869	926
TDU1\TE_2_TEMP	1155	1170	1165	1163	1170	1176	1176	1172	1189	1185	1182	1180	1177	1178	1191	1187	1188	1195	1229	1277	1276	1229	1163	1091	1015	1005	1051	1124	1202
TDU1\TE_3_TEMP	1299	1317	1333	1347	1359	1376	1368	1360	1375	1388	1385	1374	1365	1370	1382	1391	1405	1428	1468	1518	1488	1400	1301	1206	1120	1111	1189	1293	1388
TDU1\TE_4_TEMP	1428	1490	1492	1497	1532	1510	1520	1504	1552	1536	1520	1503	1500	1532	1558	1546	1575	1584	1633	1680	1582	1462	1346	1243	1153	1247	1359	1466	1546
TDU1\TE_5_TEMP	1536	1547	1543	1541	1550	1563	1565	1563	1578	1576	1575	1575	1575	1579	1582	1580	1589	1605	1650	1702	1656	1548	1428	1320	1217	1178	1183	1208	1239
TDU1\TE_6_TEMP	1537	1533	1534	1531	1538	1556	1552	1556	1574	1566	1570	1571	1570	1569	1569	1568	1574	1590	1632	1683	1629	1523	1409	1316	1225	1177	1164	1169	1182
TDU1\TE_7_TEMP	1537	1512	1488	1467	1466	1481	1477	1477	1501	1491	1494	1493	1493	1494	1496	1495	1503	1520	1561	1612	1574	1484	1382	1315	1254	1210	1182	1169	1167
TDU1\TE_8_TEMP	1492	1450	1419	1389	1383	1398	1388	1393	1420	1408	1413	1407	1409	1411	1414	1417	1430	1453	1495	1541	1489	1399	1306	1278	1241	1217	1206	1204	1209
TDU1\TE_9_TEMP	1199	1138	1087	1045	1011	985	968	957	952	951	952	955	956	957	959	965	974	987	1008	1035	1062	1074	1068	1063	1111	1179	1238	1284	1320
TDU1\ZONE1_TEMP_SET	1163	1163	1163	1163	1173	1173	1173	1173	1183	1183	1183	1183	1183	1183	1183	1183	1183	1183	1183	1038	988	988	838	1003	1003	1003	1003	1003	1003
TDU1\ZONE2_TEMP_SET	1531	1531	1531	1531	1546	1556	1556	1556	1566	1566	1566	1571	1571	1571	1571	1571	1571	1571	1571	1421	1421	1421	1231	1001	1001	1001	1001	1001	1001
TDU1\ZONE3_TEMP_SET	783	783	783	783	783	788	788	788	818	818	818	818	818	818	818	818	818	818	818	718	718	718	718	1003	1003	1003	1003	1003	1003
VRS1\CT_LIQUIDOUTLETTEMP	80	81	81	81	80	80	79	79	78	78	78	78	77	77	77	76	75	72	70	69	68	67	65	64	62	61	61	61	62
VRS1\HC_GASDIFFPRES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	1	1	1	1	1	1	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	-2	-2	-2	-2	-2	-2	-1	-2	-2	-2	-2	-2	-2	-2	-1	-2	-2	-2	-2	-2	-2	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	1030	1010	983	960	940	924	912	904	898	896	897	896	895	895	900	921	905	893	893	898	898	850	737	656	578	518	465	420	383
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	0	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	-1	-1	-1	0	0	0	0	-1	0	-1	0	0	-1	0	0	0	-1	-1	-1	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	995	980	956	936	918	901	891	883	877	877	880	879	869	872	879	893	866	845	847	855	853	802	659	565	485	430	384	346	314
VRS1\RD_OXYGEN	6	8	9	7	9	7	11	8	8	7	8	8	7	6	7	12	9	11	10	10	19	20	20	20	20	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	4	4	4	4	4	4	4	3	4	4	4	3	4	4	4	3	3	3	3	3	3	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	96	98	98	98	97	95	94	94	93	93	93	92	91	90	90	90	86	82	79	76	75	79	71	68	66	66	65	64	65
VRS1\WESP_CURRENT_AMP	28	22	25	29	25	0	0	25	32	38	23	34	26	28	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1
VRS1\WESP_OUTLETGASFLOW	238	296	305	300	293	254	428	323	288	248	281	332	259	234	367	384	321	342	365	318	371	140	111	113	115	114	115	117	117
VRS1\WESP_OUTLETGASPRES	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-5	-4	-3	-3	-3	-3	-3	0	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	87	88	88	88	88	88	87	87	87	87	87	87	86	86	86	85	84	83	82	81	79	78	77	76	75	74	73	72	72
VRS1\WESP_OXYGEN	5	7	9	7	9	7	11	7	7	6	7	7	5	5	6	12	9	11	10	9	19	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	24	22	24	25	24	0	0	23	25	26	23	26	23	24	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Tagname	Time 23:06	23:12	23:18	23:24	23:30	23:36	23:42	23:48	23:54
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	5.98	2.98	138.8	10.76	132.6	77.54	160.6	66.32	56.31
FTO1\TE101	71	69	69	69	69	69	69	69	68
FTO1\TE105	130	133	126	129	129	125	129	120	135
FTO1\TE106	121	143	97	87	133	130	86	92	152
FTO1\TE107	109	88	131	142	94	90	147	125	81
FTO1\TE108	1505	1498	1497	1492	1480	1485	1499	1487	1472
FTO1\TE109	1523	1515	1503	1497	1495	1492	1484	1495	1511
TDU1\CYL_DRIVE_AMPS	8	8	8	8	7	8	8	8	8
TDU1\CYL_DRIVE_RPM	1.18	1.18	1.18	1.19	1.2	1.19	1.2	1.2	1.18
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	20.37	20.42	20.37	20.4	20.43	20.37	20.42	20.36	20.4
TDU1\PURGE_DAMPER	28	28	28	28	28	28	28	28	28
TDU1\PV_PIC1	-0.24	-0.25	-0.26	-0.25	-0.25	-0.24	-0.24	-0.23	-0.23
TDU1\TE_10_TEMP	1310	1335	1311	1248	1172	1098	1052	1055	1088
TDU1\TE_11_TEMP	1180	1206	1192	1147	1087	1026	984	975	992
TDU1\TE_12_TEMP	1044	1066	1064	1030	982	932	892	878	890
TDU1\TE_13_TEMP	790	807	806	787	756	719	684	665	664
TDU1\TE_14_TEMP	819	823	814	788	756	727	703	696	700
TDU1\TE_15_TEMP	80	76	74	71	70	69	68	67	67
TDU1\TE_16_TEMP	797	599	498	385	330	1018	1047	1137	1148
TDU1\TE_17_TEMP	1056	1041	911	852	804	860	944	976	993
TDU1\TE_18_TEMP	1080	1111	927	848	793	736	846	889	928
TDU1\TE_1_TEMP	960	955	927	883	832	828	855	897	945
TDU1\TE_2_TEMP	1235	1205	1145	1074	1001	1009	1064	1140	1214
TDU1\TE_3_TEMP	1405	1340	1252	1165	1084	1104	1196	1298	1389
TDU1\TE_4_TEMP	1489	1383	1278	1183	1100	1228	1351	1455	1533
TDU1\TE_5_TEMP	1245	1213	1161	1102	1040	1036	1058	1097	1142
TDU1\TE_6_TEMP	1184	1165	1128	1082	1031	1012	1015	1036	1064
TDU1\TE_7_TEMP	1169	1169	1147	1111	1067	1030	1009	1007	1020
TDU1\TE_8_TEMP	1215	1218	1175	1129	1074	1018	1020	1036	1060
TDU1\TE_9_TEMP	1350	1374	1371	1314	1235	1154	1088	1083	1126
TDU1\ZONE1_TEMP_SET	1003	1003	1003	1003	1003	1003	1003	1003	1003
TDU1\ZONE2_TEMP_SET	1001	1001	1001	1001	1001	1001	1001	1001	1001
TDU1\ZONE3_TEMP_SET	1003	1003	1003	1003	1003	1003	1003	1003	1003
VRS1\CT_LIQUIDOUTLETTEMP	61	61	62	62	62	62	62	63	62
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	350	365	364	356	344	334	331	320	303
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	285	285	277	267	257	248	238	228	220
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	64	64	64	64	65	65	65	65	65
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	112	111	113	111	112	114	111	113	113
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	71	71	71	70	70	70	70	69	69
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0

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NO RAMP UP THIS DATE

Tagname	Time 0:00	0:06	0:12	0:18	0:24	0:30	0:36	0:42	0:48	0:54	1:00	1:06	1:12	1:18	1:24	1:30	1:36	1:42	1:48	1:54	2:00	2:06	2:12	2:18	2:24	2:30	2:36
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	94.77	33.98	40.41	42.55	110.7	34.81	46.82	51.14	140.5	51.66	89.94	62.79	151.8	71.35	139.8	73.27	45.03	80.28	36.94	87.44	46.19	95.86	38.06	107.5	58.19	59.55	44.28
FTO1\TE101	68	68	68	67	67	67	67	67	67	67	67	66	66	66	66	66	66	66	66	67	67	67	67	67	67	66	67
FTO1\TE105	119	132	115	133	114	122	114	120	114	117	123	129	119	116	149	135	127	122	188	144	135	142	224	159	135	182	224
FTO1\TE106	117	78	98	150	105	79	107	142	98	84	130	141	92	94	176	146	82	113	236	153	90	153	285	162	103	198	285
FTO1\TE107	94	157	110	78	100	141	99	80	109	126	89	82	123	116	81	87	149	108	75	96	154	104	80	113	131	83	80
FTO1\TE108	1486	1499	1480	1469	1486	1490	1470	1466	1483	1478	1457	1462	1479	1465	1444	1458	1473	1451	1436	1453	1461	1437	1429	1448	1447	1427	1427
FTO1\TE109	1499	1488	1504	1513	1496	1489	1504	1504	1486	1486	1501	1493	1474	1482	1498	1482	1464	1480	1491	1472	1461	1479	1481	1463	1468	1492	1488
TDU1\CYL_DRIVE_AMPS	8	8	7	8	7	7	7	8	6	7	7	8	7	7	8	8	7	7	7	7	7	7	7	8	7	7	8
TDU1\CYL_DRIVE_RPM	1.18	1.19	1.19	1.19	1.19	1.18	1.18	1.18	1.2	1.2	1.19	1.2	1.2	1.2	1.19	1.19	1.19	1.2	1.2	1.2	1.19	1.18	1.19	1.19	1.19	1.2	1.2
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	20.41	20.44	20.46	20.45	20.45	20.45	20.29	20.39	20.38	20.43	20.32	20.4	20.42	20.39	20.41	20.44	20.45	20.44	20.44	20.4	20.46	20.44	20.46	20.41	20.41	20.42	20.4
TDU1\PURGE_DAMPER	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
TDU1\PV_PIC1	-0.23	-0.23	-0.23	-0.23	-0.24	-0.25	-0.25	-0.26	-0.25	-0.24	-0.24	-0.27	-0.26	-0.21	-0.24	-0.27	-0.2	-0.2	-0.22	-0.21	-0.23	-0.22	-0.23	-0.23	-0.23	-0.24	-0.26
TDU1\TE_10_TEMP	1127	1167	1205	1237	1264	1287	1266	1212	1148	1084	1024	992	963	969	1012	1064	1114	1160	1201	1238	1268	1273	1231	1169	1106	1045	1012
TDU1\TE_11_TEMP	1020	1052	1085	1115	1138	1160	1145	1107	1057	1002	950	911	882	878	904	943	986	1026	1064	1100	1129	1136	1109	1061	1010	957	926
TDU1\TE_12_TEMP	914	942	970	998	1023	1042	1031	996	950	900	852	817	787	774	789	819	857	893	930	963	991	1002	978	933	884	835	801
TDU1\TE_13_TEMP	671	682	695	711	728	740	729	707	679	650	614	589	562	547	547	558	574	593	616	640	667	678	669	648	620	590	568
TDU1\TE_14_TEMP	706	710	716	722	729	745	749	734	712	687	662	643	621	611	614	623	637	650	662	674	684	697	697	687	672	651	630
TDU1\TE_15_TEMP	66	65	64	64	66	63	62	63	66	62	61	60	60	59	59	58	58	58	58	58	57	57	57	57	57	57	69
TDU1\TE_16_TEMP	747	552	413	331	1117	979	1085	1024	670	564	434	365	1140	1025	1081	1162	868	596	481	382	420	1196	1104	1185	947	735	511
TDU1\TE_17_TEMP	973	969	948	930	1327	1420	1138	1059	962	893	854	764	866	929	955	980	990	984	973	935	1236	1349	1271	1122	1019	929	968
TDU1\TE_18_TEMP	965	987	1013	1028	1040	1056	894	827	772	726	712	621	727	845	885	923	958	980	1017	1040	1044	924	834	776	731	688	840
TDU1\TE_1_TEMP	954	938	896	846	824	820	857	907	924	913	883	839	838	848	890	935	964	961	929	880	824	824	854	912	962	973	947
TDU1\TE_2_TEMP	1227	1186	1117	1038	1006	1029	1097	1174	1189	1152	1093	1026	1007	1038	1108	1179	1225	1207	1149	1076	998	1008	1072	1161	1233	1231	1178
TDU1\TE_3_TEMP	1380	1306	1216	1126	1091	1143	1246	1344	1342	1274	1190	1108	1067	1117	1223	1325	1381	1338	1255	1167	1082	1110	1214	1332	1408	1373	1288
TDU1\TE_4_TEMP	1448	1341	1235	1140	1207	1302	1429	1503	1428	1324	1222	1129	1176	1253	1378	1479	1484	1389	1281	1181	1106	1272	1398	1513	1536	1437	1324
TDU1\TE_5_TEMP	1153	1127	1080	1025	1049	1167	1269	1310	1287	1226	1153	1078	1030	1033	1070	1114	1146	1138	1099	1047	1010	1103	1249	1333	1347	1303	1231
TDU1\TE_6_TEMP	1074	1064	1040	1006	1049	1174	1248	1265	1236	1183	1119	1055	1005	996	1012	1039	1061	1064	1047	1017	1009	1108	1239	1289	1285	1242	1182
TDU1\TE_7_TEMP	1036	1047	1054	1056	1124	1242	1285	1268	1219	1158	1096	1040	997	978	983	998	1020	1037	1049	1055	1099	1182	1273	1286	1252	1194	1141
TDU1\TE_8_TEMP	1080	1097	1111	1122	1217	1331	1302	1247	1180	1114	1054	993	977	993	1016	1044	1072	1095	1112	1125	1184	1249	1295	1256	1194	1122	1106
TDU1\TE_9_TEMP	1178	1226	1267	1302	1329	1354	1351	1298	1227	1155	1087	1046	1017	1007	1057	1121	1180	1232	1275	1311	1341	1358	1321	1253	1183	1115	1062
TDU1\ZONE1_TEMP_SET	1003	1003	1003	1003	1003	953	953	953	953	953	953	953	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003
TDU1\ZONE2_TEMP_SET	1001	1001	1001	1001	1001	951	951	951	951	951	951	951	951	951	951	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001
TDU1\ZONE3_TEMP_SET	1003	1003	1003	1003	1003	953	953	953	953	953	953	861	891	891	891	936	936	936	936	936	936	936	936	936	936	936	986
VRS1\CT_LIQUIDOUTLETTEMP	62	62	62	62	62	62	62	62	62	62	62	61	61	61	60	60	60	60	60	59	60	59	60	60	59	60	60
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	289	277	266	255	244	236	228	226	220	212	207	209	208	205	201	198	195	191	188	185	160	147	138	131	125	119	114
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	211	202	194	186	179	174	166	159	154	150	143	125	115	109	103	100	96	94	92	90	97	97	94	92	91	88	85
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
VRS1\RD_SCRUBLIQUIDTEMP	65	65	65	65	65	65	65	65	64	64	64	64	64	64	64	64	64	64	64	62	64	64	65	64	63	65	65
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	113	113	113	112	111	114	111	110	112	110	112	110	113	113	111	112	111	110	109	114	119	121	118	122	121	120	119
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	69	69	69	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	67
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname	Time 2:42	2:48	2:54	3:00	3:06	3:12	3:18	3:24	3:30	3:36	3:42	3:48	3:54	4:00	4:06	4:12	4:18	4:24	4:30	4:36	4:42	4:48	4:54	5:00	5:06	5:12	5:18
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	138.1	63.31	14.74	58.49	226.4	25.31	9.7	61.24	16.85	8.38	12.19	74.06	11.33	7.69	13.5	112.6	8.89	5.73	36.38	111.5	14.72	9.65	51.99	13.7	15.4	13.77	70.38
FTO1\TE101	66	66	65	66	66	66	67	67	66	66	67	66	66	65	66	66	65	65	65	65	65	65	65	65	65	65	65
FTO1\TE105	147	129	212	199	125	135	247	179	115	153	246	160	112	175	242	142	115	203	212	116	120	238	191	99	141	247	170
FTO1\TE106	141	117	259	248	107	136	338	219	97	162	338	188	104	198	330	163	117	257	283	123	130	324	246	93	155	345	212
FTO1\TE107	113	99	75	79	113	86	71	79	103	79	71	80	88	74	70	79	82	69	68	75	78	66	67	83	72	65	67
FTO1\TE108	1448	1440	1422	1431	1449	1434	1418	1436	1449	1433	1423	1444	1449	1433	1430	1451	1447	1431	1438	1459	1448	1432	1447	1463	1446	1435	1454
FTO1\TE109	1474	1492	1512	1501	1489	1511	1527	1514	1506	1531	1535	1522	1523	1543	1538	1521	1526	1530	1517	1499	1504	1524	1514	1497	1514	1505	1514
TDU1\CYL_DRIVE_AMPS	7	8	8	6	8	7	7	7	7	7	7	7	7	7	8	7	8	7	7	8	7	7	8	8	7	7	7
TDU1\CYL_DRIVE_RPM	1.99	1.2	1.22	1.2	1.19	1.18	1.19	1.19	1.19	1.19	1.19	1.19	1.19	2.23	2.24	1.19	1.19	1.19	1.18	1.18	1.19	1.2	1.19	1.2	1.2	1.2	1.18
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	20.39	20.44	20.37	20.31	20.35	20.47	20.42	20.45	20.48	20.43	20.44	20.45	20.34	20.29	20.27	20.24	20.22	20.27	20.24	20.28	20.28	20.29	20.25	20.29	20.32	20.33	20.3
TDU1\PURGE_DAMPER	28	28	28	28	28	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.22	-0.22	-0.25	-0.28	-0.27	-0.29	-0.31	-0.29	-0.28	-0.26	-0.27	-0.26	-0.26	-0.26	-0.27	-0.28	-0.3	-0.29	-0.3	-0.32	-0.3	-0.3	-0.3	-0.3	-0.3	-0.31	-0.31
TDU1\TE_10_TEMP	1026	1012	967	929	951	1012	1078	1142	1193	1228	1252	1270	1281	1238	1166	1092	1041	1026	1059	1123	1175	1210	1235	1255	1271	1283	1293
TDU1\TE_11_TEMP	926	900	865	832	849	885	936	988	1035	1072	1102	1123	1138	1103	1049	987	933	918	935	980	1024	1058	1085	1106	1123	1136	1146
TDU1\TE_12_TEMP	795	781	751	716	717	745	781	818	860	904	943	973	993	987	938	875	832	806	799	815	851	893	931	960	981	995	1007
TDU1\TE_13_TEMP	556	541	515	497	500	510	528	547	571	598	627	652	666	681	649	616	589	565	552	552	565	582	604	626	645	660	670
TDU1\TE_14_TEMP	622	614	593	556	545	559	572	584	595	606	614	622	625	622	609	585	558	549	556	565	573	580	586	592	599	607	615
TDU1\TE_15_TEMP	70	65	122	80	73	68	66	64	63	62	61	60	60	59	69	67	63	62	60	60	59	58	58	57	57	57	57
TDU1\TE_16_TEMP	421	401	256	1055	1420	1397	876	664	527	380	321	1011	1041	630	515	463	1361	1518	1094	828	609	427	322	271	1159	1077	1153
TDU1\TE_17_TEMP	895	627	644	1281	1653	1265	1160	1098	1047	986	936	1014	1028	644	673	1023	1342	1337	1204	1125	1075	1031	967	913	1005	1019	1041
TDU1\TE_18_TEMP	862	605	597	738	886	880	929	972	986	1008	1023	1025	1034	738	698	742	625	861	935	977	970	993	1004	1009	1023	1027	1033
TDU1\TE_1_TEMP	907	839	770	732	798	926	992	1005	974	922	862	848	866	862	817	766	773	877	1006	1052	1037	989	926	861	854	879	932
TDU1\TE_2_TEMP	1106	1008	918	867	957	1140	1234	1227	1170	1093	1009	1001	1046	1041	978	909	940	1087	1256	1300	1258	1183	1095	1004	1002	1064	1148
TDU1\TE_3_TEMP	1197	1082	986	939	1074	1313	1399	1355	1272	1184	1097	1095	1172	1167	1095	1014	1052	1235	1428	1441	1363	1268	1171	1076	1087	1187	1300
TDU1\TE_4_TEMP	1220	1083	1002	1059	1293	1537	1495	1400	1295	1198	1111	1224	1339	1241	1099	1058	1229	1479	1593	1511	1397	1287	1188	1099	1245	1365	1474
TDU1\TE_5_TEMP	1154	1060	969	942	1106	1305	1357	1319	1248	1168	1087	1077	1108	1093	1023	965	1082	1284	1389	1381	1317	1237	1153	1071	1069	1104	1153
TDU1\TE_6_TEMP	1120	1019	940	935	1140	1290	1324	1291	1233	1168	1101	1081	1089	1039	978	941	1080	1251	1326	1321	1275	1214	1148	1081	1065	1078	1104
TDU1\TE_7_TEMP	1101	1025	953	948	1144	1271	1302	1282	1246	1209	1173	1147	1135	1077	1016	977	1076	1211	1271	1276	1253	1222	1189	1157	1136	1125	1124
TDU1\TE_8_TEMP	1083	997	924	962	1156	1255	1282	1275	1255	1233	1211	1197	1194	1104	1036	1015	1085	1218	1259	1268	1255	1237	1218	1201	1191	1187	1188
TDU1\TE_9_TEMP	1069	1089	1051	992	985	1052	1135	1212	1274	1312	1336	1352	1362	1340	1264	1173	1115	1079	1101	1175	1244	1289	1318	1338	1353	1364	1372
TDU1\ZONE1_TEMP_SET	1055	958	868	921	921	921	1001	1001	1001	1001	1001	1001	1001	991	928	901	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001
TDU1\ZONE2_TEMP_SET	1068	968	890	949	949	949	1004	1004	1004	1004	1004	1004	1004	989	928	884	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004
TDU1\ZONE3_TEMP_SET	876	850	814	888	888	888	888	988	1003	1003	1003	1003	1003	1054	999	947	884	971	971	971	1001	1001	1001	1001	1001	1001	1001
VRS1\CT_LIQUIDOUTLETTEMP	59	58	58	59	59	59	59	59	59	59	58	57	60	59	58	58	60	61	60	59	58	59	60	60	59	58	60
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	109	111	117	125	131	136	136	136	137	140	138	139	256	325	344	358	392	430	468	490	509	522	533	539	545	560	573
VRS1\HE_COOLSIDEDIFFPRES	15	1	0	0	0	0	0	0	0	0	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	83	85	83	79	76	73	70	68	67	67	65	64	123	153	166	178	232	278	312	339	362	372	374	389	401	408	410
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	20	20
VRS1\RD_SCRUBBERDIFFPRES	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5
VRS1\RD_SCRUBLIQUIDTEMP	63	62	62	62	62	62	62	62	62	62	61	60	64	63	62	62	65	66	64	63	62	64	65	64	63	63	64
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	116	112	117	110	111	109	111	110	108	110	119	113	112	110	119	116	115	118	116	113	110	111	108	109	102	119	110
VRS1\WESP_OUTLETGASPRES	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	67	67	67	67	67	67	66	66	66	66	66
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname	Time 5:24	5:30	5:36	5:42	5:48	5:54	6:00	6:06	6:12	6:18	6:24	6:30	6:36	6:42	6:48	6:54	7:00	7:06	7:12	7:18	7:24	7:30	7:36	7:42	7:48	7:54	8:00
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	26.38	40.82	14.46	90.11	62.2	66.29	36.97	136.1	72.39	253.9	49.77	59.43	93.75	9.87	63.86	69.18	79.51	14.96	93.04	78.55	71.59	26.38	123.6	87.87	107.4	41.22	287.2
FTO1\TE101	65	65	66	66	66	66	67	67	67	67	67	67	67	67	67	67	67	68	68	68	68	68	68	68	68	69	69
FTO1\TE105	101	163	244	143	107	185	208	120	115	225	190	97	130	245	169	98	154	238	152	103	178	226	128	112	216	202	105
FTO1\TE106	102	189	336	168	113	230	280	134	128	307	249	100	148	346	213	102	179	332	186	112	218	309	149	125	285	269	115
FTO1\TE107	81	69	66	68	77	67	66	71	74	67	67	79	72	68	68	78	70	68	68	75	69	68	70	73	69	68	74
FTO1\TE108	1461	1446	1442	1462	1461	1448	1453	1470	1463	1450	1462	1477	1466	1456	1471	1480	1469	1466	1480	1483	1474	1476	1490	1487	1478	1486	1499
FTO1\TE109	1490	1485	1489	1509	1511	1480	1492	1519	1504	1435	1494	1532	1477	1417	1480	1510	1421	1408	1476	1477	1369	1406	1482	1437	1309	1387	1470
TDU1\CYL_DRIVE_AMPS	8	8	8	8	7	7	7	8	7	8	8	7	7	8	7	7	7	7	7	8	7	6	7	7	8	7	8
TDU1\CYL_DRIVE_RPM	1.19	1.2	1.19	1.2	1.2	1.2	1.2	1.19	1.2	1.2	1.2	1.2	1.19	1.19	1.2	1.2	1.2	1.2	1.19	1.21	1.2	1.2	1.2	1.18	1.19	1.23	1.2
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	20.31	20.29	20.35	20.31	20.4	20.37	20.39	20.39	20.36	20.33	20.35	20.37	20.36	20.3	20.35	20.4	20.37	20.34	20.39	20.38	20.38	20.39	20.39	20.41	20.39	20.42	20.4
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.31	-0.3	-0.3	-0.31	-0.31	-0.3	-0.22	-0.29	-0.31	-0.31	-0.3	-0.29	-0.3	-0.33	-0.32	-0.3	-0.3	-0.31	-0.3	-0.32	-0.18	-0.18	-0.19	-0.22	-0.2	-0.21	-0.2
TDU1\TE_10_TEMP	1301	1311	1322	1332	1340	1284	1204	1126	1055	985	969	976	1025	1107	1184	1225	1244	1257	1250	1204	1137	1068	1001	938	878	824	773
TDU1\TE_11_TEMP	1155	1164	1174	1184	1192	1144	1086	1022	962	903	878	872	899	957	1022	1065	1088	1105	1099	1072	1025	970	906	850	788	725	669
TDU1\TE_12_TEMP	1015	1022	1029	1036	1043	1027	981	922	865	808	769	745	739	757	794	845	891	927	943	932	902	863	819	771	722	673	626
TDU1\TE_13_TEMP	680	692	702	711	716	712	683	646	600	559	525	503	495	498	515	536	563	583	594	589	571	553	530	503	473	445	415
TDU1\TE_14_TEMP	623	630	635	640	645	637	610	581	566	558	551	542	538	543	556	572	584	597	607	598	551	501	461	429	399	374	353
TDU1\TE_15_TEMP	57	57	57	57	57	56	56	56	56	56	56	56	57	57	57	57	57	57	57	57	57	57	57	58	58	58	58
TDU1\TE_16_TEMP	972	718	508	376	310	492	557	1398	1400	1237	927	650	457	351	341	1048	1033	1102	736	418	335	281	244	223	191	169	144
TDU1\TE_17_TEMP	1053	1028	1009	962	856	545	449	1523	1088	1026	929	960	957	952	908	968	992	1015	860	878	804	733	664	617	562	515	474
TDU1\TE_18_TEMP	1033	1047	1050	1058	1046	801	758	703	633	710	651	871	970	1022	1005	989	988	1006	834	720	540	442	324	280	249	221	206
TDU1\TE_1_TEMP	984	994	973	929	868	798	729	750	833	946	1007	1003	966	908	845	840	866	911	945	940	911	874	828	785	738	693	650
TDU1\TE_2_TEMP	1223	1228	1182	1108	1021	931	860	889	1017	1178	1256	1237	1171	1087	996	1002	1059	1136	1181	1140	1063	989	919	861	803	749	701
TDU1\TE_3_TEMP	1387	1369	1293	1204	1109	1005	921	939	1118	1326	1404	1355	1266	1170	1079	1096	1186	1290	1339	1280	1162	1035	907	798	700	620	551
TDU1\TE_4_TEMP	1523	1435	1327	1223	1126	1006	935	1119	1352	1504	1495	1396	1286	1183	1098	1237	1352	1457	1452	1365	1248	1122	1002	890	793	709	640
TDU1\TE_5_TEMP	1196	1194	1156	1100	1037	963	882	910	1074	1198	1232	1207	1151	1083	1016	1026	1068	1122	1149	1130	1080	1016	941	866	791	723	662
TDU1\TE_6_TEMP	1130	1131	1110	1075	1030	955	882	937	1076	1160	1173	1147	1104	1056	1007	1007	1030	1063	1070	1057	1022	974	916	855	794	735	681
TDU1\TE_7_TEMP	1129	1135	1134	1129	1117	1038	947	987	1082	1122	1110	1086	1067	1058	1053	1053	1058	1069	1061	1043	1008	965	914	862	807	752	701
TDU1\TE_8_TEMP	1192	1195	1197	1197	1186	1091	1004	1055	1072	1075	1047	1052	1065	1085	1098	1113	1125	1137	1097	1052	1000	945	884	829	769	711	661
TDU1\TE_9_TEMP	1380	1389	1398	1406	1412	1381	1296	1205	1124	1047	1016	1020	1049	1134	1221	1282	1312	1330	1337	1295	1216	1135	1058	986	920	861	806
TDU1\ZONE1_TEMP_SET	1001	1001	1001	1001	972	895	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1131	1090	1012	939	869	811	752	699	651
TDU1\ZONE2_TEMP_SET	1004	1004	1004	1004	981	905	832	807	807	1002	1002	1002	1002	1002	1002	1002	1002	1002	1020	1007	971	923	865	805	744	685	630
TDU1\ZONE3_TEMP_SET	1001	1001	1001	1001	1143	1100	1100	971	911	859	828	813	963	998	1003	1003	1003	1003	1049	1022	974	920	856	800	738	675	619
VRS1\CT_LIQUIDOUTLETTEMP	59	58	60	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	581	587	586	589	563	530	526	526	526	526	526	526	526	526	526	526	526	526	526	526	526	526	526	526	526	526	526
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	421	432	421	432	389	329	321	321	321	321	321	321	321	321	321	321	321	321	321	321	321	321	321	321	321	321	321
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
VRS1\RD_SCRUBLIQUIDTEMP	63	62	64	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	108	108	111	107	103	103	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
VRS1\WESP_OUTLETGASPRES	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname	Time 8:06	8:12	8:18	8:24	8:30	8:36	8:42	8:48	8:54	9:00	9:06	9:12	9:18	9:24	9:30	9:36	9:42	9:48	9:54	10:00	10:06	10:12	10:18	10:24	10:30	10:36	10:42
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	95.63	9.99	49.85	72.79	79.19	10.61	37.33	76.01	66.3	18.21	16.7	84.4	93.51	15.88	7.48	92.04	9.63	15.14	60.33	99.43	15.21	23.3	72.07	121.5	27.9	87.9	63.94
FTO1\TE101	68	69	70	70	70	70	71	71	71	71	71	71	72	72	72	72	73	73	73	73	73	73	73	73	73	73	73
FTO1\TE105	126	251	180	98	150	248	160	103	171	220	133	109	202	193	111	113	233	174	95	124	221	151	99	142	211	134	104
FTO1\TE106	142	354	231	102	170	342	195	110	201	293	155	121	252	247	122	135	312	215	100	154	292	178	106	179	271	151	115
FTO1\TE107	72	69	69	77	72	70	70	75	72	71	71	73	72	72	72	74	73	73	74	77	73	73	76	76	73	73	81
FTO1\TE108	1491	1484	1495	1504	1495	1491	1502	1505	1497	1498	1508	1505	1498	1502	1510	1504	1497	1504	1509	1501	1497	1503	1504	1496	1493	1499	1496
FTO1\TE109	1368	1251	1358	1415	1262	1226	1334	1337	1180	1196	1317	1272	1132	1211	1333	1260	1143	1280	1389	1306	1250	1404	1478	1441	1442	1504	1526
TDU1\CYL_DRIVE_AMPS	6	6	7	7	6	7	7	6	6	7	7	7	6	6	6	7	7	8	6	7	6	6	7	6	7	7	7
TDU1\CYL_DRIVE_RPM	1.2	1.2	1.18	1.18	1.19	1.19	1.2	1.2	1.2	1.18	1.18	1.19	1.2	1.2	1.2	1.18	1.18	1.2	1.19	1.2	1.2	1.19	1.18	1.18	1.18	1.19	1.18
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	20.39	20.4	20.4	20.38	20.38	20.39	20.38	20.38	20.36	20.36	20.34	20.37	20.38	20.34	20.36	20.37	20.36	20.38	20.36	20.34	20.35	20.35	20.37	20.33	20.34	20.34	20.37
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.21	-0.22	-0.21	-0.19	-0.19	-0.19	-0.27	-0.25	-0.22	-0.22	-0.2	-0.22	-0.21	-0.21	-0.22	-0.21	-0.22	-0.22	-0.2	-0.21	-0.22	-0.21	-0.22	-0.21	-0.21	-0.21	-0.22
TDU1\TE_10_TEMP	726	683	642	605	572	541	513	486	463	441	420	402	385	369	354	340	327	315	304	293	283	273	265	256	248	240	233
TDU1\TE_11_TEMP	617	568	525	484	450	420	392	368	348	329	313	296	282	268	257	245	236	226	217	209	204	197	190	184	178	173	168
TDU1\TE_12_TEMP	577	529	486	446	412	382	356	333	312	295	280	267	254	242	231	220	211	202	194	187	182	177	171	166	161	157	152
TDU1\TE_13_TEMP	394	373	351	329	307	290	273	257	245	232	219	209	201	192	185	177	171	164	159	154	150	146	142	138	135	133	130
TDU1\TE_14_TEMP	335	317	303	291	278	266	254	243	234	226	218	210	202	194	189	181	176	169	165	162	159	155	151	146	143	141	138
TDU1\TE_15_TEMP	59	59	59	59	60	60	60	60	61	61	61	61	62	62	62	62	63	63	63	63	63	64	64	64	64	64	64
TDU1\TE_16_TEMP	140	125	118	111	105	101	98	94	93	90	86	85	87	85	85	82	82	81	79	80	81	81	78	77	76	79	79
TDU1\TE_17_TEMP	447	410	383	355	336	317	303	287	279	261	249	239	228	221	216	205	200	192	185	182	181	176	167	163	159	158	155
TDU1\TE_18_TEMP	191	169	155	137	133	127	118	111	110	109	108	100	96	93	93	90	92	92	87	86	90	86	85	82	81	80	82
TDU1\TE_1_TEMP	611	575	541	508	477	450	424	401	380	359	340	323	309	294	282	270	259	249	240	231	223	215	208	202	195	190	185
TDU1\TE_2_TEMP	658	617	581	547	515	486	459	435	414	393	372	354	339	324	312	299	287	276	266	257	248	240	233	226	219	213	208
TDU1\TE_3_TEMP	493	442	400	364	333	306	283	262	246	231	220	207	197	188	180	173	166	160	154	150	146	144	140	136	133	131	128
TDU1\TE_4_TEMP	578	527	482	440	407	378	353	330	309	293	279	264	252	240	230	221	211	203	195	189	183	179	173	168	163	159	154
TDU1\TE_5_TEMP	608	559	516	476	442	412	385	361	341	322	306	291	277	265	254	242	233	224	215	207	201	196	190	184	179	174	170
TDU1\TE_6_TEMP	632	586	545	508	474	444	417	392	371	351	335	318	304	290	278	265	255	245	236	227	221	214	208	202	195	190	185
TDU1\TE_7_TEMP	652	607	566	529	495	464	436	411	388	369	351	334	319	305	292	279	268	257	248	239	231	224	216	210	203	197	192
TDU1\TE_8_TEMP	611	568	529	491	460	431	405	384	363	345	330	313	299	286	274	263	252	243	234	226	220	213	207	200	194	189	184
TDU1\TE_9_TEMP	756	709	666	626	590	557	527	500	475	451	430	411	393	376	361	346	332	320	308	297	286	276	267	259	251	243	235
TDU1\ZONE1_TEMP_SET	608	567	531	497	465	436	409	385	364	343	322	304	289	274	262	249	237	226	216	207	198	190	183	176	169	163	158
TDU1\ZONE2_TEMP_SET	582	536	495	457	424	394	367	342	321	301	285	268	254	240	228	215	205	195	186	177	170	164	158	152	145	140	135
TDU1\ZONE3_TEMP_SET	567	518	475	434	400	370	342	318	297	279	263	246	232	218	207	195	186	176	167	159	154	147	140	134	128	123	118
VRS1\CT_UOUIDOUTLETTEMP	59	59	59	59	59	59	59	59	59	59	59	64	64	65	65	65	65	65	65	65	65	65	65	65	65	65	65
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	526	526	526	526	526	526	526	526	526	526	526	246	246	237	237	237	237	237	237	237	237	237	237	237	237	237	237
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	321	321	321	321	321	321	321	321	321	321	321	137	137	135	135	135	135	135	135	135	135	135	135	135	135	135	135
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
VRS1\RD_SCRUBLIQUIDTEMP	63	63	63	63	63	63	63	63	63	63	63	77	77	81	81	81	81	81	81	81	81	81	81	81	81	81	81
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	99	99	99	99	99	99	99	99	99	99	99	102	102	108	108	108	108	108	108	108	108	108	108	108	108	108	108
VRS1\WESP_OUTLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	66	66	66	66	66	66	66	66	66	66	66	71	71	72	72	72	72	72	72	72	72	72	72	72	72	72	72
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Tagname / Time	10:48	10:54	11:00	11:06	11:12	11:18	11:24	11:30	11:36	11:42	11:48	11:54	12:00	12:06	12:12	12:18	12:24	12:30	12:36	12:42	12:48	12:54	13:00	13:06	13:12	13:18	13:24
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	116.1	39.95	136.4	68.26	250.8	53.67	53.51	95.55	11.4	69.98	69.96	77.96	14.82	87.06	80.21	70.67	22.94	112.4	84.11	132	44.65	275.3	95.28	9.05	54.56	69.21	73.54
FTO1\TE101	74	74	74	74	74	74	75	75	76	76	77	77	79	80	80	79	80	79	79	79	79	78	78	79	80	79	78
FTO1\TE105	166	189	119	114	228	192	101	136	255	176	106	165	255	159	114	194	240	139	122	223	218	110	136	260	193	106	156
FTO1\TE106	218	238	131	130	297	242	102	155	347	216	110	186	348	190	124	235	320	159	134	288	285	118	153	360	246	111	178
FTO1\TE107	75	73	74	80	74	74	82	78	75	75	82	78	78	78	82	80	79	78	82	79	78	80	80	78	78	83	80
FTO1\TE108	1487	1487	1493	1486	1475	1480	1487	1477	1470	1478	1482	1474	1471	1480	1481	1474	1475	1484	1482	1476	1480	1489	1484	1479	1486	1493	1486
FTO1\TE109	1473	1487	1520	1505	1441	1488	1513	1477	1425	1489	1502	1421	1410	1478	1468	1363	1398	1457	1414	1282	1358	1432	1319	1211	1307	1360	1204
TDU1\CYL_DRIVE_AMPS	7	6	6	6	6	7	7	7	6	6	6	5	7	6	7	6	6	6	6	6	6	6	8	7	7	7	6
TDU1\CYL_DRIVE_RPM	1.2	1.19	1.19	1.19	1.18	1.17	1.18	1.19	1.2	1.2	1.19	1.19	1.19	1.17	1.18	1.19	1.2	1.2	1.2	1.19	1.17	1.17	1.19	1.19	1.19	1.2	1.2
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	20.37	20.35	20.35	20.33	20.35	20.33	20.31	20.33	20.31	20.32	20.34	20.3	20.31	20.35	20.3	20.3	20.3	20.31	20.29	20.29	20.29	20.29	20.3	20.28	20.29	20.26	20.3
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.21	-0.21	-0.2	-0.21	-0.21	-0.21	-0.22	-0.22	-0.22	-0.23	-0.19	-0.22	-0.24	-0.22	-0.22	-0.18	-0.19	-0.21	-0.19	-0.2	-0.19	-0.18	-0.2	-0.21	-0.2	-0.2	-0.21
TDU1\TE_10_TEMP	227	220	215	209	204	198	193	189	185	181	177	173	170	167	164	161	158	156	153	151	148	146	144	142	140	138	136
TDU1\TE_11_TEMP	165	160	156	152	149	146	143	140	138	136	135	133	132	131	130	128	127	126	124	123	121	120	119	118	117	116	115
TDU1\TE_12_TEMP	148	145	142	138	135	133	130	128	126	124	122	121	120	119	119	118	116	115	114	113	111	110	109	108	107	107	106
TDU1\TE_13_TEMP	128	125	123	121	119	118	116	114	113	112	110	109	108	107	105	104	103	101	100	99	98	98	97	96	95	95	94
TDU1\TE_14_TEMP	134	132	130	128	126	124	121	119	117	115	114	113	111	110	109	107	106	105	104	103	102	101	100	99	99	98	97
TDU1\TE_15_TEMP	64	64	64	65	65	65	66	66	66	66	67	67	68	69	69	70	70	71	71	71	71	71	71	72	72	72	72
TDU1\TE_16_TEMP	78	77	78	78	80	78	78	77	78	80	81	80	82	82	82	80	80	81	79	82	80	79	80	81	82	82	82
TDU1\TE_17_TEMP	152	149	146	143	142	138	136	134	133	131	131	129	127	127	125	122	121	120	118	117	116	114	113	113	112	111	111
TDU1\TE_18_TEMP	83	79	79	78	78	77	82	82	84	80	84	86	94	93	92	85	86	90	86	87	84	85	86	87	86	88	91
TDU1\TE_1_TEMP	181	177	173	169	165	163	160	157	155	152	150	147	145	142	139	136	133	131	129	126	124	123	121	119	118	116	114
TDU1\TE_2_TEMP	203	198	193	188	184	180	177	173	170	167	164	160	158	155	153	150	147	144	142	140	138	136	134	132	130	129	127
TDU1\TE_3_TEMP	126	124	123	121	120	119	117	116	115	114	113	112	111	111	110	109	108	107	105	104	103	102	101	100	100	99	99
TDU1\TE_4_TEMP	150	147	144	141	139	136	134	131	129	127	125	124	123	122	121	120	118	117	116	115	113	112	111	110	109	109	108
TDU1\TE_5_TEMP	166	162	159	155	153	150	147	144	141	139	137	135	133	131	130	128	127	125	123	122	121	119	118	116	115	115	114
TDU1\TE_6_TEMP	181	176	172	168	165	162	159	155	153	150	147	145	143	141	139	137	135	133	131	130	128	126	125	123	122	121	120
TDU1\TE_7_TEMP	187	182	177	173	169	165	162	159	156	153	150	147	145	143	141	139	137	136	133	132	130	129	127	125	124	123	122
TDU1\TE_8_TEMP	179	175	171	167	163	160	157	154	151	149	147	144	143	141	139	137	135	134	131	130	128	127	125	124	123	122	121
TDU1\TE_9_TEMP	228	222	216	210	204	199	194	189	185	181	177	173	170	167	164	161	158	155	153	151	148	146	143	141	140	138	136
TDU1\ZONE1_TEMP_SET	153	148	143	139	134	130	127	123	120	117	114	110	108	105	103	100	97	94	92	90	88	86	84	82	80	79	77
TDU1\ZONE2_TEMP_SET	131	126	122	118	115	112	108	105	103	100	97	95	93	91	89	87	85	83	81	80	78	76	75	73	72	71	70
TDU1\ZONE3_TEMP_SET	115	110	106	102	99	96	93	90	88	86	85	83	82	81	80	79	77	76	74	73	71	70	69	68	67	66	65
VRS1\CT_LIQUIDOUTLETTEMP	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
VRS1\RD_SCRUBLIQUIDTEMP	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108
VRS1\WESP_OUTLETGASPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname / Time	13:30	13:36	13:42	13:48	13:54	14:00	14:06	14:12	14:18	14:24	14:30	14:36	14:42	14:48	14:54	15:00	15:06	15:12	15:18	15:24	15:30	15:36	15:42	15:48	15:54	16:00	16:06
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	10.06	76.07	74.48	63.57	19.61	91.18	81.04	84.18	32.8	20.64	90.52	38.01	19.65	64.21	72.4	6.09	4.57	66.64	78.74	5.87	2.02	71.82	121.6	5.23	1.23	78.21	301.4
FTO1\TE101	79	79	78	78	79	79	79	79	79	79	79	80	80	79	79	80	81	81	81	81	81	81	81	81	81	81	82
FTO1\TE105	256	169	110	182	238	143	116	210	218	118	130	254	194	102	146	251	166	107	160	219	143	109	175	195	118	112	206
FTO1\TE106	355	209	119	218	325	169	130	268	291	131	147	346	249	108	167	340	201	117	194	285	165	124	229	244	128	134	269
FTO1\TE107	78	77	81	78	77	77	80	78	78	77	80	79	79	78	79	80	80	80	80	80	80	81	80	81	81	81	81
FTO1\TE108	1484	1492	1494	1489	1489	1498	1498	1492	1496	1505	1501	1496	1502	1509	1503	1501	1507	1509	1505	1505	1510	1509	1506	1507	1511	1509	1506
FTO1\TE109	1164	1265	1255	1098	1114	1199	1133	995	1055	1144	1020	915	1012	1068	927	889	981	997	886	893	1010	1003	910	980	1095	1053	978
TDU1\CYL_DRIVE_AMPS	7	7	7	7	6	6	7	6	3	3	3	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\CYL_DRIVE_RPM	1.2	1.18	1.19	1.2	1.2	1.2	1.18	1.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	20.26	20.26	20.22	20.23	20.19	20.21	20.2	20.16	20.15	20.15	20.15	20.15	20.15	16.99	16.51	16.51	16.51	16.51	16.51	16.51	16.51	16.51	16.37	20.09	20.22	20.25	20.32
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.21	-0.21	-0.21	-0.23	-0.2	-0.21	-0.2	-0.2	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.21	-0.21	-0.2	-0.2	-0.2
TDU1\TE_10_TEMP	134	133	131	130	128	127	125	124	123	123	123	123	123	115	114	114	114	114	114	114	114	114	105	105	104	104	103
TDU1\TE_11_TEMP	115	114	113	113	111	111	110	109	108	108	108	108	108	102	102	102	102	102	102	102	102	102	95	94	94	94	94
TDU1\TE_12_TEMP	105	105	104	103	102	102	101	100	100	100	100	100	100	94	95	95	95	95	95	95	95	95	90	89	89	89	88
TDU1\TE_13_TEMP	94	93	93	92	92	91	91	90	90	90	90	90	90	88	88	88	88	88	88	88	88	88	85	85	85	85	85
TDU1\TE_14_TEMP	97	96	95	95	94	93	93	92	91	91	91	91	91	87	87	87	87	87	87	87	87	87	84	84	84	83	83
TDU1\TE_15_TEMP	72	72	72	72	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	74	74	74	74	75
TDU1\TE_16_TEMP	81	79	80	82	79	79	80	77	79	79	79	79	79	78	79	79	79	79	79	79	79	79	78	78	79	79	78
TDU1\TE_17_TEMP	111	108	108	108	105	104	103	102	102	102	102	102	102	97	97	97	97	97	97	97	97	97	94	94	94	94	93
TDU1\TE_18_TEMP	92	86	89	91	88	88	85	83	84	84	84	84	84	83	83	83	83	83	83	83	83	83	81	79	82	83	82
TDU1\TE_1_TEMP	113	112	110	109	108	106	104	103	103	103	103	103	103	99	99	99	99	99	99	99	99	99	93	94	94	93	93
TDU1\TE_2_TEMP	125	123	122	120	119	117	115	114	113	113	113	113	113	106	106	106	106	106	106	106	106	106	98	98	98	98	97
TDU1\TE_3_TEMP	99	98	98	98	97	97	96	95	95	95	95	95	95	91	91	91	91	91	91	91	91	91	88	88	88	89	89
TDU1\TE_4_TEMP	108	107	106	106	105	105	104	103	103	103	103	103	103	98	98	98	98	98	98	98	98	98	95	94	94	94	94
TDU1\TE_5_TEMP	113	113	112	111	110	109	108	107	107	107	107	107	107	102	102	102	102	102	102	102	102	102	97	96	96	96	96
TDU1\TE_6_TEMP	119	118	117	116	115	114	113	111	111	111	111	111	111	105	105	105	105	105	105	105	105	105	99	98	98	98	98
TDU1\TE_7_TEMP	121	120	119	118	117	116	114	113	113	113	113	113	113	106	106	106	106	106	106	106	106	106	99	99	98	98	98
TDU1\TE_8_TEMP	120	118	118	117	116	114	113	112	111	111	111	111	111	105	105	105	105	105	105	105	105	105	99	98	98	98	97
TDU1\TE_9_TEMP	134	133	131	130	128	126	125	123	123	123	123	123	123	115	114	114	114	114	114	114	114	114	106	105	104	104	103
TDU1\ZONE1_TEMP_SET	75	73	72	70	69	67	65	64	63	63	63	63	63	56	56	56	56	56	56	56	56	56	48	48	48	48	47
TDU1\ZONE2_TEMP_SET	69	68	67	66	65	64	63	61	61	61	61	61	61	55	55	55	55	55	55	55	55	55	49	48	48	48	48
TDU1\ZONE3_TEMP_SET	65	64	63	63	62	61	60	59	58	58	58	58	58	52	52	52	52	52	52	52	52	52	45	44	44	44	44
VRS1\CT_LIQUIDOUTLETTEMP	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
VRS1\RD_SCRUBLIQUIDTEMP	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108
VRS1\WESP_OUTLETGASPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname	Time 16:12	16:18	16:24	16:30	16:36	16:42	16:48	16:54	17:00	17:06	17:12	17:18	17:24	17:30	17:36	17:42	17:48	17:54	18:00	18:06	18:12	18:18	18:24	18:30	18:36	18:42	18:48
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	3.64	52.25	91.5	7.64	3.14	60.32	108.4	30.7	110.8	74.65	128	43.08	135.9	48.08	128.8	52.7	54.3	44.92	21.1	65.28	28.19	43.92	22.7	83.25	38.03	48.58	27.66
FTO1\TE101	81	80	80	81	80	80	80	80	80	80	80	80	79	79	78	78	78	77	78	78	77	77	77	77	77	77	77
FTO1\TE105	172	98	118	218	153	100	130	194	134	102	147	172	115	104	170	158	103	112	215	154	104	133	227	152	111	184	230
FTO1\TE106	208	102	144	281	177	105	162	243	148	110	186	208	121	115	218	188	101	131	279	181	101	165	297	175	115	212	303
FTO1\TE107	80	82	81	80	80	83	84	79	80	85	83	79	83	85	80	79	88	85	78	81	92	85	78	83	88	81	78
FTO1\TE108	1507	1510	1506	1503	1504	1504	1499	1496	1496	1494	1488	1486	1488	1482	1472	1474	1479	1468	1458	1465	1468	1455	1450	1459	1458	1446	1445
FTO1\TE109	1088	1199	1138	1094	1223	1306	1255	1269	1411	1473	1464	1487	1525	1521	1483	1503	1508	1500	1497	1509	1494	1487	1504	1497	1489	1480	1492
TDU1\CYL_DRIVE_AMPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\CYL_DRIVE_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	20.42	20.4	20.4	20.4	20.4	20.4	20.4	20.4	19.94	20.04	20.19	20.19	20.19	20.19	20.19	20.19	20.19	20.19	17.22	16.17	16.17	16.17	16.17	16.17	16.17	16.17	16.17
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.21	-0.2	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.22	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21
TDU1\TE_10_TEMP	103	103	103	103	103	103	103	103	97	97	97	97	97	97	97	97	97	97	93	93	93	93	93	93	93	93	93
TDU1\TE_11_TEMP	93	93	93	93	93	93	93	93	90	90	89	89	89	89	89	89	89	89	87	87	87	87	87	87	87	87	87
TDU1\TE_12_TEMP	88	88	88	88	88	88	88	88	86	85	86	86	86	86	86	86	86	86	84	84	84	84	84	84	84	84	84
TDU1\TE_13_TEMP	84	84	84	84	84	84	84	84	83	83	83	83	83	83	83	83	83	83	82	82	82	82	82	82	82	82	82
TDU1\TE_14_TEMP	83	83	83	83	83	83	83	83	81	81	81	81	81	81	81	81	81	81	80	80	80	80	80	80	80	80	80
TDU1\TE_15_TEMP	75	75	75	75	75	75	75	75	74	74	74	74	74	74	74	74	74	74	73	73	73	73	73	73	73	73	73
TDU1\TE_16_TEMP	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	74	74	74	74	74	74	74	74	74
TDU1\TE_17_TEMP	93	93	93	93	93	93	93	93	90	91	91	91	91	91	91	91	91	91	87	87	87	87	87	87	87	87	87
TDU1\TE_18_TEMP	82	82	82	82	82	82	82	82	81	81	81	81	81	81	81	81	81	81	77	77	77	77	77	77	77	77	77
TDU1\TE_1_TEMP	92	92	92	92	92	92	92	92	89	89	89	89	89	89	89	89	89	89	87	87	87	87	87	87	87	87	87
TDU1\TE_2_TEMP	97	97	97	97	97	97	97	97	91	92	92	92	92	92	92	92	92	92	88	88	88	88	88	88	88	88	88
TDU1\TE_3_TEMP	89	89	89	89	89	89	89	89	86	86	86	86	86	86	86	86	86	86	83	83	83	83	83	83	83	83	83
TDU1\TE_4_TEMP	94	94	94	94	94	94	94	94	91	91	91	91	91	91	91	91	91	91	87	87	87	87	87	87	87	87	87
TDU1\TE_5_TEMP	95	95	95	95	95	95	95	95	92	92	92	92	92	92	92	92	92	92	88	88	88	88	88	88	88	88	88
TDU1\TE_6_TEMP	98	97	97	97	97	97	97	97	94	93	93	93	93	93	93	93	93	93	90	90	90	90	90	90	90	90	90
TDU1\TE_7_TEMP	97	97	97	97	97	97	97	97	94	93	93	93	93	93	93	93	93	93	90	90	90	90	90	90	90	90	90
TDU1\TE_8_TEMP	97	97	97	97	97	97	97	97	94	94	93	93	93	93	93	93	93	93	91	90	90	90	90	90	90	90	90
TDU1\TE_9_TEMP	102	103	103	103	103	103	103	103	97	97	97	97	97	97	97	97	97	97	94	93	93	93	93	93	93	93	93
TDU1\ZONE1_TEMP_SET	47	47	47	47	47	47	47	47	42	42	42	42	42	42	42	42	42	42	38	38	38	38	38	38	38	38	38
TDU1\ZONE2_TEMP_SET	48	47	47	47	47	47	47	47	44	43	43	43	43	43	43	43	43	43	40	40	40	40	40	40	40	40	40
TDU1\ZONE3_TEMP_SET	43	43	43	43	43	43	43	43	40	40	39	39	39	39	39	39	39	39	37	37	37	37	37	37	37	37	37
VRS1\CT_LIQUIDOUTLETTEMP	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
VRS1\RD_SCRUBLIQUIDTEMP	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108
VRS1\WESP_OUTLETGASPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname	Time 18:54	19:00	19:06	19:12	19:18	19:24	19:30	19:36	19:42	19:48	19:54	20:00	20:06	20:12	20:18	20:24	20:30	20:36	20:42	20:48	20:54	21:00	21:06	21:12	21:18	21:24	21:30
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	113.5	59.1	63.94	37.14	98.58	77.31	8.23	47.84	59.19	66.83	7.57	67.89	69.49	53.97	15.61	91.53	77.52	64.98	27.84	108.4	81.84	65.84	40.81	60.31	84.57	6.24	57.44
FTO1\TE101	77	76	76	77	76	76	76	76	76	75	76	75	75	75	75	75	75	74	75	75	74	74	74	74	74	74	74
FTO1\TE105	140	120	213	216	117	131	254	188	105	148	255	171	108	176	248	149	114	201	231	124	124	243	198	101	139	254	181
FTO1\TE106	159	128	265	281	124	146	347	237	107	165	350	211	114	204	339	176	124	251	310	139	140	329	257	103	159	353	228
FTO1\TE107	81	85	78	77	80	82	76	75	85	79	75	75	83	77	75	74	81	75	74	76	78	74	74	82	76	74	73
FTO1\TE108	1456	1452	1442	1447	1459	1451	1443	1453	1462	1454	1449	1460	1465	1457	1457	1469	1469	1462	1465	1477	1473	1467	1474	1484	1478	1474	1482
FTO1\TE109	1504	1489	1460	1496	1501	1480	1421	1494	1510	1450	1418	1480	1486	1401	1412	1473	1449	1336	1380	1441	1367	1244	1331	1398	1265	1187	1284
TDU1\CYL_DRIVE_AMPS	0	0	0	0	0	0	0	0	0	0	0	7	7	7	6	6	7	7	0	0	0	0	0	0	0	0	0
TDU1\CYL_DRIVE_RPM	0	0	0	0	0	0	0	0	0	0	0	1.2	1.2	1.2	1.2	1.2	1.18	1.46	0	0	0	0	0	0	0	0	0
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	16.17	16.17	16.17	16.17	16.17	16.17	16.17	16.17	16.17	16.17	16.17	16.45	19.78	20.05	20.15	20.28	20.43	20.62	20.73	20.81	20.8	20.72	20.63	20.56	20.45	20.38	20.35
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.22	-0.24	-0.21	-0.22	-0.2	-0.22	-0.22	-0.21	-0.22	-0.22	-0.23	-0.21	-0.17
TDU1\TE_10_TEMP	93	93	93	93	93	93	93	93	93	93	93	88	87	87	87	87	87	87	87	87	86	86	86	86	85	85	85
TDU1\TE_11_TEMP	87	87	87	87	87	87	87	87	87	87	87	85	84	84	84	84	84	84	84	84	84	84	83	83	83	83	83
TDU1\TE_12_TEMP	84	84	84	84	84	84	84	84	84	84	84	83	83	83	83	83	83	83	83	83	83	83	83	83	82	82	82
TDU1\TE_13_TEMP	82	82	82	82	82	82	82	82	82	82	82	81	80	80	80	80	80	80	80	80	80	80	80	79	79	79	79
TDU1\TE_14_TEMP	80	80	80	80	80	80	80	80	80	80	80	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
TDU1\TE_15_TEMP	73	73	73	73	73	73	73	73	73	73	73	67	67	67	67	66	66	66	67	67	67	67	66	66	66	66	66
TDU1\TE_16_TEMP	74	74	74	74	74	74	74	74	74	74	74	80	80	80	80	79	79	79	79	79	79	79	79	78	78	78	78
TDU1\TE_17_TEMP	87	87	87	87	87	87	87	87	87	87	87	84	84	84	84	84	84	84	83	83	83	83	82	82	82	82	82
TDU1\TE_18_TEMP	77	77	77	77	77	77	77	77	77	77	77	78	78	80	79	80	80	80	80	80	80	80	80	79	80	79	79
TDU1\TE_1_TEMP	87	87	87	87	87	87	87	87	87	87	87	85	85	85	85	85	85	85	84	84	84	83	83	83	83	83	82
TDU1\TE_2_TEMP	88	88	88	88	88	88	88	88	88	88	88	85	85	86	86	86	86	86	86	86	86	85	85	85	85	85	85
TDU1\TE_3_TEMP	83	83	83	83	83	83	83	83	83	83	83	84	85	85	85	85	86	86	86	86	85	85	85	85	85	85	85
TDU1\TE_4_TEMP	87	87	87	87	87	87	87	87	87	87	87	86	86	86	86	86	86	86	86	86	86	85	85	85	85	85	85
TDU1\TE_5_TEMP	88	88	88	88	88	88	88	88	88	88	88	87	87	87	87	87	87	87	87	86	86	86	86	86	85	85	85
TDU1\TE_6_TEMP	90	90	90	90	90	90	90	90	90	90	90	87	87	87	87	87	87	87	87	87	87	87	87	86	86	86	86
TDU1\TE_7_TEMP	90	90	90	90	90	90	90	90	90	90	90	88	88	88	88	87	87	87	87	87	87	87	87	86	86	86	86
TDU1\TE_8_TEMP	90	90	90	90	90	90	90	90	90	90	90	88	88	88	88	88	88	88	87	87	87	87	87	87	86	86	86
TDU1\TE_9_TEMP	93	93	93	93	93	93	93	93	93	93	93	88	88	88	88	87	87	87	87	87	86	86	86	86	85	85	85
TDU1\ZONE1_TEMP_SET	38	38	38	38	38	38	38	38	38	38	38	35	35	36	36	36	36	36	36	36	36	35	35	35	35	35	35
TDU1\ZONE2_TEMP_SET	40	40	40	40	40	40	40	40	40	40	40	37	37	37	37	37	37	37	37	37	37	37	37	36	36	36	36
TDU1\ZONE3_TEMP_SET	37	37	37	37	37	37	37	37	37	37	37	35	34	35	34	34	34	34	34	34	34	34	33	33	33	33	33
VRS1\CT_LIQUIDOUTLETTEMP	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237	237
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\D_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
VRS1\RD_SCRUBLIQUIDTEMP	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASFLOW	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108	108
VRS1\WESP_OUTLETGASPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Continuous Unit 1 [illegible]r June 04, 1998

Tagname	Time 21:36	21:42	21:48	21:54	22:00	22:06	22:12	22:18	22:24	22:30	22:36	22:42	22:48	22:54	23:00	23:06	23:12	23:18	23:24	23:30	23:36	23:42	23:48	23:54
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	68.53	61.45	12.42	77.23	67.91	60.56	20.56	108.1	74.92	192.7	30.84	68.08	88.35	4.28	12.11	59.37	78.72	3.96	3.02	66.93	83.32	4.12	0.56	74.56
FTO1\TE101	74	73	74	74	73	73	74	74	73	73	74	73	73	73	73	73	73	73	73	73	72	72	72	72
FTO1\TE105	104	165	251	155	109	187	236	132	118	224	205	101	130	253	181	99	150	239	152	103	161	202	127	102
FTO1\TE106	110	192	346	188	119	230	319	153	134	297	267	107	149	350	228	106	173	322	180	113	206	260	144	119
FTO1\TE107	80	75	74	73	78	74	73	73	76	74	73	76	76	73	73	73	73	73	73	73	73	72	73	73
FTO1\TE108	1488	1482	1481	1490	1492	1487	1489	1498	1496	1492	1497	1506	1501	1497	1504	1509	1504	1503	1509	1510	1506	1507	1512	1510
FTO1\TE109	1309	1150	1141	1233	1194	1046	1082	1165	1068	943	1017	1088	954	873	967	1001	871	858	948	944	845	878	993	978
TDU1\CYL_DRIVE_AMPS	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
TDU1\CYL_DRIVE_RPM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\CYL_FEED_SPEED_SET	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
TDU1\OXYGEN_DISCHARGE	20.28	20.28	20.26	20.23	20.23	20.23	20.25	20.22	20.21	20.2	20.2	20.21	20.2	20.16	20.18	20.18	20.14	20.15	20.17	20.17	20.16	20.12	20.17	20.19
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\PV_PIC1	-0.2	-0.19	-0.22	-0.22	-0.19	-0.21	-0.21	-0.22	-0.21	-0.21	-0.22	-0.21	-0.21	-0.22	-0.2	-0.21	-0.2	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21	-0.21
TDU1\TE_10_TEMP	85	85	84	84	84	84	84	83	83	83	83	83	83	82	82	82	82	82	82	81	81	81	81	81
TDU1\TE_11_TEMP	83	83	83	82	82	82	82	82	82	82	81	81	81	81	81	80	80	80	80	80	80	80	80	79
TDU1\TE_12_TEMP	82	82	82	82	82	81	81	81	81	81	81	81	80	80	80	80	80	80	80	80	79	79	79	79
TDU1\TE_13_TEMP	79	79	79	79	78	78	78	78	78	78	78	78	78	77	77	77	77	77	77	77	77	76	76	76
TDU1\TE_14_TEMP	78	77	77	77	77	77	76	76	76	76	76	76	76	76	76	76	75	75	75	75	75	75	75	74
TDU1\TE_15_TEMP	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
TDU1\TE_16_TEMP	77	78	78	77	78	78	78	78	77	77	77	77	77	76	76	77	76	75	75	75	75	75	74	74
TDU1\TE_17_TEMP	82	81	81	81	81	81	81	81	81	81	81	80	80	80	80	80	80	80	80	80	79	79	79	79
TDU1\TE_18_TEMP	79	79	78	78	79	77	78	78	78	78	77	78	78	76	76	75	76	76	77	76	76	76	76	76
TDU1\TE_1_TEMP	82	82	82	82	81	81	81	81	81	80	80	80	80	80	79	79	79	79	79	79	79	78	78	78
TDU1\TE_2_TEMP	84	84	84	84	84	83	83	83	83	83	83	82	82	82	82	82	82	81	81	81	81	81	81	80
TDU1\TE_3_TEMP	85	84	84	84	84	84	84	83	83	83	83	83	83	83	82	82	82	82	82	82	82	82	82	81
TDU1\TE_4_TEMP	85	84	84	84	84	84	83	83	83	83	83	83	82	82	82	82	82	82	81	81	81	81	81	81
TDU1\TE_5_TEMP	85	85	85	85	84	84	84	84	84	83	83	83	83	83	83	82	82	82	82	82	82	82	81	81
TDU1\TE_6_TEMP	85	85	85	85	85	85	84	84	84	84	84	83	83	83	83	83	82	82	82	82	82	82	82	81
TDU1\TE_7_TEMP	86	85	85	85	85	85	85	84	84	84	84	83	83	83	83	83	83	82	82	82	82	82	82	82
TDU1\TE_8_TEMP	86	86	85	85	85	85	85	85	85	84	84	84	84	83	83	83	83	83	83	82	82	82	82	82
TDU1\TE_9_TEMP	85	85	84	84	84	84	83	83	83	83	83	83	82	82	82	82	82	82	82	81	81	81	81	80
TDU1\ZONE1_TEMP_SET	34	34	34	34	34	33	33	33	33	33	33	32	32	32	32	32	32	31	31	31	31	31	31	30
TDU1\ZONE2_TEMP_SET	36	35	35	35	35	35	34	34	34	34	34	33	33	33	33	33	32	32	32	32	32	32	32	31
TDU1\ZONE3_TEMP_SET	33	33	33	32	32	32	32	32	32	32	31	31	31	31	31	30	30	30	30	30	30	30	30	29
VRS1\CT_LIQUIDOUTLETTEMP	65	65	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	68
VRS1\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HC_INLETGASTEMP	237	237	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	72
VRS1\HE_COOLSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	135	135	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	66
VRS1\RD_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\RD_SCRUBBERDIFFPRES	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
VRS1\RD_SCRUBLIQUIDTEMP	81	81	110	103	97	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94	105
VRS1\WESP_CURRENT_AMP	0	0	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASFLOW	108	108	120	101	98	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	118
VRS1\WESP_OUTLETGASPRES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\WESP_OUTLETGASTEMP	72	72	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	72
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	0	0	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

Continuous Unit 1 data for June 10,1998

Tagname / Time	10:00	10:06	10:12	10:18	10:24	10:30	10:36	10:42	10:48	10:54	11:00	11:06	11:12	11:18	11:24	11:30	11:36	11:42	11:48	11:54	12:00	12:06
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	0.25	0.37	0.44	0.15	0.4	17.1	24.3	54.49	25.52	77.54	63.61	301.4	301.4	301.4	203.8	301.4	301.4	301.4	301.4	301.4	46.54	191.3
FTO1\TE101	64	64	64	64	64	73	77	80	82	82	84	85	86	84	83	84	83	83	83	84	82	80
FTO1\TE105	117	120	111	105	122	135	146	115	164	116	115	109	125	107	107	110	115	105	105	118	131	135
FTO1\TE106	130	138	83	83	146	154	85	102	193	114	92	110	143	103	92	119	128	99	96	138	154	94
FTO1\TE107	86	80	123	111	75	84	179	110	87	100	121	102	90	101	112	98	90	105	105	98	91	159
FTO1\TE108	1577	1556	1528	1523	1516	1501	1563	1540	1532	1564	1569	1552	1547	1565	1564	1543	1546	1562	1552	1533	1542	1568
FTO1\TE109	1509	1507	1514	1489	1456	1556	1564	1619	1642	1608	1603	1623	1629	1605	1603	1622	1614	1591	1595	1609	1590	1556
TDU1\CYL_DRIVE_AMPS	10	12	13	13	14	14	14	14	13	14	13	13	13	10	11	12	11	14	13	13	14	14
TDU1\CYL_DRIVE_RPM	3.97	3.97	3.94	3.96	3.94	3.93	3.95	3.94	3.95	3.95	3.97	3.97	3.93	3.96	3.96	3.94	3.98	3.96	3.94	3.95	3.97	3.95
TDU1\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\OXYGEN_DISCHARGE	5.14	1.82	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TDU1\PURGE_DAMPER	35	35	35	35	35	50	50	50	50	50	50	50	50	35	35	35	35	35	35	35	35	35
TDU1\PV_PIC1	-0.44	-0.4	-0.67	-0.66	-0.75	-0.61	-0.62	-0.72	-0.67	-0.72	-0.61	-0.59	-0.58	-0.62	-0.74	-0.68	-0.63	-0.5	-0.72	-0.6	-0.71	-0.92
TDU1\TE_10_TEMP	1240	1337	1410	1416	1388	1352	1323	1306	1295	1290	1286	1288	1302	1331	1357	1378	1385	1385	1375	1363	1353	1343
TDU1\TE_11_TEMP	1094	1172	1253	1287	1280	1260	1236	1222	1207	1199	1195	1197	1205	1229	1251	1271	1286	1290	1283	1270	1257	1244
TDU1\TE_12_TEMP	958	1009	1070	1114	1129	1117	1093	1077	1062	1051	1040	1037	1040	1051	1069	1091	1109	1119	1118	1108	1095	1080
TDU1\TE_13_TEMP	645	683	743	809	854	872	872	872	863	858	851	852	852	863	881	904	925	940	944	938	927	914
TDU1\TE_14_TEMP	602	894	1041	1045	985	973	948	947	955	958	946	950	988	1086	1083	1110	1104	1079	1038	1025	1010	993
TDU1\TE_15_TEMP	63	63	72	428	213	212	210	208	210	211	210	209	190	170	184	173	158	168	174	178	182	198
TDU1\TE_16_TEMP	1499	1119	1539	1624	1562	1631	1525	1612	1588	1587	1588	1623	1588	1604	1597	1594	1219	1573	1565	1571	1578	1532
TDU1\TE_17_TEMP	1872	1608	1498	1703	1661	1586	1532	1647	1572	1529	1563	1781	1525	1514	1479	1558	1518	1503	1519	1562	1615	1614
TDU1\TE_18_TEMP	1117	1139	1171	1171	1134	1099	1078	1081	1070	1041	1077	1106	1089	1138	1175	1191	1187	1187	1163	1145	1140	1124
TDU1\TE_1_TEMP	1321	1270	1219	1262	1286	1338	1309	1309	1296	1288	1278	1275	1266	1265	1253	1247	1191	1208	1208	1202	1198	1189
TDU1\TE_2_TEMP	1520	1466	1409	1463	1483	1533	1511	1519	1521	1521	1519	1517	1518	1524	1518	1514	1451	1469	1469	1468	1466	1460
TDU1\TE_3_TEMP	1606	1575	1498	1505	1524	1545	1539	1546	1544	1540	1536	1540	1553	1554	1553	1550	1516	1509	1510	1508	1506	1508
TDU1\TE_4_TEMP	1728	1641	1611	1641	1640	1666	1647	1665	1660	1659	1658	1667	1686	1687	1690	1684	1606	1639	1640	1642	1642	1636
TDU1\TE_5_TEMP	1590	1662	1628	1601	1598	1603	1599	1613	1611	1609	1611	1623	1641	1633	1619	1607	1588	1590	1590	1592	1591	1588
TDU1\TE_6_TEMP	1539	1624	1584	1556	1555	1550	1548	1572	1559	1558	1562	1587	1592	1573	1548	1532	1529	1529	1532	1535	1535	1533
TDU1\TE_7_TEMP	1497	1625	1606	1577	1565	1550	1542	1571	1551	1549	1552	1584	1585	1566	1532	1511	1513	1520	1524	1526	1527	1523
TDU1\TE_8_TEMP	1525	1643	1610	1578	1558	1534	1523	1555	1528	1528	1526	1571	1570	1561	1531	1514	1517	1517	1514	1512	1511	1507
TDU1\TE_9_TEMP	1285	1368	1444	1460	1429	1390	1358	1337	1327	1322	1318	1315	1323	1347	1372	1389	1397	1397	1388	1376	1366	1358
TDU1\ZONE1_TEMP_SET	1408	1408	1408	1468	1518	1518	1518	1518	1518	1518	1518	1518	1518	1518	1518	1518	1468	1468	1468	1468	1468	1468
TDU1\ZONE2_TEMP_SET	1547	1547	1497	1562	1562	1562	1562	1562	1562	1562	1562	1562	1562	1532	1532	1532	1532	1532	1532	1532	1532	1532
TDU1\ZONE3_TEMP_SET	1053	1053	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138	1138
VRS1\CT_LIQUIDOUTLETTEMP	64	68	73	76	80	84	85	85	86	86	86	85	83	83	83	83	83	84	85	85	85	86
VRS1\HC_GASDIFFPRES	2	3	3	2	2	3	3	3	3	3	3	2	2	1	2	2	2	2	2	2	3	4
VRS1\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	825	898	951	954	953	950	946	943	943	941	940	939	950	976	993	1013	1027	1030	1028	1018	1008	1000
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFPRES	10	10	10	10	10	10	10	11	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	7	7	6	6	6	5	5	5	4	4	5	6	6	6	4	6	5	5	4	5	5	3
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	742	835	894	906	910	916	913	911	915	913	914	910	917	939	966	976	984	990	989	980	972	967
VRS1\RD_OXYGEN	19	18	18	18	0	0	0	0	0	5	5	3	5	8	7	9	9	9	9	7	7	5
VRS1\RD_SCRUBBERDIFFPRES	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
VRS1\RD_SCRUBLIQUIDTEMP	70	80	88	96	106	114	116	115	117	116	117	114	108	108	107	108	108	111	112	113	113	113
VRS1\WESP_CURRENT_AMP	0	0	0	0	34	30	23	36	30	36	26	32	37	32	42	25	35	29	19	34	31	39
VRS1\WESP_DIFFPRES	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	4	4	4
VRS1\WESP_OUTLETGASFLOW	350	333	257	282	205	265	272	242	225	216	221	208	287	253	323	328	316	330	265	300	303	226
VRS1\WESP_OUTLETGASPRES	-3	-3	-4	-3	-3	-4	-4	-4	-4	-4	-4	-3	-3	-3	-4	-3	-3	-3	-4	-3	-4	-4
VRS1\WESP_OUTLETGASTEMP	71	71	73	76	80	84	90	92	94	93	93	94	93	91	91	91	90	90	91	92	92	92
VRS1\WESP_OXYGEN	13	9	6	4	3	4	4	4	4	4	4	3	3	6	5	6	7	6	2	0	0	0
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	23	23	21	25	24	25	23	24	26	25	27	23	26	24	15	26	25	26

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Tagname / Time	12:12	12:18	12:24	12:30	12:36	12:42	12:48	12:54	13:00	13:06	13:12	13:18	13:24	13:30	13:36	13:42	13:48	13:54	14:00	14:06	14:12	14:18
FTO1\\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\\CPMS_LEVEL	54.91	30.06	46.45	31.96	67.22	25.8	58.81	38.5	51.65	24.6	73.92	44.44	70.24	30.78	109.3	46.84	82.02	28.33	102.7	36.3	62.7	28.48
FTO1\\TE101	80	80	81	81	80	81	82	83	81	84	83	83	83	83	82	82	83	82	81	81	82	83
FTO1\\TE105	119	215	145	171	139	247	157	150	169	227	153	138	216	229	150	137	215	231	166	176	181	300
FTO1\\TE106	107	288	160	92	139	323	159	103	183	292	138	111	259	285	117	122	276	289	123	110	182	390
FTO1\\TE107	118	86	104	220	116	91	119	167	100	94	134	131	96	95	140	120	100	100	174	207	143	102
FTO1\\TE108	1540	1517	1543	1559	1529	1518	1543	1547	1524	1522	1549	1541	1520	1531	1559	1545	1529	1541	1558	1562	1548	1543
FTO1\\TE109	1577	1597	1566	1546	1574	1582	1561	1561	1587	1587	1565	1580	1611	1599	1577	1601	1619	1600	1578	1582	1596	1600
TDU1\\CYL_DRIVE_AMPS	13	13	12	13	14	13	14	14	15	14	13	14	13	13	14	12	13	13	14	15	13	12
TDU1\\CYL_DRIVE_RPM	3.96	3.96	3.93	3.96	3.94	3.95	3.94	3.94	3.95	3.95	3.96	3.97	3.96	3.94	3.96	3.98	3.95	3.93	3.97	3.96	3.95	3.96
TDU1\\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\\OXYGEN_DISCHARGE	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TDU1\\PURGE_DAMPER	35	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\\PV_PIC1	-0.87	-0.72	-0.74	-0.8	-0.61	-0.76	-0.73	-0.64	-0.81	-0.73	-0.74	-0.74	-0.75	-0.77	-0.81	-0.82	-0.62	-0.63	-0.74	-0.76	-0.75	-0.86
TDU1\\TE_10_TEMP	1335	1328	1326	1328	1331	1327	1318	1306	1298	1291	1290	1293	1297	1302	1308	1322	1340	1357	1370	1366	1348	1330
TDU1\\TE_11_TEMP	1232	1223	1217	1216	1218	1216	1213	1199	1188	1178	1176	1178	1182	1188	1194	1206	1222	1240	1257	1261	1249	1231
TDU1\\TE_12_TEMP	1066	1052	1042	1037	1037	1036	1029	1016	1002	992	988	988	990	993	998	1007	1020	1036	1052	1064	1062	1050
TDU1\\TE_13_TEMP	898	886	874	868	867	865	860	847	832	821	814	812	813	817	822	830	842	856	872	884	885	875
TDU1\\TE_14_TEMP	976	971	978	993	1008	957	917	894	898	925	942	947	951	968	978	983	998	1013	1047	1024	961	950
TDU1\\TE_15_TEMP	211	211	203	212	196	199	209	207	194	203	207	211	209	204	211	212	207	212	205	212	213	211
TDU1\\TE_16_TEMP	1556	1576	1567	1553	1547	1552	1594	1560	1469	1589	1542	1587	1568	1576	1565	1560	1566	1588	1579	1579	1566	1579
TDU1\\TE_17_TEMP	1544	1497	1519	1585	1640	1596	1726	1627	1657	1652	1631	1615	1548	1601	1668	1648	1626	1538	1544	1667	1679	1562
TDU1\\TE_18_TEMP	1103	1102	1102	1102	1114	1105	1122	1064	1056	1044	1069	1075	1088	1092	1110	1166	1171	1180	1169	1159	1120	1095
TDU1\\TE_1_TEMP	1198	1200	1196	1190	1190	1193	1208	1197	1219	1229	1224	1226	1221	1218	1213	1210	1208	1216	1219	1217	1217	1224
TDU1\\TE_2_TEMP	1471	1474	1469	1462	1463	1469	1477	1466	1478	1492	1485	1495	1490	1487	1482	1465	1465	1495	1490	1485	1483	1494
TDU1\\TE_3_TEMP	1513	1513	1508	1505	1505	1505	1507	1500	1511	1515	1511	1516	1514	1512	1511	1511	1511	1518	1520	1516	1513	1517
TDU1\\TE_4_TEMP	1642	1643	1639	1635	1628	1624	1629	1619	1624	1638	1626	1639	1637	1635	1631	1635	1638	1651	1646	1632	1623	1641
TDU1\\TE_5_TEMP	1588	1588	1589	1589	1586	1582	1593	1588	1597	1599	1595	1598	1600	1600	1600	1601	1602	1603	1602	1599	1595	1597
TDU1\\TE_6_TEMP	1530	1529	1532	1536	1534	1529	1554	1541	1556	1553	1550	1549	1552	1554	1556	1554	1552	1549	1550	1557	1553	1549
TDU1\\TE_7_TEMP	1515	1515	1517	1524	1526	1524	1562	1544	1560	1551	1546	1542	1546	1551	1556	1552	1548	1545	1551	1568	1567	1554
TDU1\\TE_8_TEMP	1500	1497	1500	1508	1510	1508	1556	1526	1540	1528	1526	1520	1526	1531	1538	1535	1535	1535	1542	1559	1557	1539
TDU1\\TE_9_TEMP	1351	1346	1343	1344	1347	1347	1338	1328	1319	1315	1310	1311	1314	1318	1324	1333	1349	1366	1381	1385	1373	1356
TDU1\ZONE1_TEMP_SET	1468	1468	1468	1468	1468	1468	1473	1473	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
TDU1\ZONE2_TEMP_SET	1532	1532	1532	1532	1532	1532	1542	1542	1552	1552	1552	1552	1552	1552	1552	1552	1552	1552	1552	1552	1552	1552
TDU1\ZONE3_TEMP_SET	1138	1138	1138	1138	1138	1138	1138	1138	1138	1258	1358	1358	1358	1358	1358	1228	1228	1228	1228	1228	1228	1228
VRS1\\CT_LIQUIDOUTLETTEMP	85	85	85	85	85	87	87	87	87	86	86	86	85	85	86	85	85	85	85	86	87	86
VRS1\\HC_GASDIFFPRES	3	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2
VRS1\\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\\HC_INLETGASTEMP	990	980	977	977	978	965	950	936	934	934	934	936	941	946	952	959	971	981	994	993	979	970
VRS1\\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\HE_SCRUBSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_OUTLETPRES	3	4	4	4	3	3	3	4	2	4	3	3	4	4	3	3	4	4	3	3	3	4
VRS1\\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_INLETGASTEMP	950	942	938	938	945	933	922	894	896	894	893	895	898	902	908	917	925	931	949	959	943	931
VRS1\\RD_OXYGEN	3	4	3	3	6	5	5	7	4	5	4	4	4	3	3	3	4	3	3	3	4	2
VRS1\\RD_SCRUBBERDIFFPRES	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
VRS1\\RD_SCRUBLIQUIDTEMP	112	112	111	110	113	116	117	116	115	113	113	112	112	111	111	111	111	109	110	114	114	111
VRS1\\WESP_CURRENT_AMP	33	31	32	44	39	29	36	48	37	39	18	34	39	7	27	29	14	26	27	28	33	31
VRS1\\WESP_DIFFPRES	3	4	4	4	4	3	4	4	4	3	3	4	4	4	4	4	4	4	3	4	4	4
VRS1\\WESP_OUTLETGASFLOW	205	251	253	241	216	207	215	264	303	260	202	222	235	243	230	191	293	287	205	196	219	239
VRS1\\WESP_OUTLETGASPRES	-5	-4	-5	-4	-5	-5	-5	-5	-5	-4	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-4
VRS1\\WESP_OUTLETGASTEMP	92	92	92	92	91	92	94	95	96	96	95	94	94	94	93	93	93	93	92	92	93	94
VRS1\\WESP_OXYGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\WESP_VOLTAGE_VOLT	25	24	24	27	25	24	26	29	26	26	21	25	26	16	23	24	19	23	23	24	25	24

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Tagname / Time	14:24	14:30	14:36	14:42	14:48	14:54	15:00	15:06	15:12	15:18	15:24	15:30	15:36	15:42	15:48	15:54	16:00	16:06	16:12	16:18	16:24	16:30
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	40.39	30.65	65.28	31.7	34.2	100.2	35	63.44	58.7	115.2	27.87	24.67	38.06	55.68	17.58	32.1	19.8	44.85	27.83	20.76	21.21	15.47
FTO1\TE101	83	82	81	81	81	81	81	81	81	81	81	81	81	80	79	79	79	78	78	78	78	78
FTO1\TE105	225	212	238	300	297	267	279	274	295	318	330	314	276	282	319	264	296	277	250	242	238	236
FTO1\TE106	245	186	133	105	112	148	304	261	179	359	139	360	207	182	377	225	135	150	187	202	186	181
FTO1\TE107	140	176	283	422	411	330	171	219	342	170	424	158	268	307	141	229	356	322	237	210	217	222
FTO1\TE108	1563	1574	1585	1587	1584	1582	1567	1563	1580	1559	1582	1584	1568	1580	1562	1565	1579	1583	1578	1576	1577	1578
FTO1\TE109	1579	1574	1566	1567	1570	1572	1587	1592	1577	1597	1576	1594	1589	1578	1596	1593	1580	1575	1579	1581	1579	1577
TDU1\CYL_DRIVE_AMPS	12	10	13	12	11	13	11	11	12	13	12	14	11	12	13	11	12	10	11	13	10	12
TDU1\CYL_DRIVE_RPM	3.94	3.97	3.97	3.96	3.97	3.95	3.97	3.96	3.96	3.93	3.97	3.96	3.96	3.98	3.95	3.98	3.95	3.97	3.98	3.96	3.95	3.95
TDU1\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\OXYGEN_DISCHARGE	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.43	0.01	0.16	0.39	0.4	0.01
TDU1\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\PV_PIC1	-0.85	-0.81	-0.62	-0.83	-0.86	-0.82	-0.81	-0.88	-0.9	-0.8	-0.88	-0.71	-0.76	-0.74	-0.81	-0.91	-0.71	-0.96	-0.74	-0.93	-0.83	-0.86
TDU1\TE_10_TEMP	1322	1335	1362	1378	1381	1379	1377	1359	1294	1242	1243	1263	1282	1287	1241	1171	1126	1140	1176	1186	1122	1111
TDU1\TE_11_TEMP	1219	1224	1247	1267	1276	1278	1276	1261	1213	1171	1161	1171	1185	1190	1159	1107	1067	1064	1085	1080	1053	1042
TDU1\TE_12_TEMP	1038	1037	1054	1078	1097	1104	1105	1106	1096	1073	1052	1041	1039	1041	1037	1018	990	971	969	971	965	954
TDU1\TE_13_TEMP	864	862	876	897	915	926	929	932	924	907	892	881	874	872	864	848	826	813	807	804	797	790
TDU1\TE_14_TEMP	973	1046	1117	1088	1071	1055	1059	1066	1051	1009	1007	1010	1019	1025	1008	984	980	958	1004	1008	981	967
TDU1\TE_15_TEMP	213	201	173	208	212	212	210	212	212	209	200	211	212	213	213	212	211	212	212	213	213	213
TDU1\TE_16_TEMP	1589	1574	1548	1581	1579	1574	1543	1545	1557	1573	1570	1577	1502	1520	1571	1541	1517	1594	1534	1455	1562	1581
TDU1\TE_17_TEMP	1513	1555	1620	1543	1627	1584	1486	1557	1417	1536	1466	1488	1548	1453	1455	1520	1459	1463	1472	1431	1424	1464
TDU1\TE_18_TEMP	1103	1149	1196	1199	1196	1191	1182	1030	931	1106	1121	1137	1148	1009	909	844	993	1048	977	866	825	1024
TDU1\TE_1_TEMP	1218	-1209	1204	1210	1206	1204	1193	1192	1194	1195	1192	1191	1161	1172	1183	1175	1179	1182	1168	1166	1176	1176
TDU1\TE_2_TEMP	1492	1486	1481	1493	1490	1487	1475	1472	1460	1481	1462	1461	1445	1449	1459	1440	1448	1456	1441	1440	1456	1456
TDU1\TE_3_TEMP	1527	1536	1532	1530	1524	1519	1513	1513	1517	1517	1515	1513	1493	1493	1504	1503	1508	1517	1513	1511	1517	1523
TDU1\TE_4_TEMP	1663	1676	1662	1659	1656	1650	1644	1648	1654	1656	1653	1655	1622	1631	1643	1637	1644	1664	1651	1642	1656	1658
TDU1\TE_5_TEMP	1605	1613	1610	1609	1608	1606	1599	1591	1580	1577	1576	1578	1570	1566	1567	1565	1567	1574	1572	1570	1572	1575
TDU1\TE_6_TEMP	1551	1555	1552	1549	1550	1554	1541	1530	1506	1503	1500	1503	1506	1500	1504	1507	1500	1502	1502	1500	1502	1502
TDU1\TE_7_TEMP	1547	1540	1543	1546	1554	1565	1549	1524	1482	1469	1469	1477	1488	1482	1474	1461	1447	1453	1457	1450	1445	1444
TDU1\TE_8_TEMP	1534	1541	1548	1550	1557	1569	1554	1521	1456	1456	1462	1475	1491	1476	1445	1418	1412	1434	1441	1415	1393	1417
TDU1\TE_9_TEMP	1346	1354	1377	1396	1400	1397	1395	1391	1346	1274	1253	1268	1289	1304	1282	1216	1153	1145	1186	1200	1163	1127
TDU1\ZONE1_TEMP_SET	1488	1488	1488	1488	1488	1488	1478	1478	1478	1478	1478	1478	1448	1448	1448	1448	1448	1448	1448	1448	1448	1448
TDU1\ZONE2_TEMP_SET	1552	1552	1552	1552	1552	1552	1527	1527	1502	1502	1502	1502	1502	1502	1502	1502	1502	1502	1502	1502	1502	1502
TDU1\ZONE3_TEMP_SET	1228	1228	1228	1228	1228	1228	1228	1028	1028	1193	1193	1193	1193	988	988	988	1078	1078	1023	1023	1023	1048
VRS1\CT_LIQUIDOUTLETTEMP	84	83	83	84	85	85	85	85	84	84	84	84	84	84	84	83	83	82	82	82	82	82
VRS1\HC_GASDIFFPRES	2	2	2	3	3	3	2	2	2	3	3	2	2	2	2	3	3	2	2	2	2	2
VRS1\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	968	985	1011	1028	1035	1036	1040	1040	1036	1015	1006	1000	1000	1001	994	976	960	956	969	972	962	957
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	911	927	954	979	987	989	990	992	990	959	955	949	955	956	955	938	913	908	924	931	923	912
VRS1\RD_OXYGEN	3	2	5	2	2	2	3	2	3	2	3	2	3	3	4	5	0	0	0	0	0	0
VRS1\RD_SCRUBBERDIFFPRES	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
VRS1\RD_SCRUBLIQUIDTEMP	107	103	106	107	108	108	108	107	107	107	107	106	106	106	105	104	103	100	101	101	101	100
VRS1\WESP_CURRENT_AMP	26	39	31	38	36	34	36	32	28	33	32	28	31	35	31	18	23	26	21	22	33	31
VRS1\WESP_DIFFPRES	3	3	4	3	3	4	4	4	4	4	4	4	3	4	4	3	4	4	3	4	3	4
VRS1\WESP_OUTLETGASFLOW	247	266	279	227	234	246	228	213	235	246	198	235	246	256	256	222	301	221	251	233	243	243
VRS1\WESP_OUTLETGASPRES	-4	-4	-4	-5	-5	-5	-4	-5	-4	-5	-5	-4	-4	-4	-4	-4	-5	-4	-4	-4	-4	-4
VRS1\WESP_OUTLETGASTEMP	93	92	90	90	91	91	91	90	90	90	90	89	89	89	88	88	87	87	86	86	87	87
VRS1\WESP_OXYGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_VOLTAGE_VOLT	23	26	25	25	25	24	25	24	24	25	24	23	24	26	25	21	22	23	22	22	25	25

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Tagname / Time	16:36	16:42	16:48	16:54	17:00	17:06	17:12	17:18	17:24	17:30	17:36	17:42	17:48	17:54	18:00	18:06	18:12	18:18	18:24	18:30	18:36	18:42
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	54.6	22.88	31.12	13.51	22.1	20.04	25.7	8.85	9.38	9.74	18.69	7.31	11.64	9.82	20.08	8.84	25.6	11.1	19.42	8.76	75.24	22.81
FTO1\TE101	78	78	78	79	78	78	79	78	78	77	76	77	76	77	77	77	77	77	77	77	77	77
FTO1\TE105	263	237	222	280	202	256	212	297	209	268	188	256	184	225	184	212	189	195	213	186	216	169
FTO1\TE106	124	114	230	336	148	103	206	358	191	98	156	297	141	99	182	232	113	103	240	193	96	112
FTO1\TE107	325	279	144	106	189	325	150	102	154	341	167	97	172	272	126	101	210	222	103	106	268	174
FTO1\TE108	1585	1575	1552	1552	1579	1577	1549	1545	1566	1574	1546	1539	1564	1560	1534	1538	1560	1545	1519	1534	1555	1531
FTO1\TE109	1568	1580	1598	1594	1571	1569	1591	1592	1570	1559	1582	1584	1557	1555	1575	1566	1541	1549	1570	1552	1529	1545
TDU1\CYL_DRIVE_AMPS	12	10	13	11	12	12	11	10	10	10	11	10	10	11	10	10	11	10	10	11	10	11
TDU1\CYL_DRIVE_RPM	3.97	3.97	3.96	3.98	3.97	3.94	3.96	3.96	3.96	3.96	3.98	3.95	3.96	3.95	3.95	3.95	3.94	3.97	3.97	3.95	3.93	3.97
TDU1\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\OXYGEN_DISCHARGE	0.01	0.03	0.26	0.01	0.01	0.01	0.98	1.28	0.41	0.01	0.59	0.68	0.77	0.71	0.58	0.01	0.97	1.25	1.24	0.79	0.01	0.01
TDU1\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\PV_PIC1	-0.75	-0.64	-0.93	-0.74	-0.84	-0.95	-1.02	-1.03	-0.85	-0.74	-0.92	-0.89	-0.97	-0.89	-0.65	-0.89	-1.07	-0.93	-1.03	-0.91	-0.87	-1.03
TDU1\TE_10_TEMP	1149	1171	1138	1114	1138	1180	1186	1162	1186	1258	1270	1236	1186	1140	1099	1085	1096	1092	1074	1058	1062	1097
TDU1\TE_11_TEMP	1062	1079	1061	1048	1055	1082	1090	1078	1094	1148	1171	1158	1125	1089	1055	1036	1036	1032	1020	1009	1007	1024
TDU1\TE_12_TEMP	953	963	963	953	946	953	964	968	974	1004	1041	1056	1050	1031	1008	984	974	968	960	953	947	944
TDU1\TE_13_TEMP	789	795	792	786	780	783	788	788	796	822	852	872	877	868	853	835	823	813	806	799	796	793
TDU1\TE_14_TEMP	997	1001	959	941	955	985	979	988	1017	1105	1103	1063	1052	1031	1010	990	999	1006	1002	1010	980	939
TDU1\TE_15_TEMP	208	213	213	213	213	213	212	213	174	212	212	212	213	196	203	202	212	213	212	210	212	212
TDU1\TE_16_TEMP	1527	1479	1555	1589	1427	1580	1574	1476	1146	1525	1464	1306	1537	1230	1522	1464	1258	1286	1535	1132	1520	1426
TDU1\TE_17_TEMP	1453	1500	1406	1768	1463	1491	1418	1481	1541	1503	1434	1428	1420	1406	1398	1442	1391	1408	1424	1402	1415	1574
TDU1\TE_18_TEMP	1038	921	823	1020	1018	1046	901	930	1062	1124	993	926	890	846	824	974	878	835	838	821	971	999
TDU1\TE_1_TEMP	1164	1167	1176	1180	1174	1187	1176	1167	1119	1089	1074	1076	1086	1066	1086	1075	1067	1063	1069	1038	1052	1041
TDU1\TE_2_TEMP	1441	1441	1454	1446	1440	1460	1449	1439	1398	1357	1341	1346	1359	1336	1362	1346	1338	1335	1342	1309	1328	1311
TDU1\TE_3_TEMP	1514	1508	1509	1511	1506	1508	1516	1542	1537	1483	1468	1471	1475	1461	1467	1459	1457	1461	1469	1448	1437	1418
TDU1\TE_4_TEMP	1647	1632	1643	1641	1628	1646	1660	1684	1651	1623	1619	1610	1632	1594	1620	1612	1594	1600	1633	1566	1587	1557
TDU1\TE_5_TEMP	1570	1561	1561	1573	1575	1573	1569	1580	1602	1596	1579	1566	1558	1545	1546	1540	1536	1537	1544	1534	1524	1510
TDU1\TE_6_TEMP	1497	1491	1491	1520	1513	1506	1495	1509	1548	1550	1525	1506	1493	1482	1476	1471	1468	1469	1476	1471	1455	1451
TDU1\TE_7_TEMP	1448	1444	1437	1486	1483	1482	1460	1460	1508	1536	1510	1477	1451	1429	1415	1409	1408	1406	1411	1408	1399	1411
TDU1\TE_8_TEMP	1441	1422	1393	1476	1469	1476	1434	1441	1517	1554	1499	1458	1422	1396	1373	1388	1380	1372	1375	1372	1378	1404
TDU1\TE_9_TEMP	1151	1197	1184	1141	1149	1194	1225	1204	1202	1269	1313	1284	1231	1179	1135	1103	1115	1122	1105	1087	1077	1107
TDU1\ZONE1_TEMP_SET	1448	1448	1448	1448	1448	1448	1448	1448	1348	1348	1348	1348	1348	1348	1348	1348	1348	1333	1333	1313	1313	1318
TDU1\ZONE2_TEMP_SET	1492	1492	1492	1507	1507	1507	1467	1447	1397	1397	1397	1397	1397	1397	1397	1397	1447	1447	1447	1447	1447	1447
TDU1\ZONE3_TEMP_SET	1048	1028	1028	1048	1048	1048	1023	1078	1078	1038	1038	1038	1038	1038	1038	1038	1013	1003	1003	1003	1003	1018
VRS1\CT_LIQUIDOUTLETTEMP	82	83	83	83	83	83	82	79	78	78	79	79	79	79	79	80	79	79	78	79	81	82
VRS1\HC_GASDIFFPRES	3	3	4	4	4	4	3	3	2	4	3	1	2	2	3	2	2	2	2	3	3	3
VRS1\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	962	964	954	940	945	951	952	947	958	1003	1020	1026	1021	1011	996	982	981	976	969	973	958	945
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	3	4	3	4	4	3	4	4	5	4	4	4	4	4	5	4	4	4	4	4	3	3
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	918	921	911	902	913	918	911	906	918	967	977	971	972	969	956	945	947	943	940	933	917	906
VRS1\RD_OXYGEN	0	0	0	0	0	0	0	4	4	3	3	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBBERDIFFPRES	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
VRS1\RD_SCRUBLIQUIDTEMP	101	104	102	103	103	103	99	95	92	94	95	94	94	95	96	97	95	94	93	95	98	101
VRS1\WESP_CURRENT_AMP	27	17	22	29	36	26	32	22	23	35	25	27	29	32	24	34	32	27	30	36	20	24
VRS1\WESP_DIFFPRES	4	4	3	3	4	3	4	4	4	4	3	3	4	4	4	4	4	4	4	4	4	3
VRS1\WESP_OUTLETGASFLOW	263	279	220	268	238	230	256	298	322	244	267	278	269	287	364	274	235	228	266	253	219	219
VRS1\WESP_OUTLETGASPRES	-5	-5	-5	-5	-5	-5	-4	-4	-4	-5	-4	-4	-5	-4	-4	-4	-4	-4	-4	-5	-5	-4
VRS1\WESP_OUTLETGASTEMP	86	86	87	87	87	88	88	87	86	85	84	84	84	84	85	85	85	85	85	85	85	86
VRS1\WESP_OXYGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_VOLTAGE_VOLT	24	21	23	24	25	23	25	23	24	25	23	24	25	26	24	26	25	25	26	27	22	23

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Tagname / Time	18:48	18:54	19:00	19:06	19:12	19:18	19:24	19:30	19:36	19:42	19:48	19:54	20:00	20:06	20:12	20:18	20:24	20:30	20:36	20:42	20:48	20:54
FTO1\\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\\CPMS_LEVEL	12.21	11.8	13.68	23.46	13.58	33.71	22.6	45.55	18.56	61.11	26.72	33.39	10.29	25.45	17.18	26.06	22.36	24.15	31.79	14.5	26.96	24.67
FTO1\\TE101	80	79	78	78	78	79	79	79	80	80	80	80	81	79	78	78	79	80	80	80	80	80
FTO1\\TE105	266	168	224	160	223	158	199	164	205	170	188	205	205	219	175	251	178	228	163	251	172	208
FTO1\\TE106	314	158	91	128	256	134	96	158	227	117	103	225	219	102	112	293	175	93	131	295	155	98
FTO1\\TE107	91	120	280	144	93	136	240	122	98	179	214	105	106	262	178	94	114	286	145	93	131	253
FTO1\\TE108	1506	1531	1542	1516	1505	1526	1528	1501	1503	1528	1517	1492	1507	1539	1514	1491	1515	1534	1504	1492	1517	1525
FTO1\\TE109	1563	1537	1523	1543	1550	1528	1522	1545	1542	1517	1524	1553	1538	1512	1538	1562	1535	1515	1541	1552	1526	1519
TDU1\\CYL_DRIVE_AMPS	11	10	13	12	11	13	13	13	13	13	13	11	11	12	12	11	13	14	12	13	13	10
TDU1\\CYL_DRIVE_RPM	3.95	3.98	3.96	3.97	3.98	3.96	3.95	3.97	3.96	3.94	3.97	3.97	3.95	3.95	3.92	3.99	3.96	3.94	3.97	3.98	3.93	3.98
TDU1\\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\\OXYGEN_DISCHARGE	0.82	0.01	0.37	0.25	0.01	0.01	0.01	0.01	0.01	0.01	0.76	0.36	1.11	0.01	0.17	0.01	0.01	0.01	0.01	0.3	0.01	0.01
TDU1\\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\\PV_PIC1	-0.55	-0.77	-0.88	-0.98	-0.97	-0.76	-0.89	-0.89	-0.91	-0.94	-0.63	-1.1	-0.78	-0.68	-0.77	-0.85	-0.9	-0.77	-0.92	-0.91	-0.98	-0.78
TDU1\\TE_10_TEMP	1141	1189	1190	1143	1126	1146	1175	1198	1214	1233	1249	1259	1274	1282	1239	1181	1119	1138	1182	1170	1140	1150
TDU1\\TE_11_TEMP	1050	1084	1093	1066	1049	1058	1072	1089	1100	1124	1137	1146	1157	1170	1148	1093	1065	1070	1093	1084	1063	1067
TDU1\\TE_12_TEMP	947	957	971	967	951	942	941	944	950	960	969	977	985	1004	1016	1003	973	956	954	954	945	941
TDU1\\TE_13_TEMP	791	793	800	798	769	760	773	770	770	779	763	767	793	808	822	822	806	791	763	778	770	769
TDU1\\TE_14_TEMP	932	987	1026	933	870	875	905	923	916	932	954	965	970	1067	1024	930	864	887	967	973	915	907
TDU1\\TE_15_TEMP	211	207	213	213	213	213	213	213	212	218	213	213	207	165	207	212	213	213	213	213	212	213
TDU1\\TE_16_TEMP	1267	1419	1050	1365	1479	1184	1497	1360	1369	1179	1514	1051	1317	1010	1353	1369	1562	1123	1135	1499	1492	1459
TDU1\\TE_17_TEMP	1443	1467	1479	1482	1648	1822	1471	1679	1409	1774	1639	1448	1497	1442	1370	1606	1817	1588	1471	1387	1613	1506
TDU1\\TE_18_TEMP	1003	1040	898	863	962	1035	995	1025	1027	1079	1058	1067	1092	983	899	802	1030	1036	1057	862	980	1022
TDU1\\TE_1_TEMP	1044	1033	988	1000	1011	1005	1014	1000	1014	1007	1020	990	975	950	931	937	1033	1078	1058	1067	1055	1117
TDU1\\TE_2_TEMP	1320	1310	1254	1267	1261	1281	1294	1271	1289	1276	1293	1264	1250	1228	1201	1199	1298	1339	1308	1329	1317	1384
TDU1\\TE_3_TEMP	1428	1426	1384	1379	1389	1393	1390	1386	1391	1393	1396	1384	1386	1378	1339	1329	1391	1427	1402	1411	1410	1449
TDU1\\TE_4_TEMP	1564	1576	1486	1519	1535	1478	1529	1515	1526	1488	1537	1500	1550	1504	1482	1483	1551	1529	1506	1562	1557	1598
TDU1\\TE_5_TEMP	1513	1521	1495	1494	1507	1556	1572	1554	1548	1579	1579	1546	1543	1537	1505	1484	1547	1606	1585	1558	1531	1562
TDU1\\TE_6_TEMP	1452	1463	1448	1447	1463	1529	1530	1523	1515	1569	1554	1512	1510	1504	1467	1454	1534	1596	1561	1513	1481	1515
TDU1\\TE_7_TEMP	1416	1435	1417	1406	1436	1540	1545	1539	1529	1610	1589	1530	1511	1500	1451	1427	1544	1629	1588	1507	1460	1504
TDU1\\TE_8_TEMP	1418	1451	1406	1376	1418	1545	1528	1531	1521	1620	1580	1527	1524	1506	1432	1398	1549	1624	1577	1469	1442	1498
TDU1\\TE_9_TEMP	1160	1212	1240	1202	1157	1163	1194	1223	1243	1260	1277	1289	1302	1320	1293	1221	1149	1143	1185	1208	1174	1162
TDU1\\ZONE1_TEMP_SET	1318	1313	1263	1263	1283	1283	1283	1283	1283	1283	1283	1253	1248	1198	1198	1248	1333	1333	1318	1318	1318	1368
TDU1\\ZONE2_TEMP_SET	1447	1447	1447	1452	1462	1522	1522	1522	1517	1552	1527	1507	1502	1452	1452	1502	1562	1482	1477	1477	1502	1502
TDU1\\ZONE3_TEMP_SET	1018	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	1068	988	953	948	948	1068	1218	908	908	1038	1058
VRS1\\CT_LIQUIDOUTLETTEMP	81	80	81	82	83	83	83	84	84	84	84	83	79	79	81	83	84	84	83	83	84	83
VRS1\\HC_GASDIFFPRES	2	2	3	3	3	3	2	3	3	3	3	1	1	2	3	3	3	3	2	3	3	3
VRS1\\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\\HC_INLETGASTEMP	937	957	963	933	908	905	908	907	910	920	929	931	933	972	966	927	906	915	927	928	911	915
VRS1\\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\HE_SCRUBSIDEDIFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_OUTLETPRES	5	4	3	3	3	4	4	3	3	3	4	4	5	4	3	3	3	4	4	3	4	3
VRS1\\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_INLETGASTEMP	890	913	926	904	878	872	877	871	875	886	896	878	880	922	921	896	877	889	898	901	886	892
VRS1\\RD_OXYGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_SCRUBBERDIFFPRES	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
VRS1\\RD_SCRUBLIQUIDTEMP	97	98	100	101	102	102	104	105	105	106	105	101	93	95	99	102	106	105	103	103	104	103
VRS1\\WESP_CURRENT_AMP	30	22	30	25	29	43	30	33	26	27	37	27	25	28	35	31	27	30	25	25	31	24
VRS1\\WESP_DIFFPRES	4	3	4	4	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
VRS1\\WESP_OUTLETGASFLOW	336	282	203	190	180	224	190	184	169	189	247	250	332	293	209	212	223	230	227	208	249	242
VRS1\\WESP_OUTLETGASPRES	-4	-4	-5	-5	-5	-4	-4	-4	-5	-5	-5	-4	-4	-4	-5	-5	-5	-4	-5	-5	-4	-5
VRS1\\WESP_OUTLETGASTEMP	87	87	86	87	88	88	89	89	89	90	90	90	89	87	86	87	88	89	90	89	89	89
VRS1\\WESP_OXYGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\WESP_VOLTAGE_VOLT	25	23	25	24	24	27	25	25	24	24	27	24	24	25	27	26	24	25	23	24	26	23

Continuous Unit 1 data for June 10, 1998

Tagname / Time	21:00	21:06	21:12	21:18	21:24	21:30	21:36	21:42	21:48	21:54	22:00	22:06	22:12	22:18	22:24	22:30	22:36	22:42	22:48	22:54	23:00	23:06
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	48.36	15.49	34.42	23.47	40.06	17.55	63.86	31.02	93.21	23.07	19.69	33.62	11.13	27.63	22.91	38.74	18.24	37.88	26.31	41.37	23.29	81
FTO1\TE101	80	80	79	79	78	80	80	80	79	80	80	80	80	80	80	79	80	80	80	79	80	80
FTO1\TE105	174	242	173	177	206	224	174	155	258	203	194	152	304	182	163	162	276	164	145	192	243	155
FTO1\TE106	165	278	135	104	214	250	115	115	301	217	97	133	372	183	99	158	331	152	105	206	287	128
FTO1\TE107	120	96	156	191	100	99	180	142	93	103	228	116	89	107	178	101	90	116	140	96	91	129
FTO1\TE108	1497	1496	1524	1518	1493	1504	1533	1515	1493	1515	1543	1515	1499	1527	1541	1516	1511	1540	1540	1519	1526	1553
FTO1\TE109	1549	1549	1525	1534	1566	1556	1532	1557	1586	1562	1540	1580	1601	1573	1565	1604	1610	1582	1590	1627	1619	1592
TDU1\CYL_DRIVE_AMPS	13	11	11	12	10	12	11	10	13	10	12	13	10	14	11	11	11	10	13	10	11	14
TDU1\CYL_DRIVE_RPM	3.94	3.93	3.98	3.95	3.95	3.95	3.94	3.96	3.95	3.97	3.96	3.92	3.96	3.96	3.97	3.96	3.91	3.96	3.95	3.95	3.97	3.92
TDU1\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\OXYGEN_DISCHARGE	0.01	0.27	0.01	0.01	0.01	0.71	0.01	0.01	0.27	0.34	0.01	0.1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TDU1\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\PV_PIC1	-0.86	-0.9	-0.88	-0.85	-0.78	-0.85	-0.83	-0.84	-0.76	-0.68	-0.87	-0.66	-0.67	-0.64	-0.76	-0.88	-0.83	-0.74	-0.97	-0.72	-0.74	-0.69
TDU1\TE_10_TEMP	1185	1172	1130	1130	1156	1141	1089	1067	1100	1146	1175	1190	1199	1202	1207	1211	1214	1196	1150	1136	1150	1169
TDU1\TE_11_TEMP	1087	1082	1054	1051	1063	1054	1019	1000	1013	1043	1068	1084	1094	1099	1104	1107	1111	1100	1072	1059	1064	1077
TDU1\TE_12_TEMP	946	951	944	938	941	940	927	910	905	915	931	944	954	960	965	967	969	971	962	950	946	949
TDU1\TE_13_TEMP	771	771	768	769	770	767	762	752	747	752	761	771	779	782	786	787	789	789	784	778	777	783
TDU1\TE_14_TEMP	963	985	963	951	965	974	934	912	949	962	956	951	947	946	946	952	961	974	943	929	939	936
TDU1\TE_15_TEMP	213	212	213	212	212	212	211	213	212	211	212	212	211	213	213	213	213	212	212	213	212	212
TDU1\TE_16_TEMP	1411	1124	1431	1488	1190	1035	1265	1453	1213	1468	1463	1270	1472	1448	1264	1514	1361	1142	1496	1267	1501	1477
TDU1\TE_17_TEMP	1450	1404	1439	1525	1405	1357	1759	1492	1437	1421	1408	1403	1401	1408	1426	1413	1408	1358	1422	1414	1425	1629
TDU1\TE_18_TEMP	1058	853	863	1017	953	810	789	941	995	1005	1009	1009	1021	1016	1026	1029	1036	876	923	979	996	1022
TDU1\TE_1_TEMP	1095	1070	1047	1042	1021	982	1012	1046	1035	1046	1036	1024	1039	1036	1035	1049	1028	1002	1032	1023	1051	1064
TDU1\TE_2_TEMP	1356	1334	1308	1310	1289	1251	1278	1320	1300	1324	1316	1300	1324	1321	1317	1338	1307	1278	1315	1299	1337	1341
TDU1\TE_3_TEMP	1439	1428	1400	1404	1393	1362	1371	1397	1388	1398	1395	1389	1398	1397	1396	1404	1391	1376	1390	1382	1397	1400
TDU1\TE_4_TEMP	1575	1543	1540	1559	1523	1471	1496	1541	1514	1547	1543	1520	1545	1541	1518	1552	1530	1500	1544	1513	1542	1546
TDU1\TE_5_TEMP	1555	1537	1528	1535	1521	1494	1515	1553	1540	1524	1503	1486	1484	1477	1483	1489	1480	1469	1473	1466	1475	1482
TDU1\TE_6_TEMP	1504	1485	1485	1492	1474	1444	1477	1515	1497	1466	1439	1420	1410	1402	1417	1416	1409	1402	1399	1396	1400	1420
TDU1\TE_7_TEMP	1493	1456	1442	1458	1441	1403	1446	1499	1463	1448	1419	1399	1388	1379	1400	1400	1392	1373	1359	1360	1371	1409
TDU1\TE_8_TEMP	1487	1425	1407	1437	1420	1365	1425	1477	1467	1445	1427	1415	1406	1401	1421	1419	1415	1369	1358	1371	1387	1431
TDU1\TE_9_TEMP	1190	1206	1170	1142	1168	1176	1132	1087	1104	1156	1201	1230	1248	1257	1263	1268	1273	1268	1217	1179	1190	1213
TDU1\ZONE1_TEMP_SET	1368	1303	1303	1298	1298	1248	1283	1313	1313	1313	1313	1313	1313	1323	1323	1323	1303	1318	1303	1323	1323	1383
TDU1\ZONE2_TEMP_SET	1502	1487	1487	1437	1397	1397	1497	1397	1397	1397	1402	1402	1402	1402	1412	1407	1397	1397	1397	1397	1402	1442
TDU1\ZONE3_TEMP_SET	1003	1003	1003	1003	1003	1003	1003	1008	1008	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1098	1078	1128
VRS1\CT_LIQUIDOUTLETTEMP	83	83	82	83	82	83	82	83	83	83	84	83	83	83	83	83	82	83	83	83	84	84
VRS1\HC_GASDIFFPRES	2	2	2	2	2	2	2	2	3	3	2	2	3	2	3	2	2	2	2	2	2	2
VRS1\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	926	936	927	924	932	930	915	910	916	923	927	928	926	925	926	928	930	932	919	911	909	911
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	4	3	3	4	4	4	4	4	4	4	4	4	4	4	3	3	4	4	4	4	3	3
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	902	910	905	901	909	907	896	889	894	899	894	905	905	882	890	893	896	897	885	875	874	877
VRS1\RD_OXYGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBBERDIFFPRES	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
VRS1\RD_SCRUBLIQUIDTEMP	102	101	100	101	100	100	101	101	102	102	103	102	102	102	102	102	100	101	101	102	104	104
VRS1\WESP_CURRENT_AMP	30	33	35	37	20	24	29	26	33	35	41	30	32	36	39	22	24	33	22	24	23	15
VRS1\WESP_DIFFPRES	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
VRS1\WESP_OUTLETGASFLOW	226	209	207	245	223	252	238	222	250	233	190	228	255	189	180	151	205	204	203	209	158	159
VRS1\WESP_OUTLETGASPRES	-4	-4	-4	-5	-4	-4	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-6	-6
VRS1\WESP_OUTLETGASTEMP	89	89	88	88	88	88	88	88	89	89	89	89	89	88	89	88	88	88	88	88	88	88
VRS1\WESP_OXYGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_VOLTAGE_VOLT	24	26	26	26	22	24	25	24	26	26	28	25	26	27	27	23	23	26	23	23	23	20

Continuous Unit 1 data for June 10, 1998

Tagname / Time	23:12	23:18	23:24	23:30	23:36	23:42	23:48	23:54
FTO1\\COMB_FAN	0	0	0	0	0	0	0	0
FTO1\\CPMS_LEVEL	43.53	24.18	5.3	7.85	2.85	2.49	13.42	6.2
FTO1\\TE101	81	71	69	70	69	69	69	68
FTO1\\TE105	140	166	153	127	124	184	142	126
FTO1\\TE106	114	187	169	97	117	238	158	91
FTO1\\TE107	122	91	91	129	107	79	96	139
FTO1\\TE108	1543	1539	1542	1549	1537	1523	1532	1536
FTO1\\TE109	1612	1614	1604	1589	1596	1604	1586	1574
TDU1\\CYL_DRIVE_AMPS	10	13	10	13	10	7	7	7
TDU1\\CYL_DRIVE_RPM	3.97	3.95	3.97	3.96	3.95	3.97	1.35	1.35
TDU1\\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76
TDU1\\OXYGEN_DISCHARGE	0.76	0.01	0.01	0.01	0.01	0.01	3.65	0.08
TDU1\\PURGE_DAMPER	45	45	45	0	0	5	5	0
TDU1\\PV_PIC1	-0.55	0.14	0.1	-0.33	-0.26	-0.28	-0.25	-0.22
TDU1\\TE_10_TEMP	1193	1186	1149	1128	1113	1080	1038	995
TDU1\\TE_11_TEMP	1096	1094	1070	1052	1037	1014	982	946
TDU1\\TE_12_TEMP	964	974	964	952	945	933	913	886
TDU1\\TE_13_TEMP	793	797	790	783	774	763	745	722
TDU1\\TE_14_TEMP	953	962	951	924	947	925	889	833
TDU1\\TE_15_TEMP	212	212	213	213	213	213	192	125
TDU1\\TE_16_TEMP	1227	1491	1363	1359	564	376	643	393
TDU1\\TE_17_TEMP	1471	1404	1419	1477	994	864	875	791
TDU1\\TE_18_TEMP	1015	890	914	964	843	802	761	727
TDU1\\TE_1_TEMP	1107	1103	1087	1092	1004	899	808	737
TDU1\\TE_2_TEMP	1381	1366	1344	1363	1257	1123	1022	950
TDU1\\TE_3_TEMP	1428	1424	1422	1441	1343	1201	1105	1043
TDU1\\TE_4_TEMP	1546	1566	1560	1580	1390	1230	1176	1100
TDU1\\TE_5_TEMP	1516	1519	1509	1520	1418	1268	1164	1079
TDU1\\TE_6_TEMP	1462	1464	1451	1466	1371	1241	1147	1066
TDU1\\TE_7_TEMP	1466	1459	1432	1445	1372	1262	1165	1086
TDU1\\TE_8_TEMP	1484	1446	1423	1447	1338	1227	1131	1056
TDU1\\TE_9_TEMP	1238	1249	1211	1171	1167	1136	1087	1037
TDU1\\ZONE1_TEMP_SET	1373	1358	1358	1103	1103	1098	848	798
TDU1\\ZONE2_TEMP_SET	1432	1432	1432	1157	1157	1157	957	957
TDU1\\ZONE3_TEMP_SET	1068	1073	1058	808	808	808	758	708
VRS1\\CT_LIQUIDOUTLETTEMP	84	79	72	70	68	67	67	66
VRS1\\HC_GASDIFFPRES	2	0	0	0	0	0	0	0
VRS1\\HC_INLETGASPRES	-1	0	0	0	0	0	0	0
VRS1\\HC_INLETGASTEMP	933	909	877	848	827	807	790	776
VRS1\\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15
VRS1\\HE_SCRUBSIDEDIFPRES	15	12	9	9	9	8	15	15
VRS1\\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0
VRS1\\ID_FANSPEED	0	0	0	0	0	0	0	0
VRS1\\ID_OUTLETPRES	4	0	0	-1	-1	-1	0	0
VRS1\\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0
VRS1\\RD_INLETGASTEMP	896	822	760	724	703	668	626	485
VRS1\\RD_OXYGEN	0	0	0	0	0	0	0	0
VRS1\\RD_SCRUBBERDIFFPRES	10	10	10	9	9	10	10	9
VRS1\\RD_SCRUBLIQUIDTEMP	104	89	79	75	73	71	72	71
VRS1\\WESP_CURRENT_AMP	24	29	27	0	40	23	0	0
VRS1\\WESP_DIFFPRES	4	7	9	1	7	6	4	10
VRS1\\WESP_OUTLETGASFLOW	181	-82	-61	-14	-41	-69	-47	-52
VRS1\\WESP_OUTLETGASPRES	-6	-13	-13	0	-9	-10	-10	-10
VRS1\\WESP_OUTLETGASTEMP	89	86	85	83	82	80	79	78
VRS1\\WESP_OXYGEN	0	0	0	0	0	0	0	0
VRS1\\WESP_VOLTAGE_VOLT	23	25	25	0	27	24	0	0

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Tagname / Time	8:00	8:06	8:12	8:18	8:24	8:30	8:36	8:42	8:48	8:54	9:00	9:06	9:12	9:18	9:24	9:30	9:36	9:42	9:48	9:54	10:00	10:06
FTO1\\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
FTO1\\CPMS_LEVEL	7.19	68.05	25.41	59.74	47.76	58.68	49.83	29.65	19.43	15.74	12.08	8.89	6.91	4.51	2.6	1.75	1.66	1.98	1.42	1.73	2.03	1.39
FTO1\\TE101	65	65	65	65	65	65	66	65	65	65	65	65	65	65	65	66	66	66	66	67	67	67
FTO1\\TE105	120	97	99	95	88	81	79	76	74	73	72	71	70	104	104	130	110	133	117	147	126	145
FTO1\\TE106	137	94	74	94	79	74	72	73	71	69	70	70	69	68	84	152	109	78	108	173	114	86
FTO1\\TE107	72	82	105	80	83	78	76	73	72	72	71	70	70	132	108	75	96	167	112	82	122	180
FTO1\\TE108	1412	1432	1405	1404	1418	1412	1406	1400	1392	1385	1378	1371	1364	1336	1321	1368	1369	1385	1463	1501	1477	1495
FTO1\\TE109	1377	1407	1426	1401	1412	1405	1398	1392	1386	1381	1376	1370	1365	1360	1345	1343	1405	1461	1445	1456	1515	1536
TDU1\\CYL_DRIVE_AMPS	7	7	7	8	7	8	7	7	7	7	8	7	7	8	7	7	7	8	8	7	7	7
TDU1\\CYL_DRIVE_RPM	1.19	1.18	1.18	1.18	1.19	1.19	1.19	1.19	1.19	1.19	1.18	1.18	1.2	1.19	1.19	1.19	1.19	1.18	1.18	1.2	1.19	1.19
TDU1\\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\\OXYGEN_DISCHARGE	20.1	20.08	20.07	20.1	20.11	20.1	20.1	20.01	20.05	20.07	20.12	20.16	20.1	20.12	20.11	20.18	20.19	20.19	20.14	20.18	20.15	20.1
TDU1\\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TDU1\\PV_PIC1	-0.29	-0.31	-0.3	-0.31	-0.32	-0.3	-0.27	-0.32	-0.38	-0.3	-0.32	-0.32	-0.34	-0.3	-0.31	-0.29	-0.31	-0.29	-0.31	-0.34	-0.32	-0.31
TDU1\\TE_10_TEMP	1354	1275	1190	1152	1178	1231	1282	1327	1365	1399	1428	1452	1417	1334	1242	1162	1160	1211	1277	1335	1382	1419
TDU1\\TE_11_TEMP	1199	1149	1087	1048	1047	1075	1110	1147	1182	1216	1248	1275	1261	1207	1138	1074	1054	1072	1113	1159	1202	1239
TDU1\\TE_12_TEMP	1038	1008	963	922	909	921	948	981	1018	1048	1070	1093	1100	1071	1023	968	927	911	921	946	979	1013
TDU1\\TE_13_TEMP	724	706	680	658	651	655	671	691	718	740	760	782	789	771	739	701	680	667	668	678	692	712
TDU1\\TE_14_TEMP	691	673	652	631	625	629	640	656	676	696	712	726	726	702	679	661	654	659	668	680	692	705
TDU1\\TE_15_TEMP	65	65	65	65	65	66	66	66	66	66	66	66	66	66	67	67	67	67	67	67	67	67
TDU1\\TE_16_TEMP	1282	1325	1150	808	634	1039	1283	1223	1257	1097	777	641	503	1091	1189	1232	1260	1119	812	807	498	1195
TDU1\\TE_17_TEMP	1060	1030	981	1022	1020	1020	1057	1071	1092	1110	1093	1082	955	1282	1368	1367	1257	1207	1152	1118	1095	1102
TDU1\\TE_18_TEMP	906	837	771	922	965	1018	1020	1041	1082	1106	1140	1150	991	882	819	764	991	1022	1066	1094	1113	1131
TDU1\\TE_1_TEMP	1160	-1199	1224	1204	1151	1086	1096	1119	1149	1178	1165	1124	1063	1032	1045	1084	1131	1175	1173	1133	1072	1035
TDU1\\TE_2_TEMP	1371	1420	1449	1406	1329	1237	1262	1311	1360	1399	1373	1304	1216	1166	1225	1289	1354	1405	1365	1317	1230	1190
TDU1\\TE_3_TEMP	1512	1575	1600	1525	1412	1308	1340	1426	1502	1551	1501	1403	1297	1256	1331	1432	1519	1573	1522	1421	1314	1262
TDU1\\TE_4_TEMP	1635	1685	1671	1548	1420	1357	1467	1553	1622	1644	1537	1418	1307	1348	1473	1581	1661	1678	1566	1444	1331	1360
TDU1\\TE_5_TEMP	1331	1342	1342	1313	1260	1206	1208	1235	1269	1299	1294	1255	1198	1196	1290	1417	1478	1484	1440	1367	1285	1238
TDU1\\TE_6_TEMP	1254	1250	1242	1219	1185	1149	1145	1159	1182	1207	1212	1195	1159	1168	1254	1366	1412	1411	1375	1319	1257	1215
TDU1\\TE_7_TEMP	1229	1202	1167	1143	1128	1120	1123	1133	1149	1169	1186	1193	1177	1177	1232	1313	1346	1344	1324	1296	1267	1242
TDU1\\TE_8_TEMP	1232	1179	1123	1129	1133	1145	1164	1188	1209	1232	1248	1257	1216	1207	1244	1293	1331	1332	1323	1309	1295	1286
TDU1\\TE_9_TEMP	1428	1353	1263	1192	1198	1250	1306	1355	1397	1431	1460	1483	1476	1406	1312	1225	1186	1231	1302	1365	1414	1451
TDU1\ZONE1_TEMP_SET	1298	1298	1248	1248	1248	1248	1248	1223	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188	1188
TDU1\ZONE2_TEMP_SET	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142	1142
TDU1\ZONE3_TEMP_SET	1060	1060	1060	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075
VRS1\\CT_LIQUIDOUTLETTEMP	65	65	65	65	65	65	65	65	65	65	66	66	66	66	66	66	66	66	66	66	66	66
VRS1\\HC_GASDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\HC_INLETGASPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\HC_INLETGASTEMP	628	635	637	641	639	643	652	664	674	683	685	681	678	671	671	668	668	672	673	665	667	668
VRS1\\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\HE_SCRUBSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	7	0	0	0
VRS1\\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_OUTLETPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	371	382	391	390	404	420	404	401	403	408	417	434	425	426	421	421	425	420	423	436	427	442
VRS1\RD_OXYGEN	20	20	20	20	20	20	20	20	21	21	21	19	19	19	20	20	20	20	20	20	20	20
VRS1\RD_SCRUBBERDIFFPRES	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
VRS1\RD_SCRUBLIQUIDTEMP	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
VRS1\WESP_DIFFPRES	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
VRS1\WESP_OUTLETGASFLOW	14	14	12	13	17	16	11	10	9	9	8	9	11	10	8	7	4	4	9	6	8	7
VRS1\WESP_OUTLETGASPRES	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\WESP_OUTLETGASTEMP	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
VRS1\WESP_OXYGEN	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20

Continuous Unit 1 data for June 11, 1998

Tagname / Time	10:12	10:18	10:24	10:30	10:36	10:42	10:48	10:54	11:00	11:06	11:12	11:18	11:24	11:30	11:36	11:42	11:48	11:54	12:00	12:06	12:12	12:18
FTO1\COMB_FAN	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	1.75	1.7	1.36	0.92	0.66	0.87	0.73	8.33	9.41	19.53	7.65	15.01	6.09	12.83	7.09	16.48	9.93	16.42	7.97	35.64	16.4	67.96
FTO1\TE101	67	68	68	68	68	68	67	71	72	76	78	77	78	79	80	81	81	81	81	81	81	82
FTO1\TE105	137	158	143	140	139	131	134	139	165	131	208	134	173	127	174	128	157	131	156	137	143	150
FTO1\TE106	140	183	107	91	150	138	84	88	189	124	83	101	192	111	88	116	168	100	91	142	146	94
FTO1\TE107	116	91	156	155	92	91	154	160	84	103	261	128	89	113	205	109	93	135	176	98	96	171
FTO1\TE108	1565	1564	1539	1550	1565	1537	1501	1530	1538	1548	1570	1540	1525	1551	1561	1530	1527	1563	1552	1520	1533	1579
FTO1\TE109	1515	1536	1579	1565	1528	1536	1544	1530	1538	1540	1532	1549	1559	1538	1531	1556	1558	1532	1538	1564	1552	1528
TDU1\CYL_DRIVE_AMPS	7	7	8	8	8	9	10	10	10	10	10	10	10	10	10	10	9	9	10	10	10	10
TDU1\CYL_DRIVE_RPM	1.19	1.19	1.18	1.18	3.98	3.97	3.96	3.97	3.94	3.98	3.97	3.95	3.98	3.98	3.94	3.95	3.98	3.96	3.95	3.97	3.96	3.93
TDU1\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\OXYGEN_DISCHARGE	20.12	20.13	20.11	19.79	19.31	5.58	3.18	0.78	0.01	0.01	0.01	0.35	0.5	0.83	1.06	0.02	0.33	0.73	0.88	0.14	1.04	0.32
TDU1\PURGE_DAMPER	0	0	0	0	0	0	0	0	0	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\PV_PIC1	-0.3	-0.28	-0.29	-0.31	-0.87	-0.83	-0.91	-1.53	-2.04	-1.11	-1.03	-0.97	-1.03	-1.11	-0.93	-1.1	-1.05	-1.05	-0.88	-0.8	-0.93	-0.86
TDU1\TE_10_TEMP	1442	1429	1359	1275	1217	1233	1305	1388	1439	1461	1471	1463	1400	1311	1230	1188	1205	1252	1280	1252	1186	1143
TDU1\TE_11_TEMP	1268	1267	1224	1162	1110	1107	1155	1230	1292	1334	1360	1369	1329	1262	1193	1146	1139	1162	1186	1176	1130	1088
TDU1\TE_12_TEMP	1050	-1074	1062	1024	981	953	964	1016	1091	1155	1199	1232	1240	1215	1168	1116	1082	1070	1079	1085	1068	1031
TDU1\TE_13_TEMP	739	757	753	735	714	700	709	752	826	904	967	1020	1050	1049	1020	979	947	928	927	928	916	888
TDU1\TE_14_TEMP	722	734	722	705	718	686	746	1026	1122	1192	1207	1250	1205	1128	1072	1033	1031	1057	1101	1095	993	918
TDU1\TE_15_TEMP	67	67	67	67	67	66	67	76	211	213	212	213	213	212	213	213	213	213	192	177	212	213
TDU1\TE_16_TEMP	1135	1215	1240	1284	1174	1181	1452	1048	1411	1211	1004	917	1425	1202	1375	1084	972	918	846	1112	1182	1333
TDU1\TE_17_TEMP	1116	1290	1412	1339	1491	1580	1579	1523	1489	1480	1492	1450	1411	1376	1373	1412	1427	1447	1429	1367	1307	1344
TDU1\TE_18_TEMP	1131	1014	912	847	932	1018	1102	1165	1213	1243	1248	1146	1052	956	883	1023	1056	1091	1034	939	846	946
TDU1\TE_1_TEMP	1037	-1069	1105	1151	1174	1177	1164	1128	1087	1077	1040	976	940	919	920	909	900	868	830	813	814	818
TDU1\TE_2_TEMP	1216	1279	1335	1390	1407	1398	1377	1345	1302	1305	1274	1202	1172	1152	1164	1153	1147	1111	1065	1050	1058	1064
TDU1\TE_3_TEMP	1321	1415	1494	1561	1567	1563	1529	1482	1424	1420	1405	1343	1301	1294	1302	1301	1304	1281	1247	1230	1232	1229
TDU1\TE_4_TEMP	1463	1556	1630	1692	1658	1673	1657	1579	1568	1565	1533	1462	1477	1469	1490	1470	1466	1435	1402	1404	1406	1414
TDU1\TE_5_TEMP	1245	1281	1375	1490	1537	1594	1618	1597	1563	1548	1538	1511	1489	1472	1467	1460	1464	1463	1461	1447	1423	1398
TDU1\TE_6_TEMP	1208	1228	1314	1423	1475	1550	1585	1567	1534	1513	1508	1486	1459	1436	1422	1416	1421	1433	1439	1421	1386	1354
TDU1\TE_7_TEMP	1230	1232	1287	1369	1413	1497	1573	1589	1569	1546	1538	1519	1480	1434	1400	1386	1397	1422	1439	1417	1367	1330
TDU1\TE_8_TEMP	1286	1272	1312	1358	1398	1499	1593	1621	1602	1584	1580	1553	1494	1431	1386	1394	1418	1457	1462	1417	1346	1333
TDU1\TE_9_TEMP	1476	1481	1429	1346	1271	1261	1324	1407	1463	1483	1485	1482	1439	1355	1271	1206	1206	1249	1293	1285	1229	1166
TDU1\ZONE1_TEMP_SET	1188	1188	1188	1188	1388	1388	1388	1328	1308	1308	1158	1158	1158	1158	1158	1158	1058	1058	1058	1058	1058	1058
TDU1\ZONE2_TEMP_SET	1142	1192	1192	1192	1447	1497	1497	1437	1487	1387	1382	1382	1382	1382	1382	1382	1382	1282	1282	1282	1282	1292
TDU1\ZONE3_TEMP_SET	1075	1025	875	875	1215	1215	1215	1215	1215	1350	1180	1170	1170	1170	1170	1170	970	970	970	970	1120	1120
VRS1\CT_LIQUIDOUTLETTEMP	66	66	66	66	66	66	70	73	75	76	78	79	79	80	81	81	81	80	79	81	83	82
VRS1\HC_GASDIFFPRES	0	0	0	0	0	2	2	2	1	2	3	2	3	2	2	2	3	4	3	4	3	3
VRS1\HC_INLETGASPRES	0	0	0	0	-1	-1	-1	-2	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	569	575	573	562	519	713	837	912	951	1012	1053	1099	1128	1131	1109	1066	1040	1033	1044	1047	1005	951
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	0	0	0	0	5	5	4	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	444	445	429	396	351	619	763	863	909	972	1010	1033	1062	1064	1054	1025	1002	996	1012	1017	968	911
VRS1\RD_OXYGEN	20	20	20	20	20	20	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	19	19
VRS1\RD_SCRUBBERDIFFPRES	10	10	10	10	10	10	10	10	10	10	10	10	4	4	1	1	1	1	1	1	1	1
VRS1\RD_SCRUBLIQUIDTEMP	70	69	70	70	70	71	78	83	86	89	92	94	95	96	103	99	98	96	94	98	103	102
VRS1\WESP_CURRENT_AMP	-25	-25	-25	-25	-25	-25	0	0	54	41	37	33	33	41	23	38	22	26	26	27	0	0
VRS1\WESP_DIFFPRES	3	3	3	3	5	5	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5
VRS1\WESP_OUTLETGASFLOW	7	8	1	4	436	449	365	281	180	450	436	453	436	451	471	423	479	465	492	471	398	475
VRS1\WESP_OUTLETGASPRES	0	0	0	0	-3	-4	-3	-4	-4	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-6	-6	-6
VRS1\WESP_OUTLETGASTEMP	71	71	71	71	71	73	73	75	76	79	81	82	84	85	86	87	87	87	87	87	87	88
VRS1\WESP_OXYGEN	21	21	21	21	21	15	12	8	6	4	4	5	5	6	7	5	5	6	7	10	9	8
VRS1\WESP_VOLTAGE_VOLT	-20	-20	-20	-20	-20	-20	0	0	22	26	25	25	25	27	22	26	22	23	23	24	0	0

Continuous Unit 1 data for June 11, 1998

Tagname / Time	12:24	12:30	12:36	12:42	12:48	12:54	13:00	13:06	13:12	13:18	13:24	13:30	13:36	13:42	13:48	13:54	14:00	14:06	14:12	14:18	14:24	14:30
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	20.37	149.3	38.27	22.91	42.67	21.42	45.83	24.94	58.25	24.97	65.84	28.23	60.2	25.19	98.47	34.79	113.8	30.69	115.8	38.86	22.97	39.14
FTO1\TE101	82	85	86	85	86	86	85	85	85	86	86	86	86	87	86	86	88	87	86	87	90	87
FTO1\TE105	139	167	136	183	132	180	131	175	134	174	142	176	157	185	171	179	204	179	234	174	272	173
FTO1\TE106	97	186	133	93	107	204	120	94	121	195	115	100	167	202	112	107	236	186	102	121	328	160
FTO1\TE107	145	96	104	220	127	95	114	208	116	98	140	207	111	105	193	203	108	114	301	178	100	132
FTO1\TE108	1551	1521	1553	1596	1553	1532	1571	1586	1547	1542	1578	1573	1538	1548	1582	1563	1533	1556	1588	1556	1533	1568
FTO1\TE109	1553	1595	1565	1540	1578	1605	1567	1557	1592	1596	1562	1565	1602	1588	1556	1571	1603	1577	1549	1579	1605	1573
TDU1\CYL_DRIVE_AMPS	10	12	10	11	10	11	12	10	11	12	10	11	12	11	12	10	12	12	11	13	12	12
TDU1\CYL_DRIVE_RPM	3.97	3.96	3.97	3.95	3.94	3.96	3.96	3.97	3.97	3.93	3.96	3.92	3.93	3.98	3.93	3.97	3.95	3.94	3.97	3.96	3.96	3.97
TDU1\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\OXYGEN_DISCHARGE	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.72	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TDU1\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\PV_PIC1	-0.9	-1.04	-0.79	-0.97	-0.92	-0.95	-0.89	-0.9	-1.05	-1	-0.83	-1.02	-0.91	-0.82	-1.05	-0.97	-0.92	-1	-1.03	-1.03	-1.03	-1.02
TDU1\TE_10_TEMP	1137	1152	1179	1208	1228	1239	1246	1250	1251	1249	1246	1247	1252	1255	1254	1249	1249	1251	1252	1252	1252	1253
TDU1\TE_11_TEMP	1064	1070	1091	1110	1125	1135	1142	1147	1148	1146	1142	1141	1144	1148	1149	1144	1144	1145	1145	1146	1144	1145
TDU1\TE_12_TEMP	992	976	986	992	991	994	996	995	994	991	986	982	982	984	989	987	982	978	976	973	970	968
TDU1\TE_13_TEMP	851	832	827	829	820	822	822	823	822	820	814	811	810	811	816	812	807	804	801	798	795	793
TDU1\TE_14_TEMP	875	853	905	962	979	958	960	959	958	940	939	954	970	962	929	916	928	944	940	930	924	937
TDU1\TE_15_TEMP	213	213	213	213	213	213	213	213	213	212	212	210	209	204	212	211	213	213	212	212	213	213
TDU1\TE_16_TEMP	1119	1407	1073	1448	1383	1187	1480	1186	1304	1434	1171	1133	1325	1464	1473	1262	1458	1198	1493	1343	1343	1473
TDU1\TE_17_TEMP	1346	1530	1559	1432	1406	1463	1468	1579	1440	1480	1559	1530	1445	1519	1592	1595	1520	1644	1523	1644	1580	1520
TDU1\TE_18_TEMP	950	969	1018	1016	1031	1030	1022	1039	1025	1032	1007	1010	1030	1064	1038	1018	1027	1046	1038	1046	1033	1037
TDU1\TE_1_TEMP	867	-947	1015	1016	998	993	1003	983	991	991	980	996	1001	1005	1005	1004	1017	1004	1015	999	1014	1013
TDU1\TE_2_TEMP	1121	1209	1274	1270	1249	1250	1268	1241	1257	1260	1244	1262	1263	1266	1260	1264	1282	1267	1286	1261	1282	1280
TDU1\TE_3_TEMP	1255	1317	1365	1350	1337	1341	1353	1342	1350	1353	1346	1356	1353	1346	1344	1352	1362	1358	1367	1359	1373	1374
TDU1\TE_4_TEMP	1418	1474	1471	1482	1482	1466	1507	1464	1482	1494	1462	1473	1482	1485	1488	1469	1500	1464	1508	1489	1503	1521
TDU1\TE_5_TEMP	1389	1454	1530	1525	1489	1478	1484	1476	1477	1480	1475	1478	1479	1478	1479	1482	1495	1495	1500	1497	1508	1513
TDU1\TE_6_TEMP	1337	1419	1509	1490	1444	1444	1450	1449	1444	1450	1448	1446	1447	1450	1460	1459	1472	1478	1472	1476	1483	1484
TDU1\TE_7_TEMP	1312	1421	1537	1518	1459	1456	1464	1463	1455	1462	1459	1453	1451	1458	1480	1479	1494	1500	1486	1493	1496	1492
TDU1\TE_8_TEMP	1323	1433	1537	1508	1460	1462	1463	1464	1455	1459	1457	1454	1452	1459	1486	1477	1489	1497	1478	1490	1489	1488
TDU1\TE_9_TEMP	1150	1160	1181	1212	1240	1256	1262	1267	1269	1269	1268	1268	1272	1277	1277	1272	1269	1270	1272	1273	1273	1275
TDU1\ZONE1_TEMP_SET	1108	1258	1258	1258	1253	1253	1253	1253	1253	1253	1253	1203	1303	1253	1263	1263	1273	1273	1273	1273	1278	1278
TDU1\ZONE2_TEMP_SET	1297	1397	1462	1452	1447	1447	1447	1447	1447	1447	1447	1447	1447	1447	1452	1457	1467	1472	1472	1472	1482	1482
TDU1\ZONE3_TEMP_SET	1120	1120	1120	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115
VRS1\CT_LIQUIDOUTLETTEMP	83	85	85	85	86	85	84	85	86	86	86	86	86	87	88	88	87	87	88	88	87	87
VRS1\HC_GASDIFFPRES	3	2	3	3	2	2	3	3	3	3	3	2	2	3	3	3	3	3	3	3	3	2
VRS1\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	911	903	925	930	932	935	937	936	936	933	932	935	938	934	925	921	922	923	923	921	923	928
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	1	1	2	1	2
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	883	874	898	903	905	909	907	899	902	898	898	900	903	905	899	896	900	902	903	901	894	899
VRS1\RD_OXYGEN	-1	20	14	5	6	5	5	5	3	3	7	4	5	5	5	3	3	3	3	4	3	3
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	104	108	108	106	108	106	104	106	108	109	110	109	109	111	112	112	111	111	112	112	111	110
VRS1\WESP_CURRENT_AMP	36	0	0	32	25	30	27	29	33	20	29	25	24	33	27	27	25	28	27	24	30	31
VRS1\WESP_DIFFPRES	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	4	5	5	4	5
VRS1\WESP_OUTLETGASFLOW	448	464	454	366	418	400	396	404	308	397	449	416	423	394	377	392	400	327	327	354	311	404
VRS1\WESP_OUTLETGASPRES	-6	-5	-6	-5	-5	-5	-5	-6	-6	-6	-5	-5	-5	-6	-6	-6	-6	-6	-6	-6	-6	-5
VRS1\WESP_OUTLETGASTEMP	88	91	93	93	93	93	92	92	92	93	93	93	93	93	94	94	94	94	94	94	95	95
VRS1\WESP_OXYGEN	7	6	7	6	7	6	6	6	4	4	7	5	5	6	6	4	4	4	4	4	4	4
VRS1\WESP_VOLTAGE_VOLT	24	0	0	25	24	25	25	25	25	23	25	24	24	26	25	24	24	24	24	23	25	25

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Tagname / Time	14:36	14:42	14:48	14:54	15:00	15:06	15:12	15:18	15:24	15:30	15:36	15:42	15:48	15:54	16:00	16:06	16:12	16:18	16:24	16:30	16:36	16:42
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	21.15	35.55	20.73	33.1	23.21	52.44	24.05	45.45	25.32	64.01	23.55	59.16	25.73	64.54	20.47	24.8	19.83	10.32	22.6	14.56	28.83	11.5
FTO1\TE101	87	87	87	88	87	88	91	89	90	91	89	87	88	89	91	90	88	91	90	88	88	91
FTO1\TE105	251	175	247	179	243	186	218	205	228	214	199	246	219	246	208	311	200	317	200	274	191	279
FTO1\TE106	101	145	286	138	105	176	237	121	111	231	203	110	115	277	211	104	133	373	184	104	153	320
FTO1\TE107	325	154	104	173	304	139	111	226	271	123	120	306	251	114	126	411	196	103	141	346	168	106
FTO1\TE108	1587	1553	1546	1583	1585	1554	1561	1599	1585	1554	1576	1611	1585	1554	1578	1610	1573	1551	1582	1598	1567	1558
FTO1\TE109	1558	1593	1602	1567	1567	1599	1594	1564	1575	1607	1590	1562	1583	1613	1590	1563	1594	1615	1586	1572	1600	1608
TDU1\CYL_DRIVE_AMPS	13	11	14	13	10	12	12	11	12	11	11	11	11	13	13	10	12	12	12	12	10	10
TDU1\CYL_DRIVE_RPM	3.94	3.98	3.98	3.95	3.98	3.96	3.98	3.96	3.93	3.98	3.98	3.93	3.96	3.96	3.94	3.97	3.94	3.93	3.96	3.93	3.96	3.95
TDU1\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\OXYGEN_DISCHARGE	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04
TDU1\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\PV_PIC1	-1.11	-0.93	-0.95	-1.11	-1.03	-1.14	-0.94	-0.93	-0.97	-0.81	-1.01	-1.04	-0.92	-1.02	-0.94	-0.72	-0.94	-0.93	-1.01	-1.16	-1.06	-1.13
TDU1\TE_10_TEMP	1259	1267	1272	1271	1271	1271	1270	1270	1272	1276	1281	1284	1285	1284	1284	1286	1288	1294	1295	1293	1294	1302
TDU1\TE_11_TEMP	1149	1157	1164	1164	1164	1164	1162	1162	1162	1164	1168	1172	1173	1174	1173	1175	1177	1181	1183	1181	1181	1186
TDU1\TE_12_TEMP	970	976	983	986	987	988	989	990	990	991	994	996	998	999	1000	1001	1004	1009	1013	1014	1014	1016
TDU1\TE_13_TEMP	793	796	802	805	806	806	809	809	808	809	811	814	816	817	818	820	823	827	830	830	830	831
TDU1\TE_14_TEMP	964	974	963	948	950	960	957	951	958	968	977	968	964	970	973	976	979	993	975	966	978	986
TDU1\TE_15_TEMP	213	211	213	213	212	212	213	213	213	209	212	213	207	211	212	211	212	211	212	213	213	213
TDU1\TE_16_TEMP	1189	1458	1394	1212	1494	1308	1263	1480	1218	1358	1436	1185	1448	1373	1197	1474	1133	1339	1426	1178	1484	1240
TDU1\TE_17_TEMP	1520	1468	1563	1500	1474	1623	1459	1495	1609	1462	1510	1525	1469	1587	1457	1491	1442	1498	1532	1487	1479	1455
TDU1\TE_18_TEMP	1068	1065	1072	1071	1073	1077	1077	1081	1077	1096	1097	1103	1101	1103	1097	1112	1117	1120	1124	1105	1120	1126
TDU1\TE_1_TEMP	1004	-1016	1006	1004	1019	1001	1010	1017	1000	1014	1007	995	1008	996	995	1006	987	999	995	987	1001	980
TDU1\TE_2_TEMP	1270	1291	1273	1272	1294	1265	1276	1290	1265	1266	1276	1258	1280	1262	1264	1281	1253	1269	1265	1257	1278	1252
TDU1\TE_3_TEMP	1373	1382	1375	1371	1382	1368	1371	1376	1366	1376	1371	1360	1371	1364	1366	1378	1367	1376	1374	1365	1375	1372
TDU1\TE_4_TEMP	1498	1529	1512	1493	1530	1496	1496	1520	1487	1513	1515	1484	1521	1505	1493	1531	1495	1523	1522	1491	1531	1517
TDU1\TE_5_TEMP	1509	1510	1508	1502	1511	1504	1503	1509	1502	1508	1505	1497	1505	1502	1498	1507	1499	1502	1502	1494	1504	1502
TDU1\TE_6_TEMP	1480	1471	1477	1469	1474	1477	1468	1475	1475	1472	1468	1465	1468	1473	1464	1471	1462	1462	1467	1459	1465	1465
TDU1\TE_7_TEMP	1484	1473	1485	1475	1479	1488	1474	1483	1486	1477	1473	1472	1475	1484	1470	1478	1466	1463	1474	1466	1473	1470
TDU1\TE_8_TEMP	1483	1474	1485	1475	1477	1488	1474	1482	1487	1479	1475	1478	1478	1487	1476	1481	1475	1476	1484	1477	1483	1486
TDU1\TE_9_TEMP	1280	1288	1294	1295	1295	1295	1295	1295	1296	1299	1305	1308	1309	1309	1312	1314	1318	1323	1327	1327	1326	1330
TDU1\ZONE1_TEMP_SET	1278	1278	1278	1278	1278	1278	1278	1278	1278	1278	1268	1268	1268	1268	1268	1268	1263	1263	1263	1263	1263	1263
TDU1\ZONE2_TEMP_SET	1472	1472	1472	1472	1472	1472	1472	1472	1472	1472	1467	1467	1467	1467	1467	1467	1462	1462	1462	1462	1462	1462
TDU1\ZONE3_TEMP_SET	1115	1115	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110
VRS1\CT_LIQUIDOUTLETTEMP	86	86	87	87	87	87	86	87	86	87	87	87	87	87	87	87	86	87	87	87	87	86
VRS1\HC_GASDIFFPRES	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
VRS1\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	936	941	941	944	943	943	944	942	945	949	953	954	954	956	958	960	968	969	968	958	970	975
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	2	2	2	2	2	1	2	1	2	2	2	2	2	1	2	2	2	2	2	1	2	2
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	910	909	910	914	917	919	923	921	924	928	932	929	932	935	937	939	945	949	949	947	948	947
VRS1\RD_OXYGEN	4	4	4	4	3	3	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	108	108	109	110	110	110	108	107	108	108	108	109	108	109	109	109	105	108	110	109	108	106
VRS1\WESP_CURRENT_AMP	37	28	31	25	34	41	26	27	28	18	30	33	24	25	29	34	21	30	31	21	33	34
VRS1\WESP_DIFFPRES	4	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5
VRS1\WESP_OUTLETGASFLOW	352	396	369	378	305	280	335	337	339	409	316	362	429	382	410	476	391	393	410	376	416	435
VRS1\WESP_OUTLETGASPRES	-5	-6	-6	-5	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-5	-5
VRS1\WESP_OUTLETGASTEMP	95	94	94	94	94	95	95	97	97	96	96	95	95	95	94	94	94	93	93	94	93	93
VRS1\WESP_OXYGEN	4	5	5	5	4	4	4	5	4	5	5	5	5	4	5	5	5	6	5	4	3	3
VRS1\WESP_VOLTAGE_VOLT	27	25	25	24	25	28	24	24	25	14	25	26	24	24	25	26	22	26	25	23	26	26

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Tagname / Time	16:48	16:54	17:00	17:06	17:12	17:18	17:24	17:30	17:36	17:42	17:48	17:54	18:00	18:06	18:12	18:18	18:24	18:30	18:36	18:42	18:48	18:54
FTO1\\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\\CPMS_LEVEL	14.76	11.66	23.55	11.78	30.69	17.39	48.14	23.49	95.58	25.7	11.69	20.87	13.28	21.98	11.61	22.06	14.63	28.13	11.46	23.73	14.78	36.5
FTO1\\TE101	88	85	86	89	88	89	90	91	90	90	93	88	90	90	91	89	88	89	90	89	89	90
FTO1\\TE105	193	254	198	233	202	208	223	203	227	186	320	194	273	184	281	185	244	186	240	191	214	208
FTO1\\TE106	148	106	191	252	122	112	243	206	110	124	375	183	104	141	323	151	104	170	263	127	110	219
FTO1\\TE107	175	309	138	110	217	233	114	116	272	187	102	127	344	164	103	153	298	136	106	193	244	117
FTO1\\TE108	1592	1591	1560	1566	1594	1579	1551	1567	1592	1566	1541	1571	1594	1562	1550	1583	1588	1558	1558	1589	1578	1550
FTO1\\TE109	1578	1577	1606	1599	1573	1583	1607	1589	1564	1587	1614	1585	1566	1598	1612	1581	1576	1606	1603	1574	1580	1607
TDU1\\CYL_DRIVE_AMPS	10	11	11	13	13	14	12	14	14	11	10	12	10	11	10	10	11	11	11	11	10	12
TDU1\\CYL_DRIVE_RPM	3.94	3.97	3.93	3.97	3.97	3.94	3.96	3.96	3.95	3.97	3.97	3.94	3.96	3.95	3.94	3.96	3.93	3.96	3.94	3.92	3.97	3.93
TDU1\\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\\OXYGEN_DISCHARGE	0.28	0.01	0.14	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.78	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.19	0.01	0.01	0.01
TDU1\\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\\PV_PIC1	-0.93	-0.92	-0.98	-0.94	-0.96	-0.86	-1.12	-1.07	-1.11	-0.91	-0.88	-0.92	-1.02	-1.01	-1	-0.89	-1.04	-1.03	-0.83	-0.87	-1.12	-1.13
TDU1\\TE_10_TEMP	1324	1342	1345	1337	1315	1286	1262	1258	1272	1288	1302	1317	1333	1342	1344	1341	1333	1323	1317	1316	1314	1307
TDU1\\TE_11_TEMP	1205	1224	1232	1227	1206	1174	1152	1143	1152	1161	1172	1186	1201	1213	1217	1217	1211	1202	1194	1192	1189	1184
TDU1\\TE_12_TEMP	1027	1047	1063	1067	1055	1027	995	969	961	966	979	996	1013	1028	1038	1043	1043	1039	1034	1031	1030	1028
TDU1\\TE_13_TEMP	840	856	871	876	867	842	814	787	774	773	780	793	807	822	834	840	841	838	833	830	828	825
TDU1\\TE_14_TEMP	1052	1068	1035	1001	914	837	815	848	930	966	974	986	1026	1019	1001	999	981	965	974	987	982	965
TDU1\\TE_15_TEMP	189	179	213	213	214	212	213	213	212	212	185	213	210	212	209	211	209	210	213	210	211	212
TDU1\\TE_16_TEMP	1094	1018	1027	1306	1504	1538	1598	1081	1535	1353	1275	1515	953	1472	1446	1312	1198	1457	1175	1432	1278	1188
TDU1\\TE_17_TEMP	1447	1418	1399	1381	1369	1367	1743	1641	1492	1550	1618	1488	1436	1425	1411	1408	1401	1402	1409	1408	1398	1397
TDU1\\TE_18_TEMP	1164	1177	1166	1149	1105	1058	1084	1060	1096	1121	1139	1148	1161	1171	1163	1152	1140	1127	1129	1136	1136	1120
TDU1\\TE_1_TEMP	964	931	897	867	902	980	1088	1060	1074	1051	1052	1061	1006	1015	987	971	970	972	958	964	950	953
TDU1\\TE_2_TEMP	1239	1196	1154	1122	1168	1262	1356	1322	1338	1312	1317	1335	1263	1260	1253	1230	1236	1246	1226	1243	1218	1227
TDU1\\TE_3_TEMP	1368	1331	1292	1255	1271	1332	1401	1399	1406	1403	1413	1428	1381	1378	1364	1354	1357	1362	1357	1363	1346	1345
TDU1\\TE_4_TEMP	1497	1453	1425	1418	1469	1514	1563	1478	1542	1525	1534	1572	1477	1534	1513	1504	1495	1522	1495	1520	1493	1484
TDU1\\TE_5_TEMP	1500	1478	1451	1428	1422	1431	1467	1537	1577	1556	1549	1553	1515	1502	1483	1469	1464	1463	1457	1463	1453	1449
TDU1\\TE_6_TEMP	1462	1441	1415	1389	1367	1356	1407	1495	1534	1515	1515	1512	1480	1454	1432	1417	1407	1402	1400	1402	1396	1390
TDU1\\TE_7_TEMP	1466	1450	1426	1399	1370	1346	1404	1519	1564	1535	1528	1518	1489	1457	1431	1413	1399	1390	1388	1389	1384	1378
TDU1\\TE_8_TEMP	1493	1478	1455	1431	1397	1371	1448	1541	1566	1538	1535	1526	1503	1475	1456	1441	1428	1419	1421	1422	1418	1411
TDU1\\TE_9_TEMP	1346	1366	1374	1367	1350	1324	1298	1284	1292	1309	1324	1337	1352	1364	1367	1365	1360	1352	1347	1346	1346	1343
TDU1\ZONE1_TEMP_SET	1228	1178	1118	1118	1183	1283	1328	1328	1328	1323	1323	1318	1268	1218	1243	1238	1238	1238	1238	1233	1228	1228
TDU1\ZONE2_TEMP_SET	1462	1312	1302	1252	1252	1352	1467	1517	1517	1512	1512	1502	1417	1367	1392	1367	1367	1367	1367	1362	1377	1377
TDU1\ZONE3_TEMP_SET	1110	1110	1110	1110	1110	1110	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160
VRS1\\CT_LIQUIDOUTLETTEMP	83	86	85	86	87	88	88	86	87	87	87	87	86	85	86	86	87	86	85	86	86	85
VRS1\\HC_GASDIFFPRES	3	3	2	2	4	3	3	3	3	2	2	3	3	3	3	3	3	3	3	4	4	3
VRS1\\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\\HC_INLETGASTEMP	998	1011	1015	993	945	907	891	904	922	934	955	967	980	989	989	986	981	977	979	978	975	969
VRS1\\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_OUTLETPRES	2	2	2	1	1	2	1	2	1	2	2	2	2	2	2	2	1	2	2	2	1	2
VRS1\\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_INLETGASTEMP	972	984	988	972	928	894	880	890	908	920	934	938	953	965	965	964	957	954	957	956	942	924
VRS1\\RD_OXYGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_SCRUBLIQUIDTEMP	100	104	104	106	109	111	110	107	108	109	109	107	106	103	105	107	108	106	104	105	107	103
VRS1\\WESP_CURRENT_AMP	30	38	31	26	32	33	28	36	37	29	26	36	25	29	46	38	36	34	33	32	27	25
VRS1\\WESP_DIFFPRES	5	5	5	5	4	4	4	5	5	5	5	5	5	5	5	5	4	5	5	5	5	4
VRS1\\WESP_OUTLETGASFLOW	464	359	410	370	321	365	349	384	352	397	487	415	407	404	364	383	367	399	451	388	360	372
VRS1\\WESP_OUTLETGASPRES	-5	-5	-5	-6	-6	-6	-6	-5	-6	-5	-5	-6	-5	-6	-5	-6	-6	-5	-6	-6	-6	-6
VRS1\\WESP_OUTLETGASTEMP	93	91	91	92	92	93	94	94	94	94	95	95	94	93	94	92	91	92	92	92	92	93
VRS1\\WESP_OXYGEN	6	6	5	6	5	5	4	5	3	4	7	3	4	5	4	4	5	4	4	5	4	4
VRS1\\WESP_VOLTAGE_VOLT	26	27	26	25	26	26	25	27	27	23	26	27	24	26	29	27	27	26	26	26	25	24

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Tagname / Time	19:00	19:06	19:12	19:18	19:24	19:30	19:36	19:42	19:48	19:54	20:00	20:06	20:12	20:18	20:24	20:30	20:36	20:42	20:48	20:54	21:00	21:06
FTO1\\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\\CPMS_LEVEL	13.73	37.26	16.37	45.3	10.57	7.53	13.7	5.93	10.25	8.18	9.11	6.03	7.56	4.42	6.38	4.62	19.85	7.28	31.48	10.82	10.95	11.79
FTO1\\TE101	90	89	91	90	88	86	86	86	86	86	85	85	82	84	86	87	87	86	86	86	85	85
FTO1\\TE105	206	218	197	266	189	269	178	275	177	251	167	240	163	201	161	191	170	161	192	157	203	135
FTO1\\TE106	212	112	116	304	181	100	127	310	153	100	142	258	122	98	165	195	104	99	208	150	91	102
FTO1\\TE107	112	254	210	104	121	340	167	99	133	299	135	96	146	223	106	95	180	164	93	97	234	128
FTO1\\TE108	1564	1592	1569	1541	1568	1592	1559	1541	1573	1583	1549	1537	1525	1501	1491	1460	1386	1403	1454	1394	1283	1402
FTO1\\TE109	1591	1563	1581	1609	1581	1559	1586	1602	1571	1559	1577	1555	1531	1505	1439	1427	1438	1387	1273	1339	1402	1289
TDU1\\CYL_DRIVE_AMPS	10	10	10	10	11	10	10	9	7	7	6	7	7	7	7	6	6	7	6	7	7	6
TDU1\\CYL_DRIVE_RPM	3.97	3.94	3.93	3.97	3.95	3.96	3.97	3.97	3.96	3.98	3.94	3.97	1.35	1.35	1.36	1.36	1.35	1.35	1.36	1.35	1.36	3.96
TDU1\\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\\OXYGEN_DISCHARGE	0.01	0.02	0.01	2.07	0.46	1.23	2.04	3.18	3.97	5.6	13.3	18.47	19.09	19.06	13.71	14.03	16.57	16.98	16.95	17.12	13.22	13.39
TDU1\\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\\PV_PIC1	-1.11	-1.13	-1.12	-0.88	-0.83	-0.93	-1.4	-1.32	-1.02	-0.9	-0.76	-0.58	-0.67	-0.68	-0.59	-0.59	-0.58	-0.59	-0.59	-0.56	-0.67	-0.6
TDU1\\TE_10_TEMP	1298	1290	1285	1291	1291	1242	1188	1170	1203	1268	1335	1344	1302	1238	1169	1108	1065	1050	1058	1105	1173	1201
TDU1\\TE_11_TEMP	1177	1168	1163	1166	1169	1144	1105	1084	1095	1132	1181	1201	1181	1138	1086	1035	996	968	961	981	1024	1046
TDU1\\TE_12_TEMP	1022	1014	1008	1006	1014	1015	1000	978	970	980	1001	1023	1027	1010	978	939	901	871	850	847	864	879
TDU1\\TE_13_TEMP	819	810	804	802	807	810	804	794	788	790	799	801	797	785	762	728	699	671	649	638	639	638
TDU1\\TE_14_TEMP	951	944	946	975	1021	993	943	908	940	933	916	899	866	826	789	763	743	728	713	709	711	726
TDU1\\TE_15_TEMP	212	213	211	205	178	193	209	197	149	125	112	103	98	94	91	89	87	86	85	84	84	83
TDU1\\TE_16_TEMP	1447	1143	1366	1267	1185	951	1058	1164	1129	1165	1217	863	671	533	1186	1116	700	550	448	374	1138	1671
TDU1\\TE_17_TEMP	1396	1395	1409	1428	1405	1355	1339	1435	1539	1615	1426	1246	1130	1035	1436	1440	1431	1376	1495	1487	1540	1570
TDU1\\TE_18_TEMP	1104	1096	1095	1117	992	894	844	1001	1052	1095	1128	1003	930	871	813	773	818	862	886	949	987	740
TDU1\\TE_1_TEMP	960	-947	960	946	936	895	909	909	924	950	991	1017	1011	976	937	938	950	936	898	846	829	1028
TDU1\\TE_2_TEMP	1239	1219	1236	1219	1209	1152	1167	1169	1193	1235	1284	1305	1265	1195	1138	1150	1177	1155	1098	1024	1000	1220
TDU1\\TE_3_TEMP	1349	1338	1351	1349	1346	1303	1302	1325	1390	1461	1524	1524	1443	1337	1254	1279	1318	1284	1218	1141	1100	1281
TDU1\\TE_4_TEMP	1508	1476	1512	1504	1490	1424	1447	1484	1566	1630	1683	1616	1493	1370	1342	1425	1427	1356	1277	1199	1252	1550
TDU1\\TE_5_TEMP	1448	1441	1451	1458	1462	1438	1432	1447	1511	1595	1630	1592	1502	1395	1350	1406	1465	1465	1436	1396	1390	1500
TDU1\\TE_6_TEMP	1385	1381	1388	1401	1409	1390	1377	1398	1475	1571	1601	1559	1475	1376	1358	1404	1454	1469	1460	1442	1448	1526
TDU1\\TE_7_TEMP	1374	1371	1375	1389	1397	1373	1349	1368	1447	1553	1588	1543	1460	1366	1351	1384	1433	1472	1507	1540	1567	1595
TDU1\\TE_8_TEMP	1407	1408	1410	1429	1420	1374	1340	1391	1484	1590	1598	1519	1423	1328	1321	1341	1393	1418	1483	1537	1581	1576
TDU1\\TE_9_TEMP	1336	1328	1323	1325	1333	1302	1240	1201	1225	1294	1378	1421	1389	1322	1248	1178	1122	1107	1103	1144	1222	1284
TDU1\ZONE1_TEMP_SET	1228	1228	1228	1228	1193	1153	1153	1173	1173	1143	1143	1148	1138	1138	1138	1138	898	923	943	943	993	1258
TDU1\ZONE2_TEMP_SET	1377	1377	1377	1377	1367	1377	1347	1402	1402	1367	1367	1347	1347	1347	1347	1347	1347	1347	1347	1347	1347	1352
TDU1\ZONE3_TEMP_SET	1160	1160	1160	1160	1160	1145	1106	1115	1115	1100	1005	1005	1005	1005	1005	1005	1030	918	910	910	1030	998
VRS1\\CT_LIQUIDOUTLETTEMP	86	86	86	85	85	84	85	82	79	77	74	73	72	71	71	71	71	71	71	71	71	71
VRS1\\HC_GASDIFFPRES	4	4	4	4	3	3	2	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1
VRS1\\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	0	0	-1	-1	0	-1	-1	-1	-1	-1
VRS1\\HC_INLETGASTEMP	962	958	954	969	980	972	955	930	930	946	970	986	978	951	924	918	918	916	908	908	909	927
VRS1\\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_OUTLETPRES	2	1	2	2	2	0	2	2	3	3	3	4	4	4	4	4	4	4	4	4	4	4
VRS1\\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_INLETGASTEMP	926	927	922	938	943	938	924	895	894	905	923	933	922	894	871	870	868	866	858	850	861	881
VRS1\\RD_OXYGEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_SCRUBLIQUIDTEMP	105	106	105	102	103	101	103	96	90	86	81	79	78	77	77	77	77	76	77	77	76	76
VRS1\\WESP_CURRENT_AMP	31	27	32	25	24	25	22	25	26	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\WESP_DIFFPRES	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
VRS1\\WESP_OUTLETGASFLOW	404	384	486	475	442	662	416	607	607	719	710	775	792	855	826	870	851	849	843	768	863	844
VRS1\\WESP_OUTLETGASPRES	-6	-5	-5	-5	-5	-6	-5	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4
VRS1\\WESP_OUTLETGASTEMP	93	93	93	93	93	92	92	92	91	89	87	85	83	82	81	80	80	80	79	79	79	79
VRS1\\WESP_OXYGEN	4	5	4	6	7	8	6	6	9	12	16	19	20	20	17	16	18	18	18	18	17	16
VRS1\\WESP_VOLTAGE_VOLT	25	24	26	25	24	25	24	25	26	0	0	0	0	0	0	0	0	0	0	0	0	0

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Tagname / Time	21:12	21:18	21:24	21:30	21:36	21:42	21:48	21:54	22:00	22:06	22:12	22:18	22:24	22:30	22:36	22:42	22:48	22:54	23:00	23:06	23:12	23:18
FTO1\\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\\CPMS_LEVEL	9.61	14.96	9.2	24.1	16.67	39.85	25.15	42.25	10.18	11.82	10.12	45.48	9.37	29.77	17.14	14.49	19.27	12.22	23.49	12.34	25.82	12.55
FTO1\\TE101	86	85	84	84	82	83	83	84	85	85	83	82	81	80	79	79	78	78	79	79	79	79
FTO1\\TE105	214	135	169	122	151	119	134	118	137	120	124	127	124	137	112	170	112	145	105	157	108	132
FTO1\\TE106	230	123	89	107	155	102	89	117	143	94	90	140	128	85	89	188	108	82	98	170	98	83
FTO1\\TE107	88	101	189	107	87	109	144	95	90	125	131	87	88	153	111	81	89	166	96	82	95	144
FTO1\\TE108	1468	1348	1284	1446	1481	1464	1704	1638	1650	1508	1492	1504	1430	1289	1395	1480	1356	1259	1411	1452	1299	1272
FTO1\\TE109	1178	1309	1348	1222	1217	1431	1579	1537	1545	1553	1449	1264	1331	1412	1286	1139	1285	1356	1192	1120	1280	1296
TDU1\\CYL_DRIVE_AMPS	7	7	10	10	11	13	11	11	10	11	10	11	10	7	6	7	6	6	6	7	8	8
TDU1\\CYL_DRIVE_RPM	3.93	3.96	3.97	3.93	3.95	3.95	3.96	3.97	1.19	1.2	1.2	1.21	1.19	1.2	1.2	1.2	1.21	1.21	1.22	1.21	1.21	1.22
TDU1\\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\\OXYGEN_DISCHARGE	15.65	14.55	4.89	2.21	0.56	0.01	0.01	0.01	4.15	6.7	9.33	14.45	15.77	18.66	19.14	19.28	19.37	19.52	19.45	18.19	19.49	19.56
TDU1\\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\\PV_PIC1	-0.59	-0.57	-0.48	-0.77	-0.95	-0.87	-1.12	-1.12	-1.08	-0.96	-0.91	-0.79	-0.82	-0.87	-0.82	-0.7	-0.75	-0.54	-0.48	-0.49	-0.52	-0.53
TDU1\\TE_10_TEMP	1209	1213	1212	1230	1242	1248	1251	1254	1262	1275	1252	1212	1173	1138	1102	1064	1022	978	935	892	851	813
TDU1\\TE_11_TEMP	1060	1064	1069	1089	1111	1131	1141	1146	1154	1166	1152	1124	1094	1065	1035	1002	966	927	888	850	812	776
TDU1\\TE_12_TEMP	884	888	887	897	917	936	949	959	970	983	991	990	980	966	948	925	897	867	835	803	770	738
TDU1\\TE_13_TEMP	637	634	635	647	670	693	711	726	739	751	750	746	743	736	726	719	689	664	636	606	574	542
TDU1\\TE_14_TEMP	733	747	768	893	913	891	937	957	943	943	956	965	959	940	906	862	814	770	727	686	646	606
TDU1\\TE_15_TEMP	82	82	81	76	205	178	205	210	208	201	189	175	111	105	103	102	101	91	83	76	78	78
TDU1\\TE_16_TEMP	1406	1329	717	879	1079	1528	1144	1324	1008	1191	1146	1180	1230	885	672	525	404	347	460	823	488	381
TDU1\\TE_17_TEMP	1430	1262	1181	1230	1464	1514	1526	1435	1435	1481	1437	1265	1193	1100	1014	945	877	813	815	814	742	601
TDU1\\TE_18_TEMP	964	745	961	1028	1053	1056	1065	1060	1062	1032	923	886	862	835	802	775	737	697	661	598	582	556
TDU1\\TE_1_TEMP	1225	1321	1248	1125	1097	1114	1096	1077	1008	999	995	1008	1033	1049	1031	984	920	850	783	768	757	731
TDU1\\TE_2_TEMP	1441	1531	1445	1306	1285	1326	1322	1313	1244	1255	1274	1303	1337	1340	1289	1209	1117	1025	937	942	946	915
TDU1\\TE_3_TEMP	1536	1563	1566	1411	1368	1387	1394	1392	1356	1390	1440	1492	1542	1525	1433	1323	1214	1112	1019	1036	1050	1016
TDU1\\TE_4_TEMP	1725	1779	1586	1450	1461	1529	1503	1521	1474	1555	1601	1649	1684	1601	1473	1349	1236	1137	1072	1160	1133	1072
TDU1\\TE_5_TEMP	1611	1629	1548	1425	1408	1487	1515	1511	1487	1513	1560	1565	1544	1494	1414	1319	1222	1130	1058	1038	1011	965
TDU1\\TE_6_TEMP	1590	1578	1497	1380	1369	1451	1477	1465	1449	1476	1522	1513	1477	1425	1356	1277	1192	1112	1050	1018	981	937
TDU1\\TE_7_TEMP	1601	1544	1463	1364	1366	1469	1497	1472	1454	1475	1512	1488	1435	1371	1301	1229	1157	1088	1042	1000	952	901
TDU1\\TE_8_TEMP	1575	1476	1423	1348	1381	1478	1497	1475	1472	1496	1512	1449	1377	1307	1239	1171	1103	1038	997	945	896	846
TDU1\\TE_9_TEMP	1281	1296	1284	1286	1299	1299	1298	1299	1303	1317	1312	1275	1236	1199	1162	1121	1077	1031	985	938	894	853
TDU1\\ZONE1_TEMP_SET	1293	1318	1318	1318	1258	1303	1323	1253	1253	1138	1138	1138	1138	1138	1138	1128	1003	1003	943	783	783	783
TDU1\\ZONE2_TEMP_SET	1347	1342	1342	1347	1377	1422	1467	1467	1377	1312	1262	1262	1262	1262	1242	1212	1107	1107	857	847	847	847
TDU1\\ZONE3_TEMP_SET	1045	1014	1109	1109	1134	1164	1164	1154	1109	959	959	959	959	959	959	954	894	894	834	759	759	759
VRS1\\CT_LIQUIDOUTLETTEMP	71	71	73	76	80	83	85	86	81	78	75	73	71	71	71	71	70	70	70	70	70	70
VRS1\\HC_GASDIFFPRES	1	1	2	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
VRS1\\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	0	0	-1	-1
VRS1\\HC_INLETGASTEMP	947	956	941	918	901	909	920	932	937	938	941	937	934	927	910	886	858	829	801	779	757	730
VRS1\\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\HE_SCRUBSIDEDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_OUTLETPRES	4	4	4	2	2	2	2	2	3	3	3	3	4	4	4	4	4	5	5	5	4	4
VRS1\\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_INLETGASTEMP	897	902	897	875	872	880	893	904	890	884	882	875	873	863	846	821	796	767	740	717	696	672
VRS1\\RD_OXYGEN	-1	19	17	16	5	6	4	4	7	10	11	18	17	20	20	20	20	20	20	19	20	20
VRS1\\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_SCRUBLIQUIDTEMP	77	77	82	87	95	101	105	104	95	87	82	79	77	77	77	76	76	76	76	75	75	75
VRS1\\WESP_CURRENT_AMP	0	0	0	0	30	47	27	25	17	10	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\WESP_DIFFPRES	5	5	5	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4	4
VRS1\\WESP_OUTLETGASFLOW	841	795	729	444	373	427	352	344	569	638	617	629	653	733	719	708	686	816	807	830	790	798
VRS1\\WESP_OUTLETGASPRES	-4	-4	-4	-5	-5	-5	-5	-5	-4	-4	-4	-3	-4	-4	-4	-3	-4	-3	-3	-3	-3	-3
VRS1\\WESP_OUTLETGASTEMP	79	79	79	80	81	85	86	88	88	87	85	83	81	79	78	78	77	77	77	76	76	76
VRS1\\WESP_OXYGEN	17	19	17	16	5	6	4	4	7	9	11	16	17	19	19	19	19	19	19	18	19	19
VRS1\\WESP_VOLTAGE_VOLT	0	0	0	0	22	28	24	23	22	19	0	0	0	0	0	0	0	0	0	0	0	0

Continuous Unit 1 data for June 11, 1998

Tagname	Time 23:24	23:30	23:36	23:42	23:48	23:54
FTO1\COMB_FAN	0	0	0	0	0	0
FTO1\CPMS_LEVEL	30.82	12.37	37.56	13.68	39.69	13.43
FTO1\TE101	79	79	79	79	79	79
FTO1\TE105	106	137	109	120	118	124
FTO1\TE106	105	144	90	84	125	125
FTO1\TE107	89	82	107	124	84	85
FTO1\TE108	1420	1407	1241	1293	1428	1362
FTO1\TE109	1121	1133	1292	1237	1061	1155
TDU1\CYL_DRIVE_AMPS	8	8	7	8	7	7
TDU1\CYL_DRIVE_RPM	1.21	1.2	1.19	1.19	1.2	1.2
TDU1\CYL_FEED_SPEED_SET	76	76	76	76	76	76
TDU1\OXYGEN_DISCHARGE	18.63	11.84	12	11.69	12.07	18.72
TDU1\PURGE_DAMPER	45	45	45	45	45	45
TDU1\PV_PIC1	-0.64	-0.64	-0.65	-0.64	-0.64	-0.62
TDU1\TE_10_TEMP	803	847	925	1008	1099	1184
TDU1\TE_11_TEMP	757	780	819	871	934	999
TDU1\TE_12_TEMP	709	716	738	767	809	862
TDU1\TE_13_TEMP	519	518	522	533	559	589
TDU1\TE_14_TEMP	571	553	558	580	613	644
TDU1\TE_15_TEMP	92	80	77	76	75	74
TDU1\TE_16_TEMP	717	1002	1183	1588	1302	959
TDU1\TE_17_TEMP	961	1388	1522	1555	1622	1362
TDU1\TE_18_TEMP	703	777	799	861	920	967
TDU1\TE_1_TEMP	702	781	875	1010	1106	1155
TDU1\TE_2_TEMP	873	974	1107	1267	1380	1417
TDU1\TE_3_TEMP	963	1053	1211	1391	1537	1565
TDU1\TE_4_TEMP	1055	1213	1400	1604	1700	1650
TDU1\TE_5_TEMP	922	1064	1264	1449	1594	1626
TDU1\TE_6_TEMP	904	1076	1255	1419	1561	1588
TDU1\TE_7_TEMP	882	1062	1247	1407	1552	1578
TDU1\TE_8_TEMP	873	1095	1270	1424	1562	1561
TDU1\TE_9_TEMP	821	854	948	1053	1161	1263
TDU1\ZONE1_TEMP_SET	933	933	1138	1253	1258	1258
TDU1\ZONE2_TEMP_SET	997	997	1257	1312	1407	1407
TDU1\ZONE3_TEMP_SET	809	809	874	904	919	919
VRS1\CT_LIQUIDOUTLETTEMP	70	70	70	70	70	70
VRS1\HC_GASDIFFPRES	1	1	1	1	1	1
VRS1\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	704	725	764	808	851	887
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFPRES	0	0	0	0	0	0
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	4	4	4	4	4	4
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	649	679	717	758	799	831
VRS1\RD_OXYGEN	20	14	15	15	15	19
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	75	75	75	76	76	76
VRS1\WESP_CURRENT_AMP	0	0	0	0	0	0
VRS1\WESP_DIFFPRES	4	4	4	4	4	4
VRS1\WESP_OUTLETGASFLOW	722	767	706	782	737	727
VRS1\WESP_OUTLETGASPRES	-3	-3	-3	-3	-3	-3
VRS1\WESP_OUTLETGASTEMP	76	76	76	76	77	77
VRS1\WESP_OXYGEN	19	14	14	14	14	19
VRS1\WESP_VOLTAGE_VOLT	0	0	0	0	0	0

Continuous Unit 1 data for June 12, 1998

Tagname / Time	10:04	10:10	10:16	10:22	10:28	10:34	10:40	10:46	10:52	10:58	11:04	11:10	11:16	11:22	11:28	11:34	11:40	11:46	11:52	11:58	12:04	12:10
FTO1\\COMB_FAN	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\\CPMS_LEVEL	0.46	5.1	5.52	19.84	6.27	9.11	6.31	20.76	6.08	24.21	12.51	42.26	18.11	37.63	16.73	72.68	23.17	15.35	14.43	13.46	32.22	12.28
FTO1\\TE101	73	78	81	83	83	84	85	86	86	86	87	87	88	88	89	89	89	91	87	88	88	89
FTO1\\TE105	114	119	169	119	142	113	144	115	130	116	129	120	121	130	123	132	116	156	114	147	115	138
FTO1\\TE106	83	94	194	114	88	106	155	101	92	118	133	96	95	141	123	94	100	173	106	92	103	148
FTO1\\TE107	127	122	85	98	159	99	89	109	139	96	93	123	123	95	96	145	112	94	102	169	107	94
FTO1\\TE108	1519	1599	1666	1655	1601	1608	1610	1631	1617	1596	1602	1632	1615	1591	1605	1630	1605	1582	1612	1622	1593	1581
FTO1\\TE109	1525	1534	1528	1629	1633	1597	1627	1612	1618	1630	1623	1610	1623	1648	1625	1604	1627	1659	1624	1599	1619	1626
TDU1\\CYL_DRIVE_AMPS	10	10	10	9	9	9	11	10	11	11	12	12	12	13	13	12	11	10	10	11	10	11
TDU1\\CYL_DRIVE_RPM	4.01	4.01	4.01	4.02	4.03	4	4.01	4.01	3.99	4	4.01	4	4	4.01	4.01	3.99	3.98	3.98	3.99	3.98	4.02	4.03
TDU1\\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\\OXYGEN_DISCHARGE	10.93	4.55	0.81	1.14	2.91	1.53	1.5	1.87	1.07	0.36	0.25	0.27	0.34	0.85	0.46	1.05	0.01	1.09	0.01	0.01	0.01	0.01
TDU1\\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\\PV_PIC1	-0.3	-0.75	-1.09	-1.17	-1.15	-1.01	-1.06	-1.13	-1.06	-0.98	-0.95	-0.91	-1	-0.88	-1.05	-0.93	-1.11	-1.01	-0.49	-1.02	-0.93	-1.05
TDU1\\TE_10_TEMP	1164	1189	1205	1209	1185	1139	1089	1043	1020	1051	1109	1159	1194	1198	1153	1086	1057	1093	1166	1238	1287	1309
TDU1\\TE_11_TEMP	1026	1059	1079	1087	1077	1053	1021	989	967	979	1015	1053	1083	1094	1070	1023	1002	1014	1057	1112	1156	1187
TDU1\\TE_12_TEMP	923	949	962	962	957	948	937	923	907	900	910	929	949	964	964	946	920	909	919	949	987	1017
TDU1\\TE_13_TEMP	635	661	686	704	711	716	719	718	715	717	730	748	767	780	781	768	754	746	750	773	804	832
TDU1\\TE_14_TEMP	644	789	873	868	894	938	928	916	898	921	938	959	963	960	951	888	848	860	947	1031	1031	1027
TDU1\\TE_15_TEMP	78	75	177	204	211	211	204	212	212	212	212	212	212	212	212	212	213	212	212	206	213	212
TDU1\\TE_16_TEMP	1089	956	1371	1114	1049	1389	1294	1131	1446	1213	1420	1198	1299	1370	1173	1356	1584	1027	1488	1259	1464	1160
TDU1\\TE_17_TEMP	1110	1033	1308	1352	1365	1378	1361	1340	1406	1415	1409	1407	1398	1384	1453	1348	1754	1520	1488	1453	1437	1422
TDU1\\TE_18_TEMP	956	968	971	974	860	831	798	742	873	946	987	1012	1016	916	829	762	1002	985	1040	1103	1102	1103
TDU1\\TE_1_TEMP	1133	-1063	1004	979	964	957	957	943	951	949	954	949	945	955	941	955	1010	994	994	976	991	977
TDU1\\TE_2_TEMP	1346	1262	1201	1196	1199	1196	1205	1192	1207	1203	1207	1205	1198	1212	1196	1213	1260	1263	1257	1235	1255	1235
TDU1\\TE_3_TEMP	1502	1414	1340	1333	1354	1360	1368	1357	1367	1378	1383	1376	1365	1367	1356	1359	1375	1391	1374	1369	1379	1369
TDU1\\TE_4_TEMP	1585	1490	1474	1474	1497	1529	1526	1500	1542	1535	1549	1521	1518	1526	1494	1514	1552	1502	1528	1517	1542	1510
TDU1\\TE_5_TEMP	1376	1318	1295	1327	1384	1428	1448	1446	1459	1469	1475	1470	1464	1466	1459	1461	1485	1535	1546	1528	1516	1494
TDU1\\TE_6_TEMP	1293	1239	1225	1258	1314	1361	1381	1380	1391	1406	1412	1410	1405	1408	1413	1408	1451	1508	1516	1493	1469	1446
TDU1\\TE_7_TEMP	1216	1181	1183	1222	1271	1310	1323	1317	1326	1352	1373	1383	1383	1387	1377	1355	1418	1502	1528	1509	1483	1458
TDU1\\TE_8_TEMP	1222	1194	1223	1273	1289	1309	1301	1283	1315	1363	1391	1406	1409	1391	1360	1313	1424	1508	1541	1530	1507	1487
TDU1\\TE_9_TEMP	1232	1270	1284	1281	1262	1207	1146	1092	1048	1060	1122	1181	1222	1241	1209	1140	1080	1097	1169	1251	1311	1340
TDU1\\ZONE1_TEMP_SET	1200	1200	1200	1200	1200	1200	1200	1200	1205	1205	1205	1205	1205	1205	1205	1205	1245	1245	1245	1245	1245	1245
TDU1\\ZONE2_TEMP_SET	1178	1223	1223	1223	1223	1223	1223	1223	1223	1226	1226	1226	1396	1406	1406	1406	1439	1478	1478	1438	1438	1438
TDU1\\ZONE3_TEMP_SET	887	887	887	887	887	887	887	887	977	992	1002	1002	992	892	892	892	997	997	997	997	997	987
VRS1\\CT_LIQUIDOUTLETTEMP	76	78	80	81	80	81	82	83	82	83	84	84	84	84	85	85	86	85	83	85	86	86
VRS1\\HC_GASDIFFPRES	0	3	2	2	2	2	2	2	2	3	4	4	4	4	3	3	3	3	3	3	3	3
VRS1\\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-1	-1	-1
VRS1\\HC_INLETGASTEMP	837	843	836	848	866	889	890	884	877	895	911	924	934	942	929	901	880	891	908	950	973	986
VRS1\\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\HE_SCRUBSIDEDIFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_OUTLETPRES	0	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	1	2	2	2
VRS1\\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_INLETGASTEMP	761	802	803	809	828	857	861	858	851	872	888	901	913	921	911	884	864	871	881	927	942	937
VRS1\\RD_OXYGEN	14	13	7	5	8	7	7	8	6	5	5	5	5	6	7	7	4	3	3	4	4	3
VRS1\\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_SCRUBLIQUIDTEMP	85	89	93	94	93	96	98	99	97	99	101	102	103	101	103	104	105	103	98	103	105	106
VRS1\\WESP_CURRENT_AMP	0	0	35	27	29	30	22	28	35	23	34	30	28	37	31	26	30	30	26	38	27	25
VRS1\\WESP_DIFFPRES	1	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	3	2	3	3	3
VRS1\\WESP_OUTLETGASFLOW	41	526	450	473	449	427	426	413	432	388	401	389	432	384	379	377	327	410	186	372	373	385
VRS1\\WESP_OUTLETGASPRES	0	-5	-5	-4	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-10	-5	-5	-5
VRS1\\WESP_OUTLETGASTEMP	78	80	83	85	86	86	88	89	90	90	91	91	92	92	92	93	93	94	92	92	92	93
VRS1\\WESP_OXYGEN	21	13	6	4	7	7	7	7	6	4	4	4	4	6	7	7	4	3	4	3	3	3
VRS1\\WESP_VOLTAGE_VOLT	0	0	23	23	24	24	22	24	26	22	25	24	24	27	25	24	24	24	23	26	23	23

Continuous Unit 1 data for June 12, 1998

Tagname / Time	12:16	12:22	12:28	12:34	12:40	12:46	12:52	12:58	13:04	13:10	13:16	13:22	13:28	13:34	13:40	13:46	13:52	13:58	14:04	14:10	14:16	14:22
FTO1\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\CPMS_LEVEL	29.33	13.66	26.16	12.89	43.21	20.11	59.63	21.9	32.16	12.63	32.63	12.03	8.47	21.34	12.17	25.38	14.39	30.97	14.05	29.16	14.2	30.99
FTO1\TE101	90	91	92	93	93	93	93	94	94	93	92	92	93	93	93	93	93	94	94	95	94	96
FTO1\TE105	116	137	120	138	125	134	135	136	150	136	170	135	174	132	171	133	164	134	164	139	155	145
FTO1\TE106	104	96	119	145	104	100	144	140	101	106	192	131	98	112	189	119	100	126	178	113	104	150
FTO1\TE107	111	150	104	99	127	141	103	104	170	137	100	109	207	125	99	119	190	116	103	136	170	109
FTO1\TE108	1608	1610	1580	1580	1604	1592	1565	1577	1608	1581	1555	1572	1586	1560	1545	1569	1577	1549	1545	1574	1567	1539
FTO1\TE109	1600	1595	1619	1613	1588	1592	1615	1600	1573	1595	1610	1582	1563	1580	1589	1566	1558	1583	1583	1557	1561	1585
TDU1\CYL_DRIVE_AMPS	10	10	10	11	11	12	11	10	10	10	11	11	11	11	11	11	11	11	10	10	10	11
TDU1\CYL_DRIVE_RPM	4.03	4.01	4	4.02	4.03	4.02	4.03	4.02	4.03	4.01	4.01	4	4.01	4	4	3.98	3.99	3.99	3.98	4	4.01	4
TDU1\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\OXYGEN_DISCHARGE	0.49	1.09	0.96	0.71	0.02	0.01	0.02	0.01	1.5	1.41	0.01	3.3	0.47	0.86	1.32	0.01	0.33	0.06	0.15	0.16	0.85	4.13
TDU1\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\PV_PIC1	-0.98	-0.92	-0.94	-1.03	-1.04	-0.94	-0.94	-1.14	-1.26	-1	-0.81	-0.92	-1.01	-0.9	-1	-1	-1.07	-1.05	-0.87	-0.89	-1.06	-1.01
TDU1\TE_10_TEMP	1279	1208	1134	1071	1057	1087	1127	1161	1192	1235	1295	1308	1254	1171	1093	1077	1109	1153	1194	1228	1243	1208
TDU1\TE_11_TEMP	1176	1131	1076	1025	1004	1012	1033	1058	1084	1120	1174	1203	1175	1115	1051	1023	1029	1054	1083	1112	1132	1118
TDU1\TE_12_TEMP	1034	1028	1003	970	942	928	926	932	945	967	1006	1048	1063	1042	1001	962	943	942	952	968	988	997
TDU1\TE_13_TEMP	848	846	832	808	789	777	773	774	780	796	828	864	881	872	843	814	798	791	793	803	816	823
TDU1\TE_14_TEMP	1022	978	948	934	918	918	916	931	947	1007	1078	1108	1033	954	911	902	924	952	971	986	1023	1013
TDU1\TE_15_TEMP	211	205	211	202	198	207	210	210	211	200	148	167	211	213	212	212	212	211	211	211	211	211
TDU1\TE_16_TEMP	1432	1191	1433	1435	1344	1512	1144	1484	1153	1407	1248	1440	1232	1484	1174	1501	1171	1496	1202	1456	1221	1423
TDU1\TE_17_TEMP	1414	1444	1392	1478	1422	1497	1433	1465	1446	1506	1498	1153	1470	1437	1365	1411	1409	1413	1415	1430	1403	1092
TDU1\TE_18_TEMP	964	861	803	780	939	972	986	1015	1027	1069	1135	1033	923	822	721	957	986	1022	1033	1055	976	886
TDU1\TE_1_TEMP	992	975	989	992	996	1007	993	1005	985	982	981	984	986	997	988	1000	984	997	981	993	979	996
TDU1\TE_2_TEMP	1256	1236	1257	1257	1262	1267	1254	1273	1256	1258	1260	1261	1261	1268	1256	1273	1252	1273	1249	1271	1249	1269
TDU1\TE_3_TEMP	1378	1374	1386	1393	1401	1404	1395	1397	1397	1417	1422	1410	1400	1396	1390	1394	1382	1390	1379	1393	1386	1396
TDU1\TE_4_TEMP	1539	1513	1544	1552	1552	1567	1526	1554	1538	1588	1575	1566	1526	1547	1514	1550	1514	1550	1520	1559	1530	1552
TDU1\TE_5_TEMP	1491	1484	1491	1502	1507	1508	1499	1506	1506	1536	1553	1504	1431	1429	1454	1473	1469	1480	1475	1489	1486	1451
TDU1\TE_6_TEMP	1439	1439	1440	1461	1456	1457	1451	1457	1460	1495	1515	1442	1387	1372	1400	1411	1411	1415	1416	1425	1428	1371
TDU1\TE_7_TEMP	1435	1415	1402	1416	1415	1423	1425	1436	1440	1475	1510	1446	1361	1340	1357	1370	1377	1387	1393	1404	1408	1352
TDU1\TE_8_TEMP	1438	1400	1389	1379	1395	1415	1426	1439	1454	1503	1544	1436	1339	1308	1311	1359	1384	1400	1416	1429	1421	1328
TDU1\TE_9_TEMP	1333	1267	1186	1116	1075	1097	1140	1177	1208	1246	1300	1338	1302	1220	1135	1089	1115	1166	1211	1249	1276	1256
TDU1\ZONE1_TEMP_SET	1245	1245	1245	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260
TDU1\ZONE2_TEMP_SET	1498	1498	1498	1453	1453	1453	1453	1453	1453	1498	1273	1808	1369	1388	1348	1348	1948	1348	1348	1938	1298	1303
TDU1\ZONE3_TEMP_SET	977	977	977	982	1022	1022	1027	1027	1027	1027	1007	977	977	977	1092	1087	1087	1087	1067	987	937	937
VRS1\CT_LIQUIDOUTLETTEMP	87	88	87	88	88	89	89	88	86	85	86	87	87	87	88	88	88	88	88	88	88	89
VRS1\HC_GASDIFFPRES	3	2	2	2	3	3	3	3	3	3	4	4	3	3	4	2	2	2	3	2	3	3
VRS1\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\HC_INLETGASTEMP	990	980	960	942	931	925	926	931	933	952	996	1034	1005	975	949	933	933	940	952	962	980	976
VRS1\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\HE_SCRUBSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\ID_OUTLETPRES	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
VRS1\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_INLETGASTEMP	943	934	924	912	905	900	902	905	904	924	973	1010	981	933	915	904	905	912	926	934	952	950
VRS1\RD_OXYGEN	5	6	6	4	5	4	4	4	3	6	6	10	9	6	6	4	4	4	4	3	4	11
VRS1\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\RD_SCRUBLIQUIDTEMP	107	108	107	107	109	110	110	109	103	100	104	107	104	105	107	107	106	107	108	106	107	108
VRS1\WESP_CURRENT_AMP	28	30	35	26	22	35	27	50	28	28	35	0	0	32	33	35	34	25	33	33	28	0
VRS1\WESP_DIFFPRES	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
VRS1\WESP_OUTLETGASFLOW	380	407	376	362	341	368	374	401	374	408	425	379	328	379	356	371	341	390	382	382	356	421
VRS1\WESP_OUTLETGASPRES	-5	-5	-5	-5	-5	-5	-5	-4	-4	-4	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-4
VRS1\WESP_OUTLETGASTEMP	95	96	97	97	97	97	98	99	98	96	95	95	96	95	96	96	97	97	97	97	97	99
VRS1\WESP_OXYGEN	4	6	6	4	4	4	4	4	3	7	6	11	10	6	6	4	4	4	4	3	4	11
VRS1\WESP_VOLTAGE_VOLT	24	25	27	24	22	26	24	29	25	25	26	0	0	26	26	26	26	23	24	25	24	0

Continuous Unit 1 data for June 12, 1998

Tagname / Time	14:28	14:34	14:40	14:46	14:52	14:58	15:04	15:10	15:16	15:22	15:28	15:34	15:40	15:46	15:52	15:58	16:04
FTO1\\COMB_FAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FTO1\\CPMS_LEVEL	12.63	21.02	12.5	19.84	8.98	6.92	12.58	8.89	15.36	9.67	13.51	11.57	8.71	7.43	22.37	12.21	55.85
FTO1\\TE101	96	95	94	94	93	93	94	95	96	96	93	95	94	94	96	97	97
FTO1\\TE105	158	157	154	185	153	194	144	197	143	187	141	184	142	158	145	157	147
FTO1\\TE106	166	108	109	208	152	101	116	219	132	103	124	198	119	104	147	160	110
FTO1\\TE107	108	172	160	103	110	230	138	101	118	218	125	102	129	172	111	107	152
FTO1\\TE108	1547	1576	1555	1526	1540	1548	1526	1513	1539	1556	1526	1509	1504	1515	1500	1515	1555
FTO1\\TE109	1573	1546	1561	1574	1549	1527	1541	1562	1541	1529	1543	1516	1503	1505	1545	1542	1525
TDU1\\CYL_DRIVE_AMPS	10	8	8	6	10	11	11	9	10	9	10	10	10	10	13	12	11
TDU1\\CYL_DRIVE_RPM	4.01	4.04	4.01	4.03	4.02	4.02	4.01	4.02	4.01	4.03	4.02	4.02	4	4.03	4.01	4	4.01
TDU1\\CYL_FEED_SPEED_SET	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
TDU1\\OXYGEN_DISCHARGE	0.75	4.83	2.53	1.62	2.21	4.23	0.01	1.26	1.29	1.55	1.28	5.05	1.01	0.39	1.06	0.44	0.01
TDU1\\PURGE_DAMPER	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
TDU1\\PV_PIC1	-1.28	-1.08	-0.98	-0.85	-0.72	-0.89	-0.98	-0.93	-1.22	-1	-0.92	-0.92	-0.61	-0.77	-0.79	-0.87	-0.78
TDU1\\TE_10_TEMP	1142	1079	1041	1077	1171	1220	1190	1125	1083	1077	1158	1222	1254	1250	1215	1161	1097
TDU1\\TE_11_TEMP	1075	1029	993	1005	1063	1109	1104	1063	1017	1018	1064	1111	1146	1158	1144	1107	1055
TDU1\\TE_12_TEMP	987	962	933	922	942	980	998	985	954	943	959	986	1014	1037	1047	1037	1008
TDU1\\TE_13_TEMP	818	799	778	771	782	804	820	814	796	792	804	815	835	857	875	874	855
TDU1\\TE_14_TEMP	960	921	917	917	974	1049	995	929	904	923	975	1004	1057	1109	1079	1015	938
TDU1\\TE_15_TEMP	211	211	181	159	135	205	212	207	212	169	160	123	112	209	213	213	212
TDU1\\TE_16_TEMP	1285	1176	1169	1274	1494	1122	1444	1184	1472	1308	1160	1121	1527	1202	1446	1438	1346
TDU1\\TE_17_TEMP	1595	1358	1469	1557	1272	1085	1521	1411	1654	1581	1629	1489	1532	1449	1405	1364	1498
TDU1\\TE_18_TEMP	833	745	839	984	1068	988	896	758	799	978	1060	998	1010	982	932	855	746
TDU1\\TE_1_TEMP	989	978	976	977	978	974	985	980	990	1050	1049	1019	1038	1020	1038	1033	1045
TDU1\\TE_2_TEMP	1263	1259	1261	1262	1260	1245	1252	1245	1252	1326	1332	1295	1315	1290	1309	1297	1300
TDU1\\TE_3_TEMP	1402	1411	1448	1475	1458	1428	1418	1402	1411	1478	1509	1495	1485	1450	1436	1412	1411
TDU1\\TE_4_TEMP	1531	1545	1599	1639	1614	1553	1556	1524	1565	1642	1651	1637	1648	1582	1583	1557	1552
TDU1\\TE_5_TEMP	1404	1417	1484	1559	1543	1462	1413	1410	1454	1551	1631	1662	1656	1610	1571	1528	1512
TDU1\\TE_6_TEMP	1326	1342	1420	1512	1488	1394	1348	1344	1399	1515	1611	1650	1633	1577	1524	1472	1462
TDU1\\TE_7_TEMP	1312	1298	1355	1455	1465	1384	1343	1309	1352	1477	1599	1652	1644	1580	1511	1442	1418
TDU1\\TE_8_TEMP	1290	1259	1333	1462	1463	1355	1328	1278	1326	1480	1613	1646	1637	1565	1484	1407	1381
TDU1\\TE_9_TEMP	1192	1121	1066	1075	1170	1256	1246	1178	1104	1080	1156	1256	1305	1308	1273	1215	1147
TDU1\\ZONE1_TEMP_SET	1260	1260	1260	1250	1250	1250	1250	1250	1250	1300	1300	1300	1300	1300	1300	1300	1310
TDU1\\ZONE2_TEMP_SET	1309	1319	1329	1309	1309	1309	1306	1346	1399	1449	1449	1659	1609	1509	1459	1459	1479
TDU1\\ZONE3_TEMP_SET	937	937	1002	1022	997	977	977	977	1027	1027	852	852	802	802	802	802	822
VRS1\\CT_LIQUIDOUTLETTEMP	88	86	84	84	85	86	87	88	87	86	85	84	86	87	88	90	91
VRS1\\HC_GASDIFFPRES	3	2	2	3	4	3	6	6	4	3	3	2	3	3	3	2	2
VRS1\\HC_INLETGASPRES	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
VRS1\\HC_INLETGASTEMP	948	921	910	922	975	989	961	942	921	920	943	976	1027	1036	1044	1014	976
VRS1\\HE_COOLSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\HE_SCRUBSIDEDIFFPRES	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
VRS1\\ID_DAMPERPOSITION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_FANSPEED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\ID_OUTLETPRES	2	3	3	3	3	2	2	3	2	3	3	3	2	2	3	2	2
VRS1\\RD_CHEVRONDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_INLETGASTEMP	916	883	878	893	946	959	922	910	888	887	899	932	984	992	998	975	941
VRS1\\RD_OXYGEN	9	7	7	6	0	0	0	0	0	0	6	11	5	4	7	8	5
VRS1\\RD_SCRUBBERDIFFPRES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VRS1\\RD_SCRUBLIQUIDTEMP	105	100	97	96	99	102	103	105	103	100	98	96	101	104	107	111	114
VRS1\\WESP_CURRENT_AMP	0	35	51	41	39	0	0	31	16	35	22	0	23	29	31	27	27
VRS1\\WESP_DIFFPRES	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
VRS1\\WESP_OUTLETGASFLOW	345	436	451	445	448	386	330	373	321	394	450	422	381	337	388	279	276
VRS1\\WESP_OUTLETGASPRES	-4	-4	-4	-4	-5	-5	-5	-4	-4	-4	-4	-4	-5	-5	-6	-5	-4
VRS1\\WESP_OUTLETGASTEMP	99	98	96	94	94	95	96	96	96	96	95	94	94	95	96	98	99
VRS1\\WESP_OXYGEN	11	7	8	6	10	11	7	6	6	4	6	10	4	4	6	6	4
VRS1\\WESP_VOLTAGE_VOLT	0	27	31	28	28	0	0	25	22	27	22	0	23	24	25	24	24

Appendix C: Calculation of Total Hydrocarbon Limits

Total hydrocarbon (THC) limits for the continuous process monitor (CPMs) on the continuous and batch thermal desorption units were determined based on the air emission data obtained during the POP using the following methodology:

Step 1. Determine benzene emissions corresponding to the maximum CPM readings: For each test, the analytical emissions rate for benzene (the compound which came closest to emission limits) was compared to the average CPM reading for the THCs during the stack sampling (see attached table).

Step 2. Calculate a maximum allowable CPM reading: Each CPM reading was then extrapolated to a maximum allowable emission rate using the following equation:

Extrapolated CPM Reading = (Actual Average CPM Reading/Actual Benzene Emission Rate) x Annual Maximum Allowable Benzene Emission Rate

The Annual Maximum Allowable Benzene Emission Rates for continuous and batch units are 7.23E-03 and 5.19E-04 g/s, respectively. Using the extrapolated CPM reading as an instantaneous limit is very conservative, since that CPM reading has been extrapolated to a level that is permissible if a person were exposed continuously for 70 years.

Continuous Unit

	Test 1	Test 2	Test 3
Actual Benzene Emission Rate, g/s	2.90 E-04	2.17 E-04	1.55 E-04
Actual Average CPM Reading, ppm	113.1	33.8	21.0
Extrapolated CPM Reading, ppm	2820	1126	980

Batch Unit

	Test 1	Test 2	Test 3
Actual Benzene Emission Rate, g/s	1.55 E-04	1.31 E-04	2.28 E-04
Actual Average CPM Reading, ppm	378.7	119.4	279.2
Extrapolated CPM Reading, ppm	1709	473	6355

Step 3. Determine a CPM action level: For each unit, the extrapolated values for the three tests were averaged (average extrapolated CPM reading for continuous = 1642 ppm and for batch = 2846 ppm). To add an additional factor of safety, the Action Level was set at 50% of this average (and rounded down to the next lowest 100 ppm). Therefore, the CPM action level for continuous = 800 ppm and for the batch = 1400 ppm.

Step 4. Determine steps to be taken if action levels are exceeded: If Action Levels are exceeded the following steps will be taken:

a. Continuous Unit: Perform response check on CPM to verify accuracy of readings and, if accurate, cut waste feed. Inspect feed soil for gross contamination and check vapor recovery system for malfunctions. Take corrective actions, if necessary, and restart feed to the unit.
b. Batch Unit: Perform response check on CPM to verify accuracy of readings and, if accurate, shut off heat to one batch unit. If the CPM reading continues to exceed the action level, shut of heat to the other batch unit. Verify operation of cooling tower, chiller and other components. Then restart heat one unit at a time. If CPM action level continues to be exceeded, shut off heat and reheat at a slower rate.

	Batch Unit			Continuous Unit		
	Test 1-Repeat	Test 2	Test 3	Test 1	Test 2	Test 3
THC CPM Readings (ppm)	441.5	100.5	212.8	222.3	13.5	9.5
	411.5	129.1	216.6	122.7	27.1	22.3
	408.1	126.3	239.9	53.5	49.3	28.3
	253.7	121.7	447.6	53.8	45.3	24
Average	378.7	119.4	279.2	113.1	33.8	21.0

AIR MONITORING LOG

Date: 6.10.98
Sampler: RICK CHEW / B. ROEBUCK
Activity: INLET TO FTO DURING PROCESS

Location	Wind Dir.	Time	Hnu	OVA/FID	CGI/O_2	Mini-Ram	Other
FTO INLET	SE	1828		188.7 ppm			
" "	"	1829		117.8			
" "	"	1830		894.0			
" "	"	1831		1180.0			
" "	"	1832		1674.0			
" "	"	1836		1545.0			
" "	"	1840		1674.0			
" "	"	1841		855.0			
" "	"	1842		672.9			
" "	"	1843		672.9			
" "	"	1844		686.9			
TDU PAD	SE	1900		0.0			
POLE BARN (A)	"	1905		0.0			
POLE BARN (B)	"	1907		0.0			
CTDU #1 DISCH	"	1910		0.0			
FTO INLET	"	1939		686.9			
" "	"	1940		601.2			
" "	"	1941		610.1			
" "	"	1942		452.6			
" "	"	1943		620.3			
" "	"	1944		450.1			
" "	"	1945		1149.0			
" "	"	1946		1074.0			

1828 – 1844 : FID READINGS FROM FIRST SERIES OF POP TEST.
1939 – 1946 : FID READINGS FROM SECOND SERIES OF POP TEST.

AIR MONITORING LOG

Date: 6/11/98
Sampler: Rick Chew
Activity: Inlet Port FTO

Location	Wind Dir.	Time	~~Hnd~~	OVA	CGI/O_2	Mini-Ram	Other
inlet		1530		2202 ppm			
inlet		1532		1907 ppm			
inlet		1534		2491 ppm			
inlet		1536		2619 ppm			
inlet		1538		1787 ppm			
inlet		1540		994 ppm			
inlet		1542		1135 ppm			
inlet		1544		1216 ppm			

1530-1544: FID READINGS FROM THIRD SERIES OF POP TEST.

Potentially Applicable State of Maryland and Federal Air Regulatory Standards

and Test Methods

Southern Maryland Wood Treating (SMWT) Site

This appendix presents applicable air regulatory requirements and compliance test methods for the SMWT site. The regulatory requirements presented here are primarily based on the record of decision (ROD) for the SMWT site prepared by the USEPA dated 09/08/95 and subsequent guidance provided by both the EPA and the MDE. The proposed compliance test methods (where applicable) are based on the general guidance on acceptable testing and monitoring methods provided in COMAR 26.11.01.04 as well as specific guidance provided in the applicable state and federal regulations. The stack test methods presented in this document were approved by the MDE as the appropriate compliance demonstration methods.

Applicable air regulatory requirements and compliance test methods are presented below for each of the pollutant or an environmental parameter identified in the ROD.

Visible Emissions

- **Regulated Under :**

  COMAR 26.11.06.02 - General Emission Standards : Visible Emissions

- **Applicable Standard :**

  COMAR 26.11.06.02(C) - Stack emissions shall not exceed 20% opacity (general emission standard for St. Mary's County- Maryland Region V)

  (This standard applies to the oxidizer stacks at the batch and continuous treatment systems)

- **Compliance Stack Test Method :**

  40 CFR 60, Appendix A, USEPA Test Method 9

Particulate Matter

- **Regulated Under :**

  COMAR 26.11.06.03 - General Emission Standards : Particulate Matter

- **Applicable Standards/Requirements :**

1. COMAR 26.11.06.03(B) - Stack emissions shall not exceed 0.05 gr/SCFD of particulate matter (general emissions standard for confined source installations constructed after 1972).

   (This standard applies to the oxidizer stacks at the batch and continuous treatment systems)

2. COMAR 26.11.06.03(D) - Reasonable precautions, such as application of water on dirt roads, stockpiles, etc., should be taken to prevent particulate matter from becoming airborne.

- **Compliance Stack Test Method :**

  40 CFR 60, Appendix A, USEPA Test Method 5

Volatile Organic Compounds (includes non-methane organic compounds)

- **Regulated Under :**

  COMAR 26.11.06.06 - General Emission Standards : Volatile Organic Compounds

  40 CFR 264, Subpart BB - Air Emission Standards for Equipment Leaks

  40 CFR 264, Subpart AA - Closed Vent Systems and Control Devices

- **Applicable Standards /Requirements:**

1. None under COMAR 26.11.06.06[1].

   <u>Rationale for non-applicability of Standards under COMAR 26.11.06.06</u>

   COMAR 26.11.06.06(B) - Standard does not regulate installations in St. Mary's County.
   COMAR 26.11.06(C) - SMWT site will not have the regulated source category (i.e., VOC-Water separators).
   COMAR 26.11.06(D) - Standard regulates sources that disposes of or treats wastes containing VOC in the outside atmosphere in a manner that may cause evaporation of greater than 20 pounds per day. While the SMWT will treat soils containing VOCs, the treatment operations will be conducted in *confined units* and not in the *outside atmosphere.*

2. a) 40 CFR 264, Subpart BB

   In accordance with Section 264.1050 (Applicability), these standards apply to hazardous waste streams whose total organic concentration exceeds 10% by weight. Since the only process streams expected to exceed 10% are in the gas phase, and since a gas phase is not considered a hazardous waste (by definition of hazardous waste), then the Subpart BB Standards have no impact on the TDU operations.

3. a) 40 CFR 264, Subpart AA , Sec. 264.1032 (Standards: Process Vents)

   - Combined vent emissions from affected process vents at the facility will be kept below 3.1 tons/yr, or

   - Process vent emissions control device efficiency shall be 95% (facility-wide basis).

   b) 40 CFR 264, Subpart AA, Sec. 264.1033 (Standards: Closed vent system and control devices)

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[1] Note : Overall design VOC control device efficiency (> 95%) at SMWT site is higher than the most stringent control device efficiency requirement (85%) for other applicable sources under COMAR 26.11.06.06.

- Overall VOC emissions control efficiency of 95% or more is required
- In accordance with Section 264.1033(i), the contractor is required to describe the emission control device operation and identify the process parameters that indicates proper operation and maintenance of the control device.

(These standards/requirements apply to the emission control systems for the batch and continuous units. The descriptions required by the Subpart AA regulations are contained in this Proof of Performance Plan.)

- **Compliance Stack Test Methods** :

Standard: COMAR 26.11.06.06
Test Method: Not applicable

Standard: 40 CFR 264, Subpart BB:
Test Method: 40 CFR 60, Appendix A, USEPA Test Method 21

Standard: 40 CFR 264, Subpart AA:
Test Method: SW846, Method 0030

Toxic Air Pollutants

- **Regulated Under :**

COMAR 26.11.15

- **Applicable Standards/Requirements :**

1. COMAR 26.11.15.04 - Emissions of each of the TAPs shall be quantified.

2. COMAR 26.11.15.05 - T-BACT should be installed on sources emitting Class-I TAPs[2].

3. COMAR 26.11.15.06 - Demonstration to the MDE that the total allowable emissions will not unreasonably endanger human health is required.

4. COMAR 26.11.15.07 - Screening analysis or second tier analysis[3] may be used to demonstrate compliance with COMAR 26.11.15.06. For Class I TAPs, to assess carcinogenic effects, screening analysis needs to show that total allowable emissions from the premises will not cause increases in ambient levels that exceed risk-based screening levels for the TAP. For Class I or Class II TAPs, to assess potential toxic effects other than cancer by a screening analysis showing that total allowable

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[2] According to ETG, the combination of control technologies proposed at SMWT will result in the maximum degree of overall emission reduction that is technologically and economically feasible and is, therefore, the Best Available Control Technology.

[3] The Maryland Department of the Environment (MDE) Air and Radiation Management Administration has established TAPs screening levels which provide off-site risk-based concentrations for each TAP. Through the air dispersion modeling, allowable concentrations of each TAP emitted at the stack are established so that off-site concentrations do not exceed the risk-based TAPS screening level. The actual stack concentrations measured during the POP test are then compared to the allowable stack emissions to be sure there are no exceedences.

A Table of the Maryland TAPs screening levels and further details of the air dispersion modeling used to establish the allowable stack emissions, are presented in Appendix D.

emissions from the premises will not cause increase in ambient levels that exceed applicable TLV based, threshold based, or special screening levels.

(These standards/requirements apply to oxidizer stacks from continuous and batch operations)

- **Compliance Stack Test Methods :**

  For VOC TAPs:
  SW846 Method 0030

  For SVOC TAPs:
  SW846 Method 00~~23~~ 10

  For dioxins and furans:
  40 CFR 60, Appendix A, USEPA Test Method 23.

Nuisance

- **Regulated Under :**

  COMAR 26.11.06.08

- **Applicable Standard/Requirement :**

  Facility operations should not create nuisance or air pollution

- **Compliance Stack Test Method :**

  Not applicable

CALCULATION OF STACK MASS EMISSION RATE LIMITS

INTRODUCTION

As part of the SMWT remediation, thermal desorption was used to remove contamination from the soil. The contaminated air stream generated by the thermal desorption process was then treated by the vapor recovery systems of each TDU to remove contaminants from the air before it was vented to the atmosphere through the three stacks. To demonstrate that air emissions were in compliance with the State of Maryland regulations discussed in Appendix E for toxic air pollutants (TAPs), stack sampling was conducted during the POP test.

The Maryland Department of the Environment Air and Radiation Management Administration (ARMA) has established TAPs screening levels which provide an off-site risk-based concentration for each TAP. Through air dispersion modeling, allowable concentrations of each TAP emitted at the stack were established to ensure that off-site concentrations did not exceed the risk-based TAPs screening levels. The actual stack concentrations and emission rates measured during the POP test were compared to the allowable stack emission limits to ensure the limits were not exceeded.

SCREENING MODELING

In any modeling study, the initial approach is to perform screening modeling first. Screening models (e.g., SCREEN3) are simple and easy to use, and they give very conservative results. If the results of a screening modeling study are acceptable, one can be confident that actual ambient air concentrations will be acceptable. In this study, SCREEN3 was used to estimate the maximum allowable limits for stack emissions.

CALCULATION OF STACK EMISSION LIMITS

The following is a step by step evaluation of how stack emission limits were calculated. The stack emission limits presented in Table F-1 were based on values, for such input parameters as temperature and velocity, that were measured during the POP test.

STEP 1: Determine the contaminants of concern

A list of TAPs was developed based on actual contaminants present in the soil at the site and is found in Table F-1.

STEP 2: Determine off-site screening levels for all TAPs

Off-site screening levels, as developed MDE ARMA, are presented in Table F-1.

STEP 3: Determine a maximum dilution factor using SCREEN3 modeling:

A. Assumptions for Model:

1. Assume unit (1 g/s) emission rate from each stack- results can then be read directly as dilution factor.
2. Assume rural terrain- SMWT site is located in a country (rural) location.
3. Assume the location of maximum ambient air concentration is the same for all stacks. Adding all maxima is the most conservative way to combine results. (This was done because all three stacks [i.e., one batch, two continuous] will be operating at the same time during full-scale operations.)
4. Assume no chemical reactions occur as chemicals disperse in atmosphere.
5. Assume dispersion characteristics are the same for all chemicals.

ORIGINAL

B. Inputs for SCREEN3 Modeling Parameters:

1. Source Type: point (discharge stack represented as a point source)
2. Emission Rate: 1 g/s (assumed unit emission rate)
3. Stack Height: 7.9248 m (measured from as-built conditions)
4. Stack Inside Diameter (measured from as-built conditions)
   a. Batch 0.1016m
   b. Continuous 0.2540m
5. Stack Exit Velocity: (variable)
   a. Batch 4.0167 m/s (worst-case)
   b. Continuous 5.2717 m/s (worst-case)
6. Stack Gas Exit Temperature: (variable)
   a. Batch 317K (worst-case)
   b. Continuos 327.8K (worst-case)
7. Ambient Air Temperature: 293K
8. Receptor Height: 0 m (ground level)
9. Urban/Rural Option: Rural Setting
10. No building downwash

C. Run SCREEN3 Model:

The SCREEN3 Model was used to determine a maximum dilution factor for each stack for 1 hour, 8 hour, and annual screening levels. The SCREEN3 results were multiplied by 0.7 to convert them from a 1-hour average into an 8-hour average, corresponding to the averaging time used for the concentration limit. A factor of 0.08 was used to convert to an annual average. The dilution factor for each of the TDUs was estimated from the SCREEN3 model using the coolest stack gas temperature and lowest flow rate measured during the POP test. This gives the most conservative dilution factor.

For the batch unit's stack, the dilution factor was 1,675 ($\mu g/m^3$)/(g/s) (1-hour average). Converting to an 8-hour average gives 1,172.5 ($\mu g/m^3$)/(g/s) (=1,675 x 0.7). For each continuous unit's stack, the dilution factor was 985.4 ($\mu g/m^3$)/(g/s) (1-hour average). Converting to an 8-hour average gives 689.8 ($\mu g/m^3$)/(g/s) (=985.4 x 0.7). The same method was used to convert to an annual averaging time, with a factor of 0.08 used. This gives 134 ($\mu g/m^3$)/(g/s) for the batch and 78.8 ($\mu g/m^3$)/(g/s) for the continuous.

D. Calculate Maximum Emission Rate allowed for each Contaminant listed in Table F-1 for each Source (i.e., Batch Stack, Continuous Stack 1, and Continuous Stack 2).

Following is an explanation of how the maximum allowable individual stack emission rates for each contaminant were calculated from dispersion modeling results and TAPs screening levels. The calculated results for the maximum allowable individual stack emission rates for each contaminant are shown in Table F-1.

The equation used was:

$$MER\frac{g}{s} = \frac{SL\frac{\mu g}{m^3}}{DL\frac{\mu g}{m^3}\Big/\frac{g}{s}}$$

where MER is the constituent-specific mass emission rate, SL is the TAP constituent-specific screening level, and DL is the modeled dilution factor.

Concentration in the above equation is the off-site concentration limit, listed in Table F-1, adjusted to account for the fraction attributed to the individual stack. The off-site limit concentration represents the maximum air concentration allowed from emissions from all of the sources (stacks). To estimate the maximum emission rate allowed from each individual stack, the portion of the overall ambient air concentration attributed to each stack was based on its pro-rated share of the total volumetric flow rate emitted by all the stacks. This was reasonable as contaminant concentrations in the effluent were similar for each of the stacks.

The fraction of the off-site limit that is allowed to come from each stack can be estimated by calculating the fraction of the total flow (all three TDUs) that comes from each stack. That is:

Stack's fraction of concentration = Stack's fraction of flow x off-site limit

where 69 ft^3/min is the lowest measured flow rate from the batch TDU, 566 ft^3/min is the lowest measured flow rate from each of the continuous TDUs, batch unit's fraction of flow is 69/(566+566+69) = 0.057, each continuous stack's fraction of flow is 566/(566+566+69) = 0.471.

E. Example

For example, consider benzene emissions from the batch TDU. The off-site 8-hour limit was 16 $\mu g/m^3$.

Batch fraction of benzene concentration = 0.057 x 16 $\mu g/m^3$ = 0.912 $\mu g/m^3$

This was the concentration (0.912 $\mu g/m^3$) that was used, along with the dilution factor from the batch unit [1172.5 ($\mu g/m^3$)/(g/s)], to estimate the allowable emission rate. Thus, the estimated maximum allowable emission rate for benzene from the batch TDU was:

Maximum allowable emission rate for benzene from batch TDU = 0.912 $\mu g/m^3$ /1172.5 (mg/m^3)/(g/s) =7.8 x 10^{-4} g/s

Note: The total maximum emission limit for each chemical was determined by adding the individual emission limits for the batch, continuous 1, and continuous 2 stacks. One batch unit and one continuous unit underwent POP testing. Since two of each unit will operate during full-scale production, each POP sample result must be multiplied by two, combined, and then compared to the sum of the individual emission limits. This was done, and the results are reported in Table 3-17. These results indicate that the total facility emissions were within the limits set by the TAPs screening levels. That is, all stacks emitting at their maximum rates simultaneously do not cause a violation of the standards. If an individual emission limit for a chemical were exceeded from a particular stack, the result is still acceptable as long as the total emission limit for the facility is not exceeded. This is acceptable because the off-site limit will not be exceeded as long as the total emission limit is not exceeded.

*The dilution factor is the concentration output from SCREEN3 when a unit emission rate is used for input. That is, 1 g/s is used as the input emission rate. The ambient air concentration that the model gives can then be thought of as a concentration per unit of emission, or dilution factor. Modelers often use a unit emission rate then scale the resulting dilution factor by the actual emission rate. That way, the model does not need to be re-run for each new emission rate, providing the other input parameters remain unchanged. This works because the output air concentration is directly proportional to the input emission rate.

Table F-1. Summary of Off-Site Ambient Air Concentration Thresholds and Emission Limits (TDUs only)

Contaminant	Off-Site Limits			Maximum Allowable Emission Rates								
	1-Hour Screening Level (TLV-STEL[3] or TLV-C[4]/100)	8-Hour Screening Level[2] (TLV-TWA/100)	Annual Screening Level[1] (70 year exposure)	1-Hour Screening Level (TLV-STEL[3] or TLV-C[4]/100)			8-Hour Screening Level[2] (TLV-TWA/100)			Annual Screening Level[1] (70 year exposure)		
				Batch	Continuous 1	Continuous 2	Batch	Continuous 1	Continuous 2	Batch	Continuous 1	Continuous 2
	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)
Polynuclear Aromatic Hydrocarbons (PAHs)												
Acenaphthene		2					9.80E-05	1.37E-03	1.37E-03			
Acenapthylene		24.6					1.21E-03	1.68E-02	1.68E-02			
Anthracene		2					9.80E-05	1.37E-03	1.37E-03			
Benzo(a)anthracene			0.0575							2.47E-05	3.44E-04	3.44E-04
Benzo(a)pyrene			0.00478							2.05E-06	2.86E-05	2.86E-05
		2					9.80E-05	1.37E-03	1.37E-03			
Benzo(b)fluoranthene			0.0575							2.47E-05	3.44E-04	3.44E-04
	206.4			7.08E-03	9.87E-02	9.87E-02						
Benzo(k)fluoranthene			0.0575							2.47E-05	3.44E-04	3.44E-04
Chrysene		2					9.80E-05	1.37E-03	1.37E-03			
Dibenzo(a,h)anthracene			0.0575							2.47E-05	3.44E-04	3.44E-04
Fluoranthene		82					4.02E-03	5.60E-02	5.60E-02			
Fluorene		2					9.80E-05	1.37E-03	1.37E-03			
Indeno(1,2,3-cd)pyrene			0.0575							2.47E-05	3.44E-04	3.44E-04
Napthalene		520					2.55E-02	3.55E-01	3.55E-01			
	790			2.71E-02	3.78E-01	3.78E-01						
Phenanthrene		9.8					4.80E-04	6.70E-03	6.70E-03			
Pyrene		2					9.80E-05	1.37E-03	1.37E-03			
Semi-volatile Organic Compounds (SVOCs)												
Carbazole		5.6					2.74E-04	3.83E-03	3.83E-03			
Bis (2-Ethylhexyl)phthalate		202					9.90E-03	1.38E-01	1.38E-01			
Diethylphthalate		50					2.45E-03	3.42E-02	3.42E-02			
Di-n-butyl phthalate		50					2.45E-03	3.42E-02	3.42E-02			
2-Methylnaphthalene		67					3.28E-03	4.58E-02	4.58E-02			
Phenol		190					9.31E-03	1.30E-01	1.30E-01			
2,4-Dimethylphenol		131.2					6.43E-03	8.96E-02	8.96E-02			
2-Methylphenol		220					1.08E-02	1.50E-01	1.50E-01			
4-Methylphenol		220					1.08E-02	1.50E-01	1.50E-01			
Pentachlorophenol		5					2.45E-04	3.42E-03	3.42E-03			
1,2 Dichloropenzene		1500					7.35E-02	1.02E+00	1.02E+00			
	3010			1.03E-01	1.44E+00	1.44E+00						
Nitrobenzene		50					2.45E-03	3.42E-02	3.42E-02			
Volatile Organic Compounds (VOCs)												
Acetone		11880					5.82E-01	8.12E+00	8.12E+00			
	17820			6.11E-01	8.52E+00	8.52E+00						
Benzene			1.21							5.19E-04	7.23E-03	7.23E-03
		16					7.84E-04	1.09E-02	1.09E-02			
	80			2.74E-03	3.83E-02	3.83E-02						
Chlorobenzene		460					2.25E-02	3.14E-01	3.14E-01			
1,1 Dichloroethene		200					9.80E-03	1.37E-01	1.37E-01			
	790			2.71E-02	3.78E-01	3.78E-01						
Tetrachloroethene		1700					8.33E-02	1.16E+00	1.16E+00			
	6850			2.35E-01	3.28E+00	3.28E+00						
Ethylbenzene		4340					2.13E-01	2.97E+00	2.97E+00			
	5430			1.86E-01	2.60E+00	2.60E+00						
2-Butanone		5900					2.89E-01	4.03E+00	4.03E+00			
	8850			3.04E-01	4.23E+00	4.23E+00						
Iodomethane		120					5.88E-03	8.20E-02	8.20E-02			
2-Hexanone		200					9.80E-03	1.37E-01	1.37E-01			
n-Butyl benzene		353					1.73E-02	2.41E-01	2.41E-01			
Isopropyl benzene		2460					1.21E-01	1.68E+00	1.68E+00			
n-Propylbenzene		248					1.22E-02	1.69E-01	1.69E-01			
tert-Butyl benzene		356					1.74E-02	2.43E-01	2.43E-01			

Contaminant	Off-Site Limits			Maximum Allowable Emission Rates								
	1-Hour Screening Level (TLV-STEL[3] or TLV-C[4]/100)	8-Hour Screening Level[2] (TLV-TWA/100)	Annual Screening Level[1] (70 year exposure)	1-Hour Screening Level (TLV-STEL[3] or TLV-C[4]/100)			8-Hour Screening Level[2] (TLV-TWA/100)			Annual Screening Level[1] (70 year exposure)		
				Batch	Continuous 1	Continuous 2	Batch	Continuous 1	Continuous 2	Batch	Continuous 1	Continuous 2
	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)	(g/s)
1,3,5-Trimethyl benzene		1230					6.03E-02	8.40E-01	8.40E-01			
1,2,4-Trimethyl benzene		1800					8.82E-02	1.23E+00	1.23E+00			
4-Isopropyl toluene		195					9.55E-03	1.33E-01	1.33E-01			
4-Methyl-2-Pentanone		2050					1.00E-01	1.40E+00	1.40E+00			
	3070			1.05E-01	1.47E+00	1.47E+00						
1,2-Dibromo-3-chloropropane			14.63							6.27E-03	8.75E-02	8.75E-02
		9.667					4.74E-04	6.60E-03	6.60E-03			
Styrene		850					4.16E-02	5.81E-01	5.81E-01			
	1700			5.83E-02	8.13E-01	8.13E-01						
Toluene		1880					9.21E-02	1.28E+00	1.28E+00			
Xylene (o-, m-, p- isomers)		4340					2.13E-01	2.97E+00	2.97E+00			
	6510			2.23E-01	3.11E+00	3.11E+00						
Vinyl Chloride			0.117							5.02E-05	6.99E-04	6.99E-04
		130					6.37E-03	8.88E-02	8.88E-02			
1,1,1 Trichloroethane		19100					9.36E-01	1.30E+01	1.30E+01			
	24600			8.44E-01	1.18E+01	1.18E+01						
1,4 Dichlorobenzene			1.46							6.26E-04	8.73E-03	8.73E-03
		600					2.94E-02	4.10E-01	4.10E-01			
Bromomethane		39					1.91E-03	2.66E-02	2.66E-02			
Carbon disulfide		310					1.52E-02	2.12E-01	2.12E-01			
Chloroethane		2.6					1.27E-04	1.78E-03	1.78E-03			
	13			4.46E-04	6.22E-03	6.22E-03						
Chloromethane		105					5.14E-03	7.17E-02	7.17E-02			
	525			1.80E-02	2.51E-01	2.51E-01						
Other Detected Chemicals												
Dioxins and Furans			3.E-07							1.29E-10	1.79E-09	1.79E-09
		0.0002					9.80E-09	1.37E-07	1.37E-07			

1. State Screening Level for Carcinogens = risk-based annual average chemical concentration that would increase a persons lifetime cancer risk by 1 in 100,000 if exposed continuously for 70 years.
2. TLV-TWA = threshold limit value-time weighted average means a concentration recommended by ACGIH for a normal 8-hour workday and 40-hour work week, or based on animal toxicity data for compounds without an ACGIH recommended value.
3. TLV-STEL - short term exposure limit-TLV means a 15-minute time-weighted average concentration that ACGIH indicates should not be exceeded at any time during the workday.
4. TLV-C means a concentration that ACGIH indicates should not be exceeded even instantaneously in a workplace.

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CALCULATION OF STACK MASS EMISSION RATES

INTRODUCTION

One of the goals of the POP test was to determine the mass emission rate of the various constituents of concern from both the batch and continuous TDUs under operational conditions. These compound-specific mass emission rates were then compared with the corresponding stack emission limits. (The stack emission limits, calculated in Appendix F, were based on screening dispersion modeling and risk-based ambient air concentration thresholds.)

Samples were collected according to the sampling protocol, which lists the various constituents of interest, the appropriate EPA sampling methods, and the appropriate EPA analytical method.

Following is a step-by-step example calculation of the determination of the mass emission rate for benzene from Batch Test 2. All other mass emission rates for all constituents and for all Tests were calculated this same way.

STEP 1: Determine sample mass

Samples were analyzed by various laboratories using the appropriate EPA method. The results, reported as mass of constituent in the sample, are summarized in tables at the end of this appendix. VOC sample masses are summarized in the G-1 series of tables. As an example, the total mass of benzene found in the Batch Test 2 outlet (Table G-1-D) was 271,997 ng.

STEP 2: Determine sample volume

Sample volumes were determined by the stack-testing contractor, using standard techniques, and are reported in Table G-2. The total volume sampled for Batch Test 2 was 76.38 liters.

STEP 3: Determine stack gas concentration

The concentration of the constituents in the stack gas for a particular Test were readily found by simply dividing the total (constituent-specific) sample mass by the corresponding total sample volume of stack gas. For the benzene example,

$$\frac{271{,}997 ng}{76.38 liters} \times \frac{1 \mu g}{1{,}000 ng} \times \frac{1{,}000 liters}{1 m^3} = 3{,}561 \frac{\mu g}{m^3}$$

STEP 4 Determine stack volumetric flow rate

Stack volumetric flow rates were determined by the stack-testing contractor, using standard techniques, and are reported in Table G-3. For the benzene example, the flow rate was 62 DSCFM (dry standard cubic feet per minute).

STEP 5 Determine the stack mass emission rate

The stack mass emission rate is easily determined by multiplying the stack gas concentration by the stack gas volumetric flow rate. For example,

$$MER = 3{,}561 \frac{\mu g}{m^3} \times 62 \frac{ft^3}{\min} \times \frac{1 m^3}{35.3 ft^3} \times \frac{1 \min}{60 \sec} \times \frac{1 g}{1{,}000{,}000 \mu g} = 1.04 \times 10^{-4} \frac{g}{\sec}$$

where MER is the mass emission rate. (All volumes are at dry standard conditions.) Results of the emission rate calculation for VOCs can be found in Table G-4 series of tables.

TABLE G-1-A
VOC Sample Mass
Batch Test 1 Inlet VOC

All data on this table should be rejected due to exceedence of method calibration limit.

Process: Batch Unit Volatiles via SW846 0030/5041A/8260
Date Sampled: 06/4/98

ONSITE LAB ID	30200011	30200012		30200013	30200014		30200015	30200016		30200017	30200018		
Field ID	R1-P1-T	R1-P1-TC		R1-P2-T	R1-P2-TC		R1-P3-T	R1-P3-TC		R1-P4-T	R1-P4-TC		
Analytes	**Tenax**	**T/C**	**VOST Subtotal**	**Tenax**	**T/C**	**VOST Subtotal**	**Tenax**	**T/C**	**VOST Subtotal**	**Tenax**	**T/C**	**VOST Subtotal**	**Sample Total**
	ng	**ng**	**ng**	**ng**	**ng**	**ng**	**ng**	**ng**	**ng**	**ng**	**ng**	**ng**	**ng**
Bromochloromethane													
Dichlorodifluoromethane													
Chloromethane	8080	378000	386080	22600	1099000	1121600	29400	1065000	1094400	230000	7000	237000	2839080
Vinyl chloride (ccc)								9960	9960				9960
Bromomethane		18600	18600		48500	48500		32700	32700		3100	3100	102900
Trichlorofluoromethane													
Chloroethane													
Methylene chloride					19800	19800		22500	22500				42300
Acetone	112000	848000	960000	159000	431000	590000	295000	163000	458000	341000	271000	612000	2620000
Freon-113													
Carbon Disulfide	13500	38400	51900	121000	117000	238000	117000	86300	203300	46000	10200	56200	549400
1,1-Dichloroethene (ccc)													
Iodomethane		14000	14000	23200	26800	50000	21500	16500	38000	11000	2460	13460	115460
1,1-Dichloroethane													
methyl-tert-butyl-ether													
trans-1,2-Dichloroethene													
Vinyl Acetate													
cis-1,2-Dichloroethene													
2,2-Dichloropropane													
Chloroform (ccc)													
1,2-Dichloroethane													
2-Butanone	65600	178000	243600	116000	84800	200800	232000	24400	256400	169000	38200	207200	908000
1,1,1-Trichloroethane													
Carbon tetrachloride													
1,1-Dichloropropene													
1,2-Dichloropropane (ccc)													
Bromodichloromethane													
Dibromomethane													
cis-1,3-Dichloropropene													
Trichloroethene													
Benzene	670000	704000	1374000	1089000	558000	1647000	1011000	164000	1175000	452000	39700	491700	4687700
2-chloroethylvinyl Ether													
1,3-Dichloropropane													
Dibromochloromethane													
1,2-Dibromoethane													
trans-1,3-Dichloropropene													
1,1,2-Trichloroethane													
4-Methyl-2-Pentanone													
2-Hexanone													
Tetrachloroethene													
1-Chlorohexane													
1,1,1,2-Tetrachloroethane													
Bromoform													
1,1,2,2-Tetrachloroethane													
Toluene (ccc)	765000	340000	1105000	652000	147000	799000	645000	26700	671700	308000	14000	322000	2897700
Chlorobenzene													
Ethyl benzene (ccc)	742000	127000	869000	488000	57700	545700	291000	11700	302700	73700	11100	84800	1802200
Styrene	122000	14300	136300	111000	7730	118730	109000		109000	30500	9320	39820	403850
m,p-Xylene	812000	146000	958000	582000	69600	651600	390000	15900	405900	107000	18500	125500	2141000
o-Xylene	340000	75900	415900	236000	38800	274800	180000	8700	188700	48900	12000	60900	940300
1,3-Dichlorobenzene													
1,4-Dichlorobenzene													
n-Butyl benzene													
1,2-Dichlorobenzene													
Isopropyl benzene	110000	70900	180900	88300	49000	137300	81600	19700	101300	40000	18400	58400	477900
1,2,3-Trichloropropane													
Bromobenzene													
n-Propylbenzene							11900		11900		2430	2430	14330
2-Chlorotoluene													
4-Chlorotoluene													
1,3,5-Trimethyl benzene	48900	12700	61600	46000	9320	55320	56100		56100	21800	25900	47700	220720
tert-Butyl benzene											9030	9030	9030
1,2,4-Trimethyl benzene	15900	9040	24940	31300		31300	39800		39800	25300	56300	81600	177640
sec-Butyl benzene													
4-Isopropyl toluene				8580		8580	10400		10400	8410	30700	39110	58090
1,2-Dibromo-3-chloropropane													
1,2,4-Trichlorobenzene													
Hexachlorobutadiene													
Naphthalene													
1,2,3-Trichlorobenzene													

TABLE G-1-A-DL
VOC Sample Mass Detection Limit
Batch Test 1 Inlet VOC

All data on this table should be rejected due to exceedence of method calibration.

Process: Batch Unit — Volatiles via SW846 0030/5041A/8260

Date Sampled: 06/4/98	At Detection Limit												
ONSITE LAB ID	30200011	30200012		30200013	30200014		30200015	30200016		30200017	30200018		
Field ID	R1-P1-T	R1-P1-TC		R1-P2-T	R1-P2-TC		R1-P3-T	R1-P3-TC		R1-P4-T	R1-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Dichlorodifluoromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Chloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Vinyl chloride (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Bromomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Trichlorofluoromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Chloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Methylene chloride	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Acetone	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Freon-113	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Carbon Disulfide	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,1-Dichloroethene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Iodomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,1-Dichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
methyl-tert-butyl-ether	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
trans-1,2-Dichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Vinyl Acetate	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
cis-1,2-Dichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
2,2-Dichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Chloroform (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,2-Dichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
2-Butanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,1,1-Trichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Carbon tetrachloride	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,1-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,2-Dichloropropane (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Bromodichloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Dibromomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
cis-1,3-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Trichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
2-chloroethylvinyl Ether	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,3-Dichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Dibromochloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,2-Dibromoethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
trans-1,3-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,1,2-Trichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
4-Methyl-2-Pentanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
2-Hexanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Tetrachloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1-Chlorohexane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,1,1,2-Tetrachloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Bromoform	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,1,2,2-Tetrachloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Toluene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Chlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Ethyl benzene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Styrene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
m,p-Xylene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
o-Xylene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,3-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,4-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
n-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,2-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Isopropyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,2,3-Trichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Bromobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
n-Propylbenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
2-Chlorotoluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
4-Chlorotoluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,3,5-Trimethyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
tert-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,2,4-Trimethyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
sec-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
4-Isopropyl toluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,2-Dibromo-3-chloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,2,4-Trichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Hexachlorobutadiene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
Naphthalene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520
1,2,3-Trichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	1320	7920	47520

TABLE G-1-B
VOC Sample Mass
Batch Test 1 Outlet VOC

All data on this table should be rejected due to exceedence of method calibration limit.

Process: Batch Unit
Date Sampled: 06/4/98

Volatiles via SW846 0030/5041A/8260

ONSITE LAB ID	30200001	30200002		30200003	30200004		30200005	30200006		30200007	30200008		
Field ID	R1-P1-T	R1-P1-TC		R1-P2-T	R1-P2-TC		R1-P3-T	R1-P3-TC		R1-P4-T	R1-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane													
Dichlorodifluoromethane		69.8	69.8		37.7	37.7		23.3	23.3				131
Chloromethane	176	3450	3626	2890	9550	12440	59	13000	13059	7940	140	8080	37205
Vinyl chloride (ccc)													
Bromomethane	19	148	167	89.5	383	473	165	423	588	696	436	1132	2360
Trichlorofluoromethane								27.3	27.3				27
Chloroethane							27.3	27	54		34.5	34.5	89
Methylene chloride		313	313		154	154							467
Acetone	5800	1180	6980	5820	1170	6990	11300	1740	13040	67400	75	67475	94485
Freon-113													
Carbon Disulfide	309	149	458	1490	482	1972	2740	1300	4040	5350	1250	6600	13070
1,1-Dichloroethene (ccc)													
Iodomethane	152	51	203	643	8	651	811	184	995	1540	227	1767	3616
1,1-Dichloroethane	23.5		23.5	51.4		51.4							75
methyl-tert-butyl-ether													
trans-1,2-Dichloroethene													
Vinyl Acetate													
cis-1,2-Dichloroethene													
2,2-Dichloropropane													
Chloroform (ccc)	25.3		25.3					0.3	0.3		71	71	97
1,2-Dichloroethane				148		148	225		225				373
2-Butanone	2330		2330	23	41.1	64	4250	63.1	4313	16100	734	16834	23541
1,1,1-Trichloroethane													
Carbon tetrachloride													
1,1-Dichloropropene													
1,2-Dichloropropane (ccc)													
Bromodichloromethane											30.2	30.2	30.2
Dibromomethane													
cis-1,3-Dichloropropene													
Trichloroethene													
Benzene	3070	11.7	3082	3670	1	3671	5300	172	5472	11600	989	12589	24814
2-chloroethylvinyl Ether													
1,3-Dichloropropane													
Dibromochloromethane													
1,2-Dibromoethane													
trans-1,3-Dichloropropene													
1,1,2-Trichloroethane													
4-Methyl-2-Pentanone	96		96	83.7		83.7	132		132	220		220	532
2-Hexanone	68.9		68.9	63.4		63.4	82.6		82.6	78.4		78.4	293
Tetrachloroethene													
1-Chlorohexane													
1,1,1,2-Tetrachloroethane													
Bromoform													
1,1,2,2-Tetrachloroethane													
Toluene (ccc)	2000	19.2	2019	1890		1890	2280		2280	3070	30.2	3100	9289
Chlorobenzene													
Ethyl benzene (ccc)	1990	89.5	2080	18		18	1620		1620	1720		1720	5438
Styrene	1160	26.5	1187	40		40	998		998	1220		1220	3445
m,p-Xylene	2350	38.6	2389	2160		2160	2000		2000	2220		2220	8769
o-Xylene	1200	16.5	1217	1160		1160	60		60	1080		1080	3517
1,3-Dichlorobenzene													
1,4-Dichlorobenzene													
n-Butyl benzene													
1,2-Dichlorobenzene													
Isopropyl benzene	848	14.1	862	733		733	822		822	6990		6990	9407
1,2,3-Trichloropropane													
Bromobenzene													
n-Propylbenzene	744	14.4	758	582		582	740		740	2220		2220	4300
2-Chlorotoluene													
4-Chlorotoluene													
1,3,5-Trimethyl benzene	4060		4060	3780		3780	4530		4530	4730		4730	17100
tert-Butyl benzene	2740		2740				688		688				3428
1,2,4-Trimethyl benzene	1800		1800	1730		1730	1980		1980	5710		5710	11220
sec-Butyl benzene													
4-Isopropyl toluene	17		17	2390		2390	1840		1840	5360		5360	9607
1,2-Dibromo-3-chloropropane													
1,2,4-Trichlorobenzene													
Hexachlorobutadiene													
Naphthalene	1380		1380	721		721	792		792	2730		2730	5623
1,2,3-Trichlorobenzene													

TABLE G-1-B-DL
VOC Sample Mass Detection Limit
Batch Test 1 Outlet VOC

All data on this table should be rejected due to exceedence of method calibration.

Process: Batch Unit — Volatiles via SW846 0030/5041A/8260

Date Sampled: 06/4/98	At Detection Limit												
ONSITE LAB ID	30200001	30200002		30200003	30200004		30200005	30200006		30200007	30200008		
Field ID	R1-P1-T	R1-P1-TC		R1-P2-T	R1-P2-TC		R1-P3-T	R1-P3-TC		R1-P4-T	R1-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	10	10	20	10	10	20	10	10	20	10	10	20	80
Dichlorodifluoromethane	10	10	20	10	10	20	10	10	20	10	10	20	80
Chloromethane	10	10	20	10	10	20	10	10	20	10	10	20	80
Vinyl chloride (ccc)	10	10	20	10	10	20	10	10	20	10	10	20	80
Bromomethane	10	10	20	10	10	20	10	10	20	10	10	20	80
Trichlorofluoromethane	10	10	20	10	10	20	10	10	20	10	10	20	80
Chloroethane	10	10	20	10	10	20	10	10	20	10	10	20	80
Methylene chloride	10	10	20	10	10	20	10	10	20	10	10	20	80
Acetone	10	10	20	10	10	20	10	10	20	10	10	20	80
Freon-113	10	10	20	10	10	20	10	10	20	10	10	20	80
Carbon Disulfide	10	10	20	10	10	20	10	10	20	10	10	20	80
1,1-Dichloroethene (ccc)	10	10	20	10	10	20	10	10	20	10	10	20	80
Iodomethane	10	10	20	10	10	20	10	10	20	10	10	20	80
1,1-Dichloroethane	10	10	20	10	10	20	10	10	20	10	10	20	80
methyl-tert-butyl-ether	10	10	20	10	10	20	10	10	20	10	10	20	80
trans-1,2-Dichloroethene	10	10	20	10	10	20	10	10	20	10	10	20	80
Vinyl Acetate	10	10	20	10	10	20	10	10	20	10	10	20	80
cis-1,2-Dichloroethene	10	10	20	10	10	20	10	10	20	10	10	20	80
2,2-Dichloropropane	10	10	20	10	10	20	10	10	20	10	10	20	80
Chloroform (ccc)	10	10	20	10	10	20	10	10	20	10	10	20	80
1,2-Dichloroethane	10	10	20	10	10	20	10	10	20	10	10	20	80
2-Butanone	10	10	20	10	10	20	10	10	20	10	10	20	80
1,1,1-Trichloroethane	10	10	20	10	10	20	10	10	20	10	10	20	80
Carbon tetrachloride	10	10	20	10	10	20	10	10	20	10	10	20	80
1,1-Dichloropropene	10	10	20	10	10	20	10	10	20	10	10	20	80
1,2-Dichloropropane (ccc)	10	10	20	10	10	20	10	10	20	10	10	20	80
Bromodichloromethane	10	10	20	10	10	20	10	10	20	10	10	20	80.0
Dibromomethane	10	10	20	10	10	20	10	10	20	10	10	20	80
cis-1,3-Dichloropropene	10	10	20	10	10	20	10	10	20	10	10	20	80
Trichloroethene	10	10	20	10	10	20	10	10	20	10	10	20	80
Benzene	10	10	20	10	10	20	10	10	20	10	10	20	80
2-chloroethylvinyl Ether	10	10	20	10	10	20	10	10	20	10	10	20	80
1,3-Dichloropropane	10	10	20	10	10	20	10	10	20	10	10	20	80
Dibromochloromethane	10	10	20	10	10	20	10	10	20	10	10	20	80
1,2-Dibromoethane	10	10	20	10	10	20	10	10	20	10	10	20	80
trans-1,3-Dichloropropene	10	10	20	10	10	20	10	10	20	10	10	20	80
1,1,2-Trichloroethane	10	10	20	10	10	20	10	10	20	10	10	20	80
4-Methyl-2-Pentanone	10	10	20	10	10	20	10	10	20	10	10	20	80
2-Hexanone	10	10	20	10	10	20	10	10	20	10	10	20	80
Tetrachloroethene	10	10	20	10	10	20	10	10	20	10	10	20	80
1-Chlorohexane	10	10	20	10	10	20	10	10	20	10	10	20	80
1,1,1,2-Tetrachloroethane	10	10	20	10	10	20	10	10	20	10	10	20	80
Bromoform	10	10	20	10	10	20	10	10	20	10	10	20	80
1,1,2,2-Tetrachloroethane	10	10	20	10	10	20	10	10	20	10	10	20	80
Toluene (ccc)	10	10	20	10	10	20	10	10	20	10	10	20	80
Chlorobenzene	10	10	20	10	10	20	10	10	20	10	10	20	80
Ethyl benzene (ccc)	10	10	20	10	10	20	10	10	20	10	10	20	80
Styrene	10	10	20	10	10	20	10	10	20	10	10	20	80
m,p-Xylene	10	10	20	10	10	20	10	10	20	10	10	20	80
o-Xylene	10	10	20	10	10	20	10	10	20	10	10	20	80
1,3-Dichlorobenzene	10	10	20	10	10	20	10	10	20	10	10	20	80
1,4-Dichlorobenzene	10	10	20	10	10	20	10	10	20	10	10	20	80
n-Butyl benzene	10	10	20	10	10	20	10	10	20	10	10	20	80
1,2-Dichlorobenzene	10	10	20	10	10	20	10	10	20	10	10	20	80
Isopropyl benzene	10	10	20	10	10	20	10	10	20	10	10	20	80
1,2,3-Trichloropropane	10	10	20	10	10	20	10	10	20	10	10	20	80
Bromobenzene	10	10	20	10	10	20	10	10	20	10	10	20	80
n-Propylbenzene	10	10	20	10	10	20	10	10	20	10	10	20	80
2-Chlorotoluene	10	10	20	10	10	20	10	10	20	10	10	20	80
4-Chlorotoluene	10	10	20	10	10	20	10	10	20	10	10	20	80
1,3,5-Trimethyl benzene	10	10	20	10	10	20	10	10	20	10	10	20	80
tert-Butyl benzene	10	10	20	10	10	20	10	10	20	10	10	20	80
1,2,4-Trimethyl benzene	10	10	20	10	10	20	10	10	20	10	10	20	80
sec-Butyl benzene	10	10	20	10	10	20	10	10	20	10	10	20	80
4-Isopropyl toluene	10	10	20	10	10	20	10	10	20	10	10	20	80
1,2-Dibromo-3-chloropropane	10	10	20	10	10	20	10	10	20	10	10	20	80
1,2,4-Trichlorobenzene	10	10	20	10	10	20	10	10	20	10	10	20	80
Hexachlorobutadiene	10	10	20	10	10	20	10	10	20	10	10	20	80
Naphthalene	10	10	20	10	10	20	10	10	20	10	10	20	80
1,2,3-Trichlorobenzene	10	10	20	10	10	20	10	10	20	10	10	20	80

TABLE G-1-C
VOC Sample Mass
Batch Test 2 Inlet VOC

Process: Batch Unit
Date Sampled: 06/6/98

Volatiles via SW846 0030/5041A/8260

	VOST Tube #1			VOST Tube #2			VOST Tube #3			VOST Tube #4			
ONSITE LAB ID	30200019	30200020		30200021	30200022		30200023	30200024		30200025	30200026		
Field ID	R2-P1-T	R2-P1-TC		R2-P2-T	R2-P2-TC		R2-P3-T	R2-P3-TC		R2-P4-T	R2-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane													
Dichlorodifluoromethane													
Chloromethane		117000	117000		159000	159000		130000	130000		26500	26500	432500
Vinyl chloride (ccc)													
Bromomethane													
Trichlorofluoromethane													
Chloroethane													
Methylene chloride													
Acetone	963000	1045000	2008000	1025000	14247000	15272000	715000	9195000	9910000	507000	8665000	9172000	36362000
Freon-113													
Carbon Disulfide		15000	15000		21400	21400		16100	16100		18500	18500	71000
1,1-Dichloroethene (ccc)													
Iodomethane													
1,1-Dichloroethane													
methyl-tert-butyl-ether													
trans-1,2-Dichloroethene													
Vinyl Acetate													
cis-1,2-Dichloroethene													
2,2-Dichloropropane													
Chloroform (ccc)													
1,2-Dichloroethane		77600	77600		90300	90300							167900
2-Butanone	834000	237000	1071000	979000	2816000.0	3795000	702000	1777000	2479000	455000	1769000	2224000	9569000
1,1,1-Trichloroethane													
Carbon tetrachloride													
1,1-Dichloropropene													
1,2-Dichloropropane (ccc)													
Bromodichloromethane													
Dibromomethane													
cis-1,3-Dichloropropene													
Trichloroethene													
Benzene	2896000	2255000	5151000	2768000	2512000	5280000	2711000	2257000	4968000	2650000	2393000	5043000	20442000
2-chloroethylvinyl Ether													
1,3-Dichloropropane													
Dibromochloromethane													
1,2-Dibromoethane													
trans-1,3-Dichloropropene		28900	28900										28900
1,1,2-Trichloroethane													
4-Methyl-2-Pentanone	96200	16300	112500.0	113000.0	93300	206300.0	86400	54000	140400.0	55600	62000	117600.0	576800
2-Hexanone	82000.0	12100	94100.0	84800.0	34900	119700.0	66200.0	13300	79500.0	50800.0	24700	75500.0	369800
Tetrachloroethene													
1-Chlorohexane													
1,1,1,2-Tetrachloroethane													
Bromoform													
1,1,2,2-Tetrachloroethane													
Toluene (ccc)	2418000	1225000	3643000	2343000	1330000	3673000	2323000	1207000	3530000	2324000	1287000	3611000	14457000
Chlorobenzene													
Ethyl benzene (ccc)	1071000	220000	1291000	944000	348000	1292000	862000	255000	1117000	841000	287000	1128000	4828000
Styrene	92900		92900	80100	11300	91400	68300		68300	64800		64800	317400
m,p-Xylene	977000	169000	1146000	844000	277000	1121000	752000	199000	951000	737000	227000	964000	4182000
o-Xylene	352000	47200	399200	298000	83400	381400	259000	57500	316500	248000	66500	314500	1411800
1,3-Dichlorobenzene													
1,4-Dichlorobenzene													
n-Butyl benzene													
1,2-Dichlorobenzene													
Isopropyl benzene	57700	9140	66840	48900	14100	63000	42600	10400	53000	42200	11800	54000	236840
1,2,3-Trichloropropane													
Bromobenzene													
n-Propylbenzene	23600		23600	19500	98700	118200	16800		16800	17200		17200	175800
2-Chlorotoluene													
4-Chlorotoluene													
1,3,5-Trimethyl benzene	65700		65700	75800		75800	62200		62200	33900		33900	237600
tert-Butyl benzene													
1,2,4-Trimethyl benzene	32400		32400	28400		28400	22300		22300	22600		22600	105700
sec-Butyl benzene													
4-Isopropyl toluene													
1,2-Dibromo-3-chloropropane													
1,2,4-Trichlorobenzene													
Hexachlorobutadiene													
Naphthalene													
1,2,3-Trichlorobenzene													

TABLE G-1-C-DL
VOC Sample Mass Detection Limit
Batch Test 2 Inlet VOC

Process: Batch Unit
Date Sampled: 06/6/98

Volatiles via SW846 0030/5041A/8260

	At Detection Limit												
	VOST Tube #1			VOST Tube #2			VOST Tube #3			VOST Tube #4			
ONSITE LAB ID	30200019	30200020		30200021	30200022		30200023	30200024		30200025	30200026		
Field ID	R2-P1-T	R2-P1-TC		R2-P2-T	R2-P2-TC		R2-P3-T	R2-P3-TC		R2-P4-T	R2-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Dichlorodifluoromethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Chloromethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Vinyl chloride (ccc)	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Bromomethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Trichlorofluoromethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Chloroethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Methylene chloride	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Acetone	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Freon-113	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Carbon Disulfide	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,1-Dichloroethene (ccc)	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Iodomethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,1-Dichloroethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
methyl-tert-butyl-ether	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
trans-1,2-Dichloroethene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Vinyl Acetate	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
cis-1,2-Dichloroethene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
2,2-Dichloropropane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Chloroform (ccc)	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,2-Dichloroethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
2-Butanone	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,1,1-Trichloroethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Carbon tetrachloride	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,1-Dichloropropene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,2-Dichloropropane (ccc)	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Bromodichloromethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Dibromomethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
cis-1,3-Dichloropropene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Trichloroethene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Benzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
2-chloroethylvinyl Ether	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,3-Dichloropropane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Dibromochloromethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,2-Dibromoethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
trans-1,3-Dichloropropene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,1,2-Trichloroethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
4-Methyl-2-Pentanone	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
2-Hexanone	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Tetrachloroethene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1-Chlorohexane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,1,1,2-Tetrachloroethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Bromoform	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,1,2,2-Tetrachloroethane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Toluene (ccc)	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Chlorobenzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Ethyl benzene (ccc)	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Styrene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
m,p-Xylene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
o-Xylene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,3-Dichlorobenzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,4-Dichlorobenzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
n-Butyl benzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,2-Dichlorobenzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Isopropyl benzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,2,3-Trichloropropane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Bromobenzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
n-Propylbenzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
2-Chlorotoluene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
4-Chlorotoluene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,3,5-Trimethyl benzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
tert-Butyl benzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,2,4-Trimethyl benzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
sec-Butyl benzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
4-Isopropyl toluene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,2-Dibromo-3-chloropropane	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,2,4-Trichlorobenzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Hexachlorobutadiene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
Naphthalene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200
1,2,3-Trichlorobenzene	13200	6600	19800	13200	6600	19800	13200	6600	19800	13200	6600	19800	79200

ORIGINAL (Red)

TABLE G-1-D
VOC Sample Mass
Batch Test 2 Outlet VOC

Process: Batch Unit
Date Sampled: 06/6/98

	VOST Tube #1			VOST Tube #2			VOST Tube #3			VOST Tube #4			
ONSITE LAB ID	30200035	30200036		30200037	30200038		30200039	30200040		30200041	30200042		
Field ID	R2-P1-T	R2-P1-TC		R2-P2-T	R2-P2-TC		R2-P3-T	R2-P3-TC		R2-P4-T	R2-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane													
Dichlorodifluoromethane													
Chloromethane	5960		5960	1420	3660	5080	644	2760	3404	554	5730	6284	20728
Vinyl chloride (ccc)													
Bromomethane		56	56										56
Trichlorofluoromethane													
Chloroethane													
Methylene chloride		154	154										154
Acetone	1120	20900	22020	37800	21800	59600	55000	21900	76900	66900	21500	88400	246920
Freon-113													
Carbon Disulfide	1590	107	1697										1697
1,1-Dichloroethene (ccc)													
Iodomethane		23	23										23
1,1-Dichloroethane													
methyl-tert-butyl-ether													
trans-1,2-Dichloroethene													
Vinyl Acetate													
cis-1,2-Dichloroethene													
2,2-Dichloropropane													
Chloroform (ccc)													
1,2-Dichloroethane													
2-Butanone		14	14	20100	1630.0	21730	28200	1550	29750	32300	1590	33890	85384
1,1,1-Trichloroethane													
Carbon tetrachloride													
1,1-Dichloropropene													
1,2-Dichloropropane (ccc)													
Bromodichloromethane													
Dibromomethane													
cis-1,3-Dichloropropene													
Trichloroethene													
Benzene	718	69	787	81200	5330	86530	87400	4960	92360	87300	5020	92320	271997
2-chloroethylVinyl Ether													
1,3-Dichloropropane													
Dibromochloromethane													
1,2-Dibromoethane													
trans-1,3-Dichloropropene													
1,1,2-Trichloroethane													
4-Methyl-2-Pentanone				890.0		890.0	1160		1160.0	1230		1230.0	3280
2-Hexanone				847.0		847.0	980.0		980.0	939.0		939.0	2766.0
Tetrachloroethene													
1-Chlorohexane													
1,1,1,2-Tetrachloroethane													
Bromoform													
1,1,2,2-Tetrachloroethane													
Toluene (ccc)	1010	17	1027	48800	922	49722	51300	847	52147	51800	875	52675	155671
Chlorobenzene													
Ethyl benzene (ccc)	1540		1540	11700	1310	13010	12700	1210	13910	11700	1270	12970	41430
Styrene	1220		1220	3360	869	4229	3750	824	4574	3560	821	4381	14404
m,p-Xylene	2410		2410	10900	2120	13020	11900	1950	13850	10800	2020	12820	42100
o-Xylene	1790		1790	5390	1610	7000	5910	1500	7410	5480	1530	7010	23210
1,3-Dichlorobenzene													
1,4-Dichlorobenzene													
n-Butyl benzene	439		439										439
1,2-Dichlorobenzene													
Isopropyl benzene	1050		1050	1650	1240	2890	1650	922	2572	1570	908	2478	8990
1,2,3-Trichloropropane													
Bromobenzene													
n-Propylbenzene				566		566	606		606	535		535	1707
2-Chlorotoluene													
4-Chlorotoluene													
1,3,5-Trimethyl benzene	1230		1230	1660	1190	2850	1710	1070	2780	1620	1070	2690	9550
tert-Butyl benzene				393		393	419		419	388		388	1200
1,2,4-Trimethyl benzene	2200		2200	2810	1950	4760	2970	1830	4800	2760	1890	4650	16410
sec-Butyl benzene													
4-Isopropyl toluene	901		901	1690	727	2417	1780	670	2450	1600	748	2348	8116
1,2-Dibromo-3-chloropropane													
1,2,4-Trichlorobenzene													
Hexachlorobutadiene													
Naphthalene	784		784	829	1080	1909	949	1150	2099	987	1080	2067	6859
1,2,3-Trichlorobenzene													

TABLE G-1-D-DL
VOC Sample Mass Detection Limit
Batch Test 2 Outlet VOC

Process: Batch Unit
Date Sampled: 06/6/98

	At Detection Limit												
	VOST Tube #1			VOST Tube #2			VOST Tube #3			VOST Tube #4			
ONSITE LAB ID	30200035	30200036		30200037	30200038		30200039	30200040		30200041	30200042		
Field ID	R2-P1-T	R2-P1-TC		R2-P2-T	R2-P2-TC		R2-P3-T	R2-P3-TC		R2-P4-T	R2-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total *
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Dichlorodifluoromethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Chloromethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Vinyl chloride (ccc)	330	10	340	330	330	660	330	330	660	330	330	660	2320
Bromomethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Trichlorofluoromethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Chloroethane	330	10	340	330	330	660	330	330	660	330	330	660	2320.0
Methylene chloride	330	10	340	330	330	660	330	330	660	330	330	660	2320
Acetone	330	10	340	330	330	660	330	330	660	330	330	660	2320
Freon-113	330	10	340	330	330	660	330	330	660	330	330	660	2320
Carbon Disulfide	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,1-Dichloroethene (ccc)	330	10	340	330	330	660	330	330	660	330	330	660	2320
Iodomethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,1-Dichloroethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
methyl-tert-butyl-ether	330	10	340	330	330	660	330	330	660	330	330	660	2320
trans-1,2-Dichloroethene	330	10	340	330	330	660	330	330	660	330	330	660	2320
Vinyl Acetate	330	10	340	330	330	660	330	330	660	330	330	660	2320
cis-1,2-Dichloroethene	330	10	340	330	330	660	330	330	660	330	330	660	2320
2,2-Dichloropropane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Chloroform (ccc)	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,2-Dichloroethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
2-Butanone	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,1,1-Trichloroethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Carbon tetrachloride	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,1-Dichloropropene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,2-Dichloropropane (ccc)	330	10	340	330	330	660	330	330	660	330	330	660	2320
Bromodichloromethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Dibromomethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
cis-1,3-Dichloropropene	330	10	340	330	330	660	330	330	660	330	330	660	2320
Trichloroethene	330	10	340	330	330	660	330	330	660	330	330	660	2320
Benzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
2-chloroethylvinyl Ether	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,3-Dichloropropene	330	10	340	330	330	660	330	330	660	330	330	660	2320
Dibromochloromethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,2-Dibromoethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
trans-1,3-Dichloropropene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,1,2-Trichloroethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
4-Methyl-2-Pentanone	330	10	340	330	330	660	330	330	660	330	330	660	2320
2-Hexanone	330	10	340	330	330	660	330	330	660	330	330	660	2320.0
Tetrachloroethene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1-Chlorohexane	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,1,1,2-Tetrachloroethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Bromoform	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,1,2,2-Tetrachloroethane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Toluene (ccc)	330	10	340	330	330	660	330	330	660	330	330	660	2320
Chlorobenzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
Ethyl benzene (ccc)	330	10	340	330	330	660	330	330	660	330	330	660	2320
Styrene	330	10	340	330	330	660	330	330	660	330	330	660	2320
m,p-Xylene	330	10	340	330	330	660	330	330	660	330	330	660	2320
o-Xylene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,3-Dichlorobenzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,4-Dichlorobenzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
n-Butyl benzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,2-Dichlorobenzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
Isopropyl benzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,2,3-Trichloropropane	330	10	340	330	330	660	330	330	660	330	330	660	2320
Bromobenzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
n-Propylbenzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
2-Chlorotoluene	330	10	340	330	330	660	330	330	660	330	330	660	2320
4-Chlorotoluene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,3,5-Trimethyl benzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
tert-Butyl benzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,2,4-Trimethyl benzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
sec-Butyl benzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
4-Isopropyl toluene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,2-Dibromo-3-chloropropane	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,2,4-Trichlorobenzene	330	10	340	330	330	660	330	330	660	330	330	660	2320
Hexachlorobutadiene	330	10	340	330	330	660	330	330	660	330	330	660	2320
Naphthalene	330	10	340	330	330	660	330	330	660	330	330	660	2320
1,2,3-Trichlorobenzene	330	10	340	330	330	660	330	330	660	330	330	660	2320

* VOST pair 5 samples not included in total sample mass as no sample volumes are available for that run.

TABLE G-1-E
VOC Sample Mass
Batch Test 3 Inlet VOC

Process: Batch Unit
Date Sampled: 06/7/98

Volatiles via SW846 0030/5041A/8260

	VOST Tube #1			VOST Tube #2			VOST Tube #3			VOST Tube #4			
ONSITE LAB ID	30200027	30200028		30200029	30200030		30200031	30200032		30200033	30200034		
Field ID	R3-P1-T	R3-P1-TC		R3-P2-T	R3-P2-TC		R3-P3-T	R3-P3-TC		R3-P4-T	R3-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane													
Dichlorodifluoromethane													
Chloromethane		19300	19300		15600	15600		11500	11500		17500	17500	63900
Vinyl chloride (ccc)													
Bromomethane													
Trichlorofluoromethane													
Chloroethane													
Methylene chloride													
Acetone	1980000	328000	2308000	1089000	345000	1434000	997000	283000	1280000	840000	370000	1210000	6232000
Freon-113													
Carbon Disulfide	8300		8300	6720		6720				6870		6870	21890
1,1-Dichloroethene (ccc)													
Iodomethane													
1,1-Dichloroethane													
methyl-tert-butyl-ether													
trans-1,2-Dichloroethene													
Vinyl Acetate													
cis-1,2-Dichloroethene													
2,2-Dichloropropane													
Chloroform (ccc)													
1,2-Dichloroethane													
2-Butanone	1462000	89000	1551000	700000	104000.0	804000	638000	83900	721900	534000	114000	648000	3724900
1,1,1-Trichloroethane													
Carbon tetrachloride													
1,1-Dichloropropene													
1,2-Dichloropropane (ccc)													
Bromodichloromethane													
Dibromomethane													
cis-1,3-Dichloropropene													
Trichloroethene													
Benzene	842000	590000	1432000	583000	509000	1092000	542000	411000	953000	591000	554000	1145000	4622000
2-chloroethylvinyl Ether													
1,3-Dichloropropane													
Dibromochloromethane													
1,2-Dibromoethane													
trans-1,3-Dichloropropene													
1,1,2-Trichloroethane													
4-Methyl-2-Pentanone	107000		107000.0	39600.0		39600.0	33400		33400.0	31300		31300.0	211300
2-Hexanone	85000.0		85000.0	36800.0		36800.0	31700.0		31700.0	29500.0		29500.0	183000
Tetrachloroethene													
1-Chlorohexane													
1,1,1,2-Tetrachloroethane													
Bromoform													
1,1,2,2-Tetrachloroethane													
Toluene (ccc)	889000	565000	1454000	674000	485000	1159000	644000	392000	1036000	698000	517000	1215000	4864000
Chlorobenzene													
Ethyl benzene (ccc)	409000	88700	497700	308000	74400	382400	274000	57400	331400	306000	86400	392400	1603900
Styrene	94400	10800	105200	66600	8910	75510	58800	6850	65650	66600	10700	77300	323660
m,p-Xylene	472000	86300	558300	359000	72600	431600	322000	56100	378100	356000	83800	439800	1807800
o-Xylene	266000	37200	303200	196000	31100	227100	173000	24000	197000	196000	36500	232500	959900
1,3-Dichlorobenzene													
1,4-Dichlorobenzene													
n-Butyl benzene													
1,2-Dichlorobenzene													
Isopropyl benzene	53700	15400	69100	43100	12900	56000	38000	9780	47780	43200	14500	57700	230580
1,2,3-Trichloropropane													
Bromobenzene													
n-Propylbenzene	23200		23200	18400		18400	16000		16000	18200		18200	75800
2-Chlorotoluene													
4-Chlorotoluene													
1,3,5-Trimethyl benzene	46300		46300	31300		31300	27800		27800	37200		37200	142600
tert-Butyl benzene													
1,2,4-Trimethyl benzene	25000		25000	19100		19100	16400		16400	19100		19100	79600
sec-Butyl benzene													
4-Isopropyl toluene	8710		8710	6810		6810				6620		6620	22140
1,2-Dibromo-3-chloropropane													
1,2,4-Trichlorobenzene													
Hexachlorobutadiene													
Naphthalene													
1,2,3-Trichlorobenzene													

TABLE G-1-E-DL
VOC Sample Mass Detection Limit
Batch Test 3 Inlet VOC

Process: Batch Unit
Date Sampled: 06/7/98

Volatiles via SW846 0030/5041A/8260

	At Detection Limit												
	VOST Tube #1			VOST Tube #2			VOST Tube #3			VOST Tube #4			
ONSITE LAB ID	30200027	30200028		30200029	30200030		30200031	30200032		30200033	30200034		
Field ID	R3-P1-T	R3-P1-TC		R3-P2-T	R3-P2-TC		R3-P3-T	R3-P3-TC		R3-P4-T	R3-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Dichlorodifluoromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200.0	52800
Chloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Vinyl chloride (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Bromomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Trichlorofluoromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Chloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Methylene chloride	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Acetone	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Freon-113	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Carbon Disulfide	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,1-Dichloroethene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Iodomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,1-Dichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200.0	52800
methyl-tert-butyl-ether	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
trans-1,2-Dichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Vinyl Acetate	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
cis-1,2-Dichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
2,2-Dichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Chloroform (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,2-Dichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
2-Butanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,1,1-Trichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Carbon tetrachloride	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,1-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,2-Dichloropropane (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Bromodichloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Dibromomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
cis-1,3-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Trichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
2-chloroethylvinyl Ether	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,3-Dichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Dibromochloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,2-Dibromoethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
trans-1,3-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,1,2-Trichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
4-Methyl-2-Pentanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200.0	52800
2-Hexanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200.0	52800
Tetrachloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1-Chlorohexane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,1,1,2-Tetrachloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Bromoform	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,1,2,2-Tetrachloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Toluene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Chlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Ethyl benzene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Styrene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
m,p-Xylene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
o-Xylene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,3-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,4-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
n-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,2-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Isopropyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,2,3-Trichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Bromobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
n-Propylbenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
2-Chlorotoluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
4-Chlorotoluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,3,5-Trimethyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
tert-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,2,4-Trimethyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
sec-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
4-Isopropyl toluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,2-Dibromo-3-chloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,2,4-Trichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Hexachlorobutadiene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
Naphthalene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800
1,2,3-Trichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	6600	6600	13200	52800

TABLE G-1-F
VOC Sample Mass
Batch Test 3 Outlet VOC

Process: Batch Unit
Date Sampled: 06/7/98

	VOST Tube #1			VOST Tube #2			VOST Tube #3			VOST Tube #4			
ONSITE LAB ID	30200047	30200048		30200049	30200050		30200051	30200052		30200053	30200054		
Field ID	R3-P1-T	R3-P1-TC		R3-P2-T	R3-P2-TC		R3-P3-T	R3-P3-TC		R3-P4-T	R3-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane													
Dichlorodifluoromethane													
Chloromethane		3070	3070		5060	5060		6100	6100		5950	5950	20180
Vinyl chloride (ccc)													
Bromomethane													
Trichlorofluoromethane													
Chloroethane													
Methylene chloride													
Acetone	19000	19100	38100	10600	2410	13010	10900	1770	12670	13400	1460	14860	78640
Freon-113													
Carbon Disulfide	441		441	433	1440	1873	543	1750	2293	437	1610	2047	6654
1,1-Dichloroethene (ccc)													
Iodomethane													
1,1-Dichloroethane													
methyl-tert-butyl-ether													
trans-1,2-Dichloroethene													
Vinyl Acetate													
cis-1,2-Dichloroethene													
2,2-Dichloropropane													
Chloroform (ccc)													
1,2-Dichloroethane													
2-Butanone	8780	1310	10090	4660		4660	4750		4750	5830		5830	25330
1,1,1-Trichloroethane													
Carbon tetrachloride													
1,1-Dichloropropene													
1,2-Dichloropropane (ccc)													
Bromodichloromethane													
Dibromomethane													
cis-1,3-Dichloropropene													
Trichloroethene													
Benzene	13400	4850	18250	13800	848	14648	14400	799	15199	13700	725	14425	62522
2-chloroethylvinyl Ether													
1,3-Dichloropropane													
Dibromochloromethane													
1,2-Dibromoethane													
trans-1,3-Dichloropropene													
1,1,2-Trichloroethane													
4-Methyl-2-Pentanone													
2-Hexanone													
Tetrachloroethene													
1-Chlorohexane								4470	4470				4470
1,1,1,2-Tetrachloroethane													
Bromoform													
1,1,2,2-Tetrachloroethane													
Toluene (ccc)	9910	842	10752	10600	958	11558	11300	1130	12430	10200	1040	11240	45980
Chlorobenzene													
Ethyl benzene (ccc)	6270	1220	7490	6860	1470	8330	7700	1720	9420	6470	1590	8060	33300
Styrene	2780	796	3576	2790	1150	3940	2870	1360	4230	2780	1250	4030	15776
m,p-Xylene	7540	1940	9480	8140	2270	10410	8980	2690	11670	7690	2480	10170	41730
o-Xylene	4380	1480	5860	4560	1700	6260	4890	2000	6890	4420	1830	6250	25260
1,3-Dichlorobenzene													
1,4-Dichlorobenzene													
n-Butyl benzene					426	426		520	520				946
1,2-Dichlorobenzene													
Isopropyl benzene	1510	910	2420	2460	972	3432	1910	1180	3090	2000	1070	3070	12012
1,2,3-Trichloropropane													
Bromobenzene													
n-Propylbenzene	447		447	506		506	580		580	451		451	1984
2-Chlorotoluene													
4-Chlorotoluene													
1,3,5-Trimethyl benzene	1530	1070	2600	1820	1250	3070	1980	1470	3450	1630	1370	3000	12120
tert-Butyl benzene	435		435	455		455	495	340	835	427		427	2152
1,2,4-Trimethyl benzene	3030	1830	4860	3190	2080	5270	3500	2470	5970	3050	2270	5320	21420
sec-Butyl benzene													
4-Isopropyl toluene	2220		2220	2410	829	3239	2810	1010	3820	2190	938	3128	12407
1,2-Dibromo-3-chloropropane	1390		1390										1390
1,2,4-Trichlorobenzene													
Hexachlorobutadiene													
Naphthalene	1080	963	2043	772	788	1560	943	969	1912	894	858	1752	7267
1,2,3-Trichlorobenzene													

TABLE G-1-F-DL
VOC Sample Mass Detection Limit
Batch Test 3 Outlet VOC

Process: Batch Unit
Date Sampled: 06/7/98

	At Detection Limit												
	VOST Tube #1			VOST Tube #2			VOST Tube #3			VOST Tube #4			
ONSITE LAB ID	30200047	30200048		30200049	30200050		30200051	30200052		30200053	30200054		
Field ID	R3-P1-T	R3-P1-TC		R3-P2-T	R3-P2-TC		R3-P3-T	R3-P3-TC		R3-P4-T	R3-P4-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Dichlorodifluoromethane	330	330	660	330	330	660	330	330	660	330	330	660.0	2640
Chloromethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Vinyl chloride (ccc)	330	330	660	330	330	660	330	330	660	330	330	660	2640
Bromomethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Trichlorofluoromethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Chloroethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Methylene chloride	330	330	660	330	330	660	330	330	660	330	330	660	2640
Acetone	330	330	660	330	330	660	330	330	660	330	330	660	2640
Freon-113	330	330	660	330	330	660	330	330	660	330	330	660	2640
Carbon Disulfide	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,1-Dichloroethene (ccc)	330	330	660	330	330	660	330	330	660	330	330	660	2640
Iodomethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,1-Dichloroethane	330	330	660	330	330	660	330	330	660	330	330	660.0	2640
methyl-tert-butyl-ether	330	330	660	330	330	660	330	330	660	330	330	660	2640
trans-1,2-Dichloroethene	330	330	660	330	330	660	330	330	660	330	330	660	2640
Vinyl Acetate	330	330	660	330	330	660	330	330	660	330	330	660	2640
cis-1,2-Dichloroethene	330	330	660	330	330	660	330	330	660	330	330	660	2640
2,2-Dichloropropane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Chloroform (ccc)	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,2-Dichloroethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
2-Butanone	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,1,1-Trichloroethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Carbon tetrachloride	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,1-Dichloropropene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,2-Dichloropropane (ccc)	330	330	660	330	330	660	330	330	660	330	330	660	2640
Bromodichloromethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Dibromomethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
cis-1,3-Dichloropropene	330	330	660	330	330	660	330	330	660	330	330	660	2640
Trichloroethene	330	330	660	330	330	660	330	330	660	330	330	660	2640
Benzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
2-chloroethylvinyl Ether	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,3-Dichloropropane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Dibromochloromethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,2-Dibromoethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
trans-1,3-Dichloropropene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,1,2-Trichloroethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
4-Methyl-2-Pentanone	330	330	660	330	330	660	330	330	660	330	330	660.0	2640
2-Hexanone	330	330	660	330	330	660	330	330	660	330	330	660.0	2640
Tetrachloroethene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1-Chlorohexane	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,1,1,2-Tetrachloroethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Bromoform	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,1,2,2-Tetrachloroethane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Toluene (ccc)	330	330	660	330	330	660	330	330	660	330	330	660	2640
Chlorobenzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
Ethyl benzene (ccc)	330	330	660	330	330	660	330	330	660	330	330	660	2640
Styrene	330	330	660	330	330	660	330	330	660	330	330	660	2640
m,p-Xylene	330	330	660	330	330	660	330	330	660	330	330	660	2640
o-Xylene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,3-Dichlorobenzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,4-Dichlorobenzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
n-Butyl benzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,2-Dichlorobenzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
Isopropyl benzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,2,3-Trichloropropane	330	330	660	330	330	660	330	330	660	330	330	660	2640
Bromobenzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
n-Propylbenzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
2-Chlorotoluene	330	330	660	330	330	660	330	330	660	330	330	660	2640
4-Chlorotoluene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,3,5-Trimethyl benzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
tert-Butyl benzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,2,4-Trimethyl benzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
sec-Butyl benzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
4-Isopropyl toluene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,2-Dibromo-3-chloropropane	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,2,4-Trichlorobenzene	330	330	660	330	330	660	330	330	660	330	330	660	2640
Hexachlorobutadiene	330	330	660	330	330	660	330	330	660	330	330	660	2640
Naphthalene	330	330	660	330	330	660	330	330	660	330	330	660	2640
1,2,3-Trichlorobenzene	330	330	660	330	330	660	330	330	660	330	330	660	2640

TABLE G-1-G
VOC Sample Mass
Batch Test 1 - Inlet VOC
Repeat

Process: Batch Unit
Date Sampled: 06/13/98

Volatiles via SW846 0030/5041A/8260

	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200087	30200088		30200089	3020090		30200091	30200092		
Field ID	R4-P1-T	R4-P1-TC		R4-P2-T	R4-P2-TC		R4-P3-T	R4-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane										
Dichlorodifluoromethane										
Chloromethane	44400	1104000	1148400	26300	1059000	1085300	19700	1114000	1133700	3367400
Vinyl chloride (ccc)										
Bromomethane		30000	30000		29100	29100		29300	29300	88400
Trichlorofluoromethane										
Chloroethane										
Methylene chloride										
Acetone	1153000	562000	1715000	544000	1162000	1706000	468000	2093000	2561000	5982000
Freon-113										
Carbon Disulfide	31900	199000	230900	34000	189000	223000	30700	198000	228700	682600
1,1-Dichloroethene (ccc)										
Iodomethane	13200	38800	52000	13800	37000	50800	12700	40100	52800	155600
1,1-Dichloroethane										
methyl-tert-butyl-ether										
trans-1,2-Dichloroethene										
Vinyl Acetate										
cis-1,2-Dichloroethene										
2,2-Dichloropropane										
Chloroform (ccc)										
1,2-Dichloroethane										
2-Butanone	450000	225000	675000	339000	347000.0	686000	332000	638000	970000	2331000
1,1,1-Trichloroethane										
Carbon tetrachloride										
1,1-Dichloropropene										
1,2-Dichloropropane (ccc)										
Bromodichloromethane										
Dibromomethane										
cis-1,3-Dichloropropene										
Trichloroethene										
Benzene	1131000	1041000	2172000	1208000	1002000	2210000	1205000	1070000	2275000	6657000
2-chloroethylvinyl Ether										
1,3-Dichloropropane										
Dibromochloromethane										
1,2-Dibromoethane										
trans-1,3-Dichloropropene										
1,1,2-Trichloroethane										
4-Methyl-2-Pentanone	22700	9730	32430.0	25300.0	9700	35000.0	26500	16700	43200.0	110630
2-Hexanone	21900.0	9090	30990.0	26200.0	8220	34420.0	23500.0	11300	34800.0	100210.0
Tetrachloroethene										
1-Chlorohexane		17300	17300							17300
1,1,1,2-Tetrachloroethane										
Bromoform										
1,1,2,2-Tetrachloroethane										
Toluene (ccc)	1030000	753000	1783000	1081000	720000	1801000	1074000	767000	1841000	5425000
Chlorobenzene										
Ethyl benzene (ccc)	474000	66100	540100	534000	62000	596000	503000	67400	570400	1706500
Styrene	188000	13600	201600	224000		224000	212000	14200	226200	651800
m,p-Xylene	597000	84600	681600	667000	80300	747300	632000	87600	719600	2148500
o-Xylene	279000	48700	327700	323000	46200	369200	303000	51800	354800	1051700
1,3-Dichlorobenzene										
1,4-Dichlorobenzene										
n-Butyl benzene										
1,2-Dichlorobenzene										
Isopropyl benzene	60200	32800	93000	70900	30800	101700	63400	33300	96700	291400
1,2,3-Trichloropropane										
Bromobenzene										
n-Propylbenzene	33100		33100	39200	9810	49010	35300		35300	117410
2-Chlorotoluene										
4-Chlorotoluene										
1,3,5-Trimethyl benzene	53600	10300	63900	59900		59900	60100	10600	70700	194500
tert-Butyl benzene				7750		7750	7240		7240	14990
1,2,4-Trimethyl benzene	48000		48000	57100		57100	52800	6930	59730	164830
sec-Butyl benzene										
4-Isopropyl toluene	17600		17600	20700		20700	18800		18800	57100
1,2-Dibromo-3-chloropropane										
1,2,4-Trichlorobenzene										
Hexachlorobutadiene										
Naphthalene										
1,2,3-Trichlorobenzene										

TABLE G-1-G-DL
VOC Sample Mass Detection Limit
Batch Test 1-Inlet VOC
Repeat

Process: Batch Unit — Volatiles via SW846 0030/5041A/8260

Date Sampled: 06/13/98

	At Detection Limit									
	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200087	30200088		30200089	3020090		30200091	30200092		
Field ID	R4-P1-T	R4-P1-TC		R4-P2-T	R4-P2-TC		R4-P3-T	R4-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Dichlorodifluoromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Chloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Vinyl chloride (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Bromomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Trichlorofluoromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Chloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Methylene chloride	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Acetone	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Freon-113	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Carbon Disulfide	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1-Dichloroethene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Iodomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1-Dichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
methyl-tert-butyl-ether	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
trans-1,2-Dichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Vinyl Acetate	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
cis-1,2-Dichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
2,2-Dichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Chloroform (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2-Dichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
2-Butanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1,1-Trichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Carbon tetrachloride	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2-Dichloropropane (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Bromodichloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Dibromomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
cis-1,3-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Trichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
2-chloroethylvinyl Ether	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,3-Dichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Dibromochloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2-Dibromoethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
trans-1,3-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1,2-Trichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
4-Methyl-2-Pentanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
2-Hexanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600.0
Tetrachloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1-Chlorohexane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1,1,2-Tetrachloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Bromoform	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1,2,2-Tetrachloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Toluene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Chlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Ethyl benzene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Styrene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
m,p-Xylene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
o-Xylene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,3-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,4-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
n-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Isopropyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2,3-Trichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Bromobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
n-Propylbenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
2-Chlorotoluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
4-Chlorotoluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,3,5-Trimethyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
tert-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2,4-Trimethyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
sec-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
4-Isopropyl toluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2-Dibromo-3-chloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2,4-Trichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Hexachlorobutadiene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Naphthalene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2,3-Trichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600

TABLE G-1-H
VOC Sample Mass
Batch Test 1-Outlet VOC
Repeat

Process: Batch Unit
Date Sampled: 06/13/98

	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200130	30200131		30200132	30200133		30200134	30200135		
Field ID	R4-P1-T	R4-P1-TC		R4-P2-T	R4-P2-TC		R4-P3-T	R4-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane										
Dichlorodifluoromethane										
Chloromethane	1040	20000	21040	954	17800	18754	749	22000	22749	62543
Vinyl chloride (ccc)										
Bromomethane										
Trichlorofluoromethane										
Chloroethane										
Methylene chloride										
Acetone	13700	11900	25600	15400	10300	25700	13500	13400	26900	78200
Freon-113										
Carbon Disulfide	927	1430	2357	1030	1110	2140	856	1470	2326	6823
1,1-Dichloroethene (ccc)										
Iodomethane	461		461	540		540	475		475	1476
1,1-Dichloroethane										
methyl-tert-butyl-ether										
trans-1,2-Dichloroethene										
Vinyl Acetate										
cis-1,2-Dichloroethene										
2,2-Dichloropropane										
Chloroform (ccc)										
1,2-Dichloroethane										
2-Butanone	8320	419	8739	12900	406.0	13306	12000	436	12436	34481
1,1,1-Trichloroethane										
Carbon tetrachloride										
1,1-Dichloropropene										
1,2-Dichloropropane (ccc)										
Bromodichloromethane										
Dibromomethane										
cis-1,3-Dichloropropene										
Trichloroethene										
Benzene	38400	436	38836	43700	423	44123	40700	371	41071	124030
2-chloroethylVinyl Ether										
1,3-Dichloropropane										
Dibromochloromethane										
1,2-Dibromoethane										
trans-1,3-Dichloropropene										
1,1,2-Trichloroethane										
4-Methyl-2-Pentanone	358		358.0	517.0		517.0	529		529.0	1404
2-Hexanone	393.0		393.0	1040.0		1040.0	863.0		863.0	2296.0
Tetrachloroethene										
1-Chlorohexane										
1,1,1,2-Tetrachloroethane										
Bromoform										
1,1,2,2-Tetrachloroethane										
Toluene (ccc)	32500		32500	35800		35800	33600		33600	101900
Chlorobenzene										
Ethyl benzene (ccc)	6720		6720	7750		7750	6420		6420	20890
Styrene	4900		4900	5830		5830	5340		5340	16070
m,p-Xylene	10200		10200	11700		11700	9930		9930	31830
o-Xylene	5200		5200	6090		6090	5330		5330	16620
1,3-Dichlorobenzene										
1,4-Dichlorobenzene										
n-Butyl benzene										
1,2-Dichlorobenzene										
Isopropyl benzene	1670		1670	1850		1850	1620		1620	5140
1,2,3-Trichloropropane										
Bromobenzene										
n-Propylbenzene	720		720	838		838	673		673	2231
2-Chlorotoluene										
4-Chlorotoluene										
1,3,5-Trimethyl benzene	1190		1190	1450		1450	1140		1140	3780
tert-Butyl benzene				364		364				364
1,2,4-Trimethyl benzene	2090		2090	2460		2460	2100		2100	6650
sec-Butyl benzene										
4-Isopropyl toluene	5500		5500	6380		6380	5070		5070	16950
1,2-Dibromo-3-chloropropane										
1,2,4-Trichlorobenzene										
Hexachlorobutadiene										
Naphthalene				336		336				336
1,2,3-Trichlorobenzene										

TABLE G-1-H-DL
VOC Sample Mass Detection Limit
Batch Test 1-Outlet VOC
Repeat

Process: Batch Unit
Date Sampled: 06/13/98

	At Detection Limit									
	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200130	30200131		30200132	30200133		30200134	30200135		
Field ID	R4-P1-T	R4-P1-TC		R4-P2-T	R4-P2-TC		R4-P3-T	R4-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	330	330	660	330	330	660	330	330	660	1980
Dichlorodifluoromethane	330	330	660	330	330	660	330	330	660	1980
Chloromethane	330	330	660	330	330	660	330	330	660	1980
Vinyl chloride (ccc)	330	330	660	330	330	660	330	330	660	1980
Bromomethane	330	330	660	330	330	660	330	330	660	1980
Trichlorofluoromethane	330	330	660	330	330	660	330	330	660	1980
Chloroethene	330	330	660	330	330	660	330	330	660	1980.0
Methylene chloride	330	330	660	330	330	660	330	330	660	1980
Acetone	330	330	660	330	330	660	330	330	660	1980
Freon-113	330	330	660	330	330	660	330	330	660	1980
Carbon Disulfide	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloroethene (ccc)	330	330	660	330	330	660	330	330	660	1980
Iodomethane	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloroethane	330	330	660	330	330	660	330	330	660	1980
methyl-tert-butyl-ether	330	330	660	330	330	660	330	330	660	1980
trans-1,2-Dichloroethene	330	330	660	330	330	660	330	330	660	1980
Vinyl Acetate	330	330	660	330	330	660	330	330	660	1980
cis-1,2-Dichloroethene	330	330	660	330	330	660	330	330	660	1980
2,2-Dichloropropane	330	330	660	330	330	660	330	330	660	1980
Chloroform (ccc)	330	330	660	330	330	660	330	330	660	1980
1,2-Dichloroethane	330	330	660	330	330	660	330	330	660	1980
2-Butanone	330	330	660	330	330	660	330	330	660	1980
1,1,1-Trichloroethane	330	330	660	330	330	660	330	330	660	1980
Carbon tetrachloride	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
1,2-Dichloropropane (ccc)	330	330	660	330	330	660	330	330	660	1980
Bromodichloromethane	330	330	660	330	330	660	330	330	660	1980
Dibromomethane	330	330	660	330	330	660	330	330	660	1980
cis-1,3-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
Trichloroethene	330	330	660	330	330	660	330	330	660	1980
Benzene	330	330	660	330	330	660	330	330	660	1980
2-chloroethylvinyl Ether	330	330	660	330	330	660	330	330	660	1980
1,3-Dichloropropane	330	330	660	330	330	660	330	330	660	1980
Dibromochloromethane	330	330	660	330	330	660	330	330	660	1980
1,2-Dibromoethane	330	330	660	330	330	660	330	330	660	1980
trans-1,3-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
1,1,2-Trichloroethane	330	330	660	330	330	660	330	330	660	1980
4-Methyl-2-Pentanone	330	330	660	330	330	660	330	330	660	1980
2-Hexanone	330	330	660	330	330	660	330	330	660	1980.0
Tetrachloroethene	330	330	660	330	330	660	330	330	660	1980
1-Chlorohexane	330	330	660	330	330	660	330	330	660	1980
1,1,1,2-Tetrachloroethane	330	330	660	330	330	660	330	330	660	1980
Bromoform	330	330	660	330	330	660	330	330	660	1980
1,1,2,2-Tetrachloroethane	330	330	660	330	330	660	330	330	660	1980
Toluene (ccc)	330	330	660	330	330	660	330	330	660	1980
Chlorobenzene	330	330	660	330	330	660	330	330	660	1980
Ethyl benzene (ccc)	330	330	660	330	330	660	330	330	660	1980
Styrene	330	330	660	330	330	660	330	330	660	1980
m,p-Xylene	330	330	660	330	330	660	330	330	660	1980
o-Xylene	330	330	660	330	330	660	330	330	660	1980
1,3-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
1,4-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
n-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
Isopropyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2,3-Trichloropropene	330	330	660	330	330	660	330	330	660	1980
Bromobenzene	330	330	660	330	330	660	330	330	660	1980
n-Propylbenzene	330	330	660	330	330	660	330	330	660	1980
2-Chlorotoluene	330	330	660	330	330	660	330	330	660	1980
4-Chlorotoluene	330	330	660	330	330	660	330	330	660	1980
1,3,5-Trimethyl benzene	330	330	660	330	330	660	330	330	660	1980
tert-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2,4-Trimethyl benzene	330	330	660	330	330	660	330	330	660	1980
sec-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
4-Isopropyl toluene	330	330	660	330	330	660	330	330	660	1980
1,2-Dibromo-3-chloropropane	330	330	660	330	330	660	330	330	660	1980
1,2,4-Trichlorobenzene	330	330	660	330	330	660	330	330	660	1980
Hexachlorobutadiene	330	330	660	330	330	660	330	330	660	1980
Naphthalene	330	330	660	330	330	660	330	330	660	1980
1,2,3-Trichlorobenzene	330	330	660	330	330	660	330	330	660	1980

TABLE G-1-I
VOC Sample Mass
Continuous Test 1 Inlet VOC

Process: Continuous
Date Sampled: 06/10/98

Volatiles via SW846 0030/5041A/8260

	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200059	30200060		30200061	30200062		30200063	30200064		
Field ID	R1-P1-T	R1-P1-TC		R1-P2-T	R1-P2-TC		R1-P3-T	R1-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane										
Dichlorodifluoromethane										
Chloromethane	17300	297000	314300	18100	236000	254100	20400	241000	261400	829800
Vinyl chloride (ccc)										
Bromomethane		7790	7790		6420	6420		6470	6470	20680
Trichlorofluoromethane										
Chloroethane										
Methylene chloride										
Acetone	143000	383000	526000	94100	401000	495100	91300	485000	576300	1597400
Freon-113										
Carbon Disulfide	3120	7720	10840	3390	5380	8770	3790	5370	9160	28770
1,1-Dichloroethene (ccc)										
Iodomethane	7700	1950	9650	8020	1560	9580	8680	1570	10250	29480
1,1-Dichloroethane										
methyl-tert-butyl-ether										
trans-1,2-Dichloroethene										
Vinyl Acetate										
cis-1,2-Dichloroethene										
2,2-Dichloropropane										
Chloroform (ccc)										
1,2-Dichloroethane										
2-Butanone	33400	40400	73800	35500	42900.0	78400	37600	51300	88900	241100
1,1,1-Trichloroethane										
Carbon tetrachloride										
1,1-Dichloropropene										
1,2-Dichloropropane (ccc)										
Bromodichloromethane										
Dibromomethane										
cis-1,3-Dichloropropene										
Trichloroethene										
Benzene	349000	374000	723000	338000	325000	663000	356000	349000	705000	2091000
2-chloroethylvinyl Ether										
1,3-Dichloropropane										
Dibromochloromethane										
1,2-Dibromoethane										
trans-1,3-Dichloropropane										
1,1,2-Trichloroethane										
4-Methyl-2-Pentanone	2100	2270	4370.0	2630.0	2160	4790.0	3030	1970	5000.0	14160
2-Hexanone	3820.0	3090	6910.0	4610.0	1480	6090.0	5350.0	2660	8010.0	21010.0
Tetrachloroethene										
1-Chlorohexane										
1,1,1,2-Tetrachloroethane										
Bromoform										
1,1,2,2-Tetrachloroethane										
Toluene (ccc)	219000	208000	427000	212000	179000	391000	229000	192000	421000	1239000
Chlorobenzene				2350		2350				2350
Ethyl benzene (ccc)	95400	126000	221400	99200	54700	153900	108000	56200	164200	539500
Styrene	92500	155000	247500	90100	25400	115500	98600	26400	125000	488000
m,p-Xylene	133000	178000	311000	135000	70000	205000	147000	72400	219400	735400
o-Xylene	59500	74200	133700	58500	37200	95700	65300	38600	103900	333300
1,3-Dichlorobenzene										
1,4-Dichlorobenzene										
n-Butyl benzene	2910		2910							2910
1,2-Dichlorobenzene										
Isopropyl benzene	13200	73400	86600	14500	6410	20910	14800	6930	21730	129240
1,2,3-Trichloropropane										
Bromobenzene										
n-Propylbenzene	9050	33300	42350	9590	3530	13120	10600	3550	14150	69620
2-Chlorotoluene										
4-Chlorotoluene										
1,3,5-Trimethyl benzene	33900	162000	195900	36000	7380	43380	40100	6210	46310	285590
tert-Butyl benzene	3040	14700	17740	2450	1540	3990	3500	1570	5070	26800
1,2,4-Trimethyl benzene	17000	100000	117000	17900	9960	27860	19500	10400	29900	174760
sec-Butyl benzene		2960	2960							2960
4-Isopropyl toluene	8460	71500	79960	9290	4320	13610	10200	4300	14500	108070
1,2-Dibromo-3-chloropropane										
1,2,4-Trichlorobenzene										
Hexachlorobutadiene										
Naphthalene	7530	80700	88230	9800	68100	77900	10900	66900	77800	243930
1,2,3-Trichlorobenzene										

TABLE G-1-I-DL
VOC Sample Mass Detection Limit
Continuous Test 1 Inlet VOC

Process: Continuous
Date Sampled: 06/10/98

Volatiles via SW846 0030/5041A/8260

	At Detection Limit									
	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200059	30200060		30200061	30200062		30200063	30200064		
Field ID	R1-P1-T	R1-P1-TC		R1-P2-T	R1-P2-TC		R1-P3-T	R1-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Dichlorodifluoromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Chloromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Vinyl chloride (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Bromomethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Trichlorofluoromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Chloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Methylene chloride	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Acetone	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Freon-113	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Carbon Disulfide	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1-Dichloroethene (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Iodomethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1-Dichloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
methyl-tert-butyl-ether	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
trans-1,2-Dichloroethene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Vinyl Acetate	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
cis-1,2-Dichloroethene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
2,2-Dichloropropane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Chloroform (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2-Dichloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
2-Butanone	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1,1-Trichloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Carbon tetrachloride	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1-Dichloropropene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2-Dichloropropane (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Bromodichloromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Dibromomethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
cis-1,3-Dichloropropene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Trichloroethene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
2-chloroethylvinyl Ether	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,3-Dichloropropane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Dibromochloromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2-Dibromoethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
trans-1,3-Dichloropropene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1,2-Trichloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
4-Methyl-2-Pentanone	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
2-Hexanone	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920.0
Tetrachloroethene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1-Chlorohexane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1,1,2-Tetrachloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Bromoform	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1,2,2-Tetrachloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Toluene (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Chlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Ethyl benzene (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Styrene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
m,p-Xylene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
o-Xylene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,3-Dichlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,4-Dichlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
n-Butyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2-Dichlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Isopropyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2,3-Trichloropropane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Bromobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
n-Propylbenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
2-Chlorotoluene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
4-Chlorotoluene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,3,5-Trimethyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
tert-Butyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2,4-Trimethyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
sec-Butyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
4-isopropyl toluene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2-Dibromo-3-chloropropane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2,4-Trichlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Hexachlorobutadiene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Naphthalene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2,3-Trichlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920

TABLE G-1-J
VOC Sample Mass
Continuous Test 1 Outlet VOC

Process: Continuous
Date Sampled: 06/10/98

	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200097	30200098		30200099	30200100		30200101	30200102		
Field ID	R1-P1-T	R1-P1-TC		R1-P2-T	R1-P2-TC		R1-P3-T	R1-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane										
Dichlorodifluoromethane										
Chloromethane	644	1160	1804	635	1360	1995	635	1070	1705	5504
Vinyl chloride (ccc)										
Bromomethane										
Trichlorofluoromethane										
Chloroethane										
Methylene chloride										
Acetone	3480	7730	11210	3940	7670	11610	4410	7930	12340	35160
Freon-113										
Carbon Disulfide										
1,1-Dichloroethene (ccc)										
Iodomethane										
1,1-Dichloroethane										
methyl-tert-butyl-ether										
trans-1,2-Dichloroethene										
Vinyl Acetate										
cis-1,2-Dichloroethene										
2,2-Dichloropropane										
Chloroform (ccc)										
1,2-Dichloroethane										
2-Butanone	826	1110	1936	1000	543.0	1543	1140	895	2035	5514
1,1,1-Trichloroethane										
Carbon tetrachloride										
1,1-Dichloropropene										
1,2-Dichloropropane (ccc)										
Bromodichloromethane										
Dibromomethane										
cis-1,3-Dichloropropene										
Trichloroethene										
Benzene	25100	6910	32010	24300	8830	33130	24400	6190	30590	95730
2-chloroethylvinyl Ether										
1,3-Dichloropropane										
Dibromochloromethane										
1,2-Dibromoethane										
trans-1,3-Dichloropropene										
1,1,2-Trichloroethane										
4-Methyl-2-Pentanone										
2-Hexanone										
Tetrachloroethene										
1-Chlorohexane										
1,1,1,2-Tetrachloroethane										
Bromoform										
1,1,2,2-Tetrachloroethane										
Toluene (ccc)	13500	1200	14700	13200	498	13698	12800	729	13529	41927
Chlorobenzene										
Ethyl benzene (ccc)	1590		1590	1600		1600	1560		1560	4750
Styrene	2530		2530	2620		2620	2620		2620	7770
m,p-Xylene	2700		2700	2750		2750	2750		2750	8200
o-Xylene	1250		1250	1290		1290	1310		1310	3850
1,3-Dichlorobenzene										
1,4-Dichlorobenzene										
n-Butyl benzene										
1,2-Dichlorobenzene										
Isopropyl benzene	337		337	359		359	346		346	1042
1,2,3-Trichloropropane										
Bromobenzene										
n-Propylbenzene										
2-Chlorotoluene										
4-Chlorotoluene										
1,3,5-Trimethyl benzene	836		836	804		804	840		840	2480
tert-Butyl benzene										
1,2,4-Trimethyl benzene	440		440	448		448	450		450	1338
sec-Butyl benzene										
4-Isopropyl toluene										
1,2-Dibromo-3-chloropropane										
1,2,4-Trichlorobenzene										
Hexachlorobutadiene										
Naphthalene										
1,2,3-Trichlorobenzene										

TABLE G-1-J-DL
VOC Sample Mass Detection Limit
Continuous Test 1 Outlet VOC

Process: Continuous
Date Sampled: 06/10/98

	At Detection Limit									
	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200097	30200098		30200099	30200100		30200101	30200102		
Field ID	R1-P1-T	R1-P1-TC		R1-P2-T	R1-P2-TC		R1-P3-T	R1-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	330	330	660	330	330	660	330	330	660	1980
Dichlorodifluoromethane	330	330	660	330	330	660	330	330	660	1980
Chloromethane	330	330	660	330	330	660	330	330	660	1980
Vinyl chloride (ccc)	330	330	660	330	330	660	330	330	660	1980
Bromomethane	330	330	660	330	330	660	330	330	660	1980
Trichlorofluoromethane	330	330	660	330	330	660	330	330	660	1980
Chloroethane	330	330	660	330	330	660	330	330	660	1980.0
Methylene chloride	330	330	660	330	330	660	330	330	660	1980
Acetone	330	330	660	330	330	660	330	330	660	1980
Freon-113	330	330	660	330	330	660	330	330	660	1980
Carbon Disulfide	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloroethene (ccc)	330	330	660	330	330	660	330	330	660	1980
Iodomethane	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloroethane	330	330	660	330	330	660	330	330	660	1980
methyl-tert-butyl-ether	330	330	660	330	330	660	330	330	660	1980
trans-1,2-Dichloroethene	330	330	660	330	330	660	330	330	660	1980
Vinyl Acetate	330	330	660	330	330	660	330	330	660	1980
cis-1,2-Dichloroethene	330	330	660	330	330	660	330	330	660	1980
2,2-Dichloropropane	330	330	660	330	330	660	330	330	660	1980
Chloroform (ccc)	330	330	660	330	330	660	330	330	660	1980
1,2-Dichloroethane	330	330	660	330	330	660	330	330	660	1980
2-Butanone	330	330	660	330	330	660	330	330	660	1980
1,1,1-Trichloroethane	330	330	660	330	330	660	330	330	660	1980
Carbon tetrachloride	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
1,2-Dichloropropane (ccc)	330	330	660	330	330	660	330	330	660	1980
Bromodichloromethane	330	330	660	330	330	660	330	330	660	1980
Dibromomethane	330	330	660	330	330	660	330	330	660	1980
cis-1,3-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
Trichloroethene	330	330	660	330	330	660	330	330	660	1980
Benzene	330	330	660	330	330	660	330	330	660	1980
2-chloroethylvinyl Ether	330	330	660	330	330	660	330	330	660	1980
1,3-Dichloropropane	330	330	660	330	330	660	330	330	660	1980
Dibromochloromethane	330	330	660	330	330	660	330	330	660	1980
1,2-Dibromoethane	330	330	660	330	330	660	330	330	660	1980
trans-1,3-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
1,1,2-Trichloroethane	330	330	660	330	330	660	330	330	660	1980
4-Methyl-2-Pentanone	330	330	660	330	330	660	330	330	660	1980
2-Hexanone	330	330	660	330	330	660	330	330	660	1980.0
Tetrachloroethene	330	330	660	330	330	660	330	330	660	1980
1-Chlorohexane	330	330	660	330	330	660	330	330	660	1980
1,1,1,2-Tetrachloroethane	330	330	660	330	330	660	330	330	660	1980
Bromoform	330	330	660	330	330	660	330	330	660	1980
1,1,2,2-Tetrachloroethane	330	330	660	330	330	660	330	330	660	1980
Toluene (ccc)	330	330	660	330	330	660	330	330	660	1980
Chlorobenzene	330	330	660	330	330	660	330	330	660	1980
Ethyl benzene (ccc)	330	330	660	330	330	660	330	330	660	1980
Styrene	330	330	660	330	330	660	330	330	660	1980
m,p-Xylene	330	330	660	330	330	660	330	330	660	1980
o-Xylene	330	330	660	330	330	660	330	330	660	1980
1,3-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
1,4-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
n-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
Isopropyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2,3-Trichloropropane	330	330	660	330	330	660	330	330	660	1980
Bromobenzene	330	330	660	330	330	660	330	330	660	1980
n-Propylbenzene	330	330	660	330	330	660	330	330	660	1980
2-Chlorotoluene	330	330	660	330	330	660	330	330	660	1980
4-Chlorotoluene	330	330	660	330	330	660	330	330	660	1980
1,3,5-Trimethyl benzene	330	330	660	330	330	660	330	330	660	1980
tert-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2,4-Trimethyl benzene	330	330	660	330	330	660	330	330	660	1980
sec-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
4-Isopropyl toluene	330	330	660	330	330	660	330	330	660	1980
1,2-Dibromo-3-chloropropane	330	330	660	330	330	660	330	330	660	1980
1,2,4-Trichlorobenzene	330	330	660	330	330	660	330	330	660	1980
Hexachlorobutadiene	330	330	660	330	330	660	330	330	660	1980
Naphthalene	330	330	660	330	330	660	330	330	660	1980
1,2,3-Trichlorobenzene	330	330	660	330	330	660	330	330	660	1980

TABLE G-1-K
VOC Sample Mass
Continuous Test 2 Inlet VOC

Process: Continuous
Date Sampled: 06/11/98

Volatiles via SW846 0030/5041A/8260

	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200068	30200069		30200070	30200071		30200072	30200073		
Field ID	R2-P1-T	R2-P1-TC		R2-P2-T	R2-P2-TC		R2-P3-T	R2-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane										
Dichlorodifluoromethane										
Chloromethane	20000	204000	224000	16500	209000	225500	17900	125000	142900	592400
Vinyl chloride (ccc)										
Bromomethane		2080	2080		2100	2100		2140	2140	6320
Trichlorofluoromethane										
Chloroethane										
Methylene chloride										
Acetone	70700	544000	614700	58300	465000	523300	64600	523000	587600	1725600
Freon-113										
Carbon Disulfide	3660	4540	8200	2910	4690	7600	3250	5120	8370	24170
1,1-Dichloroethene (ccc)										
Iodomethane	8300		8300	7180		7180	8160		8160	23640
1,1-Dichloroethane										
methyl-tert-butyl-ether										
trans-1,2-Dichloroethene										
Vinyl Acetate										
cis-1,2-Dichloroethene										
2,2-Dichloropropane										
Chloroform (ccc)										
1,2-Dichloroethane										
2-Butanone	28400	69900	98300	23900	61200.0	85100	27800	68400	96200	279600
1,1,1-Trichloroethane										
Carbon tetrachloride	4170		4170							4170
1,1-Dichloropropene										
1,2-Dichloropropane (ccc)										
Bromodichloromethane										
Dibromomethane										
cis-1,3-Dichloropropene										
Trichloroethene										
Benzene	347000	335000	682000	324000	323000	647000	351000	349000	700000	2029000
2-chloroethylvinyl Ether										
1,3-Dichloropropane										
Dibromochloromethane										
1,2-Dibromoethane										
trans-1,3-Dichloropropene				4490		4490				4490
1,1,2-Trichloroethane										
4-Methyl-2-Pentanone	2330		2330.0	1900.0		1900.0	2300		2300.0	6530
2-Hexanone	4880.0		4880.0	3340.0		3340.0	4060.0		4060.0	12280.0
Tetrachloroethene										
1-Chlorohexane										
1,1,1,2-Tetrachloroethane										
Bromoform										
1,1,2,2-Tetrachloroethane										
Toluene (ccc)	220000	90800	310800	204000	85700	289700	219000	91800	310800	911300
Chlorobenzene										
Ethyl benzene (ccc)	106000	27600	133600	90800	26800	117600	98600	29500	128100	379300
Styrene	94000	16100	110100	83900	15000	98900	93700	16300	110000	319000
m,p-Xylene	144000	35100	179100	124000	33900	157900	136000	37100	173100	510100
o-Xylene	63300	19300	82600	55600	18400	74000	60900	19900	80800	237400
1,3-Dichlorobenzene										
1,4-Dichlorobenzene										
n-Butyl benzene										
1,2-Dichlorobenzene										
Isopropyl benzene	13500	4050	17550	11800	4190	15990	14100	4550	18650	52190
1,2,3-Trichloropropane										
Bromobenzene										
n-Propylbenzene	10600	2190	12790	8430	2190	10620		2360	2360	25770
2-Chlorotoluene										
4-Chlorotoluene							4060		4060	4060
1,3,5-Trimethyl benzene	39900	11400	51300	31700	4870	36570	34700	5410	40110	127980
tert-Butyl benzene	3360		3360	2740		2740	3120		3120	9220
1,2,4-Trimethyl benzene	18700	7580	26280	15300	7340	22640	17300	7960	25260	74180
sec-Butyl benzene										
4-Isopropyl toluene	9790	2980	12770	7710	3020	10730	8670		8670	32170
1,2-Dibromo-3-chloropropane										
1,2,4-Trichlorobenzene										
Hexachlorobutadiene										
Naphthalene	4720	18800	23520	2710	11900	14610	6630	6590	13220	51350
1,2,3-Trichlorobenzene										

TABLE G-1-K-DL
VOC Sample Mass Detection Limit
Continuous Test 2 Inlet VOC

Process: Continuous
Date Sampled: 06/11/98

Volatiles via SW846 0030/5041A/8260

	At Detection Limit									
	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200068	30200069		30200070	30200071		30200072	30200073		
Field ID	R2-P1-T	R2-P1-TC		R2-P2-T	R2-P2-TC		R2-P3-T	R2-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Dichlorodifluoromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Chloromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Vinyl chloride (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Bromomethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Trichlorofluoromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Chloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Methylene chloride	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Acetone	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Freon-113	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Carbon Disulfide	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1-Dichloroethene (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Iodomethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1-Dichloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
methyl-tert-butyl-ether	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
trans-1,2-Dichloroethene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Vinyl Acetate	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
cis-1,2-Dichloroethene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
2,2-Dichloropropane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Chloroform (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2-Dichloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
2-Butanone	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1,1-Trichloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Carbon tetrachloride	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1-Dichloropropene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2-Dichloropropane (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Bromodichloromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Dibromomethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
cis-1,3-Dichloropropene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Trichloroethene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
2-chloroethylvinyl Ether	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,3-Dichloropropane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Dibromochloromethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2-Dibromoethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
trans-1,3-Dichloropropene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1,2-Trichloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
4-Methyl-2-Pentanone	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
2-Hexanone	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920.0
Tetrachloroethene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1-Chlorohexane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1,1,2-Tetrachloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Bromoform	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,1,2,2-Tetrachloroethane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Toluene (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Chlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Ethyl benzene (ccc)	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Styrene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
m,p-Xylene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
o-Xylene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,3-Dichlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,4-Dichlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
n-Butyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2-Dichlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Isopropyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2,3-Trichloropropane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Bromobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
n-Propylbenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
2-Chlorotoluene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
4-Chlorotoluene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,3,5-Trimethyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
tert-Butyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2,4-Trimethyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
sec-Butyl benzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
4-Isopropyl toluene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2-Dibromo-3-chloropropane	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2,4-Trichlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Hexachlorobutadiene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
Naphthalene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920
1,2,3-Trichlorobenzene	1320	1320	2640	1320	1320	2640	1320	1320	2640	7920

TABLE G-1-L
VOC Sample Mass
Continuous Test 2 Outlet VOC

Process: Continuous
Date Sampled: 06/11/98

	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200108	30200109		30200110	30200111		30200112	30200113		
Field ID	R2-P1-T	R2-P1-TC		R2-P2-T	R2-P2-TC		R2-P3-T	R2-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane										
Dichlorodifluoromethane										
Chloromethane		637	637		647	647		741	741	2025
Vinyl chloride (ccc)										
Bromomethane										
Trichlorofluoromethane										
Chloroethane										
Methylene chloride										
Acetone	2810	3260	6070	2730	3070	5800	2570	3410	5980	17850
Freon-113										
Carbon Disulfide										
1,1-Dichloroethene (ccc)										
Iodomethane										
1,1-Dichloroethane										
methyl-tert-butyl-ether										
trans-1,2-Dichloroethene										
Vinyl Acetate										
cis-1,2-Dichloroethene										
2,2-Dichloropropane										
Chloroform (ccc)										
1,2-Dichloroethane										
2-Butanone	477	494	971	471	438.0	909	410	415	825	2705
1,1,1-Trichloroethane										
Carbon tetrachloride										
1,1-Dichloropropene										
1,2-Dichloropropane (ccc)										
Bromodichloromethane										
Dibromomethane										
cis-1,3-Dichloropropene										
Trichloroethene										
Benzene	12900	5280	18180	12700	4540	17240	12700	4620	17320	52740
2-chloroethylvinyl Ether										
1,3-Dichloropropane										
Dibromochloromethane										
1,2-Dibromoethane										
trans-1,3-Dichloropropene										
1,1,2-Trichloroethane										
4-Methyl-2-Pentanone										
2-Hexanone										
Tetrachloroethene										
1-Chlorohexane										
1,1,1,2-Tetrachloroethane										
Bromoform										
1,1,2,2-Tetrachloroethane										
Toluene (ccc)	4550	716	5266	4870	762	5632	4910	1130	6040	16938
Chlorobenzene										
Ethyl benzene (ccc)	646		646	724		724	717		717	2087
Styrene	904		904	957		957	929		929	2790
m,p-Xylene	1100		1100	1210		1210	1200		1200	3510
o-Xylene	512		512	565		565	549		549	1626
1,3-Dichlorobenzene										
1,4-Dichlorobenzene										
n-Butyl benzene										
1,2-Dichlorobenzene										
Isopropyl benzene										
1,2,3-Trichloropropane										
Bromobenzene										
n-Propylbenzene										
2-Chlorotoluene										
4-Chlorotoluene										
1,3,5-Trimethyl benzene	373		373	421		421	412		412	1206
tert-Butyl benzene										
1,2,4-Trimethyl benzene										
sec-Butyl benzene										
4-Isopropyl toluene										
1,2-Dibromo-3-chloropropane										
1,2,4-Trichlorobenzene										
Hexachlorobutadiene										
Naphthalene										
1,2,3-Trichlorobenzene										

TABLE G-1-L-DL
VOC Sample Mass Detection Limit
Continuous Test 2 Outlet VOC

Process: Continuous
Date Sampled: 06/11/98

	At Detection Limit									
	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200108	30200109		30200110	30200111		30200112	30200113		
Field ID	R2-P1-T	R2-P1-TC		R2-P2-T	R2-P2-TC		R2-P3-T	R2-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	330	330	660	330	330	660	330	330	660	1980
Dichlorodifluoromethane	330	330	660	330	330	660	330	330	660	1980
Chloromethane	330	330	660	330	330	660	330	330	660	1980
Vinyl chloride (ccc)	330	330	660	330	330	660	330	330	660	1980
Bromomethane	330	330	660	330	330	660	330	330	660	1980
Trichlorofluoromethane	330	330	660	330	330	660	330	330	660	1980
Chloroethane	330	330	660	330	330	660	330	330	660	1980.0
Methylene chloride	330	330	660	330	330	660	330	330	660	1980
Acetone	330	330	660	330	330	660	330	330	660	1980
Freon-113	330	330	660	330	330	660	330	330	660	1980
Carbon Disulfide	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloroethene (ccc)	330	330	660	330	330	660	330	330	660	1980
Iodomethane	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloroethane	330	330	660	330	330	660	330	330	660	1980
methyl-tert-butyl-ether	330	330	660	330	330	660	330	330	660	1980
trans-1,2-Dichloroethene	330	330	660	330	330	660	330	330	660	1980
Vinyl Acetate	330	330	660	330	330	660	330	330	660	1980
cis-1,2-Dichloroethene	330	330	660	330	330	660	330	330	660	1980
2,2-Dichloropropane	330	330	660	330	330	660	330	330	660	1980
Chloroform (ccc)	330	330	660	330	330	660	330	330	660	1980
1,2-Dichloroethane	330	330	660	330	330	660	330	330	660	1980
2-Butanone	330	330	660	330	330	660	330	330	660	1980
1,1,1-Trichloroethane	330	330	660	330	330	660	330	330	660	1980
Carbon tetrachloride	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
1,2-Dichloropropane (ccc)	330	330	660	330	330	660	330	330	660	1980
Bromodichloromethane	330	330	660	330	330	660	330	330	660	1980
Dibromomethane	330	330	660	330	330	660	330	330	660	1980
cis-1,3-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
Trichloroethene	330	330	660	330	330	660	330	330	660	1980
Benzene	330	330	660	330	330	660	330	330	660	1980
2-chloroethylvinyl Ether	330	330	660	330	330	660	330	330	660	1980
1,3-Dichloropropane	330	330	660	330	330	660	330	330	660	1980
Dibromochloromethane	330	330	660	330	330	660	330	330	660	1980
1,2-Dibromoethane	330	330	660	330	330	660	330	330	660	1980
trans-1,3-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
1,1,2-Trichloroethane	330	330	660	330	330	660	330	330	660	1980
4-Methyl-2-Pentanone	330	330	660	330	330	660	330	330	660	1980
2-Hexanone	330	330	660	330	330	660	330	330	660	1980.0
Tetrachloroethene	330	330	660	330	330	660	330	330	660	1980
1-Chlorohexane	330	330	660	330	330	660	330	330	660	1980
1,1,1,2-Tetrachloroethane	330	330	660	330	330	660	330	330	660	1980
Bromoform	330	330	660	330	330	660	330	330	660	1980
1,1,2,2-Tetrachloroethane	330	330	660	330	330	660	330	330	660	1980
Toluene (ccc)	330	330	660	330	330	660	330	330	660	1980
Chlorobenzene	330	330	660	330	330	660	330	330	660	1980
Ethyl benzene (ccc)	330	330	660	330	330	660	330	330	660	1980
Styrene	330	330	660	330	330	660	330	330	660	1980
m,p-Xylene	330	330	660	330	330	660	330	330	660	1980
o-Xylene	330	330	660	330	330	660	330	330	660	1980
1,3-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
1,4-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
n-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
Isopropyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2,3-Trichloropropane	330	330	660	330	330	660	330	330	660	1980
Bromobenzene	330	330	660	330	330	660	330	330	660	1980
n-Propylbenzene	330	330	660	330	330	660	330	330	660	1980
2-Chlorotoluene	330	330	660	330	330	660	330	330	660	1980
4-Chlorotoluene	330	330	660	330	330	660	330	330	660	1980
1,3,5-Trimethyl benzene	330	330	660	330	330	660	330	330	660	1980
tert-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2,4-Trimethyl benzene	330	330	660	330	330	660	330	330	660	1980
sec-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
4-Isopropyl toluene	330	330	660	330	330	660	330	330	660	1980
1,2-Dibromo-3-chloropropane	330	330	660	330	330	660	330	330	660	1980
1,2,4-Trichlorobenzene	330	330	660	330	330	660	330	330	660	1980
Hexachlorobutadiene	330	330	660	330	330	660	330	330	660	1980
Naphthalene	330	330	660	330	330	660	330	330	660	1980
1,2,3-Trichlorobenzene	330	330	660	330	330	660	330	330	660	1980

TABLE G-1-M
VOC Sample Mass
Continuous Test 3 Inlet VOC

Process: Continuous
Date Sampled: 06/12/98

Volatiles via SW846 0030/5041A/8260

	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200078	30200079		30200080	30200081		30200082	30200083		
Field ID	R3-P1-T	R3-P1-TC		R3-P2-T	R3-P2-TC		R3-P3-T	R3-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane										
Dichlorodifluoromethane										
Chloromethane	69800	237000	306800	55800	218000	273800	55700	209000	264700	845300
Vinyl chloride (ccc)										
Bromomethane										
Trichlorofluoromethane										
Chloroethane										
Methylene chloride		8940	8940		7550	7550				16490
Acetone	256000	225000	481000	166000	664000	830000	130000	541000	671000	1982000
Freon-113										
Carbon Disulfide		8530	8530		7420	7420		7270	7270	23220
1,1-Dichloroethene (ccc)										
Iodomethane	9710		9710	8530		8530	9030		9030	27270
1,1-Dichloroethane										
methyl-tert-butyl-ether										
trans-1,2-Dichloroethene										
Vinyl Acetate										
cis-1,2-Dichloroethene										
2,2-Dichloropropane										
Chloroform (ccc)										
1,2-Dichloroethane										
2-Butanone	46700	35200	81900	37600	88900.0	126500	33600	70600	104200	312600
1,1,1-Trichloroethane										
Carbon tetrachloride										
1,1-Dichloropropene										
1,2-Dichloropropane (ccc)										
Bromodichloromethane										
Dibromomethane										
cis-1,3-Dichloropropene										
Trichloroethene										
Benzene	973000	999000	1972000	909000	976000	1885000	929000	968000	1897000	5754000
2-chloroethylvinyl Ether										
1,3-Dichloropropane										
Dibromochloromethane										
1,2-Dibromoethane										
trans-1,3-Dichloropropene										
1,1,2-Trichloroethane										
4-Methyl-2-Pentanone										
2-Hexanone										
Tetrachloroethene										
1-Chlorohexane					96400	96400				96400
1,1,1,2-Tetrachloroethane										
Bromoform										
1,1,2,2-Tetrachloroethane										
Toluene (ccc)	648000	152000	800000	616000	140000	756000	628000	139000	767000	2323000
Chlorobenzene										
Ethyl benzene (ccc)	138000	40800	178800	122000	36900	158900	124000	36800	160800	498500
Styrene	108000	16200	124200	97700	15400	113100	103000	15200	118200	355500
m,p-Xylene	201000	49200	250200	178000	45100	223100	181000	44800	225800	699100
o-Xylene	85800	24800	110600	76200	22900	99100	78600	23200	101800	311500
1,3-Dichlorobenzene										
1,4-Dichlorobenzene										
n-Butyl benzene										
1,2-Dichlorobenzene										
Isopropyl benzene	17900		17900	16500		16500	16800		16800	51200
1,2,3-Trichloropropane										
Bromobenzene										
n-Propylbenzene	11900		11900	10400		10400	10600		10600	32900
2-Chlorotoluene										
4-Chlorotoluene										
1,3,5-Trimethyl benzene	39800		39800	33100		33100	34800		34800	107700
tert-Butyl benzene										
1,2,4-Trimethyl benzene	18400	8760	27160	16100	8090	24190	16600	8220	24820	76170
sec-Butyl benzene										
4-Isopropyl toluene										
1,2-Dibromo-3-chloropropane										
1,2,4-Trichlorobenzene										
Hexachlorobutadiene										
Naphthalene										
1,2,3-Trichlorobenzene										

TABLE G-1-M-DL
VOC Sample Mass Detection Limit
Continuous Test 3 Inlet VOC

Process: Continuous
Date Sampled: 06/12/98

Volatiles via SW846 0030/5041A/8260

	At Detection Limit									
	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200078	30200079		30200080	30200081		30200082	30200083		
Field ID	R3-P1-T	R3-P1-TC		R3-P2-T	R3-P2-TC		R3-P3-T	R3-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Dichlorodifluoromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Chloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Vinyl chloride (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Bromomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Trichlorofluoromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Chloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600.0
Methylene chloride	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Acetone	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Freon-113	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Carbon Disulfide	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1-Dichloroethene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Iodomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1-Dichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
methyl-tert-butyl-ether	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
trans-1,2-Dichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Vinyl Acetate	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
cis-1,2-Dichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
2,2-Dichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Chloroform (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2-Dichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
2-Butanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1,1-Trichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Carbon tetrachloride	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2-Dichloropropane (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Bromodichloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Dibromomethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
cis-1,3-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Trichloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
2-chloroethylvinyl Ether	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,3-Dichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Dibromochloromethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2-Dibromoethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
trans-1,3-Dichloropropene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1,2-Trichloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
4-Methyl-2-Pentanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
2-Hexanone	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600.0
Tetrachloroethene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1-Chlorohexane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1,1,2-Tetrachloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Bromoform	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,1,2,2-Tetrachloroethane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Toluene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Chlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Ethyl benzene (ccc)	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Styrene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
m,p-Xylene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
o-Xylene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,3-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,4-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
n-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2-Dichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Isopropyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2,3-Trichloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Bromobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
n-Propylbenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
2-Chlorotoluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
4-Chlorotoluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,3,5-Trimethyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
tert-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2,4-Trimethyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
sec-Butyl benzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
4-Isopropyl toluene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2-Dibromo-3-chloropropane	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2,4-Trichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Hexachlorobutadiene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
Naphthalene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600
1,2,3-Trichlorobenzene	6600	6600	13200	6600	6600	13200	6600	6600	13200	39600

TABLE G-1-N
VOC Sample Mass
Continuous Test 3 Outlet VOC

Process: Continuous
Date Sampled: 06/12/98

	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200119	30200120		30200121	30200122		30200123	30200124		
Field ID	R3-P1-T	R3-P1-TC		R3-P2-T	R3-P2-TC		R3-P3-T	R3-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane										
Dichlorodifluoromethane										
Chloromethane		738	738		744	744		728	728	2210
Vinyl chloride (ccc)										
Bromomethane										
Trichlorofluoromethane										
Chloroethane										
Methylene chloride										
Acetone	2390	3960	6350	2410	3370	5780	2440	3170	5610	17740
Freon-113										
Carbon Disulfide										
1,1-Dichloroethene (ccc)										
Iodomethane										
1,1-Dichloroethane										
methyl-tert-butyl-ether										
trans-1,2-Dichloroethene										
Vinyl Acetate										
cis-1,2-Dichloroethene										
2,2-Dichloropropane										
Chloroform (ccc)										
1,2-Dichloroethane										
2-Butanone	381	706	1087	381	431.0	812	361	427	788	2687
1,1,1-Trichloroethane										
Carbon tetrachloride										
1,1-Dichloropropene										
1,2-Dichloropropane (ccc)										
Bromodichloromethane										
Dibromomethane										
cis-1,3-Dichloropropene										
Trichloroethene										
Benzene	12700	1190	13890	12000	1040	13040	12000	1220	13220	40150
2-chloroethylvinyl Ether										
1,3-Dichloropropane										
Dibromochloromethane										
1,2-Dibromoethane										
trans-1,3-Dichloropropene										
1,1,2-Trichloroethane										
4-Methyl-2-Pentanone										
2-Hexanone										
Tetrachloroethene										
1-Chlorohexane										
1,1,1,2-Tetrachloroethane										
Bromoform										
1,1,2,2-Tetrachloroethane										
Toluene (ccc)	4520		4520	4340		4340	4300		4300	13160
Chlorobenzene										
Ethyl benzene (ccc)	562		562	539		539	539		539	1640
Styrene	659		659	660		660	678		678	1997
m,p-Xylene	956		956	913		913	914		914	2783
o-Xylene	434		434	422		422	429		429	1285
1,3-Dichlorobenzene										
1,4-Dichlorobenzene										
n-Butyl benzene										
1,2-Dichlorobenzene										
Isopropyl benzene										
1,2,3-Trichloropropane										
Bromobenzene										
n-Propylbenzene										
2-Chlorotoluene										
4-Chlorotoluene										
1,3,5-Trimethyl benzene										
tert-Butyl benzene										
1,2,4-Trimethyl benzene										
sec-Butyl benzene										
4-Isopropyl toluene										
1,2-Dibromo-3-chloropropane										
1,2,4-Trichlorobenzene										
Hexachlorobutadiene										
Naphthalene										
1,2,3-Trichlorobenzene										

TABLE G-1-N-DL
VOC Sample Mass Detection Limit
Continuous Test 3 Outlet VOC

Process: Continuous
Date Sampled: 06/12/98

	At Detection Limit									
	VOST Tube #1			VOST Tube #2			VOST Tube #3			
ONSITE LAB ID	30200119	30200120		30200121	30200122		30200123	30200124		
Field ID	R3-P1-T	R3-P1-TC		R3-P2-T	R3-P2-TC		R3-P3-T	R3-P3-TC		
Analytes	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Tenax	T/C	VOST Subtotal	Sample Total
	ng	ng	ng	ng	ng	ng	ng	ng	ng	ng
Bromochloromethane	330	330	660	330	330	660	330	330	660	1980
Dichlorodifluoromethane	330	330	660	330	330	660	330	330	660	1980
Chloromethane	330	330	660	330	330	660	330	330	660	1980
Vinyl chloride (ccc)	330	330	660	330	330	660	330	330	660	1980
Bromomethane	330	330	660	330	330	660	330	330	660	1980
Trichlorofluoromethane	330	330	660	330	330	660	330	330	660	1980
Chloroethane	330	330	660	330	330	660	330	330	660	1980.0
Methylene chloride	330	330	660	330	330	660	330	330	660	1980
Acetone	330	330	660	330	330	660	330	330	660	1980
Freon-113	330	330	660	330	330	660	330	330	660	1980
Carbon Disulfide	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloroethene (ccc)	330	330	660	330	330	660	330	330	660	1980
Iodomethane	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloroethane	330	330	660	330	330	660	330	330	660	1980
methyl-tert-butyl-ether	330	330	660	330	330	660	330	330	660	1980
trans-1,2-Dichloroethene	330	330	660	330	330	660	330	330	660	1980
Vinyl Acetate	330	330	660	330	330	660	330	330	660	1980
cis-1,2-Dichloroethene	330	330	660	330	330	660	330	330	660	1980
2,2-Dichloropropane	330	330	660	330	330	660	330	330	660	1980
Chloroform (ccc)	330	330	660	330	330	660	330	330	660	1980
1,2-Dichloroethane	330	330	660	330	330	660	330	330	660	1980
2-Butanone	330	330	660	330	330	660	330	330	660	1980
1,1,1-Trichloroethane	330	330	660	330	330	660	330	330	660	1980
Carbon tetrachloride	330	330	660	330	330	660	330	330	660	1980
1,1-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
1,2-Dichloropropane (ccc)	330	330	660	330	330	660	330	330	660	1980
Bromodichloromethane	330	330	660	330	330	660	330	330	660	1980
Dibromomethane	330	330	660	330	330	660	330	330	660	1980
cis-1,3-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
Trichloroethene	330	330	660	330	330	660	330	330	660	1980
Benzene	330	330	660	330	330	660	330	330	660	1980
2-chloroethylvinyl Ether	330	330	660	330	330	660	330	330	660	1980
1,3-Dichloropropane	330	330	660	330	330	660	330	330	660	1980
Dibromochloromethane	330	330	660	330	330	660	330	330	660	1980
1,2-Dibromoethane	330	330	660	330	330	660	330	330	660	1980
trans-1,3-Dichloropropene	330	330	660	330	330	660	330	330	660	1980
1,1,2-Trichloroethane	330	330	660	330	330	660	330	330	660	1980
4-Methyl-2-Pentanone	330	330	660	330	330	660	330	330	660	1980
2-Hexanone	330	330	660	330	330	660	330	330	660	1980.0
Tetrachloroethene	330	330	660	330	330	660	330	330	660	1980
1-Chlorohexane	330	330	660	330	330	660	330	330	660	1980
1,1,1,2-Tetrachloroethane	330	330	660	330	330	660	330	330	660	1980
Bromoform	330	330	660	330	330	660	330	330	660	1980
1,1,2,2-Tetrachloroethane	330	330	660	330	330	660	330	330	660	1980
Toluene (ccc)	330	330	660	330	330	660	330	330	660	1980
Chlorobenzene	330	330	660	330	330	660	330	330	660	1980
Ethyl benzene (ccc)	330	330	660	330	330	660	330	330	660	1980
Styrene	330	330	660	330	330	660	330	330	660	1980
m,p-Xylene	330	330	660	330	330	660	330	330	660	1980
o-Xylene	330	330	660	330	330	660	330	330	660	1980
1,3-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
1,4-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
n-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2-Dichlorobenzene	330	330	660	330	330	660	330	330	660	1980
Isopropyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2,3-Trichloropropane	330	330	660	330	330	660	330	330	660	1980
Bromobenzene	330	330	660	330	330	660	330	330	660	1980
n-Propylbenzene	330	330	660	330	330	660	330	330	660	1980
2-Chlorotoluene	330	330	660	330	330	660	330	330	660	1980
4-Chlorotoluene	330	330	660	330	330	660	330	330	660	1980
1,3,5-Trimethyl benzene	330	330	660	330	330	660	330	330	660	1980
tert-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
1,2,4-Trimethyl benzene	330	330	660	330	330	660	330	330	660	1980
sec-Butyl benzene	330	330	660	330	330	660	330	330	660	1980
4-Isopropyl toluene	330	330	660	330	330	660	330	330	660	1980
1,2-Dibromo-3-chloropropane	330	330	660	330	330	660	330	330	660	1980
1,2,4-Trichlorobenzene	330	330	660	330	330	660	330	330	660	1980
Hexachlorobutadiene	330	330	660	330	330	660	330	330	660	1980
Naphthalene	330	330	660	330	330	660	330	330	660	1980
1,2,3-Trichlorobenzene	330	330	660	330	330	660	330	330	660	1980

TABLE G-2
Summary of VOC Sample Volumes

		Dry Standard Sample Volume				
Sample Number	Location	VOST tube 1	VOST tube 2	VOST tube 3	VOST tube 4	Total Analyzed
		Liters	Liters	Liters	Liters	Liters
Batch Test 1	Inlet	19.80	21.51	19.71	19.61	80.63
	Outlet	19.71	19.34	19.38	19.50	77.93
Batch Test 2	Inlet	19.66	19.84	20.47	20.93	80.90
	Outlet	18.75	19.11	19.25	19.24	76.35
Batch Test 3	Inlet	20.11	20.86	20.02	19.39	80.38
	Outlet	19.68	19.35	19.49	19.70	78.22
Batch Test 1-Repeat	Inlet	19.57	19.93	19.19	19.27 *	58.69
	Outlet	21.65	19.60	18.48	19.25 *	59.73
Continuous Test 1	Inlet	19.91	19.42	18.25	20.15 *	57.58
	Outlet	20.06	22.10	21.32	20.15 *	63.48
Continuous Test 2	Inlet	19.95	19.61	19.41	19.89 *	58.97
	Outlet	20.31	20.34	20.12	19.95 *	60.77
Continuous Test 3	Inlet	18.59	20.47	21.36	20.59 *	60.42
	Outlet	19.95	19.82	19.86	19.75 *	59.63

* Sample not analyzed. Sample volume not included in total.

TABLE G-4-A
VOC Mass Emission Rate
Batch Run 1 Summary

All data on this table should be rejected due to exceedence of method calibration limit.

Process: Batch Unit
Date Sampled: 06/7/98

	Inlet			Outlet				Maximum Allowable			Pass/Fail	
Analytes	Sample Total Mass ng	Sample Conc. µg/m³	Mass Emission Rate g/s	Sample Total Mass ng	Sample Conc. µg/m³	Mass Emission Rate g/s	DRE %	Mass Emission Rate (1-hr) g/s	Mass Emission Rate (8-hr) g/s	Mass Emission Rate (annual) g/s	Inlet	Outlet
Bromochloromethane												
Dichlorodifluoromethane				131	2	5.31E-08						
Chloromethane	2839080	35211	2.47E-04	37205	477	1.51E-05	98.6	1.80E-02	5.14E-03		pass	pass
Vinyl chloride (ccc)	9960	124	8.66E-07				100.0		6.37E-03	5.02E-05	pass	pass
Bromomethane	102900	1276	8.94E-06	2360	30	9.57E-07	97.6		1.91E-03		pass	pass
Trichlorofluoromethane				27	0	1.11E-08						
Chloroethane				89	1	3.60E-08		4.46E-04	1.27E-04		pass	pass
Methylene chloride	42300	525	3.68E-06	467	6	1.89E-07	98.9		8.53E-05		pass	pass
Acetone	2620000	32494	2.28E-04	94485	1212	3.83E-05	96.3	6.11E-01	5.82E-01		pass	pass
Freon-113												
Carbon Disulfide	549400	6814	4.78E-05	13070	168	5.30E-06	97.5		1.52E-02		pass	pass
1,1-Dichloroethene (ccc)								2.71E-02	9.80E-03		pass	pass
Iodomethane	115460	1432	1.00E-05	3616	46	1.47E-06	96.8		5.88E-03		pass	pass
1,1-Dichloroethane				75	1	3.04E-08						
methyl-tert-butyl-ether												
trans-1,2-Dichloroethene												
Vinyl Acetate												
cis-1,2-Dichloroethene												
2,2-Dichloropropane												
Chloroform (ccc)				97	1	3.92E-08						
1,2-Dichloroethane				373	5	1.51E-07						
2-Butanone	908000	11261	7.89E-05	23541	302	9.55E-06	97.3	3.04E-01	2.89E-01		pass	pass
1,1,1-Trichloroethane								8.44E-01	9.36E-01		pass	pass
Carbon tetrachloride									1.52E-05		pass	pass
1,1-Dichloropropene												
1,2-Dichloropropane (ccc)												
Bromodichloromethane				30	0	1.23E-08						
Dibromomethane												
cis-1,3-Dichloropropene												
Trichloroethene												
Benzene	4687700	58138	4.07E-04	24814	318	1.01E-05	99.5	2.74E-03	7.84E-04	5.19E-04	pass	pass
2-chloroethylvinyl Ether												
1,3-Dichloropropane												
Dibromochloromethane												
1,2-Dibromoethane												
trans-1,3-Dichloropropene												
1,1,2-Trichloroethane												
4-Methyl-2-Pentanone				532	7	2.16E-07		1.05E-01	1.00E-01		pass	pass
2-Hexanone				293	4	1.19E-07			9.80E-03		pass	pass
Tetrachloroethene								2.35E-01	8.33E-02		pass	pass
1-Chlorohexane												
1,1,1,2-Tetrachloroethane												
Bromoform												
1,1,2,2-Tetrachloroethane												
Toluene (ccc)	2897700	35938	2.52E-04	9289	119	3.77E-06	99.7		9.21E-02		pass	pass
Chlorobenzene									2.25E-02		pass	pass
Ethyl benzene (ccc)	1802200	22351	1.57E-04	5438	70	2.21E-06	99.7	1.86E-01	2.13E-01		pass	pass
Styrene	403850	5009	3.51E-05	3445	44	1.40E-06	99.1	5.83E-02	4.16E-02		pass	pass
m,p-Xylene	2141000	26553	1.86E-04	8769	113	3.56E-06	99.6	2.23E-01	2.13E-01		pass	pass
o-Xylene	940300	11662	8.17E-05	3517	45	1.43E-06	99.6	2.23E-01	2.13E-01		pass	pass
1,3-Dichlorobenzene												
1,4-Dichlorobenzene									2.94E-02	6.26E-04	pass	pass
n-Butyl benzene									1.73E-02		pass	pass
1,2-Dichlorobenzene								1.03E-01	7.35E-02		pass	pass
Isopropyl benzene	477900	5927	4.15E-05	9407	121	3.82E-06	98.0		1.21E-01		pass	pass
1,2,3-Trichloropropane												
Bromobenzene												
n-Propylbenzene	14330	178	1.25E-06	4300	55	1.74E-06	69.0		1.22E-02		pass	pass
2-Chlorotoluene												
4-Chlorotoluene												
1,3,5-Trimethyl benzene	220720	2737	1.92E-05	17100	219	6.94E-06	92.0		6.03E-02		pass	pass
tert-Butyl benzene	9030	112	7.85E-07	3428	44	1.39E-06	60.7		1.74E-02		pass	pass
1,2,4-Trimethyl benzene	177640	2203	1.54E-05	11220	144	4.55E-06	93.5		8.82E-02		pass	pass
sec-Butyl benzene												
4-Isopropyl toluene	58090	720	5.05E-06	9607	123	3.90E-06	82.9		9.55E-03		pass	pass
1,2-Dibromo-3-chloropropane									4.74E-04	6.27E-03	pass	pass
1,2,4-Trichlorobenzene												
Hexachlorobutadiene												
Naphthalene				5623	72	2.28E-06		2.71E-02	2.55E-02		pass	pass
1,2,3-Trichlorobenzene												
Total VOCs	21017560	260667	1.83E-03	292346	3751	1.19E-04	98.6	2.97E+00	3.29E+00	7.47E-03		

TABLE G-4-A-DL
VOC Mass Emission Rate at Detection Limit
Batch Run 1 Summary

All data on this table should be rejected due to exceedence of method calibration.

Process: Batch Unit
Date Sampled: 06/7/98

ONSITE LAB ID	At Detection Limit										
Field ID	Inlet			Outlet			Maximum Allowable			Pass/Fail	
	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
Analytes	ng	µg/m³	g/s	ng	µg/m³	g/s	g/s	g/s	g/s		
Bromochloromethane	47520	589	4.13E-06	80	1	3.25E-08					
Dichlorodifluoromethane	47520	589	4.13E-06	80	1	3.25E-08					
Chloromethane	47520	589	4.13E-06	80	1	3.25E-08	1.80E-02	5.14E-03		pass	pass
Vinyl chloride (ccc)	47520	589	4.13E-06	80	1	3.25E-08		6.37E-03	5.02E-05	pass	pass
Bromomethane	47520	589	4.13E-06	80	1	3.25E-08		1.91E-03		pass	pass
Trichlorofluoromethane	47520	589	4.13E-06	80	1	3.25E-08					
Chloroethane	47520	589	4.13E-06	80	1	3.25E-08	4.46E-04	1.27E-04		pass	pass
Methylene chloride	47520	589	4.13E-06	80	1	3.25E-08		8.53E-05		pass	pass
Acetone	47520	589	4.13E-06	80	1	3.25E-08	6.11E-01	5.82E-01		pass	pass
Freon-113	47520	589	4.13E-06	80	1	3.25E-08					
Carbon Disulfide	47520	589	4.13E-06	80	1	3.25E-08		1.52E-02		pass	pass
1,1-Dichloroethene (ccc)	47520	589	4.13E-06	80	1	3.25E-08	2.71E-02	9.80E-03		pass	pass
Iodomethane	47520	589	4.13E-06	80	1	3.25E-08		5.88E-03		pass	pass
1,1-Dichloroethane	47520	589	4.13E-06	80	1	3.25E-08					
methyl-tert-butyl-ether	47520	589	4.13E-06	80	1	3.25E-08					
trans-1,2-Dichloroethene	47520	589	4.13E-06	80	1	3.25E-08					
Vinyl Acetate	47520	589	4.13E-06	80	1	3.25E-08					
cis-1,2-Dichloroethene	47520	589	4.13E-06	80	1	3.25E-08					
2,2-Dichloropropane	47520	589	4.13E-06	80	1	3.25E-08					
Chloroform (ccc)	47520	589	4.13E-06	80	1	3.25E-08					
1,2-Dichloroethane	47520	589	4.13E-06	80	1	3.25E-08					
2-Butanone	47520	589	4.13E-06	80	1	3.25E-08	3.04E-01	2.89E-01		pass	pass
1,1,1-Trichloroethane	47520	589	4.13E-06	80	1	3.25E-08	8.44E-01	9.36E-01		pass	pass
Carbon tetrachloride	47520	589	4.13E-06	80	1	3.25E-08		1.52E-05		pass	pass
1,1-Dichloropropene	47520	589	4.13E-06	80	1	3.25E-08					
1,2-Dichloropropane (ccc)	47520	589	4.13E-06	80	1	3.25E-08					
Bromodichloromethane	47520	589	4.13E-06	80	1	3.25E-08					
Dibromomethane	47520	589	4.13E-06	80	1	3.25E-08					
cis-1,3-Dichloropropene	47520	589	4.13E-06	80	1	3.25E-08					
Trichloroethene	47520	589	4.13E-06	80	1	3.25E-08					
Benzene	47520	589	4.13E-06	80	1	3.25E-08	2.74E-03	7.84E-04	5.19E-04	pass	pass
2-chloroethylvinyl Ether	47520	589	4.13E-06	80	1	3.25E-08					
1,3-Dichloropropane	47520	589	4.13E-06	80	1	3.25E-08					
Dibromochloromethane	47520	589	4.13E-06	80	1	3.25E-08					
1,2-Dibromoethane	47520	589	4.13E-06	80	1	3.25E-08					
trans-1,3-Dichloropropene	47520	589	4.13E-06	80	1	3.25E-08					
1,1,2-Trichloroethane	47520	589	4.13E-06	80	1	3.25E-08					
4-Methyl-2-Pentanone	47520	589	4.13E-06	80	1	3.25E-08	1.05E-01	1.00E-01		pass	pass
2-Hexanone	47520	589	4.13E-06	80	1	3.25E-08		9.80E-03		pass	pass
Tetrachloroethene	47520	589	4.13E-06	80	1	3.25E-08	2.35E-01	8.33E-02		pass	pass
1-Chlorohexane	47520	589	4.13E-06	80	1	3.25E-08					
1,1,1,2-Tetrachloroethane	47520	589	4.13E-06	80	1	3.25E-08					
Bromoform	47520	589	4.13E-06	80	1	3.25E-08					
1,1,2,2-Tetrachloroethane	47520	589	4.13E-06	80	1	3.25E-08					
Toluene (ccc)	47520	589	4.13E-06	80	1	3.25E-08		9.21E-02		pass	pass
Chlorobenzene	47520	589	4.13E-06	80	1	3.25E-08		2.25E-02		pass	pass
Ethyl benzene (ccc)	47520	589	4.13E-06	80	1	3.25E-08	1.86E-01	2.13E-01		pass	pass
Styrene	47520	589	4.13E-06	80	1	3.25E-08	5.83E-02	4.16E-02		pass	pass
m,p-Xylene	47520	589	4.13E-06	80	1	3.25E-08	2.23E-01	2.13E-01		pass	pass
o-Xylene	47520	589	4.13E-06	80	1	3.25E-08	2.23E-01	2.13E-01		pass	pass
1,3-Dichlorobenzene	47520	589	4.13E-06	80	1	3.25E-08					
1,4-Dichlorobenzene	47520	589	4.13E-06	80	1	3.25E-08		2.94E-02	6.26E-04	pass	pass
n-Butyl benzene	47520	589	4.13E-06	80	1	3.25E-08		1.73E-02		pass	pass
1,2-Dichlorobenzene	47520	589	4.13E-06	80	1	3.25E-08	1.03E-01	7.35E-02		pass	pass
Isopropyl benzene	47520	589	4.13E-06	80	1	3.25E-08		1.21E-01		pass	pass
1,2,3-Trichloropropane	47520	589	4.13E-06	80	1	3.25E-08					
Bromobenzene	47520	589	4.13E-06	80	1	3.25E-08					
n-Propylbenzene	47520	589	4.13E-06	80	1	3.25E-08		1.22E-02		pass	pass
2-Chlorotoluene	47520	589	4.13E-06	80	1	3.25E-08					
4-Chlorotoluene	47520	589	4.13E-06	80	1	3.25E-08					
1,3,5-Trimethyl benzene	47520	589	4.13E-06	80	1	3.25E-08		6.03E-02		pass	pass
tert-Butyl benzene	47520	589	4.13E-06	80	1	3.25E-08		1.74E-02		pass	pass
1,2,4-Trimethyl benzene	47520	589	4.13E-06	80	1	3.25E-08		8.82E-02		pass	pass
sec-Butyl benzene	47520	589	4.13E-06	80	1	3.25E-08					
4-Isopropyl toluene	47520	589	4.13E-06	80	1	3.25E-08		9.55E-03		pass	pass
1,2-Dibromo-3-chloropropane	47520	589	4.13E-06	80	1	3.25E-08		4.74E-04	6.27E-03	pass	pass
1,2,4-Trichlorobenzene	47520	589	4.13E-06	80	1	3.25E-08					
Hexachlorobutadiene	47520	589	4.13E-06	80	1	3.25E-08					
Naphthalene	47520	589	4.13E-06	80	1	3.25E-08	2.71E-02	2.55E-02		pass	pass
1,2,3-Trichlorobenzene	47520	589	4.13E-06	80	1	3.25E-08					
Total VOCs	3326400	41255	2.89E-04	5600	72	2.27E-06	2.97E+00	3.29E+00	7.47E-03		

TABLE G-4-B
VOC Mass Emission Rate
Batch Run 2 Summary

Process: Batch Unit
Date Sampled: 06/6/98

Analytes	Inlet			Outlet				Maximum Allowable			Pass/Fail	
	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	DRE	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
	ng	µg/m³	g/s	ng	µg/m³	g/s	%	g/s	g/s	g/s		
Bromochloromethane												
Dichlorodifluoromethane												
Chloromethane	432500	5346	2.42E-05	20728	271	7.94E-06	94.9	1.80E-02	5.14E-03		pass	pass
Vinyl chloride (ccc)									6.37E-03	5.02E-05	pass	pass
Bromomethane				56	1	2.15E-08			1.91E-03		pass	pass
Trichlorofluoromethane												
Chloroethane								4.46E-04	1.27E-04		pass	pass
Methylene chloride				154	2	5.90E-08			8.53E-05		pass	pass
Acetone	36362000	449468	2.04E-03	246920	3234	9.46E-05	99.3	6.11E-01	5.82E-01		pass	pass
Freon-113												
Carbon Disulfide	71000	878	3.98E-06	1697	22	6.50E-07	97.5		1.52E-02		pass	pass
1,1-Dichloroethene (ccc)								2.71E-02	9.80E-03		pass	pass
Iodomethane				23	0	8.78E-09			5.88E-03		pass	pass
1,1-Dichloroethane												
methyl-tert-butyl-ether												
trans-1,2-Dichloroethene												
Vinyl Acetate												
cis-1,2-Dichloroethene												
2,2-Dichloropropane												
Chloroform (ccc)												
1,2-Dichloroethane	167900	2075	9.40E-06				100.0					
2-Butanone	9569000	118282	5.36E-04	85384	1118	3.27E-05	99.1	3.04E-01	2.89E-01		pass	pass
1,1,1-Trichloroethane								8.44E-01	9.36E-01		pass	pass
Carbon tetrachloride									1.52E-05		pass	pass
1,1-Dichloropropene												
1,2-Dichloropropane (ccc)												
Bromodichloromethane												
Dibromomethane												
cis-1,3-Dichloropropene												
Trichloroethene												
Benzene	20442000	252682	1.14E-03	271997	3562	1.04E-04	98.6	2.74E-03	7.84E-04	5.19E-04	FAIL	pass
2-chloroethylvinyl Ether												
1,3-Dichloropropane												
Dibromochloromethane												
1,2-Dibromoethane												
trans-1,3-Dichloropropene	28900	357	1.62E-06				100.0					
1,1,2-Trichloroethane												
4-Methyl-2-Pentanone	576800	7130	3.23E-05	3280	43	1.26E-06	99.4	1.05E-01	1.00E-01		pass	pass
2-Hexanone	368800	4559	2.07E-05	2766	36	1.06E-06	99.2		9.80E-03		pass	pass
Tetrachloroethene								2.35E-01	8.33E-02		pass	pass
1-Chlorohexane												
1,1,1,2-Tetrachloroethane												
Bromoform												
1,1,2,2-Tetrachloroethane												
Toluene (ccc)	14457000	178702	8.10E-04	155571	2038	5.96E-05	98.9		9.21E-02		pass	pass
Chlorobenzene									2.25E-02		pass	pass
Ethyl benzene (ccc)	4828000	59679	2.70E-04	41430	543	1.59E-05	99.1	1.86E-01	2.13E-01		pass	pass
Styrene	317400	3923	1.78E-05	14404	189	5.52E-06	95.2	5.83E-02	4.16E-02		pass	pass
m,p-Xylene	4182000	51693	2.34E-04	42100	551	1.61E-05	98.9	2.23E-01	2.13E-01		pass	pass
o-Xylene	1411600	17449	7.91E-05	23210	304	8.90E-06	98.3	2.23E-01	2.13E-01		pass	pass
1,3-Dichlorobenzene												
1,4-Dichlorobenzene									2.94E-02	6.26E-04	pass	pass
n-Butyl benzene				439	6	1.68E-07			1.73E-02		pass	pass
1,2-Dichlorobenzene								1.03E-01	7.35E-02		pass	pass
Isopropyl benzene	236840	2928	1.33E-05	8990	118	3.45E-06	96.0		1.21E-01		pass	pass
1,2,3-Trichloropropane												
Bromobenzene												
n-Propylbenzene	175800	2173	9.85E-06	1707	22	6.54E-07	99.0		1.22E-02		pass	pass
2-Chlorotoluene												
4-Chlorotoluene												
1,3,5-Trimethyl benzene	237600	2937	1.33E-05	9550	125	3.66E-06	95.7		6.03E-02		pass	pass
tert-Butyl benzene				1200	16	4.60E-07			1.74E-02		pass	pass
1,2,4-Trimethyl benzene	105700	1307	5.92E-06	16410	215	6.29E-06	83.5		8.82E-02		pass	pass
sec-Butyl benzene												
4-Isopropyl toluene				8116	106	3.11E-06			9.55E-03		pass	pass
1,2-Dibromo-3-chloropropane									4.74E-04	6.27E-03	pass	pass
1,2,4-Trichlorobenzene												
Hexachlorobutadiene												
Naphthalene				6859	90	2.63E-06		2.71E-02	2.55E-02		pass	pass
1,2,3-Trichlorobenzene												
Total VOCs	93970840	1161568	5.26E-03	962991	12613	3.69E-04	98.9	2.97E+00	3.29E+00	7.47E-03		

TABLE G-4-B-DL
VOC Mass Emission Rate at Detection Limit
Batch Run 2 Summary

Process: Batch Unit
Date Sampled: 06/6/98

	At Detection Limit										
	Inlet			Outlet			Maximum Allowable			Pass/Fail	
Analytes	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
	ng	µg/m³	g/s	ng	µg/m³	g/s	g/s	g/s	g/s		
Bromochloromethane	79200	979	4.44E-06	2320	30	8.89E-07					
Dichlorodifluoromethane	79200	979	4.44E-06	2320	30	8.89E-07					
Chloromethane	79200	979	4.44E-06	2320	30	8.89E-07	1.80E-02	5.14E-03		pass	pass
Vinyl chloride (ccc)	79200	979	4.44E-06	2320	30	8.89E-07		6.37E-03	5.02E-05	pass	pass
Bromomethane	79200	979	4.44E-06	2320	30	8.89E-07		1.91E-03		pass	pass
Trichlorofluoromethane	79200	979	4.44E-06	2320	30	8.89E-07					
Chloroethane	79200	979	4.44E-06	2320	30	8.89E-07	4.46E-04	1.27E-04		pass	pass
Methylene chloride	79200	979	4.44E-06	2320	30	8.89E-07		8.53E-05		pass	pass
Acetone	79200	979	4.44E-06	2320	30	8.89E-07	6.11E-01	5.82E-01		pass	pass
Freon-113	79200	979	4.44E-06	2320	30	8.89E-07					
Carbon Disulfide	79200	979	4.44E-06	2320	30	8.89E-07		1.52E-02		pass	pass
1,1-Dichloroethene (ccc)	79200	979	4.44E-06	2320	30	8.89E-07	2.71E-02	9.80E-03		pass	pass
Iodomethane	79200	979	4.44E-06	2320	30	8.89E-07		5.88E-03		pass	pass
1,1-Dichloroethane	79200	979	4.44E-06	2320	30	8.89E-07					
methyl-tert-butyl-ether	79200	979	4.44E-06	2320	30	8.89E-07					
trans-1,2-Dichloroethene	79200	979	4.44E-06	2320	30	8.89E-07					
Vinyl Acetate	79200	979	4.44E-06	2320	30	8.89E-07					
cis-1,2-Dichloroethene	79200	979	4.44E-06	2320	30	8.89E-07					
2,2-Dichloropropane	79200	979	4.44E-06	2320	30	8.89E-07					
Chloroform (ccc)	79200	979	4.44E-06	2320	30	8.89E-07					
1,2-Dichloroethane	79200	979	4.44E-06	2320	30	8.89E-07					
2-Butanone	79200	979	4.44E-06	2320	30	8.89E-07	3.04E-01	2.89E-01		pass	pass
1,1,1-Trichloroethane	79200	979	4.44E-06	2320	30	8.89E-07	8.44E-01	9.36E-01		pass	pass
Carbon tetrachloride	79200	979	4.44E-06	2320	30	8.89E-07		1.52E-05		pass	pass
1,1-Dichloropropene	79200	979	4.44E-06	2320	30	8.89E-07					
1,2-Dichloropropane (ccc)	79200	979	4.44E-06	2320	30	8.89E-07					
Bromodichloromethane	79200	979	4.44E-06	2320	30	8.89E-07					
Dibromomethane	79200	979	4.44E-06	2320	30	8.89E-07					
cis-1,3-Dichloropropene	79200	979	4.44E-06	2320	30	8.89E-07					
Trichloroethene	79200	979	4.44E-06	2320	30	8.89E-07					
Benzene	79200	979	4.44E-06	2320	30	8.89E-07	2.74E-03	7.84E-04	5.19E-04	pass	pass
2-chloroethylvinyl Ether	79200	979	4.44E-06	2320	30	8.89E-07					
1,3-Dichloropropane	79200	979	4.44E-06	2320	30	8.89E-07					
Dibromochloromethane	79200	979	4.44E-06	2320	30	8.89E-07					
1,2-Dibromoethane	79200	979	4.44E-06	2320	30	8.89E-07					
trans-1,3-Dichloropropene	79200	979	4.44E-06	2320	30	8.89E-07					
1,1,2-Trichloroethane	79200	979	4.44E-06	2320	30	8.89E-07					
4-Methyl-2-Pentanone	79200	979	4.44E-06	2320	30	8.89E-07	1.05E-01	1.00E-01		pass	pass
2-Hexanone	79200	979	4.44E-06	2320	30	8.89E-07		9.80E-03		pass	pass
Tetrachloroethene	79200	979	4.44E-06	2320	30	8.89E-07	2.35E-01	8.33E-02		pass	pass
1-Chlorohexane	79200	979	4.44E-06	2320	30	8.89E-07					
1,1,1,2-Tetrachloroethane	79200	979	4.44E-06	2320	30	8.89E-07					
Bromoform	79200	979	4.44E-06	2320	30	8.89E-07					
1,1,2,2-Tetrachloroethane	79200	979	4.44E-06	2320	30	8.89E-07					
Toluene (ccc)	79200	979	4.44E-06	2320	30	8.89E-07		9.21E-02		pass	pass
Chlorobenzene	79200	979	4.44E-06	2320	30	8.89E-07		2.25E-02		pass	pass
Ethyl benzene (ccc)	79200	979	4.44E-06	2320	30	8.89E-07	1.86E-01	2.13E-01		pass	pass
Styrene	79200	979	4.44E-06	2320	30	8.89E-07	5.83E-02	4.16E-02		pass	pass
m,p-Xylene	79200	979	4.44E-06	2320	30	8.89E-07	2.23E-01	2.13E-01		pass	pass
o-Xylene	79200	979	4.44E-06	2320	30	8.89E-07	2.23E-01	2.13E-01		pass	pass
1,3-Dichlorobenzene	79200	979	4.44E-06	2320	30	8.89E-07					
1,4-Dichlorobenzene	79200	979	4.44E-06	2320	30	8.89E-07		2.94E-02	6.26E-04	pass	pass
n-Butyl benzene	79200	979	4.44E-06	2320	30	8.89E-07		1.73E-02		pass	pass
1,2-Dichlorobenzene	79200	979	4.44E-06	2320	30	8.89E-07	1.03E-01	7.35E-02		pass	pass
Isopropyl benzene	79200	979	4.44E-06	2320	30	8.89E-07		1.21E-01		pass	pass
1,2,3-Trichloropropane	79200	979	4.44E-06	2320	30	8.89E-07					
Bromobenzene	79200	979	4.44E-06	2320	30	8.89E-07					
n-Propylbenzene	79200	979	4.44E-06	2320	30	8.89E-07		1.22E-02		pass	pass
2-Chlorotoluene	79200	979	4.44E-06	2320	30	8.89E-07					
4-Chlorotoluene	79200	979	4.44E-06	2320	30	8.89E-07					
1,3,5-Trimethyl benzene	79200	979	4.44E-06	2320	30	8.89E-07		6.03E-02		pass	pass
tert-Butyl benzene	79200	979	4.44E-06	2320	30	8.89E-07		1.74E-02		pass	pass
1,2,4-Trimethyl benzene	79200	979	4.44E-06	2320	30	8.89E-07		8.82E-02		pass	pass
sec-Butyl benzene	79200	979	4.44E-06	2320	30	8.89E-07					
4-Isopropyl toluene	79200	979	4.44E-06	2320	30	8.89E-07		9.55E-03		pass	pass
1,2-Dibromo-3-chloropropane	79200	979	4.44E-06	2320	30	8.89E-07		4.74E-04	6.27E-03	pass	pass
1,2,4-Trichlorobenzene	79200	979	4.44E-06	2320	30	8.89E-07					
Hexachlorobutadiene	79200	979	4.44E-06	2320	30	8.89E-07					
Naphthalene	79200	979	4.44E-06	2320	30	8.89E-07	2.71E-02	2.55E-02		pass	pass
1,2,3-Trichlorobenzene	79200	979	4.44E-06	2320	30	8.89E-07					
Total VOCs	5544000	68529	3.10E-04	162400	2127	6.22E-05	2.97E+00	3.29E+00	7.47E-03		

TABLE G-4-C
VOC Mass Emission Rate
Batch Run 3 Summary

Process: Batch Unit
Date Sampled: 06/7/98
ONSITE LAB ID

Field ID	Inlet			Outlet				Maximum Allowable			Pass/Fail	
Analytes	Sample Total Mass ng	Sample Conc. µg/m³	Mass Emission Rate g/s	Sample Total Mass ng	Sample Conc. µg/m³	Mass Emission Rate g/s	DRE %	Mass Emission Rate (1-hr) g/s	Mass Emission Rate (8-hr) g/s	Mass Emission Rate (annual) g/s	Inlet	Outlet
Bromochloromethane												
Dichlorodifluoromethane												
Chloromethane	63900	795	3.30E-06	20180	258	7.67E-06	67.5	1.80E-02	5.14E-03		pass	pass
Vinyl chloride (ccc)									6.37E-03	5.02E-05	pass	pass
Bromomethane									1.91E-03		pass	pass
Trichlorofluoromethane												
Chloroethane								4.46E-04	1.27E-04		pass	pass
Methylene chloride									8.53E-05		pass	pass
Acetone	6232000	77532	3.22E-04	78640	1005	2.99E-05	98.7	6.11E-01	5.82E-01		pass	pass
Freon-113												
Carbon Disulfide	21890	272	1.13E-06	6654	85	2.53E-06	68.8		1.52E-02		pass	pass
1,1-Dichloroethene (ccc)								2.71E-02	9.80E-03		pass	pass
Iodomethane									5.88E-03		pass	pass
1,1-Dichloroethane												
methyl-tert-butyl-ether												
trans-1,2-Dichloroethene												
Vinyl Acetate												
cis-1,2-Dichloroethene												
2,2-Dichloropropane												
Chloroform (ccc)												
1,2-Dichloroethane												
2-Butanone	3724900	46341	1.92E-04	25330	324	9.63E-06	99.3	3.04E-01	2.89E-01		pass	pass
1,1,1-Trichloroethane								8.44E-01	9.36E-01		pass	pass
Carbon tetrachloride									1.52E-05		pass	pass
1,1-Dichloropropene												
1,2-Dichloropropane (ccc)												
Bromodichloromethane												
Dibromomethane												
cis-1,3-Dichloropropene												
Trichloroethene												
Benzene	4622000	57502	2.39E-04	62522	799	2.38E-05	98.6	2.74E-03	7.84E-04	5.19E-04	pass	pass
2-chloroethylvinyl Ether												
1,3-Dichloropropane												
Dibromochloromethane												
1,2-Dibromoethane												
trans-1,3-Dichloropropene												
1,1,2-Trichloroethane												
4-Methyl-2-Pentanone	211300	2629	1.09E-05				100.0	1.05E-01	1.00E-01		pass	pass
2-Hexanone	183000	2277	9.46E-06				100.0		9.80E-03		pass	pass
Tetrachloroethene								2.35E-01	8.33E-02		pass	pass
1-Chlorohexane				4470	57	1.70E-06						
1,1,1,2-Tetrachloroethane												
Bromoform												
1,1,2,2-Tetrachloroethane												
Toluene (ccc)	4864000	60513	2.51E-04	45980	588	1.75E-05	99.0		9.21E-02		pass	pass
Chlorobenzene									2.25E-02		pass	pass
Ethyl benzene (ccc)	1603900	19954	8.29E-05	33300	426	1.27E-05	97.9	1.86E-01	2.13E-01		pass	pass
Styrene	323660	4027	1.67E-05	15776	202	6.00E-06	95.0	5.83E-02	4.16E-02		pass	pass
m,p-Xylene	1807800	22491	9.34E-05	41730	533	1.59E-05	97.6	2.23E-01	2.13E-01		pass	pass
o-Xylene	959800	11941	4.96E-05	25260	323	9.60E-06	97.3	2.23E-01	2.13E-01		pass	pass
1,3-Dichlorobenzene												
1,4-Dichlorobenzene									2.94E-02	6.26E-04	pass	pass
n-Butyl benzene				946	12	3.60E-07			1.73E-02		pass	pass
1,2-Dichlorobenzene								1.03E-01	7.35E-02		pass	pass
Isopropyl benzene	230580	2869	1.19E-05	12012	154	4.57E-06	94.6		1.21E-01		pass	pass
1,2,3-Trichloropropane												
Bromobenzene												
n-Propylbenzene	75800	943	3.92E-06	1984	25	7.54E-07	97.3		1.22E-02		pass	pass
2-Chlorotoluene												
4-Chlorotoluene												
1,3,5-Trimethyl benzene	142600	1774	7.37E-06	12120	155	4.61E-06	91.3		6.03E-02		pass	pass
tert-Butyl benzene				2152	28	8.18E-07			1.74E-02		pass	pass
1,2,4-Trimethyl benzene	79600	990	4.11E-06	21420	274	8.14E-06	72.3		8.82E-02		pass	pass
sec-Butyl benzene												
4-Isopropyl toluene	22140	275	1.14E-06	12407	159	4.72E-06	42.4		9.55E-03		pass	pass
1,2-Dibromo-3-chloropropane				1390	18	5.28E-07			4.74E-04	6.27E-03	pass	pass
1,2,4-Trichlorobenzene												
Hexachlorobutadiene												
Naphthalene				7267	93	2.76E-06		2.71E-02	2.55E-02		pass	pass
1,2,3-Trichlorobenzene												
Total VOCs	25168870	313124	1.30E-03	431540	5517	1.64E-04	98.2	2.97E+00	3.29E+00	7.47E-03		

TABLE G-4-C-DL
VOC Mass Emission Rate at Detection Limit
Batch Run 3 Summary

Process: Batch Unit
Date Sampled: 06/7/98
ONSITE LAB ID

Field ID	At Detection Limit						Maximum Allowable			Pass/Fail	
	Inlet			Outlet							
	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
Analytes	ng	µg/m³	g/s	ng	µg/m³	g/s	g/s	g/s	g/s		
Bromochloromethane	52800	657	2.73E-06	2640	34	1.00E-06					
Dichlorodifluoromethane	52800	657	2.73E-06	2640	34	1.00E-06					
Chloromethane	52800	657	2.73E-06	2640	34	1.00E-06	1.80E-02	5.14E-03		pass	pass
Vinyl chloride (ccc)	52800	657	2.73E-06	2640	34	1.00E-06		6.37E-03	5.02E-05	pass	pass
Bromomethane	52800	657	2.73E-06	2640	34	1.00E-06		1.91E-03		pass	pass
Trichlorofluoromethane	52800	657	2.73E-06	2640	34	1.00E-06					
Chloroethane	52800	657	2.73E-06	2640	34	1.00E-06	4.46E-04	1.27E-04		pass	pass
Methylene chloride	52800	657	2.73E-06	2640	34	1.00E-06		8.53E-05		pass	pass
Acetone	52800	657	2.73E-06	2640	34	1.00E-06	6.11E-01	5.82E-01		pass	pass
Freon-113	52800	657	2.73E-06	2640	34	1.00E-06					
Carbon Disulfide	52800	657	2.73E-06	2640	34	1.00E-06		1.52E-02		pass	pass
1,1-Dichloroethene (ccc)	52800	657	2.73E-06	2640	34	1.00E-06	2.71E-02	9.80E-03		pass	pass
Iodomethane	52800	657	2.73E-06	2640	34	1.00E-06		5.88E-03		pass	pass
1,1-Dichloroethane	52800	657	2.73E-06	2640	34	1.00E-06					
methyl-tert-butyl-ether	52800	657	2.73E-06	2640	34	1.00E-06					
trans-1,2-Dichloroethene	52800	657	2.73E-06	2640	34	1.00E-06					
Vinyl Acetate	52800	657	2.73E-06	2640	34	1.00E-06					
cis-1,2-Dichloroethene	52800	657	2.73E-06	2640	34	1.00E-06					
2,2-Dichloropropane	52800	657	2.73E-06	2640	34	1.00E-06					
Chloroform (ccc)	52800	657	2.73E-06	2640	34	1.00E-06					
1,2-Dichloroethane	52800	657	2.73E-06	2640	34	1.00E-06					
2-Butanone	52800	657	2.73E-06	2640	34	1.00E-06	3.04E-01	2.89E-01		pass	pass
1,1,1-Trichloroethane	52800	657	2.73E-06	2640	34	1.00E-06	8.44E-01	9.36E-01		pass	pass
Carbon tetrachloride	52800	657	2.73E-06	2640	34	1.00E-06		1.52E-05		pass	pass
1,1-Dichloropropene	52800	657	2.73E-06	2640	34	1.00E-06					
1,2-Dichloropropane (ccc)	52800	657	2.73E-06	2640	34	1.00E-06					
Bromodichloromethane	52800	657	2.73E-06	2640	34	1.00E-06					
Dibromomethane	52800	657	2.73E-06	2640	34	1.00E-06					
cis-1,3-Dichloropropene	52800	657	2.73E-06	2640	34	1.00E-06					
Trichloroethene	52800	657	2.73E-06	2640	34	1.00E-06					
Benzene	52800	657	2.73E-06	2640	34	1.00E-06	2.74E-03	7.84E-04	5.19E-04	pass	pass
2-chloroethylvinyl Ether	52800	657	2.73E-06	2640	34	1.00E-06					
1,3-Dichloropropane	52800	657	2.73E-06	2640	34	1.00E-06					
Dibromochloromethane	52800	657	2.73E-06	2640	34	1.00E-06					
1,2-Dibromoethane	52800	657	2.73E-06	2640	34	1.00E-06					
trans-1,3-Dichloropropene	52800	657	2.73E-06	2640	34	1.00E-06					
1,1,2-Trichloroethane	52800	657	2.73E-06	2640	34	1.00E-06					
4-Methyl-2-Pentanone	52800	657	2.73E-06	2640	34	1.00E-06	1.05E-01	1.00E-01		pass	pass
2-Hexanone	52800	657	2.73E-06	2640	34	1.00E-06		9.80E-03		pass	pass
Tetrachloroethene	52800	657	2.73E-06	2640	34	1.00E-06	2.35E-01	8.33E-02		pass	pass
1-Chlorohexane	52800	657	2.73E-06	2640	34	1.00E-06					
1,1,1,2-Tetrachloroethane	52800	657	2.73E-06	2640	34	1.00E-06					
Bromoform	52800	657	2.73E-06	2640	34	1.00E-06					
1,1,2,2-Tetrachloroethane	52800	657	2.73E-06	2640	34	1.00E-06					
Toluene (ccc)	52800	657	2.73E-06	2640	34	1.00E-06		9.21E-02		pass	pass
Chlorobenzene	52800	657	2.73E-06	2640	34	1.00E-06		2.25E-02		pass	pass
Ethyl benzene (ccc)	52800	657	2.73E-06	2640	34	1.00E-06	1.86E-01	2.13E-01		pass	pass
Styrene	52800	657	2.73E-06	2640	34	1.00E-06	5.83E-02	4.16E-02		pass	pass
m,p-Xylene	52800	657	2.73E-06	2640	34	1.00E-06	2.23E-01	2.13E-01		pass	pass
o-Xylene	52800	657	2.73E-06	2640	34	1.00E-06	2.23E-01	2.13E-01		pass	pass
1,3-Dichlorobenzene	52800	657	2.73E-06	2640	34	1.00E-06					
1,4-Dichlorobenzene	52800	657	2.73E-06	2640	34	1.00E-06		2.94E-02	6.26E-04	pass	pass
n-Butyl benzene	52800	657	2.73E-06	2640	34	1.00E-06		1.73E-02		pass	pass
1,2-Dichlorobenzene	52800	657	2.73E-06	2640	34	1.00E-06	1.03E-01	7.35E-02		pass	pass
Isopropyl benzene	52800	657	2.73E-06	2640	34	1.00E-06		1.21E-01		pass	pass
1,2,3-Trichloropropane	52800	657	2.73E-06	2640	34	1.00E-06					
Bromobenzene	52800	657	2.73E-06	2640	34	1.00E-06					
n-Propylbenzene	52800	657	2.73E-06	2640	34	1.00E-06		1.22E-02		pass	pass
2-Chlorotoluene	52800	657	2.73E-06	2640	34	1.00E-06					
4-Chlorotoluene	52800	657	2.73E-06	2640	34	1.00E-06					
1,3,5-Trimethyl benzene	52800	657	2.73E-06	2640	34	1.00E-06		6.03E-02		pass	pass
tert-Butyl benzene	52800	657	2.73E-06	2640	34	1.00E-06		1.74E-02		pass	pass
1,2,4-Trimethyl benzene	52800	657	2.73E-06	2640	34	1.00E-06		8.82E-02		pass	pass
sec-Butyl benzene	52800	657	2.73E-06	2640	34	1.00E-06					
4-Isopropyl toluene	52800	657	2.73E-06	2640	34	1.00E-06		9.55E-03		pass	pass
1,2-Dibromo-3-chloropropane	52800	657	2.73E-06	2640	34	1.00E-06		4.74E-04	6.27E-03	pass	pass
1,2,4-Trichlorobenzene	52800	657	2.73E-06	2640	34	1.00E-06					
Hexachlorobutadiene	52800	657	2.73E-06	2640	34	1.00E-06					
Naphthalene	52800	657	2.73E-06	2640	34	1.00E-06	2.71E-02	2.55E-02		pass	pass
1,2,3-Trichlorobenzene	52800	657	2.73E-06	2640	34	1.00E-06					
Total VOCs	3696000	45982	1.91E-04	184800	2363	7.02E-05	2.97E+00	3.29E+00	7.47E-03		

TABLE G-4-D
VOC Mass Emission Rate
Batch Run 4 Summary

Process: Batch Unit
Date Sampled: 06/13/98

	Inlet			Outlet				Maximum Allowable			Pass/Fail	
	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	DRE	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
	ng	µg/m³	g/s	ng	µg/m³	g/s	%	g/s	g/s	g/s		
Bromochloromethane												
Dichlorodifluoromethane												
Chloromethane	3367400	57376	4.20E-04	62543	1047	5.63E-05	98.2	1.80E-02	5.14E-03		pass	pass
Vinyl chloride (ccc)									6.37E-03	5.02E-05	pass	pass
Bromomethane	88400	1506	1.10E-05				100.0		1.91E-03		pass	pass
Trichlorofluoromethane												
Chloroethane								4.46E-04	1.27E-04		pass	pass
Methylene chloride									8.53E-05		pass	pass
Acetone	5982000	101925	7.46E-04	78200	1309	7.04E-05	98.7	6.11E-01	5.82E-01		pass	pass
Freon-113												
Carbon Disulfide	682600	11631	8.51E-05	6823	114	6.15E-06	99.0		1.52E-02		pass	pass
1,1-Dichloroethene (ccc)								2.71E-02	9.80E-03		pass	pass
Iodomethane	155600	2651	1.94E-05	1476	25	1.33E-06	99.1		5.88E-03		pass	pass
1,1-Dichloroethane												
methyl-tert-butyl-ether												
trans-1,2-Dichloroethene												
Vinyl Acetate												
cis-1,2-Dichloroethene												
2,2-Dichloropropane												
Chloroform (ccc)												
1,2-Dichloroethane												
2-Butanone	2331000	39717	2.91E-04	34481	577	3.11E-05	98.5	3.04E-01	2.89E-01		pass	pass
1,1,1-Trichloroethane								8.44E-01	9.36E-01		pass	pass
Carbon tetrachloride									1.52E-05		pass	pass
1,1-Dichloropropene												
1,2-Dichloropropane (ccc)												
Bromodichloromethane												
Dibromomethane												
cis-1,3-Dichloropropene												
Trichloroethene												
Benzene	6657000	113426	8.30E-04	124030	2077	1.12E-04	98.2	2.74E-03	7.84E-04	5.19E-04	*FAIL*	pass
2-chloroethylvinyl Ether												
1,3-Dichloropropane												
Dibromochloromethane												
1,2-Dibromoethane												
trans-1,3-Dichloropropene												
1,1,2-Trichloroethane												
4-Methyl-2-Pentanone	110630	1885	1.38E-05	1404	24	1.26E-06	98.8	1.05E-01	1.00E-01		pass	pass
2-Hexanone	100210	1707	1.25E-05	2296	38	2.07E-06	97.7		9.80E-03		pass	pass
Tetrachloroethene								2.35E-01	8.33E-02		pass	pass
1-Chlorohexane	17300	295	2.16E-06				100.0					
1,1,1,2-Tetrachloroethane												
Bromoform												
1,1,2,2-Tetrachloroethane												
Toluene (ccc)	5425000	92435	6.76E-04	101900	1706	9.18E-05	98.2		9.21E-02		pass	pass
Chlorobenzene									2.25E-02		pass	pass
Ethyl benzene (ccc)	1706500	29077	2.13E-04	20890	350	1.88E-05	98.8	1.86E-01	2.13E-01		pass	pass
Styrene	651800	11106	8.12E-05	16070	269	1.45E-05	97.6	5.83E-02	4.16E-02		pass	pass
m,p-Xylene	2148500	36608	2.68E-04	31830	533	2.87E-05	98.5	2.23E-01	2.13E-01		pass	pass
o-Xylene	1051700	17920	1.31E-04	16620	278	1.50E-05	98.4	2.23E-01	2.13E-01		pass	pass
1,3-Dichlorobenzene												
1,4-Dichlorobenzene									2.94E-02	6.26E-04	pass	pass
n-Butyl benzene									1.73E-02		pass	pass
1,2-Dichlorobenzene								1.03E-01	7.35E-02		pass	pass
Isopropyl benzene	291400	4965	3.63E-05	5140	86	4.63E-06	98.3		1.21E-01		pass	pass
1,2,3-Trichloropropane												
Bromobenzene												
n-Propylbenzene	117410	2001	1.46E-05	2231	37	2.01E-06	98.1		1.22E-02		pass	pass
2-Chlorotoluene												
4-Chlorotoluene												
1,3,5-Trimethyl benzene	194500	3314	2.42E-05	3780	63	3.40E-06	98.1		6.03E-02		pass	pass
tert-Butyl benzene	14990	255	1.87E-06	364	6	3.28E-07	97.6		1.74E-02		pass	pass
1,2,4-Trimethyl benzene	164830	2808	2.05E-05	6650	111	5.99E-06	96.0		8.82E-02		pass	pass
sec-Butyl benzene												
4-Isopropyl toluene	57100	973	7.12E-06	16950	284	1.53E-05	70.8		9.55E-03		pass	pass
1,2-Dibromo-3-chloropropane									4.74E-04	6.27E-03	pass	pass
1,2,4-Trichlorobenzene												
Hexachlorobutadiene												
Naphthalene				336	6	3.03E-07		2.71E-02	2.55E-02		pass	pass
1,2,3-Trichlorobenzene												
Total VOCs	31315870	533581	3.90E-03	534014	8940	4.81E-04	98.3	2.97E+00	3.29E+00	7.47E-03		

TABLE G-4-D-DL
VOC Mass Emission Rate at Detection Limit
Batch Run 4 Summary

Process: Batch Unit
Date Sampled: 06/13/98

	At Detection Limit										
	Inlet			Outlet			Maximum Allowable			Pass/Fail	
	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
	ng	μg/m³	g/s	ng	μg/m³	g/s	g/s	g/s	g/s		
Bromochloromethane	39600	675	4.94E-06	1980	33	1.78E-06					
Dichlorodifluoromethane	39600	675	4.94E-06	1980	33	1.78E-06					
Chloromethane	39600	675	4.94E-06	1980	33	1.78E-06	1.80E-02	5.14E-03		pass	pass
Vinyl chloride (ccc)	39600	675	4.94E-06	1980	33	1.78E-06		6.37E-03	5.02E-05	pass	pass
Bromomethane	39600	675	4.94E-06	1980	33	1.78E-06		1.91E-03		pass	pass
Trichlorofluoromethane	39600	675	4.94E-06	1980	33	1.78E-06					
Chloroethane	39600	675	4.94E-06	1980	33	1.78E-06	4.46E-04	1.27E-04		pass	pass
Methylene chloride	39600	675	4.94E-06	1980	33	1.78E-06		8.53E-05		pass	pass
Acetone	39600	675	4.94E-06	1980	33	1.78E-06	6.11E-01	5.82E-01		pass	pass
Freon-113	39600	675	4.94E-06	1980	33	1.78E-06					
Carbon Disulfide	39600	675	4.94E-06	1980	33	1.78E-06		1.52E-02		pass	pass
1,1-Dichloroethene (ccc)	39600	675	4.94E-06	1980	33	1.78E-06	2.71E-02	9.80E-03		pass	pass
Iodomethane	39600	675	4.94E-06	1980	33	1.78E-06		5.88E-03		pass	pass
1,1-Dichloroethane	39600	675	4.94E-06	1980	33	1.78E-06					
methyl-tert-butyl-ether	39600	675	4.94E-06	1980	33	1.78E-06					
trans-1,2-Dichloroethene	39600	675	4.94E-06	1980	33	1.78E-06					
Vinyl Acetate	39600	675	4.94E-06	1980	33	1.78E-06					
cis-1,2-Dichloroethene	39600	675	4.94E-06	1980	33	1.78E-06					
2,2-Dichloropropane	39600	675	4.94E-06	1980	33	1.78E-06					
Chloroform (ccc)	39600	675	4.94E-06	1980	33	1.78E-06					
1,2-Dichloroethane	39600	675	4.94E-06	1980	33	1.78E-06					
2-Butanone	39600	675	4.94E-06	1980	33	1.78E-06	3.04E-01	2.89E-01		pass	pass
1,1,1-Trichloroethane	39600	675	4.94E-06	1980	33	1.78E-06	8.44E-01	9.36E-01		pass	pass
Carbon tetrachloride	39600	675	4.94E-06	1980	33	1.78E-06		1.52E-05		pass	pass
1,1-Dichloropropene	39600	675	4.94E-06	1980	33	1.78E-06					
1,2-Dichloropropane (ccc)	39600	675	4.94E-06	1980	33	1.78E-06					
Bromodichloromethane	39600	675	4.94E-06	1980	33	1.78E-06					
Dibromomethane	39600	675	4.94E-06	1980	33	1.78E-06					
cis-1,3-Dichloropropene	39600	675	4.94E-06	1980	33	1.78E-06					
Trichloroethene	39600	675	4.94E-06	1980	33	1.78E-06					
Benzene	39600	675	4.94E-06	1980	33	1.78E-06	2.74E-03	7.84E-04	5.19E-04	pass	pass
2-chloroethylvinyl Ether	39600	675	4.94E-06	1980	33	1.78E-06					
1,3-Dichloropropane	39600	675	4.94E-06	1980	33	1.78E-06					
Dibromochloromethane	39600	675	4.94E-06	1980	33	1.78E-06					
1,2-Dibromoethane	39600	675	4.94E-06	1980	33	1.78E-06					
trans-1,3-Dichloropropene	39600	675	4.94E-06	1980	33	1.78E-06					
1,1,2-Trichloroethane	39600	675	4.94E-06	1980	33	1.78E-06					
4-Methyl-2-Pentanone	39600	675	4.94E-06	1980	33	1.78E-06	1.05E-01	1.00E-01		pass	pass
2-Hexanone	39600	675	4.94E-06	1980	33	1.78E-06		9.80E-03		pass	pass
Tetrachloroethene	39600	675	4.94E-06	1980	33	1.78E-06	2.35E-01	8.33E-02		pass	pass
1-Chlorohexane	39600	675	4.94E-06	1980	33	1.78E-06					
1,1,1,2-Tetrachloroethane	39600	675	4.94E-06	1980	33	1.78E-06					
Bromoform	39600	675	4.94E-06	1980	33	1.78E-06					
1,1,2,2-Tetrachloroethane	39600	675	4.94E-06	1980	33	1.78E-06					
Toluene (ccc)	39600	675	4.94E-06	1980	33	1.78E-06		9.21E-02		pass	pass
Chlorobenzene	39600	675	4.94E-06	1980	33	1.78E-06		2.25E-02		pass	pass
Ethyl benzene (ccc)	39600	675	4.94E-06	1980	33	1.78E-06	1.86E-01	2.13E-01		pass	pass
Styrene	39600	675	4.94E-06	1980	33	1.78E-06	5.83E-02	4.16E-02		pass	pass
m,p-Xylene	39600	675	4.94E-06	1980	33	1.78E-06	2.23E-01	2.13E-01		pass	pass
o-Xylene	39600	675	4.94E-06	1980	33	1.78E-06	2.23E-01	2.13E-01		pass	pass
1,3-Dichlorobenzene	39600	675	4.94E-06	1980	33	1.78E-06					
1,4-Dichlorobenzene	39600	675	4.94E-06	1980	33	1.78E-06		2.94E-02	6.26E-04	pass	pass
n-Butyl benzene	39600	675	4.94E-06	1980	33	1.78E-06		1.73E-02		pass	pass
1,2-Dichlorobenzene	39600	675	4.94E-06	1980	33	1.78E-06	1.03E-01	7.35E-02		pass	pass
Isopropyl benzene	39600	675	4.94E-06	1980	33	1.78E-06		1.21E-01		pass	pass
1,2,3-Trichloropropane	39600	675	4.94E-06	1980	33	1.78E-06					
Bromobenzene	39600	675	4.94E-06	1980	33	1.78E-06					
n-Propylbenzene	39600	675	4.94E-06	1980	33	1.78E-06		1.22E-02		pass	pass
2-Chlorotoluene	39600	675	4.94E-06	1980	33	1.78E-06					
4-Chlorotoluene	39600	675	4.94E-06	1980	33	1.78E-06					
1,3,5-Trimethyl benzene	39600	675	4.94E-06	1980	33	1.78E-06		6.03E-02		pass	pass
tert-Butyl benzene	39600	675	4.94E-06	1980	33	1.78E-06		1.74E-02		pass	pass
1,2,4-Trimethyl benzene	39600	675	4.94E-06	1980	33	1.78E-06		8.82E-02		pass	pass
sec-Butyl benzene	39600	675	4.94E-06	1980	33	1.78E-06					
4-Isopropyl toluene	39600	675	4.94E-06	1980	33	1.78E-06		9.55E-03		pass	pass
1,2-Dibromo-3-chloropropane	39600	675	4.94E-06	1980	33	1.78E-06		4.74E-04	6.27E-03	pass	pass
1,2,4-Trichlorobenzene	39600	675	4.94E-06	1980	33	1.78E-06					
Hexachlorobutadiene	39600	675	4.94E-06	1980	33	1.78E-06					
Naphthalene	39600	675	4.94E-06	1980	33	1.78E-06	2.71E-02	2.55E-02		pass	pass
1,2,3-Trichlorobenzene	39600	675	4.94E-06	1980	33	1.78E-06					
Total VOCs	2772000	47231	3.46E-04	138600	2320	1.25E-04	2.97E+00	3.29E+00	7.47E-03		

TABLE G-4-E
VOC Mass Emission Rate
Continuous Run 1 Summary

Process: Continuous Unit
Date Sampled: 06/10/98

Analytes	Inlet			Outlet				Maximum Allowable			Pass/Fail	
	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	DRE	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
	ng	μg/m³	g/s	ng	μg/m³	g/s	%	g/s	g/s	g/s		
Bromochloromethane												
Dichlorodifluoromethane												
Chloromethane	829800	14411	3.31E-03	5504	87	1.63E-05	99.4	2.51E-01	7.17E-02		pass	pass
Vinyl chloride (ccc)									8.88E-02	6.99E-04	pass	pass
Bromomethane	20680	359	8.24E-05				100.0		2.66E-02		pass	pass
Trichlorofluoromethane												
Chloroethane								6.22E-03	1.78E-03		pass	pass
Methylene chloride									1.19E-03		pass	pass
Acetone	1597400	27742	6.36E-03	35160	554	1.04E-04	98.0	8.52E+00	8.12E+00		pass	pass
Freon-113												
Carbon Disulfide	28770	500	1.15E-04				100.0		2.12E-01		pass	pass
1,1-Dichloroethene (ccc)								3.78E-01	1.37E-01		pass	pass
Iodomethane	29480	512	1.17E-04				100.0		8.20E-02		pass	pass
1,1-Dichloroethane												
methyl-tert-butyl-ether												
trans-1,2-Dichloroethene												
Vinyl Acetate												
cis-1,2-Dichloroethene												
2,2-Dichloropropane												
Chloroform (ccc)												
1,2-Dichloroethane												
2-Butanone	241100	4187	9.60E-04	5514	87	1.63E-05	97.9	4.23E+00	4.03E+00		pass	pass
1,1,1-Trichloroethane								1.18E+01	1.30E+01		pass	pass
Carbon tetrachloride									2.12E-04		pass	pass
1,1-Dichloropropene												
1,2-Dichloropropane (ccc)												
Bromodichloromethane												
Dibromomethane												
cis-1,3-Dichloropropene												
Trichloroethene												
Benzene	2091000	36315	8.33E-03	95730	1508	2.83E-04	95.8	3.83E-02	1.09E-02	7.23E-03	FAIL	pass
2-chloroethylvinyl Ether												
1,3-Dichloropropane												
Dibromochloromethane												
1,2-Dibromoethane												
trans-1,3-Dichloropropene												
1,1,2-Trichloroethane												
4-Methyl-2-Pentanone	14160	246	5.64E-05				100.0	1.47E+00	1.40E+00		pass	pass
2-Hexanone	21010	365	8.37E-05				100.0		1.37E-01		pass	pass
Tetrachloroethene								3.28E+00	1.16E+00		pass	pass
1-Chlorohexane												
1,1,1,2-Tetrachloroethane												
Bromoform												
1,1,2,2-Tetrachloroethane												
Toluene (ccc)	1239000	21518	4.94E-03	41927	660	1.24E-04	96.9		1.28E+00		pass	pass
Chlorobenzene	2350	41	9.36E-06				100.0		3.14E-01		pass	pass
Ethyl benzene (ccc)	539500	9370	2.15E-03	4750	75	1.41E-05	99.2	2.60E+00	2.97E+00		pass	pass
Styrene	488000	8475	1.94E-03	7770	122	2.30E-05	98.6	8.13E-01	5.81E-01		pass	pass
m,p-Xylene	735400	12772	2.93E-03	8200	129	2.43E-05	99.0	3.11E+00	2.97E+00		pass	pass
o-Xylene	333300	5788	1.33E-03	3850	61	1.14E-05	99.0	3.11E+00	2.97E+00		pass	pass
1,3-Dichlorobenzene												
1,4-Dichlorobenzene									4.10E-01	8.73E-03	pass	pass
n-Butyl benzene	2910	51	1.16E-05				100.0		2.41E-01		pass	pass
1,2-Dichlorobenzene								1.44E+00	1.02E+00		pass	pass
Isopropyl benzene	129240	2245	5.15E-04	1042	16	3.08E-06	99.3		1.68E+00		pass	pass
1,2,3-Trichloropropane												
Bromobenzene												
n-Propylbenzene	69620	1209	2.77E-04				100.0		1.69E-01		pass	pass
2-Chlorotoluene												
4-Chlorotoluene												
1,3,5-Trimethyl benzene	285590	4960	1.14E-03	2480	39	7.34E-06	99.2		8.40E-01		pass	pass
tert-Butyl benzene	26800	465	1.07E-04				100.0		2.43E-01		pass	pass
1,2,4-Trimethyl benzene	174760	3035	6.96E-04	1338	21	3.96E-06	99.3		1.23E+00		pass	pass
sec-Butyl benzene	2960	51	1.18E-05				100.0					
4-Isopropyl toluene	108070	1877	4.30E-04				100.0		1.33E-01		pass	pass
1,2-Dibromo-3-chloropropane									6.60E-03	8.75E-02	pass	pass
1,2,4-Trichlorobenzene												
Hexachlorobutadiene												
Naphthalene	243930	4236	9.72E-04				100.0	3.78E-01	3.55E-01		pass	pass
1,2,3-Trichlorobenzene												
Total VOCs	9254830	160730	3.69E-02	213265	3360	6.31E-04	97.9	4.14E+01	4.59E+01	1.04E-01		

TABLE G-4-E-DL
VOC Mass Emission Rate at Detection Limit
Continuous Test 1 Summary

Process: Continuous Unit
Date Sampled: 06/10/98

	At Detection Limit										
	Inlet			Outlet			Maximum Allowable			Pass/Fail	
Analytes	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
	ng	µg/m³	g/s	ng	µg/m³	g/s	g/s	g/s	g/s		
Bromochloromethane	7920	138	3.15E-05	1980	31	5.86E-06					
Dichlorodifluoromethane	7920	138	3.15E-05	1980	31	5.86E-06					
Chloromethane	7920	138	3.15E-05	1980	31	5.86E-06	2.51E-01	7.17E-02		pass	pass
Vinyl chloride (ccc)	7920	138	3.15E-05	1980	31	5.86E-06		8.88E-02	6.99E-04	pass	pass
Bromomethane	7920	138	3.15E-05	1980	31	5.86E-06		2.66E-02		pass	pass
Trichlorofluoromethane	7920	138	3.15E-05	1980	31	5.86E-06					
Chloroethane	7920	138	3.15E-05	1980	31	5.86E-06	6.22E-03	1.78E-03		pass	pass
Methylene chloride	7920	138	3.15E-05	1980	31	5.86E-06		1.19E-03		pass	pass
Acetone	7920	138	3.15E-05	1980	31	5.86E-06					
Freon-113	7920	138	3.15E-05	1980	31	5.86E-06					
Carbon Disulfide	7920	138	3.15E-05	1980	31	5.86E-06		2.12E-01		pass	pass
1,1-Dichloroethene (ccc)	7920	138	3.15E-05	1980	31	5.86E-06	3.78E-01	1.37E-01		pass	pass
Iodomethane	7920	138	3.15E-05	1980	31	5.86E-06					
1,1-Dichloroethane	7920	138	3.15E-05	1980	31	5.86E-06					
methyl-tert-butyl-ether	7920	138	3.15E-05	1980	31	5.86E-06					
trans-1,2-Dichloroethene	7920	138	3.15E-05	1980	31	5.86E-06					
Vinyl Acetate	7920	138	3.15E-05	1980	31	5.86E-06					
cis-1,2-Dichloroethene	7920	138	3.15E-05	1980	31	5.86E-06					
2,2-Dichloropropane	7920	138	3.15E-05	1980	31	5.86E-06					
Chloroform (ccc)	7920	138	3.15E-05	1980	31	5.86E-06					
1,2-Dichloroethane	7920	138	3.15E-05	1980	31	5.86E-06					
2-Butanone	7920	138	3.15E-05	1980	31	5.86E-06					
1,1,1-Trichloroethane	7920	138	3.15E-05	1980	31	5.86E-06	1.18E+01	1.30E+01		pass	pass
Carbon tetrachloride	7920	138	3.15E-05	1980	31	5.86E-06		2.12E-04		pass	pass
1,1-Dichloropropene	7920	138	3.15E-05	1980	31	5.86E-06					
1,2-Dichloropropane (ccc)	7920	138	3.15E-05	1980	31	5.86E-06					
Bromodichloromethane	7920	138	3.15E-05	1980	31	5.86E-06					
Dibromomethane	7920	138	3.15E-05	1980	31	5.86E-06					
cis-1,3-Dichloropropene	7920	138	3.15E-05	1980	31	5.86E-06					
Trichloroethene	7920	138	3.15E-05	1980	31	5.86E-06					
Benzene	7920	138	3.15E-05	1980	31	5.86E-06	3.83E-02	1.09E-02	7.23E-03	pass	pass
2-chloroethylvinyl Ether	7920	138	3.15E-05	1980	31	5.86E-06					
1,3-Dichloropropane	7920	138	3.15E-05	1980	31	5.86E-06					
Dibromochloromethane	7920	138	3.15E-05	1980	31	5.86E-06					
1,2-Dibromoethane	7920	138	3.15E-05	1980	31	5.86E-06					
trans-1,3-Dichloropropene	7920	138	3.15E-05	1980	31	5.86E-06					
1,1,2-Trichloroethane	7920	138	3.15E-05	1980	31	5.86E-06					
4-Methyl-2-Pentanone	7920	138	3.15E-05	1980	31	5.86E-06					
2-Hexanone	7920	138	3.15E-05	1980	31	5.86E-06					
Tetrachloroethene	7920	138	3.15E-05	1980	31	5.86E-06	3.28E+00	1.16E+00		pass	pass
1-Chlorohexane	7920	138	3.15E-05	1980	31	5.86E-06					
1,1,1,2-Tetrachloroethane	7920	138	3.15E-05	1980	31	5.86E-06					
Bromoform	7920	138	3.15E-05	1980	31	5.86E-06					
1,1,2,2-Tetrachloroethane	7920	138	3.15E-05	1980	31	5.86E-06					
Toluene (ccc)	7920	138	3.15E-05	1980	31	5.86E-06		1.28E+00		pass	pass
Chlorobenzene	7920	138	3.15E-05	1980	31	5.86E-06		3.14E-01		pass	pass
Ethyl benzene (ccc)	7920	138	3.15E-05	1980	31	5.86E-06	2.60E+00	2.97E+00		pass	pass
Styrene	7920	138	3.15E-05	1980	31	5.86E-06	8.13E-01	5.81E-01		pass	pass
m,p-Xylene	7920	138	3.15E-05	1980	31	5.86E-06	3.11E+00	2.97E+00		pass	pass
o-Xylene	7920	138	3.15E-05	1980	31	5.86E-06	3.11E+00	2.97E+00		pass	pass
1,3-Dichlorobenzene	7920	138	3.15E-05	1980	31	5.86E-06					
1,4-Dichlorobenzene	7920	138	3.15E-05	1980	31	5.86E-06		4.10E-01	8.73E-03	pass	pass
n-Butyl benzene	7920	138	3.15E-05	1980	31	5.86E-06					
1,2-Dichlorobenzene	7920	138	3.15E-05	1980	31	5.86E-06	1.44E+00	1.02E+00		pass	pass
Isopropyl benzene	7920	138	3.15E-05	1980	31	5.86E-06					
1,2,3-Trichloropropane	7920	138	3.15E-05	1980	31	5.86E-06					
Bromobenzene	7920	138	3.15E-05	1980	31	5.86E-06					
n-Propylbenzene	7920	138	3.15E-05	1980	31	5.86E-06					
2-Chlorotoluene	7920	138	3.15E-05	1980	31	5.86E-06					
4-Chlorotoluene	7920	138	3.15E-05	1980	31	5.86E-06					
1,3,5-Trimethyl benzene	7920	138	3.15E-05	1980	31	5.86E-06					
tert-Butyl benzene	7920	138	3.15E-05	1980	31	5.86E-06					
1,2,4-Trimethyl benzene	7920	138	3.15E-05	1980	31	5.86E-06					
sec-Butyl benzene	7920	138	3.15E-05	1980	31	5.86E-06					
4-Isopropyl toluene	7920	138	3.15E-05	1980	31	5.86E-06					
1,2-Dibromo-3-chloropropane	7920	138	3.15E-05	1980	31	5.86E-06					
1,2,4-Trichlorobenzene	7920	138	3.15E-05	1980	31	5.86E-06					
Hexachlorobutadiene	7920	138	3.15E-05	1980	31	5.86E-06					
Naphthalene	7920	138	3.15E-05	1980	31	5.86E-06	3.78E-01	3.55E-01		pass	pass
1,2,3-Trichlorobenzene	7920	138	3.15E-05	1980	31	5.86E-06					
Total VOCs	554400	9628	2.21E-03	138600	2183	4.10E-04	2.72E+01	2.76E+01	1.67E-02		

TABLE G-4-F
VOC Mass Emission Rate
Continuous Run 2 Summary

Process: Continuous Unit
Date Sampled: 06/11/98

Analytes	Inlet			Outlet				Maximum Allowable			Pass/Fail	
	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	DRE	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
	ng	µg/m³	g/s	ng	µg/m³	g/s	%	g/s	g/s	g/s		
Bromochloromethane												
Dichlorodifluoromethane												
Chloromethane	592400	10046	3.05E-03	2025	33	8.30E-06	99.7	2.51E-01	7.17E-02		pass	pass
Vinyl chloride (ccc)									8.88E-02	6.99E-04	pass	pass
Bromomethane	6320	107	3.25E-05				100.0		2.66E-02		pass	pass
Trichlorofluoromethane												
Chloroethane								6.22E-03	1.78E-03		pass	pass
Methylene chloride									1.19E-03		pass	pass
Acetone	1725600	29262	8.88E-03	17850	294	7.32E-05	99.0	8.52E+00	8.12E+00		pass	pass
Freon-113												
Carbon Disulfide	24170	410	1.24E-04				100.0		2.12E-01		pass	pass
1,1-Dichloroethene (ccc)								3.78E-01	1.37E-01		pass	pass
Iodomethane	23640	401	1.22E-04				100.0		8.20E-02		pass	pass
1,1-Dichloroethane												
methyl-tert-butyl-ether												
trans-1,2-Dichloroethene												
Vinyl Acetate												
cis-1,2-Dichloroethene												
2,2-Dichloropropane												
Chloroform (ccc)												
1,2-Dichloroethane												
2-Butanone	279600	4741	1.44E-03	2705	45	1.11E-05	99.1	4.23E+00	4.03E+00		pass	pass
1,1,1-Trichloroethane								1.18E+01	1.30E+01		pass	pass
Carbon tetrachloride	4170	71	2.15E-05				100.0		2.12E-04		pass	pass
1,1-Dichloropropene												
1,2-Dichloropropane (ccc)												
Bromodichloromethane												
Dibromomethane												
cis-1,3-Dichloropropene												
Trichloroethene												
Benzene	2029000	34407	1.04E-02	52740	868	2.16E-04	97.5	3.83E-02	1.09E-02	7.23E-03	FAIL	pass
2-chloroethylvinyl Ether												
1,3-Dichloropropane												
Dibromochloromethane												
1,2-Dibromoethane												
trans-1,3-Dichloropropene	4490	76	2.31E-05				100.0					
1,1,2-Trichloroethane												
4-Methyl-2-Pentanone	6530	111	3.36E-05				100.0	1.47E+00	1.40E+00		pass	pass
2-Hexanone	12280	208	6.32E-05				100.0		1.37E-01		pass	pass
Tetrachloroethene								3.28E+00	1.16E+00		pass	pass
1-Chlorohexane												
1,1,1,2-Tetrachloroethane												
Bromoform												
1,1,2,2-Tetrachloroethane												
Toluene (ccc)	911300	15454	4.69E-03	16938	279	6.95E-05	98.2		1.28E+00		pass	pass
Chlorobenzene									3.14E-01		pass	pass
Ethyl benzene (ccc)	379300	6432	1.95E-03	2087	34	8.56E-06	99.5	2.60E+00	2.97E+00		pass	pass
Styrene	319000	5410	1.64E-03	2790	46	1.14E-05	99.2	8.13E-01	5.81E-01		pass	pass
m,p-Xylene	510100	8650	2.62E-03	3510	58	1.44E-05	99.3	3.11E+00	2.97E+00		pass	pass
o-Xylene	237400	4026	1.22E-03	1626	27	6.67E-06	99.3	3.11E+00	2.97E+00		pass	pass
1,3-Dichlorobenzene												
1,4-Dichlorobenzene									4.10E-01	8.73E-03	pass	pass
n-Butyl benzene									2.41E-01		pass	pass
1,2-Dichlorobenzene								1.44E+00	1.02E+00		pass	pass
Isopropyl benzene	52190	885	2.69E-04				100.0		1.68E+00		pass	pass
1,2,3-Trichloropropane												
Bromobenzene												
n-Propylbenzene	25770	437	1.33E-04				100.0		1.69E-01		pass	pass
2-Chlorotoluene												
4-Chlorotoluene	4060	69	2.09E-05				100.0					
1,3,5-Trimethyl benzene	127980	2170	6.59E-04	1206	20	4.95E-06	99.1		8.40E-01		pass	pass
tert-Butyl benzene	9220	156	4.74E-05				100.0		2.43E-01		pass	pass
1,2,4-Trimethyl benzene	74180	1258	3.82E-04				100.0		1.23E+00		pass	pass
sec-Butyl benzene												
4-Isopropyl toluene	32170	546	1.66E-04				100.0		1.33E-01		pass	pass
1,2-Dibromo-3-chloropropane									6.60E-03	8.75E-02	pass	pass
1,2,4-Trichlorobenzene												
Hexachlorobutadiene												
Naphthalene	51350	871	2.64E-04				100.0	3.78E-01	3.55E-01		pass	pass
1,2,3-Trichlorobenzene												
Total VOCs	7442220	126203	3.83E-02	103477	1703	4.24E-04	98.7	4.14E+01	4.59E+01	1.04E-01		

TABLE G-4-F-DL
VOC Mass Emission Rate at Detection Limit
Continuous Test 2 Summary

Process: Continuous Unit
Date Sampled: 06/11/98

Analytes	At Detection Limit						Maximum Allowable			Pass/Fail	
	Inlet			Outlet							
	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
	ng	µg/m³	g/s	ng	µg/m³	g/s	g/s	g/s	g/s		
Bromochloromethane	7920	134	4.08E-05	1980	33	8.12E-06					
Dichlorodifluoromethane	7920	134	4.08E-05	1980	33	8.12E-06					
Chloromethane	7920	134	4.08E-05	1980	33	8.12E-06	2.51E-01	7.17E-02		pass	pass
Vinyl chloride (ccc)	7920	134	4.08E-05	1980	33	8.12E-06		8.88E-02	6.99E-04	pass	pass
Bromomethane	7920	134	4.08E-05	1980	33	8.12E-06		2.66E-02		pass	pass
Trichlorofluoromethane	7920	134	4.08E-05	1980	33	8.12E-06					
Chloroethane	7920	134	4.08E-05	1980	33	8.12E-06	6.22E-03	1.78E-03		pass	pass
Methylene chloride	7920	134	4.08E-05	1980	33	8.12E-06		1.19E-03		pass	pass
Acetone	7920	134	4.08E-05	1980	33	8.12E-06					
Freon-113	7920	134	4.08E-05	1980	33	8.12E-06					
Carbon Disulfide	7920	134	4.08E-05	1980	33	8.12E-06		2.12E-01		pass	pass
1,1-Dichloroethene (ccc)	7920	134	4.08E-05	1980	33	8.12E-06	3.78E-01	1.37E-01		pass	pass
Iodomethane	7920	134	4.08E-05	1980	33	8.12E-06					
1,1-Dichloroethane	7920	134	4.08E-05	1980	33	8.12E-06					
methyl-tert-butyl-ether	7920	134	4.08E-05	1980	33	8.12E-06					
trans-1,2-Dichloroethene	7920	134	4.08E-05	1980	33	8.12E-06					
Vinyl Acetate	7920	134	4.08E-05	1980	33	8.12E-06					
cis-1,2-Dichloroethene	7920	134	4.08E-05	1980	33	8.12E-06					
2,2-Dichloropropane	7920	134	4.08E-05	1980	33	8.12E-06					
Chloroform (ccc)	7920	134	4.08E-05	1980	33	8.12E-06					
1,2-Dichloroethane	7920	134	4.08E-05	1980	33	8.12E-06					
2-Butanone	7920	134	4.08E-05	1980	33	8.12E-06					
1,1,1-Trichloroethane	7920	134	4.08E-05	1980	33	8.12E-06	1.18E+01	1.30E+01		pass	pass
Carbon tetrachloride	7920	134	4.08E-05	1980	33	8.12E-06		2.12E-04		pass	pass
1,1-Dichloropropene	7920	134	4.08E-05	1980	33	8.12E-06					
1,2-Dichloropropane (ccc)	7920	134	4.08E-05	1980	33	8.12E-06					
Bromodichloromethane	7920	134	4.08E-05	1980	33	8.12E-06					
Dibromomethane	7920	134	4.08E-05	1980	33	8.12E-06					
cis-1,3-Dichloropropene	7920	134	4.08E-05	1980	33	8.12E-06					
Trichloroethene	7920	134	4.08E-05	1980	33	8.12E-06					
Benzene	7920	134	4.08E-05	1980	33	8.12E-06	3.83E-02	1.09E-02	7.23E-03	pass	pass
2-chloroethylvinyl Ether	7920	134	4.08E-05	1980	33	8.12E-06					
1,3-Dichloropropane	7920	134	4.08E-05	1980	33	8.12E-06					
Dibromochloromethane	7920	134	4.08E-05	1980	33	8.12E-06					
1,2-Dibromoethane	7920	134	4.08E-05	1980	33	8.12E-06					
trans-1,3-Dichloropropene	7920	134	4.08E-05	1980	33	8.12E-06					
1,1,2-Trichloroethane	7920	134	4.08E-05	1980	33	8.12E-06					
4-Methyl-2-Pentanone	7920	134	4.08E-05	1980	33	8.12E-06					
2-Hexanone	7920	134	4.08E-05	1980	33	8.12E-06					
Tetrachloroethene	7920	134	4.08E-05	1980	33	8.12E-06	3.28E+00	1.16E+00		pass	pass
1-Chlorohexane	7920	134	4.08E-05	1980	33	8.12E-06					
1,1,1,2-Tetrachloroethane	7920	134	4.08E-05	1980	33	8.12E-06					
Bromoform	7920	134	4.08E-05	1980	33	8.12E-06					
1,1,2,2-Tetrachloroethane	7920	134	4.08E-05	1980	33	8.12E-06					
Toluene (ccc)	7920	134	4.08E-05	1980	33	8.12E-06		1.28E+00		pass	pass
Chlorobenzene	7920	134	4.08E-05	1980	33	8.12E-06		3.14E-01		pass	pass
Ethyl benzene (ccc)	7920	134	4.08E-05	1980	33	8.12E-06	2.60E+00	2.97E+00		pass	pass
Styrene	7920	134	4.08E-05	1980	33	8.12E-06	8.13E-01	5.81E-01		pass	pass
m,p-Xylene	7920	134	4.08E-05	1980	33	8.12E-06	3.11E+00	2.97E+00		pass	pass
o-Xylene	7920	134	4.08E-05	1980	33	8.12E-06	3.11E+00	2.97E+00		pass	pass
1,3-Dichlorobenzene	7920	134	4.08E-05	1980	33	8.12E-06					
1,4-Dichlorobenzene	7920	134	4.08E-05	1980	33	8.12E-06		4.10E-01	8.73E-03	pass	pass
n-Butyl benzene	7920	134	4.08E-05	1980	33	8.12E-06					
1,2-Dichlorobenzene	7920	134	4.08E-05	1980	33	8.12E-06	1.44E+00	1.02E+00		pass	pass
Isopropyl benzene	7920	134	4.08E-05	1980	33	8.12E-06					
1,2,3-Trichloropropane	7920	134	4.08E-05	1980	33	8.12E-06					
Bromobenzene	7920	134	4.08E-05	1980	33	8.12E-06					
n-Propylbenzene	7920	134	4.08E-05	1980	33	8.12E-06					
2-Chlorotoluene	7920	134	4.08E-05	1980	33	8.12E-06					
4-Chlorotoluene	7920	134	4.08E-05	1980	33	8.12E-06					
1,3,5-Trimethyl benzene	7920	134	4.08E-05	1980	33	8.12E-06					
tert-Butyl benzene	7920	134	4.08E-05	1980	33	8.12E-06					
1,2,4-Trimethyl benzene	7920	134	4.08E-05	1980	33	8.12E-06					
sec-Butyl benzene	7920	134	4.08E-05	1980	33	8.12E-06					
4-Isopropyl toluene	7920	134	4.08E-05	1980	33	8.12E-06					
1,2-Dibromo-3-chloropropane	7920	134	4.08E-05	1980	33	8.12E-06					
1,2,4-Trichlorobenzene	7920	134	4.08E-05	1980	33	8.12E-06					
Hexachlorobutadiene	7920	134	4.08E-05	1980	33	8.12E-06					
Naphthalene	7920	134	4.08E-05	1980	33	8.12E-06	3.78E-01	3.55E-01		pass	pass
1,2,3-Trichlorobenzene	7920	134	4.08E-05	1980	33	8.12E-06					
Total VOCs	554400	9401	2.85E-03	138600	2281	5.68E-04	2.72E+01	2.76E+01	1.67E-02		

TABLE G-4-G
VOC Mass Emission Rate
Continuous Run 3 Summary

Process: Continuous Unit
Date Sampled 06/12/98

Analytes	Inlet			Outlet				Maximum Allowable			Pass/Fail	
	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	DRE	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
	ng	µg/m³	g/s	ng	µg/m³	g/s	%	g/s	g/s	g/s		
Bromochloromethane												
Dichlorodifluoromethane												
Chloromethane	845300	13990	3.25E-03	2210	37	8.55E-06	99.7	2.51E-01	7.17E-02		pass	pass
Vinyl chloride (ccc)									8.88E-02	6.99E-04	pass	pass
Bromomethane									2.66E-02		pass	pass
Trichlorofluoromethane												
Chloroethane								6.22E-03	1.78E-03		pass	pass
Methylene chloride	16490	273	6.34E-05				100.0		1.19E-03		pass	pass
Acetone	1982000	32804	7.62E-03	17740	298	6.87E-05	99.1	8.52E+00	8.12E+00		pass	pass
Freon-113												
Carbon Disulfide	23220	384	8.92E-05				100.0		2.12E-01		pass	pass
1,1-Dichloroethene (ccc)								3.78E-01	1.37E-01		pass	pass
Iodomethane	27270	451	1.05E-04				100.0		8.20E-02		pass	pass
1,1-Dichloroethane												
methyl-tert-butyl-ether												
trans-1,2-Dichloroethene												
Vinyl Acetate												
cis-1,2-Dichloroethene												
2,2-Dichloropropane												
Chloroform (ccc)												
1,2-Dichloroethane												
2-Butanone	312600	5174	1.20E-03	2687	45	1.04E-05	99.1	4.23E+00	4.03E+00		pass	pass
1,1,1-Trichloroethane								1.18E+01	1.30E+01		pass	pass
Carbon tetrachloride									2.12E-04		pass	pass
1,1-Dichloropropene												
1,2-Dichloropropane (ccc)												
Bromodichloromethane												
Dibromomethane												
cis-1,3-Dichloropropene												
Trichloroethene												
Benzene	5754000	95233	2.21E-02	40150	673	1.55E-04	99.3	3.83E-02	1.09E-02	7.23E-03	FAIL	pass
2-chloroethylvinyl Ether												
1,3-Dichloropropane												
Dibromochloromethane												
1,2-Dibromoethane												
trans-1,3-Dichloropropene												
1,1,2-Trichloroethane												
4-Methyl-2-Pentanone								1.47E+00	1.40E+00		pass	pass
2-Hexanone									1.37E-01		pass	pass
Tetrachloroethene								3.28E+00	1.16E+00		pass	pass
1-Chlorohexane	96400	1595	3.70E-04				100.0					
1,1,1,2-Tetrachloroethane												
Bromoform												
1,1,2,2-Tetrachloroethane												
Toluene (ccc)	2323000	38448	8.93E-03	13160	221	5.09E-05	99.4		1.28E+00		pass	pass
Chlorobenzene									3.14E-01		pass	pass
Ethyl benzene (ccc)	498500	8251	1.92E-03	1640	28	6.35E-06	99.7	2.60E+00	2.97E+00		pass	pass
Styrene	355500	5884	1.37E-03	1997	33	7.73E-06	99.4	8.13E-01	5.81E-01		pass	pass
m,p-Xylene	699100	11571	2.69E-03	2783	47	1.08E-05	99.6	3.11E+00	2.97E+00		pass	pass
o-Xylene	311500	5156	1.20E-03	1285	22	4.97E-06	99.6	3.11E+00	2.97E+00		pass	pass
1,3-Dichlorobenzene												
1,4-Dichlorobenzene									4.10E-01	8.73E-03	pass	pass
n-Butyl benzene									2.41E-01		pass	pass
1,2-Dichlorobenzene								1.44E+00	1.02E+00		pass	pass
Isopropyl benzene	51200	847	1.97E-04				100.0		1.68E+00		pass	pass
1,2,3-Trichloropropane												
Bromobenzene												
n-Propylbenzene	32900	545	1.26E-04				100.0		1.69E-01		pass	pass
2-Chlorotoluene												
4-Chlorotoluene												
1,3,5-Trimethyl benzene	107700	1783	4.14E-04				100.0		8.40E-01		pass	pass
tert-Butyl benzene									2.43E-01		pass	pass
1,2,4-Trimethyl benzene	76170	1261	2.93E-04				100.0		1.23E+00		pass	pass
sec-Butyl benzene												
4-Isopropyl toluene									1.33E-01		pass	pass
1,2-Dibromo-3-chloropropane									6.60E-03	8.75E-02	pass	pass
1,2,4-Trichlorobenzene												
Hexachlorobutadiene												
Naphthalene								3.78E-01	3.55E-01		pass	pass
1,2,3-Trichlorobenzene												
Total VOCs	13512850	223649	5.19E-02	83652	1403	3.24E-04	99.4	4.14E+01	4.59E+01	1.04E-01		

TABLE G-4-G-DL
VOC Mass Emission Rate at Detection Limit
Continuous Test 3 Summary

Process: Continuous Unit
Date Sampled: 06/12/98

Analytes	At Detection Limit						Maximum Allowable			Pass/Fail	
	Inlet			Outlet							
	Sample Total Mass	Sample Conc.	Mass Emission Rate	Sample Total Mass	Sample Conc.	Mass Emission Rate	Mass Emission Rate (1-hr)	Mass Emission Rate (8-hr)	Mass Emission Rate (annual)	Inlet	Outlet
	ng	µg/m³	g/s	ng	µg/m³	g/s	g/s	g/s	g/s		
Bromochloromethane	39600	655	1.52E-04	1980	33	7.66E-06					
Dichlorodifluoromethane	39600	655	1.52E-04	1980	33	7.66E-06					
Chloromethane	39600	655	1.52E-04	1980	33	7.66E-06	2.51E-01	7.17E-02		pass	pass
Vinyl chloride (ccc)	39600	655	1.52E-04	1980	33	7.66E-06		8.88E-02	6.99E-04	pass	pass
Bromomethane	39600	655	1.52E-04	1980	33	7.66E-06		2.66E-02		pass	pass
Trichlorofluoromethane	39600	655	1.52E-04	1980	33	7.66E-06					
Chloroethane	39600	655	1.52E-04	1980	33	7.66E-06	6.22E-03	1.78E-03		pass	pass
Methylene chloride	39600	655	1.52E-04	1980	33	7.66E-06		1.19E-03		pass	pass
Acetone	39600	655	1.52E-04	1980	33	7.66E-06					
Freon-113	39600	655	1.52E-04	1980	33	7.66E-06					
Carbon Disulfide	39600	655	1.52E-04	1980	33	7.66E-06		2.12E-01		pass	pass
1,1-Dichloroethene (ccc)	39600	655	1.52E-04	1980	33	7.66E-06	3.78E-01	1.37E-01		pass	pass
Iodomethane	39600	655	1.52E-04	1980	33	7.66E-06					
1,1-Dichloroethane	39600	655	1.52E-04	1980	33	7.66E-06					
methyl-tert-butyl-ether	39600	655	1.52E-04	1980	33	7.66E-06					
trans-1,2-Dichloroethene	39600	655	1.52E-04	1980	33	7.66E-06					
Vinyl Acetate	39600	655	1.52E-04	1980	33	7.66E-06					
cis-1,2-Dichloroethene	39600	655	1.52E-04	1980	33	7.66E-06					
2,2-Dichloropropane	39600	655	1.52E-04	1980	33	7.66E-06					
Chloroform (ccc)	39600	655	1.52E-04	1980	33	7.66E-06					
1,2-Dichloroethane	39600	655	1.52E-04	1980	33	7.66E-06					
2-Butanone	39600	655	1.52E-04	1980	33	7.66E-06					
1,1,1-Trichloroethane	39600	655	1.52E-04	1980	33	7.66E-06	1.18E+01	1.30E+01		pass	pass
Carbon tetrachloride	39600	655	1.52E-04	1980	33	7.66E-06		2.12E-04		pass	pass
1,1-Dichloropropene	39600	655	1.52E-04	1980	33	7.66E-06					
1,2-Dichloropropane (ccc)	39600	655	1.52E-04	1980	33	7.66E-06					
Bromodichloromethane	39600	655	1.52E-04	1980	33	7.66E-06					
Dibromomethane	39600	655	1.52E-04	1980	33	7.66E-06					
cis-1,3-Dichloropropene	39600	655	1.52E-04	1980	33	7.66E-06					
Trichloroethene	39600	655	1.52E-04	1980	33	7.66E-06					
Benzene	39600	655	1.52E-04	1980	33	7.66E-06	3.83E-02	1.09E-02	7.23E-03	pass	pass
2-chloroethylvinyl Ether	39600	655	1.52E-04	1980	33	7.66E-06					
1,3-Dichloropropane	39600	655	1.52E-04	1980	33	7.66E-06					
Dibromochloromethane	39600	655	1.52E-04	1980	33	7.66E-06					
1,2-Dibromoethane	39600	655	1.52E-04	1980	33	7.66E-06					
trans-1,3-Dichloropropene	39600	655	1.52E-04	1980	33	7.66E-06					
1,1,2-Trichloroethane	39600	655	1.52E-04	1980	33	7.66E-06					
4-Methyl-2-Pentanone	39600	655	1.52E-04	1980	33	7.66E-06					
2-Hexanone	39600	655	1.52E-04	1980	33	7.66E-06					
Tetrachloroethene	39600	655	1.52E-04	1980	33	7.66E-06	3.28E+00	1.16E+00		pass	pass
1-Chlorohexane	39600	655	1.52E-04	1980	33	7.66E-06					
1,1,1,2-Tetrachloroethane	39600	655	1.52E-04	1980	33	7.66E-06					
Bromoform	39600	655	1.52E-04	1980	33	7.66E-06					
1,1,2,2-Tetrachloroethane	39600	655	1.52E-04	1980	33	7.66E-06					
Toluene (ccc)	39600	655	1.52E-04	1980	33	7.66E-06		1.28E+00		pass	pass
Chlorobenzene	39600	655	1.52E-04	1980	33	7.66E-06		3.14E-01		pass	pass
Ethyl benzene (ccc)	39600	655	1.52E-04	1980	33	7.66E-06	2.60E+00	2.97E+00		pass	pass
Styrene	39600	655	1.52E-04	1980	33	7.66E-06	8.13E-01	5.81E-01		pass	pass
m,p-Xylene	39600	655	1.52E-04	1980	33	7.66E-06	3.11E+00	2.97E+00		pass	pass
o-Xylene	39600	655	1.52E-04	1980	33	7.66E-06	3.11E+00	2.97E+00		pass	pass
1,3-Dichlorobenzene	39600	655	1.52E-04	1980	33	7.66E-06					
1,4-Dichlorobenzene	39600	655	1.52E-04	1980	33	7.66E-06		4.10E-01	8.73E-03	pass	pass
n-Butyl benzene	39600	655	1.52E-04	1980	33	7.66E-06					
1,2-Dichlorobenzene	39600	655	1.52E-04	1980	33	7.66E-06	1.44E+00	1.02E+00		pass	pass
Isopropyl benzene	39600	655	1.52E-04	1980	33	7.66E-06					
1,2,3-Trichloropropane	39600	655	1.52E-04	1980	33	7.66E-06					
Bromobenzene	39600	655	1.52E-04	1980	33	7.66E-06					
n-Propylbenzene	39600	655	1.52E-04	1980	33	7.66E-06					
2-Chlorotoluene	39600	655	1.52E-04	1980	33	7.66E-06					
4-Chlorotoluene	39600	655	1.52E-04	1980	33	7.66E-06					
1,3,5-Trimethyl benzene	39600	655	1.52E-04	1980	33	7.66E-06					
tert-Butyl benzene	39600	655	1.52E-04	1980	33	7.66E-06					
1,2,4-Trimethyl benzene	39600	655	1.52E-04	1980	33	7.66E-06					
sec-Butyl benzene	39600	655	1.52E-04	1980	33	7.66E-06					
4-Isopropyl toluene	39600	655	1.52E-04	1980	33	7.66E-06					
1,2-Dibromo-3-chloropropane	39600	655	1.52E-04	1980	33	7.66E-06					
1,2,4-Trichlorobenzene	39600	655	1.52E-04	1980	33	7.66E-06					
Hexachlorobutadiene	39600	655	1.52E-04	1980	33	7.66E-06					
Naphthalene	39600	655	1.52E-04	1980	33	7.66E-06	3.78E-01	3.55E-01		pass	pass
1,2,3-Trichlorobenzene	39600	655	1.52E-04	1980	33	7.66E-06					
Total VOCs	2772000	45879	1.07E-02	138600	2324	5.36E-04	2.72E+01	2.76E+01	1.67E-02		

TABLE G-5-A
SVOC Mass Emission Rate
Batch Unit Summary

Analyte	Batch POP Test #1 Inlet TL# YQ842			Batch POP Test #2 Inlet TL# YQ812			Batch POP Test #3 Inlet TL# YQ821			Batch POP Test #1-Repeat Inlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft³) :		125.448	Sample Volume (ft³) :		123.605	Sample Volume (ft³) :		121.484	Sample Volume (ft³) :		121.484				
	Stack Volumetric Flow Rate (ft³/min) :		14.85	Stack Volumetric Flow Rate (ft³/min) :		9.56	Stack Volumetric Flow Rate (ft³/min) :		8.83	Stack Volumetric Flow Rate (ft³/min) :		8.83	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (microgram)	Sample Conc. (g/ft³)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft³)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft³)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft³)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
Detected SVOCs																
Acenaphthylene	1,091.28	8.70E-06	2.15E-06	699.44	5.66E-06	9.02E-07	1,010.17	8.32E-06	1.22E-06	NA	NA	NA		1.21E-03		pass
bis(2-ethylhexyl)phthalate	ND			ND			ND			NA	NA	NA				NA
Phenanthrene	4,026.67	3.21E-05	7.94E-06	783.92	6.34E-06	1.01E-06	4,536.36	3.73E-05	5.50E-06	NA	NA	NA		4.80E-04		pass
Fluorene	4,807.67	3.83E-05	9.49E-06	1,827.04	1.48E-05	2.36E-06	4,664.92	3.84E-05	5.65E-06	NA	NA	NA		9.80E-05		pass
Fluoranthene	ND			ND			ND			NA	NA	NA		4.02E-03		pass
Dibenzofuran	11,278.14	8.99E-05	2.23E-05	5,418.70	4.38E-05	6.98E-06	10547.50	8.68E-05	1.28E-05	NA	NA	NA				NA
Acenaphthene	15,703.74	1.25E-04	3.10E-05	7,259.23	5.87E-05	9.36E-06	15,624.05	1.29E-04	1.89E-05	NA	NA	NA		9.80E-05		pass
Diethylphthalate	ND			ND			ND			NA	NA	NA		2.45E-03		pass
Di-n-butylphthalate	ND			ND			ND			NA	NA	NA		2.45E-03		pass
2-Methylnapthalene	120,447.94	9.60E-04	2.38E-04	72,143.04	5.84E-04	9.30E-05	97,764.96	8.05E-04	1.18E-04	NA	NA	NA		3.28E-03		pass
3/4-Methylphenol	ND			ND			ND			NA	NA	NA		1.08E-02		pass
Naphthalene	566030.37	4.51E-03	1.12E-03	288,925.81	2.34E-03	3.72E-04	397,000.15	3.27E-03	4.81E-04	NA	NA	NA	0.03	2.55E-02		pass
Phenol	ND			ND			ND			NA	NA	NA		9.31E-03		pass
Anthracene	470.68	3.75E-06	9.29E-07	ND			ND			NA	NA	NA		9.80E-05		pass
Total SVOC	157,826.12	5.77E-03	1.43E-03	377,057.18	3.05E-03	4.86E-04	520,600.61	4.37E-03	6.43E-04	NA	NA	NA				
Detection Limits																
bis(2-ethylhexyl)phthalate	1,611.84	1.28E-05	3.18E-06	578.45	4.68E-06	7.46E-07	1,088.07	8.96E-06	1.32E-06	NA	NA	NA				NA
Pentachlorophenol	9,168.44	7.31E-05	1.81E-05	3,944.59	3.19E-05	5.0[illegible]E-06	6,976.05	5.74E-05	8.45E-06	NA	NA	NA		2.45E-04		pass
Anthracene	1,554.94	1.24E-05	3.07E-06	615.39	4.98E-06	7.93E-07	1,178.62	9.70E-06	1.43E-06	NA	NA	NA		9.80E-05		pass
Fluoranthene	1,674.41	1.33E-05	3.30E-06	691.06	5.59E-06	8.91E-07	1,231.06	1.01E-05	1.49E-06	NA	NA	NA		4.02E-03		pass
Carbazole	1,535.88	1.22E-05	3.03E-06	633.81	5.13E-06	8.17E-07	1,248.25	1.03E-05	1.51E-06	NA	NA	NA		2.74E-04		pass
Pyrene	1,353.90	1.08E-05	2.67E-06	527.05	4.26E-06	6.79E-07	982.90	8.09E-06	1.19E-06	NA	NA	NA		9.80E-05		pass
Benzo(a)anthracene	1,616.10	1.29E-05	3.19E-06	668.18	5.41E-06	8.61E-07	1,161.69	9.56E-06	1.41E-06	NA	NA	NA			2.47E-05	pass
Chrysene	1,673.55	1.33E-05	3.30E-06	641.50	5.19E-06	8.27E-07	1,139.66	9.38E-06	1.38E-06	NA	NA	NA		9.80E-05		pass
Benzo(b)fluoranthene	1,029.61	8.21E-06	2.03E-06	432.70	3.50E-06	5.58E-07	712.06	5.86E-06	8.63E-07	NA	NA	NA	0.01		2.47E-05	pass
Benzo(k)fluoranthene	1,146.54	9.14E-06	2.26E-06	458.36	3.71E-06	5.91E-07	776.52	6.39E-06	9.41E-07	NA	NA	NA			2.47E-05	pass
Benzo(a)pyrene	1,226.31	9.78E-06	2.42E-06	535.57	4.33E-06	6.90E-07	770.11	6.34E-06	9.33E-07	NA	NA	NA		9.80E-05	2.05E-06	FAIL
Dibenzo(a,h)anthracene	1,092.34	8.71E-06	2.16E-06	547.34	4.43E-06	7.06E-07	745.49	6.14E-06	9.03E-07	NA	NA	NA			2.47E-05	pass
Indeno(1,2,3-cd)pyrene	879.79	7.01E-06	1.74E-06	389.80	3.15E-06	5.02E-07	569.21	4.69E-06	6.90E-07	NA	NA	NA			2.47E-05	pass
Phenol	3,721.07	2.97E-05	7.34E-06	1,548.63	1.25E-05	2.00E-06	2,411.62	1.99E-05	2.92E-06	NA	NA	NA		9.31E-03		pass
1,2-Dichlorobenzene	3,841.38	3.06E-05	7.58E-06	1,728.29	1.40E-05	2.23E-06	2,888.63	2.38E-05	3.50E-06	NA	NA	NA	0.10	7.35E-02		pass
2-Methylphenol	5,209.49	4.15E-05	1.03E-05	2,098.64	1.70E-05	2.71E-06	3,445.18	2.84E-05	4.17E-06	NA	NA	NA		1.08E-02		pass
3/4-Methylphenol	4,851.47	3.87E-05	9.57E-06	1,917.89	1.55E-05	2.47E-06	3,190.31	2.63E-05	3.86E-06	NA	NA	NA		1.08E-02		pass
Nitrobenzene	5,052.08	4.03E-05	9.97E-06	1,885.06	1.53E-05	2.43E-06	2,885.63	2.38E-05	3.50E-06	NA	NA	NA		2.45E-03		pass
2,4-Dimethylphenol	5,788.42	4.61E-05	1.14E-05	2,226.45	1.80E-05	2.87E-06	3,460.70	2.85E-05	4.19E-06	NA	NA	NA		6.43E-03		pass
1,4-Dichlorobenzene	3,758.39	3.00E-05	7.42E-06	1,566.99	1.27E-05	2.02E-06	2,526.30	2.08E-05	3.06E-06	NA	NA	NA		2.94E-02	6.26E-04	pass
Acenaphthylene	1,399.43	1.12E-05	2.76E-06	595.07	4.81E-06	7.67E-07	889.08	7.32E-06	1.08E-06	NA	NA	NA		1.21E-0-3		pass
Phenanthrene	1,518.81	1.21E-05	3.00E-06	618.35	5.00E-06	7.97E-07	1,132.67	9.32E-06	1.37E-06	NA	NA	NA		4.80E-04		pass
Fluorene	2,276.79	1.81E-05	4.49E-06	1,031.41	8.34E-06	1.33E-06	1,587.52	1.31E-05	1.92E-06	NA	NA	NA		9.80E-05		pass
Dibenzofuran	1,659.35	1.32E-05	3.27E-06	771.69	6.24E-06	9.95E-07	1,133.04	9.33E-06	1.37E-06	NA	NA	NA				NA
Acenaphthene	2,274.59	1.81E-05	4.49E-06	1,026.43	8.30E-06	1.32E-06	1,659.61	1.37E-05	2.01E-06	NA	NA	NA		9.80E-05		pass
Diethylphthalate	2,016.86	1.61E-05	3.98E-06	898.89	7.27E-06	1.16E-06	1,369.77	1.13E-05	1.66E-06	NA	NA	NA		2.45E-03		pass
Di-n-butylphthalate	1,142.57	9.11E-06	2.25E-06	421.70	3.41E-06	5.44E-07	801.46	6.60E-06	9.71E-07	NA	NA	NA		2.45E-03		pass
2-Methylnapthalene	2,495.18	1.99E-05	4.92E-06	948.[illegible]	7.68E-06	1.22E-06	1,455.54	1.20E-05	1.76E-06	NA	NA	NA		3.28E-03		pass
Naphthalene	1,517.77	1.21E-05	2.99E-06	630.46	5.10E-06	8.13E-07	929.36	7.65E-06	1.13E-06	NA	NA	NA	0.03	2.55E-02		pass

10/97

TABLE G-5-A
SVOC Mass Emission Rate
Batch Unit Summary

Analyte	Batch POP Test #1 Outlet TL# YQ843			Batch POP Test #2 Outlet TL# YQ822			Batch POP Test #3 Outlet TL# YQ827			Batch POP Test #1-Repeat Outlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3) :		134.895	Sample Volume (ft^3) :		123.819	Sample Volume (ft^3) :		125.22	Sample Volume (ft^3) :		121.484				
	Stack Volumetric Flow Rate (ft^3/min) :		67	Stack Volumetric Flow Rate (ft^3/min) :		62	Stack Volumetric Flow Rate (ft^3/min) :		63	Stack Volumetric Flow Rate (ft^3/min) :		8.83	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (microgram)	Sample Conc. (g/ft^3)	Stack Mass Emission Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft^3)	Stack Mass Emission Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft^3)	Stack Mass Emission Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft^3)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Outlet
Detected SVOCs																
Acenaphthylene	8.20	6.08E-08	6.79E-08	15.19	1.23E-07	1.27E-07	114.01	9.10E-07	9.56E-07	NA	NA	NA		1.21E-03		pass
bis(2-ethylhexyl)phthalate	102.73	7.62E-07	8.50E-07	90.73	7.33E-07	7.57E-07	ND			NA	NA	NA				NA
Phenanthrene	33.04	2.45E-07	2.74E-07	28.17	2.28E-07	2.35E-07	296.84	2.37E-06	2.49E-06	NA	NA	NA		4.80E-04		pass
Fluorene	19.69	1.46E-07	1.63E-07	23.14	1.87E-07	1.93E-07	432.18	3.45E-06	3.62E-06	NA	NA	NA		9.80E-05		pass
Fluoranthene	2.35	1.74E-08	1.95E-08	ND			ND			NA	NA	NA		4.02E-03		pass
Dibenzofuran	42.22	3.13E-07	3.49E-07	88.72	7.17E-07	7.40E-07	1,293.65	1.03E-05	1.08E-05	NA	NA	NA				NA
Acenaphthene	38.80	2.88E-07	3.21E-07	93.20	7.53E-07	7.78E-07	1,800.18	1.44E-05	1.51E-05	NA	NA	NA		9.80E-05		pass
Diethylphthalate	26.52	1.97E-07	2.20E-07	ND			ND			NA	NA	NA		2.45E-03		pass
Di-n-butylphthalate	ND			14.78	1.19E-07	1.23E-07	ND			NA	NA	NA		2.45E-03		pass
2-Methylnapthalene	606.21	4.49E-06	5.02E-06	674.01	5.44E-06	5.62E-06	13,686.28	1.09E-04	1.15E-04	NA	NA	NA		3.28E-03		pass
3/4-Methylphenol	28.08	2.08E-07	2.32E-07	ND			ND			NA	NA	NA		1.08E-02		pass
Naphthalene	4,054.66	3.01E-05	3.36E-05	3,003.58	2.43E-05	2.51E-05	155440.10	1.24E-03	1.30E-03	NA	NA	NA	0.03	2.55E-02		pass
Phenol	114.02	8.45E-07	9.44E-07	102.48	8.28E-07	8.55E-07	ND			NA	NA	NA		9.31E-03		pass
Anthracene	3.72	2.76E-08	3.08E-08	ND			ND			NA	NA	NA		9.80E-05		pass
Total SVOC	4,915.50	3.68E-05	4.11E-05	4,031.52	3.26E-05	3.36E-05	17,623.14	1.38E-03	1.45E-03	NA	NA	NA				
Detection Limits																
bis(2-ethylhexyl)phthalate	7.62	5.65E-08	6.31E-08	9.28	7.49E-08	7.74E-08	189.23	1.51E-06	1.59E-06	NA	NA	NA				NA
Pentachlorophenol	41.92	3.11E-07	3.47E-07	51.75	4.18E-07	4.32E-07	1,134.55	9.06E-06	9.51E-06	NA	NA	NA		2.45E-04		pass
Anthracene	7.11	5.27E-08	5.89E-08	8.97	7.24E-08	7.49E-08	196.76	1.57E-06	1.65E-06	NA	NA	NA		9.80E-05		pass
Fluoranthene	7.66	5.68E-08	6.34E-08	9.37	7.57E-08	7.82E-08	205.52	1.64E-06	1.72E-06	NA	NA	NA		4.02E-03		pass
Carbazole	7.02	5.20E-08	5.81E-08	9.50	7.67E-08	7.93E-08	208.39	1.66E-06	1.75E-06	NA	NA	NA		2.74E-04		pass
Pyrene	6.40	4.74E-08	5.30E-08	8.39	6.78E-08	7.00E-08	170.94	1.37E-06	1.43E-06	NA	NA	NA		9.80E-05		pass
Benzo(a)anthracene	7.64	5.66E-08	6.32E-08	9.91	8E-08	8.27E-08	202.03	1.61E-06	1.69E-06	NA	NA	NA			2.47E-05	pass
Chrysene	7.92	5.87E-08	6.56E-08	9.72	7.85E-08	8.11E-08	198.20	1.58E-06	1.66E-06	NA	NA	NA		9.80E-05		pass
Benzo(b)fluoranthene	5.31	3.94E-08	4.40E-08	6.06	4.89E-08	5.06E-08	126.03	1.01E-06	1.06E-06	NA	NA	NA	0.01		2.47E-05	pass
Benzo(k)fluoranthene	5.91	4.38E-08	4.89E-08	6.61	5.34E-08	5.52E-08	137.44	1.10E-06	1.15E-06	NA	NA	NA			2.47E-05	pass
Benzo(a)pyrene	6.32	4.69E-08	5.23E-08	6.55	5.29E-08	5.47E-08	136.31	1.09E-06	1.14E-06	NA	NA	NA		9.80E-05	2.05E-06	pass
Dibenzo(a,h)anthracene	5.63	4.17E-08	4.66E-08	6.34	5.12E-08	5.29E-08	131.95	1.05E-06	1.11E-06	NA	NA	NA			2.47E-05	pass
Indeno(1,2,3-cd)pyrene	4.54	3.37E-08	3.76E-08	4.84	3.91E-08	4.04E-08	100.75	8.05E-07	8.45E-07	NA	NA	NA			2.47E-05	pass
Phenol	16.66	1.24E-07	1.38E-07	17.66	1.43E-07	1.47E-07	399.46	3.19E-06	3.35E-06	NA	NA	NA		9.31E-03		pass
1,2-Dichlorobenzene	17.20	1.28E-07	1.42E-07	21.15	1.71E-07	1.77E-07	478.47	3.82E-06	4.01E-06	NA	NA	NA	0.10	7.35E-02		pass
2-Methylphenol	23.32	1.73E-07	1.93E-07	25.23	2.04E-07	2.11E-07	570.66	4.56E-06	4.79E-06	NA	NA	NA		1.08E-02		pass
3/4-Methylphenol	21.72	1.61E-07	1.80E-07	23.36	1.89E-07	1.95E-07	528.44	4.22E-06	4.43E-06	NA	NA	NA		1.08E-02		pass
Nitrobenzene	21.61	1.60E-07	1.79E-07	22.78	1.84E-07	1.90E-07	518.63	4.14E-06	4.35E-06	NA	NA	NA		2.45E-03		pass
2,4-Dimethylphenol	24.76	1.84E-07	2.05E-07	27.32	2.21E-07	2.28E-07	621.99	4.97E-06	5.22E-06	NA	NA	NA		6.43E-03		pass
1,4-Dichlorobenzene	16.83	1.25E-07	1.39E-07	18.50	1.49E-07	1.54E-07	418.45	3.34E-06	3.51E-06	NA	NA	NA		2.94E-02	6.26E-04	pass
Acenaphthylene	6.41	4.75E-08	5.31E-08	6.50	5.25E-08	5.42E-08	155.68	1.24E-06	1.31E-06	NA	NA	NA		1.21E-03		pass
Phenanthrene	6.94	5.14E-08	5.74E-08	8.62	6.96E-08	7.19E-08	189.09	1.51E-06	1.59E-06	NA	NA	NA		4.80E-04		pass
Fluorene	10.43	7.73E-08	8.63E-08	11.61	9.38E-08	9.69E-08	277.98	2.22E-06	2.33E-06	NA	NA	NA		9.80E-05		pass
Dibenzofuran	7.60	5.63E-08	6.29E-08	8.29	6.7E-08	6.92E-08	198.40	1.58E-06	1.66E-06	NA	NA	NA				NA
Acenaphthene	10.42	7.72E-08	8.63E-08	12.14	9.8E-08	1.01E-07	290.60	2.32E-06	2.44E-06	NA	NA	NA		9.80E-05		pass
Diethylphthalate	9.24	6.85E-08	7.65E-08	10.02	8.09E-08	8.36E-08	239.85	1.92E-06	2.01E-06	NA	NA	NA		2.45E-03		pass
Di-n-butylphthalate	5.22	3.87E-08	4.32E-08	6.10	4.93E-08	5.09E-08	133.80	1.07E-06	1.12E-06	NA	NA	NA		2.45E-03		pass
2-Methylnapthalene	10.67	7.91E-08	8.83E-08	11.49	9.28E-08	9.59E-08	261.60	2.09E-06	2.19E-06	NA	NA	NA		3.28E-03		pass
Naphthalene	6.49	4.81E-08	5.37E-08	7.34	5.93E-08	6.13E-08	167.03	1.33E-06	1.40E-06	NA	NA	NA	0.03	2.55E-02		pass

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TABLE G-5-B: SVOC Mass Emision Rate, Continuous Unit Summary

Analyte	Continuous POP Test #1 Outlet TL# YQ862			Continuous POP Test #2 Outlet TL# YQ863			Continuous POP Test #3 Outlet TL# YQ864			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3) :		115.061	Sample Volume (ft^3) :		138.738	Sample Volume (ft^3) :		133.849				
	Stack Volumetric Flow Rate (ft^3/min) :		452	Stack Volumetric Flow Rate (ft^3/min) :		528	Stack Volumetric Flow Rate (ft^3/min) :		489	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (microgram)	Sample Conc. (g/ft^3)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft^3)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft^3)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Outlet
Detected SVOCs													
Naphthalene	3,509.80	3.05E-05	2.30E-04	3,963.10	2.86E-05	2.51E-04	3,760.03	2.81E-05	2.29E-04	3.78E-01	3.55E-01		pass
2-Methylnapthalene	976.03	8.48E-06	6.39E-05	1,169.71	8.43E-06	7.42E-05	913.50	6.82E-06	5.56E-05		3.28E-03		pass
Dibenzofuran	1,820.76	1.58E-05	1.19E-04	1,841.15	1.33E-05	1.17E-04	1,728.54	1.29E-05	1.05E-04				NA
Acenaphthylene	532.83	4.63E-06	3.49E-05	437.07	3.15E-06	2.77E-05	331.06	2.47E-06	2.02E-05		1.68E-03		pass
Phenanthrene	481.34	4.18E-06	3.15E-05	1,246.08	8.98E-06	7.90E-05	847.22	6.33E-06	5.16E-05		6.70E-03		pass
Acenaphthene	107.03	9.30E-07	7.01E-06	178.31	1.29E-06	1.13E-05	92.55	6.91E-07	5.64E-06		1.37E-03		pass
Fluorene	186.05	1.62E-06	1.22E-05	237.26	1.71E-06	1.50E-05	141.44	1.06E-06	8.61E-06		1.37E-03		pass
Di-n-butylphthalate	ND			8.32	6E-08	5.28E-07	ND				3.42E-02		pass
Diethylphthalate	ND			8.96	6.46E-08	5.68E-07	ND				3.42E-02		pass
Anthracene	15.35	1.33E-07	1.01E-06	66.06	4.76E-07	4.19E-06	13.50	1.01E-07	8.22E-07		1.37E-03		pass
Fluoranthene	23.86	2.07E-07	1.56E-06	239.22	1.72E-06	1.52E-05	64.53	4.82E-07	3.93E-06		5.60E-02		pass
Carbazole	ND			8.97	6.47E-08	5.69E-07	ND				3.83E-03		pass
Pyrene	11.29	9.81E-08	7.39E-07	91.19	6.57E-07	5.78E-06	17.99	1.34E-07	1.10E-06		1.37E-03		pass
Chrysene	ND			28.71	2.07E-07	1.82E-06	ND				1.37E-03		pass
bis(2-ethylhexyl)phthalate	8.34	7.25E-08	5.46E-07	8.43	6.08E-08	5.35E-07	ND						NA
Phenol	44.29	3.85E-07	2.90E-06	31.93	2.3E-07	2.03E-06	41.94	3.13E-07	2.55E-06		1.30E-01		pass
Total SVOC	7,716.97	6.71E-05	5.05E-04	9,564.47	6.89E-05	6.07E-04	7,952.30	5.94E-05	4.84E-04				
Detection Limits													
Pentachlorophenol	52.33	4.55E-07	3.43E-06	51.87	3.74E-07	3.29E-06	52.81	3.95E-07	3.22E-06		3.42E-03		pass
Anthracene	7.84	6.81E-08	5.13E-07	7.77	5.6E-08	4.93E-07	7.91	5.91E-08	4.82E-07		1.37E-03		pass
Fluoranthene	8.77	7.62E-08	5.74E-07	8.69	6.26E-08	5.51E-07	8.85	6.61E-08	5.39E-07		5.60E-02		pass
Carbazole	8.03	6.98E-08	5.26E-07	7.96	5.74E-08	5.05E-07	8.10	6.05E-08	4.93E-07		3.83E-03		pass
Pyrene	7.93	6.89E-08	5.19E-07	7.32	5.28E-08	4.64E-07	7.85	5.86E-08	4.78E-07		1.37E-03		pass
Benzo(a)anthracene	10.37	9.01E-08	6.79E-07	9.58	6.91E-08	6.08E-07	10.26	7.67E-08	6.25E-07			3.44E-04	pass
Chrysene	9.84	8.55E-08	6.44E-07	9.08	6.54E-08	5.76E-07	9.73	7.27E-08	5.92E-07		1.37E-03		pass
Benzo(b)fluoranthene	7.75	6.74E-08	5.07E-07	7.74	5.58E-08	4.91E-07	7.81	5.83E-08	4.76E-07	9.87E-02		3.44E-04	pass
Benzo(k)fluoranthene	8.17	7.10E-08	5.35E-07	8.16	5.88E-08	5.18E-07	8.23	6.15E-08	5.01E-07			3.44E-04	pass
Benzo(a)pyrene	9.01	7.83E-08	5.90E-07	8.99	6.48E-08	5.70E-07	9.07	6.78E-08	5.52E-07		1.37E-03	2.86E-05	pass
bis(2-ethylhexyl)phthalate	9.04	7.86E-08	5.92E-07	8.35	6.02E-08	5.30E-07	8.95	6.69E-08	5.45E-07				NA
Indeno(1,2,3-cd)pyrene	9.28	8.07E-08	6.08E-07	9.26	6.67E-08	5.87E-07	9.34	6.98E-08	5.69E-07			3.44E-04	pass
1,2-Dichlorobenzene	21.36	1.86E-07	1.40E-06	21.34	1.54E-07	1.35E-06	22.69	1.70E-07	1.38E-06	1.44E+00	1.02E+00		pass
Dibenzo(a,h)anthracene	9.12	7.93E-08	5.97E-07	9.10	6.56E-08	5.77E-07	9.18	6.86E-08	5.59E-07			3.44E-04	pass
2-Methylphenol	24.68	2.14E-07	1.62E-06	24.66	1.78E-07	1.56E-06	26.22	1.96E-07	1.60E-06		1.50E-01		pass
3/4-Methylphenol	24.68	2.14E-07	1.62E-06	24.66	1.78E-07	1.56E-06	26.22	1.96E-07	1.60E-06		1.50E-01		pass
Nitrobenzene	23.70	2.06E-07	1.55E-06	23.95	1.73E-07	1.52E-06	25.65	1.92E-07	1.56E-06		3.42E-02		pass
2,4-Dimethylphenol	25.96	2.26E-07	1.70E-06	26.24	1.89E-07	1.66E-06	28.09	2.10E-07	1.71E-06		8.96E-02		pass
1,4-Dichlorobenzene	19.71	1.71E-07	1.29E-06	19.69	1.42E-07	1.25E-06	20.94	1.56E-07	1.28E-06		4.10E-01	8.73E-03	pass
Naphthalene	6.98	6.07E-08	4.57E-07	7.06	5.09E-08	4.48E-07	7.56	5.65E-08	4.60E-07	3.78E-01	3.55E-01		pass
2-Methylnapthalene	11.67	1.01E-07	7.64E-07	11.79	8.5E-08	7.48E-07	12.63	9.44E-08	7.69E-07		3.28E-03		pass
Dibenzofuran	9.35	8.13E-08	6.12E-07	8.91	6.42E-08	5.65E-07	9.55	7.13E-08	5.81E-07				NA
Acenaphthylene	7.60	6.61E-08	4.98E-07	7.24	5.22E-08	4.59E-07	7.76	5.80E-08	4.73E-07		1.68E-03		pass
Phenanthrene	7.99	6.94E-08	5.23E-07	7.92	5.71E-08	5.02E-07	8.06	6.02E-08	4.91E-07		6.70E-03		pass
Acenaphthene	12.62	1.10E-07	8.26E-07	12.02	8.66E-08	7.62E-07	12.89	9.63E-08	7.85E-07		1.37E-03		pass
Fluorene	12.84	1.12E-07	8.41E-07	12.23	8.82E-08	7.76E-07	13.11	9.79E-08	7.98E-07		1.37E-03		pass
Di-n-butylphthalate	5.36	4.66E-08	3.51E-07	5.31	3.83E-08	3.37E-07	5.40	4.03E-08	3.29E-07		3.42E-02		pass
Diethylphthalate	10.95	9.52E-08	7.17E-07	10.43	7.52E-08	6.62E-07	11.19	8.36E-08	6.81E-07		3.42E-02		pass
Phenol	19.07	1.66E-07	1.25E-06	19.06	1.37E-07	1.21E-06	20.26	1.51E-07	1.23E-06		1.30E-01		pass

TABLE G-5-B: SVOC Mass Emision Rate, Continuous Unit Summary

Analyte	Continuous POP Test #1 Inlet TL# YQ874			Continuous POP Test #2 Inlet TL# YQ875			Continuous POP Test #3 Inlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3) :		108.487	Sample Volume (ft^3) :		121.618	Sample Volume (ft^3) :		102.79				
	Stack Volumetric Flow Rate (ft^3/min) :		530	Stack Volumetric Flow Rate (ft^3/min) :		643	Stack Volumetric Flow Rate (ft^3/min) :		492	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (microgram)	Sample Conc. (g/ft^3)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft^3)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft^3)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
Detected SVOCs													
Naphthalene	393,825.39	3.63E-03	3.21E-02	552,440.89	0.004542	4.87E-02	NA	NA	NA	3.78E-01	3.55E-01		pass
2-Methylnapthalene	57,771.38	5.33E-04	4.70E-03	107,424.11	0.000883	9.47E-03	NA	NA	NA		3.28E-03		pass
Dibenzofuran	31,754.88	2.93E-04	2.59E-03	53,376.66	0.000439	4.70E-03	NA	NA	NA				NA
Acenaphthylene	9,633.59	8.88E-05	7.84E-04	13,735.88	0.000113	1.21E-03	NA	NA	NA		1.68E-03		pass
Phenanthrene	5,309.36	4.89E-05	4.32E-04	17,042.61	0.00014	1.50E-03	NA	NA	NA		6.70E-03		pass
Acenaphthene	2,505.29	2.31E-05	2.04E-04	7,919.28	6.51E-05	6.98E-04	NA	NA	NA		1.37E-03		pass
Fluorene	1,599.82	1.47E-05	1.30E-04	4,632.73	3.81E-05	4.08E-04	NA	NA	NA		1.37E-03		pass
Di-n-butylphthalate	ND			ND			NA	NA	NA		3.42E-03		pass
Diethylphthalate	ND			ND			NA	NA	NA		3.42E-03		pass
Anthracene	ND			1,264.61	1.04E-05	1.11E-04	NA	NA	NA		1.37E-03		pass
Fluoranthene	ND			2,680.83	2.2E-05	2.36E-04	NA	NA	NA		5.60E-02		pass
Carbazole	ND			ND			NA	NA	NA		3.83E-03		pass
Pyrene	ND			1,270.03	1.04E-05	1.12E-04	NA	NA	NA		1.37E-03		pass
Chrysene	ND			ND			NA	NA	NA		1.37E-03		pass
bis(2-ethylhexyl)phthalate	ND			ND			NA	NA	NA				NA
Phenol	1,771.49	1.63E-05	1.44E-04	ND			NA	NA	NA		1.30E-01		pass
Total SVOC	504,171.20	4.65E-03	4.11E-02	761,787.63	6.26E-03	6.71E-02	NA	NA	NA				
Detection Limits													
Pentachlorophenol	14,938.22	1.38E-04	1.22E-03	13,769.34	0.000113	1.21E-03	NA	NA	NA		3.42E-03		pass
Anthracene	2,303.11	2.12E-05	1.88E-04	2,122.90	1.75E-05	1.87E-04	NA	NA	NA		1.37E-03		pass
Fluoranthene	1,960.90	1.81E-05	1.60E-04	1,807.46	1.49E-05	1.59E-04	NA	NA	NA		5.60E-02		pass
Carbazole	2,236.08	2.06E-05	1.82E-04	2,061.11	1.69E-05	1.82E-04	NA	NA	NA		3.83E-03		pass
Pyrene	1,895.84	1.75E-05	1.54E-04	1,859.75	1.53E-05	1.64E-04	NA	NA	NA		1.37E-03		pass
Benzo(a)anthracene	2,112.47	1.95E-05	1.72E-04	2,072.25	1.7E-05	1.83E-04	NA	NA	NA			3.44E-04	pass
Chrysene	2,016.07	1.86E-05	1.64E-04	1,977.70	1.63E-05	1.74E-04	NA	NA	NA		1.37E-03		pass
Benzo(b)fluoranthene	1,402.67	1.29E-05	1.14E-04	1,435.81	1.18E-05	1.27E-04	NA	NA	NA	9.87E-02		3.44E-04	pass
Benzo(k)fluoranthene	1,411.97	1.30E-05	1.15E-04	1,445.33	1.19E-05	1.27E-04	NA	NA	NA			3.44E-04	pass
Benzo(a)pyrene	1,461.80	1.35E-05	1.19E-04	1,496.34	1.23E-05	1.32E-04	NA	NA	NA		1.37E-03	2.86E-05	pass
bis(2-ethylhexyl)phthalate	1,732.08	1.60E-05	1.41E-04	1,699.11	1.4E-05	1.50E-04	NA	NA	NA				NA
Indeno(1,2,3-cd)pyrene	1,270.05	1.17E-05	1.03E-04	1,300.06	1.07E-05	1.15E-04	NA	NA	NA			3.44E-04	pass
1,2-Dichlorobenzene	4,166.16	3.84E-05	3.39E-04	4,039.45	3.32E-05	3.56E-04	NA	NA	NA	1.44E+00	1.02E+00		pass
Dibenzo(a,h)anthracene	1,440.61	1.33E-05	1.17E-04	1,474.66	1.21E-05	1.30E-04	NA	NA	NA			3.44E-04	pass
2-Methylphenol	5,685.58	5.24E-05	4.63E-04	5,512.66	4.53E-05	4.86E-04	NA	NA	NA		1.50E-01		pass
3/4-Methylphenol	5,364.30	4.94E-05	4.37E-04	5,201.15	4.28E-05	4.58E-04	NA	NA	NA		1.50E-01		pass
Nitrobenzene	4,735.27	4.36E-05	3.86E-04	4,396.41	3.61E-05	3.87E-04	NA	NA	NA		3.42E-02		pass
2,4-Dimethylphenol	5,785.64	5.33E-05	4.71E-04	5,371.61	4.42E-05	4.73E-04	NA	NA	NA		8.96E-02		pass
1,4-Dichlorobenzene	4,015.12	3.70E-05	3.27E-04	3,893.01	3.2E-05	3.43E-04	NA	NA	NA		4.10E-01	8.73E-03	pass
Naphthalene	1,537.25	1.42E-05	1.25E-04	1,427.24	1.17E-05	1.26E-04	NA	NA	NA	3.78E-01	3.55E-01		pass
2-Methylnapthalene	2,462.93	2.27E-05	2.01E-04	2,286.69	1.88E-05	2.01E-04	NA	NA	NA		3.28E-03		pass
Dibenzofuran	1,761.43	1.62E-05	1.43E-04	1,820.83	1.5E-05	1.60E-04	NA	NA	NA				NA
Acenaphthylene	1,427.69	1.32E-05	1.16E-04	1,475.83	1.21E-05	1.30E-04	NA	NA	NA		1.68E-03		pass
Phenanthrene	2,303.11	2.12E-05	1.88E-04	2,122.90	1.75E-05	1.87E-04	NA	NA	NA		6.70E-03		pass
Acenaphthene	2,306.26	2.13E-05	1.88E-04	2,384.04	1.96E-05	2.10E-04	NA	NA	NA		1.37E-03		pass
Fluorene	2,502.84	2.31E-05	2.04E-04	2,587.25	2.13E-05	2.28E-04	NA	NA	NA		1.37E-03		pass
Di-n-butylphthalate	1,303.70	1.20E-05	1.06E-04	1,201.69	9.88E-06	1.06E-04	NA	NA	NA		3.42E-03		pass
Diethylphthalate	2,108.24	1.94E-05	1.72E-04	2,179.34	1.79E-05	1.92E-04	NA	NA	NA		3.42E-03		pass
Phenol	3,961.27	3.65E-05	3.23E-04	3,840.79	3.16E-05	3.38E-04	NA	NA	NA		1.30E-01		pass

TABLE 3-6-A
Dioxin Mass Emission Rate
Batch Unit Summary

Analyte	Batch POP Test #1 Inlet			Batch POP Test #2 Inlet			Batch POP Test #3 Inlet			Batch POP Test #1 Inlet Repeat			Maximum Allowable			
	Sample Volume (ft³):		125.448	Sample Volume (ft³):		123.605	Sample Volume (ft³):		121.484	Sample Volume (ft³):		NA	Mass Emission Rate			
	Stack Volumetric Flow Rate (ft³/min):		14.85	Stack Volumetric Flow Rate (ft³/min):		9.56	Stack Volumetric Flow Rate (ft³/min):		8.83	Stack Volumetric Flow Rate (ft³/min):		NA	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Flow Rate (g/s)	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Flow Rate (g/s)	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Flow Rate (g/s)	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
2,3,7,8-TCDD	0.04	3.19E-13	7.89E-14	ND			0.02	1.65E-13	2.42E-14	NA	NA	NA				
1,2,3,7,8-PeCDD	0.12	9.57E-13	2.37E-13	ND			ND			NA	NA	NA				
1,2,3,4,7,8-HxCDD	EMPC			ND			ND			NA	NA	NA				
1,2,3,6,7,8-HxCDD	EMPC			ND			0.14	1.15E-12	1.70E-13	NA	NA	NA				
1,2,3,7,8,9-HxCDD	0.51	4.07E-12	1.01E-12	ND			0.24	1.98E-12	2.91E-13	NA	NA	NA				
1,2,3,4,6,7,8-HpCDD	0.81	6.46E-12	1.60E-12	0.2	1.62E-12	2.58E-13	4	3.29E-11	4.85E-12	NA	NA	NA				
1,2,3,4,6,7,8,9-OCDD	1.9	1.51E-11	3.75E-12	0.3	2.43E-12	3.87E-13	10.4	8.56E-11	1.26E-11	NA	NA	NA				
2,3,7,8-TCDF	0.03	2.39E-13	5.92E-14	ND			ND			NA	NA	NA				
1,2,3,7,8-PeCDF	ND			ND			ND			NA	NA	NA				
2,3,4,7,8-PeCDF	0.03	2.39E-13	5.92E-14	ND			ND			NA	NA	NA				
1,2,3,4,7,8-HxCDF	0.11	8.77E-13	2.17E-13	ND			ND			NA	NA	NA				
1,2,3,6,7,8-HxCDF	ND			ND			ND			NA	NA	NA				
2,3,4,6,7,8-HxCDF	0.21	1.67E-12	4.14E-13	ND			ND			NA	NA	NA				
1,2,3,7,8,9-HxCDF	ND			ND			ND			NA	NA	NA				
1,2,3,4,6,7,8-HpCDF	ND			ND			ND			NA	NA	NA				
1,2,3,4,7,8,9-HpCDF	ND			ND			ND			NA	NA	NA				
1,2,3,4,6,7,8,9-OCDF	ND			ND			ND			NA	NA	NA				
Total Dioxin	3.76	3.00E-11	7.42E-12	0.5	4.05E-12	6.45E-13	14.8	1.22E-10	1.79E-11	NA	NA	NA				
Total Dioxin TEF *	0.21	1.68E-12	4.16E-13	0.00	1.86E-14	2.96E-15	0.11	8.92E-13	1.31E-13	NA	NA	NA		1.37E-07	1.79E-09	pass

* Dioxin Toxicity Equivalents Factor by I-TEF/89 scheme gives toxicity equivalence to 2,3,7,8-TCDD.

TABLE 3-6-A
Dioxin Mass Emission Rate
Batch Unit Summary

Analyte	Batch POP Test #1 Outlet			Batch POP Test #2 Outlet			Batch POP Test #3 Outlet			Batch POP Test # 1Outlet Repeat			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft³):		134.895	Sample Volume (ft³):		123.819	Sample Volume (ft³):		125.22	Sample Volume (ft³):		NA				
	Stack Volumetric Flow Rate (ft³/min):		67	Stack Volumetric Flow Rate (ft³/min):		62	Stack Volumetric Flow Rate (ft³/min):		63	Stack Volumetric Flow Rate (ft³/min):		NA	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Emission Rate (g/s)	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Emission Rate (g/s)	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Emission Rate (g/s)	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Outlet
2,3,7,8-TCDD	ND			ND			ND			NA	NA	NA				
1,2,3,7,8-PeCDD	ND			ND			ND			NA	NA	NA				
1,2,3,4,7,8-HxCDD	ND			ND			ND			NA	NA	NA				
1,2,3,6,7,8-HxCDD	ND			ND			ND			NA	NA	NA				
1,2,3,7,8,9-HxCDD	0.02	1.48E-13	1.66E-13	ND			ND			NA	NA	NA				
1,2,3,4,6,7,8-HpCDD	0.04	2.97E-13	3.31E-13	ND			0.06	4.79E-13	5.03E-13	NA	NA	NA				
1,2,3,4,6,7,8,9-OCDD	0.09	6.67E-13	7.46E-13	0.04	3.23E-13	3.34E-13	0.15	1.20E-12	1.26E-12	NA	NA	NA				
2,3,7,8-TCDF	ND			0.03	2.42E-13	2.50E-13	0.04	3.19E-13	3.35E-13	NA	NA	NA				
1,2,3,7,8-PeCDF	ND			ND			ND			NA	NA	NA				
2,3,4,7,8-PeCDF	ND			ND			ND			NA	NA	NA				
1,2,3,4,7,8-HxCDF	0.01	7.41E-14	8.28E-14	EMPC			0.03	2.40E-13	2.52E-13	NA	NA	NA				
1,2,3,6,7,8-HxCDF	ND			ND			EMPC			NA	NA	NA				
2,3,4,6,7,8-HxCDF	ND			ND			EMPC			NA	NA	NA				
1,2,3,7,8,9-HxCDF	ND			ND			ND			NA	NA	NA				
1,2,3,4,6,7,8-HpCDF	ND			ND			0.04	3.19E-13	3.35E-13	NA	NA	NA				
1,2,3,4,7,8,9-HpCDF	ND			ND			ND			NA	NA	NA				
1,2,3,4,6,7,8,9-OCDF	ND			ND			ND			NA	NA	NA				
Total Dioxin	0.16	1.19E-12	1.32E-12	0.07	5.65E-13	5.84E-13	0.32	2.56E-12	2.68E-12	NA	NA	NA				
Total Dioxin TEF *	0.00	2.59E-14	2.89E-14	0.003	2.46E-14	2.54E-14	0.01	6.51E-14	6.83E-14	NA	NA	NA		1.37E-07	1.7935E-09	pass

* Dioxin Toxicity Equivalents Fs

TABLE G-6-B
Dioxin Mass Emission Rate
Continuous Unit Summary

Analyte	Continuous POP Test #1 Inlet			Continuous POP Test #2 Inlet			Continuous POP Test #3 Inlet			Maximum Allowable			
	Sample Volume (ft^3) :		108.487	Sample Volume (ft^3) :		121.818	Sample Volume (ft^3) :			Mass Emission Rate			
	Stack Volumetric Flow Rate (ft^3/min) :		530	Stack Volumetric Flow Rate (ft^3/min) :		643	Stack Volumetric Flow Rate (ft^3/min) :			(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (nanogram)	Sample Conc. (g/m^3)	Stack Mass Flow Rate (g/s)	Sample Mass (nanogram)	Sample Conc. (g/m^3)	Stack Mass Flow Rate (g/s)	Sample Mass (nanogram)	Sample Conc. (g/m^3)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
2,3,7,8-TCDD	0.06	7.37E-13	6.51E-12	5.4	4.44E-11	4.76E-10	NA	NA	NA				
1,2,3,7,8-PeCDD	0.33	3.04E-12	2.69E-11	23.4	1.92E-10	2.06E-09	NA	NA	NA				
1,2,3,4,7,8-HxCDD	0.31	2.86E-12	2.52E-11	13.2	1.09E-10	1.16E-09	NA	NA	NA				
1,2,3,6,7,8-HxCDD	0.38	3.50E-12	3.09E-11	29.2	2.40E-10	2.57E-09	NA	NA	NA				
1,2,3,7,8,9-HxCDD	0.96	9.03E-12	7.98E-11	17	1.40E-10	1.50E-09	NA	NA	NA				
1,2,3,4,6,7,8-HpCDD	2.8	2.58E-11	2.28E-10	253	2.08E-09	2.23E-08	NA	NA	NA				
1,2,3,4,6,7,8,9-OCDD	5.3	4.89E-11	4.32E-10	432	3.55E-09	3.81E-08	NA	NA	NA				
2,3,7,8-TCDF	0.07	6.45E-13	5.70E-12	0.4	3.29E-12	3.52E-11	NA	NA	NA				
1,2,3,7,8-PeCDF	0.03	2.77E-13	2.44E-12	1.1	9.04E-12	9.69E-11	NA	NA	NA				
2,3,4,7,8-PeCDF	0.04	3.69E-13	3.26E-12	0.35	2.88E-12	3.08E-11	NA	NA	NA				
1,2,3,4,7,8-HxCDF	0.05	4.61E-13	4.07E-12	3.4	2.80E-11	3.00E-10	NA	NA	NA				
1,2,3,6,7,8-HxCDF	0.04	3.69E-13	3.26E-12	2.1	1.73E-11	1.85E-10	NA	NA	NA				
2,3,4,6,7,8-HxCDF	0.06	5.53E-13	4.89E-12	1.6	1.32E-11	1.41E-10	NA	NA	NA				
1,2,3,7,8,9-HxCDF	0.01	9.22E-14	8.14E-13	0.13	1.07E-12	1.15E-11	NA	NA	NA				
1,2,3,4,6,7,8-HpCDF	0.17	1.57E-12	1.38E-11	14.1	1.16E-10	1.24E-09	NA	NA	NA				
1,2,3,4,7,8,9-HpCDF	0.06	5.53E-13	4.89E-12	1.9	1.56E-11	1.67E-10	NA	NA	NA				
1,2,3,4,6,7,8,9-OCDF	0.21	1.94E-12	1.71E-11	13.3	1.09E-10	1.17E-09	NA	NA	NA				
Total Dioxin	10.92	1.01E-10	8.89E-10	811.58	6.67E-09	7.15E-08	NA	NA	NA				
Total Dioxin TEF *	0.49	4.54E-12	4.01E-11	27.17	2.23E-10	2.39E-09	NA	NA	NA		1.37E-07	1.79E-09	***FAIL***

* Dioxin Toxicity Equivalents Factor by I-TEF/89 scheme gives toxicity equivalence to 2,3,7,8-TCDD.

TABLE G-6-B
Dioxin Mass Emission Rate
Continuous Unit Summary

Analyte	Continuous POP Test #1 Outlet			Continuous POP Test #2 Outlet			Continuous POP Test #3 Outlet			Maximum Allowable			
	Sample Volume (ft³) :		115.081	Sample Volume (ft³) :		138.163	Sample Volume (ft³) :		133.849	Mass Emission Rate			
	Stack Volumetric Flow Rate (ft³/min) :		452	Stack Volumetric Flow Rate (ft³/min) :		528	Stack Volumetric Flow Rate (ft³/min) :		489	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Emission Rate (g/s)	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Emission Rate (g/s)	Sample Mass (nanogram)	Sample Conc. (g/ft³)	Stack Mass Emission Rate (g/s)	(g/s)	(g/s)	(g/s)	Outlet
2,3,7,8-TCDD	0.03	2.61E-13	1.96E-12	0.2	1.45E-12	1.27E-11	ND						
1,2,3,7,8-PeCDD	0.09	7.82E-13	5.89E-12	0.67	4.85E-12	4.27E-11	ND						
1,2,3,4,7,8-HxCDD	0.06	6.95E-13	5.24E-12	0.67	4.85E-12	4.27E-11	ND						
1,2,3,6,7,8-HxCDD	0.11	9.56E-13	7.20E-12	0.84	6.08E-12	5.35E-11	ND						
1,2,3,7,8,9-HxCDD	0.22	1.91E-12	1.44E-11	2.5	1.81E-11	1.59E-10	ND						
1,2,3,4,6,7,8-HpCDD	0.62	5.39E-12	4.06E-11	7.9	5.72E-11	5.03E-10	EMPC						
1,2,3,4,6,7,8,9-OCDD	1.2	1.04E-11	7.86E-11	17.2	1.24E-10	1.10E-09	1.7	1.27E-11	1.04E-10				
2,3,7,8-TCDF	0.07	6.08E-13	4.58E-12	0.14	1.01E-12	8.92E-12	ND						
1,2,3,7,8-PeCDF	0.04	3.48E-13	2.62E-12	0.06	4.34E-13	3.82E-12	ND						
2,3,4,7,8-PeCDF	0.03	2.61E-13	1.96E-12	0.07	5.07E-13	4.46E-12	ND						
1,2,3,4,7,8-HxCDF	0.07	6.08E-13	4.58E-12	0.11	7.96E-13	7.01E-12	ND						
1,2,3,6,7,8-HxCDF	0.03	2.61E-13	1.96E-12	0.07	5.07E-13	4.46E-12	ND						
2,3,4,6,7,8-HxCDF	0.03	2.61E-13	1.96E-12	0.11	7.96E-13	7.01E-12	ND						
1,2,3,7,8,9-HxCDF	0.004	3.48E-14	2.62E-13	0.02	1.45E-13	1.27E-12	ND						
1,2,3,4,6,7,8-HpCDF	0.1	8.69E-13	6.55E-12	0.44	3.18E-12	2.80E-11	ND						
1,2,3,4,7,8,9-HpCDF	0.03	2.61E-13	1.96E-12	EMPC			ND						
1,2,3,4,6,7,8,9-OCDF	0.11	9.56E-13	7.20E-12	0.52	3.76E-12	3.31E-11	ND						
Total Dioxin	2.864	2.49E-11	1.88E-10	31.52	2.28E-10	2.01E-09	1.7	1.27E-11	1.04E-10				
Total Dioxin TEF *	0.16	1.41E-12	1.06E-11	1.12	8.11E-12	7.13E-11	0.00	1.27E-14	1.04E-13		1.37E-07	1.7935E-09	pass

* Dioxin Toxicity Equivalents F

TABLE G-7-A
HCl and Metals Mass Emission Rate
Batch Unit Summary

Analyte	Batch POP Test #1 Inlet			Batch POP Test #2 Inlet			Batch POP Test #3 Inlet			Batch POP Test #1-Repeat Inlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3):		39.74	Sample Volume (ft^3):		39.898	Sample Volume (ft^3):		41.575	Sample Volume (ft^3):		44.734				
	Stack Volumetric Flow Rate (ft^3/min):		18.34	Stack Volumetric Flow Rate (ft^3/min):		9.84	Stack Volumetric Flow Rate (ft^3/min):		10.27	Stack Volumetric Flow Rate (ft^3/min):		7.61	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
HCl	0.17	4.28E-06	1.31E-06	0.16	4.01E-06	6.68E-07	0.13	3.13E-06	5.38E-07	0.11	2.46E-06	3.12E-07	NA	NA	NA	NA

Analyte	Batch POP Test #1 Inlet			Batch POP Test #2 Inlet			Batch POP Test #3 Inlet			Batch POP Test #1-Repeat Inlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3):		NA	Sample Volume (ft^3):		NA	Sample Volume (ft^3):		NA	Sample Volume (ft^3):		NA				
	Stack Volumetric Flow Rate (ft^3/min):		NA	Stack Volumetric Flow Rate (ft^3/min):		NA	Stack Volumetric Flow Rate (ft^3/min):		NA	Stack Volumetric Flow Rate (ft^3/min):		NA	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE G-7-A
HCl and Metals Mass Emission Rate
Batch Unit Summary

Analyte	Batch POP Test #1 Outlet			Batch POP Test #2 Outlet			Batch POP Test #3 Outlet			Batch POP Test #1-Repeat Outlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3):		42.669	Sample Volume (ft^3):		38.062	Sample Volume (ft^3):		37.406	Sample Volume (ft^3):		33.836				
	Stack Volumetric Flow Rate (ft^3/min):		116	Stack Volumetric Flow Rate (ft^3/min):		106	Stack Volumetric Flow Rate (ft^3/min):		106	Stack Volumetric Flow Rate (ft^3/min):		214	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
HCl	0.2	4.69E-06	9.08E-06	ND			0.13	3.48E-06	6.14E-06	2.78	8.22E-06	2.83E-04	NA	NA	NA	NA

Analyte	Batch POP Test #1 Outlet			Batch POP Test #2 Outlet			Batch POP Test #3 Outlet			Batch POP Test #1-Repeat Outlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3):		81.644	Sample Volume (ft^3):		76.113	Sample Volume (ft^3):		76.008	Sample Volume (ft^3):		70.023				
	Stack Volumetric Flow Rate (ft^3/min):		64	Stack Volumetric Flow Rate (ft^3/min):		61	Stack Volumetric Flow Rate (ft^3/min):		62	Stack Volumetric Flow Rate (ft^3/min):		122	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
Lead	3.38	4.14E-06	4.42E-06	3.73	4.90E-06	4.98E-06	5	6.58E-06	6.60E-06	2.96	4.26E-06	8.95E-06	NA	NA	NA	NA
Mercury	ND			ND			ND			8.16	1.17E-07	2.37E-07	NA	NA	NA	NA

TABLE G-7-B
HCl and Metals Mass Emission Rate
Continuous Unit Summary

Analyte	Continuous POP Test #1 Inlet			Continuous POP Test #2 Inlet			Continuous POP Test #3 Inlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3) :		32.891	Sample Volume (ft^3) :		33.249	Sample Volume (ft^3) :		40.718				
	Stack Volumetric Flow Rate (ft^3/min) :		486	Stack Volumetric Flow Rate (ft^3/min) :		493	Stack Volumetric Flow Rate (ft^3/min) :		634	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
HCl	0.13	3.95E-06	3.20E-06	0.21	6.32E-06	5.19E-06	0.14	3.44E-06	3.63E-06				

Analyte	Continuous POP Test #1 Inlet			Continuous POP Test #2 Inlet			Continuous POP Test #3 Inlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3) :			Sample Volume (ft^3) :			Sample Volume (ft^3) :						
	Stack Volumetric Flow Rate (ft^3/min) :			Stack Volumetric Flow Rate (ft^3/min) :			Stack Volumetric Flow Rate (ft^3/min) :			(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Flow Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA				

TABLE G-7-B
HCl and Metals Mass Emission Rate
Continuous Unit Summary

Analyte	Continuous POP Test #1 Outlet			Continuous POP Test #2 Outlet			Continuous POP Test #3 Outlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3) :		39.137	Sample Volume (ft^3) :		36.253	Sample Volume (ft^3) :		44.547				
	Stack Volumetric Flow Rate (ft^3/min) :		366	Stack Volumetric Flow Rate (ft^3/min) :		418	Stack Volumetric Flow Rate (ft^3/min) :		535	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	Sample Mass (mg)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
HCl	0.78	1.99E-05	1.22E-04	9.99	2.76E-04	1.92E-03	14.11	3.17E-04	2.82E-03				

Analyte	Continuous POP Test #1 Outlet			Continuous POP Test #2 Outlet			Continuous POP Test #3 Outlet			Maximum Allowable Mass Emission Rate			
	Sample Volume (ft^3) :		81.628	Sample Volume (ft^3) :		72.253	Sample Volume (ft^3) :		86.37				
	Stack Volumetric Flow Rate (ft^3/min) :		398	Stack Volumetric Flow Rate (ft^3/min) :		427	Stack Volumetric Flow Rate (ft^3/min) :		482	(1-hr)	(8-hr)	(annual)	Pass/Fail
	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	Sample Mass (microgram)	Sample Conc. (g/ft3)	Stack Mass Emissions Rate (g/s)	(g/s)	(g/s)	(g/s)	Inlet
Lead	3.07	3.76E-08	2.49E-07	3.29	4.55E-08	3.24E-07	3.53	4.09E-08	3.28E-07				
Mercury	593.61	7.27E-06	4.82E-05	565.82	7.83E-06	5.57E-05	649.82	7.52E-06	6.04E-05				

Table G-8: FTO Removal Efficiency

A flameless thermal oxidizer (FTO) was used to destroy the compounds present in the air stream coming from the TDUs. (Each of the three stacks has its own FTO.) During the POP test, samples were collected from the inlet and outlet of the FTOs so that the removal efficiency (DRE) could be calculated. The following formula was used:

$$DRE = \left[\frac{C_{Inlet} - C_{Outlet}}{C_{Inlet}} \right] \times 100\ \%$$

where C_{Inlet} is the concentration of the airstream before the FTO and
C_{Outlet} is the concentration of the airstream after the FTO.

	Inlet SVOC Concentration (g/ft^3)	Outlet SVOC Concentration (g/ft^3)	DRE (%)	Inlet Dioxin Concentration (g/ft^3)	Outlet Dioxin Concentration (g/ft^3)	DRE (%)	Inlet VOC Concentration ($\mu g/m^3$)	Outlet VOC Concentration ($\mu g/m^3$)	DRE (%)
Batch Run 1	5.77E-3	3.58E-5	99.38	3.00E-11	1.19E-12	96.03	NA	NA	NA
Batch Run 2	3.05E-3	3.18E-5	98.96	4.05E-12	5.65E-13	86.05	1,161,568	12,613	98.9
Batch Run 3	4.37E-3	1.38E-3	68.42	1.22E-10	2.56E-12	97.90	313,124	5,517	98.2
Batch Run 1 Repeat	NA	NA	NA	NA	NA	NA	533,581	8,940	98.3
Continuous Run 1	4.65-3	6.66E-5	98.57	1.01E-10	2.49E-11	75.34	160,730	3,360	97.9
Continuous Run 2	6.25E-3	6.57E-5	98.95	6.67E-9	2.28E-10	96.58	126,203	1,703	98.7
Continuous Run 3	NA	5.87E-5	NA	NA	1.27E-11	NA	223,649	1,403	99.4

TABLE G-9
Summary of Opacity Recordings
All Runs

	Opacity (%) *																											
	Batch Test 1				Batch Test 2				Batch Test 3				Batch Test 1-Repeat				Continuous Test 1				Continuous Test 2				Continuous Test 3			
	Seconds				Seconds				Seconds				Seconds				Seconds				Seconds				Seconds			
Minutes	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45	0	15	30	45
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* Readings are in percent opacity. 100% is totally opaque. 0% is totally clear. Visual readings, by EPA Method 9, are taken by trained and certified observer.

TABLE G-10
Outlet Particulate Matter Concentration
All Runs

		Batch Outlet				Continuous Outlet		
	Units	Test 1	Test 2	Test 3	Test 1-Repeat	Test 1	Test 2	Test 3
Net Particulate Mass	gram	NA	0.00745	0.00674	0.00123	0.03577	0.00392	0.00828
Sample Volume	DSCF	NA	38.062	37.405	33.835	38.956	36.253	44.473
Particulate Concentration	Grains/DSCF	NA	0.00302	0.00278	0.00056	0.01417	0.00167	0.00287
Particulate Standard	Grains/DSCF	NA	0.05	0.05	0.05	0.05	0.05	0.05
Pass/Fail		NA	pass	pass	pass	pass	pass	pass
Detection Limit	Grains/DSCF	NA	0.00008	0.00008	0.00009	0.00008	0.00009	0.00007

Dioxin/Furan Toxicity Equivalency Factors
I-TEFs/89 Scheme

Compound	I-TEFs/89
2,3,7,8-TCDD	1
1,2,3,7,8-PeCDD	0.5
1,2,3,4,7,8-HxCDD	0.1
1,2,3,6,7,8-HxCDD	0.1
1,2,3,7,8,9-HxCDD	0.1
1,2,3,4,6,7,8-HpCDD	0.01
1,2,3,4,6,7,8,9-OCDD	0.001
2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDF	0.05
2,3,4,7,8-PeCDF	0.5
1,2,3,4,7,8-HxCDF	0.1
1,2,3,6,7,8-HxCDF	0.1
2,3,4,6,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDF	0.1
1,2,3,4,6,7,8-HpCDF	0.01
1,2,3,4,7,8,9-HpCDF	0.01
1,2,3,4,6,7,8,9-OCDF	0.001

Weather Station Data

Date	Time	Rainfall (in) (reset daily)	Humidity (%)	Temperature (outside) ° F	Barometer (in of Hg)	Wind Direction (degrees)	Wind Speed (MPH)
5/9/98	06:52	0.23	94	56	29.90	50	6
5/9/98	02:51	0.04	86	64	30.01	60	4
5/10/98	07:38	0.22	96	56	29.98	20	2
5/11/98	09:45	0.33	92	53	29.94	60	9
6/1/98	12:11	0.85	53	80	29.97	280	4
6/2/98	07:50	0.0		70	28.78	189	1
6/3/98	08:00	0.0		72	29.99	20	6
6/4/98							
6/5/98	12:00	0.0	32	76	29.98	60	2
6/6/98	08:28	0.4	61	61	30.01	330	10
6/7/98	07:30		51	57	30.07	260	2
6/8/98	09:20		51		30.19	280	8
6/9/98	0950	0.02	38	72	30.28	90	2
6/9/98	1200	0.00	33	76	30.33	170	2-4
6/9/98	1600	0.00	56	68	30.29	210	0-2
6/9/98	1900	0.15	87	59	30.23	170	0-1
6/10/98	1130	1.03	93	60	30.11	110	4
6/10/98	1345	0.02	91	61	30.07	130	4
6/10/98	1415	0.02	91	60	30.00	100	10
6/11/98	1423	0.10	81	69	30.20	110	1-2
6/11/98	2323	0.86	97	64	30.12	220	4

Appendix J
Risk Based Concentration for Ambient Air: Resident Child

CHEMICAL	CSFi (kg x day/mg)	RfDi (mg/kg/day)	Adjusted RBC carcinogenic ($\mu g/m^3$)	Adjusted RBC non-carcinogenic ($\mu g/m^3$)
benzo(a)pyrene	3.1	not applicable	**0.01**	not applicable
pentachlorophenol	1.2E-01	3E-02	**0.38**	39.11
benzene	2.9E-02	1.7E-03	**1.57**	2.23
methylene chloride	1.65E-03	8.60E-01	**27.65**	1,121.07
toluene	N/A	1.14E-01	—	**148.61**

Adjusted RBC Carcinogenic = (TR x BW x ATc x 1000 ug/mg)(IR x EF x ED x CSFi)
Adjusted RBC Non-Carcinogenic = (THQ X RfDi X BW x Atn x 1000 ug/mg)(IR x EF X ED)

where:

TR = target risk (unitless)	1E-06
THQ = target hazard quotient	1.0
BW = body weight (kg)	15
ATc = carcinogenic averaging time	25550
Atn = non-carcinogenic averaging time (days)	730
IR = inhalation rate (m3/day)	12
EF = exposure frequency (days/year)	350
ED = exposure duration (years)	2
CSFi = Inhalation carcinogenic slope factor (kg x day/mg)	chemical-specific
RfDi = inhalation reference dose (mg/kg/day)	chemical specific

Note: For benzo(a)pyrene and benzene, toxicity criteria - CSFi and RfDi, respectively - were not available in EPA's Integrated Risk Information System (IRIS). However, USEPA, National Center for Environmental Assessment (NCEA) has developed provisional values, which are provided in this table and considered in these calculations.

Inhalation toxicity criteria are not available for pentachlorophenol. Instead, for the sake of calculations, oral criteria are applied.

Bold print in the table denotes the most stringent RBC value (carcinogenic vs. non-carcinogenic) for a given chemical. The respective values highlighted by bold print could represent ambient air action levels during remediation. All of the selected RBC values are for carcinogenic endpoints, and protect at a level of 1E-06 which is the most stringent end of USEPA's acceptable risk range.

For non-carcinogenics, RBCs represent a hazard quotient of 1.

Air Conversion

It is common practice to express the quantity of a gaseous pollutant present in the air as parts per million (ppm). Thus

$$\frac{\text{1 volume of gaseous pollutant}}{10^3 \text{ volumes (pollutant + air)}} = 1 \text{ ppm}$$

$$0.01 \quad \text{percent by volume} = 1 \text{ ppm}$$

The mass of a pollutant is expressed as micrograms of pollutant per cubic meter of air. Symbolically,

$$\frac{\text{micrograms}}{\text{cubic meter}} = \mu g/m^3$$

At 25°C and 101.3 kPa (1atm) pressure the relationship between parts per million and micrograms per cubic meter is found from

$$\frac{m_{pol}}{V_{air}} = \frac{P_{pol} V_{pol} PM_{pol}}{V_{air} P_{pol} R_u T} = \frac{V_{pol} PM_{pol}}{V_{air} R_u T}$$

where the pollutant gas is assumed to be an ideal gas, and M_{pol} is the molar mass of the pollutant. If P is taken as 1 atm, T as 298°K, and R_u as 0.08208 atm • m^3/kg mol • °K, then the equation reduces to

$$\frac{m_{pol}}{V_{air}} = \frac{V_{pol} M_{pol}}{V_{air}\, 24.5}$$

where the mass of pollutant per unit volume is now expressed ad kg/m^3. Finally, by multiplying the right side by 10^9 to convert the mass to micrograms, and by dividing by 10^8 so that V_{pol}/V_{air} can be expressed as parts per million, then the basic relation between ug/m^3 and ppm at 1 atm and 25°C is

$$\mu g/m^3 = \frac{\text{ppm x molecular weight } (10^3)}{24.5}$$

For conditions of 1 atm and 0° C (273° K) the constant in the denominator becomes 22.41. Sometimes concentrations are also expressed in parts per billion (ppb) or parts per hundred million (pphm).

The following examples illustrate the calculations required for converting from one system of units to another.

Calculation of 95% Upper Confidence Limit for Concentration of Benzo(a)pyrene in Soil

The following steps, which are in accordance with USEPA (1989) guidance, were used to calculate the 95% UCL concentration of benzo(a)pyrene in soil in the containment area (Pit #4).

Step 1: Obtain input data. Analytical soil data from the containment area was obtained from the Remedial Investigation/Feasibility Study Report for the SMWT Site prepared by CDM in May 1988 (p. F-38) and from the Hazardous Waste Remedial Action Predesign Report prepared by Dames & Moore in June 1992 (Table D-2). The data used is summarized in the following table.

Sample	B(a)P in ug/kg	Sample	B(a)P in ug/kg	Sample	B(a)P in ug/kg
MW9	38	SB9 20-22'	150U	SB11 10-12'	5,800
MW16	30,000	SB925-27'	190U	SB11 12-14'	3,400
MW28 0-2'	32,000	SB9 30-32'	170U	SB12 2-4'	1,000
MW28 10-12'	170U	SB9 35-37'	170U	SB1210-12'	4,200U
MW28 14-18'	140,000	SB9 40-42'	210U	SO23 0-1.5'	160U
SB8 0-2'	160U	SB10 0-2'	160U	SO23 1.5-3'	160U
SB8 5-7'	150U	SB10 5-7'	170U	SO23 3-4.5'	160U
SB8 10-12'	160U	SB10 10-12'	150U	SO24 0-1.5'	810U
SB815-17'	170U	SB10 15-17'	150U	SO24 1.5-3'	160U
SB8 18-20'	150U	SB10 20-22'	150U	SO24 3-4.5'	160U
SB9 0-2'	150U	SB10 25-27'	170U	SO25 0-1.5'	160U
SB9 5-7'	170U	SB10 30-32'	170U	SO25 1.5-3'	160U
SB9 10-12'	250	SB10 35-37'	170U	SO25 3-4.5'	160U
SB9 15-17'	150U	SB11 0-2'	150U		

Step 2: Determine appropriate equation. The distribution data set was tested for distribution using the Shapiro-Wilks test of normality (Gilbert, 1987), and the data were determined to be lognormally distributed. Therefore, the equation used for calculating the UCL, discussed by Gilbert (1987) and Land (1975) and presented in USEPA (1992), is:

$$UCL_{0.95} = \exp\left(y + 0.5(s_y)^2 + (s_y \times H_{0.95})/(n-1)^{1/2}\right)$$

where:

UCL = upper confidence limit;

y = mean of the logtransformed data;

s_y = standard deviation of the logtransformed data;

$(s_y)^2$ = variance of the logtransformed data;

H = H-statistic (i.e., from Gilbert 1987, p. 265); and

n = number of samples in population.

Step 3: Calculation of the mean of the logtransformed data. A "U" qualifier (indicating the compound had not been detected at or above the given detection limit) was present in the data set. Values with this qualifier were divided in half before being logtransformed. One-half the detection limit is typically used in risk assessments (USEPA 1989) when averaging non-detect concentrations, because the actual value can be between zero and a value just below the detection limit. All data were then logtransfromed by taking the natural log of each value. Mean chemical concentrations were calculated by averaging the logtransformed data. Standard deviation and variance were also calculated from this data.

Step 4: Calculation of the 95% UCL: Using the standard deviation and the number of samples (41), the H-statistic was determined. Plugging all these values into the equation in Step 2, the 95% UCL concentration of benzo(a)pyrene in soil in the containment area was calculated to be 3,640 µg/kg.

GILBERT, R.O. 1987. Statistical Methods for Environmental Pollution Monitoring. Van Nostrand Reinhold, New York

LAND, C.E. 1975. Tables of confidence limits for linear functions of the normal mean and variance. Math. Stat. 3:385-419

U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA). 1989. Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual. Part A. Interim Final. EPA/540/1-89/002. December 1989

U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA). 1992. Supplemental Guidance to RAGS: Calculating the Concentration Term. Office of Solid Waste and Emergency Response, Washington, D.C. PB92-963373. May 1992

APPENDIX M – KEY TO DATA FLAGS

J	the analyte was positively identified, the quantitation is an estimation
B	organic- the analyte was found in an associated blank, as well as the sample
B	inorganic- the reported value was less than reporting limit but greater than method detection limit
ND	not detected at or above the reporting limit
EDL	estimated detection limit
EMPC	estimated maximum possible concentration, analyte meet the retention time criteria of a dioxin or a furan but not the isotopic ratio criteria
NT	not taken
N/A	not applicable
UJ	Not detected. Quantitation limit may be inaccurate.
UL	Not detected. Quantitation limit is probably higher.
[ ]	Analyte present. Value approaches the IDL, but not less than the quantitation limit. The quantitation may not be accurate.

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

Codes Related to Identification:

(Confidence concerning presence or absence of analytes)

U	=	Not detected above the level of the associated value. The associated value is either the approximate sample quantitation or detection limit.
NO Code	=	Confirmed identification.
B	=	Not detected substantially above the level reported in laboratory or field blanks.
R	=	Unusable result. Analyte may or may not be present in the sample.
N	=	Tentative identification. Consider present. Special methods may be needed to conform its presence or absence in future sampling efforts.

Codes Related to Quantitation:

(Can be used for both positive results and sample detection limits)

J	=	Analyte present. Reported value may not be accurate or precise (estimated value).
K	=	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	=	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
[ ]	=	Analyte present. Value approaches the IDL, but less than the quantitation limit. The quantitation may not be accurate.
UJ	=	Not detected. Quantitation limit may be inaccurate or imprecise.
UL	=	Not detected. Quantitation limit is probably higher.

Other Codes:

NJ	=	Qualitative identification questionable. Presumptively present at approximate quantity.
Q	=	No analytical Result.

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

Codes Related to Identification:

(Confidence concerning presence or absence of compounds)

U	=	Not detected above the level of the associated value. The associated value is either the approximate sample quantitation or detection limit.
NO Code	=	Confirmed identification.
B	=	Not detected substantially above the level reported in laboratory or field blanks.
R	=	Unusable result. Analyte may or may not be present in the sample.
N	=	Tentative identification. Consider present. Special methods may be needed to conform its presence or absence in future sampling efforts.

Codes Related to Quantitation:

(Can be used for both positive results and sample quantitation limits)

J	=	Analyte present. Reported value may not be accurate or precise (estimated value).
K	=	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	=	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
UJ	=	Not detected. Quantitation limit may be inaccurate or imprecise.
UL	=	Not detected. Quantitation limit is probably higher.

Other Codes:

NJ	=	Qualitative identification questionable. Presumptively present at approximate quantity.
Q	=	No analytical Result.

SOP Classification Series

SOP SERIES	TITLE
10.0	**DOCUMENTATION**
10.1	Field Logbook
10.2	Chain-of-Custody Forms
30.0	**SAMPLING**
30.3	Percent Moisture Soil Sampling
30.5	Particulate Monitoring Using Miniram
30.6	Collection of Ambient Air with Summa Steel Canisters
30.7	Thermal Desorption Unit Soil Sampling
30.8	Water Sampling during the TDU Proof of Performance
30.9	Sampling for the Water Treatment Plant
30.10	TDU Stack Sampling Protocol
50.0	**SAMPLE MANAGEMENT**
50.1	Sample Labels
50.2	Sample Packaging
50.3	Sample Preservation and Container Requirements

STANDARD OPERATING PROCEDURE 10.1
FIELD LOGBOOK

1.0 SCOPE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to delineate protocols for recording daily site investigation activities.

Records should contain sufficient information so that anyone can reconstruct the sampling activity without relying on the collector's memory.

2.0 MATERIALS

- Field Logbook
- Indelible ink pen

3.0 PROCEDURE

Information pertinent to site investigations will be recorded in a bound logbook. Each page/form will be consecutively numbered, dated, and signed. All entries will be made in indelible ink and all corrections will consist of line-out deletions that are initialed and dated. If only part of a page is used, the remainder of the page should have an "X" drawn across it. At a minimum, entries in the logbook will include but not be limited to the following:

- A general description of the field activity.
- Project number.
- Name and affiliation of personnel on site.
- Unique, sequential field sample number.
- Location, description, and each sampling point.
- Details of the sample site.
- Name and address of field contact.
- Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample.
- Identification of sample crew members.
- Weather conditions.
- Sample matrix (for example, groundwater or surface water).
- Sample number and volume.
- Analytical request.
- Sampling methodology.
- Sample preservation.
- Date and time of collection.
- Associated QA/QC samples.
- Sample shipment.
- Field observations.
- Field measurements.
- Signature and date by the personnel responsible for observations.

4.0 MAINTENANCE

Not applicable.

5.0 PRECAUTIONS

None.

6.0 REFERENCES

USEPA. 1990. *Sampler's Guide to the Contract Laboratory Program.* EPA/540/P-90/006, Directive 9240.0-06, Office of Emergency and Remedial Response, Washington, D.C., December 1990.

USEPA. 1991. *User's Guide to the Contract Laboratory Program.* EPA/540/O-91/002, Directive 9240.0-01D, Office of Emergency and Remedial Response, January 1991.

USEPA. 1980. *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans.* QAMS-005/80.

STANDARD OPERATING PROCEDURE 10.2
CHAIN-OF-CUSTODY FORM

1.0 SCOPE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to delineate protocols for use of the chain-of-custody form. An example is provided as part of this SOP. Other formats with similar levels of detail are acceptable.

2.0 MATERIALS

- Chain-of-custody form
- Indelible ink pen

3.0 PROCEDURE

1. Give the site name and project name/number.
2. Enter the sample identification code.
3. Indicate the sampling dates for all samples.
4. List the sampling times (military format) for all samples.
5. Indicate "grab" or "composite" sample with an "X."
6. Specify the sample location.
7. Enter the total number of containers per cooler.
8. List the analyses/container volume.
9. State the carrier service and airbill number, analytical laboratory, and custody seal numbers.
10. Sign, date, and time the "relinquished by" section.
11. Upon completion of the form, retain the shipper copy, and place the forms and the other copies in a zip seal bag to protect from moisture. Affix the zip seal bag to the inside of the sample cooler to be sent to the designated laboratory.

4.0 MAINTENANCE

Not applicable.

5.0 PRECAUTIONS

None.

6.0 REFERENCES

USEPA. 1990. *Sampler's Guide to the Contract Laboratory Program.* EPA/540/P-90/006, Directive 9240.0-06, Office of Emergency and Remedial Response, Washington, D.C., December 1990.

USEPA. 1991. *User's Guide to the Contract Laboratory Program..* EPA/540/O-91/002, Directive 9240.0-01D, Office of Emergency and Remedial Response, January 1991.

USEPA. 1980. *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans,* QAMS-005/80.

FIGURE 10.4-a
EXAMPLE CHAIN-OF-CUSTODY FORM

Project Number	Site Name				Number of Containers										LAB :
															AIRBILL No:
Samplers:															Courier:
Date	Time	Comp	Grab	Field Sample No.											REMARKS
				TOTAL											

Relinquished by:	Date/ time	Received by:	Relinquished by:	Date/ Time	Received by:
Relinquished by:	Date/ time	Received by: (for lab)	Date/Time	Remarks	

STANDARD OPERATING PROCEDURE 30.3
PERCENT MOISTURE SOIL SAMPLING

1.0 SCOPE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to define procedures for collecting percent moisture soil samples. Prior to full scale operations, a statistical method will be used to determine the variation in measured moisture content within a grab sample set. This will provide an indication of the accuracy and precision with which a single grab sample can characterize the moisture content of feed soils. Samples will be collected for grain size analysis to determine if there is a correlation between grain size and percent moisture.

2.0 MATERIALS

- Certified clean sample containers
- Stainless steel hand trowel
- Field logbook
- Chemical resistant gloves

3.0 PROCEDURES

Statistical Testing

A 3' x 3' x 3' pile of site representative soil will be stockpiled. The samples shall contain no obvious heterogeneities. Twelve samples will be collected from the pile for percent moisture and grain size analyses.

1. A grab sample will be collected using a disposable or stainless steel trowel.
2. The sample will be placed directly into the appropriate size sample jar.
3. Samples will be taken from the pile at twelve random locations (The same locations will be used to collect both % moisture and grain size samples).
4. Samples will be analyzed on-site for percent moisture and grain size.

Full Scale Operations

One grab sample will be collected and analyzed for percent moisture from the feed soil piles for the batch and continuous units each day following the procedures 1, 2 and 4 above.

4.0 MAINTENANCE

Not Applicable

5.0 PRECAUTIONS

1. Avoid dermal contact with soil.
2. Remove organic material, rocks, or pebbles

6.0 REFERENCES

USACE. 1998. Sampling and Analysis Plan for Remedial Activities for Southern Maryland Wood Treatment Site. Draft Final.

USACE. 1998. Quality Assurance Plan for Remedial Activities for Southern Maryland Wood Treatment Site. Draft Final.

ORIGINAL

STANDARD OPERATING PROCEDURE 30.5
PARTICULATE MONITORING USING DUST MONITOR

1.0 SCOPE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to define procedures for particulate monitoring. Semi-volatile organic compounds (SVOCs) will be indirectly measured with a dust monitor using the assumption that all dust captured in the monitoring device contains 3.640 µg B(a)P/kg dust (the calculated 95% upper confidence limit concentration of B(a)P soil from the containment area). Dividing this by the limit gives an action level of 2,750 ug/kg dust.

2.0 MATERIALS

- Dust Monitor
- Field logbook
- Calibration logbook

3.0 PROCEDURE

1. Dust monitor will be calibrated following manufacturer's instructions.
2. Sixteen potential sampling points, relatively equidistant along the perimeter will be identified prior to monitoring activities. This way, all potential wind directions will be represented. These locations will be chosen to obtain the most favorable areas (height, access, etc.) depending on the wind direction(s) on any given day.
3. Prior to daily sampling, a meteorological survey will be used to design the air-monitoring network so that it takes into account local wind patterns. This may be obtained from an on-site weather station and wind socks, weather radio or local airport and will include wind direction (if not steady, a range of directions), wind speed and humidity.
4. After wind direction is determined, three sample points downwind and one sample point upwind will be determined to best represent air concentrations. Downwind points do not have to be in series, if wind directions would be better represented by non-sequential points.
5. Readings will be taken directly from the readout screen three times a day (approximately zero, four and eight hours after set-up or as conditions warrant). Time, location (with rationale) and reading will be recorded in the logbook.
6. At the end of the day, the Shift-Average button will be pressed and the reading recorded.

4.0 PRECAUTIONS

- Monitor wind directions frequently to note any directional change.

5.0 REFERENCES

USACE. 1998. Quality Assurance Project Plan for Remedial Activities for Southern Maryland Wood Treatment Site. Draft Final.

USACE. 1998. Sampling and Analysis Plan for Remedial Activities for Southern Maryland Wood Treatment Site. Draft Final.

STANDARD OPERATING PROCEDURE 30.6
COLLECTION OF AMBIENT AIR WITH SUMMA STEEL CANISTERS

1.0 SCOPE AND APPLICATION

This purpose of this Standard Operating Procedure (SOP) is to establish the procedure for collecting ambient air samples with summa stainless-steel canisters.

Volatile organic compounds (VOCs) in ambient air are collected as whole air samples in passivated summa stainless-steel canisters. The VOCs are subsequently separated by gas chromatography (GC) and measured by a mass-selective detector. This SOP describes procedures for sampling with canisters at final pressures both above atmospheric pressure (referred to as pressurized sampling) and below atmospheric pressure (referred to as subatmospheric pressure sampling).

Numerous VOCs are amenable to collection and analysis using summa canisters. A list of these analytes is available from USEPA Method TO14. Compounds may be added to the list if the compound has been performance demonstrated using ICF KE SOPs H.2 *Collection of Ambient Air With Summa Canisters* and H.1 *Analysis of Ambient Air collected with Adsorbent Cartridges and/or Summa Canisters.*

This SOP is based on the technical requirements described in the NJDEP guidance document "Field Sampling Procedures Manual (May 1992)" and the New Jersey "Technical Requirements for Site Remediation (N.J.A.C. 7:26E, May 1997)". Use of this SOP will provide Level III analytical data for site characterizations and Level IV analytical data for risk assessments. This SOP can also provide data for evaluation of remediation alternatives, engineering design of remediation activities, and support during implementation of remediation activities.

2.0 MATERIALS

2.1 SUBATMOSPHERIC PRESSURE SAMPLING

a. VOC canister sampler: Whole air sampler capable of filling an initially evacuated canister by action of flow control from near 30 inches of mercury (Hg) vacuum to near atmospheric pressure.

2.2 PRESSURIZED SAMPLING

a. VOC canister sampler: Whole air sampler capable of filling an initially evacuated canister by action of the flow controller and pump from near 30 inches Hg vacuum to 15-20 psig atmospheric pressure.

2.3 BOTH SAMPLING METHODS

a. Sampling inlet line: Stainless-steel, teflon, or tygon tubing to connect the sampler to the sample inlet.

b. Sample canister: Leak-free stainless-steel pressure vessels of desired volume with valve and summa passivated interior surfaces.

c. Breathing Zone Stand: Capable of supporting a particulate matter filter at a height of approximately 5 feet.

d. Flow meter: A rotameter or other flow rate metering device capable of quantifying flow rates of 1 to 200 cm3/min.

e. Particulate matter filter: A 2-1m sintered stainless steel in-line filter.

f. Tubing and fittings for interconnections: Tubing and fittings should be composed of tygon, teflon, or stainless-steel.

g. Fixed orifice, capillary, or adjustable micrometering valve: used in lieu of the electronic flow controller/ sample pump for grab samples or short duration time integrated samples.

h. Stop Watch: Capable of measuring to the nearest second.

i. Thermometer: Capable of measuring to the nearest 0.10C.

j. Crescent Wrenches: Sufficient to adjust fittings and interconnections.

k. Tube Cutter: Capable of cutting all tubing to be used.

l. Small Slotted Screwdriver: Of sufficient size to adjust flow restrictive and metering devices.

m. Photoionization Detector (PID)

n. Combustible Gas Indicator (CGI)

o. Field logbook

3.0 PROCEDURE

Prior to sample collection, record the following information in the field logbook.

a. Name and title of author, date and time of entry, and physical/environmental conditions during the activity.

b. Purpose of the field activity.

c. Location of the sampling activity.

d. Name and title of the field crew.

e. Level of personal safety protection used for the field activity.

f. Name and title of any visitors to the site.

g. Sample collection method.

h. Number and volume of sample(s) collected.

i. Date and time of collection.

j. Sample identification number(s).

k. Summa canister lab ID number.

l. Field measurements, including temperature, barometric pressure, cloud cover, wind speed/ direction, PID reading, and CGI reading.

m. Summary of procedure for sample collection, documentation of SOP deviations, and scope of work changes.

n. Description of any photographs taken, including film roll number.

o. All entries shall be signed at the end of the day.

Make and attach a label to the summa canister recording the following information:

a. Name and title of author.

b. Sample collection method.

c. Date and time of collection.

d. Sample identification number(s).

e. Summa canister lab ID number.

3.1 Subatmospheric Pressure Sampling

Secure sample inlet tube to the breathing zone stand and extend to approximately 5 feet. If necessary, attach air filter to the sample inlet tube to prevent dust from entering the sampling system.

Attach the sample inlet tube to the canister and tighten the valve.

Open a canister, which is evacuated to 28-30 inches Hg at sea level and fitted with a flow restricting device, to the atmosphere containing the VOCs to be sampled. The pressure differential causes the sample to flow into the canister.

This technique may be used to collect grab samples (duration of 10 to 30 seconds) or time-integrated samples (duration of 12 to 24 hours). Sampling duration depends on the degree to which the flow is restricted. The flow will remain constant until the vacuum reads approximately 11 inches Hg. When this occurs, control the flow either manually or automatically to achieve constant flow.

When sample collection is complete, move the sample canister control valve to the closed position.

3.2 PRESSURIZED SAMPLING

Use a digital time-programmer to pre-select sample duration, and pump start and stop times.

Secure sample inlet tube to the breathing zone stand and extend to approximately 5 feet. If necessary, attach air filter to the sample inlet tube to prevent dust from entering the sampling system.

Attach the sample inlet tube to the canister and tighten the valve.

Open a canister which is evacuated to 28-30 inches Hg at sea level and connected in line with the sampler to the atmosphere containing the VOCs to be sampled.

Using a sample pump in conjunction with a flow controller, a volume of air sample is collected from the inlet tube. The initially evacuated canister is filled by action of the flow controlled pump to a positive pressure not to exceed 25 psig.

When sample collection is complete, move the sample canister control valve to the closed position.

3.3 SAMPLE PRESERVATION

Samples collected in canisters should be sent to the analytical laboratory with the canister valve closed and the sampling port capped. Samples must be accompanied by a chain-of-custody (COC) indicating sampling locations, sample numbers, date collected, sample matrix, and sample volumes. The COC should agree with the information on the summa canister label, and discrepancies must be noted on the COC at the time of receipt by the laboratory. In addition, any obvious physical damage or contamination (e.g., punctures) must also be recorded on the COC.

3.4 SAMPLE HANDLING AND STORAGE

Summa canister samples do not need any refrigeration or special handling until they are analyzed. USEPA Method TO14 does not specify a holding time for summa canister samples.

3.5 CALCULATIONS

A flow control device maintains a constant flow into the canister over the desired sample period. This flow rate is determined so that the canister is filled over the desired sampling period to 2-5 inches Hg vacuum for subatmospheric pressure sampling, or to about one atmosphere (15 psi) above ambient pressure for pressurized sampling.

3.5.1 Subatmospheric Pressure Sampling

For subatmospheric sampling, the volume of the sample must be calculated before the flow rate can be determined. The sample volume can be calculated by:

$$S = V - \left(\frac{V * E}{I}\right) 1$$

Where:
S = sample volume (cm^3)
V = volume of the canister (cm^3)
I = initial canister vacuum (in. Hg)
E = estimated final vacuum (in. Hg)

For example, to calculate the sample volume of a 6-L canister with an initial canister vacuum of 28 inches Hg and an estimated final vacuum of 5 inches Hg.

$$S = 6{,}000 - \left(\frac{6{,}000 * 5}{28}\right) \quad 2$$

S = 4,929 cm^3

The flow rate can be calculated by:

$$F = \left(\frac{S}{T * 60}\right) \quad 3$$

Where:

F = flow rate (cm^3/min or Ml/min)

S = sample volume (cm^3)

T = sample period (hours)

Using a 24-hour sampling period for the above sample volume, the flow rate can be calculated by:

$$F = \left(\frac{4{,}929}{24 * 60}\right) \quad 4$$

F = 3.42 cm^3/min.

3.5.2 Pressurized Sampling

For pressurized sampling, only the flow rate has to be calculated. For example, if a 6-L canister is to be filled with 12-L of sample at 2 atmospheres absolute pressure (near 30 psig) in 24 hours, the flow rate can be calculated by:

$$F = \left(\frac{12{,}000}{24 * 60}\right) \quad 5$$

F = 8.3 cm^3/min

If the canister pressure is increased for analysis, a dilution factor (DF) is calculated and recorded on the canister label and in the field logbook. After sample analysis, detected VOC concentrations are multiplied by the dilution factor to determine concentration in the sampled air. Dilution factor can be calculated by:

$$DF = \left(\frac{P_f}{P_i}\right) \quad 6$$

Where:

P_f = canister pressure (psig) after pressurization

P_i = canister pressure (psig) before pressurization

3.5.3 General

Depending upon available gauges and instrumentation, it may be necessary to perform unit conversions. Common unit conversions may be performed by:

Inches of Hg	to atmospheres	mult. by 0.0333
Inches of Hg	to psi	mult. by 0.490
psi	to atmospheres	mult. by 0.0680
psi	to Inches of Hg	mult. by 2.04
psig	to total psi	add 14.7

3.6 QUALITY ASSURANCE QUALITY CONTROL (QA/QC)

3.6.1 QA/QC Samples

A field duplicate sample is collected at the same time, in the same location, and under the same conditions as the sample. One field duplicate sample shall be collected for every ten samples collected. Evaluation of duplicate information shall be made by calculation of the relative percent difference (RPD). The equation is stated below.

$$RPD = \left(\frac{X1 - X2}{X1 + X2}\right) * 200 \quad 7$$

Where:

X1 = sample value

X2 = duplicate sample value

A field replicate sample is collected in the same location, and under the same sample set up conditions as the sample with one exception, the replicate sample is collected on a different day. This SOP does not set forth specific replicate frequency requirements, however, work plans may incorporate their use.

3.6.2 QA/QC Procedures

All data must be documented on standard chain-of-custody forms and within field logbooks.

All instrumentation must be operated in accordance with operating instructions as supplied by the manufacturer, unless otherwise specified in the work plan. Equipment checkout and calibration activities must occur prior to sampling/ operation, and they must be documented.

4.0 MAINTENANCE

Contamination may occur in the sampling system if canisters are not properly cleaned before use. Therefore when procuring summa canisters from the contracted analytical laboratory, proof of summa canister decontamination shall be supplied with the canister. Additionally, all other sampling equipment (e.g., pump, flow controllers, tubing) should be kept clean or returned to the contracted laboratory for decontamination.

All sampling equipment and sampling media shall be protected from contact with any potentially contaminated surface soil or water. Sampling equipment shall be stored in clean areas and protected from dirt and water during transportation. Equipment may be periodically wiped clean with a clean cloth, but decontamination using solvents or liquids is to be avoided. Avoid contaminating sampling equipment or media with tape or marker fumes, snoop, or bare hands. Use new tygon or teflon tubing as appropriate for each sample event.

5.0 PRECAUTIONS

Care must be taken not to exceed 40 psig in the canisters. Canisters are under pressure, usually 20-30 psig, and should not be dented or punctured. They should be stored in a cool dry place and always be placed in their plastic shipping boxes during transport and storage.

6.0 REFERENCES

Air Toxins, 1993. "Canisters and Tedlar Bags." Volume 1 of Air Toxins Guide to Air Sampling and Analysis. 2nd Edition, April 1993.

USEPA, 1992. Summa Canister Sampling: SOP #1704. USEPA, Office of Emergency and Remedial Response (PB92-963406).

USEPA, 1989. "Determination of Volatile Organic Compounds in Ambient Air Using SUMMA Passivated Canister Sampling and Gas Chromatographic Analysis." Compendium of Methods for Determination of Toxic Organic Compounds in Ambient Air.

STANDARD OPERATING PROCEDURE 30.7
THERMAL DESORPTION UNIT SOIL SAMPLING

1.0 SCOPE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to define procedures for thermal desorption unit (TDU) soil sampling.

2.0 MATERIALS

- Certified clean sample containers
- Photoizonation detector (PID)
- Stainless steel bowl and trowel
- Chemical resistant gloves
- Field logbook
- Coolers
- Ice

3.0 PROCEDURE

3.1 Sampling Treated Soils during Operation

Samples will be collected every two operating days during operation from the stockpile created from the discharge of the four TDUs. The sampler will dig from the surface toward the center of pile one to two feet at ten locations. Locations will be selected based on highest PID readings. If no readings above background are found, locations will be randomly selected. At each of the ten locations, a small volume of soil (approximately 1/10th the size of the combined volume of the remaining containers) will be placed into a stainless steel bowl. The sample will be homogenized and transferred to appropriate sample containers. The remaining sample will be discarded back into the stockpiled soil. At four locations, four grab samples will be collected for VOC analysis with a stainless steel trowel. Samples will be labeled, cooled with ice or refrigeration and packaged in accordance with SOPs 50.1, 50.2 and 50.3. Samples will be sent off-site for analysis.

3.2 Sampling Treated Soils during Proof of Performance

The sampling procedures during POP will be the same as mentioned in Section 3.1 except the stockpiles will be separated into individual piles from their respective units. During Proof of Performance, soils will be collected from six stockpiles (three test runs for both the batch and continuous units). The batch unit will have one stockpile per test and four samples will be collected for VOC analysis and ten random samples will be collected and composited for the remaining analyses from the stockpile. From the continuous unit five separate soil piles will be made per test. From these piles four VOC samples will be collected and ten samples (two from each pile) will be collected and composited as one sample for the remaining analyses.

3.3 Sampling Untreated Soils during Operation

The sampling procedures for untreated soil will be the same as mentioned in Section 3.1 except that a sample will be collected once a month and no cooling will be necessary. This monthly sampling will begin after the month in which the POP was performed.

3.4 Sampling Untreated Soils during Proof of Performance

The sampling procedures for untreated soil during the Proof of Performance will be the same as mentioned in Section 3.1, except soils will not require cooling and will be collected from six feed piles (three tests, two unit types; batch and continuous). Samples will be sent to off-site for analysis.

3.5 Verification of Feed Material

The sampling procedures for verification of feed material will be the same as mentioned in Section 3.1, except samples will be collected one time prior to the proof of performance test from stockpiles removed from the pond sediment and Pit #1. Samples will be analyzed on-site for PAHs (3550M/8270C) and percent moisture (ASTM D 2216).

3.6 Sampling the Hot Cyclone Soils and Batch Impinger Sludge during Proof of Performance

A small volume of soil or sludge (1 to 2 cubic feet) will be produced from each Hot Cyclone (batch and continuous) and the Batch Impinger.

For each test:

1. For VOCs, one grab sample will be collected using a stainless trowel.
2. For other parameters, a trowel will be used to fill a stainless steel bowl. The soil will be homogenized and put in appropriate sample containers.
3. Samples will be labeled and packaged in accordance with SOPs 50.1, 50.2 and 50.3.
4. Samples will be sent off-site for analysis.

4.0 MAINTENANCE

Not Applicable

5.0 PRECAUTIONS

1. Avoid dermal contact with soil.
2. Remove organic material, rocks, and pebbles.
3. Change gloves between samples.
4. Soils may be extremely hot.
5. Sampler will wear modified level D personal protective equipment during untreated soil sampling.

6.0 REFERENCES

USACE. 1998. Sampling and Analysis Plan for Remedial Activities for Southern Maryland Wood Treatment Site. Draft Final.

USACE. 1998. Quality Assurance Project Plan for Southern Maryland Wood Treatment Site. Draft Final.

STANDARD OPERATING PROCEDURE 30.8
WATER SAMPLING DURING THE TDU PROOF OF PERFORMANCE

1.0 SCOPE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to define procedures for water sampling during the TDU Proof of Performance (POP).

2.0 MATERIALS

- Certified clean sample containers
- Coolers
- Ice
- Chemical resistant gloves
- Field logbook
- Five gallon bucket

3.0 PROCEDURE

Sampling of condensate water will occur once per day of POP test. The test will run for six days.

1. Begin sampling three hours after the TDU startup. This ensures that water has circulated through the system.

2. Water will be purged from each sample port as needed (approximately 2 gallons) prior to collecting samples. This will remove stagnant water and settled solids from the sample port. The water shall be purged into a 5-gal bucket or similar container. Purged water will be disposed at the treatment plant.

3. A grab sample will be collected from the batch and continuous lines to the condensate tank for all parameters by opening the sample port valve and purging directly into the sample jars.

4. Samples will then be taken from the condensate tank effluent, modular tank effluent (if being used), and Baker tank effluent for TSS using the same procedure as mentioned in 3.3.

5. Water treatment plant (#2) will be sampled on the first day condensate from POP testing is received a the plant following SOP 30.9.

6. Samples will be collected in decreasing order of volatility (VOCs, SVOCs, etc.)

7. Samples will then be prepared, packed, and shipped as per SOPs 50.1, 50.2, and 50.3.

4.0 MAINTENANCE

Not Applicable

5.0 PRECAUTIONS

- Sampler will wear Tyvek coveralls, chemical resistant gloves, safety glasses, and hard hat.
- Assistant will wear chemical resistant gloves, safety glasses, and hard hat.
- Change gloves between samples.

6.0 REFERENCES

USACE. 1998. Quality Assurance Project Plan for Remedial Activities for Southern Maryland Wood Treatment Site. Draft Final.

USACE. 1998. Sampling and Analysis Plan for Remedial Activities for Southern Maryland Wood Treatment Site. Draft Final.

STANDARD OPERATING PROCEDURE 30.9
SAMPLING FOR THE WATER TREATMENT PLANT

1.0 SCOPE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to define procedures for the sampling of the water treatment plant.

2.0 MATERIALS

- 4-Liter certified clean composite containers
- Field logbook
- Certified clean sample containers
- Chemical resistant gloves
- Coolers
- Ice
- Clean funnels
- Five gallon bucket

3.0 PROCEDURE

3.1 Monthly

1. Sampling locations and frequency are shown in Figure 3-10 and Table 3-9 of the Field Sampling Plan.
2. A logbook shall be kept and used to record all pertinent sampling times and relevant information.
3. Water will be purged from each sample port as needed (approximately 2 gallons) prior to collecting samples. This will remove stagnant water and settled solids from the sample port. The water shall be purged into a 5-gallon bucket or similar container. Purged water will be poured into the floor drain to be treated by the Water Treatment Plant.
4. The samples will be collected in the following order: Equalization Tank Effluent (ETE), Oil Water Separator Effluent (OWS), Mix Reaction Tank Effluent (MRT), Inclined Plate Separator Effluent (IPS), Sand Filter Effluent (SFE), AOP Reactor Influent (ARI), AOP Reactor Effluent (ARE), First Carbon Effluent (LCE), and Final Discharge at Treated Water Tank Effluent (FDE).
5. Each sampling container will be filled from the appropriate sample port. Containers will be labeled, packed and shipped following the SOPs 50.1, 50.2 and 50.3.

3.2 Acceptance Test

The sampling procedures during the acceptance test will be the same as mentioned in Section 3.1 with the following exceptions:

1. Sampling locations and frequency are shown in Table 3-8 of the Field Sampling and Analysis
2. Plan.
3. The first sampling event will begin no earlier than three hours and no later than six hours after plant startup.
4. Each sample, except for VOC samples, will be comprised of four grab samples, which will be composited. A grab sample from each sample location will be collected approximately every half-hour. A sampling container (4 liter amber, certified clean) will be filled approximately one quarter full during each event until four grab samples are collected. After each grab sample collection the sample containers will be placed in a cooler on ice.
5. A VOC sample will be collected during the collection of the second round of grab samples. The sample for VOC will not be composited.
6. Upon completion of collecting the fourth grab sample from each sample location, the samples will be poured into individual sample jars.
7. This procedure shall be repeated once every 24 hours for six days.

3.3 Proof of Performance

The sampling procedures during the proof of performance will be the same as mentioned in Section 3.1 with the following exceptions:

1. Sampling locations and frequency are shown in Table 3-3 of the Field Sampling Plan.
2. The water treatment plant will be sampled on the first day condensate is received from the proof of performance test.

4.0 MAINTENANCE

Not Applicable

5.0 PRECAUTIONS

- Sampler will wear a Tyvek coverall, chemical resistant gloves, safety glasses, and hard hat.
- Assistant will wear chemical resistant gloves, safety glasses, and hard hat.
- Change gloves between samples.

6.0 REFERENCES

USACE. 1998. Sampling and Analysis Plan for Remedial Activities for Southern Maryland Wood Treatment Site. Draft Final.

USACE. 1998. Quality Assurance Project Plan for Southern Maryland Wood Treatment Site. Draft Final.

Standard Operating Procedure 30.10

TDU Stack Sampling Protocol

DRAFT

PROOF OF PERFORMANCE TEST PROTOCOL

FOR THE BATCH AND CONTINUOUS
THERMAL DESORPTION UNIT OXIDIZERS
@ THE SOUTHERN MARYLAND
WOOD TREATMENT SUPERFUND SITE
25202 THREE NOTCH ROAD
HOLLYWOOD MD 20636

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AirRECON Project 311-81454

May 11, 1998

(H:\AIRRECON\PROTOCOL.98\1454.P.DOC)

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1.0 INTRODUCTION

ICF KAISER Engineers will manage a site remediation project at the Southern Maryland Wood Treatment Superfund Site in Hollywood MD. Soil at the site is contaminated with organic compounds from a former wood treatment plant. Remediation will be performed through thermal desorption /oxidation.

To demonstrate the effectiveness of and environmental emissions from the remediation process, ICF KAISER will conduct a *Proof Of Performance* (POP) test, which will include stack emission sampling. ICF KAISER contracted AirRECON, a division of Levine·Fricke·Recon (LFR), to perform the stack emission testing.

This protocol provides a detailed description of stack sampling procedures. A detailed description of the site, the remediation process, and other POP-related activities can be found in the *Proof-of-Performance Plan* developed by ICF KAISER, dated April 1998. A copy of the plan is found in Attachment 1.

1.1 JOB-SITE

Southern Maryland Wood Treatment Superfund Site
25202 Three Notch Road
Hollywood MD 20636

Contact: Kirk Ticknor, PE, Site Manager
Phone: 301-373-5834
Fax: 301-373-5975

1.2 PLANT INFORMATION

Source: Batch TDU Oxidizer, Continuous TDU Oxidizer
Contract No. DACA31-95-D-0083, Task No. 16

1.3 PLANT SAFETY REQUIREMENTS

The plant safety policy requires personnel working onsite to have current 40-hour OSHA Hazardous Worker Training and to wear a hard hat, safety glasses, and safety boots.

2.0 PROCESS INFORMATION

Part of the POP test will be a determination of the maximum soil throughput that will result in adequately cleaned soil from the TDUs. This ramp-up test will be performed prior to stack sampling. Stack sampling will be performed during periods of maximum soil throughput.

A detailed description of the process operating parameters that will be monitored during the stack test are detailed in section 7.0 of the POP Plan.

2.1 SOURCE DESCRIPTION

A detailed description of the TDU processes and control devices is provided in Section 2.0 of the POP Plan. Both continuous TDUs (CTDUs) and batch TDUs (BTDUs) will be used for soil remediation.

In summary, contaminated soil is heated in a contained environment that vaporizes the organic contamination. An air/nitrogen sweep is used to carry the vaporized organic compounds from the TDU to the pollution control equipment.

2.2 CONTROL DEVICE

Continuous TDU: Air emissions are cleaned in series by a hot cyclone, quencher/scrubber, electrostatic precipitator (ESP) and a flameless thermal oxidizer.

Batch TDU: Air emissions are reduced in series by a hot cyclone, two impingers, another cyclone, condensers, and a thermal oxidizer.

3.0 SAMPLING LOCATIONS

Sample diagrams of the test locations are in Attachment 2. All measurements will be field-verified and conform to EPA Reference Method 1 (or 1A). A description of the sample location(s) follow.

3.1 BATCH TDU

Outlet: Measurement will take place in a circular stack having an inside diameter of 4 inches. Several sample ports are available on the stack as per the attached diagrams. Because of the small duct diameter, flow measurements will take place down-stream of the sample extraction ports.

Inlet: Measurement will take place in a circular stack having an inside diameter of 4 inches. Several sample ports are available on the stack as per the attached diagrams. Because of the small duct diameter, flow measurements will take place down-stream of the sample extraction ports.

3.2 CONTINUOUS TDU

Outlet: Measurement will take place in a circular stack having an inside diameter of 8 inches. The test ports are located 48 inches downstream (EPA Distance "B" = 6 duct diameters) and >16 inches upstream (EPA Distance "A" = 2 duct diameters) of flow disturbances. 16 traverse points (8 points/port) will be measured.

Inlet: Measurement will take place in a circular stack having an inside diameter of 8 inches. The test ports are located 24 inches downstream (EPA Distance "B" = 3 duct diameters) and 12 inches upstream (EPA Distance "A" = 1.5 duct diameters) of flow disturbances. 24 traverse points (12 points/port) will be measured.

4.0 SAMPLING OUTLINE

Key features of the sampling program are summarized in Table 1. Detection limits are based on the outlet flow rate of the continuous TDU which is approximately four times greater, at dry standard conditions, than that of the Batch TDU. Hence the Batch TDU detection limits will be approximately one quarter of those listed in the table

Table 1 Sampling Outline

Parameter	Sample Locations	Sample Methods	Analytical Method	Sample Duration	Sample volume	Detection limit
Velocity, temperature	CTDU inlet/outlet	EPA 1 / 2	N/A	As needed	N/A	100 DSCFM
Velocity, temperature	BTDU	EPA 1A/2A	N/A	As needed	N/A	10 DSCFM (inlet) 50 DSCFM (outlet)
Gas composition	All	EPA 3	EPA 3 (orsat)	As needed	2 ft^3	0.1% CO_2/O_2 by volume
Moisture	All	EPA 4	EPA 4 (gravimetric)	1 hr min	35 ft^3	0.5% H_2O, by volume
Particulate	Outlets	EPA 5	EPA 5 (gravimetric)	1 hr	35 ft^3	6E-4 lb/hr
HCl	All	EPA 5/26A	EPA 26 (ion chromatography)	1 hr	35 ft^3	0.012 lb/hr
Lead, mercury	Outlets	EPA 29	Pb, SW846 7421 (GFAA) Hg, SW846 7470 (CVAA)	2 hr	70 ft^3	2.3E-5 lb/hr 9.2E-7 lb/hr
SVOC, PAH	All	EPA23/0010	LRGC (SW846 8270)	3-4 hrs	106 ft^3	5E-6 - 3E-5 lb/hr for SVOC 5E-6 - 1E-5 lb/hr for PAH
Dioxins/furans	All	EPA 23	HRGC/MS (SW846 8290)	3-4 hrs	106 ft^3	2E-11 lb/hr as 2378-TCDD
VOC	All	EPA 0030	GC/MS (SW846 8240)	3-4 hrs	2 ft^3	2E-6-2E-4

5.0 SAMPLING PROCEDURES

5.1 BATCH TDU FLOW RATE & SAMPLE EXTRACTION

The Batch TDU has a 2" inlet pipe which is unsuitable for isokinetic sampling because of its small diameter. A standard pitot tube will be fixed at the centroid of the pipe to measure gas velocity. Sample will be extracted at a constant rate, upstream of the pitot tube at a single point at the center of the pipe.

The batch TDU outlet is 4" in diameter. A standard pitot will be used to traverse the stack downstream of the sample extraction ports. Sample will be extracted from the centroid of the stack. Sample rate (except VOST) will be set for isokinetic conditions based on the average stack velocity found with the traverse. VOST sampling will be at a constant rate.

5.2 DIOXINS/FURANS, SEMI-VOLATILES, PAHs

SUMMARY: Stack gas will be sampled isokinetically for dioxin/furan emissions in accordance USEPA Method 23, *Determination of polychlorinated dibenzo-p-dioxin and polychlorinated Dibenzofurans from Stationary Sources.*

Dioxins and furans in sample gas will be collected on a filter and solid sorbent trap. The procedure will be enhanced for the collection of semi-volatile organic compounds (SVOC) and polynuclear aromatic hydrocarbons (PAHs) in accordance with EPA SW846 Method 0010.

SVOC and PAH also will be collected in aqueous impinger reagents. Recovered samples will be extracted and analyzed by gas chromatography and mass spectroscopy (GC/MS) for dioxins/furans, PAH, and SVOC. The full list of SVOC compounds is presented in Attachment 3

Key sample train components will include:

- A sized, tapered-edge, glass "button-hook" sample nozzle
- A stainless-steel sample probe with a heated glass-liner, S-type or standard pitot tube, and thermocouple
- A heated glass filter holder with a glass-fiber filter supported by a Teflon frit
- A glass condenser and coolant circulation system
- A solid glass sorbent trap packed with field-spiked XAD-2
- A condenser system consisting of Greenburg-Smith glass impingers and connecting pieces

- A sample control/metering system consisting of a vacuum pump, dry gas meter, sample flow controls, sample rate manometer, stack gas velocity manometer, temperature indicator and heat controllers

PREPARATIONS: Sampling glassware and sample containers will be cleaned prior to sampling in the following sequence:

1. Soap and water wash
2. Four-hour soak in 10% HNO_3
3. Water rinse
4. Triplicate distilled de-ionized water rinse
5. Acetone rinse
6. Hexane rinse

The condenser will consist of Greenburg-Smith impingers that are interconnected with glass U-bends. Reagent charging and stem configurations will be as follows:

- Impinger 1: Special bottle, empty
- Impinger 3: Restricted tip with 100 mls distilled water
- Impinger 4: Unrestricted tip, with 100 mls distilled water
- Impinger 5: Restricted tip, empty
- Impinger 7: Unrestricted tip, silica gel.

All impingers will be weighed prior to sampling to the nearest 0.5 grams.

The sorbent cartridge will be oriented vertically and sit directly on the special condensate collection bottle during sampling. Sample will pass directly from the condenser outlet to the sorbent cartridge inlet.

SAMPLING: Completion of each test run will include the following key procedures:

- A pre-test leak check of the entire sample train at a vacuum greater than that anticipated for the test run. A leak rate of no greater than 0.02 CFM will be achieved prior to run commencement.
- Each sample point will be sampled for an equal duration. Filter holder hot box temperature will be maintained at 250 $\pm$/- 25 °F.
- Probe heat will be maintained to prevent internal moisture condensation
- Ice will be maintained in the impinger ice bath.
- All necessary temperature and sample rate adjustments (to maintain isokinetic sampling) will be made at each sample point. Condenser outlet temperature will be maintained at less than 68°F during sampling.

- A post-test leak check will be performed on the entire sample train at a vacuum equal or greater than the highest vacuum achieved during the test run. If the leak rate is greater than 0.02 CFM, the run will either be voided/repeated or kept and corrected for the leak-rate (at the discretion of the administrator)
- All necessary data for each sample point and test run will be recorded on appropriate data forms.

SAMPLE RECOVERY: Sample recovery will be performed at the site in a sheltered area. Samples will be recovered as follows:

Stack Samples:

- Each impinger will be weighed to 0.5 gm
- The particulate filter and loose particulate will be transferred to container 1, a glass petri dish
- With a Teflon brush, the probe, nozzle, and front-half of the filter holder will be rinsed and brushed three times with acetone into container 2 (250 ml amber glass)
- Into container 2, the back-half of the filter holder, condenser, and connecting pieces will be rinsed with acetone
- All train components from the sample nozzle up to the sorbent cartridge will be rinsed three times with methlyene chloride into container 2
- All train components from the sample nozzle up to the sorbent cartridge will be rinsed three times with toluene into container 3 (250 ml amber glass)
- The impinger catch will be transferred to one or more (depending on liquid volume) large amber glass jars, containers 4A, B, C., etc
- A rinse of the impinger train with a 50%/50% v/v mixture of methylene chloride and methanol will be collected in container 5 (250 ml amber glass)
- The sorbent trap will be sealed with Teflon tape and returned to its shipping material.

BLANKS: The following blanks samples will be recovered. Liquid volumes will be similar to those used for stack sample recovery.

- Container 1: Glass petri dish with an unused filter
- Container 2: 250 ml amber glass jar containing acetone and methylene chloride
- Container 3: 250 ml amber glass jar containing toluene
- Container 4: 500 ml amber glass jar containing 200 mls distilled water
- Container 5: 250 ml amber glass jar containing 50%/50% v/v methylene chloride and methanol
- An unused trap will be recovered as a blank

SAMPLE ANALYSIS: Sample preparation and analysis will be performed in general accordance with the schematic diagram in Figure 1, which is on the following page.

Analytical Scheme for SVOCs, PAHs, and PCDD/PCDF in the Combined EPA Method 0010/23 Sampling Train

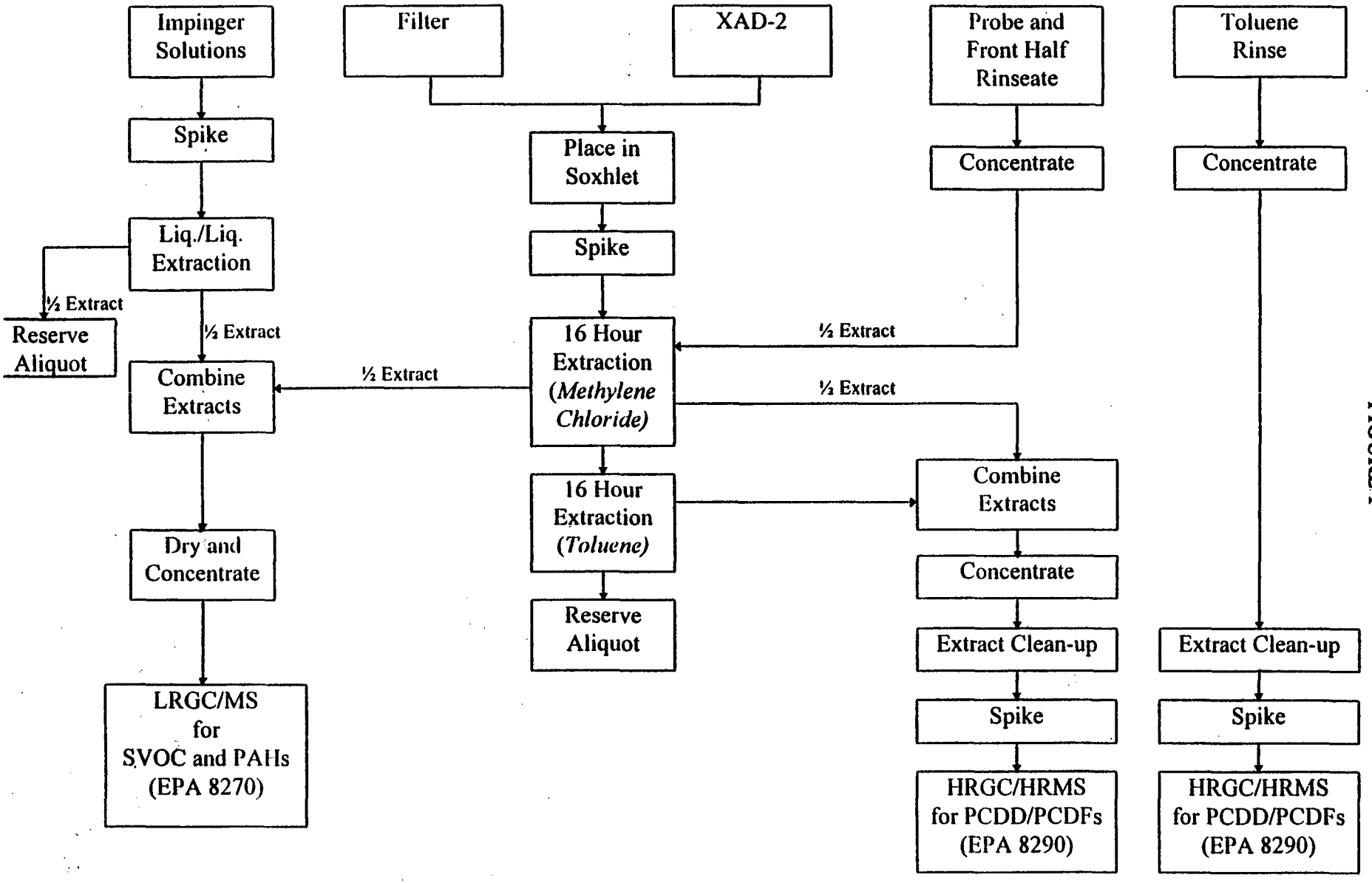

FIGURE 1

Air Recon®
A LEVINE-FRICKE-RECON GROUP COMPANY

5.3 PARTICULATES and HYDROGEN CHLORIDE

SUMMARY: Stack gas will be sampled isokinetically for suspended (filterable) particulate and hydrogen chloride emissions in accordance with EPA Method 5 "*Determination of Particulate Emissions From Stationary Sources.*" Particulate in the sampled gas will be collected in the sample train on a heated filter.

The sample procedure will be enhanced for the collection of hydrogen chloride by EPA Method 26A "*Determination of Hydrogen Halide Emissions from Stationary Sources.*" Recovered samples will then be analyzed for particulate matter in accordance with EPA Method 5 and for hydrogen chloride in accordance with EPA Method 26. Inlet particulate samples will not be recovered since inlet particulate sampling is not required.

Key sample train components will include:

- A sized, tapered-edge, stainless steel "button-hook" sample nozzle
- A stainless steel sample probe with a heated glass liner and thermocouple
- A heated glass filter holder with a tared Teflon filter supported by a Teflon frit
- A condenser system consisting of Greenburg-Smith glass impingers and connecting pieces
- A sample control/metering system consisting of a vacuum pump, dry gas meter, sample flow controls, sample rate manometer, stack gas velocity manometer, temperature indicator, and heat controllers.

PREPARATIONS: Sampling glassware and sample containers will be cleaned prior to sampling in the following sequence:

- Soap and water wash and rinse
- Triplicate rinse with distilled, de-ionized water (probe, nozzle and filter holder)
- Acetone rinse, (probe, nozzle and filter holder)

The condenser will consist of five impingers. All impingers (except the third) will be a Greenburg-Smith, modified with unrestricted impinger tubes. Impinger 3 will be a standard Greenburg-Smith impinger. Each impinger will be charged for sampling as follows:

- Impinger 1 & 2, 100 mls 0.1N H_2SO_4 in each
- Impinger 3 & 4, 100 mls 0.1 N NaOH in each
- Impinger 5, silica gel.

All impingers will be weighed prior to sampling.

SAMPLING: Completion of each test run will include the following key procedures:

- A pre-test leak check of the entire sample train at a vacuum greater than that anticipated for the test run. A leak rate of no greater than 0.02 CFM will be achieved prior to run commencement. Each sample point will be sampled for an equal duration.
- The filter holder hot box temperature will be maintained at 250F +/- 25F.
- The sample probe will be heated enough to prevent internal moisture condensation.
- Ice will be maintained in the impinger ice bath.
- All necessary temperature and sample rate adjustments (to maintain isokinetic sampling) will be made at each sample point.
- A post-test leak check will be performed on the entire sample train at a vacuum equal or greater than the highest vacuum achieved during the test run. If the leak rate is greater than 0.02 CFM, the run will either be voided/repeated or kept and corrected for the leak-rate (at the discretion of the administrator)
- All necessary data for each sample point and test run will be recorded on appropriate data forms.

SAMPLE RECOVERY: Sample recovery will be performed in the field in a sheltered area. ***Stack samples*** will be recovered as follows:

- Each impinger will be weighed to 0.5 gm.
- The particulate filter and loose particulate will be transferred (with plastic tweezers) to a plastic petri dish.
- The probe, nozzle, and front-half of the filter holder will be rinsed and brushed three times with acetone into a cleaned glass bottle.
- Impinger 1 & 2 contents will be transferred to an HDPE bottle
- Impinger 1 & 2 will be rinsed with 100 mls distilled water into the HDPE bottle.
- Impinger 3 & 4 contents will be discarded.

Blanks will be recovered as follows:

- A cleaned glass jar containing 100-200 grams of acetone.
- An HDPE bottle containing 200 mls 0.1N H_2SO_4 and 100 mls distilled water.

5.4 VOLATILES / VOST

SUMMARY: Sampling for the possible presence of the volatile organics listed in Schedule 1 will be performed using US EPA Solid Waste Method 0030 (VOST).

This method is applicable for the determination of volatile organic compounds. It is commonly called a VOST train. Because some of the volatiles on the list have boiling points below 35°C, the train will sample one-half the normal sample rate (SLO-VOST). Samples will be analyzed for the volatiles by thermal desorption, purge-and-trap and gas chromatography/mass spectrometry (GC/MS). The list of target VOCs is presented in Attachment 2.

Key components of the VOST sampling train are:

- A stainless steel probe with a borosilicate glass lining that is electrically heated to maintain sample temperature above 130°C (266°F).
- A glass bore isolation valve with sliding Teflon plug.
- Two glass sorbent tubes. Sample first passes through a Tenax packed tube and then a Tenax/charcoal tube.
- A condensation system consisting of two glass condensers through which ice water is circulated. The first condenser is located between the sample probe and first sorbent tube and the second is located between the first and second sample tube. Condensate is collected in flasks.
- Thermocouples to monitor the temperature of sample gas upstream of each resin trap to prevent thermal breakthrough of analytes.
- A metering system consisting of a pump, dry gas meter capable of measuring volume as low as 0.005 liters, a calibrated rotameter to monitor gas flow rate, a 10-channel temperature monitor and timer.

PREPARATIONS: Sample glassware is ultrasonically cleansed in a non-ionic detergent, rinsed with distilled water and oven dried.

SAMPLING: Completion of each test run will include the following key procedures:

- The sampling train will be assembled and checked for leaks at the site prior to sampling. The leak check is performed by closing the valve upstream of the condenser and pulling a vacuum 10 inches higher than normal operating pressures. Any potential leak rates will be less than 0.1 inch Hg after 1 minute.

- Four pairs of tubes will be sampled per test run. Three will be analyzed, one will be a spare.
- Each tube pair will be sampled for 40 minutes at 0.5 liters per minute
- Key sample data will be recorded every ten minutes on an appropriate data form.

SAMPLE RECOVERY: Recovered condensate will be placed in glass vials and filled with distilled water until no head space exists. All spent sample tubes will be returned to their original containers for shipment. Individual cartridges will not be recovered until analysis. Three pairs of cartridges will be used for blanks.

These blanks will be transported to the sampling site and the caps taken off for the length of time required to change a pair of cartridges on the sampling train. The second pair of cartridges are the trip blanks. These blanks are also transported to the site and treated like all other cartridges except the caps are not removed.

ANALYTICAL PROCEDURES: The field and trip blanks will determine contamination in the field and storage. The third blank pair of cartridges remain in the laboratory. These blanks are only analyzed if the contamination level of the other blanks are 2 ng or higher of a particular compound.

Each pair of sample tubes will be analyzed in tandem. Contaminants, if any are present, are eluded by thermal desorption. Contaminants, if any are present, are eluded from the condensate by a purge and trap procedure. Volatiles are analyzed by GC/MS in accordance with EPA SW 846 Method 8240.

5.5 LEAD and MERCURY

SUMMARY: Stack gas will be sampled isokinetically for metal emissions in accordance USEPA Method 29, *Determination of Metals Emissions from Stationary Sources*.

Metals in the sample gas will be collected in the sample train on a filter and in acidic impinger reagents. Recovered samples will then be digested and analyzed lead (Pb), and mercury (Hg) in accordance with Method 29.

Key sample train components will include:

- A sized, tapered-edge, glass "button-hook" sample nozzle
- A stainless steel sample probe with a heated glass liner, S-type pitot tube, and thermocouple
- A heated glass filter holder with a low-metal quartz fiber filter supported by a Teflon frit
- A condenser system consisting of Greenburg-Smith glass impingers and connecting pieces
- A sample control/metering system consisting of a vacuum pump, dry gas meter, sample flow controls, sample rate manometer, stack gas velocity manometer, temperature indicator, and heat controllers

PREPARATIONS: Sampling glassware and sample containers will be cleaned prior to sampling in the following sequence:

1. Soap and water wash
2. A four-hour soak in 10% HNO_3 (plastic ware will be rinsed only)
3. Triplicate rinse with distilled de-ionized water

The condenser will consist of Greenburg-Smith impingers, interconnected with glass U-bends. Reagent charging and stem configurations will be as follows:

- Impinger 1 / (optional): Empty, short-stem
- Impinger 2: Restricted tip with 5% HNO_3/10% H_2O_2
- Impinger 3: Unrestricted tip with 100 mls 5% HNO_3/10% H_2O_2
- Impinger 4: Unrestricted tip, empty
- Impinger 5: Restricted tip with 100 mls 4% $KMNO_4$/10% H_2SO_4
- Impinger 6: Unrestricted tip with 100 mls 4% $KMNO_4$/10% H_2SO_4 each
- Impinger 7: Unrestricted tip, silica gel.

All impingers will be weighed prior to sampling to 0.5 grams. 5% HNO_3/10% H_2O_2 will be used within one month of preparation and 4% $KMNO_4$/10% H_2SO_4 will be used within 24 hours of preparation.

SAMPLING: Completion of each test run will include the following key procedures:

- A pre-test leak check of the entire sample train at a vacuum greater than that anticipated for the test run. A leak rate of no greater than 0.02 CFM will be achieved prior to run commencement.
- Each sample point will be sampled for an equal duration.
- Filter holder hot box temperature will be maintained at 250 $\pm$/- 25 °F.
- Probe heat will be maintained to prevent internal moisture condensation
- Ice will be maintained in the impinger ice bath.
- All necessary temperature and sample rate adjustments (to maintain isokinetic sampling) will be made at each sample point.
- A post-test leak check will be performed on the entire sample train at a vacuum equal or greater than the highest vacuum achieved during the test run. If the leak rate is greater than 0.02 CFM, the run will either be voided/repeated or kept and corrected for the leak-rate (at the discretion of the administrator).
- All necessary data for each sample point and test run will be recorded on appropriate data forms.

SAMPLE RECOVERY: Sample recovery will be performed in the field in a sheltered area. ***Stack samples*** will recovered as follows:

- Each impinger will be weighed to 0.5 gm.
- The particulate filter and loose particulate will be transferred to container 1, a plastic petri dish.
- With a non-metallic brush, the probe, nozzle and front-half of the filter holder will be rinsed and brushed three times with a total of 100 ml of 0.1N HNO_3 into container 2 (high density polyethylene, HDPE)

- The contents of the knock-out impinger (if used) and the impingers charged with $HNO_3/H2O_2$ will be transferred to container 3 (HDPE)
- Then, the knock-out impinger (if used), HNO_3/H_2O_2 impingers, filter holder back-half, frit and connecting glassware will all be rinsed three times with a total of 100 ml 0.1N HNO_3 into container 3.
- The contents of the impinger in between the HNO_3/H_2O_2 and $KMNO_4$ impingers will be transferred to container 4 (HDPE). Then it will be rinsed three times with a total of 100 ml of 0.1N HNO_3 into container 4 (HDPE)
- The contents of the $KMNO_4$ impingers will be transferred into container 5 (amber glass)
- The $KMNO_4$ impingers and connecting glassware will then be rinsed three times first with a total of 100 ml of fresh 4% $KMNO_4$/10% H_2SO_4 and then a total of 100 ml of distilled water into container 5.
- 200 ml of distilled water will be placed in container 6 (HDPE). Then the $KMNO_4$ impingers will be rinsed with a total of 25 ml 8N HCl into container 6.

BLANKS: Blanks will be collected as follows:

- An unused filter will be placed in a plastic petri dish (container 1).
- An HDPE jar containing 100 ml 0.1N HNO_3 will be recovered as a front-half blank (container 2)
- An HDPE jar containing 200 ml 5% HNO_3/10% H_2SO_4 and 100 ml 0.1 N HNO_3 will be recovered as a back-half blank (container 3).
- An HDPE jar containing 100 ml 0.1N HNO_3 will be recovered as a blank for the impinger in between the HNO_3/H_2O_2 and $KMNO_4$ impingers (container 4)
- A glass jar containing 300 ml of 4% $KMNO_4$/10% H_2SO_4 and 100 ml of distilled water will be recovered a $KMNO_4$ impinger blank (container 5)
- An HDPE jar containing 200 ml distilled water and 25 ml 8N HCl will be recovered as a $KMNO_4$ impinger HCl rinse blank (container 6).

6.0 QUALITY ASSURANCE

The protocol was developed in accordance with the principles and recommendations outlined in the EPA Quality Assurance Handbook for Air Pollution Measurement Systems.

6.1 SAMPLE PRESERVATION

All dioxin/furan, SVOC, PAH, and VOC sample fractions will be preserved with ice from the time of sample recovery until sample analysis preparation.

Remaining samples are preserved by their own matrices.

6.2 SAMPLE HANDLING

All sampling and sample recovery will be performed by AirRECON personnel. All samples will be labeled by project name, sample date, sample fraction, sample location and run number.

Recovered samples will be shipped to a laboratory furnished by ICF Kaiser.

6.3 CHAIN-OF-CUSTODY

Each sample will be recorded on a chain-of-custody (COC)/request-for- analysis form. The COC is completed to ensure the integrity of the samples collected. Before relinquishing the sample, the project manager must complete a COC listing his/her name, the name of the person receiving the results, the AIRRECON project number, the sample description (media), the sample date, and who performed the sampling.

The COC must also identify the source of the sample, describe the container holding the sample and the preservative (if any). Additional comments or notes can be placed at the bottom of the page.

6.4 CALIBRATION DATA

All pre-test calibration data for sampling and equipment will be made available onsite, at the time of testing to any regulatory representatives. Copies of all calibration data will be included in the final report.

6.5 CALIBRATION PROCEDURES

PITOT TUBES: All standard pitot tubes are given a baseline coefficient of 0.99. A standard pitot tube design shall conform to EPA Reference Method 2, sections 2.7.1-2.7.5.

All S-Type pitot tubes are initially provided by the manufacturer, in accordance with the specifications listed in USEPA Reference Method 2.1.

Before each use, a visual inspection of the pitot tube is made to verify that the face openings are in alignment within the specifications shown in Figure 2-2 and 2-3 of USEPA Method 2. All pitot tubes are calibrated annually in accordance with Sections 4.1.3 through 4.1.5 of Method 2.

An identification number is assigned to a calibrated pitot tube. If the pitot tube is not marked, a baseline coefficient of 0.84 is assigned.

DRY GAS METERS: A dry gas meter is used as the calibration standard, in accordance with EPA Reference Method 5, Section 5.3. The calibration meter, kept in the laboratory solely for the purpose of calibrating the dry gas meters used in the field, is re-calibrated annually against a bell prover.

The dry gas meter is calibrated before and after each use. If the dry gas meter coefficient obtained before and after the test series differ by more than five percent, the calculations for the test series will be performed using the coefficient that gives the lower value of sample volume.

NOZZLE: Each probe nozzle is visually inspected before being used in the field. The nozzle's internal diameter is calibrated using USEPA Method 5.1. When the nozzle becomes out-of-round, chipped, or corroded, it will be reshaped, sharpened and re-calibrated before use. Each nozzle is permanently identified.

THERMOCOUPLES: Thermocouples are calibrated by immersing them side-by-side with a reference mercury-in-glass thermometer. The thermocouples are consecutively immersed in an ice bath, boiling water, and a hot oil bath.

If the absolute temperature reading between the thermocouple and the reference thermometer agree within $\pm 1.5\%$ at all three calibration points, the actual thermocouple reading is considered acceptable.

6.6 FINAL REPORT

Emissions of each pollutant will be reported in mg/M_3, grams/second and pounds/hour. Emissions of CO_2 and O_2 will be reported as a percent by volume.

AirRECON's final test report for this project will include the following items:

- Summary
- Personnel and Certifications
- Sampling location diagrams
- Velocity and flow rate data
- Cyclonic flow data
- Gas composition data
- Emissions data
- Process information
- Procedures checklist
- Selected nomenclature & laboratory information sheet
- Approved test protocol
- Equipment calibration data
- Original test data
- Calculations
- Laboratory data

Submitted by:

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Manager, Special Projects

Reviewed by:

Thomas P. Brown, REM
Manager, Air Projects

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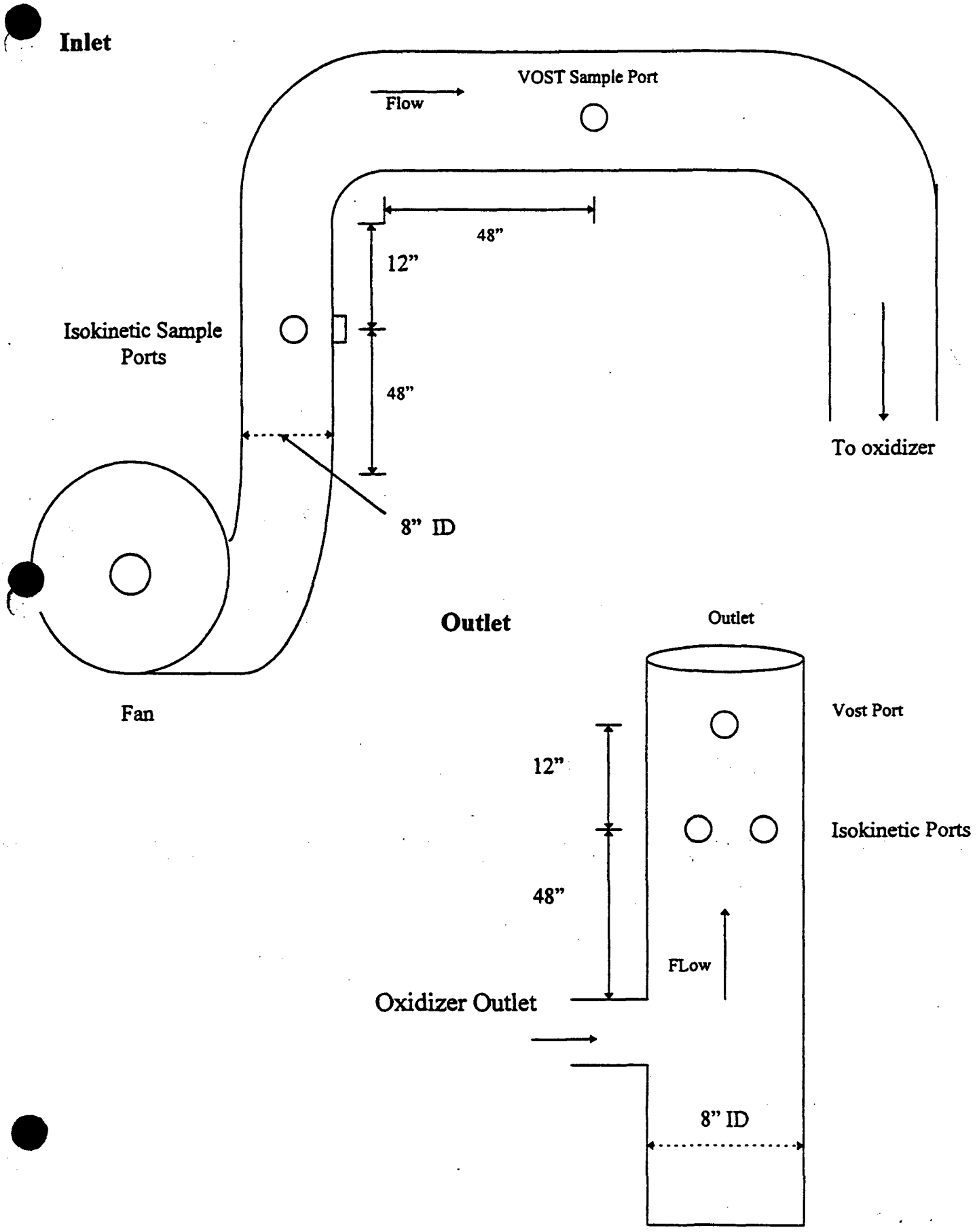
ATTACHMENT 2

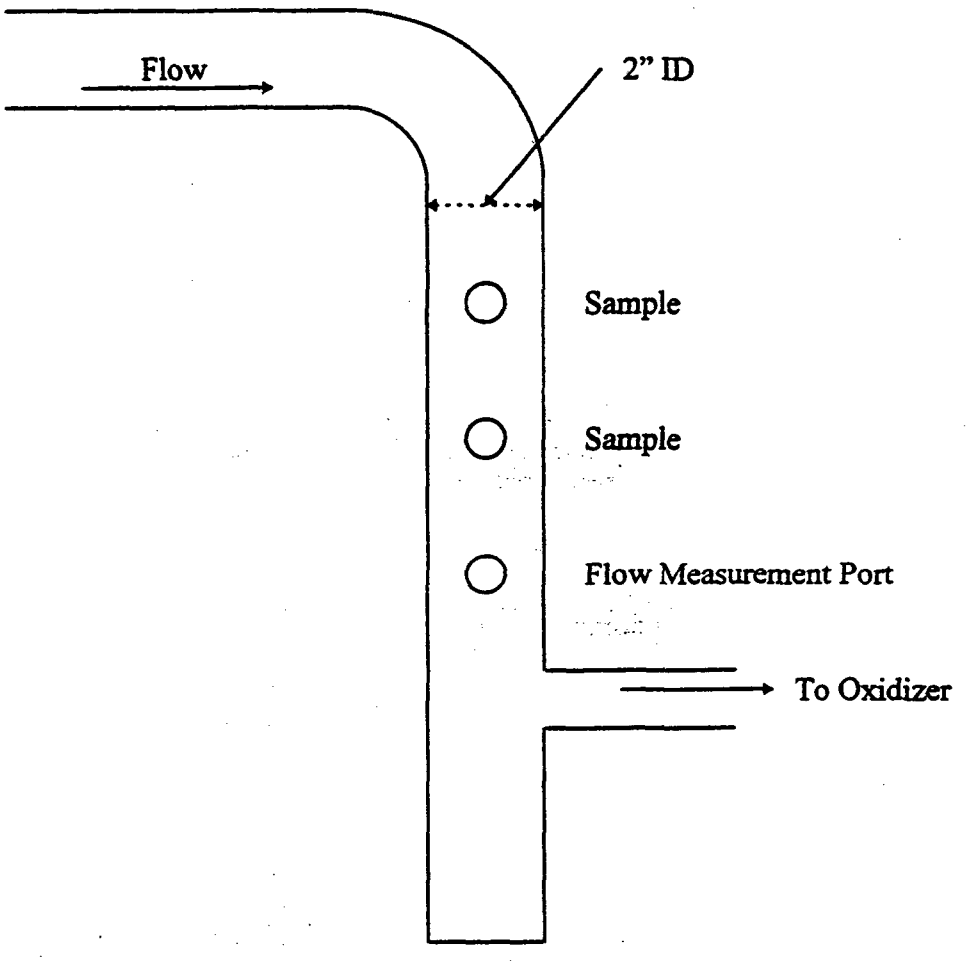
SAMPLE LOCATION DIAGRAMS

ICF Kaiser / Southern Maryland Wood Treatment Superfund Site, Hollywood MD
Continuous TDU Sample Locations

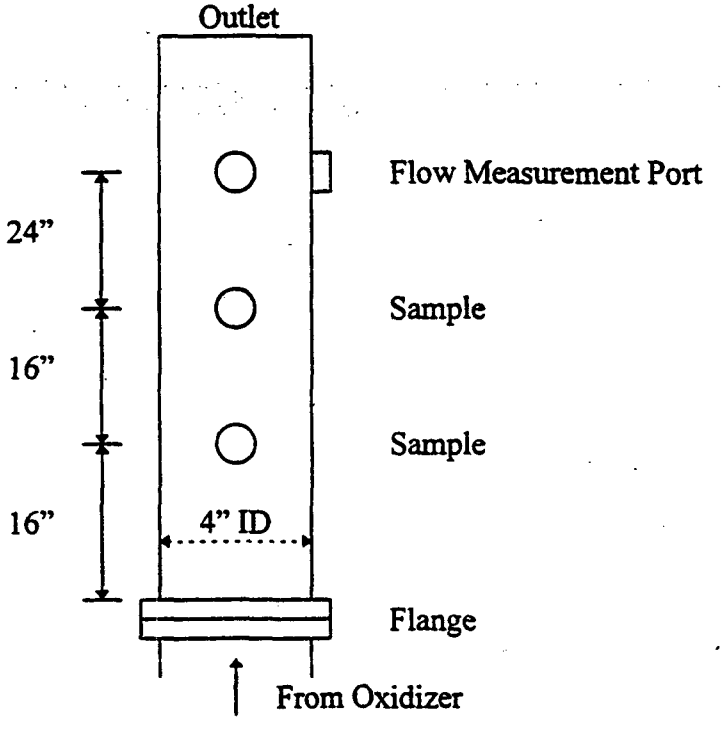


ICF Kaiser / Southern Maryland Wood Treatment Superfund Site, Hollywood, Maryland
Batch TDU Sample Locations

Inlet



Outlet



ATTACHMENT 3

TARGET ORGANIC COMPOUNDS

1,2-Dichlorobenzene	95 50 1
1,2,4-Trichlorobenzene	120 82 1
1,3-Dichlorobenzene	
1,4-Dichlorobenzene	
2-Chloronaphthalene	
2-Chlorophenol	
2-Methylnaphthalene	
2-Methylphenol	
2-Nitroaniline	
2-Nitrophenol	
2,4-Dichlorophenol	
2,4-Dimethylphenol	
2,4-Dinitrophenol	
2,4-Dinitrotoluene	
2,4,5-Trichlorophenol	
2,4,6-Trichlorophenol	
2,6-Dinitrotoluene	
3-Nitroaniline	
3,3'-Dichlorobenzidine	
4-Bromophenyl-phenylether	
4-Chloro-3-methylphenol	
4-Chloroaniline	
4-Chlorophenyl-phenylether	
4-Methylphenol	
4-Nitroaniline	
4-Nitrophenol	
4,6-Dinitro-2-methylphenol	
Acenaphthylene	
Acenaphthene	
Anthracene	
Benzo[a]anthracene	
Benzo[b]fluoranthene	
Benzo[a]pyrene	
Benzo[g,h,i]pyrene	
Benzo[k]fluoranthene	
bis(2-Chloroethoxy)methane	
bis(2-Chloroethyl)ether	
bis(2-Chloroisopropyl)ether	
bis(2-ethylhexyl)phthalate	
Butyl benzyl phthalate	
Carbazole	
Chrysene	
Di-n-butylphthalate	
Di-n-octylphthalate	
Dibenz[a,h]anthracene	
Dibenzofuran	
Diethylphthalate	
Dimethylphthalate	
Fluoranthene	
Fluorene	
Hexachlorobenzene	
Hexachlorobutadiene	
Hexachlorocyclopentadiene	
Hexachloroethane	
Indeno[1,2,3-cd]pyrene	
Isophorone	
N-Nitroso-di-n-propylamine	
N-Nitrosodiphenylamine	
Naphthalene	
Nitrobenzene	
Pentachlorophenol	
Phenanthrene	
Phenol	
Pyrene	

VOC

Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
2-Butanone
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
Dibromochloromethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethene
cis-1,2-Dichloroethene
trans-1,2-Dichloroethene
1,2-Dichloropropane
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
Ethylbenzene
2-Hexanone
4-Methyl-2-pentanone
Methylene chloride
Styrene
1,1,2,2-Tetrachloroethane
Tetrachloroethene
Toluene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Vinyl chloride
Xylene (total)

STANDARD OPERATING PROCEDURE 50.1
SAMPLE LABELS

1.0 SCOPE AND APPLICATION

Every sample will have a sample label uniquely identifying the sampling point and analysis parameters. The purpose of this standard operating procedure (SOP) is to delineate protocols for the use of sample labels. An example label is included as Figure 50.1-A. Other formats with similar levels of detail are acceptable.

2.0 MATERIALS

- Sample label
- Indelible marker

3.0 PROCEDURE

The use of preprinted sample labels is encouraged and should be requested from the analytical support laboratory during planning activities.

As each sample is collected, fill out a sample label ensuring the following information has been collected:

- Project Name
- Project Number
- Location/Site I.D. - enter the well number or surface water sampling number, and other pertinent information concerning where the sample was taken.
- Date of Sample Collection
- Time of Sample Collection
- Analyses to be Performed (Note: due to number of analytes, details of analysis should be arranged with lab *a priori.)*
- Whether Filtered or Unfiltered (water samples only)
- Preservatives (water samples only)

Double-check the label information to make sure it is correct. Detach the label, remove the backing and apply the label to the sample container. Cover the label with clear tape, ensuring that the tape completely encircles the container.

Record the Sample Number and designated sampling point in the field logbook, along with the following sample information:

- Time of sample collection (each logbook page should be dated)
- The location of the sample
- Organic vapor meter or photoionization meter readings for the sample (when appropriate)
- Any unusual or pertinent observations (oily sheen on groundwater sample, incidental odors, soil color, grain size, plasticity, etc.)
- Number of containers required for each sample
- Whether the sample is a QA sample (split, duplicate or blank)

A typical logbook entry might look like this:

7:35 AM Sample No. MW-3. PID = 35 PPM
Petroleum odor present. Sample designated MW-3-001.

The suffix duplicate will be added to Sample ID for duplicating samples.

4.0 MAINTENANCE

Not Applicable.

5.0 PRECAUTIONS

Note that although incidental odors should be noted in the logbook, it is unwise from a health and safety standpoint to routinely "sniff test" samples for contaminants.

6.0 REFERENCES

USEPA. 1980. *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans*, QAMS-005/80.

FIGURE 50.1-A
SAMPLE LABEL

PROJECT NAME _____ PROJECT NUMBER _____

SAMPLE LOCATION/SITE ID _____

DATE: ___/___/___ TIME: ____:____

ANALYTES: VOC SVOC P/P METALS CN

PAH D/F HERBs ANIONS TPH

FILTERED: [NO] [YES] ALK TSS

PRESERVATIVE: [HCl] [HNO_3] [NaOH] [H_2SO_4]

SAMPLER: _____

STANDARD OPERATING PROCEDURE 50.2
SAMPLE PACKAGING

1.0 SCOPE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to delineate protocols for the packing and shipping of samples to the laboratory for analysis.

2.0 MATERIALS

- Waterproof coolers (hard plastic or metal)
- Metal cans with friction-seal lids (*e.g.* paint cans)
- Chain-of-custody forms
- Chain-of-custody seals (optional)
- Packing material
- Sample documentation
- Ice
- Plastic garbage bags
- Clear Tape
- Zip seal plastic bags

3.0 PROCEDURE

1. Check cap tightness and verify that clear tape covers label and encircles container.
2. Wrap sample container in bubble wrap or closed cell foam sheets. Samples may be enclosed in a secondary container consisting of a clear zip-seal plastic bag.
3. Place several layers of bubble wrap, or at least 1" of vermiculite on the bottom of the cooler. Line cooler with open garbage bag, place all the samples upright inside the garbage bag and tie.
4. Double bag and seal loose ice to prevent melting ice from soaking the packing material. Place the ice outside the garbage bags containing the samples.
5. Pack shipping containers with packing material (closed-cell foam, vermiculite, or bubble wrap). Place this packing material around the sample bottles or metal cans to avoid breakage during shipment.
6. Enclose all sample documentation (i.e., Field Parameter Forms, Chain-of-Custody forms) in a waterproof plastic bag and tape the bag to the underside of the cooler lid. If more than one cooler is being used, each cooler will have its own documentation. Add the total number of shipping containers included in each shipment on the chain-of-custody form.
7. If required, seal the coolers with signed and dated custody seals so that if the cooler were opened, the custody seal would be broken. Place clear tape over the custody seal to prevent damage to the seal.
8. Tape the cooler shut with packing tape over the hinges and place tape over the cooler drain.
9. Ship all samples via overnight delivery on the same day they are collected if possible.

4.0 MAINTENANCE

Not Applicable.

5.0 PRECAUTIONS

5.1 PERMISSIBLE PACKAGING MATERIALS

- Non-absorbent
  - bubble wrap
  - closed cell foam packing sheets
- Absorbent
  - Vermiculite

5.2 NON-PERMISSIBLE PACKAGING MATERIALS

- Paper
- Wood shavings (excelsior)
- Cornstarch "peanuts"

6.0 REFERENCES

USEPA. 1990. *Sampler's Guide to the Contract Laboratory Program.* EPA/540/P-90/006, Directive 9240.0-06, Office of Emergency and Remedial Response, Washington, D.C., December 1990.

USEPA. 1991. *User's Guide to the Contract Laboratory Program.* EPA/540/O-91/002, Directive 9240.0-01D, Office of Emergency and Remedial Response. January 1991.

USEPA. 1980. *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans.* QAMS-005/80.

STANDARD OPERATING PROCEDURE 50.3
SAMPLE PRESERVATION AND CONTAINER REQUIREMENTS

1.0 SCOPE AND APPLICATION

The purpose of this standard operating procedure (SOP) is to define the preservatives and techniques to be employed in preserving environmental samples between collection and analysis.

2.0 MATERIALS

2.1 SAMPLE CONTAINERS

2.1.1 40-mL Glass Vial, 24 mm Neck Finish

- **Closure:** White polypropylene or black phenolic, open top, screw cap, 15-mm opening, 24-400 size.
- **Septum:** 24-mm disc of 0.005-in PTFE bonded to 0.120-in silicon for total thickness of 0.125-in.

2.1.2 1-L High Density Polyethylene, Cylinder-Round Bottle, 28-mm Neck Finish

- **Closure:** White polyethylene cap, white ribbed, 28-410 size; F217 polyethylene liner.

2.1.3 120-mL Wide Mouth Glass Vial, 48-mm Neck Finish

- **Closure:** White polyethylene cap, 40-480 size; 0.015-mm PTFE liner.

2.1.4 250-mL Boston Round Glass Bottle

- **Closure**: White polypropylene or black phenolic, open top, screw cap.
- **Septum**: Disc of 0.005-in PTFE bonded to 0.120-in silicon for total thickness of 0.125-in.

2.1.5 8-oz Short, Wide Mouth, Straight - Sided, Flint Glass Jar, 70-mm Neck Finish

- **Closure**: White polypropylene or black phenolic, baked polyethylene cap, 48-400 size; 0.030-mm PTFE liner.

2.1.6 4-oz Tall, Wide Mouth, Straight - Sided, Flint Glass Jar, 48-mm Neck Finish

- **Closure**: White polypropylene or black phenolic, baked polyethylene cap, 48-400 size; 0.015-mm PTFE liner.

2.1.7 1-L amber, Boston Round, Glass Bottle, 33-mm Pour-Out Neck Finish

- **Closure**: White polypropylene or black phenolic, baked polyethylene cap, 33-430 size: 0.015-mm PTFE liner.

2.1.8 500-mL High-Density Polyethylene, Cylinder Bottle, 28-mm Neck Finish

- **Closure**: White polypropylene, white ribbed, 28-410 size; F217 polyethylene liner.

2.2 SAMPLE PRESERVATIVES

- HCl
- HNO_3
- H_2SO_4
- NaOH
- Ice

3.0 PROCEDURE

Containers must be certified clean, with copies of laboratory certification furnished to the contracting officer's representative (COR).

Water samples will be collected according to procedures detailed in SOPs 30.2 and 30.3 and placed in containers appropriate to the intended analyte as given in Table 50.3-A.

- Samples taken for volatile organic compound (VOC) analysis will generally be collected in pre-preserved VOC vials. Sufficient HCl should have been added to the vial prior to the addition of the sample such that the pH<2.
- Samples collected for metals analysis will be acidified in the field to a pH < 2 by the addition of HNO_3. Filtered samples will be acidified after filtration. After acidifying the sample, the container should be lightly capped, then swirled to thoroughly mix the sample. The cap will then be loosened to release any excess pressure this operation may have generated.
- Samples collected for cyanide will be alkalized to a pH > 12 by the addition of NaOH.
- Samples not requiring chemical preservation will be placed on ice and cooled to 4°C (e.g., semivolatile organic compounds, explosives).
- Soil and sediment, samples will be collected according to procedures detailed in SOPs 30.1 and 30.4 into containers appropriate to the intended analyte as given in Table 50.3-B.
- No chemical preservatives will be added to soil or sediment samples. These samples will be immediately placed on ice and cooled to 4°C.

4.0 MAINTENANCE

Not applicable.

5.0 PRECAUTIONS

Note that acidifying a sample containing cyanide may liberate HCN gas.

- Avoid breathing any fumes emanating from acidified samples.
- Acidify samples only in the open, rather than in closed spaces such as a vehicle.
- See the HSP for other safety measures.

6.0 REFERENCES

Test Methods for Evaluating Solid Waste, SW-845, (USEPA, 1986).

A Compendium of Superfund Field Operations Methods, EPA 540-P87-001.

A Compendium of ERT Soil Sampling and Surface Geophysics Procedures, (USEPA, 1991).

Table 50.3-A
Summary of Sample Containment and Sample Preservation for Aqueous Samples

Parameter	Sample Container Quantity	Sample Container Type	Preservation Methods	Holding Times
		Groundwater		
Volatile Organic Compounds	3	40-mL, amber glass vials, Teflon®-lined septum cap	HCl to pH<2 Cool, 4±2°C	7 days
Semivolatile Organic Compounds	2	1-liter, narrow-mouth amber glass, Teflon®-lined cap	Cool, 4±2°C	Extraction: 7 days Analysis: 40 days
Pesticides/PCBs	2	1-liter, narrow-mouth amber glass, Teflon®-lined cap	Cool, 4±2°C	Extraction: 7 days Analysis: 40 days
Explosives	1	1-liter, narrow-mouth amber glass, Teflon®-lined cap	Cool, 4±2°C	Extraction: 7 days Analysis: 40 days
Dioxin/Furans	1	1-liter, narrow-mouth amber glass, Teflon®-lined cap	Cool, 4±2°C	Extraction: 7 days Analysis: 40 days
Herbicides	1	1-liter, narrow-mouth amber glass, Teflon®-lined cap	Cool, 4±2°C	Extraction: 7 days Analysis: 40 days
Common Anions Chloride, fluoride, bromide, sulfate	1	1-liter, polyethylene bottle	Cool, 4±2°C	28 days
Nitrate-Nitrite	1	1-liter, polyethylene bottle	H_2SO_4 to pH<2 Cool, 4±2°C	28 days
Total phosphate	1	1-liter, polyethylene bottle	H_2SO_4 to pH<2 Cool, 4±2°C	28 days
Total Petroleum Hydrocarbons	1	250-mL, amber glass, Teflon®-lined cap	H_2SO_4 to pH<2 Cool, 4±2°C	Extraction: 7 days Analysis: 40 days
Metals	1	1-liter, polyethylene bottle	HNO_3 to pH<2 Cool, 4±2°C	6 months
Mercury				28 days
Cyanide	1	1-liter, polyethylene bottle	NaOH to pH>12 Cool, 4±2°C	14 days

*The Hexachloro-compounds include the following: hexachlorobenzene, hexachloroethane, hexachlorocyclopentadiene, and hexachlorobutadiene.

Table 50.3-B
Summary of Sample Containment and Sample Preservation for Solid Samples

Parameter	Sample Container		Preservation Methods	Holding Times
	Quantity[a]	Type		
Volatile Organic Compounds	2	120-mL amber glass vials, Teflon®-lined cap	Cool to 4±2°C	7 days
Semivolatile Organic Compounds	1[a]	500-mL amber glass bottle, Teflon®-lined cap	Cool to 4±2°C	Extraction: 7 days Analysis: 40 days
Explosives	1[a]	500-mL amber glass bottle, Teflon®-lined cap	Cool to 4±2°C	Extraction: 7 days Analysis: 40 days
Pesticides/PCBs	1[a]	500-mL amber glass bottle, Teflon®-lined cap	Cool to 4±2°C	Extraction: 7 days Analysis: 40 days
Metals				
Metals	1[b]	500-mL amber glass bottle, Teflon®-lined cap	Cool to 4±2°C	6 months
Mercury				28 days
Cyanide	1[b]	500-mL amber glass bottle, Teflon®-lined cap	Cool to 4±2°C	14 days
TCL Dioxin/furans	1	500-mL amber glass bottle, Teflon®-lined cap	Cool to 4±2°C	Extraction: 7 days Analysis: 40 days
Herbicides	1[a]	500-mL amber glass bottle, Teflon®-lined cap	Cool to 4±2°C	Extraction: 7 days Analysis: 40 days
Total Petroleum Hydrocarbons	1[a]	500-mL amber glass bottle, Teflon®-lined cap	Cool to 4±2°C	28 days
Hyallela azteca	1	1-L polyethylene	Cool to 4±2°C	Not applicable
Petroleum Fuels[c]	1	Resealable container	Cool to 4±2°C	48 hours

[a] SVOCs, PAHs, pesticides/PCBs, herbicides, and TPH sample fractions will be combined into one 500-mL bottle.
[b] Metal and cyanide sample fractions will be combined into one 500-mL bottle.
[c] Samples will be tested on site for Petroleum fuels using the Ensys PETRO SOIL SamplePro, Rapid Detection Kit.

Not applicable -- Samples will be analyzed for these parameters using the referenced USEPA method.

Table 50.3-C
Summary of Sample Containment and Sample Preservation for Solid IDW Samples

Parameter	Sample Container		Preservation Methods	Holding Times	
	Quantity	Type			
TCLP VOCs	1	500-mL, wide-mouth amber glass, Teflon®-lined cap	Cool, 4±2°C	Leaching: Analysis:	14 days 14 days
TCLP SVOCs	1	500-mL, wide-mouth amber glass, Teflon®-lined cap	Cool, 4±2°C	Leaching: Extraction: Analysis:	14 days 7 days 40 days
TCLP Pesticides	1	500-mL, wide-mouth amber glass, Teflon®-lined cap	Cool, 4±2°C	Leaching: Extraction: Analysis:	14 days 7 days 40 days
TCLP Herbicides	1	500-mL, wide-mouth amber glass, Teflon®-lined cap	Cool, 4±2°C	Leaching: Extraction: Analysis:	14 days 7 days 40 days
TCLP Metals	1	500-mL, wide-mouth amber glass, Teflon®-lined cap	Cool, 4±2°C	Leaching: Analysis: Mercury analysis:	14 days 6 months 28 days

SVOC Semivolatile Organic Compound
TCLP Toxicity Characteristic Leachate Procedure
VOC Volatile Organic Compound