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A365-001

ENVIRONMENTAL SCIENTISTS, ENGINEERS, AND PLANNERS
ENVIRONMENTAL SCIENCE SERVICES, INC.

**Phase 1 Pre-Design Summary Report
Davis Liquid Waste Superfund Site
Smithfield, Rhode Island**

Prepared By: **Environmental Science Services, Inc.**
888 Worcester Street, Suite 240
Wellesley, Massachusetts 02482

Project No.: **A365-001**

Date: **April 23, 2002**



April 23, 2002

Mr. Neil Handler
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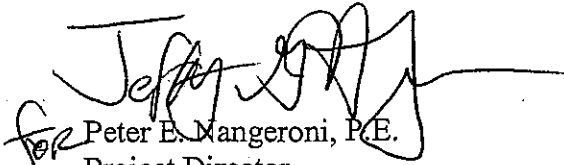
**RE: Final Phase 1 Pre-Design Summary Report
Davis Liquid Waste Superfund Site
ESS Project No. A365-001**

Dear Neil,

On behalf of Ashland Incorporated, attached is the Final Pre-Design Phase 1 Summary Report. Enclosed are the revised text, report cover and report spine to replace the previously submitted draft materials.

Sincerely,

ENVIRONMENTAL SCIENCE SERVICES, INC.


for Peter E. Mangeroni, P.E.
Project Director

Enclosure (2 copies)

CC: Gary Jablonski, RIDEM (2 copies)
Mark Metcalf, Ashland

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DAVIS LIQUID WASTE SUPERFUND SITE
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Prepared By:

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1.0 INTRODUCTION

This submittal presents the Phase 1 Pre-Design Summary Report (Report) documenting the findings of the Phase 1 Pre-Design field activities at the Davis Liquid Waste Site in Smithfield, Rhode Island (the Site). This Report is submitted on behalf of Ashland Incorporated (Ashland) in accordance with the agreement between Ashland, the United States Environmental Protection Agency (USEPA) and the Rhode Island Department of Environmental Management (RIDEM). The Phase 1 work was performed in accordance with the following documents: (1) "Pre-Design Work Plan" dated August 3, 2001 (Work Plan); and (2) "Project Operation Plan" dated August 3, 2001 (POP). The POP is comprised of the following plans:

- Site Management Plan (SMP)
- Sampling and Analysis Plan (SAP) which is made up of the Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP); and
- Health and Safety Plan (HASP).

The implementation of the Phase 1 work was approved by the USEPA in a correspondence dated September 5, 2001.

The objective of the Phase 1 work was to identify functional wells, to benchmark current conditions, and, based on these results, to refine the approach to follow on phases of work. The Site location is detailed on Figure 1-1. A general Site plan and the locations of the Phase 1 monitoring wells are shown on Figure 1-2.

Section 2 of this report summarizes the well inventory and viability assessment of the existing monitoring well network. Section 3 describes the Phase 1 groundwater sampling of twenty-seven (27) existing monitoring wells, which was performed during November and December 2001. Section 4 discusses quality assurance/quality control (QA/QC). Sections 5 and 6 present the results and conclusions of the Phase 1 sampling event, respectively. Section 7 provides recommendations for Phase 2 work.

2.2 Well Re-development

Six existing monitoring wells (OW-7, OW-8, OW-20, OW-28, OW-34, OW-86) were designated for re-development due to the large percentage of well screen that appeared to be obstructed, presumably by accumulated sediments in the bottom of each well. Re-development activities were conducted by Environmental Drilling, Incorporated (EDI), under the supervision of ESS, on October 22 and 23, 2001. Re-development consisted of flushing and surging the well with a jet pump to remove sediments and subsequently pumping the well with a Waterra Pump[®] until there was no significant turbidity observed in the purged water.

The re-development was successful in preparing wells OW-7, OW-8, OW-34 and OW-86 for use in the sampling program. Wells OW-20 and OW-28 were determined to be damaged such that they could not be used for sampling. Pertinent details of the re-development are summarized below. Table 2-1 documents the physical condition (post well development activities) of the twenty-nine (29) wells included in the 1991 Pre-Design investigation and evaluated by ESS during the well integrity assessment.

Monitoring well OW-34 was successfully re-developed to its total depth. Well OW-86 was successfully re-developed to within approximately five feet of its reported 101.5 foot depth after clearing a minor "soft" obstruction from the well, at a depth of approximately 30 feet, using small diameter PVC piping.

No progress was made at clearing wells OW-7 and OW-8 beyond the initial depths measured for these wells, although good recharge was observed for each of these wells during re-development. It is unclear whether the lower portion of these wells has been damaged or filled in, or if the well construction details for these wells are incorrect. For example, field measurements at well OW-8 indicate that the well is approximately seven feet shallower than indicated on the well construction details, thereby indicating that there is no exposed well screen in the well. However, excellent recharge to this well was observed during well re-development despite the apparent lack of exposed screen. Good recharge was also observed at well OW-7 where the measured depth of the well is approximately 24 feet less than indicated in the construction record. Given the good recharge response at both of these wells, the wells were considered useable for the sampling program. For sampling purposes, screen intervals for these wells were assumed to be approximately 39 to 64 feet and 24 to 29 feet below ground surface (bgs), respectively.

- Wells were determined to be damaged (OW-20, OW-28)
- Wells could not be found at the time of measurement: OW-96 (O), OW-96 (R)

Groundwater elevations were subsequently measured at OW-96 (O) and OW-96 (R) on December 11, 2001 after location of these wells by the surveyor.

3.2 Groundwater Sampling

Phase 1 groundwater sampling activities were performed between November 7, 2001 and December 11, 2001. Groundwater field parameters, including pH, specific conductivity, temperature, dissolved oxygen (DO), oxidation/reduction potential (ORP) and turbidity, were measured during well purging as described in Appendix A-6 "Low Flow Groundwater Collection Standard Operating Procedure" of the FSP. Field equipment was calibrated and calibration checks were performed in accordance with the QAPP. A summary of the measured field parameters for the Phase 1 monitoring event is presented in Table 3-2. Copies of the groundwater monitoring well sample collection forms are included in Appendix D and field equipment calibration log forms are included in Appendix I.

Groundwater samples were collected in accordance with the Low Flow Groundwater Collection SOP contained in the Project FSP. The SOP includes descriptions of water level monitoring, purging and sampling procedures, decontamination procedures, and chain of custody protocol. Further description of sample packaging and shipment procedures, which are intended to minimize the potential for sample loss, spillage, or leakage and to maintain field sampling compliance with USEPA or United States Department of Transportation regulations, are described in Appendix A-7 of the FSP. ESS personnel collected groundwater samples with assistance from and oversight by Xpert Design and Diagnostics, LLC (XDD) of Stratham, New Hampshire. A field audit of the Phase 1 sampling program was performed by XDD and is discussed in Section 4.0. The forms for well purging field water quality measurements were reviewed for completeness and acceptance criteria. Water quality measurements reviewed meet USEPA Low Flow Groundwater Collection SOP acceptance criteria for all sampling locations.

Well OW-82 was initially sampled on December 6, however one of the sample bottles broke during transport to the laboratory, so the well was re-sampled on December 11, 2001. No other sample bottles were observed to be damaged in the December 6 sample shipment.

4.0 QUALITY ASSURANCE/QUALITY CONTROL

4.1 Quality Control Sampling

Both the FSP and QAPP contain details on the type and amount of quality control (QC) samples required to meet project-specific data quality objectives. Five types of QC samples were collected and/or analyzed during the Phase 1 groundwater monitoring: equipment blanks, rinse blanks, trip blanks, field duplicate samples, and a performance evaluation (PE) sample. Field quality QC and their specific analytical parameters and collection dates are listed in Table 4-1.

Samples were sent to Lancaster and Microseeps and divided into separate Sample Delivery Groups (SDGs) according to the analytical method performed and the number of samples. A total of three (3) SDGs were submitted to Lancaster for the analysis of VOCs, and a total of four (4) SDGs were submitted to Lancaster for the analysis of all MNA parameters with the exception of the dissolved gases. Four (4) SDGs were submitted to Microseeps for dissolved gas analysis. All SDGs contained 20 or less samples consistent with the QAPP. Proper chain-of-custody procedures, as described in the QAPP, were followed for sample preservation and shipment to the laboratory for analysis.

4.1.1 Trip Blanks

One trip blank was included in every cooler that contained samples collected for VOC analysis. The trip blanks were laboratory prepared and preserved with hydrochloric acid (HCl). Trip blanks were inspected to determine that air bubbles were not present within the vial. At no time was a trip blank sample container opened on the Site.

4.1.2 Equipment Blanks (Field Blanks)

Equipment blanks were collected at a ratio of one for every SDG for VOC analysis only. Equipment blanks were collected by pouring laboratory provided de-ionized water into an unused disposable bladder for the low flow pump. The water was allowed to sit for a minute, prior to being collected directly into the designated sample containers. Three equipment blanks were submitted for the Phase 1 groundwater monitoring.

4.1.3 Rinse Blanks

Rinse blanks were collected at a ratio of one for every SDG for VOC analysis only. Rinse blanks were collected by pouring laboratory provided de-ionized water through the

groundwater sampling program. No deficiencies were identified during the field analytical TSA. Field audit documentation is presented in Appendix E.

4.2 Data Validation

Seven (7) data packages were generated by Lancaster, including SDGs DSS01, DSS02, and DSS05 for VOCs, and DSS03, DSS04, DSS06, and DSS07 for MNA parameters. Four (4) data packages were generated by Microseeps, including SDGs P0111344, P0112132, P0112170, and P0112179 for the dissolved gases analyses. The laboratory data packages were validated as described in the QAPP by New Environmental Horizons, Inc. (NEH). In general, the Lancaster VOC data packages underwent a modified Tier II validation according to Region I, EPA-NE *Data Validation Guidelines for Evaluating Organic Analyses* (December 1996) and the MNA data packages were validated according to the EPA-NE Tier I requirement. Specific validation approach details are provided in the QAPP. A total of eleven (11) validation reports were generated for the Phase 1 groundwater monitoring and are included as Appendix F.

4.2.1 Summary of Validation Results – Monitoring Well Sampling

The QAPP-specified minimum frequency of five percent for the collection and analysis of field/equipment blanks, rinse blanks, and field duplicate samples was met. Trip blanks were analyzed at the proper frequency for all VOCs.

The results of the validation of analytical data for all samples collected during the Phase 1 groundwater monitoring are summarized below. Refer to the validation reports attached as Appendix F for a more detailed description of the data validation review.

Data Completeness

Several target compounds defined in the QAPP were missing from the initial VOC data package submitted to NEH for SDG DSS01. Lancaster had analyzed for the entire target compound list as defined in the QAPP, but had inadvertently reported out only a subset of these compounds. Lancaster reissued the data package and it was deemed complete upon review. The remaining VOC data packages for SDG DSS02 and DSS05 were received complete based upon the completeness review.

Lancaster MNA data packages for SDG DSS03, DSS04, DSS06, and DSS07 as well as Microseeps MNA data packages for SDG P0112170, P0111344, P0112132, and P0112179 were all received complete based upon the completeness review.

It should be noted that although Lancaster reported the VOC data according to the sample-specific QLs, their hard copy reports present all non-detects reported to the method detection limit (MDL). This issue was noted during data validation, and the appropriate presentation of the data showing non-detects reported to the QLs is included in the database data summary tables attached as Appendix G. The Laboratory QLs listed in Table 4A of the QAPP were equivalent to the sample-specific QLs reported by the laboratory. These limits met the Project Quantitation Limits (PQLs) for all compounds except chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride.

During the usability assessment, the instrument sensitivity for these five compounds was evaluated in-depth based on the presence of a low concentration standard (1 µg/L) in the data packages, which was analyzed with the samples but not included in the initial calibration statistics. Based on this assessment, the QLs for all these compounds were lowered during validation thereby meeting the PQL requirements, with the following exceptions: the PQLs for chloromethane and vinyl chloride in samples GW-FS-OW-55, GW-FS-OW-33, and GW-FS-OW-041 associated with SDG DSS02 were not lowered since the instrument was not shown to be accurate down to 1 µg/L on the day these samples were analyzed. Chloromethane was non-detect in all three groundwater samples and vinyl chloride was non-detect in sample GW-FS-OW-041 (vinyl chloride was positively detected in the other two samples). These non-detected results exceed the PAL requirements. This occurrence does not impact any decisions related to future monitoring of these wells, since other compounds were detected at these three locations.

Precision

Although the QAPP did not require matrix spike/matrix spike duplicate (MS/MSD) analyses, MS and MSD samples were submitted for SDG DSS01. Precision was acceptable for all VOCs based on the MS/MSD results.

A field duplicate pair was submitted for each VOC SDG. The VOC results met field duplicate precision objectives for all positively identified VOCs in these samples.

Accuracy

A PE sample was submitted within SDG DSS01 as one of the groundwater samples for the site (GW-FS-OW-100). No false positive or negative results were reported, and all recovery results were acceptable for the PE sample. Results of the PE sample are attached in the validation report for SDG DSS01 in Appendix F.

isoconcentration map was not prepared for benzene since it was detected at only two locations (OW-51 and OW-52) at estimated concentrations below the Project Action Limits.

In general, the constituents and concentration ranges detected in the Phase 1 sampling event were as expected based on the most recent historic 1991 sampling event. Review of the data provides the following observations:

- Consistent with the 1991 results, the highest TVOC concentrations were detected in the vicinity of and immediately downgradient of the former disposal areas;
- Significantly lower TVOC concentrations were detected at monitoring well OW-52, immediately downgradient of the Northern Disposal Area, during the Phase 1 sampling event compared to 1991 sampling;
- Target VOC (TCE, PCE, benzene) concentrations in exceedance of Site criteria are limited to the immediate vicinity and near downgradient of the sources areas;
- Consistent with the 1991 monitoring, no exceedances of the Site criteria for benzene were detected in the existing monitoring wells;
- Exceedances of the Site criteria for TCE were detected at three monitoring wells (OW-45, OW-51, OW-55) during the Phase 1 sampling event compared to six monitoring wells (OW-21, OW-45, OW-46, OW-51, OW-52, OW-55) during the 1991 sampling event; and
- Exceedances of the Site criteria for PCE were detected at two monitoring wells (OW-51, OW-55) compared to one monitoring well (OW-55) during the 1991 sampling event.

Figures 5-4 and 5-5 present two conceptual cross sections through the Site and the TVOC results for the Phase 1 sampling event. The TVOC concentrations on Figures 5-4 and 5-5 are posted at the approximate depth of sample collection. Cross section A-A' is oriented approximately parallel to the general groundwater flow direction at the Site from monitoring wells OW-83/84 to monitoring well OW-86. Cross section B-B' is oriented approximately perpendicular to the general groundwater flow direction at the Site from monitoring wells OW-95 (O)/(R) to monitoring wells OW-07/08. Cross section A-A' supports the observation that the highest TVOC concentrations are present within the unconsolidated deposits in the vicinity of and immediately downgradient of the former disposal areas.

5.1.2 Bedrock

Groundwater samples were collected from eleven (11) existing monitoring wells completed within the bedrock on the Site. Table 5-2 summarizes the detected compounds

5.2 MNA Analyses and Evaluation

The following sections discuss the results of the Phase 1 groundwater MNA analytical results. The MNA analyses were performed on a subset of wells (8) to provide a preliminary determination as to the potential for and occurrence of natural attenuation mechanisms at the Site. The data evaluation focused on a screening level assessment of the reductive dechlorination processes, since these processes are typically associated with the compounds detected at the Site.

Field analyses of groundwater from all wells sampled included temperature, DO, ORP, conductivity, pH and turbidity. A subset of wells (8) was analyzed for dissolved gases (methane, ethene, and ethane), carbon dioxide (CO₂), total and dissolved iron and manganese, total organic carbon (TOC), ammonia, sulfide, and select wet chemistry parameters (alkalinity, chloride, nitrate, nitrite, orthophosphate, and sulfate). Pertinent field and laboratory groundwater data are presented in Tables 3-2 and 5-1 through 5-3.

5.2.1 Reductive Dechlorination Screening Process Overview

The presence of reductive dechlorination processes can be shown through three types of data, or lines of evidence (in order of importance): VOC concentration and composition, geochemical indicators and microcosm/laboratory measurements of existing bacteria. The USEPA OSWER Directive 9200.4-17 (1997) indicates that if the first two lines provide adequate proof, then the third line of evidence is not necessarily required. The Phase 1 work focused on a preliminary evaluation for the first two lines of evidence.

VOC Evaluation

The relative concentrations of parent chlorinated VOCs [i.e., TCE and 1,1,1-trichloroethane (1,1,1-TCA)] to daughter products (i.e., dichloroethenes, dichloroethanes, and vinyl chloride) can be a powerful indicator of and provide a primary line of evidence for the presence of biodegradation processes. These daughter product to parent compound ratios can be used to show changes in VOC composition spatially and temporally. An evaluation of changes in VOC mass over time, which can also provide evidence of natural attenuation processes, is not warranted at this time due to the relatively limited temporal data set.

score awarded for each parameter-specific condition. For example, the dissolved oxygen concentration in a site sample would be categorized as either less than 0.5 mg/l or greater than 2 mg/l. Because dissolved oxygen concentrations above 2 mg/l diminish the reductive dechlorination process, a concentration greater than 2 mg/l would result in a deduction of 3 points from the total. Table I-2 in Appendix H presents the recommended interpretations of the points scored through applying this ranking process. A higher ranking (total points greater than 15) indicates adequate to strong evidence for biodegradation of CVOCs. Conversely, a low ranking (total points less than 5) indicates inadequate evidence for biodegradation of CVOCs.

5.2.2 VOC Evaluation – Primary Line of Evidence for Reductive Dechlorination

VOCs were not detected in the upgradient unconsolidated deposit wells (OW-81 and OW-95 (O) and OW-96 (O)) or bedrock wells (OW-82 and OW-95(R) and OW-96(R)). The detection limits of the VOCs (typically 1 to 5 µg/L) at these wells represent background conditions for the Site.

The primary chlorinated VOCs (CVOCs) detected in the source area wells (unconsolidated deposits: OW-43, OW-45, OW-46, OW-51, OW-52, OW-55 and OW-83 and bedrock: OW-41, , OW-84 and OW-85) include PCE, TCE, TCA and associated degradation products cis-1,2-DCE and vinyl chloride. The daughter product to parent compound ratios were calculated for each well for the VOC data and are presented in Table I-3 in Appendix H. The presence of daughter products is a positive indicator of degradation processes, but daughter-parent ratios that are greater than 1 provide compelling evidence of these processes. The calculated daughter-parent ratios ranged from 0.04 to 17 and daughter-parent ratios greater than 1 were measured at 12 of the 15 wells where VOCs were detected. The high ratio of daughter products to parent compounds in the dissolved plume area suggests that reductive dechlorination is a dominant attenuation process. The presence of benzene, toluene, ethylbenzene and xylenes (BTEX) in several wells (OW-41, OW-43, OW-51 and OW-52) may provide an additional carbon and/or energy source that is supportive of biodegradation processes.

Downgradient wells (OW-07, OW-08, OW-11, OW-12, OW-21, OW-33, OW-34, OW-36, OW-38, OW-80 and OW-86) have VOC concentrations at very low estimated (less than 5 µg/L) or non-detectable levels. Consequently, daughter to parent ratios are very low or nonexistent.

² USEPA. "Draft EPA Region 4 Suggested Practices for Evaluation of a Site for Natural Attenuation (Biological Degradation) of Chlorinated Solvents." November 1997. Version 3.0.

Comparison of geochemical and/or VOC results for the bedrock wells is limited due to the significant well screen lengths and inconsistent screen intervals, as depicted in Figures 5-4 and 5-5. However, at monitoring well OW-36, which has detectable VOC concentrations, the geochemical data indicate that sulfate-reducing to methanogenic conditions exist (i.e., dissolved metals concentrations approximate total metals concentrations, sulfate concentrations are lower than background, chloride concentrations are elevated relative to background, CO₂ levels are depleted, and dissolved gases were detected at low concentrations). Further downgradient, OW-86 data indicate that more oxidizing conditions are present through the relative concentrations of dissolved metals (compared to total metals), elevated DO and the lack of dissolved gases. Upgradient conditions are similar to the conditions noted at OW-86.

Numerical Screening

For the purpose of the natural attenuation screening evaluation, data was subdivided into individual data tables for the unconsolidated deposit wells and bedrock wells. Natural attenuation ranking points were assigned and totaled for each monitoring well, depicted in tabular format in Tables I-4a and I-4b for the unconsolidated deposit and bedrock wells, respectively. Upgradient wells were assumed to represent background conditions for each data subset.

Overall, the numerical screening assessment supports natural attenuation via reductive dechlorination for the unconsolidated deposit wells in the source area. As expected, the highest score of 26 points, indicating strong evidence for reductive dechlorination, was obtained at well OW-52, a source area well with elevated VOC concentrations. The score was lower at the downgradient location OW-38, where a score of 12 points was measured, indicating a more limited level of reductive chlorination, likely due to the lower VOC concentrations in this area. At upgradient locations OW-81 and OW-95(O), a score of 1 was measured, which is expected since VOC concentrations are low or nonexistent and groundwater conditions are oxidizing. Additional geochemical data are necessary to determine whether the remaining wells in the dissolved plume also show similar evidence.

The numerical screening results for the bedrock wells show less evidence of reductive dechlorination processes (scores ranked from 0 to 8) than the results for the unconsolidated deposits. The screening results are impacted however, by the lack of measurable VOCs in the samples from the wells, as evidenced by the highest score

vicinity of wells MW-95 and MW-96, whereas, the horizontal hydraulic gradient is approximately 0.003 ft/ft in the central portion of the Site.

Table 5-4 presents a summary of vertical hydraulic gradients at select Phase 1 monitoring well clusters. In general, the minimal vertical gradient measured within the central portion of the Site (well couplets OW-33/34, OW-41/43, OW-45/46) suggests that groundwater flow is generally horizontal in that area. A downward component of groundwater flow is evident within the upland bordering the Site (well couplet OW-95 (O)/(R)) and the upgradient portion of the Site (well couplet OW-83/84). A slight upward component of groundwater flow is evident at well couplet OW-36/38. In addition, a downward gradient is observed at the OW-55/85 well couplet based on the October 23-26, 2001 data, however, a slight upward gradient was measured at this same couplet on November 7, 2001. Additional measurements are necessary at this location to verify the vertical gradient component of groundwater flow. In general, the gradients were consistent at each couplet location between measurement rounds and consistent with the current conceptual model of the Site, as presented in the Pre-Design Work Plan.

In the vicinity of OW-86, the artesian conditions indicate upward vertical gradients from the bedrock to the unconsolidated deposits. Additional Phase 2 monitoring wells will assist with the evaluation of groundwater flow conditions, particularly within the former Tire Pile Area and the Northwest Quadrant (due to the loss of OW-28 as a monitoring point).

6.0 CONCLUSIONS

Based on a review of the data generated during Phase 1 of the Pre-Design Investigation, the historic data available for the Site, and the Site conceptual model, as described in the Pre-Design Work Plan, the following conclusions are presented.

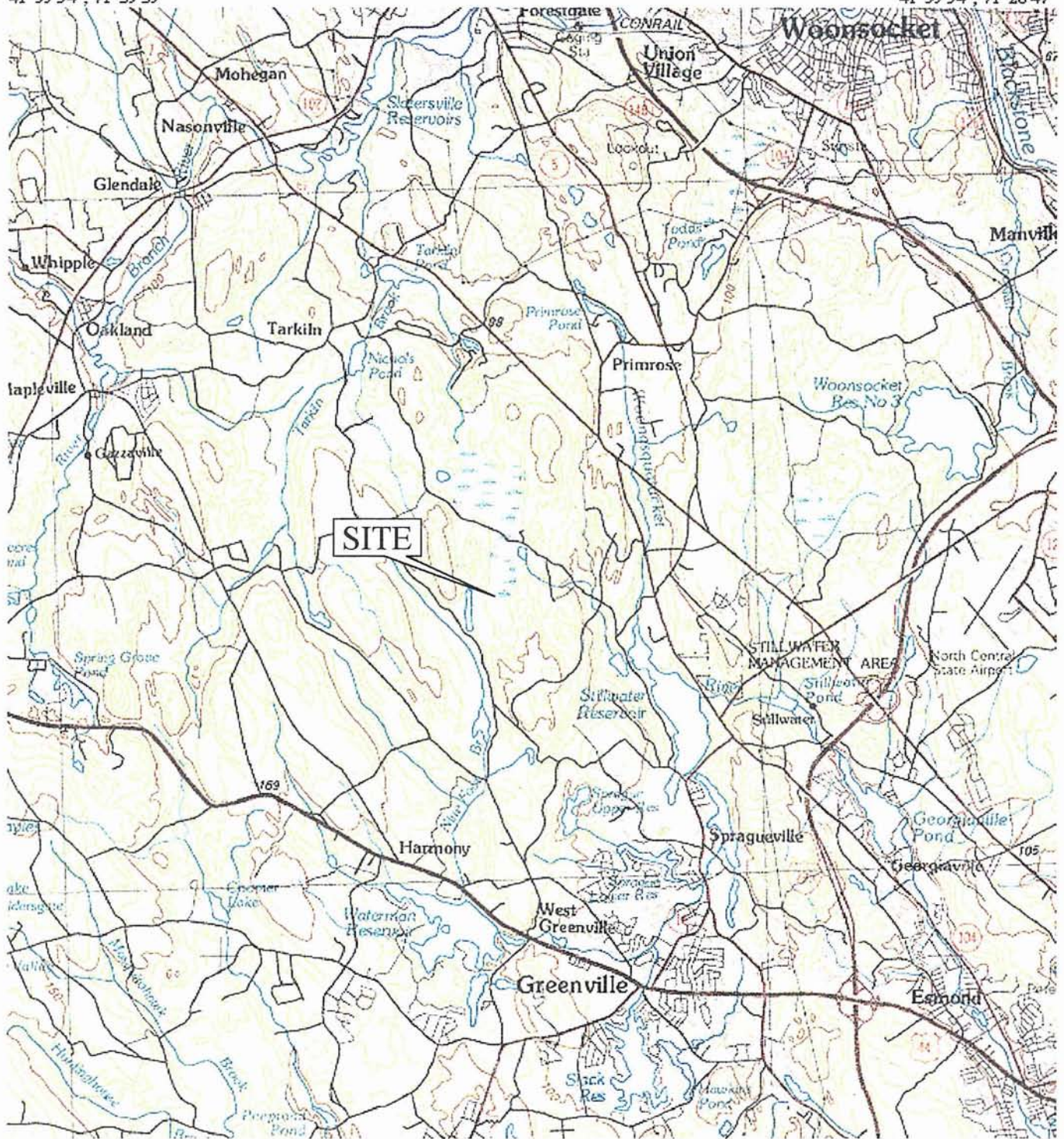
1. Twenty-seven of the existing twenty-nine monitoring wells targeted for sampling during Phase 1 were determined to be functional during the monitoring well inventory and integrity assessment. Only monitoring wells OW-20 and OW-28 were removed from the groundwater sampling program.
2. In general, the constituents detected and the VOC concentration ranges detected are similar for the most recent historic 1991 sampling event and the Phase 1 sampling event.
3. Significantly lower VOC concentrations were detected in existing monitoring well OW-52, located within the unconsolidated deposits immediately downgradient of the former disposal areas.
4. Results of the preliminary VOC evaluation and geochemical parameter screening evaluation indicate that reductive dechlorination is an active process in areas with elevated groundwater

1. Relocate proposed well couplet OW-105(O,R) to replace existing well OW-28, that was determined to be damaged, to provide coverage within the Northwest Quadrant of the Site.
2. Relocate proposed well couplet OW-106(O,R) approximately 100 feet to the north of its original location.
3. Install a bedrock monitoring well in the vicinity of existing well couplet OW-33/34, due to the length of the open bedrock borehole at this location.

Figures


41°59'54", 71°39'39"

41°59'54", 71°28'47"



41°51'04", 71°39'39" NAD83

41°51'04", 71°28'47"

MN  TN
15%



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Site Location Map

Davis Liquid Waste Site
Smithfield, Rhode Island

FIGURE NO.
1-1

PROJECT NO.
A365-001.5



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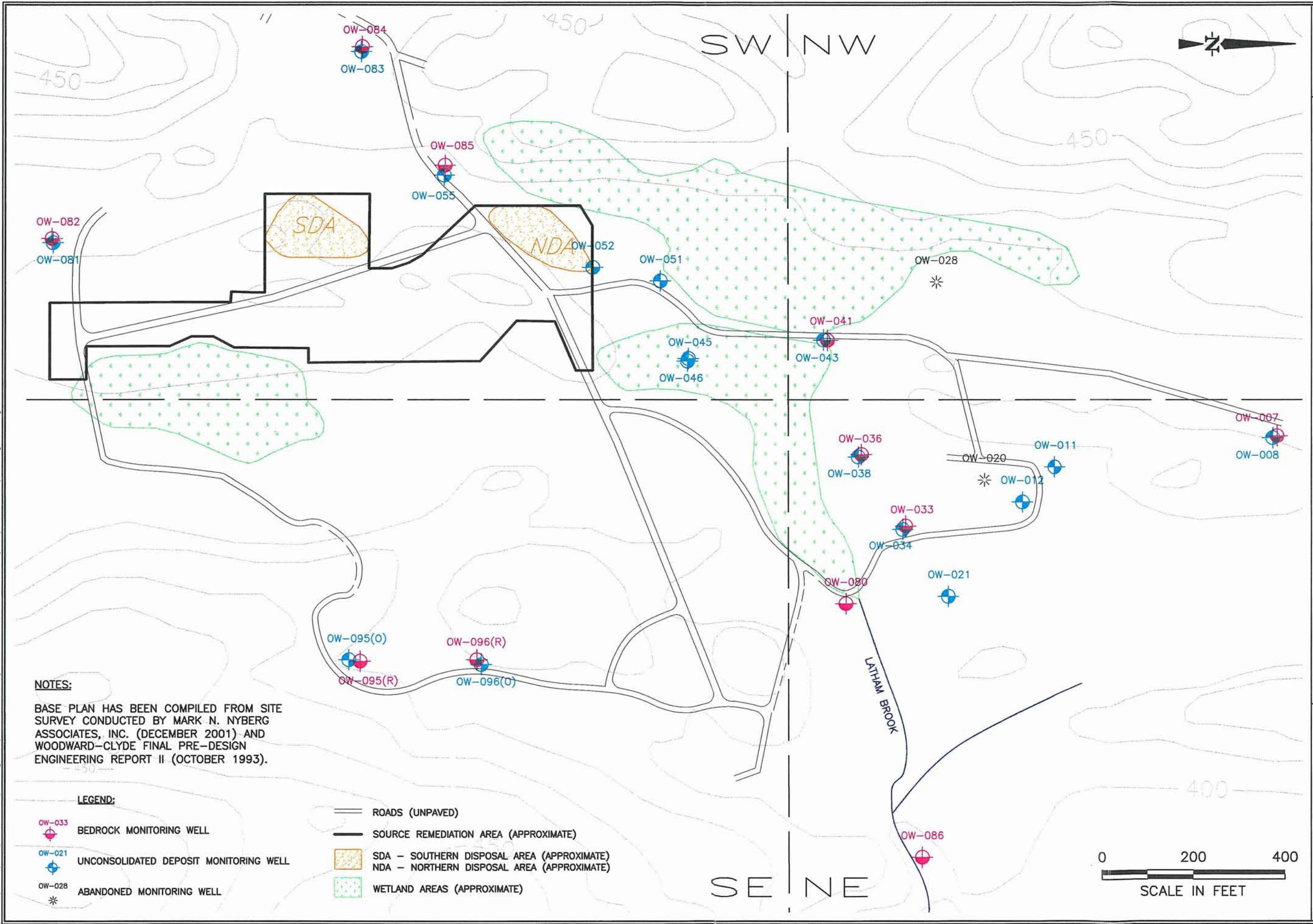


FIGURE NO.
1-2

Site Plan and Monitoring Well Location Map
Pre-Design Investigation - Phase I

Davis Liquid Waste Superfund Site
Smithfield, Rhode Island





OW-082			
CONSTITUENT	P/F	UNITS	3740547 12/06/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-084			
CONSTITUENT	P/F	UNITS	3739280 12/05/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	2 J
Trichloroethylene	Total	(ug/l)	6

OW-085			
CONSTITUENT	P/F	UNITS	3738474 12/04/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	3 J
Trichloroethylene	Total	(ug/l)	3 J

OW-041			
CONSTITUENT	P/F	UNITS	3729010 11/15/2001 Primary
Benzene	Total	(ug/l)	7
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	1 J

OW-036			
CONSTITUENT	P/F	UNITS	3731915 11/20/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	19
Trichloroethylene	Total	(ug/l)	18

OW-007			
CONSTITUENT	P/F	UNITS	3722434 11/07/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5
Trichloroethylene	Total	(ug/l)	2 J

OW-095(R)					
CONSTITUENT	P/F	UNITS	3740937 12/07/2001 Primary	3740939 12/07/2001 Duplicate 1	
Benzene	Total	(ug/l)	5 U	5 U	5 U
Tetrachloroethylene	Total	(ug/l)	5 U	5 U	5 U
Trichloroethylene	Total	(ug/l)	5 U	5 U	5 U

OW-096(R)			
CONSTITUENT	P/F	UNITS	3740938 12/07/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-080			
CONSTITUENT	P/F	UNITS	3726415 11/12/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-086			
CONSTITUENT	P/F	UNITS	3738473 12/04/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-033			
CONSTITUENT	P/F	UNITS	3729008 11/14/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	11
Trichloroethylene	Total	(ug/l)	40

NOTES:
 BASE PLAN HAS BEEN COMPILED FROM SITE SURVEY CONDUCTED BY MARK N. NYBERG ASSOCIATES, INC. (DECEMBER 2001) AND WOODWARD-CLYDE FINAL PRE-DESIGN ENGINEERING REPORT II (OCTOBER 1993).
 CONTOURS GENERATED THROUGH MANUAL INTERPRETATION OF TVOC DATA.
 ND = NON DETECT
 U = THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE ASSOCIATED NUMERICAL VALUE IS THE SAMPLE-SPECIFIC QUANTITATION LIMIT.
 J = THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY.

LEGEND:
 MONITORING WELL WITH MEASURED TVOC CONCENTRATIONS (ug/L)
 ND
 ROADS (UNPAVED)
 SOURCE REMEDIATION AREA (APPROXIMATE)
 SDA - SOUTHERN DISPOSAL AREA (APPROXIMATE)
 NDA - NORTHERN DISPOSAL AREA (APPROXIMATE)
 WETLAND AREAS (APPROXIMATE)
 TVOC ISOCONCENTRATION LINE (ug/L)

1" = 100'
 1/2" = 50'
 0" = 0'

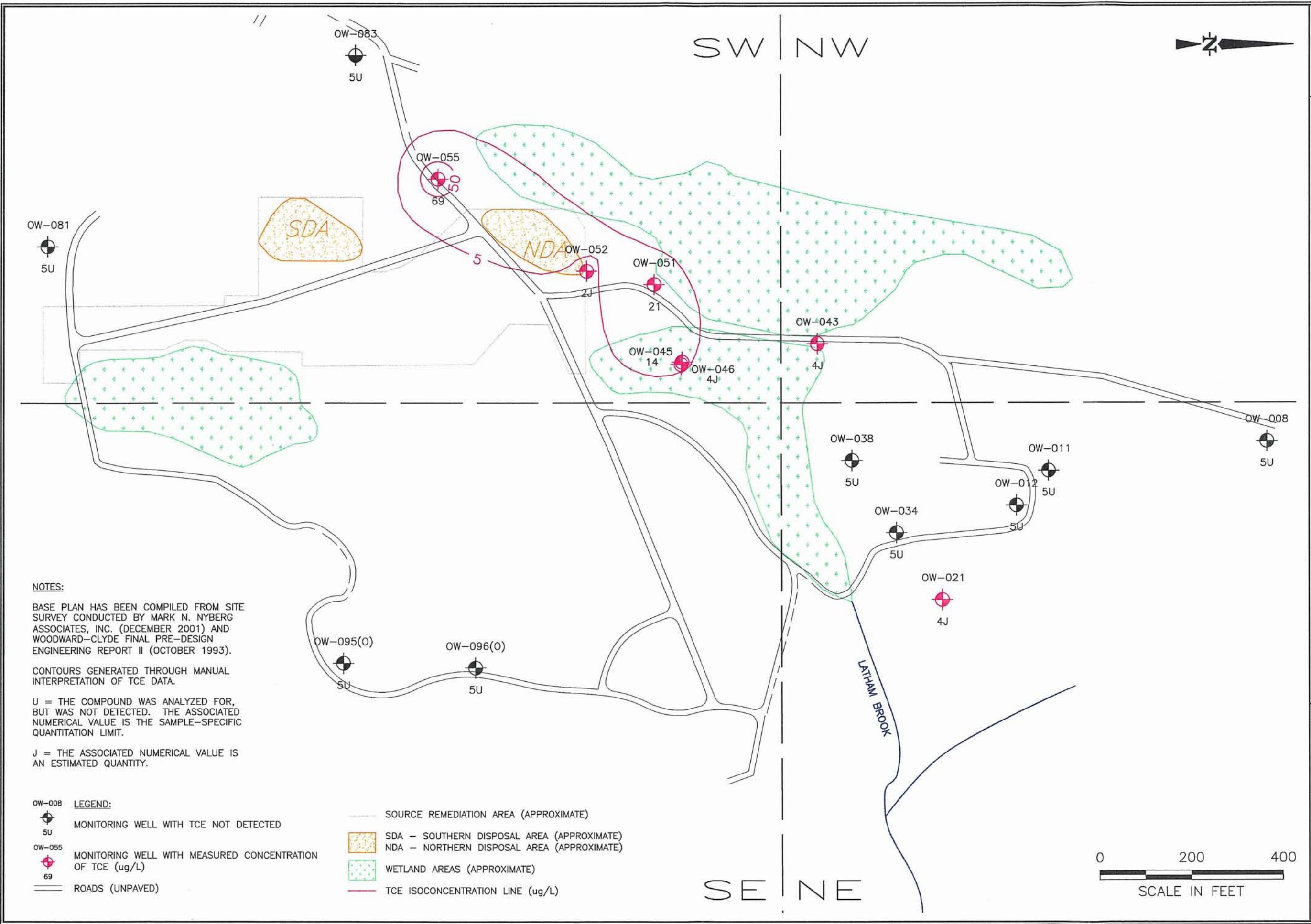
0 100 200
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 ENVIRONMENTAL SCIENCE SERVICES, INC.
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 272 West Exchange Street, Suite 101
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 Fax: 401-421-5732
 Web Site: www.essgroup.com

5-6
 SHEET:
 PROJECT NO. A365.001-3
 DRAWING NO. 5-6
 Davis Liquid Waste Superfund Site
 Pre-Design Investigation - Phase I
 Isoconcentration Map - Bedrock
 Total Volatile Organic Compound

XREF Files: <No Xrefs>
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NOTES:

BASE PLAN HAS BEEN COMPILED FROM SITE SURVEY CONDUCTED BY MARK N. NYBERG ASSOCIATES, INC. (DECEMBER 2001) AND WOODWARD-CLYDE FINAL PRE-DESIGN ENGINEERING REPORT II (OCTOBER 1993).

CONTOURS GENERATED THROUGH MANUAL INTERPRETATION OF TCE DATA.

U = THE COMPOUND WAS ANALYZED FOR, BUT WAS NOT DETECTED. THE ASSOCIATED NUMERICAL VALUE IS THE SAMPLE-SPECIFIC QUANTITATION LIMIT.

J = THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY.

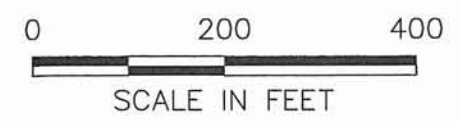
- LEGEND:**
- OW-008 MONITORING WELL WITH TCE NOT DETECTED
 - OW-055 MONITORING WELL WITH MEASURED CONCENTRATION OF TCE (ug/L)
 - ROADS (UNPAVED)
 - SOURCE REMEDIATION AREA (APPROXIMATE)
 - SDA - SOUTHERN DISPOSAL AREA (APPROXIMATE)
 - NDA - NORTHERN DISPOSAL AREA (APPROXIMATE)
 - WETLAND AREAS (APPROXIMATE)
 - TCE ISOCONCENTRATION LINE (ug/L)

FIGURE NO.
5-2

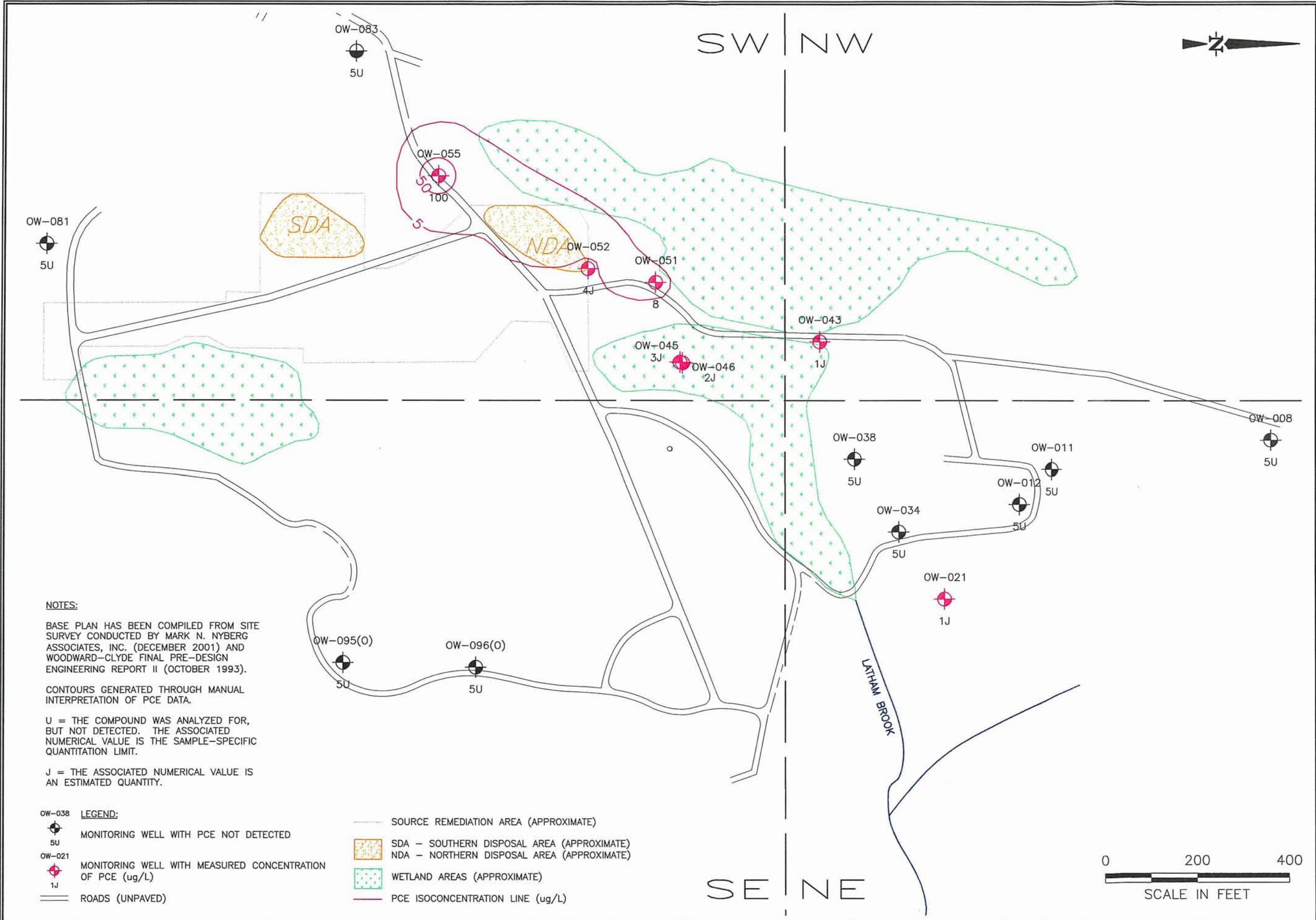
PROJECT NO.
A365-001.5

Trichloroethylene Isoconcentration Map - Unconsolidated Deposits
Pre-Design Investigation - Phase I

Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island



XREF Files: <No Xrefs>
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NOTES:

BASE PLAN HAS BEEN COMPILED FROM SITE SURVEY CONDUCTED BY MARK N. NYBERG ASSOCIATES, INC. (DECEMBER 2001) AND WOODWARD-CLYDE FINAL PRE-DESIGN ENGINEERING REPORT II (OCTOBER 1993).

CONTOURS GENERATED THROUGH MANUAL INTERPRETATION OF PCE DATA.

U = THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE ASSOCIATED NUMERICAL VALUE IS THE SAMPLE-SPECIFIC QUANTITATION LIMIT.

J = THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY.

LEGEND:

- OW-038 MONITORING WELL WITH PCE NOT DETECTED
- OW-021 MONITORING WELL WITH MEASURED CONCENTRATION OF PCE (ug/L)
- ROADS (UNPAVED)

- SOURCE REMEDIATION AREA (APPROXIMATE)
- SDA - SOUTHERN DISPOSAL AREA (APPROXIMATE)
- NDA - NORTHERN DISPOSAL AREA (APPROXIMATE)
- WETLAND AREAS (APPROXIMATE)
- PCE ISOCONCENTRATION LINE (ug/L)

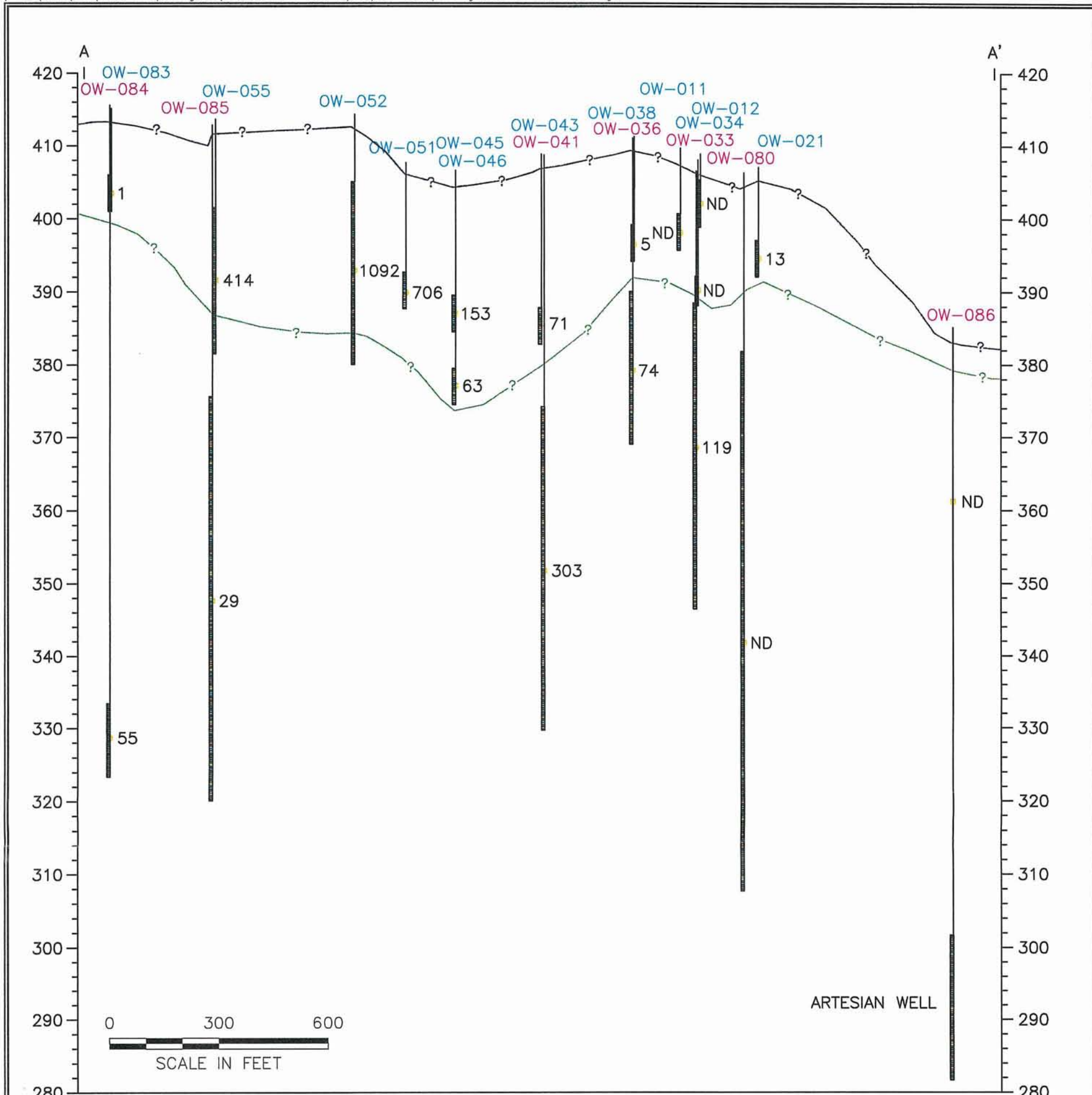
FIGURE NO.
5-3

PROJECT NO.
A365-001.5

**Tetrachloroethylene Isoconcentration Map - Unconsolidated Deposits
 Pre-Design Investigation - Phase I**

Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island





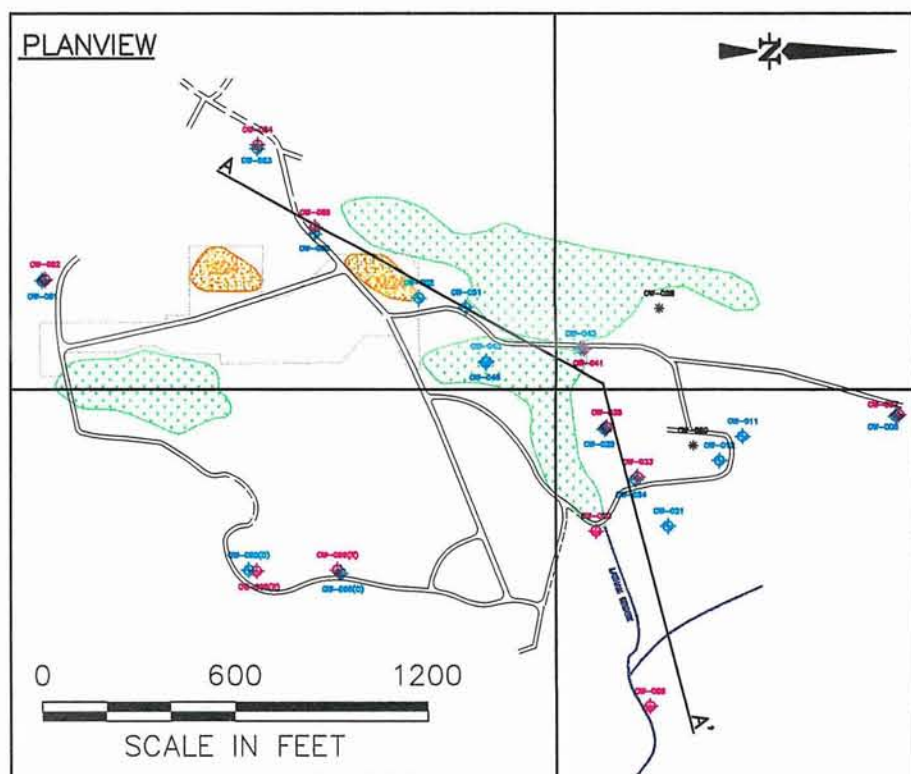
- LEGEND:**
- ?—?— APPROXIMATE BEDROCK SURFACE
 - - - - - APPROXIMATE GROUND SURFACE
 - 71 TVOC CONCENTRATION (PLACEMENT IS APPROXIMATE DEPTH OF PUMP DURING SAMPLING)
 - OW-021 MONITORING WELL IN UNCONSOLIDATED DEPOSITS
 - OW-086 MONITORING WELL IN BEDROCK
 - █ APPROXIMATE SCREEN INTERVAL
- VERTICAL EXAGGERATION = 20

NOTES:

BASE PLAN HAS BEEN COMPILED FROM SITE SURVEY CONDUCTED BY MARK N. NYBERG ASSOCIATES, INC. (DECEMBER 2001) AND WOODWARD-CLYDE FINAL PRE-DESIGN ENGINEERING REPORT II (OCTOBER 1993).

ND = NON DETECT

PLEASE SEE FIGURE 1-2 FOR PLANVIEW LEGEND.

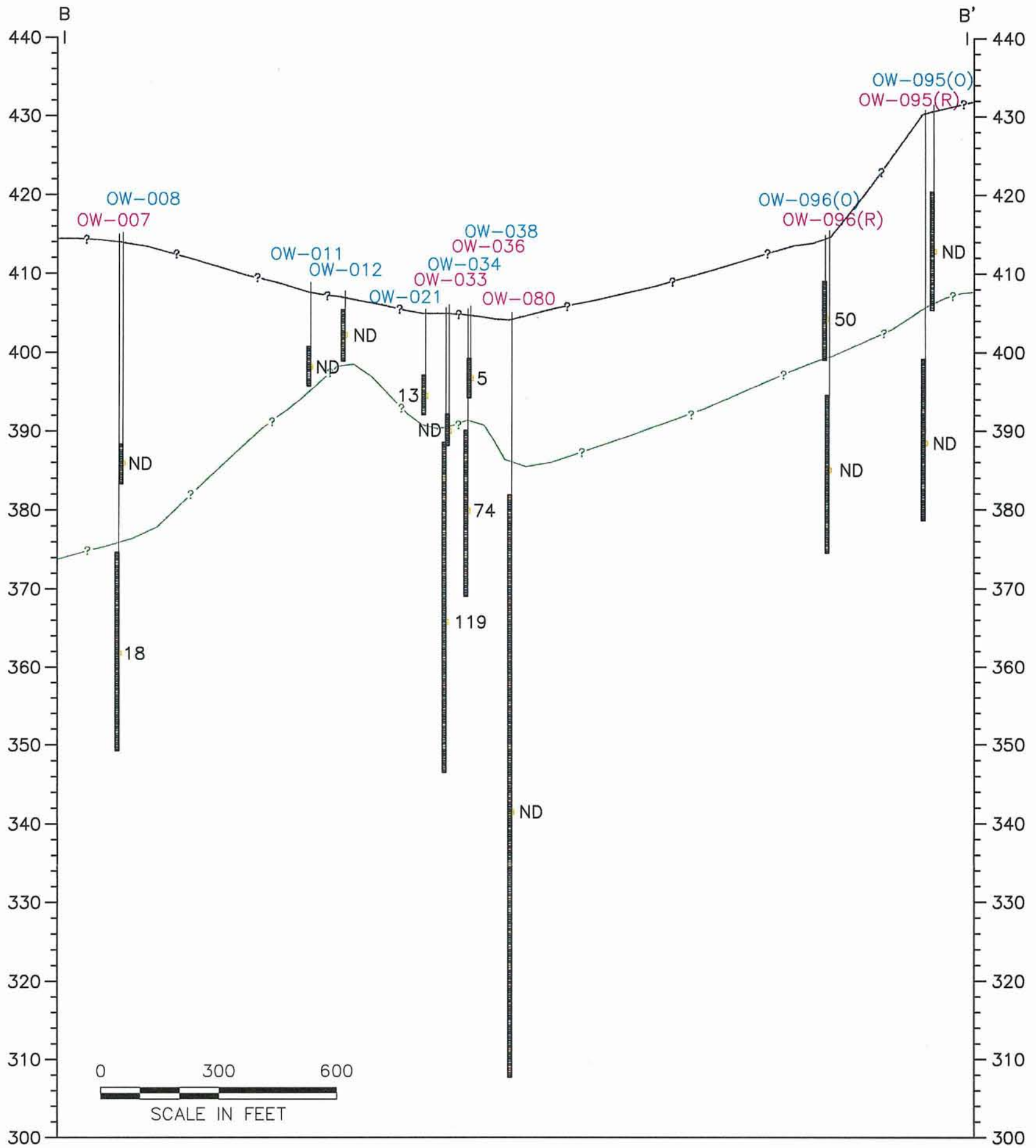


**Conceptual Cross Section A To A'
 Pre-Design Investigation - Phase I**

Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

**FIGURE NO.
 5-4**

PROJECT NO.
 A365-001.5



LEGEND:

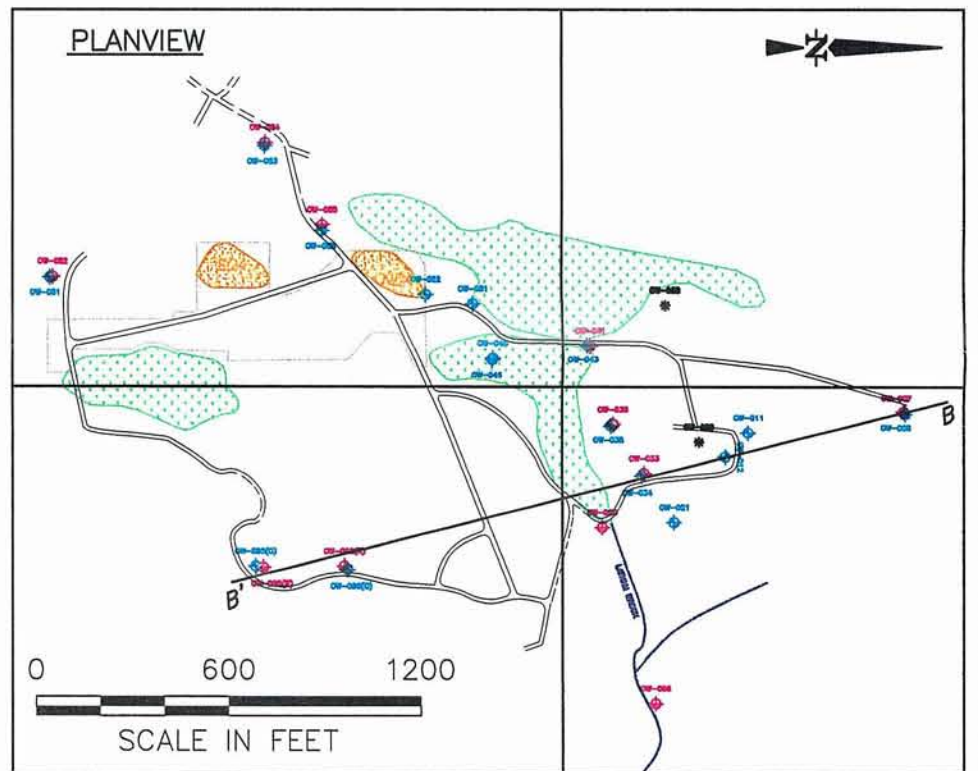
- ?-?-? APPROXIMATE BEDROCK SURFACE
- ?-?-? APPROXIMATE GROUND SURFACE
- 74 TVOC CONCENTRATION (PLACEMENT IS APPROXIMATE DEPTH OF PUMP DURING SAMPLING)
- OW-021 MONITORING WELL IN UNCONSOLIDATED DEPOSITS
- OW-086 MONITORING WELL IN BEDROCK
- APPROXIMATE SCREEN INTERVAL
- VERTICAL EXAGGERATION = 20

NOTES:

BASE PLAN HAS BEEN COMPILED FROM SITE SURVEY CONDUCTED BY MARK N. NYBERG ASSOCIATES, INC. (DECEMBER 2001) AND WOODWARD-CLYDE FINAL PRE-DESIGN ENGINEERING REPORT II (OCTOBER 1993).

ND = NON DETECT

PLEASE SEE FIGURE 1-2 FOR PLANVIEW LEGEND.



**Conceptual Cross Section B To B'
 Pre-Design Investigation - Phase I**

Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

**FIGURE NO.
 5-5**

PROJECT NO.
 A365-001.5





OW-083			
CONSTITUENT	P/F	UNITS	3739279 12/05/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-055			
CONSTITUENT	P/F	UNITS	3729007 11/14/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	100
Trichloroethylene	Total	(ug/l)	69

OW-051			
CONSTITUENT	P/F	UNITS	3724762 11/08/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	8
Trichloroethylene	Total	(ug/l)	21

OW-043			
CONSTITUENT	P/F	UNITS	3727579 11/13/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-052			
CONSTITUENT	P/F	UNITS	3737558 12/03/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-038			
CONSTITUENT	P/F	UNITS	3730807 11/19/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-081			
CONSTITUENT	P/F	UNITS	3739278 12/05/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-011			
CONSTITUENT	P/F	UNITS	3724767 11/08/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-008			
CONSTITUENT	P/F	UNITS	3722432 11/07/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-081
ND

OW-083
ND

OW-055
410

OW-052
1075

OW-051
697

OW-045
148

OW-046
56

OW-043
60

OW-038
2

OW-011
ND

OW-012
ND

OW-034
ND

OW-021
5

OW-095(O)
ND

OW-096(O)
50

OW-096(O)			
CONSTITUENT	P/F	UNITS	3740548 12/06/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-045			
CONSTITUENT	P/F	UNITS	3730170 11/16/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	14

OW-046			
CONSTITUENT	P/F	UNITS	3730171 11/16/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-021			
CONSTITUENT	P/F	UNITS	3727578 11/13/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-012			
CONSTITUENT	P/F	UNITS	3725021 11/09/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

OW-034			
CONSTITUENT	P/F	UNITS	3726416 11/12/2001 Primary
Benzene	Total	(ug/l)	5 U
Tetrachloroethylene	Total	(ug/l)	5 U
Trichloroethylene	Total	(ug/l)	5 U

SW
SE

NW
NE

NOTES:

BASE PLAN HAS BEEN COMPILED FROM SITE SURVEY CONDUCTED BY MARK N. NYBERG ASSOCIATES, INC. (DECEMBER 2001) AND WOODWARD-CLYDE FINAL PRE-DESIGN ENGINEERING REPORT II (OCTOBER 1993).

OW-096(O) NOT INCLUDED IN CONTOUR GENERATION. THE DETECTED COMPOUNDS AT THIS WELL (ACETONE AND METHYL ETHYL KETONE) WERE NOT OBSERVED ELSEWHERE ACROSS THE SITE.

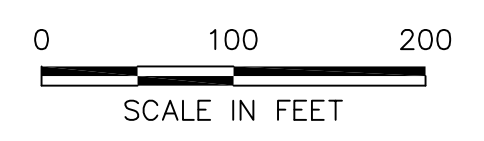
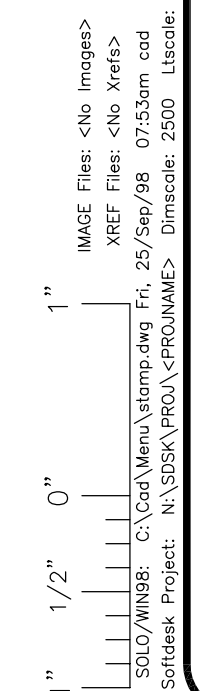
CONTOURS GENERATED THROUGH MANUAL INTERPRETATION OF TVOC DATA.

ND = NON DETECT

U = THE COMPOUND WAS ANALYZED FOR, BUT WAS NOT DETECTED. THE ASSOCIATED NUMERICAL VALUE IS THE SAMPLE-SPECIFIC QUANTITATION LIMIT.

LEGEND:

- OW-055 MONITORING WELLS WITH MEASURED TVOC CONCENTRATION (ug/L)
- ROADS (UNPAVED)
- SOURCE REMEDIATION AREA (APPROXIMATE)
- SDA - SOUTHERN DISPOSAL AREA (APPROXIMATE)
- NDA - NORTHERN DISPOSAL AREA (APPROXIMATE)
- WETLAND AREAS (APPROXIMATE)
- TVOC ISOCONCENTRATION LINE (ug/L)

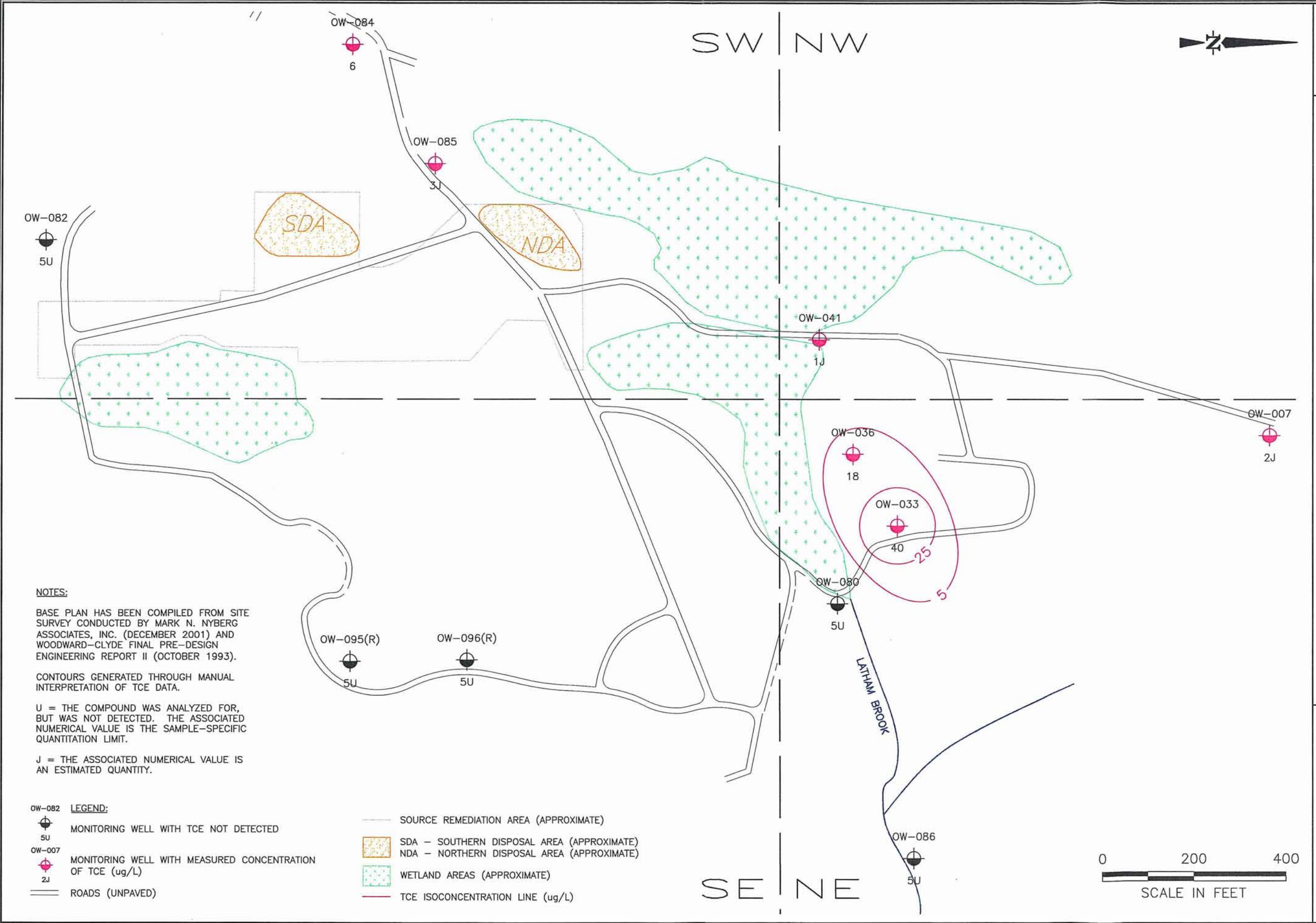


REV	DATE	DESCRIPTION	CHK BY	APP BY

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 Environmental Scientists, Engineers, and Planners
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 Weylesley, Massachusetts 02482
 781.431.0500
 Phone: 781.431.0500
 Web Site: www.essgroup.com

5-1
 SHEET:
 PROJECT NO. A365.001.3
 Total Volatile Organic Compound Isoconcentration Map - Unconsolidated Deposits Pre-Design Investigation - Phase I
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

XREF Files: <No Xrefs>
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NOTES:

BASE PLAN HAS BEEN COMPILED FROM SITE SURVEY CONDUCTED BY MARK N. NYBERG ASSOCIATES, INC. (DECEMBER 2001) AND WOODWARD-CLYDE FINAL PRE-DESIGN ENGINEERING REPORT II (OCTOBER 1993).

CONTOURS GENERATED THROUGH MANUAL INTERPRETATION OF TCE DATA.

U = THE COMPOUND WAS ANALYZED FOR, BUT WAS NOT DETECTED. THE ASSOCIATED NUMERICAL VALUE IS THE SAMPLE-SPECIFIC QUANTITATION LIMIT.

J = THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY.

- LEGEND:**
- OW-082 5U MONITORING WELL WITH TCE NOT DETECTED
 - OW-007 2J MONITORING WELL WITH MEASURED CONCENTRATION OF TCE (ug/L)
 - ROADS (UNPAVED)
 - SOURCE REMEDIATION AREA (APPROXIMATE)
 - SDA - SOUTHERN DISPOSAL AREA (APPROXIMATE)
 - NDA - NORTHERN DISPOSAL AREA (APPROXIMATE)
 - WETLAND AREAS (APPROXIMATE)
 - TCE ISOCONCENTRATION LINE (ug/L)

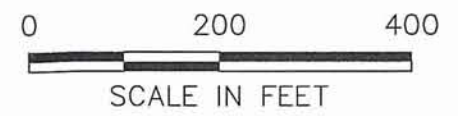


FIGURE NO.
5-7

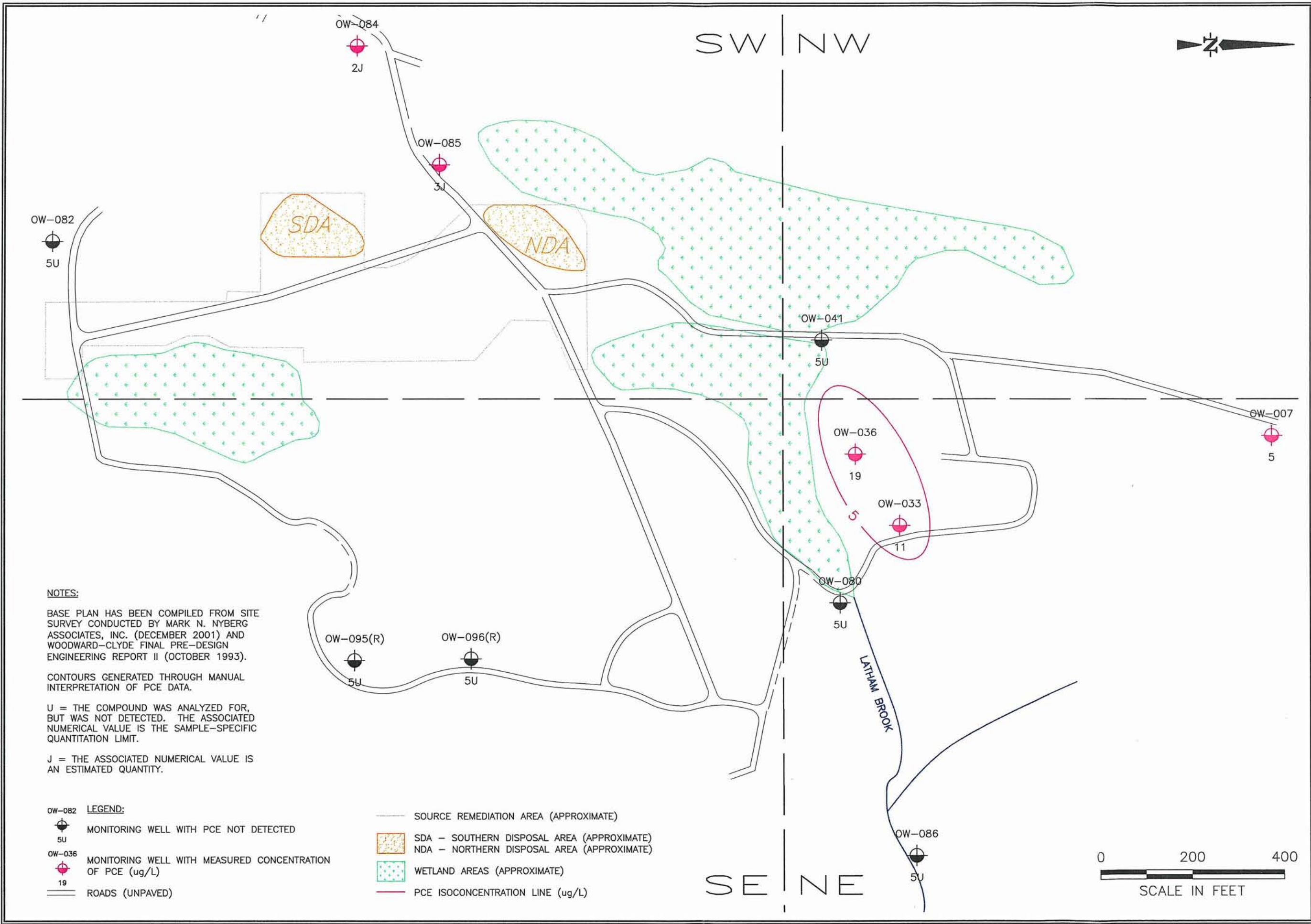
PROJECT NO.
A365-001.5

**Trichloroethylene Isoconcentration Map - Bedrock
Pre-Design Investigation - Phase I**

Davis Liquid Waste Superfund Site
Smithfield, Rhode Island



XREF Files: <No Xrefs>
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NOTES:
 BASE PLAN HAS BEEN COMPILED FROM SITE SURVEY CONDUCTED BY MARK N. NYBERG ASSOCIATES, INC. (DECEMBER 2001) AND WOODWARD-CLYDE FINAL PRE-DESIGN ENGINEERING REPORT II (OCTOBER 1993).
 CONTOURS GENERATED THROUGH MANUAL INTERPRETATION OF PCE DATA.
 U = THE COMPOUND WAS ANALYZED FOR, BUT WAS NOT DETECTED. THE ASSOCIATED NUMERICAL VALUE IS THE SAMPLE-SPECIFIC QUANTITATION LIMIT.
 J = THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY.

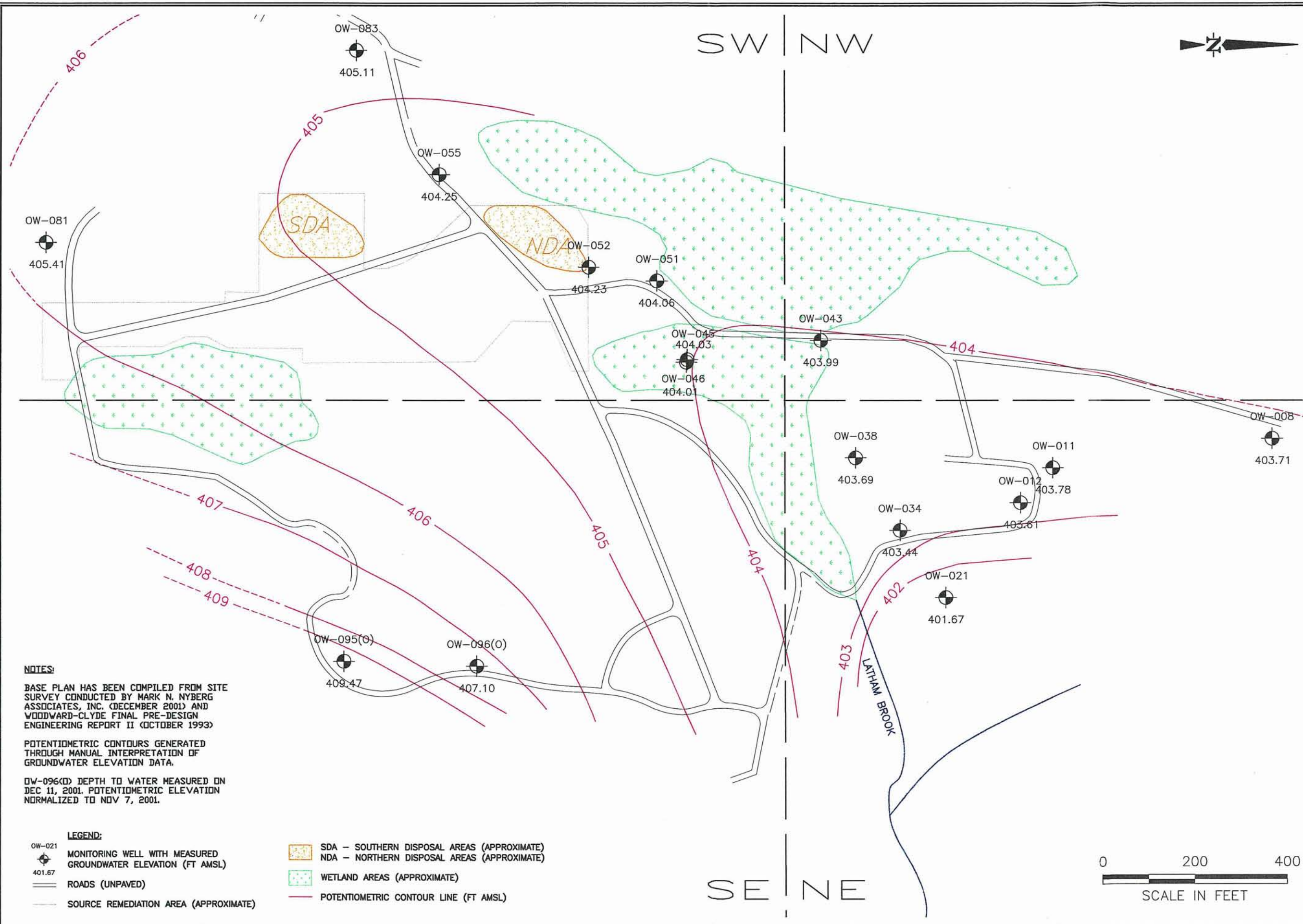
- LEGEND:**
- OW-082 MONITORING WELL WITH PCE NOT DETECTED
 - OW-036 MONITORING WELL WITH MEASURED CONCENTRATION OF PCE (ug/L)
 - ROADS (UNPAVED)
 - SOURCE REMEDIATION AREA (APPROXIMATE)
 - SDA - SOUTHERN DISPOSAL AREA (APPROXIMATE)
 - NDA - NORTHERN DISPOSAL AREA (APPROXIMATE)
 - WETLAND AREAS (APPROXIMATE)
 - PCE ISOCONCENTRATION LINE (ug/L)

FIGURE NO.
 5-8
 PROJECT NO.
 A365-001.5

**Tetrachloroethylene Isocpncentration Map - Bedrock
 Pre-Design Investigation - Phase I**
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island



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NOTES:
 BASE PLAN HAS BEEN COMPILED FROM SITE SURVEY CONDUCTED BY MARK N. NYBERG ASSOCIATES, INC. (DECEMBER 2001) AND WOODWARD-CLYDE FINAL PRE-DESIGN ENGINEERING REPORT II (OCTOBER 1993)
 POTENTIOMETRIC CONTOURS GENERATED THROUGH MANUAL INTERPRETATION OF GROUNDWATER ELEVATION DATA.
 OW-096(O) DEPTH TO WATER MEASURED ON DEC 11, 2001. POTENTIOMETRIC ELEVATION NORMALIZED TO NOV 7, 2001.

- LEGEND:**
- OW-021
 MONITORING WELL WITH MEASURED GROUNDWATER ELEVATION (FT AMSL)
 - 401.67
 ROADS (UNPAVED)
 - SOURCE REMEDIATION AREA (APPROXIMATE)
 - SDA - SOUTHERN DISPOSAL AREAS (APPROXIMATE)
 - NDA - NORTHERN DISPOSAL AREAS (APPROXIMATE)
 - WETLAND AREAS (APPROXIMATE)
 - POTENTIOMETRIC CONTOUR LINE (FT AMSL)

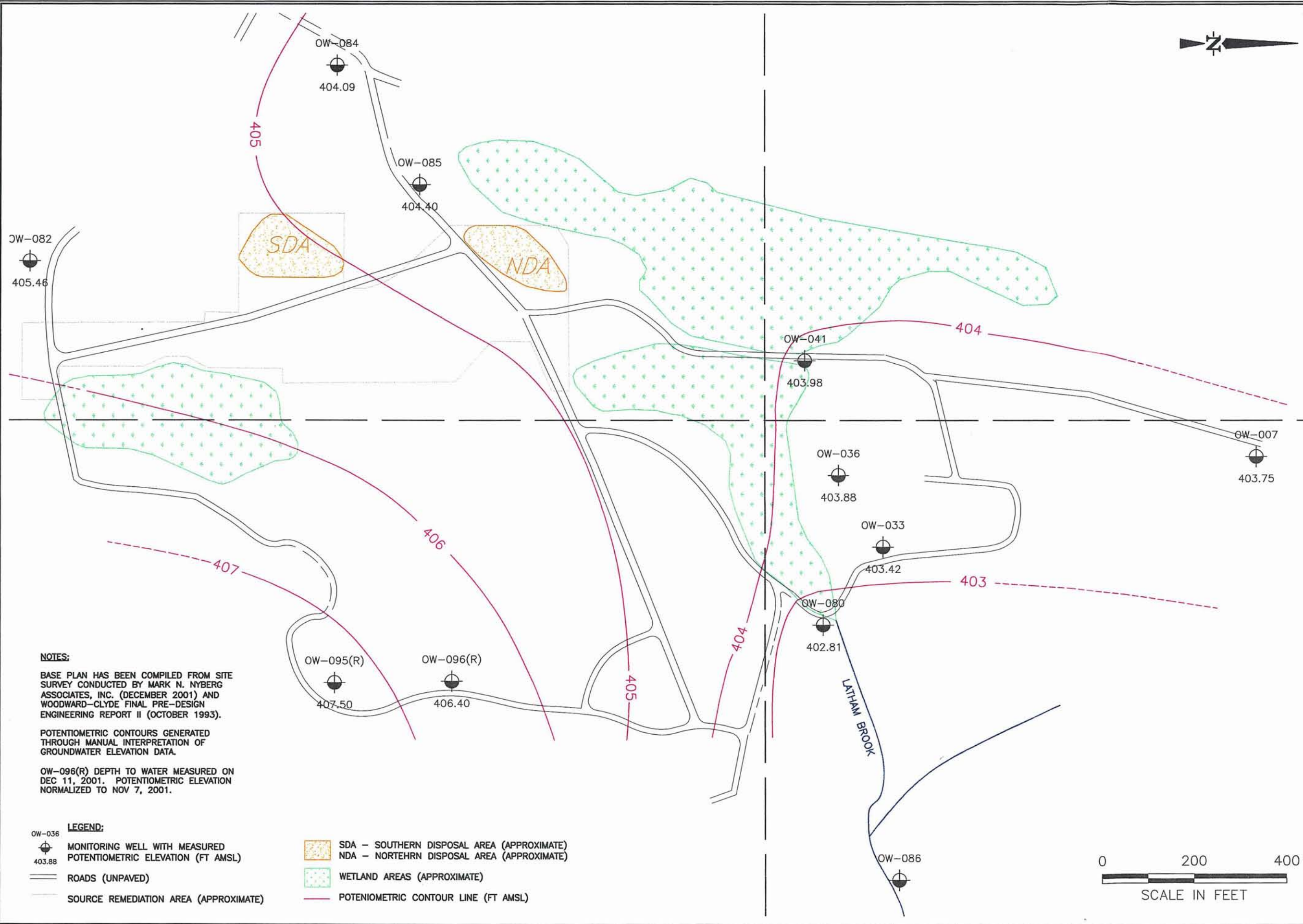
FIGURE NO.
 5-9
 PROJECT NO.
 A365-001.5

Unconsolidated Deposits Potentiometric Contour Map - November 7, 2001
Pre-Design Investigation - Phase I

Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island



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NOTES:
 BASE PLAN HAS BEEN COMPILED FROM SITE SURVEY CONDUCTED BY MARK N. NYBERG ASSOCIATES, INC. (DECEMBER 2001) AND WOODWARD-CLYDE FINAL PRE-DESIGN ENGINEERING REPORT II (OCTOBER 1993).
 POTENTIOMETRIC CONTOURS GENERATED THROUGH MANUAL INTERPRETATION OF GROUNDWATER ELEVATION DATA.
 OW-096(R) DEPTH TO WATER MEASURED ON DEC 11, 2001. POTENTIOMETRIC ELEVATION NORMALIZED TO NOV 7, 2001.

- LEGEND:**
- OW-036
 MONITORING WELL WITH MEASURED POTENTIOMETRIC ELEVATION (FT AMSL)
 - ROADS (UNPAVED)
 - SOURCE REMEDIATION AREA (APPROXIMATE)
 - SDA - SOUTHERN DISPOSAL AREA (APPROXIMATE)
 - NDA - NORTEHRN DISPOSAL AREA (APPROXIMATE)
 - WETLAND AREAS (APPROXIMATE)
 - POTENIOMETRIC CONTOUR LINE (FT AMSL)



FIGURE NO.
5-10

PROJECT NO.
A365-001.5

**Bedrock Potentiometric Contour Map - November 7, 2001
 Pre-Design Investigation - Phase I**

Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island



Tables

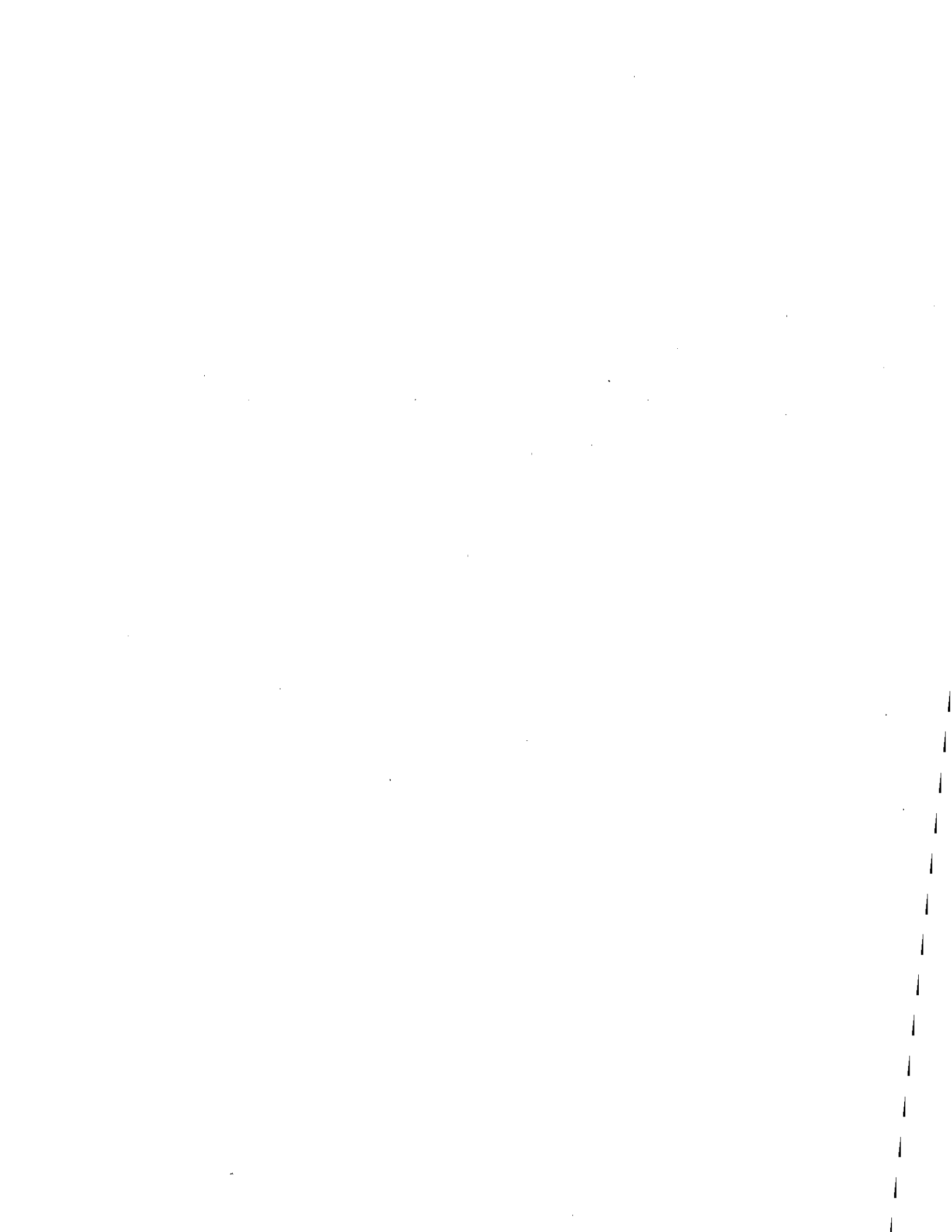


TABLE 2-1
WELL INVENTORY AND INTEGRITY ASSESSMENT DATA SUMMARY
OCTOBER 15-26, 2001
DAVIS LIQUID WASTE SUPERFUND SITE
SMITHFIELD, RHODE ISLAND

Well ID	Overburden / Bedrock	Depth of Well [Table D-1] (fbs)	Depth of Well [Measured] (toc)	Screen Interval (fbs)	% of screen open	Depth to Water	Hard / Soft Bottom	Inner Well Diameter (inches)	Well Development Comments
OW-7	B	89.0	64.39	39 - 75	71	11.92	hard	1.25	no progress made beyond initial measured depth; well pumped for 15 minutes; good recharge observed
OW-8	U	38.0	31.10	33 - 38	0	13.05	hard	1.25	cleaned and developed by EDI; pumped for approximately 20 minutes; clear water flowing; well was recharging despite supposed lack of screen opening; depth to water post pumping identical to pre-pumping level
OW-11	U	14.0	18.44	7 - 12	100	6.20	soft	1.25	well development determined to be unnecessary
OW-12	U	8.5	11.38	2 - 8.5	100	6.94	hard	1.25	well development determined to be unnecessary
OW-20	B	27.5	18.95	17.5 - 27.5	15	7.20	soft	1.25	coarse packing sand found at depth by EDI; ESS determined well to be damaged at depth; well removed from sampling plan
OW-21	U	13.0	14.28	8 - 13	100	6.24	hard	1.25	well development determined to be unnecessary
OW-28	B	37.0	26.60	28 - 37	0	5.51	hard	1.25	1" stone found at depth by EDI; PVC fragments found in drummed development water; ESS determined well to be damaged at depth; well removed from sampling plan
OW-33	B	64.0	61.54	16 - 58	100	3.04	soft	1.25	well development determined to be unnecessary
OW-34	U	18.0	18.00	14 - 18	100	4.30	soft	1.25	well cleaned and PVC riser fixed by EDI; well pumped for 15 minutes; good recharge observed by ESS
OW-36	B	67.0	59.43	19 - 40	100	8.92	soft	1.25	well development determined to be unnecessary
OW-38	U	15.3	16.71	10 - 15	100	7.94	soft	1.25	well development determined to be unnecessary
OW-41	B	77.0	67.86	32.5 - 77	80	4.41	hard	1.25	well development determined to be unnecessary
OW-43	U	27.0	25.12	19 - 24	100	4.38	hard	1.25	well development determined to be unnecessary
OW-45	U	30.8	22.37	15 - 20	100	3.41	soft	1.25	well development determined to be unnecessary
OW-46	U	30.8	31.74	25 - 30	100	3.25	soft	1.25	well development determined to be unnecessary
OW-51	U	19.0	16.38	1 - 6 and 13.5 - 18.5	100 & 57.6	5.75	hard	1.25	well development determined to be unnecessary
OW-52	U	32.5	33.00	7.5 - 32.5	100	11.21	soft	1.25	well development determined to be unnecessary
OW-55	U	30.0	31.69	10 - 30	100	9.52	soft	1.25	well development determined to be unnecessary
OW-80	B	96.6	92.63	22.5 - 96.6	95	4.26	soft	1.25	well development determined to be unnecessary
OW-81	U	27.0	22.29	11 - 21	100	7.82	soft	2.00	well development determined to be unnecessary
OW-82	B	200.0	> 100	38.75 - 200	100	6.97	cnbd	6.00	well development determined to be unnecessary
OW-83	B	12.0	14.18	7 - 12	100	11.20	hard	2.00	well development determined to be unnecessary
OW-84	B	90.0	89.19	80 - 90	92	10.78	hard	2.00	well development determined to be unnecessary
OW-85	B	90.0	95.25	34.5 - 90	100	8.22	soft	6.00	well development determined to be unnecessary
OW-86	B	101.5	~ 96	81.5 - 101.5	70	0.00	very soft	1.25	potential obstruction at approximately 30 fbs removed by EDI using plastic piping; exact depth of well could not be determined due to extreme softness
OW-95O	U	23.6	23.24	8.6 - 23.6	98	19.15	hard	2.00	well development determined to be unnecessary
OW-95R	B	49.0	49.11	28.5 - 49	100	19.40	hard	2.00	well development determined to be unnecessary
OW-96O	U	14.0	13.35	4 - 14	95	7.10	hard	2.00	well development determined to be unnecessary
OW-96R	B	37.5	37.00	17.5 - 37.5	99	6.37	soft	2.00	well development determined to be unnecessary

Notes:

1. fbs = feet below surface
2. cnbd = could not be determined
3. OW-96 O/R evaluated on 12/4/01
4. toc=top of casing
5. Table D-1 referenced from Camp, Dresser & McKee, Inc., Draft Remedial Investigation, November 1986.
6. EDI = Environmental Drilling, Inc.

TABLE 2-2
SLUG TEST RESPONSE DATA SUMMARY
OCTOBER 22-26
DAVIS LIQUID WASTE SUPERFUND SITE
SMITHFIELD, RHODE ISLAND

Well ID	Screen Interval (fbs)	Screen Lithology	Static Water Level	90% Water Level (falling)	Time to reach 90% (falling) in seconds	90% Water Level (rising)	Time to reach 90% (rising) in seconds
OW-7	39 - 75	granite with quartz (39 - 75')	11.92	10.73	< 30	13.11	< 30
OW-8	33 - 38	fine to coarse sand, little silt, gravel, cobbles, and boulders (33 - 38')	12.97	11.67	< 30	14.27	< 30
OW-11	7 - 12	fine to coarse gravel, some sand, trace cobbles, boulders and silt (7 - 12')	6.15	5.54	< 30	6.77	< 30
OW-12	2 - 8.5	silty sand, trace fine gravel, cobbles (2 - 8.5')	6.72	6.05	< 30	7.39	90
OW-21	8 - 13	till, fine sand, fine to coarse gravel, cobbles, boulders, and silt (8 - 13')	6.03	5.43	< 30	6.63	< 30
OW-33	16 - 58	granite with quartz seams (16 - 58') / more seamy (19 - 24')	2.95	2.66	< 30	3.25	< 30
OW-34	14 - 18	granite (14 - 18')	4.82	4.34	< 30	5.30	60
OW-36	19 - 40	granite with quartz seams (19 - 40')	7.85	7.07	< 30	8.64	90
OW-38	10 - 15	fine to medium sand, fine gravel, and cobbles (10 - 15')	7.91	7.12	< 60	8.70	< 30
OW-41	32.5 - 77	granite (32.5 - 77') / seamy (30 - 35') / softer @ 42.5'	4.40	3.96	< 30	4.84	< 30
OW-43	19 - 24	fine to coarse sand, some gravel (19 - 24')	4.32	3.89	< 30	4.75	< 30
OW-45	15 - 20	fine to coarse sand, some silt (15 - 20')	3.42	3.08	< 30	3.76	< 30
OW-46	25 - 30	fine to coarse sand, trace silt, gravel, and till (25 - 30')	3.37	3.03	< 30	3.71	< 30
OW-51	1 - 6 and 13.5 - 18.5	fine to coarse sand, some silt (1 - 6') / fine to medium sand, trace silt and fine gravel (13.5 - 18.5')	5.34	4.81	90	5.87	90
OW-52	7.5 - 32.5	fine to medium sand, some silt (7.5 - 22.5') / solid quartz or fractured gneiss (22.5 - 32.5')	11.17	10.05	< 30	12.29	< 30
OW-55	10 - 30	fine to coarse sand, some silt (10 - 25') / fractured schist (25 - 30')	8.08	7.27	< 30	8.89	< 30
OW-80	OBH @ 22.5 - 96.6	fractured diorite (22.5 - 96.6')	4.28	3.85	> 1800 ^	4.71	960
OW-81	11 - 21	very fine to medium sand, some silt, mica chips, gravel at bottom (11 - 21')	7.89	7.10	< 30	8.68	< 30
OW-82	OBH @ 38.75 - 200	seamy gneiss (38.75 - 200') / water produced @ 160' and 200'	6.68	6.01	< 30	7.35	< 30
OW-83	7 - 12	gneiss (7 - 12') / large amount of water lost to zone @ 10'	11.22	10.10	< 30	12.34	< 30
OW-84	80 - 90	gneiss (80 - 90') / seams @ 83, 86, and 90' / water produced at 90'	11.45	10.31	< 30	12.60	< 90
OW-85	OBH @ 34.5 - 90	gneiss (34.5 - 90') / seams @ 45 and 64' / water produced @ 64 and 90'	9.48	8.53	< 30	10.43	< 30
OW-86	81.5 - 101.5	biotite gneiss with quartz and feldspar veins (81.5 - 101.5')	0.00	0.00	*	0.00	*
OW-95O	8.6 - 23.6	overburden	19.63	17.67	< 30	21.59	< 30
OW-95R	28.5 - 49	bedrock	19.01	17.11	< 30	20.91	< 30
OW-96O	4-14	overburden	7.10	6.39	< 30	7.81	< 30
OW-96R	17.5-37.5	bedrock	6.20	5.58	> 1800^	6.82	< 420

Notes:

1. * = A slug test was not performed at OW-86, as that well is under artesian conditions. Instead, ~1 liter of water was removed, and a recharge time of ~3 minutes was observed.
2. ^ = 1800 seconds is equal to 30 minutes, the end time dictated by the SOP.
3. fbs = feet below surface
4. OBH = open bedrock hole
5. Slug tests for wells OW-96 O/R were conducted on 12/4/01.

TABLE 3-1
GROUNDWATER SAMPLING LOCATIONS AND ANALYTES
PHASE 1 MONITORING EVENT
DAVIS LIQUID WASTE SUPERFUND SITE
SMITHFIELD, RHODE ISLAND

Well ID	Site Location	Formation	VOCs	MNAs	Rationale
OW-7	NE	B	X		evaluation of current groundwater quality
OW-8	NE	U	X		evaluation of current groundwater quality
OW-11	NE	U	X		evaluation of current groundwater quality
OW-12	NE	U	X		evaluation of current groundwater quality
OW-21	NE	U	X		evaluation of current groundwater quality
OW-33	NE	B	X		evaluation of current groundwater quality
OW-34	NE	U	X		evaluation of current groundwater quality
OW-36	NE	B	X	X	evaluation of current groundwater quality and preliminary evaluation of select MNA parameters
OW-38	NE	U	X	X	evaluation of current groundwater quality and preliminary evaluation of select MNA parameters
OW-41	NW	B	X		evaluation of current groundwater quality
OW-43	NW	U	X		evaluation of current groundwater quality
OW-45	SW	U	X		evaluation of current groundwater quality
OW-46	SW	U	X		evaluation of current groundwater quality
OW-51	SW	U	X		evaluation of current groundwater quality
OW-52	SW	U	X	X	evaluation of current groundwater quality and preliminary evaluation of select MNA parameters
OW-55	SW	U	X		evaluation of current groundwater quality
OW-80	NE	B	X		evaluation of current groundwater quality
OW-81	SW	U	X	X	evaluation of current groundwater quality and preliminary evaluation of select MNA parameters (background)
OW-82	SW	B	X	X	evaluation of current groundwater quality and preliminary evaluation of select MNA parameters (background)
OW-83	SW	B	X		evaluation of current groundwater quality
OW-84	SW	B	X		evaluation of current groundwater quality
OW-85	SW	B	X		evaluation of current groundwater quality
OW-86	NE	B	X	X	evaluation of current groundwater quality and preliminary evaluation of select MNA parameters
OW-95R	SE	B	X	X	evaluation of current groundwater quality and preliminary evaluation of select MNA parameters
OW-95O	SE	U	X	X	evaluation of current groundwater quality and preliminary evaluation of select MNA parameters
OW-96R	SE	B	X		evaluation of current groundwater quality
OW-96O	SE	U	X		evaluation of current groundwater quality

NOTES:

1. Site Location refers to quadrants (northeast, northwest, southeast, southwest) as presented in the Pre-Design Work Plan
2. B = bedrock
3. U = unconsolidated deposits
4. VOCs = volatile organic compounds
5. MNA = monitored natural attenuation

TABLE 3-2
MONITORING WELL WATER QUALITY MEASUREMENTS
PHASE 1 MONITORING EVENT
DAVIS LIQUID WASTE SUPERFUND SITE
SMITHFIELD, RHODE ISLAND

Sample Location	Collection Date	Time	pH	Temp (°C)	Dissolved Oxygen (mg/L)	Specific Conductance (us/cm)	Turbidity (NTU)	Total Volume Purged (L)	Total Volume Purged (gal)	ORP (mV)
OW-7	11/07/01	16:30	8.7	10.2	0.3	191	0.5	14.4	3.8	19
OW-8	11/07/01	13:00	5.49	11.1	2.4	70	0.25	18.3	4.8	269.3
OW-11	11/08/01	16:00	5.33	10.6	3.4	36	0.55	12.6	3.3	187.8
OW-12	11/09/01	12:00	5.17	12.7	7.7	35	0	12.6	3.3	234.6
OW-21	11/13/01	12:00	6.67	11.0	1.2	104	22	6.6	1.7	-97.2
OW-33	11/14/01	14:30	7.36	11.0	0.1	172	0	17.6	4.6	-115.7
OW-34	11/12/01	15:30	6.27	10.8	3.4	65	3.4	11.5	3.0	-9
OW-36	11/20/01	12:40	8.49	9.8	2.2	203	0.05	6	1.6	21.4
OW-38	11/19/01	11:00	6.03	12.4	0.5	57	0.85	10.7	2.8	123.6
OW-41	11/15/01	14:15	6.86	11.9	2.7	651	0.3	45	11.9	-177
OW-43	11/13/01	14:30	6.77	10.7	0.5	145	2.2	23.3	6.2	-139.3
OW-45	11/16/01	12:30	5.51	12.3	0.8	105	0	6	1.6	172
OW-46	11/16/01	15:30	6.04	11.1	0.4	114	2.6	8.5	2.2	-9.5
OW-51	11/08/01	11:30	6.16	12.9	0.5	174	0.7	6.15	1.6	-63.8
OW-52	12/03/01	16:00	6.24	12.3	0.4	266	0.15	9.75	2.6	-176.5
OW-55	11/14/01	11:00	5.1	13.5	0.7	96	0.05	17.7	4.7	105.5
OW-80	11/12/01	12:00	7.96	10.0	1.3	138	4.7	5	1.3	-255.6
OW-81	12/05/01	14:00	5.24	11.6	4.5	32	0	41.64	11.0	215
OW-82	12/06/01	12:30	8.42	12.6	1.1	109	55	8.5	2.2	18.3
OW-82	12/11/01	13:00	8.46	10.8	-0.2	121	29	7.6	2.0	70.6
OW-83	12/05/01	15:00	5.03	12.4	0.5	41	0	10.9	2.9	118.4
OW-84	12/05/01	13:00	5.93	12.4	3.8	64	10	13	3.4	100.1
OW-85	12/04/01	14:30	8.42	11.4	1.2	124	55	10.5	2.8	-154
OW-86	12/04/01	1300	6.68	13.5	4.0	101	75	18.2	4.8	20.6
OW-95O	12/06/01	16:00	5.21	12.9	6.9	37	6.6	1.6	0.4	116.2
OW-95R	12/07/01	12:30	10.01	11.5	4.0	143	6.6	4.35	1.1	2
OW-96O	12/06/01	14:00	5.54	12.2	6.3	36	0.3	13.25	3.5	191.7
OW-96R	12/07/01	13:00	7.39	12.1	4.2	102	6.2	11.36	3.0	83.3

Notes:

1. °C - degrees Celsius
2. mg/L = milligrams per liter
3. uS/cm = microsiemens per centimeter
4. NTU = Nephelometric Turbidity Unit
5. L = liter
6. gal = gallon
7. ORP = Oxygen Reduction Potential
8. mV = millivolts
9. Second readings at well OW-82 due to resampling due to sample container breakage (check)
10. Negative DO value at well OW-82 due to low DO at this location and equipment readout (check).

TABLE 3-3
SUMMARY OF PHASE 1 GROUNDWATER ELEVATIONS
DAVIS LIQUID WASTE SUPERFUND SITE
SMITHFIELD, RHODE ISLAND

Well ID	Measuring Point	Measuring Point Elevation	October 15-16, 2001		October 23-26, 2001		November 7, 2001		December 6&7 2001	
			DTW	Groundwater Elevation	DTW	Groundwater Elevation	DTW	Groundwater Elevation	DTW	Groundwater Elevation
OW-7	PVC	415.65	11.92	403.73	11.92	403.73	11.9	403.75	NM	NA
OW-8	PVC	416.66	NA	NA	12.97	403.69	12.95	403.71	NM	NA
OW-11	PVC	409.88	6.20	403.68	6.15	403.73	6.1	403.78	NM	NA
OW-12	PVC	410.28	6.94	403.34	6.72	403.56	6.67	403.61	NM	NA
OW-21	PVC	407.59	6.24	401.35	6.03	401.56	5.92	401.67	NM	NA
OW-33	PVC	406.36	3.04	403.32	2.95	403.41	2.94	403.42	NM	NA
OW-34	PVC	408.22	4.30	403.92	4.82	403.40	4.78	403.44	NM	NA
OW-36	PVC	411.70	8.92	402.78	7.85	403.85	7.82	403.88	NM	NA
OW-38	PVC	411.55	7.94	403.61	7.91	403.64	7.86	403.69	NM	NA
OW-41	PVC	408.36	4.41	403.95	4.40	403.96	4.38	403.98	NM	NA
OW-43	PVC	408.29	4.38	403.91	4.32	403.97	4.3	403.99	NM	NA
OW-45	PVC	407.44	NM	NA	3.42	404.02	3.41	404.03	NM	NA
OW-46	PVC	407.38	NM	NA	3.37	404.01	3.37	404.01	NM	NA
OW-51	PVC	409.43	5.75	403.68	5.34	404.09	5.37	404.06	NM	NA
OW-52	STEEL	415.41	11.21	404.20	11.17	404.24	11.18	404.23	NM	NA
OW-55	STEEL	413.78	9.52	404.26	8.08	405.70	9.53	404.25	NM	NA
OW-80	STEEL	407.00	4.26	402.74	4.28	402.72	4.19	402.81	NM	NA
OW-81	STEEL	413.36	7.82	405.54	7.89	405.47	7.95	405.41	NM	NA
OW-82	STEEL	412.17	6.97	405.20	6.68	405.49	6.71	405.46	NM	NA
OW-83	STEEL	416.45	11.20	405.25	11.22	405.23	11.34	405.11	NM	NA
OW-84	PVC	415.68	10.78	404.90	11.45	404.23	11.59	404.09	NM	NA
OW-85	STEEL	412.51	8.22	404.29	9.48	403.03	8.11	404.40	NM	NA
OW-86	STEEL	385.91	artesian	>385.91	artesian	>385.91	artesian	>385.91	NM	NA
OW-95R	STEEL	427.66	19.40	408.26	19.01	408.65	20.16	407.50	20.21	407.45
OW-95O	CAST IRON	429.00	19.15	409.85	19.63	409.37	19.53	409.47	21.24	407.76
OW-96R	STEEL	412.06	NM	NA	NM	NA	NM	NA	5.64	406.42
OW-96O	STEEL	413.02	NM	NA	NM	NA	NM	NA	7.13	405.89

NOTES:

1. PVC = polyvinyl chloride
2. DTW = depth to water
3. Elevations are relative to National Geodetic Vertical Datum (NGVD) of 1929
4. NM = water level not measured
5. NA = not applicable

TABLE 4-1
FIELD QUALITY CONTROL SAMPLES
PHASE 1 MONITORING EVENT
DAVIS LIQUID WASTE SUPERFUND SITE
SMITHFIELD, RHODE ISLAND

Sample Location	Sample Identification	Specific Matrix	Collection Date	Analytical Method	Comments
Laboratory Prepared	TB-110701-1	DI Water	11/07/01	VOCs	Trip Blank
Laboratory Prepared	TB-110801-1	DI Water	11/08/01	VOCs	Trip Blank
Laboratory Prepared	TB-110901-1	DI Water	11/09/01	VOCs	Trip Blank
Laboratory Prepared	TB-111201-1	DI Water	11/12/01	VOCs	Trip Blank
Laboratory Prepared	TB-111301-1	DI Water	11/13/01	VOCs	Trip Blank
Laboratory Prepared	TB-111401-1	DI Water	11/14/01	VOCs	Trip Blank
Laboratory Prepared	TB-111501-1	DI Water	11/15/01	VOCs	Trip Blank
Laboratory Prepared	TB-111601-1	DI Water	11/16/01	VOCs	Trip Blank
Laboratory Prepared	TB-111901-1	DI Water	11/19/01	VOCs	Trip Blank
Laboratory Prepared	TB-112001-1	DI Water	11/20/01	VOCs	Trip Blank
Laboratory Prepared	TB-120301-1	DI Water	12/03/01	VOCs	Trip Blank
Laboratory Prepared	TB-120401-1	DI Water	12/04/01	VOCs	Trip Blank
Laboratory Prepared	TB-120501-1	DI Water	12/05/01	VOCs	Trip Blank
Laboratory Prepared	TB-120601-1	DI Water	12/06/01	VOCs	Trip Blank
Laboratory Prepared	TB-120701-1	DI Water	12/07/01	VOCs	Trip Blank
Field Prepared	GW-FB-OW-51	DI Water	11/08/01	VOCs	Field Blank
Field Prepared	GW-FB-OW-45	DI Water	11/16/01	VOCs	Field Blank
Field Prepared	GW-FB-OW-95R	DI Water	12/07/01	VOCs	Field Blank
Field Prepared	GW-RB-OW-51	DI Water	11/08/01	VOCs	Rinse Blank
Field Prepared	GW-RB-OW-45	DI Water	11/16/01	VOCs	Rinse Blank
Field Prepared	GW-RB-OW-95R	DI Water	12/07/01	VOCs	Rinse Blank
Laboratory Prepared	GW-FS-OW-100	N/A	11/07/01	VOCs	PE Sample
OW-51	GW-FS-OW-101	Groundwater	11/08/01	VOCs	Field Duplicate
OW-45	GW-FS-OW-102	Groundwater	11/16/01	VOCs	Field Duplicate
OW-95R	GW-FS-OW-103	Groundwater	12/07/01	VOCs	Field Duplicate

Notes:

1. DI = deionized
2. N/A = Not Applicable
3. VOCs = Volatile Organic Compounds
4. PE = performance evaluation

**TABLE 5-1
SUMMARY OF VOC DETECTIONS - UNCONSOLIDATED DEPOSITS
DAVIS LIQUID WASTE SUPERFUND SITE
SMITHFIELD, RHODE ISLAND**

Constituents (ug/L)	Well ID and Sample Collection Date																																			
	OW-008		OW-011		OW-012		OW-021		OW-034		OW-038		OW-043		OW-045		OW-046		OW-051		OW-052		OW-055		OW-081		OW-083		OW-095(O)		OW-096(O)					
	11/8/91	11/7/01	11/8/91	11/8/01	11/8/91	11/9/01	11/8/91	11/13/01	11/8/91	11/12/01	11/8/91	11/19/01	11/8/91	11/13/01	11/8/91	11/16/01	11/16/01 duplicate	11/8/91	11/16/01	11/8/91	11/8/01	11/8/01 duplicate	11/8/91	12/3/01	11/8/91	11/14/01	11/8/91	12/5/01	11/8/91	12/5/01	11/8/91	12/6/01	11/8/91	12/6/01		
Benzene	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	1.5 J	5 U	ND	5 U	5 U	ND	5 U	ND	1 J	1 J	ND	2 J	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
Toluene	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	ND	2 J	2 J	500 J	7	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U
Ethylbenzene	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	8.8 J	8	ND	5 U	5 U	ND	5 U	12 J	73	75	630 J	310	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
Xylene (total)	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	2.9 J	3 J	ND	5 U	5 U	ND	5 U	ND	14	14	2900 J	160	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
1,1,1-Trichloroethane	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	1.7 J	5 J	2.6 J	6	6	2.1 J	7	56 J	79	81	380 J	140	19 J	51	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
1,1,2-Trichloroethane	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	-	5 U	5 U	-	2 J	ND	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	
1,1-Dichloroethane	ND	5 U	ND	5 U	ND	5 U	2.2 J	3 J	ND	5 U	2.3 J	1 J	14 J	11	1.6 J	20	20	9.1 J	11	11 J	33	34	ND	94	ND	13	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
1,1-Dichloroethylene	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	ND	1 J	1 J	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
1,2,4-Trichlorobenzene	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	-	2 J	2 J	-	2 J	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U		
1,2-Dichlorobenzene	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	2 J	-	5 U	5 U	-	5 U	-	7	7	-	19	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U		
1,2-Dichloroethane	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	ND	5 U	5 U	ND	1 J	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
1,2-Dichloroethene	ND	NA	ND	NA	ND	NA	3.1 J	NA	1.2 J	NA	ND	NA	ND	NA	71 J	NA	NA	51 J	NA	290 J	NA	NA	2900 J	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA		
cis-1,2-Dichloroethene	-	5 U	-	5 U	-	5 U	-	5 J	-	5 U	-	2 J	-	21	-	91	87	-	18	-	180	190	-	34	-	170	-	5 U	-	1 J	-	5 U	-	5 U		
trans-1,2-Dichloroethene	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	1 J	-	2 J	2 J	-	1 J	-	7	7	-	5	-	4 J	-	5 U	-	5 U	-	5 U	-	5 U		
1,4-Dichlorobenzene	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	-	5 U	5 U	-	1 J	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U		
Chlorobenzene	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	-	5 U	5 U	-	1 J	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U		
Chloroethane	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
Chloroform	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	ND	3 J	3 J	ND	2 J	ND	5	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
Isopropylbenzene	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	-	5	6	-	16	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U		
Methylene chloride	1.2 U	1 U	1.3 U	1 U	ND	1 U	ND	1 U	ND	1 U	1 U	1 U	1 U	1.3 U	1 U	1 U	1.2 J	1 U	12 U	1 U	1 U	120 J	1 U	4.7 U	4 U	1.2 U	1 U	1.1 U	1 U	1.1 U	1 U	1.1 U	1 U	1.2 U		
Tetrachloroethylene	ND	5 U	ND	5 U	ND	5 U	1.3 J	1 J	ND	5 U	ND	5 U	ND	1 J	4.5 J	3 J	3 J	3.3 J	2 J	ND	[8]	[8]	ND	4 J	[150] J	[100]	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
Trichloroethylene	ND	5 U	ND	5 U	ND	5 U	[5] J	4 J	ND	5 U	ND	5 U	1.6 J	4 J	[12] J	[14]	[13]	[9.4] J	4 J	[14] J	[21]	[22]	[130] J	2 J	[22] J	[69]	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
Trichlorofluoromethane	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	-	5 U	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U		
Vinyl chloride	ND	1 U	ND	1 U	ND	1 U	ND	1 U	ND	1 U	ND	2 J	ND	15	ND	17	17	ND	20	120 J	270	270	430 J	290	ND	2 J	ND	1 U	ND	1 U	ND	1 U	ND	1 U		
Acetone	ND	20 U	ND	20 U	ND	20 U	ND	20 U	ND	20 U	ND	20 U	ND	20 U	ND	20 U	2.3 U	20 U	ND	20 U	20 U	ND	20 U	16 U	20 U	ND	20 U	ND	20 U	ND	20 U	ND	20 U	28 U	38	
Carbon disulfide	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	1.9 J	5 U	ND	5 U	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U		
Methyl ethyl ketone	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	12
Sum of Constituents	0	0	0	0	0	0	11.6	13	1.2	0	2.3	5	30.5	71	91.7	153	148	78	63	503	706	723	7990	1092	191	414	0	0	0	1	0	0	0	50		

- Notes:
- "ug/L" - micrograms per liter
 - "NA" - Not Analyzed;
 - "U" - Not detected above the quantitation limit shown
 - "ND" - Not Detected (detection limits not available).
 - J - Estimated Value
 - - Unknown if compound was analyzed for in 1991
 - [J] - Value Exceeds ROD Cleanup Standards
 - Phase 1 samples were analyzed for both cis- and trans-1,2-DCE (historic samples are assumed to have been analyzed for Total 1,2-DCE).
 - Sum of Constituents is a sum of detected compounds only.
 - Only constituents detected at least once in either the 1991 or in the Phase 1 sampling event are presented.
 - 1991 samples collected between November 8, 1991 and December 6, 1991.
 - Detections are highlighted

TABLE 5-2
SUMMARY OF VOC DETECTIONS - BEDROCK
DAVIS LIQUID WASTE SUPERFUND SITE
SMITHFIELD, RHODE ISLAND

Constituents (ug/L)	Well ID and Sample Collection Date																								
	OW-007		OW-033		OW-036		OW-041			OW-080		OW-082		OW-084		OW-085		OW-086		OW-095(R)			OW-096(R)		
	11/8/91	11/7/01	11/8/91	11/14/01	11/8/91	11/20/01	11/8/91	11/8/91 duplicate	11/15/01	11/8/91	11/12/01	11/8/91	12/6/01	11/8/91	12/5/01	11/8/91	12/4/01	11/8/91	12/4/01	11/8/91	12/7/01	12/7/01 duplicate	11/8/91	12/7/01	
Benzene	ND	5 U	[6] J	5 U	2.6 J	5 U	4.4 J	4.5 J	[7]	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	5 U	ND	5 U
Toluene	ND	5 U	ND	5 U	1.8 J	5 U	26 J	29 J	1 J	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	1.2 J	5 U	5 U	3.5 J	5 U	
Ethylbenzene	ND	4 J	ND	5 U	5.5 J	5 U	32 J	37 J	95	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	
Xylene (total)	10 J	5 U	2.2 J	5 U	17 J	5 U	26 J	28 J	3 J	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	2.2 J	5 U	
1,1,1-Trichloroethane	ND	5 U	31 J	7	7.4 J	1 J	2.6 J	ND	4 J	ND	5 U	ND	5 U	ND	5	ND	3 J	ND	5 U	ND	5 U	5 U	6.3 J	5 U	
1,1,2-Trichloroethane	-	5 U	-	5 U	-	5 U	-	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	
1,1-Dichloroethane	ND	7	23 J	19	56 J	11	41 J	45 J	130	ND	5 U	ND	5 U	ND	1 J	ND	1 J	ND	5 U	ND	5 U	5 U	ND	5 U	
1,1-Dichloroethylene	ND	5 U	7.4 J	4 J	1.5 J	2 J	ND	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	
1,2,4-Trichlorobenzene	-	5 U	-	5 U	-	5 U	-	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	
1,2-Dichlorobenzene	-	5 U	-	5 U	-	5 U	-	-	26	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	
1,2-Dichloroethane	ND	5 U	1.9 J	1 J	ND	5 U	1.2 J	ND	1 J	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	
1,2-Dichloroethene	ND	NA	34 J	NA	50 J	NA	ND	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA	ND	NA	
cis-1,2-Dichloroethene	-	5 U	-	35	-	21	-	-	5 U	-	5 U	-	5 U	-	26	-	19	-	5 U	-	5 U	5 U	-	5 U	
trans-1,2-Dichloroethene	-	5 U	-	5 U	-	5 U	-	-	4 J	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	
1,4-Dichlorobenzene	-	5 U	-	5 U	-	5 U	-	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	
Chlorobenzene	-	5 U	-	5 U	-	5 U	-	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	
Chloroethane	ND	5 U	ND	5 U	ND	5 U	8.7 J	9.6 J	31	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	
Chloroform	ND	5 U	9.4 J	5 U	ND	5 U	ND	ND	5 U	ND	5 U	ND	5 U	ND	1 J	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	
Isopropylbenzene	-	5 U	-	5 U	-	5 U	-	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	-	5 U	5 U	-	5 U	
Methylene chloride	42 J	1 U	1.6 U	4 U	1.4 U	1 U	2.1 U	2.7 U	4 U	1.4 U	1 U	ND	1 U	ND	1 U	ND	1 U	1.7 U	1 U	3.3 U	1 U	1 U	1.5 U	1 U	
Tetrachloroethylene	ND	[5]	[19] J	[11]	[5] J	[19]	ND	ND	5 U	ND	5 U	ND	5 U	ND	2 J	ND	3 J	ND	5 U	ND	5 U	5 U	1.5 J	5 U	
Trichloroethylene	ND	2 J	[62] J	[40]	[19.8] J	[18]	1.6 J	ND	1 J	ND	5 U	ND	5 U	ND	[6]	ND	3 J	ND	5 U	ND	5 U	5 U	ND	5 U	
Trichlorofluoromethane	-	5 U	-	5 U	-	5 U	-	-	5 U	-	5 U	-	5 U	-	14	-	5 U	-	5 U	-	5 U	5 U	-	5 U	
Vinyl chloride	ND	1 U	2.4 J	2 J	5.5 J	2 J	ND	ND	4 U	ND	1 U	ND	1 U	ND	1 U	ND	1 U	ND	1 U	ND	1 U	1 U	ND	1 U	
Acetone	820 J	20 U	ND	20 U	260 U	20 U	320 J	19 U	20 U	ND	20 U	ND	20 U	ND	20 U	3.9 J	20 U	9.3 U	20 U	57 J	20 U	20 U	ND	20 U	
Carbon disulfide	ND	5 U	ND	5 U	ND	5 U	ND	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	ND	5 U	5 U	ND	5 U	
Methyl ethyl ketone	130 J	10 U	ND	10 U	ND	10 U	8.6 J	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	ND	10 U	23 J	10 U	10 U	ND	10 U	
Sum of Constituents	1002	18	198.3	119	162.1	74	472.1	153.1	303	0	0	0	0	0	55	3.9	29	0	0	81.2	0	0	13.5	0	

- Notes:
1. "ug/L" - micrograms per liter
 2. "NA" - Not Analyzed
 3. "U" - Not detected above the quantitation limit shown
 4. "ND" - Not Detected (detection limits not available).
 5. J - Estimated Value
 6. "-" - Unknown if compound was analyzed for in 1991
 7. "[J]" - Value Exceeds ROD Cleanup Standards
 8. Phase 1 samples were analyzed for both cis- and trans-1,2-DCE (historic samples are assumed to have been analyzed for Total 1,2-DCE).
 9. Sum of Constituents is a sum of detected compounds only.
 10. Only constituents detected at least once in either the 1991 or in the Phase 1 sampling event are presented.
 11. 1991 samples collected between November 8, 1991 and December 6, 1991.
 12. Detections are highlighted

TABLE 5-3
SUMMARY OF MONITORED NATURAL ATTENUATION RESULTS
DAVIS LIQUID WASTE SUPERFUND SITE
SMITHFIELD, RHODE ISLAND

Parameter	Units	Overburden Wells				Bedrock Wells				
		OW-38	OW-52	OW-81	OW-95O	OW-36	OW-82	OW-86	OW-95R	
<i>Field Parameters</i>										
pH		6.03	6.24	5.24	5.21	8.49	8.42	6.68	10.01	
Dissolved Oxygen	mg/L	0.5	0.4	4.5	6.9	2.2	1.1	4	4	
Temperature	°C	12.4	12.6	11.6	12.9	9.8	12.6	13.5	11.5	
Oxidation/Reduction Potential (ORP)	mV	123.6	-176.5	215	116.2	21.4	18.3	20.6	2	
<i>Laboratory Analyses</i>										
Alkalinity, as CaCO ₃	mg/L	12.2	68.7	2.2	2.1	44	48.2	41.3	50.6	
Dissolved CO ₂	mg/L	22	87	21	24	<0.6	0.62	14	<0.6	
Chloride	mg/L	6	41.2	2.6	2.7	34.6	2.6	2.9	3.1	
Nitrate, as N	mg/L	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.075	0.16	
Nitrite, as N	mg/L	<0.015	0.048	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	
Sulfate	mg/L	4.1	6.1	6.3	6	6.5	3	7.4	19.9	
Sulfide	mg/L	0.022	0.24	<0.022	0.024	0.029	0.022	0.035	0.024	
Total Organic Carbon (TOC)	mg/L	0.67	4.4	0.71	2.1	1.2	1.29	1.15	2.5	
Ethane	mg/L	0.000068	0.0038	0.0017	0.0011	0.000016	<0.000005	0.00043	0.00016	
Ethene	mg/L	0.00075	0.35	0.0003	0.00021	0.0025	<0.000005	0.0019	0.00019	
Methane	mg/L	0.0089	0.48	0.014	0.0084	0.15	0.0033	0.0033	0.00082	
Iron (dissolved)	mg/L	<0.038	20.4	<0.038	<0.038	<0.038	<0.038	0.044	<0.038	
Manganese (dissolved)	mg/L	0.156	4.07	0.0196	0.0296	0.276	0.0027	0.0182	<0.00062	
Iron (total)	mg/L	<0.038	20.6	0.0532	0.0652	<0.038	4.65	26.5	0.531	
Manganese (total)	mg/L	0.162	4.1	0.018	0.0297	0.274	0.0175	0.0667	0.0111	

Notes:

1. mg/L = milligrams per liter
2. mV = millivolts
3. °C = degrees Celsius

TABLE 5-4
SUMMARY OF VERTICAL HYDRAULIC GRADIENTS
AT SELECT MONITORING WELL CLUSTERS
DAVIS LIQUID WASTE SUPERFUND SITE, SMITHFIELD, RHODE ISLAND

Well Cluster	Formation	Elevation Differential Between Center of Well Screens	October 23-26, 2001	November 7, 2001
OW-34	U	21	403.4	403.44
OW-33	B		403.41	403.42
gradient			0.0005	-0.0010
OW-38	U	17	403.64	403.69
OW-36	B		403.85	403.88
gradient			0.0124	0.0112
OW-43	U	33	403.97	403.99
OW-41	B		403.96	403.98
gradient			-0.0003	-0.0003
OW-45	U	10	404.02	404.03
OW-46	U		404.01	404.01
gradient			-0.0002	-0.0005
OW-55	U	42	405.7	404.25
OW-85	B		403.03	404.40
gradient			-0.0636	0.0036
OW-81	U	103	405.47	405.41
OW-82	B		405.49	405.46
gradient			0.0002	0.0005
OW-83	U	75	405.23	405.11
OW-84	B		404.23	404.09
gradient			-0.0133	-0.0136
OW-95(O)	U	23	409.37	409.47
OW-95(R)	B		408.65	407.50
gradient			-0.0313	-0.0857

Notes:

1. Negative gradient indicates downward gradient between two wells
2. U - unconsolidated deposits
3. B - bedrock
4. October 23-26, 2001 water levels collected during slug testing/well development



APPENDIX A

Well Inventory Integrity Assessment Field Worksheets



DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-7
DATE	10-15-01
TIME	1150
PERSONEL	MB IC
PID HEADSPACE	0
ODOR	None, organic odor
MEASURING POINT	none, added w/ sharpie
DEPTH TO H2O	11.92
WELL DEPTH	64.39
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1" PVC RISER
CAP CONDITION	NO
GENERAL COMMENTS	

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	0W-8
DATE	10-15-01
TIME	1155
PERSONEL	MO JC
PID HEADSPACE	0
ODOR	NONE
MEASURING POINT	None, added w/ sharpie
DEPTH TO H2O	no water
WELL DEPTH	
HARD/SOFT BOTTOM	
PRESENCE OF NAPL	
RISER TYPE AND CONDITION	1" PVC RISER, NO ANNULUS @ SURFACE to 3'
CAP CONDITION	NONE
GENERAL COMMENTS	obstruction (silt/sand) @ 9.8' ↓ vegetation + debris

DAVIS SUP. REFUND SITE
WELL VIABILITY

WELL ID	OW-11
DATE	10/15/01
TIME	13:30
PERSONEL	MDB + JC
PTD HEADSPACE	0.00
ODOR	NONE
MEASURING POINT	NONE, marked w/ black tip on PVC riser
DEPTH TO H2O	6.20
WELL DEPTH	18.44
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1 inch PVC
CAP CONDITION	YES
GENERAL COMMENTS	steel bailer + twine, iron sludge on bailer, brownish/orange H ₂ O

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-12
DATE	10/15/01
TIME	13:20
PERSONEL	MOB + JC
PID HEADSPACE	0.00
ODOR	NONE
MEASURING POINT	NONE, marked w/ black inch on PVC riser
DEPTH TO H2O	6.94
WELL DEPTH	11.38
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1-inch PVC
CAP CONDITION	YES
GENERAL COMMENTS	steel bailer + twine, clear H ₂ O

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-20
DATE	10/15/01
TIME	13:15
PERSONEL	MDR + JC
PID HEADSPACE	0.00
ODOR	NONE
MEASURING POINT	YES
DEPTH TO H2O	7.20
WELL DEPTH	18.95
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1-inch PVC
CAP CONDITION	YES
GENERAL COMMENTS	twine + steel bailer, clear/cloudy water

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-21
DATE	10/15/01
TIME	14:10
PERSONEL	JC + MDR
PID HEADSPACE	0.00
ODOR	organic
MEASURING POINT	NONE, mark w/ black marker on PVC
DEPTH TO H2O	6.24
WELL DEPTH	14.28
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1.25" ID PVC RISER
CAP CONDITION	YES, not screw on
GENERAL COMMENTS	H ₂ O clear, steel bailer + turbine

DAVIS SUP. REFUND SITE
WELL VIABILITY

WELL ID	OW-28
DATE	10-15-01
TIME	1145
PERSONEL	MB / JC
PID HEADSPACE	0
ODOR	NB
MEASURING POINT	None, added w/ sharpie
DEPTH TO H2O	5.51
WELL DEPTH	26.6
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1" PVC RISER
CAP CONDITION	Yes
GENERAL COMMENTS	

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-33
DATE	10/15/01
TIME	14:30
PERSONEL	MORISE
PID HEADSPACE	0.00
ODOR	Rotten egg
MEASURING POINT	None, made w/ black mark on PVC riser
DEPTH TO H2O	3.04
WELL DEPTH	61.54
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1.25" ID PVC riser, broken 2" above ground
CAP CONDITION	NONE
GENERAL COMMENTS	steel bailer w/ twine, clear H ₂ O

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-34
DATE	10/15/01
TIME	14:20
PERSONEL	MDR + JC
PID HEADSPACE	0.00
ODOR	BTIL
MEASURING POINT	YES
DEPTH TO H2O	4.30
WELL DEPTH	16.56
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1.25" ID PVC RISER
CAP CONDITION	YES
GENERAL COMMENTS	Missing 2' of annulus, steel bailer + turbine, clear water

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-36
DATE	10/15/01
TIME	13:45
PERSONEL	JC + MDR
PID HEADSPACE	0.00
ODOR	Rotten Egg
MEASURING POINT	YES, black mark on PVC riser
DEPTH TO H2O	8.92
WELL DEPTH	59.43
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1-inch PVC riser
CAP CONDITION	YES
GENERAL COMMENTS	rotten egg smell, steel bailer + twine, clear H ₂ O

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-38
DATE	10/15/01
TIME	14:00
PERSONEL	MOB + JC
PID HEADSPACE	0.00
ODOR	NONE
MEASURING POINT	YES, black mark on PVC riser
DEPTH TO H2O	7.94
WELL DEPTH	16.71
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1-inch PVC riser
CAP CONDITION	YES
GENERAL COMMENTS	steel bailer + twine, H ₂ O = clear

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-41
DATE	10-15-01
TIME	1115
PERSONEL	JC/MB
PID HEADSPACE	0
ODOR	None at first, oil odour w/ bailer
MEASURING POINT	NONE, added w/ sharpie
DEPTH TO H2O	4.41
WELL DEPTH	67.86
HARD/SOFT BOTTOM	SOFT HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1" PVC RISER
CAP CONDITION	YES
GENERAL COMMENTS	Bailer & twine, rope was gross, suspect oil coating water clear

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-43
DATE	10-15-01
TIME	1130
PERSONEL	MB/JC
PID HEADSPACE	0
ODOR	oil odor from bailer
MEASURING POINT	DONE, added w/ sharpie
DEPTH TO H2O	4.38
WELL DEPTH	25.12
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1" PVC riser
CAP CONDITION	YES
GENERAL COMMENTS	Bailer & twine, water is mostly clear, slightly cloudy,

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	DW-45
DATE	10-15-01
TIME	1100
PERSONEL	IC/MB
PID HEADSPACE	0
ODOR	NONE
MEASURING POINT	NONE, added w/ sharpie
DEPTH TO H2O	4.67
WELL DEPTH	18.39
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	6" STEEL WELL
CAP CONDITION	WOODEN PLUG
GENERAL COMMENTS	leaves and pine needles observed in well

DAVIS SUI REFUND SITE
WELL VIABILITY

WELL ID	SW-46
DATE	10-15-01
TIME	1100
PERSONEL	JC/MB
PID HEADSPACE	0
ODOR	NONE
MEASURING POINT	NONE, ADDED w/ sample
DEPTH TO H2O	6.55
WELL DEPTH	17.85
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	2" PVC
CAP CONDITION	YES
GENERAL COMMENTS	

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-51
DATE	10-15-01
TIME	1100
PERSONEL	MB JC
PID HEADSPACE	0
ODOR	NONE
MEASURING POINT	NONE, ADDED w/ sharpie
DEPTH TO H2O	5.75
WELL DEPTH	16.38
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	1' PVC RISER
CAP CONDITION	NO CAP
GENERAL COMMENTS	TWINE + BAILER, WATER IN BAILER CLEAR

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-52
DATE	10-15-01
TIME	1040
PERSONEL	JC/MB
PID HEADSPACE	0
ODOR	NONE; OILY ODOR FROM BAILER
MEASURING POINT	NONE PRESENT, MARKED W/ SHARPIE @ HANDLE ON STEEL
DEPTH TO H2O	11.21
WELL DEPTH	33.0
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	STEEL RISER 2", 1" PVC RISER
CAP CONDITION	YES
GENERAL COMMENTS	TWINE + STEEL BAILER, WATER IN BAILER CLEAR, then SILTY

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-55
DATE	10-15-01
TIME	1000
PERSONEL	M. BECKER, J. COHEN
PID HEADSPACE	0
ODOR	NO
MEASURING POINT	NONE PRESENT, MADE NEW ONE W/ HARDIE
DEPTH TO H2O	9.52
WELL DEPTH	31.69
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	STEEL RISER
CAP CONDITION	YES
GENERAL COMMENTS	STEEL BAILER IN WELL, W/ TWINE ATTACHED

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-80
DATE	10/15/01
TIME	14:40
PERSONEL	MDR + JC
PID HEADSPACE	0.00
ODOR	NONE
MEASURING POINT	NONE, made on PVC w/ black marker
DEPTH TO H2O	— 4.26
WELL DEPTH	4.19 92.63
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	6" steel riser w/ 4" PVC riser w/ 1" PVC riser
CAP CONDITION	YES, steel lid
GENERAL COMMENTS	SEDIMENTS soft @ 4.19', iron on probe destruction

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-81
DATE	10-15-01
TIME	1630
PERSONEL	MB/JC
PID HEADSPACE	batteries dead
ODOR	NONE
MEASURING POINT	None, added w/ sharpie on STEEL
DEPTH TO H2O	7.82
WELL DEPTH	22.29
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	2" PVC in 4" steel riser
CAP CONDITION	steel flip lid
GENERAL COMMENTS	bailer a time, cloudy water at end of bailer

DAVIS SUPPLEMENT FUND SITE
WELL VIABILITY

WELL ID	DW-82
DATE	10-15-01
TIME	1630
PERSONEL	MB / JC
PID HEADSPACE	batteries dead
ODOR	NONE
MEASURING POINT	None, added w/ sharpie
DEPTH TO H2O	6.97
WELL DEPTH	> 100 ft
HARD/SOFT BOTTOM	—
PRESENCE OF NAPL	—
RISER TYPE AND CONDITION	6" steel riser
CAP CONDITION	steel lid
GENERAL COMMENTS	bailer & turbine, water in bailer cloudy & brown

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-83
DATE	10-16-01
TIME	0907
PERSONEL	MB/JC
PID HEADSPACE	0
ODOR	No
MEASURING POINT	none, added w/ sharpie on PVC
DEPTH TO H2O	11.2
WELL DEPTH	14.18
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	2" PVC riser, inside 6" steel casing
CAP CONDITION	steel lid, secured over plastic cap
GENERAL COMMENTS	clear water, bubbles & turbine present

DAVIS SUPPL FUND SITE
WELL VIABILITY

WELL ID	MW-84
DATE	10-16-01
TIME	0910
PERSONEL	JC MB
PID HEADSPACE	0
ODOR	NO
MEASURING POINT	NONE, added w/ sharpie on PVC
DEPTH TO H2O	10.78
WELL DEPTH	89.19
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	2" PVC inside 6" steel casing
CAP CONDITION	steel swivel lid was present
GENERAL COMMENTS	cloudy water, water a turns present

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	DW-85
DATE	10-15-01
TIME	1000
PERSONEL	MB/JC
PID HEADSPACE	0
ODOR	NO AT TOP, BAILER HAD OILY SMELL (WATER IN BAILER WAS BROWN & CLOUDY)
MEASURING POINT	NONE PRESENT, ADDED w/ SHARPIE
DEPTH TO H2O	8.22
WELL DEPTH	95.25
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	STEEL
CAP CONDITION	Yes
GENERAL COMMENTS	6" well, STEEL BAILER & TWINE PRESENT

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-86
DATE	10/15/01
TIME	15:10
PERSONEL	JC + MDR
PID HEADSPACE	—
ODOR	NONE
MEASURING POINT	NONE PVC - highest pt.
DEPTH TO H2O	ARTESIAN, clear H ₂ O
WELL DEPTH	25.09 29.25
HARD/SOFT BOTTOM	HARD very soft, bentonite?
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	Six inch steel riser, 4" inner PVC, 1" PVC @ ~ 25.09'
CAP CONDITION	steel 1:1
GENERAL COMMENTS	bentonite fragments?

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	0W-950
DATE	10-15-01
TIME	1600
PERSONEL	HB/JC
PID HEADSPACE	batteries lead
ODOR	NONE
MEASURING POINT	None, added
DEPTH TO H2O	19.15
WELL DEPTH	23.24
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	2" steel inside 4" steel, flush w/ surface
CAP CONDITION	steel lid w/ screws over steel inside cap, w/ internal rubber cap
GENERAL COMMENTS	

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-95 R
DATE	10-15-01
TIME	1600
PERSONEL	MB/JC
PID HEADSPACE	batteries dead
ODOR	NONE
MEASURING POINT	None, added w/ sharpie
DEPTH TO H2O	19.40
WELL DEPTH	49.11
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	steel lid w/ screws over steel inside cap, w/ internal rubber cap
CAP CONDITION	2" steel riser, inside 4" steel, flush w/ surface
GENERAL COMMENTS	

DAVIS SUPERFUND SITE
WELL VIABILITY

WELL ID	OW-960
DATE	12/9/01
TIME	
PERSONEL	JLC/LW/MDB
PID HEADSPACE	
ODOR	NONE
MEASURING POINT	top of inner steel pipe
DEPTH TO H2O	7.13
WELL DEPTH	13.35
HARD/SOFT BOTTOM	HARD
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	NONE
CAP CONDITION	flush w/ ground → small cap inside steel cover
GENERAL COMMENTS	

DAVIS SUIT REFUND SITE
WELL VIABILITY

WELL ID	OW-96 R
DATE	12/5/01
TIME	
PERSONEL	JLC / LW / MDB
PID HEADSPACE	
ODOR	NONE
MEASURING POINT	top of inner steel pipe
DEPTH TO H2O	6.37
WELL DEPTH	37.00
HARD/SOFT BOTTOM	SOFT
PRESENCE OF NAPL	NONE
RISER TYPE AND CONDITION	NONE
CAP CONDITION	flush mounted w/ ground → small cap inside steel cover
GENERAL COMMENTS	





APPENDIX B

Well Viability Testing Protocol



Well Viability Testing

Falling/Rising Head Tests

Davis Liquid Waste Superfund Site

Purpose and Scope

The purpose of this Standard Operating Procedure (SOP) is to provide information regarding the performance of falling head and rising head tests during the Well Viability Testing. The two types of tests that are included in this SOP are the rising head (slug-out) and the falling head (slug-in) tests. Using this method, a weighted “slug” is either quickly inserted or removed from the water column, and the rate at which the water level returns to equilibrium (rate at which the formation either accepts or recharges groundwater) is monitored. The purpose of the testing is to verify hydraulic communication between the well and the surrounding native materials.

Equipment

- Weighted PVC or Stainless Steel Slug (with rope) appropriate for well diameter (e.g. 1 ¼” well, 2” well, 6” well);
- Water Level Device – 0.01 foot accuracy (Electronic devices are preferred for tracking water levels during the slug test);
- Decontamination supplies (e.g. poly-sheeting, spray bottles,alconox, tap water);
- Logbook(s);
- Indelible ink pen;
- Well construction data, location map, field data from previous water level measurements; and
- Watch or time-keeping device;

Field Procedure

Prior to beginning a falling/rising head test, the static water level and time should be measured and recorded.

Based on the measured static water level, lower the slug so that it is completely submersed beneath the water table as quickly as possible (without causing “splashing” or unnecessary disturbance to the water column). The “slug” should then be secured as to not move during the span of the test. Periodic manual water levels should be taken to monitor the water level response to the introduction or removal of the solid slug. Water level measurements should

be collected within 30 seconds for the initial five minutes and every minute thereafter. When the water level has returned to within 90%, or 30 minutes have elapsed, end the test. Upon completion of this test, the final (static) water level and time should be recorded. Do not remove slug from the water table.

When beginning the next test (slug-out test), the static water level and time should be measured and recorded. The slug should then be raised and removed from the water column as quickly as possible. Periodic manual water levels should be taken to monitor the water level response to the introduction or removal of the solid slug. Water level measurements should be collected within 30 seconds for the initial five minutes and every minute thereafter. When the water level has returned to within 90% of the original static water level or 30 minutes has elapsed, end the test. Upon completion of this test, the final (static) water level and time should be recorded.

Following the completion of the tests, the slug test equipment should be decontaminated prior to use in another well in accordance with Attachment A-4 of the Field Sampling Plan (FSP).

Data Analysis

The results of the falling/rising head tests should be evaluated relative to the boring logs and stratigraphy at each location to evaluate the adequacy of the well response.



APPENDIX C

Slug Test Evaluation Field Worksheets



Well Viability Testing
 Falling/Rising Head Tests
 Davis Liquid Waste Superfund Site

DATE	10-23-01
ESS OBSERVER	M. Beckler, J. Cohen

WELL	CW-7
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	89.0'
DEPTH OF WELL (MEASURED BY ESS)	64.39'
SCREEN INTERVAL	39-75'
WELL DIAMETER	1.25"

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	11.92
90% OF STATIC WATER LEVEL	10.8 - 13 / 10.73 - 13.11

SLUG-IN TEST START TIME	1256
SLUG-IN TEST STOP TIME	1258

SLUG-OUT TEST START TIME	1258
SLUG-OUT TEST STOP TIME	1259

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	12 56
WATER LEVEL @ 0:30	11.91
WATER LEVEL @ 1:00	11.92
WATER LEVEL @ 1:30	11.92
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
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WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	11.92
END TIME	12 58

SLUG-OUT TEST

START TIME	12 58
WATER LEVEL @ 0:30	11.92
WATER LEVEL @ 1:00	11.92
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
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WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	11.92
END TIME	12 59

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-23-01
ESS OBSERVER	M. BECKER, J. COHEN

WELL	OW-8
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	38'
DEPTH OF WELL (MEASURED BY ESS)	31.1'
SCREEN INTERVAL	33-38'
WELL DIAMETER	1.25"

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	12.97
90% OF STATIC WATER LEVEL	11.6 - 14.3 / 11.67 - 14.27

SLUG-IN TEST START TIME	1304
SLUG-IN TEST STOP TIME	1307

SLUG-OUT TEST START TIME	1307
SLUG-OUT TEST STOP TIME	1309

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1304
WATER LEVEL @ 0:30	12.93
WATER LEVEL @ 1:00	12.96
WATER LEVEL @ 1:30	12.96
WATER LEVEL @ 2:00	12.96
WATER LEVEL @ 2:30	12.96
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
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WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	12.96
END TIME	1307

SLUG-OUT TEST

START TIME	1307
WATER LEVEL @ 0:30	13.00
WATER LEVEL @ 1:00	12.96
WATER LEVEL @ 1:30	12.96
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
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WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	12.96
END TIME	1309

well viability testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-23-01
ESS OBSERVER	H. BECKER J. COHEN

WELL	CW-11
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	14.0'
DEPTH OF WELL (MEASURED BY ESS)	18.44'
SCREEN INTERVAL	7-12'
WELL DIAMETER	1.25"

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	6.15
90% OF STATIC WATER LEVEL	5.54-6.77

SLUG-IN TEST START TIME	1437
SLUG-IN TEST STOP TIME	1439

SLUG-OUT TEST START TIME	1440
SLUG-OUT TEST STOP TIME	1442

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	14:37
WATER LEVEL @ 0:30	6.12
WATER LEVEL @ 1:00	6.15
WATER LEVEL @ 1:30	6.14
WATER LEVEL @ 2:00	6.14
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
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WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	6.14
END TIME	1439

SLUG-OUT TEST

START TIME	14:40
WATER LEVEL @ 0:30	6.19
WATER LEVEL @ 1:00	6.15
WATER LEVEL @ 1:30	6.14
WATER LEVEL @ 2:00	6.14
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
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WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	6.14
END TIME	1442

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-24-01
ESS OBSERVER	M. Becker

WELL	DW-12
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	8.5'
DEPTH OF WELL (MEASURED BY ESS)	11.38'
SCREEN INTERVAL	2-8.5'
WELL DIAMETER	1.25

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	6.72
90% OF STATIC WATER LEVEL	6.05-7.39

SLUG-IN TEST START TIME	0840
SLUG-IN TEST STOP TIME	0851

SLUG-OUT TEST START TIME	0851
SLUG-OUT TEST STOP TIME	0900

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	08:40
WATER LEVEL @ 0:30	6.05
WATER LEVEL @ 1:00	6.22
WATER LEVEL @ 1:30	6.36
WATER LEVEL @ 2:00	6.46
WATER LEVEL @ 2:30	6.53
WATER LEVEL @ 3:00	6.58
WATER LEVEL @ 3:30	6.60
WATER LEVEL @ 4:00	6.62
WATER LEVEL @ 4:30	6.64
WATER LEVEL @ 5:00	6.65
WATER LEVEL @ 6:00	6.67
WATER LEVEL @ 7:00	6.68
WATER LEVEL @ 8:00	6.68
WATER LEVEL @ 9:00	6.69
WATER LEVEL @ 10:00	6.70
WATER LEVEL @ 11:00	6.70
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	6.70
END TIME	0851

SLUG-OUT TEST

START TIME	08:51
WATER LEVEL @ 0:30	7.70
WATER LEVEL @ 1:00	7.45
WATER LEVEL @ 1:30	7.27
WATER LEVEL @ 2:00	7.13
WATER LEVEL @ 2:30	7.02
WATER LEVEL @ 3:00	6.95
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	6.84
WATER LEVEL @ 4:30	6.81
WATER LEVEL @ 5:00	6.78
WATER LEVEL @ 6:00	6.75
WATER LEVEL @ 7:00	6.74
WATER LEVEL @ 8:00	6.72
WATER LEVEL @ 9:00	6.72
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
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WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	6.72
END TIME	0900

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-24-01
ESS OBSERVER	M Becker J Cohen

WELL	0W-21
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	13.0'
DEPTH OF WELL (MEASURED BY ESS)	14.28'
SCREEN INTERVAL	8-13'
WELL DIAMETER	1.25" ID

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	6.03
90% OF STATIC WATER LEVEL	5.43 - 6.63

SLUG-IN TEST START TIME	1051
SLUG-IN TEST STOP TIME	1054

SLUG-OUT TEST START TIME	1100
SLUG-OUT TEST STOP TIME	1130

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1051
WATER LEVEL @ 0:30	5.82
WATER LEVEL @ 1:00	5.98
WATER LEVEL @ 1:30	6.01
WATER LEVEL @ 2:00	6.02
WATER LEVEL @ 2:30	6.02
WATER LEVEL @ 3:00	6.03
WATER LEVEL @ 3:30	6.03
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
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WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	6.03
END TIME	1054

SLUG-OUT TEST

START TIME	1051 1100
WATER LEVEL @ 0:30	6.33
WATER LEVEL @ 1:00	6.12
WATER LEVEL @ 1:30	6.06
WATER LEVEL @ 2:00	6.04
WATER LEVEL @ 2:30	6.03
WATER LEVEL @ 3:00	6.03
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
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WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	6.03
END TIME	1103

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-24-01
ESS OBSERVER	M Becker, J. Cohen

WELL	OW-33
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	64.0
DEPTH OF WELL (MEASURED BY ESS)	61.54
SCREEN INTERVAL	16-58
WELL DIAMETER	1.25

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	2.95
90% OF STATIC WATER LEVEL	2.65 - 3.25

SLUG-IN TEST START TIME	0953
SLUG-IN TEST STOP TIME	0956

SLUG-OUT TEST START TIME	0956
SLUG-OUT TEST STOP TIME	1000

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	0953
WATER LEVEL @ 0:30	2.83
WATER LEVEL @ 1:00	2.94
WATER LEVEL @ 1:30	2.95
WATER LEVEL @ 2:00	2.96
WATER LEVEL @ 2:30	2.96
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
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WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	2.96
END TIME	0956

SLUG-OUT TEST

START TIME	0956
WATER LEVEL @ 0:30	3.06
WATER LEVEL @ 1:00	3.00
WATER LEVEL @ 1:30	2.99
WATER LEVEL @ 2:00	2.99
WATER LEVEL @ 2:30	2.98
WATER LEVEL @ 3:00	2.98
WATER LEVEL @ 3:30	2.98
WATER LEVEL @ 4:00	2.98
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
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WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	2.98
END TIME	1000

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-24 10-24-01
ESS OBSERVER	M. BECKER, J. COHEN

WELL	OW-34
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	18.0
DEPTH OF WELL (MEASURED BY ESS)	16.56
SCREEN INTERVAL	14-18
WELL DIAMETER	1.25

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	4.82
90% OF STATIC WATER LEVEL	4.34 - 5.30

SLUG-IN TEST START TIME	0937
SLUG-IN TEST STOP TIME	0941

SLUG-OUT TEST START TIME	0942
SLUG-OUT TEST STOP TIME	0945

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	0937
WATER LEVEL @ 0:30	4.43
WATER LEVEL @ 1:00	4.84
WATER LEVEL @ 1:30	4.74
WATER LEVEL @ 2:00	4.78
WATER LEVEL @ 2:30	4.80
WATER LEVEL @ 3:00	4.81
WATER LEVEL @ 3:30	4.81
WATER LEVEL @ 4:00	4.81
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
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WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	4.81
END TIME	0941

SLUG-OUT TEST

START TIME	0942
WATER LEVEL @ 0:30	5.31
WATER LEVEL @ 1:00	5.02
WATER LEVEL @ 1:30	4.91
WATER LEVEL @ 2:00	4.86
WATER LEVEL @ 2:30	4.83
WATER LEVEL @ 3:00	4.83
WATER LEVEL @ 3:30	4.82
WATER LEVEL @ 4:00	4.82
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
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WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	4.82
END TIME	0945

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-23-01
ESS OBSERVER	M. BECKER, J. COHEN

WELL	OW-36
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	67'
DEPTH OF WELL (MEASURED BY ESS)	59.43'
SCREEN INTERVAL	19-40'
WELL DIAMETER	1.25"

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	7.85
90% OF STATIC WATER LEVEL	7.07-8.64

SLUG-IN TEST START TIME	1336
SLUG-IN TEST STOP TIME	1353

SLUG-OUT TEST START TIME	1354
SLUG-OUT TEST STOP TIME	1410

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	13:36
WATER LEVEL @ 0:30	6.84
WATER LEVEL @ 1:00	6.98
WATER LEVEL @ 1:30	7.10
WATER LEVEL @ 2:00	7.19
WATER LEVEL @ 2:30	7.27
WATER LEVEL @ 3:00	7.35
WATER LEVEL @ 3:30	7.41
WATER LEVEL @ 4:00	7.47
WATER LEVEL @ 4:30	7.52
WATER LEVEL @ 5:00	7.56
WATER LEVEL @ 6:00	7.62
WATER LEVEL @ 7:00	7.68
WATER LEVEL @ 8:00	7.72
WATER LEVEL @ 9:00	7.75
WATER LEVEL @ 10:00	7.77
WATER LEVEL @ 11:00	7.79
WATER LEVEL @ 12:00	7.80
WATER LEVEL @ 13:00	7.81
WATER LEVEL @ 14:00	7.82
WATER LEVEL @ 15:00	7.83
WATER LEVEL @ 16:00	7.83
WATER LEVEL @ 17:00	7.83
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	7.83
END TIME	1353

SLUG-OUT TEST

START TIME	13:54
WATER LEVEL @ 0:30	8.86
WATER LEVEL @ 1:00	8.73
WATER LEVEL @ 1:30	8.62
WATER LEVEL @ 2:00	8.53
WATER LEVEL @ 2:30	8.44
WATER LEVEL @ 3:00	8.37
WATER LEVEL @ 3:30	8.30
WATER LEVEL @ 4:00	8.24
WATER LEVEL @ 4:30	8.20
WATER LEVEL @ 5:00	8.15
WATER LEVEL @ 6:00	8.08
WATER LEVEL @ 7:00	8.03
WATER LEVEL @ 8:00	7.99
WATER LEVEL @ 9:00	7.96
WATER LEVEL @ 10:00	7.93
WATER LEVEL @ 11:00	7.91
WATER LEVEL @ 12:00	7.90
WATER LEVEL @ 13:00	7.89
WATER LEVEL @ 14:00	7.88
WATER LEVEL @ 15:00	7.87
WATER LEVEL @ 16:00	7.87
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	7.87
END TIME	1410

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-23-01
ESS OBSERVER	M. BELLER, J. OHEN

WELL	0W-38
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	15.3'
DEPTH OF WELL (MEASURED BY ESS)	16.71'
SCREEN INTERVAL	10-15'
WELL DIAMETER	1.25"

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	7.91 7.91
90% OF STATIC WATER LEVEL	7.12 - 8.70

SLUG-IN TEST START TIME	1413
SLUG-IN TEST STOP TIME	1415

SLUG-OUT TEST START TIME	1417
SLUG-OUT TEST STOP TIME	1418

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	14:13
WATER LEVEL @ 0:30	—
WATER LEVEL @ 1:00	7.93
WATER LEVEL @ 1:30	7.91
WATER LEVEL @ 2:00	7.91
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
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WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	7.91
END TIME	14:15

SLUG-OUT TEST

START TIME	14:17
WATER LEVEL @ 0:30	7.91
WATER LEVEL @ 1:00	7.91
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
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WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	7.91
END TIME	14:18

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-23-01
ESS OBSERVER	M. BECKER, J. COHEN

WELL	CW-41
QUADRANT	NW
DEPTH OF WELL (TABLE D-1)	77'
DEPTH OF WELL (MEASURED BY ESS)	67.86'
SCREEN INTERVAL	32.5 - 77'
WELL DIAMETER	1.25"

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	4.40
90% OF STATIC WATER LEVEL	~4 - 4.8 / 3.96 - 4.84

SLUG-IN TEST START TIME	1233
SLUG-IN TEST STOP TIME	1234

SLUG-OUT TEST START TIME	1234
SLUG-OUT TEST STOP TIME	1235

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1233
WATER LEVEL @ 0:30	4.39
WATER LEVEL @ 1:00	4.40
WATER LEVEL @ 1:30	4.40
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
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WATER LEVEL @ 8:00	
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WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	4.40
END TIME	1234

SLUG-OUT TEST

START TIME	1234
WATER LEVEL @ 0:30	4.40
WATER LEVEL @ 1:00	4.40
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
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WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	4.40
END TIME	1235

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-23-01
ESS OBSERVER	M. BECKER, J. COHEN

WELL	0W-43
QUADRANT	NW
DEPTH OF WELL (TABLE D-1)	27.0'
DEPTH OF WELL (MEASURED BY ESS)	25.1'
SCREEN INTERVAL	19-24'
WELL DIAMETER	1.25"

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	4.32
90% OF STATIC WATER LEVEL	3.9 - 4.7 / 3.89 - 4.75

SLUG-IN TEST START TIME	1240
SLUG-IN TEST STOP TIME	1241

SLUG-OUT TEST START TIME	1241
SLUG-OUT TEST STOP TIME	1242

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1240
WATER LEVEL @ 0:30	4.32
WATER LEVEL @ 1:00	4.32
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
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WATER LEVEL @ 14:00	
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WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	4.32
END TIME	1241

SLUG-OUT TEST

START TIME	1241
WATER LEVEL @ 0:30	4.32
WATER LEVEL @ 1:00	4.32
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	4.32
END TIME	1242

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-25-01
ESS OBSERVER	M Becker, J Cotton

WELL	0W-45
QUADRANT	SW
DEPTH OF WELL (TABLE D-1)	30.8'
DEPTH OF WELL (MEASURED BY ESS)	22.37'
SCREEN INTERVAL	15-20'
WELL DIAMETER	1.25"

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	3.42
90% OF STATIC WATER LEVEL	3.08 - 3.76

SLUG-IN TEST START TIME	1114
SLUG-IN TEST STOP TIME	1115

SLUG-OUT TEST START TIME	1116
SLUG-OUT TEST STOP TIME	1117

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1114
WATER LEVEL @ 0:30	3.42
WATER LEVEL @ 1:00	3.42
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	3.42
END TIME	1115

SLUG-OUT TEST

START TIME	1116
WATER LEVEL @ 0:30	3.42
WATER LEVEL @ 1:00	3.42
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	3.42
END TIME	1117

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-25-01
ESS OBSERVER	M. BECKER, J. COHEN

WELL	OW-46
QUADRANT	SW
DEPTH OF WELL (TABLE D-1)	30.8'
DEPTH OF WELL (MEASURED BY ESS)	31.74'
SCREEN INTERVAL	25-30'
WELL DIAMETER	1.25"

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	3.37
90% OF STATIC WATER LEVEL	3.03 - 3.71

SLUG-IN TEST START TIME	1126
SLUG-IN TEST STOP TIME	1127

SLUG-OUT TEST START TIME	1127
SLUG-OUT TEST STOP TIME	1128

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1126
WATER LEVEL @ 0:30	3.37
WATER LEVEL @ 1:00	3.37
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	3.57
END TIME	1127

SLUG-OUT TEST

START TIME	1127
WATER LEVEL @ 0:30	3.37
WATER LEVEL @ 1:00	3.37
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	3.57
END TIME	1128

Water level observed to jump 0.5" and recover to static before first reading is taken @ 30 seconds

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-23-01
ESS OBSERVER	M. BELLER, J. COHEN

WELL	DW-51
QUADRANT	SW
DEPTH OF WELL (TABLE D-1)	19.0'
DEPTH OF WELL (MEASURED BY ESS)	16.38'
SCREEN INTERVAL	1-6' & 13.5'-18.5'
WELL DIAMETER	1.25

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	5.34
90% OF STATIC WATER LEVEL	4.8 - 4.8 5.87

SLUG-IN TEST START TIME	1135
SLUG-IN TEST STOP TIME	1143

SLUG-OUT TEST START TIME	1144
SLUG-OUT TEST STOP TIME	1151

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1135
WATER LEVEL @ 0:30	4.38
WATER LEVEL @ 1:00	4.63
WATER LEVEL @ 1:30	4.82
WATER LEVEL @ 2:00	4.96
WATER LEVEL @ 2:30	5.07
WATER LEVEL @ 3:00	5.15
WATER LEVEL @ 3:30	5.20
WATER LEVEL @ 4:00	5.25
WATER LEVEL @ 4:30	5.27
WATER LEVEL @ 5:00	5.30
WATER LEVEL @ 6:00	5.33
WATER LEVEL @ 7:00	5.34
WATER LEVEL @ 8:00	5.34
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	5.33 5.34
END TIME	1143

SLUG-OUT TEST

START TIME	1144
WATER LEVEL @ 0:30	6.32
WATER LEVEL @ 1:00	6.03
WATER LEVEL @ 1:30	5.82
WATER LEVEL @ 2:00	5.65
WATER LEVEL @ 2:30	5.54
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	WLM ↑
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	5.36
WATER LEVEL @ 5:00	5.35
WATER LEVEL @ 6:00	5.34
WATER LEVEL @ 7:00	5.34
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
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WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	5.34
END TIME	1151

Viability Testing
 using Head Tests
 at Liquid Waste Superfund Site

DATE	10-23-01
TEST OBSERVER	H. BECKER / J. COHEN

WELL	OW-52
QUADRANT	SW
DEPTH OF WELL (TABLE D-1)	32.5'
DEPTH OF WELL (MEASURED BY ESS)	33.0'
SCREEN INTERVAL	7.5-32.5'
WELL DIAMETER	1.25

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	11.17
90% OF STATIC WATER LEVEL	~ 10 - 12 / 10.5 - 12.29

SLUG-IN TEST START TIME	1117
SLUG-IN TEST STOP TIME	1119

SLUG-OUT TEST START TIME	1120
SLUG-OUT TEST STOP TIME	1122

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

SLUG-OUT TEST

1st | *2nd*

START TIME	1100	1107
WATER LEVEL @ 0:30	11.16 11.16	11.17
WATER LEVEL @ 1:00	11.16	11.17
WATER LEVEL @ 1:30	11.16	11.17
WATER LEVEL @ 2:00	11.16	11.17
WATER LEVEL @ 2:30		
WATER LEVEL @ 3:00		
WATER LEVEL @ 3:30		
WATER LEVEL @ 4:00		
WATER LEVEL @ 4:30		
WATER LEVEL @ 5:00		
WATER LEVEL @ 6:00		
WATER LEVEL @ 7:00		
WATER LEVEL @ 8:00		
WATER LEVEL @ 9:00		
WATER LEVEL @ 10:00		
WATER LEVEL @ 11:00		
WATER LEVEL @ 12:00		
WATER LEVEL @ 13:00		
WATER LEVEL @ 14:00		
WATER LEVEL @ 15:00		
WATER LEVEL @ 16:00		
WATER LEVEL @ 17:00		
WATER LEVEL @ 18:00		
WATER LEVEL @ 19:00		
WATER LEVEL @ 20:00		
WATER LEVEL @ 21:00		
WATER LEVEL @ 22:00		
WATER LEVEL @ 23:00		
WATER LEVEL @ 24:00		
WATER LEVEL @ 25:00		
WATER LEVEL @ 26:00		
WATER LEVEL @ 27:00		
WATER LEVEL @ 28:00		
WATER LEVEL @ 29:00		
WATER LEVEL @ 30:00		
FINAL WATER LEVEL		
END TIME		

START TIME	1120
WATER LEVEL @ 0:30	11.17
WATER LEVEL @ 1:00	11.17
WATER LEVEL @ 1:30	11.17
WATER LEVEL @ 2:00	11.16
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	
END TIME	

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-24-01
ESS OBSERVER	M. BECKER, J. COHEN

WELL	DW-55
QUADRANT	SW
DEPTH OF WELL (TABLE D-1)	30.0'
DEPTH OF WELL (MEASURED BY ESS)	31.69'
SCREEN INTERVAL	10-30'
WELL DIAMETER	20.88" 6"

DIAMETER OF SLUG USED	2"
STATIC WATER LEVEL	8.08
90% OF STATIC WATER LEVEL	7.27 - 8.89

SLUG-IN TEST START TIME	1328
SLUG-IN TEST STOP TIME	1338

SLUG-OUT TEST START TIME	1338
SLUG-OUT TEST STOP TIME	1348

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1328
WATER LEVEL @ 0:30	7.55
WATER LEVEL @ 1:00	7.61
WATER LEVEL @ 1:30	7.66
WATER LEVEL @ 2:00	7.69
WATER LEVEL @ 2:30	7.72
WATER LEVEL @ 3:00	7.76
WATER LEVEL @ 3:30	7.78
WATER LEVEL @ 4:00	7.80
WATER LEVEL @ 4:30	7.82
WATER LEVEL @ 5:00	7.84
WATER LEVEL @ 6:00	7.87
WATER LEVEL @ 7:00	7.90
WATER LEVEL @ 8:00	7.92
WATER LEVEL @ 9:00	7.94
WATER LEVEL @ 10:00	7.96
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	7.96
END TIME	1338

SLUG-OUT TEST

START TIME	1338
WATER LEVEL @ 0:30	8.50
WATER LEVEL @ 1:00	8.46
WATER LEVEL @ 1:30	8.41
WATER LEVEL @ 2:00	8.38
WATER LEVEL @ 2:30	8.35
WATER LEVEL @ 3:00	8.32
WATER LEVEL @ 3:30	8.30
WATER LEVEL @ 4:00	8.28
WATER LEVEL @ 4:30	8.26
WATER LEVEL @ 5:00	8.25
WATER LEVEL @ 6:00	8.23
WATER LEVEL @ 7:00	8.20
WATER LEVEL @ 8:00	8.19
WATER LEVEL @ 9:00	8.17
WATER LEVEL @ 10:00	8.17
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	8.17
END TIME	1348

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-24-01
ESS OBSERVER	M BECKER, J COHEN

WELL	OW-80
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	96.6'
DEPTH OF WELL (MEASURED BY ESS)	92.63'
SCREEN INTERVAL	22.5-96.6'
WELL DIAMETER	1.25" ID

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	4.28
90% OF STATIC WATER LEVEL	3.85 - 4.71

SLUG-IN TEST START TIME	1129
SLUG-IN TEST STOP TIME	1200

SLUG-OUT TEST START TIME	1201
SLUG-OUT TEST STOP TIME	1219

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

SLUG-OUT TEST

START TIME	11:29
WATER LEVEL @ 0:30	2.85
WATER LEVEL @ 1:00	2.90
WATER LEVEL @ 1:30	2.95
WATER LEVEL @ 2:00	2.98
WATER LEVEL @ 2:30	3.00
WATER LEVEL @ 3:00	3.04
WATER LEVEL @ 3:30	3.07
WATER LEVEL @ 4:00	3.09
WATER LEVEL @ 4:30	3.11
WATER LEVEL @ 5:00	3.13
WATER LEVEL @ 6:00	3.17
WATER LEVEL @ 7:00	3.21
WATER LEVEL @ 8:00	3.24
WATER LEVEL @ 9:00	3.27
WATER LEVEL @ 10:00	3.30
WATER LEVEL @ 11:00	3.32
WATER LEVEL @ 12:00	3.34
WATER LEVEL @ 13:00	3.39
WATER LEVEL @ 14:00	3.40
WATER LEVEL @ 15:00	3.43
WATER LEVEL @ 16:00	3.45
WATER LEVEL @ 17:00	3.47
WATER LEVEL @ 18:00	3.49
WATER LEVEL @ 19:00	3.51
WATER LEVEL @ 20:00	3.53
WATER LEVEL @ 21:00	3.55
WATER LEVEL @ 22:00	3.56
WATER LEVEL @ 23:00	3.58
WATER LEVEL @ 24:00	3.59
WATER LEVEL @ 25:00	3.61
WATER LEVEL @ 26:00	3.62
WATER LEVEL @ 27:00	3.63
WATER LEVEL @ 28:00	3.65
WATER LEVEL @ 29:00	3.66
WATER LEVEL @ 30:00	3.68
FINAL WATER LEVEL	3.68
END TIME	12:00

START TIME	12:01
WATER LEVEL @ 0:30	5.13
WATER LEVEL @ 1:00	5.10
WATER LEVEL @ 1:30	5.07
WATER LEVEL @ 2:00	5.04
WATER LEVEL @ 2:30	5.02
WATER LEVEL @ 3:00	5.00
WATER LEVEL @ 3:30	4.97
WATER LEVEL @ 4:00	4.96
WATER LEVEL @ 4:30	4.95
WATER LEVEL @ 5:00	4.92
WATER LEVEL @ 6:00	4.90
WATER LEVEL @ 7:00	4.87
WATER LEVEL @ 8:00	4.85
WATER LEVEL @ 9:00	4.82
WATER LEVEL @ 10:00	4.80
WATER LEVEL @ 11:00	4.78
WATER LEVEL @ 12:00	4.76
WATER LEVEL @ 13:00	4.75
WATER LEVEL @ 14:00	4.73
WATER LEVEL @ 15:00	4.72
WATER LEVEL @ 16:00	4.70
WATER LEVEL @ 17:00	4.68
WATER LEVEL @ 18:00	4.67
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	4.67
END TIME	12:19

4.28
3.40
3.88

4.28
4.40
4.68

4.4

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10/26/01
ESS OBSERVER	JC + MDB

WELL	OW-81
QUADRANT	SW
DEPTH OF WELL (TABLE D-1)	27.0
DEPTH OF WELL (MEASURED BY ESS)	22.29
SCREEN INTERVAL	11-21
WELL DIAMETER	2"

DIAMETER OF SLUG USED	1"
STATIC WATER LEVEL	7.89
90% OF STATIC WATER LEVEL	7.10 - 8.68

SLUG-IN TEST START TIME	0908
SLUG-IN TEST STOP TIME	0913

SLUG-OUT TEST START TIME	0919
SLUG-OUT TEST STOP TIME	0925

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	0908
WATER LEVEL @ 0:30	7.27
WATER LEVEL @ 1:00	7.55
WATER LEVEL @ 1:30	7.70
WATER LEVEL @ 2:00	7.78
WATER LEVEL @ 2:30	7.82
WATER LEVEL @ 3:00	7.86
WATER LEVEL @ 3:30	7.88
WATER LEVEL @ 4:00	7.89
WATER LEVEL @ 4:30	7.89
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	7.89
END TIME	0913

SLUG-OUT TEST

START TIME	0719
WATER LEVEL @ 0:30	8.65
WATER LEVEL @ 1:00	8.28
WATER LEVEL @ 1:30	8.10
WATER LEVEL @ 2:00	8.01
WATER LEVEL @ 2:30	7.96
WATER LEVEL @ 3:00	7.94
WATER LEVEL @ 3:30	7.93
WATER LEVEL @ 4:00	7.92
WATER LEVEL @ 4:30	7.91
WATER LEVEL @ 5:00	7.91
WATER LEVEL @ 6:00	7.91
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
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WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	7.91
END TIME	0925

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-26-01
ESS OBSERVER	H Beecher, J Coffey

WELL	OW-82
QUADRANT	SW
DEPTH OF WELL (TABLE D-1)	200.0'
DEPTH OF WELL (MEASURED BY ESS)	> 165'
SCREEN INTERVAL	38.75 - 200'
WELL DIAMETER	6.00"

DIAMETER OF SLUG USED	2.00"
STATIC WATER LEVEL	6.68
90% OF STATIC WATER LEVEL	6.02 - 7.34 / 6.01 - 7.35

SLUG-IN TEST START TIME	0934
SLUG-IN TEST STOP TIME	0944

SLUG-OUT TEST START TIME	0944
SLUG-OUT TEST STOP TIME	0951

See reverse for water level measurements taken during testing process.

6.68
66
734

SLUG-IN TEST

START TIME	0934
WATER LEVEL @ 0:30	6.08
WATER LEVEL @ 1:00	6.06
WATER LEVEL @ 1:30	6.07
WATER LEVEL @ 2:00	6.08
WATER LEVEL @ 2:30	6.08
WATER LEVEL @ 3:00	6.09
WATER LEVEL @ 3:30	6.11
WATER LEVEL @ 4:00	6.11
WATER LEVEL @ 4:30	6.11
WATER LEVEL @ 5:00	6.12
WATER LEVEL @ 6:00	6.12
WATER LEVEL @ 7:00	6.13
WATER LEVEL @ 8:00	6.14
WATER LEVEL @ 9:00	6.16
WATER LEVEL @ 10:00	6.16
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	6.16
END TIME	0944

SLUG-OUT TEST

START TIME	0944
WATER LEVEL @ 0:30	6.80
WATER LEVEL @ 1:00	6.81
WATER LEVEL @ 1:30	6.80
WATER LEVEL @ 2:00	6.80
WATER LEVEL @ 2:30	6.79
WATER LEVEL @ 3:00	6.80
WATER LEVEL @ 3:30	6.79
WATER LEVEL @ 4:00	6.78
WATER LEVEL @ 4:30	6.78
WATER LEVEL @ 5:00	6.78
WATER LEVEL @ 6:00	6.78
WATER LEVEL @ 7:00	6.78
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
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WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	6.78
END TIME	0951

Well Viability Testing
 Falling/Rising Head Tests
 Davis Liquid Waste Superfund Site

DATE 10/24/01	
ESS OBSERVER JC + MDB	

WELL OW-83	OW-83
QUADRANT	SW
DEPTH OF WELL (TABLE D-1)	12.00
DEPTH OF WELL (MEASURED BY ESS)	14.18
SCREEN INTERVAL	7-12
WELL DIAMETER	2"

DIAMETER OF SLUG USED	1/2"
STATIC WATER LEVEL	11.22
90% OF STATIC WATER LEVEL	10.10 - 12.34

SLUG-IN TEST START TIME	1404
SLUG-IN TEST STOP TIME	1406

SLUG-OUT TEST START TIME	1412
SLUG-OUT TEST STOP TIME	1413

See reverse for water level measurements taken during testing process.

* USE 1/2 inch slug due to limited volume (height) of water in well. Cannot measure water level w/ 1" slug (too big) - water level will not slide by. 1/2" slug not totally submerged. (4' long)

SLUG-IN TEST

START TIME	14:04
WATER LEVEL @ 0:30	11.21
WATER LEVEL @ 1:00	11.22
WATER LEVEL @ 1:30	11.22
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
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WATER LEVEL @ 14:00	
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WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	11.22
END TIME	1406

SLUG-OUT TEST

START TIME	14:12
WATER LEVEL @ 0:30	11.22
WATER LEVEL @ 1:00	11.22
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
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WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	11.22
END TIME	1413

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10/24/01
ESS OBSERVER	JC + MDB

WELL	OW-84
QUADRANT	SW
DEPTH OF WELL (TABLE D-1)	90.00
DEPTH OF WELL (MEASURED BY ESS)	89.91
SCREEN INTERVAL	80-90
WELL DIAMETER	2"

DIAMETER OF SLUG USED	1"
STATIC WATER LEVEL	11.45
90% OF STATIC WATER LEVEL	10.31 - 12.60

SLUG-IN TEST START TIME	1419
SLUG-IN TEST STOP TIME	1428

SLUG-OUT TEST START TIME	1429
SLUG-OUT TEST STOP TIME	1436

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1419
WATER LEVEL @ 0:30	10.34
WATER LEVEL @ 1:00	10.70
WATER LEVEL @ 1:30	10.94
WATER LEVEL @ 2:00	11.11
WATER LEVEL @ 2:30	11.22
WATER LEVEL @ 3:00	11.29
WATER LEVEL @ 3:30	11.34
WATER LEVEL @ 4:00	11.37
WATER LEVEL @ 4:30	11.39
WATER LEVEL @ 5:00	11.41
WATER LEVEL @ 6:00	11.43
WATER LEVEL @ 7:00	11.44
WATER LEVEL @ 8:00	11.44
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	11.44
END TIME	1428

SLUG-OUT TEST

START TIME	1429
WATER LEVEL @ 0:30	— WLM
WATER LEVEL @ 1:00	— WLM
WATER LEVEL @ 1:30	11.96
WATER LEVEL @ 2:00	11.84
WATER LEVEL @ 2:30	11.72
WATER LEVEL @ 3:00	11.63
WATER LEVEL @ 3:30	11.58
WATER LEVEL @ 4:00	11.54
WATER LEVEL @ 4:30	11.51
WATER LEVEL @ 5:00	11.49
WATER LEVEL @ 6:00	11.47
WATER LEVEL @ 7:00	11.46
WATER LEVEL @ 8:00	11.45
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
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WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	11.45
END TIME	1436

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-24-01
ESS OBSERVER	M. BECKER J. COHEN

WELL	0W-85
QUADRANT	SW
DEPTH OF WELL (TABLE D-1)	90.0'
DEPTH OF WELL (MEASURED BY ESS)	95.25'
SCREEN INTERVAL	34.5 - 90'
WELL DIAMETER	2.00 1.25" ID

DIAMETER OF SLUG USED	4" 1/2"
STATIC WATER LEVEL	9.48
90% OF STATIC WATER LEVEL	8.53 - 10.43

SLUG-IN TEST START TIME	1316
SLUG-IN TEST STOP TIME	1318

SLUG-OUT TEST START TIME	1319
SLUG-OUT TEST STOP TIME	1320

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1316
WATER LEVEL @ 0:30	9.50
WATER LEVEL @ 1:00	9.48
WATER LEVEL @ 1:30	9.48
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
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WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	9.48
END TIME	1318

SLUG-OUT TEST

START TIME	1319
WATER LEVEL @ 0:30	9.48
WATER LEVEL @ 1:00	9.48
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
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WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	9.48
END TIME	1320

Well Viability Testing
 Falling/Rising Head Tests
 Davis Liquid Waste Superfund Site

DATE	10-24-01
ESS OBSERVER	MDB & JLC

WELL	OW-86
QUADRANT	NE
DEPTH OF WELL (TABLE D-1)	101.5
DEPTH OF WELL (MEASURED BY ESS)	96
SCREEN INTERVAL	81.5 - 101.5
WELL DIAMETER	1.25

DIAMETER OF SLUG USED	—
STATIC WATER LEVEL	—
90% OF STATIC WATER LEVEL	—

SLUG-IN TEST START TIME	
SLUG-IN TEST STOP TIME	
SLUG-OUT TEST START TIME	
SLUG-OUT TEST STOP TIME	

See reverse for water level measurements taken during testing process.

OW-86 is a well under pressure. Therefore a slug test would not work as a test of water flow. Instead, we removed one boiler full of water (~1L) and timed the recharge to the outer steel casing.

1 L = 2:44:30 min

by inches	Ø	=	D min
	0.5	=	0:24 min
	1.0	=	1:01
	1.5	=	1:41
	2.0	=	2:23
	2.4	=	3:05

diameter at point where H₂O was removed = 6"

SLUG-IN TEST

START TIME	
WATER LEVEL @ 0:30	
WATER LEVEL @ 1:00	
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
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WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	
END TIME	

SLUG-OUT TEST

START TIME	
WATER LEVEL @ 0:30	
WATER LEVEL @ 1:00	
WATER LEVEL @ 1:30	
WATER LEVEL @ 2:00	
WATER LEVEL @ 2:30	
WATER LEVEL @ 3:00	
WATER LEVEL @ 3:30	
WATER LEVEL @ 4:00	
WATER LEVEL @ 4:30	
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
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WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	
END TIME	

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10-26-01
ESS OBSERVER	M Becke, J Cohen

WELL	OW-950
QUADRANT	SE
DEPTH OF WELL (TABLE D-1)	23.6'
DEPTH OF WELL (MEASURED BY ESS)	23.24'
SCREEN INTERVAL	8.6 - 23.6'
WELL DIAMETER	2.00"

DIAMETER OF SLUG USED	1.00"
STATIC WATER LEVEL	19.63'
90% OF STATIC WATER LEVEL	17.67 - 21.59'

SLUG-IN TEST START TIME	10:17
SLUG-IN TEST STOP TIME	10:27

SLUG-OUT TEST START TIME	10:28
SLUG-OUT TEST STOP TIME	10:37

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	0:17
WATER LEVEL @ 0:30	—
WATER LEVEL @ 1:00	19.30
WATER LEVEL @ 1:30	19.31
WATER LEVEL @ 2:00	19.32
WATER LEVEL @ 2:30	19.33
WATER LEVEL @ 3:00	19.33
WATER LEVEL @ 3:30	19.35
WATER LEVEL @ 4:00	19.35
WATER LEVEL @ 4:30	19.36
WATER LEVEL @ 5:00	19.37
WATER LEVEL @ 6:00	19.38
WATER LEVEL @ 7:00	19.38
WATER LEVEL @ 8:00	19.40
WATER LEVEL @ 9:00	19.41
WATER LEVEL @ 10:00	19.41
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
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WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	19.41
END TIME	10:27

SLUG-OUT TEST

START TIME	10:28
WATER LEVEL @ 0:30	19.83
WATER LEVEL @ 1:00	19.79
WATER LEVEL @ 1:30	19.77
WATER LEVEL @ 2:00	19.75
WATER LEVEL @ 2:30	19.75
WATER LEVEL @ 3:00	19.74
WATER LEVEL @ 3:30	19.74
WATER LEVEL @ 4:00	19.73
WATER LEVEL @ 4:30	19.73
WATER LEVEL @ 5:00	19.73
WATER LEVEL @ 6:00	19.72
WATER LEVEL @ 7:00	19.71
WATER LEVEL @ 8:00	19.71
WATER LEVEL @ 9:00	19.71
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
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WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	19.71
END TIME	10:37

Well Viability Testing
Falling/Rising Head Tests
Davis Liquid Waste Superfund Site

DATE	10/26/01
ESS OBSERVER	Jc + MDB

WELL	OW-95 (R)
QUADRANT	SE
DEPTH OF WELL (TABLE D-1)	49.0
DEPTH OF WELL (MEASURED BY ESS)	49.11
SCREEN INTERVAL	28.5-49
WELL DIAMETER	2"

DIAMETER OF SLUG USED	1"
STATIC WATER LEVEL	19.01
90% OF STATIC WATER LEVEL	17.11 - 20.91

SLUG-IN TEST START TIME	1044
SLUG-IN TEST STOP TIME	1049

SLUG-OUT TEST START TIME	1049
SLUG-OUT TEST STOP TIME	1054

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

START TIME	1044
WATER LEVEL @ 0:30	17.51
WATER LEVEL @ 1:00	17.51
WATER LEVEL @ 1:30	17.51
WATER LEVEL @ 2:00	17.52
WATER LEVEL @ 2:30	17.52
WATER LEVEL @ 3:00	17.52
WATER LEVEL @ 3:30	17.52
WATER LEVEL @ 4:00	17.52
WATER LEVEL @ 4:30	17.53
WATER LEVEL @ 5:00	17.53
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	17.53
END TIME	1049

SLUG-OUT TEST

START TIME	1049
WATER LEVEL @ 0:30	19.08
WATER LEVEL @ 1:00	19.08
WATER LEVEL @ 1:30	19.08
WATER LEVEL @ 2:00	19.07
WATER LEVEL @ 2:30	19.07
WATER LEVEL @ 3:00	19.07
WATER LEVEL @ 3:30	19.07
WATER LEVEL @ 4:00	19.07
WATER LEVEL @ 4:30	19.07
WATER LEVEL @ 5:00	
WATER LEVEL @ 6:00	
WATER LEVEL @ 7:00	
WATER LEVEL @ 8:00	
WATER LEVEL @ 9:00	
WATER LEVEL @ 10:00	
WATER LEVEL @ 11:00	
WATER LEVEL @ 12:00	
WATER LEVEL @ 13:00	
WATER LEVEL @ 14:00	
WATER LEVEL @ 15:00	
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	19.07
END TIME	1054

Well Viability Testing
 Falling/Rising Head Tests
 Davis Liquid Waste Superfund Site

DATE	12/4/01	12/11/01
ESS OBSERVER	JLC	JLC/MDB

WELL	OW-960
QUADRANT	SE
DEPTH OF WELL (TABLE D-1)	14.0'
DEPTH OF WELL (MEASURED BY ESS)	13.35
SCREEN INTERVAL	4'-14'
WELL DIAMETER	2"

DIAMETER OF SLUG USED	1"	1"
STATIC WATER LEVEL	7.09' 7.09'	7.10'
90% OF STATIC WATER LEVEL	6.39 - 7.79 6.39 - 7.79	6.40 - 7.78'

SLUG-IN TEST START TIME	1111 1111	1111
SLUG-IN TEST STOP TIME	1112	1116

SLUG-OUT TEST START TIME	1112	1116
SLUG-OUT TEST STOP TIME	1113	1121

See reverse for water level measurements taken during testing process.

SLUG-IN TEST

SLUG-OUT TEST

START TIME	1111	1111
WATER LEVEL @ 0:30	6.80	6.82
WATER LEVEL @ 1:00	6.82	6.86
WATER LEVEL @ 1:30		6.88
WATER LEVEL @ 2:00		6.90
WATER LEVEL @ 2:30		6.91
WATER LEVEL @ 3:00		6.92
WATER LEVEL @ 3:30		6.93
WATER LEVEL @ 4:00		6.94
WATER LEVEL @ 4:30		6.95
WATER LEVEL @ 5:00		6.96
WATER LEVEL @ 6:00		
WATER LEVEL @ 7:00		
WATER LEVEL @ 8:00		
WATER LEVEL @ 9:00		
WATER LEVEL @ 10:00		
WATER LEVEL @ 11:00		
WATER LEVEL @ 12:00		
WATER LEVEL @ 13:00		
WATER LEVEL @ 14:00		
WATER LEVEL @ 15:00		
WATER LEVEL @ 16:00		
WATER LEVEL @ 17:00		
WATER LEVEL @ 18:00		
WATER LEVEL @ 19:00		
WATER LEVEL @ 20:00		
WATER LEVEL @ 21:00		
WATER LEVEL @ 22:00		
WATER LEVEL @ 23:00		
WATER LEVEL @ 24:00		
WATER LEVEL @ 25:00		
WATER LEVEL @ 26:00		
WATER LEVEL @ 27:00		
WATER LEVEL @ 28:00		
WATER LEVEL @ 29:00		
WATER LEVEL @ 30:00		
FINAL WATER LEVEL	6.82	6.96
END TIME	1112	1116

START TIME	1112	1111
WATER LEVEL @ 0:30	7.13	7.1
WATER LEVEL @ 1:00		7.2
WATER LEVEL @ 1:30		7.2
WATER LEVEL @ 2:00		7.1
WATER LEVEL @ 2:30		7.1
WATER LEVEL @ 3:00		7.1
WATER LEVEL @ 3:30		7.1
WATER LEVEL @ 4:00		7.1
WATER LEVEL @ 4:30		7.1
WATER LEVEL @ 5:00		7.1
WATER LEVEL @ 6:00		
WATER LEVEL @ 7:00		
WATER LEVEL @ 8:00		
WATER LEVEL @ 9:00		
WATER LEVEL @ 10:00		
WATER LEVEL @ 11:00		
WATER LEVEL @ 12:00		
WATER LEVEL @ 13:00		
WATER LEVEL @ 14:00		
WATER LEVEL @ 15:00		
WATER LEVEL @ 16:00		
WATER LEVEL @ 17:00		
WATER LEVEL @ 18:00		
WATER LEVEL @ 19:00		
WATER LEVEL @ 20:00		
WATER LEVEL @ 21:00		
WATER LEVEL @ 22:00		
WATER LEVEL @ 23:00		
WATER LEVEL @ 24:00		
WATER LEVEL @ 25:00		
WATER LEVEL @ 26:00		
WATER LEVEL @ 27:00		
WATER LEVEL @ 28:00		
WATER LEVEL @ 29:00		
WATER LEVEL @ 30:00		
FINAL WATER LEVEL	7.13	7.16
END TIME	1112	1112

Well Viability Testing
 Falling/Rising Head Tests
 Davis Liquid Waste Superfund Site

DATE	12/4/01	12/10/01
ESS OBSERVER	JLC	JLC/MDB

WELL	OW-96R	OW-96R
QUADRANT	SE	SE
DEPTH OF WELL (TABLE D-1)	37.5'	37.5
DEPTH OF WELL (MEASURED BY ESS)	37.00	37.0
SCREEN INTERVAL	17.5-37.5'	17.5-37.5
WELL DIAMETER	2"	2"

DIAMETER OF SLUG USED	1"	1"
STATIC WATER LEVEL	6.37	6.20
90% OF STATIC WATER LEVEL	5.74 - 7.00	5.58 - 6.82

SLUG-IN TEST START TIME	
SLUG-IN TEST STOP TIME	
SLUG-OUT TEST START TIME	
SLUG-OUT TEST STOP TIME	

See reverse for water level measurements taken during testing process.

$$\begin{array}{r} 6.37 \\ - .63 \\ \hline 5.74 \end{array}$$

$$\begin{array}{r} 6.20 \\ - .38 \\ \hline 5.82 \end{array}$$

SLUG-IN TEST

START TIME	1250 10:00
WATER LEVEL @ 0:30	4.95
WATER LEVEL @ 1:00	4.96 5.58
WATER LEVEL @ 1:30	4.98
WATER LEVEL @ 2:00	4.99
WATER LEVEL @ 2:30	5.01
WATER LEVEL @ 3:00	5.03
WATER LEVEL @ 3:30	5.04
WATER LEVEL @ 4:00	5.06
WATER LEVEL @ 4:30	5.07
WATER LEVEL @ 5:00	5.09
WATER LEVEL @ 6:00	5.11
WATER LEVEL @ 7:00	5.13
WATER LEVEL @ 8:00	5.16
WATER LEVEL @ 9:00	5.18
WATER LEVEL @ 10:00	5.20
WATER LEVEL @ 11:00	5.23
WATER LEVEL @ 12:00	5.26
WATER LEVEL @ 13:00	5.28
WATER LEVEL @ 14:00	5.31
WATER LEVEL @ 15:00	5.32
WATER LEVEL @ 16:00	5.35
WATER LEVEL @ 17:00	5.37
WATER LEVEL @ 18:00	5.38
WATER LEVEL @ 19:00	5.40
WATER LEVEL @ 20:00	5.42
WATER LEVEL @ 21:00	5.44
WATER LEVEL @ 22:00	5.46
WATER LEVEL @ 23:00	5.48
WATER LEVEL @ 24:00	5.50
WATER LEVEL @ 25:00	5.52
WATER LEVEL @ 26:00	5.53
WATER LEVEL @ 27:00	5.55
WATER LEVEL @ 28:00	5.56
WATER LEVEL @ 29:00	5.57
WATER LEVEL @ 30:00	5.59
FINAL WATER LEVEL	5.59
END TIME	1320

SLUG-OUT TEST

START TIME	1321 10:00
WATER LEVEL @ 0:30	6.93 6.59
WATER LEVEL @ 1:00	6.92
WATER LEVEL @ 1:30	6.91
WATER LEVEL @ 2:00	6.89
WATER LEVEL @ 2:30	6.89
WATER LEVEL @ 3:00	6.88
WATER LEVEL @ 3:30	6.87
WATER LEVEL @ 4:00	6.86
WATER LEVEL @ 4:30	6.85
WATER LEVEL @ 5:00	6.84
WATER LEVEL @ 6:00	6.83
WATER LEVEL @ 7:00	6.81
WATER LEVEL @ 8:00	6.80
WATER LEVEL @ 9:00	6.78
WATER LEVEL @ 10:00	6.76
WATER LEVEL @ 11:00	6.75
WATER LEVEL @ 12:00	6.74
WATER LEVEL @ 13:00	6.71
WATER LEVEL @ 14:00	6.70
WATER LEVEL @ 15:00	6.69
WATER LEVEL @ 16:00	
WATER LEVEL @ 17:00	
WATER LEVEL @ 18:00	
WATER LEVEL @ 19:00	
WATER LEVEL @ 20:00	
WATER LEVEL @ 21:00	
WATER LEVEL @ 22:00	
WATER LEVEL @ 23:00	
WATER LEVEL @ 24:00	
WATER LEVEL @ 25:00	
WATER LEVEL @ 26:00	
WATER LEVEL @ 27:00	
WATER LEVEL @ 28:00	
WATER LEVEL @ 29:00	
WATER LEVEL @ 30:00	
FINAL WATER LEVEL	
END TIME	



APPENDIX D

Groundwater Monitoring Well Sample Collection Forms



Groundwater Monitoring Well Sampling Form

11/7/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-FS-QW-008

Water Level to Water: 12.95 (ft.)
 Total Depth: 31.1 (ft.)
 Well Diameter: 1.75 (inches)
 Length of Water Column: 10-15 ft bgs
 Well Volume: 0.72 gal (gals)
0.67 (gals)

Project #: 51158
 Measuring Point: Top of casing
 ESS Personnel: JLC, MNB
 (initials) ZB (XND)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

7.83 gal (ft-3)

Parameter Monitoring Results

Time	Vol. Purged (units: Ml or L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu S/cm$)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
10:16		12.95						
11:00	Flow rate: 175	12.99						
11:04	~70ml	12.99	11.47	158	6.70	160.2	6.48	7.2
11:08	~1.4L	12.95	11.42	149	4.99	135.8	6.39	3.4
11:13	~2.3L	13.02	11.33	133	4.21	119.0	6.30	1.4
11:18	~3L	13.04	10.94	100	3.53	131.5	6.04	1.2
11:30	~4.8L	13.04	10.93	87	2.70	171.8	5.77	1.2
11:40	~6.3L	13.02	11.03	77	2.60	198.1	5.64	2.4
11:50	~7.8L	13.01	11.06	74	2.52	214.4	5.59	0.35
12:00	~9.3L	12.99	10.84	72	2.44	227.1	5.54	0.2
12:10	~10.8L	12.99	10.87	71	2.38	235.0	5.53	0.45
12:20	~12.3L	13.00	10.90	71	2.37	248.7	5.50	0.45
12:30	~13.8L	13.02	10.86	70	2.34	253.8	5.49	0.4
12:40	~15.3L	13.03	10.96	70	2.34	261.4	5.50	0.05
12:50	~16.8L	13.02	11.08	70	2.35	266.7	5.49	0.25

Comments: FID = 0.0 ppm at 10:15, at 11:03 - 0.0 ppm, 12:10: FID = 3 ppm
 5 feet screen, pump rate = 28.5 ft
 11:18: turned down flow rate to 150ml/min

Note recharge conditions, color, odor, sediment content, etc. no odor, clear - no sediment

* See notebook - ORP values are off because calibrated using 100mV std. when assumed it was 200mV

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
	VOC's EPA Method 8260				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

2 of 2

11/7/06

Project Name: DAVIS SUPERFUND

A365-001.3

Well #:

GW-FS-01W-008

Project #:

5058

Measuring

Point:

ESS Personnel

JLC, MNS, LB

(initials)

Depth to Water:

(ft)

Total Depth:

(ft)

Well Diameter:

(inches)

Length of

Water Column:

(ft)

Well Volume:

(gals)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units:)	D.T.W. (feet)	Temp. (units:)	Sp. Cond. (units:)	D.O. (mg/l) (mg/l)	ORP (eV)	pH	Turb. (NTUs)
1300	~1.8.3L	13.05	11.10	70	2.37	269.3	5.49	0.025

Comments:

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.	
1300	VOC's EPA METHOD	8260	N	40ml glass	3	HCL

Note sample time, parameters; duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

10/1
11/7/08

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-FS-OW-007

Water to Water: 11.89 (ft)

Project #: 51158

Total Depth: 64 (ft)

Measuring

Well Diameter: 1.25 (inches)

Point:

Length of Sat. screen 36 ft screen

ESS Personnel: JLC, MNB, LBR

Water Column: 36 (ft)

(initials)

Well Volume: 2.4 (gals)

Well Inlet: 52 ft $1.25 \text{ in} = 0.067$

7.83 gal/ft

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469)

8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu\text{S/cm}$)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1500	AD = 0.0 ppm	11.89						
1508	~0.1	plugged into meter						
1508		11.92	10.93	219	2.26	82.6	8.08	14
1515	~1.1	11.91	10.59	206	1.72	39.2	8.33	12
1520	~1.8	11.91	10.56	192	1.31	30.0	8.44	6.3
1525	~2.5	11.91	10.48	191	1.02	22.4	8.57	4.4
1530	~3.2	11.91	10.43	191	0.94	16.6	8.60	3.6
1540	~4.6	11.91	10.41	190	0.72	11.4	8.64	3.4
1550	~6.0	11.91	10.39	190	0.58	8.84	8.66	3.6
1600	~7.4	11.91	10.35	190	0.55	14.6	8.67	2.8
1610	~8.8	11.91	10.31	190	0.49	10.8	8.68	3.2
1620	~10.2	11.91	10.30	190	0.42	17.3	8.69	1.9
1630	~11.6	11.91	10.26	191	0.35	17.2	8.69	1.1
1640	compressor overheated - let cool							
1656	compressor stuck on							
1708	~13	11.91	10.26	191	0.37	24.6	8.67	2.5
Comments: 1718	~14.4	11.91	10.23	191	0.31	19.0	8.70	

1508 ~ Flow rate = 140 ml/min
1550 ~ AD = 0.0 ppm

Note recharge conditions, color, odor, sediment content, etc.

Time	on	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1630	col	VOC's EPA METHOD 8260	N	40ml glass	3	HC

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

1 of 1

1/18/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-FS-OW-051

Depth to Water: 5.34 (ft.)
 Total Depth: 16 (top) (ft.)
 Well Diameter: 1.25 (inches)
 Length of Set Screen: 10 (or less) (ft.)
 Water Column: _____ (ft.)
 Well Volume: 0.67 (gals)
 Well Mat: 14.5 ft

Project #: 51158
 Measuring Point: _____
 BSS Personnel JLC MAB LB
 (initials) (XAD)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well) 7.83 gal/ft³

Time	Vol. Purged (units: L)	D.T.W. (feet)	Parameter Monitoring Results					ORP (mV)	pH	Turb. (NTUs)
			Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l) (mg/l)	±10%	±10µV			
9:50 10:15		5.40	after pump	is placed	in well				110 µM	
10:30	~1.65L	5.56	13.47	183	1.09	-65.2	6.20	2.6		
10:35	2.2L	5.56	13.08	174	0.83	-63.4	6.15	0.95		
10:40	2.75L	5.57	13.07	173	0.77	-61.4	6.15	0.65		
10:50	3.85L	5.58	13.11	173	0.57	-58.2	6.14	0.35		
11:00	3.95L	5.58	13.00	174	0.50	-59.2	6.15	0.70		
11:10	5.05L	5.58	12.95	173	0.47	-61.5	6.16	0.65		
11:20	~6.15	5.58	12.85	174	0.45	-63.8	6.16	0.70		

Comments: Slight odor - swampy smell - clear water; no sediment
PID reading after opening well = 0.0 ppm
took field equip blank by filling bladder + then 3 vials/lab

Note recharge conditions, color, odor, sediment content, etc. rinse blank was taken by pouring lab DI H₂O
through bladder top into 3 vials to take out check valve)

Sample Parameters: rinse blank id: GW-RB-OW-051 at 1245
equip/field blank id: GW-FB-OW-051 at 1240

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1130	VOC's EPA METHOD 8260	Y	40ml glass	6	HCJ
0900	Duplicate time		id = GW-FS-OW-101		

Note sample time, parameters, duplicates, field blanks, etc.

Groundwater Monitoring Well Sampling Form

11/8/01

Project Name: DAVIS SUPERFUND

P.I.D. 0.0 ppm
 to Water: 6.13 (ft) top
 Total Depth: 14 (ft) logs
 Well Diameter: 1.25 (inches)
 Length of Set Screen
 Water Column: 5 (ft)
 Well Volume: 0.67 (gals)

Well #: GW-FS-OW-011
 Project #: 5158
 Measuring Point: See left
 ESS Personnel: MAB, JLC, LA
 (initials) AMS

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

7.83 gal/ft

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1435		6.16	Start pump		at	140.1	NA	
1440	0.7 L	6.16	11.18	10.2	7.68	66.4	5.70	3.8
1445	1.4 L	6.16	11.02	41	6.89	80.9	5.37	2.4
1455	2.8 L	6.16	10.86	37	6.85	114.9	5.33	3.1
1505	4.2 L	6.16	10.83	36	6.84	139.6	5.32	1.0
1515	5.6 L	6.16	10.80	36	6.85	152.2	5.32	0.90
1525	7.0 L		10.78	36	6.86	166.7	5.33	2.5
1535	8.4 L	6.16	10.73	36	6.83	169.6	5.32	1.4
1545	9.8 L	6.16	10.69	36	6.86	179.0	5.33	1.3
1555	11.2 L	6.16	10.67	36	6.83	182.2	5.33	0.6
7:00 16:19	12.6 L	6.16	10.61	36	6.83	187.8	5.33	0.55

3.9
3.8
3.6
3.5
3.4
↑
4.38
=

Comments: pump inlet at 11.5 ft bgs clear, no odor

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.	
1600	VOC's EPA METHOD	8260	N	40ml glass	3	HCl

Note sample time, parameters, duplicates, field blanks, etc.

5



Groundwater Monitoring Well Sampling Form

1 of 2

Project Name: DAVIS SUPERFUND

11/9/01

A365-001.3

Well #: GULFS-010-012

Depth to Water: 6.30 (ft) fcc

Project #: 7458

Total Depth: 11.4 (ft) fcc

Measuring see left

Well Diameter: 1.25 (inches)

Point: see left

Length of Sat. Screen: 6.5 (ft) 28.5 bgs

ESS Personnel: NDB, JLC, LB, CDD (initials)

Well Volume: 0.8 (gals)

Pump Inlet: 6.25 bgs

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469)

8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu S/cm$)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)	
10:00		start							
10:13	0.78	6.83	12.13	11.8	6.53	65.8	4.98	67	
10:18	1.08	6.83	12.18	46	6.79	96.2	4.97	37	
10:25	1.5	6.83	12.33	38	7.01	103.3	4.99	26	
10:40	2.4	6.83	12.42	36	7.41	131.1	5.00	1.9	
10:50	3.0	6.85	12.46	36	7.38	142.8	5.02	1.2	
11:00	3.6	6.85	12.57	36	7.38	155.9	5.03	0.85	
11:10	4.2	6.85	12.30	36	7.47	168.0	5.04	0.70	
checked DO with other YSI 600 XLM						DO = ~7.0			
resumed readings w/ original YSI									
11:30	5.4	6.85	11.74	40	7.66	97.5	5.12	0.5	
11:40	6.0	6.85	11.87	37	7.59	115.9	5.10	0.25	
11:50	6.6	6.85	12.26	37	7.59	121.4	5.11	0.25	
12:00	7.2	6.85	12.14	36	7.59	154.4	5.11	0.95	
12:10	7.8	6.85	12.14	36	7.69	169.9	5.14	0.35	
12:20	8.4	6.85	12.27	35	7.72	182.1	5.13	0.45	

Comments: No odor clear PIDs upon opening well cap = 0.0ppm
 Since downhole DO meter is broken; used other YSI 600 XLM to check DO - got ~7.0 mg/L at 10:45 (fully calibrated)

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.	
12:00	VOC's EPA METHOD	8260	N	40ml glass	3	HCl
	ONCO					

Note sample time, parameters; duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

2 of 2

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-FS-00-012

Project #: 5458

Measuring

Point:

ESS Personnel

(initials)

Water to Water:

(ft.)

Total Depth:

(ft.)

Well Diameter:

(inches)

Length of

Water Column:

(ft.)

Well Volume:

(gals)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469)
8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu S/cm$)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1230	9.0	6.85	13.30	35	7.67	195.8	5.14	0.05
1240	9.6	6.85	14.04	35	7.58	209.1	5.15	0.00
1250	10.2	6.85	13.97	35	7.60	217.6	5.15	0.00
1300	10.8	6.85	13.52	36	7.60	228.3	5.15	0.00
1310	11.4	6.85	12.83	35	7.65	235.6	5.15	0.00
1320	12.0	6.85	12.77	35	7.61	236.3	5.16	0.00
1330	12.6	6.85	12.65	35	7.68	234.6	5.17	0.00
1330 sample time								

Comments:

1320 PID reading = 1.0 ppm, variable temp because variations in amount of sun + wind

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1200	VOC's EPA METHOD 8260	N	40ml glass	3	HCl
	on col				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

11/12/01

Pump Met: 36' Project Name: DAVIS SUPERFUND
 Depth to Water: 4.24 (ft) to c Ft hgs: A365-001.3 Well #: COW-ES-CW-080
 Total Depth: 92.6 (ft) Project #: 51158
 Well Diameter: 1.25 (inches) Measuring Point:
 Length of set screen: 34-38' BSS Personnel: JLC, MAB, LB (XMS)
 Water Column: 4 (ft) (initials)
 Well Volume: 0.3 (gals)
 Fracture zone = ± 36' 1.25 in = 0.067
 Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
10:03	start				60 ml/min			
10:21	0.54 ml	4.41	9.79	159	2.68	-201.2	8.02	80
10:26	↓ 50 ml/min 2.50 ml	4.45	9.99	144	2.27	-222.6	7.97	55
10:30	1.5	4.47	10.14	141	1.71	-238.1	7.98	40
10:35	1.75	4.48	10.16	140	1.48	-246.8	7.97	28
10:40	2.25	4.51	10.08	140	1.42	-243.5	7.97	18
10:50	↓ flow rate 2.75	4.54	10.37	139	1.32	-255.4	7.97	11
11:00	40 ml/min 3.2	4.54	10.75	138	1.23	-243.0	7.95	9.4
11:15	3.8	4.52	10.65	138	1.29	-256.6	7.96	5.3
11:25	4.2	4.51	9.96	138	1.38	-264.2	7.98	4.6
11:35	4.6	4.51	9.97	138	1.34	-263.1	7.97	4.8
11:45	5.0	4.51	9.95	138	1.34	-255.6	7.96	4.7
12:00	sample time							

Comments: clear w/ black particles, no odor
 PID = 0.0 before pumping

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
12:00	VOC's EPA METHOD 8260	N	40ml glass	3	HCl

Note sample time, parameters, duplicates, field blanks, etc.



2
0.067
4
2.68

0.067



Groundwater Monitoring Well Sampling Form

1/12/01 1 of 2

Project Name: DAVIS SUPERFUND

A365-001.3

Well #:

GW-FS-OW-034

Project #:

5158

Measuring

Point:

ESS Personnel

JLC MAB LB

(initials)

to Water: 4.80 (ft) 40C
 Total Depth: 18 (ft) logs
 Well Diameter: 1.25 (inches)
 Length of sat screen: 14-18' logs
 Water Column: 4' (ft) logs
 Well Volume: 0.54 (gals)

pump inlet = 16' logs

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu S/cm$)	D.O. (mg/l)	ORP (eV)	pH	Turb. (NTUs)
1245		4.80		Start				
1255	0.7	4.90		80 ml/min				
1300	1.1	4.90	11.77	104	2.21	-36.6	6.35	
1305	1.5	4.91	12.09	91	2.02	-41.8	6.32	24
1310	1.9	4.91	12.09	74	2.03	-40.3	6.31	21
1320	2.7	4.91	11.60	70	2.50	-35.7	6.28	13
1330	3.5	4.91	11.46	69	2.86	-30.6	6.31	10
1337	pulled on tubing + pump to check connections - seems fine							
	we clipped the end of the tubing + resealed it							
1355	4.3	4.91	11.05	67	3.19	-28.2	6.38	45
1405	5.1	4.91	11.17	67	2.77	-19.6	6.28	38
1415	5.9	4.91	11.08	66	2.90	-16.4	6.25	19
1425	6.7	4.91	11.17	65	3.24	-12.0	6.24	15
1435	7.5	4.91	11.14	65	3.35	-11.3	6.25	11
1445	8.3	4.91	11.07	65	3.44	-11.8	6.28	8.5
1455	9.1	4.91	11.08	66	3.46	-10.9	6.28	6.8

Comments: DIN upon well cap removal = 0.00 AM
clear, no odor; air bubbles coming up from well through tetlon tubing

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
	VOC's EPA METHOD 8260	N	40ml glass	3	HCl

Note sample time, parameters, duplicates, field blanks, etc.

1.067
6.30



Groundwater Monitoring Well Sampling Form

Project Name: DAVIS SUPERFUND
A365-001.3

GW-34 2 of 2

Depth to Water: _____ (ft.)
 Total Depth: _____ (ft.)
 Well Diameter: _____ (inches)
 Length of Water Column: _____ (ft.)
 Well Volume: _____ (gals)

Well #: _____
 Project #: _____
 Measuring Point: _____
 ESS Personnel: _____ (initials)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units:)	D.T.W. (feet)	Temp. (units:)	Su. Cond. (units:)	D.O. (mg/l) (mg/l)	ORP (eV)	pH	Turb. (NTUs)
1505	9.9	4.91	10.95	66	3.44	-10.8	6.28	3.8
1515	10.7	4.91	10.90	65	3.38	-9.9	6.26	3.5
1525	11.5	4.91	10.84	65	3.37	-9.0	6.27	3.4

Comments:

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
	VOC's EPA METHOD 8260				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

1 of 1

11/13/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GWFS-ew-021

Water to Water: 5.76 (ft) toc
 Total Depth: 14 (ft) bgs
 Well Diameter: 1.25 (inches)
 Length of Set Screen: 5 (ft)
 Water Contain: 5 (ft)
 Well Volume: 0.67 (gals)

Project #: 51158
 Measuring Point:
 ESS Personnel: JLC MUR LB
 (initials)

pump inlet = 11 ft bgs $1.25 \text{ in} = 0.067$
 Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu\text{S/cm}$)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
9:47	start				6.0	ND		
9:51	6.02	6.02						
9:57	0.6	5.99	9.13	181	2.96	-34.8	7.26	27
10:02	0.9	5.99	9.70	126	2.31	-94.6	7.05	30
10:06	1.1	5.99	10.06	118	2.24	-97.6	6.99	22
10:15	1.7	5.99	10.50	111	2.57	-99.0	6.88	26
10:25	2.4	6.00	10.76	108	2.85	-92.8	6.87	30
10:35	3.1	6.00	11.02	106	1.76	-92.8	6.73	34
10:45	3.8	5.98	11.15	105	1.50	-95.9	6.70	28
10:55	4.5	5.99	10.96	105	1.44	-96.9	6.68	26
11:05	5.2	5.99	11.06	104	1.3	-97.8	6.68	23
11:15	5.9	5.99	10.86	104	1.10	-95.5	6.67	20
11:25	6.6	5.99	11.00	104	1.20	-97.2	6.67	22

Comments:
 after opening well, ND = 0.0 ppm
 clear, no odor, no sediment
 slightly cloudy

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
12:00	VOC's EPA METHOD 8260	N	40ml glass	3	HCl

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

11/13/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-ES-010-013

Water to Water: 4.33 (ft) loc

Project #: 51158

Total Depth: 25 (ft) loc

Measuring

Well Diameter: 1.25 (inches)

Point:

Length of sat screen 19-24' loc

ESS Personnel: JLC MDR, ELB

Water Column: 5 (ft)

(initials)

Well Volume: 0.07 (gals)

Pump inlet = 21.5 ft loc

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469)

8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1235	start	dumping at		235		120		
1245	1.2	4.35	11.20	378	2.20	-77.7	7.05	
1249	1.7	4.35	11.69	278	1.44	-89.9	6.89	
1255	2.3	4.34	11.98	153	1.53	-144.0	6.82	9.3
1300	2.9	4.34	11.30	150	1.10	-144.9	6.81	85-
1310	4.1	4.34	11.15	149	0.87	-146.5	6.79	65
1320	5.3	4.34	11.09	149	0.72	-143.2	6.78	25
1330	6.5	4.34	11.00	148	0.86	-141.9	6.75	30
1340	7.7	4.34	10.95	147	1.06	-137.7	6.77	6.3
1350	8.9	4.34	10.88	147	0.69	-136.9	6.78	24
1400	10.1	4.34	10.95	146	0.55	-138.8	6.79	28
1410	11.3	4.35	10.93	146	0.50	-137.5	6.79	20
1420	12.5	4.35	10.98	146	0.46	-139.8	6.79	21
1430	13.7	4.36	10.93	146	0.45	-140.1	6.79	25
1440	14.9	4.34	11.08	146	0.43	-137.3	6.78	19
1450	16.1	4.34	10.99	146	0.44	-137.9	6.77	8.6

very low

Comments:

~~clear no odor~~ slight odor - organic scent, sweet smell too?
after opening well - 0.0 ppm on PID

1305 - 0.01 ppm reading on PID held over bucket of purge H₂O

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1430	VOC's EPA METHOD 8260	N	40ml glass	3	HCl
	on VOC				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

Project Name: DAVIS SUPERFUND

A365-001.3

Well #:

GW-KS-OW-043

_____ to Water: (ft.)

Project #:

Total Depth: (ft.)

Measuring

Well Diameter: (inches)

Point:

Length of Water Column: (ft.)

BSS Personnel

Well Volume: (gals)

(initials)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469)
8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1500	17.3	4.34	10.96	146	0.42	-137.4	6.77	9.6
1510	18.5	4.35	11.00	146	0.44	-138.5	6.77	4.1
1520	19.7	4.35	10.89	146	0.46	-138.7	6.77	6.6
1530	20.9	4.35	10.85	145	0.48	-139.5	6.77	2.4
1540	22.1	4.35	10.81	146	0.47	-139.4	6.77	1.9
1550	23.3	4.35	10.74	145	0.46	-139.3	6.77	2.2

Comments:

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
	VOC's EPA METHOD 8260				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

1/14/01 1 of 1

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: Low-ES-OW-033

Depth to Water: 2.97 (ft) to c

Project #: 5158

Total Depth: 6.5 (ft) bg

Measuring

Well Diameter: 1.25 (inches)

Point:

Length of ^{sat} screen: 16 = 58 ft bg

ESS Personnel: MAB, JLC, LB

Water Column: 42 (ft)

(initials)

Well Volume: ~~28~~ 4.8 (gals)

Pump Inlet: 37 ft bg

$1.25 \text{ m} = 0.067$

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu\text{S/cm}$)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1209		start			125 ml/min			
1219	1.25	2.99	12.36	140	1.02	-178.1	6.71	2.1
1224	1.9	3.00	12.05	120	0.60	-195.7	6.76	2.1
1227	2.3	3.00	11.96	139	0.45	-203.8	6.84	2.2
1230	2.6	3.00	12.09	155	0.51	-203.1	7.05	1.8
1240	3.85	3.00	12.15	168	0.38	-187.7	7.23	1.6
1250	5.1	3.00	11.98	171	0.32	-165.3	7.28	0.80
1300	6.35	3.00	11.62	171	0.26	-157.9	7.32	1.9
1310	7.6	3.00	11.58	171	0.25	-157.3	7.34	0.75
1320	8.85	3.00	11.44	172	0.21	-149.2	7.35	1.7
1330	10.6	3.02	11.18	172	0.17	-143.4	7.36	0.9
1340	12.35	3.02	11.30	172	0.18	-130.2	7.37	0.75
1350	14.1	3.02	11.04	172	0.14	-124.2	7.36	0.05
1400	16.15	3.02	11.00	172	0.11	-119.2	7.36	0.05
1410	17.6	3.02	10.98	172	0.10	-115.7	7.36	0.00

Comments: after opening well, PID = 0 ppm; B15 PID reading over purge 1/2 = 0.00 ppm
Clear, no odor, no sediment

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1430	VOC's EPA METHOD 8260	N	40ml glass	3	HCl
	on COC				

Note sample time, parameters, duplicates, field blanks, etc.

Groundwater Monitoring Well Sampling Form

1 of 1

11/14/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-FS-OW-055

Water to Water: 9.53 (ft) to C

Project #: 5158

Total Depth: 31.7 (ft) to G

Measuring

Well Diameter: 1.25 (inches)

Point:

Length of 10-30 ft bgs

ESS Personnel: MAB, JLC, IB

Water Column: 20 (ft)

(initials)

Well Volume: 2068 (gals)

Pump inlet 20 ft bgs

$1.25 \text{ in} = 0.067$

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469)

8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu\text{S/cm}$)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
9:30		start						
9:40	0.89.54	9.54	13.90	150	1.77	79.9	5.19	
9:45	1.2	9.54	14.15	116	1.39	82.4	5.15	
9:51	1.68	9.53	14.29	103	1.24	76.3	5.14	7.6
9:56	2	9.53	14.32	100	1.15	82.1	5.13	7.1
10:00	2.3	9.53	14.22	101	1.13	83.0	5.13	4.2
10:10	4.5	9.53	13.21	100	1.11	87.2	5.13	2.4
10:20	6.7	9.53	13.51	98	1.01	93.9	5.12	2.4
10:30	8.9	9.53	13.26	97	0.91	97.9	5.12	0.9
10:40	11.1	9.54	13.47	97	0.81	96.7	5.11	3.1
10:50	13.3	9.53	13.66	96	0.76	102.7	5.11	0.55
11:00	15.5	9.53	13.69	97	0.73	107.3	5.10	0
11:10	17.7	9.53	13.51	96	0.71	105.5	5.10	0.05

Comments:

after opening well, PH = 0.0 ppm, 1015-PH in purge water bucket = 0.0 ppm
 Clear no odor, no sediment
 checked pH w/ other YSI & it agreed w/ the low pH, all other
 Note recharge conditions, color, odor, sediment content, etc. Parameters agreed as well. (w/in 10%)

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
11:00	VOC's EPA METHOD 8260	N	2oz 4oz glass	3	HCl
	of Coc.				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

11/15/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-FS-01-041

Distance to Water: 4.41 (ft) TOC
 Total Depth: 67.8 (ft) TOC
 Well Diameter: 1.25 (inches)
 Length of Screen: 32.5 - 67.8 (ft) egs
 Water Column Screen: 35.3 (ft) egs
 Well Volume: 4.7 (gals)

Project #: 1158
 Measuring Point: JLC/LBA
 ESS Personnel (initials): (LBA)

Pump inlet ~ 4 ft ft egs $1.25 \text{ in} = 0.067$

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu\text{S/cm}$)	D.O. (mg/l)	ORP (eV)	pH	Turb. (NTUs)
9:30		start						
9:40	1.3	4.41	11.70	818	2.00	-151.9	6.92	1.3
9:45	↑ flow rate to 140 ml/min	4.41	11.48	772	1.70	-156.2	6.89	2.2
9:50	2.7	4.41	11.20	692	1.11	-161.0	6.88	1.7
9:54	↑ flow rate to 160 ml/min	4.42	11.11	688	1.04	-161.8	6.87	0.75
10:00	4.2	4.41	11.19	682	1.06	-166.2	6.87	1.2
10:10	6.0	4.41	11.19	665	1.24	-166.5	6.87	0.20
10:20	2.8	4.41	11.11	665	1.51	-168.0	6.88	0.35
10:30	9.6	4.41	11.10	661	2.20	-169.1	6.87	0.35
10:40	11.4	4.41	11.08	661	2.58	-169.8	6.88	0.25
10:50	13.2	4.41	11.12	657	3.08	-171.0	6.88	0.30
10:55	emptied flow cell bc air bubbles or do probe that I couldn't get off							
11:10	16.6	4.41	11.09	660	3.67	-165.6	6.87	0.45
11:20	18.4	4.40	11.15	658	3.81	-169.1	6.88	0.20
11:30	20.2	4.41	11.05	659	3.88	-170.2	6.88	0.30
11:40	22	4.41	11.40	658	4.26	-172.0	6.88	0.20

Comments: slight odor (rotten egg smell) - clear
 PID = 0.0 ppm after opening well; PID over large H₂O bucket = 0.0 ppm
 f/psi = 110/45

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
11/15	VOC's EPA METHOD 8260	N	40ml glass	3	HCL
	COC				

Note sample time, parameters, duplicates, field blanks, etc.

70
 0.067

 4.90
 42.0 x 11.90



Groundwater Monitoring Well Sampling Form

2 of 2

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-FS-00-041

_____ (ft.)
 Total Depth: _____ (ft.)
 Well Diameter: _____ (inches)
 Length of _____
 Water Column: _____ (ft.)
 Well Volume: _____ (gals)

Project #: _____
 Measuring _____
 Point: _____
 ESS Personnel _____
 (initials)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469)
 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l) (mg/l)	ORP (eV)	pH	Turb. (NTUs)	
1150	23.8	4.41	11.48	660	4.51	-172.3	6.85		
- using other YSI instrument b/c DO is suspicious + Downhole DO meter reads 0.68 mg/L									
1230	31	4.41	11.29	760	0.19	-138.4	6.84	0.05	
1240	32.8		11.40	683	0.06	-163.6	6.85		
- something wrong w/ this DO b/c conductivity keeps flipping bet. #81 w/ each pulse of the pump indicator for (→) other original probe back in flow cell after checking cable									
1305	37.3		11.43	702	1.16	-173.7	6.90		
1320	40								
v slow rate to 100 mL/min to see if it helps w/ air bubbles because DO keeps increasing again									
1350	43	4.41	12.17	653	2.81	-171.2	6.84	0.6	
1400	44	4.41	11.93	651	2.73	-174.6	6.86	0.6	
1410	45	4.41	11.93	651	2.66	-177.0	6.86	0.6	

Comments:
 1350: DO very stable w/ both instruments although downhole
 DO meter reads a lot lower
 * Couldn't get downhole DO meter quite to top of pump -
 only 1/2 way down

Note: recharge conditions, color, odor, sediment content, etc.

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1415	VOC's EPA METHOD 8260				
	on coc				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

11/16/01 1 of 1

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: OW-45

Depth to Water: 3.42' TOC (ft)
 Total Depth: 22.37' TOC (ft)
 Well Diameter: 1.25" (inches)
 Length of ~~Water Column~~ ^{set screen} NO NO 5 (ft)
 Well Volume: 5 * 0.067 * 2 = 0.67 gal (gals)

Project #: _____
 Measuring _____
 Point: _____
 ESS Personnel: MDB JLC LB
 (initials)

pump inlet = 17.5' bgs
 Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

10 * 0.067 = 0.67 gal

Flow rate = 100 ml/min
 settings: refill = 2
 discharge = 1
 throttle = 60

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C) ± 3%	Sp. Cond. (units: $\mu S/cm$) ± 3%	D.O. (mg/l) (mg/l) ± 10%	ORP (mV) ± 10 mV	pH ± 0.1	Turb. (NTUs) 10% or <1
1110		3.43	12.71	114	1.57	126.2	5.69	0.80
1115	0.5	3.44	12.43	112	1.17	129.3	5.67	0.35
1120	1.0	3.44	12.36	110	1.11	134.9	5.65	0.30
1125	1.5	3.44	12.33	109	1.04	143.8	5.62	0.05
1130	2.0	3.44	12.28	108	1.00	146.6	5.60	0.00
1140	3.0	3.44	12.45	106	0.86	155.1	5.56	0.00
1150	4.0	3.44	12.05	106	0.82	162.0	5.55	0.00
1200	5.0	3.44	11.88	105	0.79	165.2	5.55	0.00
1210	6.0	3.44	12.28	105	0.83	172.0	5.51	0.00

Comments:
 FID = 0 when cap first removed and again when purge bucket checked @ 1200
 total volume removed = 2 gal
 No odor clear

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1230	VOC's EPA METHOD 8260	Y	40 ml glass VOA	6	HCl

Note sample time, parameters, duplicates, field blanks, etc.

Temperature variations due to strength of sun and high temperatures, before white shade was placed over flow cell



Groundwater Monitoring Well Sampling Form

11/16/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-ES-OW-046

Water to Water: 337 (ft) to C
 Total Depth: 31.75 (ft) to C
 Well Diameter: 1.25 (inches)
 Length of ~~set~~ screen: 25-30 # kg
 Water Column: 5 (ft)
 Well Volume: 0.67 (gals)

Project #: 5158
 Measuring:
 Point:
 ESS Personnel: L.B. JLC, MDD
 (Initials)

Control box:
 Refill: 2.0 sec
 Discharge: 1.0 sec
 ft/psi: 80/35

Pump inlet: 27.5
 Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1345		start	pumping	cit	100	ml/min		
1355	1.0	3.39	12.45	1275	1.19	+6.0	6.07	2.8
1400	1.5	3.37	11.65	126	0.82	-18.3	6.00	7.0
1405	2.0	3.37	11.55	130	0.73	-15.3	5.99	9.5
1410	2.5	3.37	11.28	123	0.63	-12.4	5.99	8.1
1420	3.5	3.38	11.28	126	0.47	-11.5	6.00	7.4
1430	4.5	3.38	11.29	116	0.41	-10.4	6.00	4.9
1440	5.5	3.38	11.35	115	0.38	-9.1	6.01	1.5
1450	6.5	3.38	11.24	115	0.35	-8.4	6.01	2.9
1500	7.5	3.38	11.14	115	0.33	-8.8	6.03	2.2
1510	8.5	3.38	11.11	114	0.35	-9.5	6.04	2.6

Comments:

D.N = DD per after opening well
 Clear no odor, no sediment but brown particles here + there

Note, recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.	
1530	VOC's EPA METHOD	8260	N	40ml glass	3	HCL

Note sample time, parameters, duplicates, field blanks, etc.

resolution ±2%

Groundwater Monitoring Well Sampling Form

11/19/01

1021

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: DW-38

Depth to Water: 7.91 (ft) to c

Project #: A365-001.3

Total Depth: 16.71 TOC (ft)

Measuring

Well Diameter: 1.25 (inches)

Point:

Length of ^{sat} screen: 5 (ft)

ESS Personnel: JLC, MDB, LB

Water Column: 0.67 gal (gals)

(initials)

Well Volume: 0.67 gal (gals)

Pump inlet

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469)

8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu S/cm$)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
9:39	~0.45	7.91	12.37	70	1.65	92.5	6.14	
9:49	~1.55	7.91	12.30	76	1.87	105.9	6.12	3.0
9:55	~2.2	7.91	12.25	57	0.92	105.6	6.04	0.95
10:00	~2.8	7.91	12.23	57	0.73	107.6	6.03	0.75
10:10	~3.9	7.91	12.20	56	0.49	110.0	6.02	1.2
10:20	~5.0	7.91	12.22	57	0.59	112.0	6.02	1.1
10:30	~6.2	7.91	12.26	57	0.58	114.1	6.02	0.35
10:40	~7.3	7.91	12.36	57	0.59 ^{sp}	116.2	6.02	0.15
10:50	~8.4	7.91	12.40	57	0.59	119.5	6.02	0.10
11:00	~9.5	7.91	12.34	57	0.56	122.7	6.02	0.30
11:10	~10.7	7.91	12.40	57	0.54	123.6	6.03	0.85

Comments: Started pumping at 9:35 at 11.2 ml/min after opening well PID = 0.0 ppm; 1040 - PID = 0.0 for ~~dist~~ range clear, no odor, no sediment water in bucket

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.	
11:00	VOC's EPA METHOD	8260	N	40ml glass	3	HCl
	MMA parameters:	NO ₃		40ml glass	1	H ₂ SO ₄
		NO ₂		40ml glass	1	none
		TOC		120ml amber glass	1	H ₂ SO ₄

Note sample time, parameters, duplicates, field blanks, etc.

- * field filtered
- w/ waterline 0.45 micron & disposable, dedicated
- * MicroSeps analysis all others - Lancaster
- * Diss. Fe, Mn
- Total Fe, Mn
- S₂
- Alk, Cl, SO₄
- X CO₂, methane, ethane, ethene
- 1x 500ml plastic
- 250ml plastic
- 500ml glass
- 1L plastic
- 40ml amber glass
- 1
- 2
- 1
- 1
- 2
- HNO₃
- HNO₃
- NaOH/ZnAc
- none
- none

Groundwater Monitoring Well Sampling Form

1 of 3

11/19/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-ES-0W-036

Water to Water: 7.86 (ft) TOE

Project #: 5158

Total Depth: 59.5 (ft) 695

Measuring

Well Diameter: 1.25 (inches)

Point:

Length of

ESS Personnel MDR LB

Water Column: 3 ? (ft) fractures at 19' bgs - only information we have

(initials)

Well Volume: 0.5? (gals)

pump inlet 19 ft bgs

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469) 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1420								
1435	0.45	8.10	13.66	336	3.27	58.1	8.12	0.90
1440	0.6	8.43	13.76	250	3.14	62.0	8.11	0.40
1450	0.9	8.67	12.13	212	1.23	60	8.18	0.60
1500	1.2	8.71	12.01	212	1.04	54.4	8.21	0.85
1510	1.5	8.73	11.89	210	1.07	46.2	8.26	0.35
1520	1.8	8.72	11.81	209	1.07	29.5	8.31	0.05
1530	2.1	8.73	11.71	209	1.08	14.0	8.35	0.10
1540	2.4	8.73	11.64	209	1.13	0.1	8.38	0.10
1550	2.7	8.74	11.56	210	0.95	-9.4	8.41	0.10
1600	3.0	8.74	11.52	209	0.99	-18.3	8.43	0.05
1610	3.3	8.75	11.44	210	0.86	-29.2	8.45	0.0
1620	3.6	8.75	11.39	209	0.98	-39.8	8.47	0.05
1630	3.9	8.75	11.34	209	1.01	-48.9	8.48	0.00
1640	4.2	8.75	11.32	209	0.97	-54.8	8.48	0.25

Comments: after opening well cap PIA = 0.0ppm clear, no odor no sediment PIA of bucket water = 0.0 ppm SHUT PUMP OFF - CAN'T SAMPLE

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Presrv.
1240	VOC's EPA METHOD 8260	N	40ml Glass	3	4C

See GW-38 sheet or field notes for MNA parameters

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

11/20/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-FLOW-036

Distance to Water: 7.99 (ft.)
 Total Depth: _____ (ft.)
 Well Diameter: _____ (inches)
 Length of Water Column: _____ (ft.)
 Well Volume: _____ (gals)

Project #: _____
 Measuring Point: _____
 ESS Personnel (initials): _____

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: C)	Sp. Cond. (units: $\mu S/cm$)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
8:32	start	pumping	oil	< 30	ml/min	lowest possible		
8:45	0.2	8.01	02	slowly	filling	up flow cell		
9:05	0.8	8.12						
9:18	1.1	8.13	9.24	303	3.72	70.7	8.35	0.4
9:25	1.3	8.16	9.56	271	3.33	71.9	8.38	0.75
9:30	1.4	8.18	9.49	244	3.08	70.7	8.38	0.35
9:40	1.7	8.19	9.50	228	3.04	70.7	8.38	0.30
9:50	2.0	8.20	9.47	213	2.67	67.7	8.41	0.5
10:00	2.2	8.21	9.56	212	2.72	61.8	8.41	0.45
10:10	2.5	8.21	9.51	212	2.48	61.1	8.41	0.35
10:20	2.8	8.18	9.44	205	2.19	55.4	8.43	0.15
10:30	3.0	8.18	9.43	205	2.19	49.7	8.43	0.45
10:40	3.2	8.18	9.44	204	2.26	46.7	8.44	
10:50	3.5	8.17	9.40	204	2.36	45.1	8.44	
11:00	3.7	8.19	9.40	205	2.34	42.1	8.44	0.50
11:10	4.0	8.19	9.47	204	2.08	41.7	8.43	

Comments:

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
	VOC's EPA METHOD 8260				

Note sample time, parameters, duplicates, field blanks, etc.

Groundwater Monitoring Well Sampling Form

4/20/9 3.0.3

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: OW-36

Depth to Water: _____ (ft)

Project #: _____

Total Depth: _____ (ft)

Measuring _____

Well Diameter: _____ (inches)

Point: _____

Length of _____

ESS Personnel _____

Water Column: _____ (ft)

(initials)

Well Volume: _____ (gals)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469)
8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: $\mu S/cm$)	D.O. (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1120	4.2	8.19	9.51	204	2.05	41.3	8.43	0.4
1130	4.5	8.19	9.51	204	1.94	39.9	8.44	0.49
1140	4.7	8.19	9.55	203	1.80	36.6	8.45	0.26
1150	5.0	8.19	9.59	203	1.99	32.4	8.47	0.16
1200	5.2	8.19	9.61	204	2.16	34.6	8.48	0.00
1210	5.5	8.19	9.65	203	2.23	30.0	8.48	0.26
1220	5.7	8.21	9.72	203	2.24	24.9	8.49	0.09
1230	6.0	8.20	9.84	203	2.22	21.4	8.49	0.05

Comments: _____

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
	VOC's EPA METHOD 8260				

Note sample time, parameters, duplicates, field blanks, etc.



978

10.1

372-3432

Groundwater Monitoring Well Sampling Form

12/3/09

Project Name: DAVIS SUPERFUND

A365-001.3

Well #:

GW-FS-052

Depth to Water:

11.12

(ft) TC

Project #:

51158

Total Depth:

32.5

(ft) bg

Measuring

Well Diameter:

1.25

(inches)

Point:

Length of Sat Screen:

7.5 to 32.5 bg

ESS Personnel:

LB, MNA

Water Column:

25

(ft)

(Initials)

Well Volume:

1.65

(gals)

pump inlet 20 ft bg 1.25 in = 0.067

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1340		start			150			
1355	2.25	11.14	12.99	250	1.36	-135.4	6.27	7.2
1400	3.0	11.13	12.94	248	0.91	-143.1	6.25	5.0
1405	3.75	11.13	12.67	261	0.70	-153.4	6.25	3.0
1415	5.25	11.13	12.95	270	0.53	-163.5	6.24	2.2
1425	6.75	11.13	12.35	268	0.48	-169.3	6.24	0.95
1435	8.25	11.13	12.31	268	0.44	-173.4	6.24	0.37
1445	9.75	11.13	12.30	266	0.43	-176.5	6.24	0.15

Comments:

clear, moderate odor

pH after opening well = 0.0 ppm ; over purge 1/2 bucket = 0.0 ppm (1410)

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dur. (y/n)	Container Type	# of Contain.	Preserv.
1400	VOC's EPA METHOD 8260	N	40ml glass	3	HCl
	on cce * MNA				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

101.1
12/4/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: GW-ES-OW-086

Depth to Water: 0.0 (ft) top (artesian)

Project #: _____

Total Depth: ~96 (ft) bgs

Measuring _____

Well Diameter: 1.25 (inches)

Point: _____

Length of Water Column: ~20 (ft)

ESS Personnel LB (initials)

Well Volume: ~207 (gals)
Pump inlet ~30 ft bgs (couldn't go lower)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Approximate Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l)	ORP (mV)	pH	Turb. (NTUs)
10:20								
Start sampling at 1:30 ml/min								
10:30	1.3	0.0	12.04	251	5.54	50.1	6.98	105
10:35	1.95		12.20	112	5.18	49.3	6.82	101
10:40	2.6		11.71	102	4.88	39.1	6.74	98.4
10:50	3.9		11.69	101	4.62	28.9	6.69	90
11:00	5.2		11.60	101	4.48	26.4	6.69	81.1
11:10	6.5		11.50	101	4.39	23.9	6.68	78
11:20	7.8		11.63	101	4.65	22.1	6.71	89.9
11:30	9.1		12.24	101	4.38	20.4	6.69	80.3
11:40	10.4		12.65	101	4.19	19.1	6.69	67.7
12:00	11.7		13.50	101	4.07	18.9	6.68	92.0
12:10	13.0		15.13	101	4.29	18.9	6.69	65.7
12:20	14.3		14.30	101	4.18	21.2	6.68	70.8
12:30	15.6		13.77	101	4.05	20.9	6.67	75.2
12:40	16.9		13.49	101	3.96	18.8	6.68	72.1
12:50	18.2		13.49	101	3.96	20.6	6.68	75

Doc
rel
to
met

2.0
1.9
1.9
1.9
1.9
2.1

Comments:
lots of small orange/brown particles in star
PID = 0.0 ppm at top of casing after opening well, 12:00 = 0.0 ppm
Control box settings: refill = 2.0 sec discharge = 1.0 sec, 4/psi

Note recharge conditions, color, odor, sediment content, etc. Could only get downhole 125/50
no meter down ~10ft

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
12:00	VOC's EPA METHOD 8260	N	50ml glass	3	HC1
	MNAs				

Note sample time, parameters, duplicates, field blanks, etc.

0.007
40
26.8X



3081

Groundwater Monitoring Well Sampling Form

12/4/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: OW-85

Depth to Water: 7.98' (ft) to c
Total Depth: ~95' (ft) logs
Well Diameter: 6" (inches)
Length of Jet Screen: MISS (ft)
Water Column: MISS (ft)
Well Volume: 21 (gals)
+ twice length of tubing pump inlet = 70' by 5

Project #: A365-001.3
Measuring:
Point:
ESS Personnel: JLC/LW (initials)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.633), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l)	ORP (mV)	pH	Turb. (NTUs)
13:10		started						
13:20	1.5	8.50	11.87	150	1.91	67.7	8.27	70
13:25	2.25	8.16	11.58	126	1.36	-12.8	8.30	65
13:30	3.0	8.18	11.37	124	1.64	-76.6	8.32	95
13:40	4.5	8.19	11.34	123	1.37	-126.3	8.35	85
13:50	6.0	8.19	11.41	123	1.31	-134.0	8.36	85
14:00	8.75	8.19	11.42	123	1.33	-144.9	8.40	50
14:10	9.0	8.18	11.43	123	1.31	-146.0	8.45	55
14:20	10.5	8.19	11.38	124	1.24	-154.0	8.42	55

Comments: P.D. reading after opening well = 0.0 ppm; 1400 reading over purge H₂O = 0 ppm
Small sediment particles no odor
Control box settings: refill: 8.0 sec, Discharge: 3.0 sec

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.	
	VOC's EPA METHOD	8260	N	40ml glass	3	HC1

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

12/3/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: OW-83

Depth to Water: 11.31 (ft) to

Project #: 51158

Total Depth: 14 (ft) bgs

Measuring

Well Diameter: 2 (inches)

Point:

Length of 3rd Screen: 7-12

ESS Personnel: LW, LB

Water Column: 5 (ft)

(initials)

Well Volume: 0.67 (gals)

Pump inlet: ~12 ft bgs because of water level

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.633), 6-inch (1.469)

3-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1415		Start			240	126.1	5.13	2.4
1422	1.7	11.33	13.85	43	0.98	128.9	5.06	1.8
1425	2.5	11.33	13.23	42	0.75	129.0	5.04	0.95
1430	3.7	11.33	12.79	40	0.54	124.1	5.03	0.45
1440	6.1	11.33	12.46	40	0.52	121.3	5.03	0.00
1450	8.5	11.33	12.40	40	0.54	118.4	5.03	0.00
1500	10.9	11.33	12.36	41				

Comments:
 clear no odor
 PIA after opening well = 0.0 ppm ; PIA in purge H₂O bucket = 0.0 at 1420 and 1450

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1500	VOC's EPA METHOD 8260	N	40 ml glass	3	HCl

Note sample time, parameters, duplicates, field blanks, etc.

240
1690



Groundwater Monitoring Well Sampling Form

12/5/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: OW-84

Water to Water: 10.95 (ft) to 0.0

Project #: 51658

Total Depth: 90' (ft) to 0.0

Measuring

Well Diameter: 2" (inches)

Point:

Length of Sat screen: 10' ~~10'~~

ESS Personnel: LW/LB

Water Column: 80-90' (ft) to 0.0

(initials)

Well Volume: 3.3 (gals)

Pump inlet: 85 ft to 0.0

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1045		start pumping at			150 ml/min			
1104	~3	11.09	13.30	147	3.82	88.3	6.20	
		- had to stop to subtech out fittings w/ HWB + JLC						
1143	3	resume pumping						
1150	~4	11.10	12.54	64	3.99	88.0	5.95	11
1200	5.5	11.10	12.43	64	3.62	91.4	5.94	12
1210	7.0	11.11	12.98	64	3.94	91.5	5.95	15
1220	8.5	11.11	12.39	64	3.65	93.7	5.94	13
1230	10.0	11.11	12.60	64	3.65	96.6	5.93	11
1240	11.5	11.10	12.49	63	3.65	99.1	5.93	11
1250	13.0	11.10	12.36	64	3.75	100.1	5.93	10

Comments: clear no odor
 PID after opening well = 0.0 ppm ; 1150 reading over purge H₂O = 0.0
 1220 reading over purge H₂O = 0.0

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1300	VOC's EPA METHOD 8260	N	40ml glass	3	HCl

Note sample time, parameters, duplicates, field blanks, etc.



10/1

Groundwater Monitoring Well Sampling Form

12/5/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: OW-81

Water to Water: 7.94 (ft.) to c

Total Depth: 22 (ft.) bgs

Well Diameter: 2" (inches)

Length of screen: 0-21 ft bgs

Water Column: 10 ft. (ft.)

Well Volume: $10 \times 2 \times 0.163 = \sim 2$ (gals)

Project #: A365-001.3

Measuring

Point:

ESS Personnel: JLC/MDB (initials)

Pump inlet = 16 ft bgs

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: gal)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µs/cm)	D.O. (mg/l)	ORP (eV)	pH	Turb. (NTUs)
1230								
started pumping at 150 ml/min								
1240		8.40	11.79	32	8.30	153.0	5.35	33
1245		8.42	11.76	32	8.12	175.4	5.32	18
changed set up and cleaned probe								
1255		8.40	11.66	32	8.21	187.0	5.32	7.8
1305			11.67	32	8.05	191.1	5.31	
1315	5 gal		11.66	31	7.87	193.9	5.31	
specific conductivity is pulsing every 4 seconds -> indicative of hole in DO probe membrane -> changed membrane - JLC								
- Repeated efforts to fix pulsing of conductivity by replacing D.O. meter have failed Lower downhole D.O. limit well to collect D.O. readings - MDB								
1350	~8	8.43	11.62	34	5.04	204.3	5.25	0.15
1400	~9	8.47	11.63	32	4.73	208.3	5.24	0.00
1410	~10	8.47	11.68	32	4.62	212.3	5.25	0.00
1420	~11	8.47	11.60	32	4.47	215.0	5.24	0.00

Comments:

DO from YSI reads 6.20 @ 1420

clear no odor

POD after opening well = 0.0 ppm ; 1320: purge H₂O = 0.0 ppm

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1400	VOC's EPA METHOD	8260	N	40ml glass	3
	MWA's				

Note sample time, parameters, duplicates, field blanks, etc.

→ according to correct time
 all times above were taken from a watch that was 15 minutes fast

5



Groundwater Monitoring Well Sampling Form

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: 96(0)

Depth to Water: 7.13 (ft) TOC
 Total Depth: 14' (ft) by S
 Well Diameter: 2" (inches)
 Length of screen = 10 ft
 Water Column: 10 x 2 x 0.163 = 3.2 (ft)
 Well Volume: ↓ (gals)

Project #: _____
 Measuring _____
 Point: _____
 ESS Personnel: JC/LW
 (initials)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units)	D.T.W. (feet)	Temp. (units)	Sp. Cond. (units)	D.O. (mg/l)	ORP (eV)	pH	Turb. (NTUs)
12:30	start pumping							
	Set well depth @ 15', psi ≈ 10 refill = 40s discharge = 35s flow rate = 40 ml/min							
12:58	hook up flow thru cell, D.T.W. = 7.12							
1301		7.19	12.55	58	9.83	133.8	5.69	6.4
1306		7.19	12.69	43	9.71	142.1	5.59	6.0
1311		7.19	12.57	45	9.64	135.0	5.55	11
1321		7.21	13.38	38	9.57	141.9	5.56	5.9
1331		7.21	12.94	37	9.52	154.1	5.52	9.9
changed out barb fitting @ bottom of flow thru cell to place a valved fitting in to facilitate turbidity sampling. emptied & refilled flow cell in the process								
1341		7.21	13.62	20	10.25	159.5	5.60	14.6
flow cell not completely full @ 1341 → specific conductivity may be off lowered down hole DO meter → note: down hole DO is 2° less than in flow cell, which are recorded								
1351	~1.7 gal	7.21	12.93	37	6.13	166.3	5.54	4.3
1401		7.25**	12.98	37	6.19	169.6	5.54	2.9
1411	~2.0 gal	7.25**	12.94	38	6.25	173.0	5.53	2.4

Comments: PID reading @ well opening 0.00 ppm * depth to water taken from innermost casing
 water is fairly clear, no discernible odor

PID in bucket is 0.0 ppm flow rate @ 1400 = 45 ml
 Note recharge conditions, color, odor, sediment content, etc. ** reading complicated by presence of DO meter

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
16:00	VOC's EPA METHOD 8260	N	40 ml VOA	3	ACI

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

Project Name: DAVIS SUPERFUND
A365-001.3 Well #: OW-96(0)
 Depth to Water: _____ (ft)
 Total Depth: 14' (ft)
 Well Diameter: 2" (inches)
 Length of Screen: 10 ft
 Water Column: _____ (ft)
 Well Volume: to be purged = 3.2 (gals)
 Project #: _____
 Measuring Point: _____
 ESS Personnel: JC/LW
 (initials)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units:)	D.T.W. (feet)	Temp. (units:)	Sp. Cond. (units:)	D.O. (mg/l) (mg/l)	ORP (eV)	pH	Turb. (NTUs)
1421		7.21	12.70	37	6.20	177.9	5.53	2.3
1431		7.25	12.75	37	6.26	177.0	5.53	1.5
1441	~2.3 gal	7.26	12.64	37	6.22	180.3	5.54	0.95
1451		7.26	12.60	37	6.23	183.3	5.54	0.95
1501	~2.5 gal	7.27	12.46	37	6.22	185.7	5.54	0.75
<i>Stabilization parameters reached -> just waiting to meet req. purg volume</i>								
1521		7.28	12.27	36	6.24	189.7	5.54	0.35
1531		7.28	12.26	36	6.29	191.4	5.54	0.30
1541		7.28	12.18	36	6.27	191.7	5.54	0.30
<i>final purg volume 3.5 gallons</i>								

Comments:

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
16:00	VOC's EPA METHOD 8260	N	40 ml VOA	3	HCl

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

12/6/01

1 of 1

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: OW-950

Depth to Water: 21.24 (ft)

Project #: 51158

Total Depth: 23.54 (ft)

Measuring

Well Diameter: _____ (inches)

Point:

Length of Sat Screen: 8.5 - 23.5 (ft)

ESS Personnel: MAB, LB

Well Volume: 0.65 (gals)

(initials)

pump inlet ~ 22.54' bgs

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1450		started pumping at 40 ml/min						
1500	0.4	21.55	14.29	205	10.07	110.0	5.71	35
1505	0.6	21.70	13.72	29	9.91	106.0	5.38	30
1510	0.8	21.74	13.23	67	10.01	107.2	5.28	20
1515	1.0	↓ flow rate to			30 ml/min			
1520	1.15	21.78	13.04	38	10.03	108.3	5.23	7.2
1530	1.45	21.81	13.00	37	10.04	110.1	5.21	7.0
1540	1.6	21.85	12.90	37	10.05	116.2	5.21	6.6
<u>Downhole DO meter (mg/L)</u>								
		1520	7.00					
		1530	6.97					
		1540	6.87					

150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0

Comments:

PID after opening well = 90 ppm; 15:15 - PID reading over
purge water = 0.0 ppm
clearly, no odor using larger (PEA) control box

Note recharge conditions, color, odor, sediment content, etc.

refill = 5.0
discharge = 2.0
psi/ft = 5/25

1530 ↓ flow rate to 15 ml/min

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1500	VOC's EPA METHOD 8260	N	40ml glass	3	HCl
	MNAs				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

12/6/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: OW-82

Water to Water: 6.74 (ft.)

Project #: A365-001.3

Total Depth: 200 (ft.)

Measuring

Well Diameter: 6 (inches)

Point:

Length of ^{open borehole} 36.75 - 200 = 163.25 ft (at 90' ^{well to 1.5'} of fractures)

ESS Personnel JLC / MDB

Water Column: (ft)

(initials)

Well Volume: 41 (gals)

pump inlet = 91 ft bgs - 0.25 in. tubing - 90' length

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l)	ORP (eV)	pH	Turb. (NTUs)
10:30	1.4	6.92	12.49	177	2.50	32.6	8.25	70
10:33	1.6	6.92	12.49	130	2.39	31.9	8.31	60
10:36	1.8	6.93	12.74	120	2.30	31.9	8.33	60
10:40	2.1	6.95	12.89	113	2.23	26.9	8.36	60
10:50	2.8	6.95	12.61	110	1.98	22.1	8.39	60
11:00	3.5	6.95	12.38	108	1.77	18.8	8.42	55
11:0	4.2	6.91		108	1.87	21.5	No Flow	
⇒ moisture in air hose from compressor → drained								
11:19	resumed pumping at 90 sec / 30 sec - 37 psi / 80 ft ⇒ 100 ml/min							
11:30	4.5	6.88	13.08	108	2.29	19.6	8.41	65
11:40	5.5	6.90	11.84	108	1.66	18.4	8.44	50
11:50	6.5	6.93	12.52	108	1.06	18.6	8.43	55
12:00	7.5	6.94	12.54	108	1.05	14.3	8.43	60
12:10	8.5	6.94	12.63	109	1.06	18.3	8.42	55

Comments:

10: Pumping @ 70 ml/min. Recharge 3.5 sec + discharge 9.0 sec. Throttle set @ 45 PSI and 90 ft. PID after opening well = 0.0 ppm
 tiny brown particles, no odor. PID over surge water at 11:40 = 0.0 ppm
 Note, recharge conditions, color, odor, sediment content, etc. 10:50 changed refill from 3.5 to 3.0 sec ⇒ 67 ml/min

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
12:30	VOC's EPA METHOD 8260	N	40ml glass	3	HCl
	MAIAs - one of the dissolved gases containers broke				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

12/7/01

Project Name: DAVIS SUPERFUND

A365-001.3

Well #: OW-95B

Depth to Water: 30.21 pr. / 19.41 post (ft) +0.0

Total Depth: 49' bgs pump

Project #: 51158

Well Diameter: 2 (inches)

Measuring Point:

Length of Sat Screen: 29-49' bgs

ESS Personnel: L.B. MAB

Water Column: 30 (ft)

(initials)

Well Volume: pump inlet (gals)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

bobbing
up + down
↓
down hole
80
ngll

Parameter Monitoring Results

Time	Vol. Purged (units: L)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µS/cm)	D.O. (mg/l) (mg/l)	ORP (mV)	pH	Turb. (NTUs)
1000		Started	pump	at	50 ml/min			
1020	1.0	20.20			Checked up to flow cell			
1026	↓ Accurate 25ml/min	20.85	11.05	210	8.05	51.8	9.77	
1030	1.35	21.50	10.93	169	6.41	53.2	9.97	18
1040	1.6	21.92	11.20	151	5.90	41.1	10.03	20
1050	1.85	22.45	11.28	149	5.86	30.5	10.04	19
1100	2.1	23.05	11.47	147	5.79	24.3	10.04	18
1110	2.35	23.38	11.34	144	5.77	22.1	10.04	13
1120	2.6	23.80	11.32	144	5.83	14.0	10.03	13
1130	2.85	24.25	11.50	144	5.86	5.4	10.03	8
1140	3.1	24.83	11.98	144	5.78	7.6	10.01	8.7
1150	3.35	24.92	11.89	144	5.89	9.2	10.01	7.9
1200	3.6	24.64	11.54	145	6.04	6.8	10.01	8.4
1210	3.85	24.83	11.40	143	5.99	8.1	10.02	7.2
1220	4.1	25.17	11.44	143	5.99	7.5	10.02	7.1
1230	4.35	25.44	11.50	143	5.96	2.0	10.01	6.6

~6
~4.5
~4.1
~4
~2

Comments: PID reading after opening well = 0.0 at 11:12, PID reading over clear, no odor. Refill: 28 sec, Discharge: 2 sec ⇒ Flowrate ≈ 25 ml/min. Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.	
1230	VOC's EPA METHOD	8260	✓	40ml	6	HCl
	MNAs					

Note sample time, parameters, duplicates, field blanks, etc.

* before today. Downhole do meter just sat on top of pump but it should be bobbed up + down ~ 2 inches/second so this is being done after after all readings including turbidity.

Groundwater Monitoring Well Sampling Form

Project Name: DAVIS SUPERFUND

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A365-001.3

Well #: OW-96(R)

Depth to Water: 5.64 (ft)

Project #: A365-001.3

Total Depth: 37.5' (ft)

Measuring

Well Diameter: 2" (inches)

Point:

Length of screen: 17.5-37.5' = 20'

ESS Personnel: JC/LW

Water Column: _____ (ft)

(initials)

Well Volume: 20' x 2" x 0.163 = 6.4 (gals)

or by tube volume = 1.6 ~~gals~~ ft³ = 12.2 gal

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units)	D.T.W. (feet)	Temp. (units)	Sp. Cond. (units)	D.O. (mg/l) (mg/l)	ORP (eV)	pH	Turb. (NTUs)
1030	began to experiment w/ pump settings to establish approximate flow rate							
1040	turned pump off due to draw down to 6.00' → waiting to see recharge							
1045	begin pumping again							
1110	switch to draw down & recharge method of sampling → begin to fill flow cell							
1125	flow cell full → adjusting pump settings → flow rate = ~30 ml/min							
1135		6.82	11.46	128	5.55	77.7	7.41	12
1140		7.00	11.48	125	4.86	79.2	7.41	11
1145		7.12	11.50	121	4.59	79.3	7.42	10
	increased flow rate → 432-37 ml/min							
1155		7.20	11.46	114	4.24	81.4	7.41	10
1205		7.25	11.50	112	4.15	82.2	7.41	8.5
1215		7.35	11.58	110	4.18	82.9	7.41	8.1
1231		7.38	11.78	105	4.29	82.2	7.41	7.1
1235		7.35	11.85	105	4.07*	82.8	7.39	6.8

* inserted down hole TD meter @ 1233 → readings now recorded from that meter

Comments:
 PTD reading = 0 at opening of well
 0 at three other lines

Note: recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1300	VOC's EPA METHOD 8260	N	40ml VOA	3	HCl

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

Project Name: DAVIS SUPERFUND
A365-001.3 Well #: 0W-46(R)
 Project #: A365-001.3
 Measuring Point: _____
 ESS Personnel: JC/LW
 (initials)

Depth to Water: 5.64 (ft)
 Total Depth: 37.5 (ft)
 Well Diameter: 2" (inches)
 Length of Water Column: 20 ft (ft)
 Well Volume: ~0.2 (gals)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units:)	D.T.W. (feet)	Temp. (units:)	Sp. Cond. (units:)	D.O. (mg/l) (mg/l)	ORP (eV)	pH	Turb. (NTUs)
1245		7.30	12.04	163	4.03	82.3	7.40	6.8
1255		7.23	12.05	162	4.23	83.3	7.39	6.2
at time of last reading		(1255)	DO on YSI meter was		4.49			

Comments:

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1300	VOC's EPA METHOD	8260	N	70 ml VOA	3 HCl

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

Project Name: DAVIS SUPERFUND 12/11/01
A365-001.3

Depth to Water: 6.56 (ft.)
 Total Depth: 200 (ft.)
 Well Diameter: 6 (inches)
 Length of Water Column: 91-6.56 ≈ 85' (ft.)
 Well Volume: < 1 gal (tubing volume) (gals)

Well #: 0W-82
 Project #: A365-001.3
 Measuring Point:
 ESS Personnel: LLW/MB/JC
 (initials)

Pump inlet @ 91' bgs
 Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units)	D.T.W. (feet)	Temp. (units: °C)	Sp. Cond. (units: µs/cm)	D.O. (mg/l) (mg/l)	ORP (eV)	pH	Turb. (NTUs)
9:42am	start pumping							
10:02	hook up flow-thru cell pump @ 20's refill, & a discharge throttle @ 100'							
	flow rate = 20 9.5							
10:20	problem w/ DO & bubbles in tubing - run pump to remove bubbles, calibrating							
	offer YSI (Matt), flow rate @ 30ml/min							
10:50		6.86	10.22	122	6.29	100.1	8.37	40
10:55		6.86	10.29	121	6.24	102.3	8.37	40
exchanged YSI meters → allowed new meter 5 minutes to stabilize								
time now recorded from new meter → DO probe in old meter was not installed properly								
11:05		6.80	10.42	143	5.08	50.2	8.44	40
11:10		6.87	10.28	134	4.28	45.2	8.42	40
11:15		6.88	10.34	129	3.62	43.7	8.40	39
11:25		6.88	10.26	126	2.39	46.9	8.43	40
11:35		6.87	10.27	122	1.99	49.7	8.43	38
11:45	≈ 1 gallon	6.88	10.40	124	1.64	53.0	8.44	37
11:55		6.88	10.51	124	1.28	56.5	8.44	35

Comments:
 PID @ well opening = 0 ppm no odor observed water is pretty clear in flow-thru cell
 small brown particles in suspension observed in turbidity vial consistently
 PID in bucket = 0 ppm * depth to water in pump > 0.3' from bgs D.T.W. → we are at
 Note, recharge conditions, color, odor, sediment content, etc. Low flow (30 mL/min) so ok.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
	VOC's EPA METHOD 8260				

Note sample time, parameters, duplicates, field blanks, etc.



Groundwater Monitoring Well Sampling Form

Project Name: DAVIS SUPERFUND Well #: OW-82
A365-001.3 Project #: A365-001.3
 Date: 12/11/01
 Date to Water: 6.56 (ft.) Measuring: _____
 Total Depth: 200 (ft.) Measuring: A365-001.3
 Well Diameter: 6 (inches) Point: _____
 Length of Water Column: ± 85 (ft.) ESS Personnel: LW/MB/JC
 Well Volume: 21 gal (gals) (initials)

Well Volume Factors: 0.75-inch (0.023), 1-inch (0.041), 1.5-inch (0.092), 2-inch (0.163), 4-inch (0.653), 6-inch (1.469), 8-inch (2.611) (gallons/foot of water in well)

Parameter Monitoring Results

Time	Vol. Purged (units: gal)	D.T.W. (feet)	Temp. (units:)	Sp. Cond. (units:)	D.O. (mg/l)	ORP (eV)	pH	Turb. (NTUs)
12:05	± 1.3 gal	6.88	10.63	121	1.07	58.1	8.45	34
12:15		6.88	10.73	121	0.90	60.6	8.45	33
12:25		6.88	10.54	121	0.82	63.1	8.46	34 *
12:35		6.89	10.48	121	0.72	64.2	8.46	34
12:45		6.96	10.51	121	0.72*	65.3	8.47	34
12:55		6.91	10.53	121	0.38	66.1	8.49	32
13:05		6.95	10.64	120	0.27	66.8	8.48	31
13:15		6.88	10.61	121	0.29	68.0	8.48	30
13:25		6.98	10.68	121	-0.05	68.6	8.48	30
13:35		6.92	10.83	121	-0.13	69.5	8.47	30
13:45		6.93	10.82	121	-0.17	70.6	8.46	29
4 hours purge time (9:42 am - 13:45)								
Sample taken								

Comments: continued from pg 1 * notes for cond flashes up 2-3 pts every 4 sec but stable values
 water in bucket is brownish * DO drops ± 0.02 when pump cycles

Note recharge conditions, color, odor, sediment content, etc.

Sample Parameters:

Time	Parameter(s)	Dup. (y/n)	Container Type	# of Contain.	Preserv.
1300	CO ₂ , ETHANE, ETHANE, METHANE	N/A	40 ml	2	NONE

Note sample time, parameters, duplicates, field blanks, etc.





APPENDIX E

Field Audit Documentation





**XPERT
DESIGN
AND
DIAGNOSTICS, LLC**

16 MARIN WAY STRATHAM, NH 03885 TEL: (603) 778-1100 FAX: (603) 778-2121

December 14, 2001

Transmitted via email and U.S. Mail

Mr. Peter Nangeroni
Project Director -- Davis Liquid Waste Superfund Site
Environmental Science Services, Inc.
888 Worcester Street, Suite 240
Wellesley, MA 02482

Subject: Field Audit Report of Groundwater Field Sampling for the Davis Liquid Waste Superfund Site in Smithfield, Rhode Island

Dear Mr. Nangeroni:

Please find enclosed the Field Audit Report performed by me for the Phase 1 Groundwater Monitoring at the Davis Liquid Waste Superfund Site (Site), Smithfield, RI in support of the pre-design environmental activities and in compliance with the Site Quality Assurance Project Plan (QAPP). The field audit was performed on November 7 and December 7, 2001 and observed groundwater sampling and field measurements taken at Monitoring Wells OW-07, OW-08, OW-95 (R) and OW-96 (R). The on-site groundwater sampling field leader was Laurel Buttermore of Xpert Design and Diagnostics, LLC.

Based on the information in the attached Field Audit Report, the groundwater sampling was performed in accordance with QAPP requirements indicating acceptable field collection and measurement procedures. On November 7, 2001, I provided some minor suggestions to the sampling procedures and verbally followed up with these over the course of the sampling task (as noted in the attached forms). We went over the collection of the equipment blanks with the bladder pump (with a disposable bladder).

A lower-level standard was used to calibrate the turbidity meter (10 NTUs instead of 20-100 NTUs), but the turbidity levels observed were generally low and within this range and therefore this lower standard is acceptable.

Please feel free to contact me if you require additional information concerning the field audit or groundwater measurement and sample collection activities performed in November and December 2001 in support of the Davis Liquid Waste Superfund Site pre-design activities.

Sincerely,
XPERT DESIGN AND DIAGNOSTICS, LLC



Annette M. Lee
Project Manager

Attachments

Groundwater Field Sampling Audit Checklist

Auditor: Annette Lee, XDD

Field Team Leader: Laurel Buttermore, XDD

Field Team Personnel: Math Becker, ESS

Date of Audit: 11/7/01

Jessica Cohen, ESS

Audit Items	Comments	Yes	No	NA
General Groundwater Sampling				
1. What types of sampling equipment were observed during the audit (circle): Grunfos <input type="checkbox"/> Bladder <input checked="" type="checkbox"/> Low-Flow <input checked="" type="checkbox"/> Waterra <input type="checkbox"/> Other: _____	3/4" bladder pump PED w/ multiparameter gni instrument & FLOW cell			
2. Prior to sampling was the well inspected for damage and reference point designation?		✓		
3. Immediately upon removal of the well cap, were VOCs in the breathing zone above the well measured with a PID or FID and recorded properly?		✓		
4. Were water level measurements taken in all monitoring wells within 48 hours? Was an electronic sensor used and data recorded properly in field log?	Prior to 11/7/01. Sampling activities	✓		
5. Was the water level measurement device decontaminated with isopropanol rinse followed by distilled water rinse between measurements?	as observed between sampling 2 wells	✓		
6. Was equipment set up around the well as specified in the associated SOP?		✓		
7. Was the volatile sample the first to be collected?		✓		
7a. Was the VOC vial filled such that preservative was not lost and air bubbles were not present?		✓		
7b. Was a trip blank available for the volatile analysis?		✓		
8. Were samples collected for all required analyses?		✓		
9. Was decontamination of the sampling equipment performed properly (e.g., water, alconox, water, isopropanol, water rinse)?		✓		
10. Were equipment blanks produced for all analytical parameters at the correct frequency?	as based on verbal communication w/ team	✓		

Groundwater Field Sampling Audit Checklist

Audit Items	Comments	Yes	No	NA
10a. Were equipment blanks produced for each type of sampling performed (i.e., for each type of pump system)?	based on verbal daily communication w/ team	✓		○
10b. Were the equipment blanks collected in an appropriate manner (i.e., produced after decontamination using laboratory supplied reagent free water for volatiles and vendor-supplied springs water for other analytes)?	ran through collection procedure w/ team while @ site	✓		
11a. Was a field duplicate collected at the proper frequency (one in 20 samples for each matrix)?	based on verbal daily communication w/ team	✓		
11b. Was the field duplicate labeled in such a way that it is blind to the laboratory? Was this label ID documented in the field forms/books?		✓		
12. Was a trip blank sent with the VOC samples on a daily basis?		✓		
13. Was a temperature blank included in the cooler?		✓		
14. Was a PE sample sent to the laboratory for analytical performance evaluation? Was it labeled appropriately and documented in the field forms/books?		✓		○
Well Locations observed during Audit: <u>OW-07 & OW-08</u>				

NOTES:

Groundwater Field Sampling Audit Checklist

Audit Items	Comments	Yes	No	NA
Low Flow Sampling				
1. Did the field sampler have a copy of the EPA low-flow procedure and/or an appropriate SOP for this procedure?		✓		
2. Was the pump decontaminated prior to use?		✓		
3. Was the pump, safety cable, tubing, and electrical lines lowered to a level such that the pump intake is at the center of the saturated screen length of the well?	or to a pre-determined pre-approved depth based on well installation	✓		
4. As the well purging process was begun, was the water level drawdown and pump speed optimized? Was the target of drawdown < 0.3ft attained?		✓		
5. As the purging process began, was the water level and pumping rate monitored every 3-5 minutes?		✓		
6. If the recharge rate of the well was less than the minimum pumping rate, what corrective action was taken (e.g., pump shut down and repeat purging process after well has recovered)?				✓
7. During well purging, were turbidity, temperature, specific conductance, pH, ORP, and DO measured every 3-5 minutes (then 10 minutes) to monitor field parameter stabilization? Were they measured with a flow-through cell?		✓		
8. Prior to sampling, were three consecutive readings at 10 minute intervals within the following: turbidity \pm 10% for values > 1 NTU; DO \pm 10%; temperature and specific conductance \pm 3%; pH \pm 0.1 units; and ORP \pm 10 millivolts.	if DO < 1, difficult to achieve 10% criteria due to probe sensitivity - used stability of other parameters	✓		
9. If the DO measurement was greater than 4 mg/L, was a down-hole meter used to confirm the reading?				✓
10. If the field parameters did not stabilize, what corrective action was taken? How long was the well monitored?	as per SOP up to 4 hrs	✓		
11. Were any corrective actions necessary due to pump tubing collapsing during sampling? If so, what were they (e.g., changing flow rates, changing tubing, etc.)?			✓	
12. Was the filter pre-rinsed with 25-50 mL of groundwater prior to collecting the dissolved metals samples?		✓		✓
13. Was the total volume of groundwater removed from the well recorded on the field forms/books?		✓		

NOTES:

2. Disposable bladders were utilized.
 (Did not observe this at OW-07 or OW-08, but verbal comment confirmed that SOP was followed for subsequent wells where this occurred.

Groundwater Field Sampling Audit Checklist

Audit Items	Comments	Yes	No	NA
Field Measurements				
1. Was the pH meter calibrated with appropriate buffer solutions surrounding the sample pHs (e.g. at pH 4, 7, and 10) daily?		✓		
2. Was specific conductance calibrated daily using two solutions to bracket the expected range of conductance? If the meter can only be calibrated with one solution, the second should be used to verify linearity.		✓		
3. Was an ORP Zobell standard used for calibration on a daily basis?	used as a check	✓		
4. Was the Dissolved Oxygen probe calibrated for air calibration and checked for zero mg/L DO daily?		✓		
5. Was the turbidity meter calibrated using a 0.0 and a 20-100 NTU standard daily? If only one standard possible, was the 20-100 NTU used to verify calibration?	upper cal soln. = 10 NTU	✓		
6. Were manufacturer's instructions used in calibration of equipment?		✓		
7. Were corrective action measures taken to ensure calibration was acceptable throughout the field operation?		✓		
8. Were field calibration measures recorded appropriately in the field log?		✓		
9. What probe/meter was used for temperature measurements (e.g., combination pH/temperature probe/meter)? Was this recently calibrated against NBS standards to ensure accuracy of temperature measurement?	YSI 660XL/650 comb. probe as per comm. w/rental	✓		
10. Was the calibration integrity of the multi-parameter instrument checked at midday and at the end of the day?		✓		
11. Was the turbidity meter calibrated at the end of the day?		✓		

NOTES:

The acceptance criteria for calibration checks are more stringent in some cases than the sensitivity of the instrument.

Instrument sensitivity for pH = 0.2 units

conductivity = 0.5%

ORP = 30 mV

Consider revising SOPs/PP w/r/t this.

Groundwater Field Sampling Audit Checklist

Audit Items	Comments	Yes	No	NA
Documentation/Activities				
1. Was an air monitoring and/or groundwater sampling form available for each location?		✓		
2. Were all field measurements (e.g., pH, DO, Turbidity, Temperature, ORP, specific conductance) properly recorded on sampling form or in field notebook?		✓		
3. Were sample vials properly labeled with project name, unique sample identifier, date and time of collection, analysis to be performed, preservative, and initials of person collecting sample?		✓		
4. Was a chain-of-custody completed in real-time with project name, samplers name, sample IDs, date and time of sampling, parameter to be tested, preservatives used, and number of sample bottles identified?		✓		
5. Were coolers for samples available such that adequate temperature blanks, trip blanks and ice were present for proper shipment of the samples to the laboratories?	Ice was not present initially, but was resolved by midday			
6. Were field notes recorded in a field log to document conditions during sampling such as weather, temperature, etc.?				

TES: Briefly describe the sample identification scheme for groundwater wells for samples, rinse blanks, trip blanks, and field duplicates:

As per SOP / FSP, 5-segment labeling (except for trips)

GW - AA - OW - CCC - mmDDYY

where GW = gw sample

AA = Sample type (FS for sample, FB for blank)

OW = Mon. Well

CCC = # of well

mmDDYY = date

TRIPS ⇒ TB - mm/DD/YY - #

where # = Number coolers sent on that day

Date: 11/9/01

Auditors Signature: *[Handwritten Signature]*

Groundwater Field Sampling Audit Checklist

Auditor: Annette Lee, XDD

Field Team Leader: Laurel Buttermore, XDD

Field Team Personnel: Laura Wytrykush, XDD

Matt Bucken, ESS

Jessica Cohen, ESS

Date of Audit: 12/7/01

Audit Items	Comments	Yes	No	NA
General Groundwater Sampling				
1. What types of sampling equipment were observed during the audit (circle): Grunfos <input type="checkbox"/> Bladder <input checked="" type="checkbox"/> Low-Flow <input checked="" type="checkbox"/> Waterra <input type="checkbox"/> Other: _____	1 1/2" QED bladder pump & multiparameter instrument w/ flow cell			
2. Prior to sampling was the well inspected for damage and reference point designation?		✓		
3. Immediately upon removal of the well cap, were VOCs in the breathing zone above the well measured with a PID or FID and recorded properly?		✓		
4. Were water level measurements taken in all monitoring wells within 48 hours? Was an electronic sensor used and data recorded properly in field log?				✓
5. Was the water level measurement device decontaminated with isopropanol rinse followed by distilled water rinse between measurements?	decon during sampling of wells	✓		<input type="radio"/>
6. Was equipment set up around the well as specified in the associated SOP?		✓		
7. Was the volatile sample the first to be collected?		✓		
7a. Was the VOC vial filled such that preservative was not lost and air bubbles were not present?		✓		
7b. Was a trip blank available for the volatile analysis?		✓		
8. Were samples collected for all required analyses?		✓		
9. Was decontamination of the sampling equipment performed properly (e.g., water, alconox, water, isopropanol, water rinse)?		✓		
10. Were equipment blanks produced for all analytical parameters at the correct frequency?		✓		

Groundwater Field Sampling Audit Checklist

Audit Items	Comments	Yes	No	NA
9a. Were equipment blanks produced for each type of sampling performed (i.e., for each type of pump system)?	<i>observed collection of equip blank w/ larger bladder pump</i>	✓		
10b. Were the equipment blanks collected in an appropriate manner (i.e., produced after decontamination using laboratory supplied reagent free water for volatiles and vendor-supplied springs water for other analytes)?		✓		
11a. Was a field duplicate collected at the proper frequency (one in 20 samples for each matrix)?	<i>based on daily comm. w/ field team</i>	✓		
11b. Was the field duplicate labeled in such a way that it is blind to the laboratory? Was this label ID documented in the field forms/books?		✓		
12. Was a trip blank sent with the VOC samples on a daily basis?		✓		
13. Was a temperature blank included in the cooler?		✓		
14. Was a PE sample sent to the laboratory for analytical performance evaluation? Was it labeled appropriately and documented in the field forms/books?				✓

Well Locations observed during Audit:

OW-95R & OW-96R

NOTES:

Groundwater Field Sampling Audit Checklist

Audit Items	Comments	Yes	No	NA
Low Flow Sampling				
1. Did the field sampler have a copy of the EPA low-flow procedure and/or an appropriate SOP for this procedure?		✓		
2. Was the pump decontaminated prior to use?		✓		
3. Was the pump, safety cable, tubing, and electrical lines lowered to a level such that the pump intake is at the center of the saturated screen length of the well?	<i>or at a pre-approved & pre-determined depth based on well/fractures, etc.</i>	✓		
4. As the well purging process was begun, was the water level drawdown and pump speed optimized? Was the target of drawdown < 0.3ft attained?	<i>due to low recharge rate</i>		✓	
5. As the purging process began, was the water level and pumping rate monitored every 3-5 minutes?		✓		
6. If the recharge rate of the well was less than the minimum pumping rate, what corrective action was taken (e.g., pump shut down and repeat purging process after well has recovered)?	<i>Pump shut off before level fell to within screen; allow for recovery, purged 2 std screens & stabilized it</i>			<i>as per protocol</i>
7. During well purging, were turbidity, temperature, specific conductance, pH, ORP, and DO measured every 3-5 minutes (then 10 minutes) to monitor field parameter stabilization? Were they measured with a flow-through cell?		✓		
8. Prior to sampling, were three consecutive readings at 10 minute intervals within the following: turbidity \pm 10% for values > 1 NTU; DO \pm 10%; temperature and specific conductance \pm 3%; pH \pm 0.1 units; and ORP \pm 10 millivolts.		✓		
9. If the DO measurement was greater than 4 mg/L, was a down-hole meter used to confirm the reading?		✓		
10. If the field parameters did not stabilize, what corrective action was taken? How long was the well monitored?	<i>Turbidity did not drop below 5 NTU (6.2 & 6.6) wells were purged as per protocol</i>			<i>protocol</i>
11. Were any corrective actions necessary due to pump tubing collapsing during sampling? If so, what were they (e.g., changing flow rates, changing tubing, etc.)?			✓	✓
12. Was the filter pre-rinsed with 25-50 mL of groundwater prior to collecting the dissolved metals samples?		✓		
13. Was the total volume of groundwater removed from the well recorded on the field forms/books?		✓		

NOTES:

Groundwater Field Sampling Audit Checklist

Audit Items	Comments	Yes	No	NA
Field Measurements				
1. Was the pH meter calibrated with appropriate buffer solutions surrounding the sample pHs (e.g. at pH 4, 7, and 10) daily?		✓		
2. Was specific conductance calibrated daily using two solutions to bracket the expected range of conductance? If the meter can only be calibrated with one solution, the second should be used to verify linearity.		✓		
3. Was an ORP Zobell standard used for calibration on a daily basis?	<i>used as a check - std</i>	✓		
4. Was the Dissolved Oxygen probe calibrated for air calibration and checked for zero mg/L DO daily?		✓		
5. Was the turbidity meter calibrated using a 0.0 and a 20-100 NTU standard daily? If only one standard possible, was the 20-100 NTU used to verify calibration?	<i>Std was 10 NTU ✓ ok (within range dos)</i>			
6. Were manufacturer's instructions used in calibration of equipment?		✓		
7. Were corrective action measures taken to ensure calibration was acceptable throughout the field operation?		✓		
Were field calibration measures recorded appropriately in the field log?		✓		
9. What probe/meter was used for temperature measurements (e.g., combination pH/temperature probe/meter)? Was this recently calibrated against NBS standards to ensure accuracy of temperature measurement?	<i>YSI 600XL/650 multiparameter probe</i>			
10. Was the calibration integrity of the multi-parameter instrument checked at midday and at the end of the day?		✓		
11. Was the turbidity meter calibrated at the end of the day?		✓		

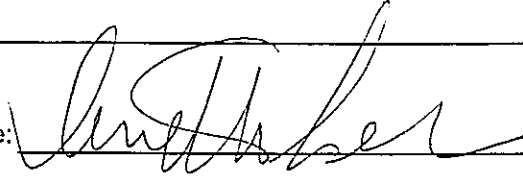
NOTES:

Groundwater Field Sampling Audit Checklist

Audit Items	Comments	Yes	No	NA
Documentation Activities				
1. Was an air monitoring and/or groundwater sampling form available for each location?		✓		
2. Were all field measurements (e.g., pH, DO, Turbidity, Temperature, ORP, specific conductance) properly recorded on sampling form or in field notebook?		✓		
3. Were sample vials properly labeled with project name, unique sample identifier, date and time of collection, analysis to be performed, preservative, and initials of person collecting sample?		✓		
4. Was a chain-of-custody completed in real-time with project name, samplers name, sample IDs, date and time of sampling, parameter to be tested, preservatives used, and number of sample bottles identified?		✓		
5. Were coolers for samples available such that adequate temperature blanks, trip blanks and ice were present for proper shipment of the samples to the laboratories?		✓		
6. Were field notes recorded in a field log to document conditions during sampling such as weather, temperature, etc.?		✓		

NOTES: Briefly describe the sample identification scheme for groundwater wells for samples, rinse blanks, trip blanks, and field duplicates: — see 11/7/01

Date: 12/11/01

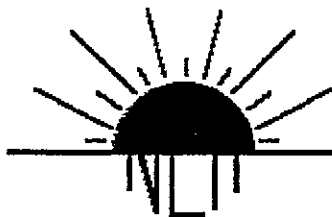
Auditors Signature: 



APPENDIX F

NEH Data Validation Reports





New Environmental Horizons, Inc.

Data Usability Review

Organic Analysis by Method 8260B

EPA Region I Tier II – type review

Client: Environmental Science Services, Inc., Providence, Rhode Island

Site: Davis Liquid Waste Superfund Site, Smithfield, Rhode Island
Remedy Pre-Design Groundwater Investigation, Phase I

Laboratory: Lancaster Laboratories, Lancaster, Pennsylvania

SDG: DSS01

of samples/Analyses: 10 groundwaters + 5 trip blanks + 1 rinsate blank + 1 field blank + 1 Performance Evaluation sample for Volatile Organic Compounds (VOC)

Initial Reviewer: Dr. Nancy C. Rothman, New Environmental Horizons, Inc. *N.C.R.*

Senior Reviewer: Susan D. Chapnick, New Environmental Horizons, Inc. *S.D. Chapnick*

Date Completed: January 22, 2002

The Data Usability Review, representing a Region I Tier II-type validation, was performed on the data package. The intentions of this review are listed as follows.

1. To determine if the data were generated and reported in accordance with the following:
 - EPA SW-846 Method 8260B and modifications as required to meet project DQOs.
 - *Quality Assurance Project Plan Davis Liquid Waste Superfund Site, Appendix B-1 of the Project Operations Plan, Davis Liquid Waste Superfund Site, Smithfield, Rhode Island, prepared by Environmental Science Services, Inc., August 3, 2001 and updates of November 19, 2001.*
 - Region I, EPA-NE *Data Validation Functional Guidelines for Evaluating Environmental Analyses, Part II Volatile/Semivolatile Data Validation Functional Guidelines, 12/96.*
 - *Guidance for Data Useability in Risk Assessment (Part A), Publication 9285.7-09A, USEPA 1992.*
2. To determine if the data met the program data quality objectives (DQOs) for acceptable accuracy, precision, and sensitivity based on the site QAPP and to define the technical usability of the data. The DQOs of completeness and comparability will be determined for the program once all of the data have been assessed.
3. To update the project database with appropriate data quality qualifiers.

The laboratory data packages provided for these environmental samples included sample results and summary quality control (QC) including method blank results, MS recoveries, MS/MSD RPDs, LCS recoveries, and instrument QC sample results. Raw data were also included for all analyses though raw data were not reviewed as part of the Tier II-type data validation/usability assessment. A Tier II-type evaluation, as described in the site QAPP, was performed to determine the usability of the organic results included in this SDG.

The Data Usability Review consists of two sections plus the attached data summary tables generated from the project database. Section I is the Overall Summary of Data Usability including subsections addressing technical usability, accuracy, precision, representativeness, and sensitivity of the data. Section II is a hand-completed checklist for assessing individual indicators of data quality.

I. Overall Summary of Data Usability

A. Summary of Technical Usability

All groundwater, trip blank, field blank, and performance evaluation results for Volatile Organic Compounds (VOC) in the laboratory data package reviewed, identified as SDG DSS01 and generated by Lancaster Laboratories, Lancaster, Pennsylvania are usable for project objectives. The acetone result in two samples was negated (U) due to blank actions and the quantitation limit (QL) for five compounds was lowered based upon acceptable instrument calibration characteristics for these compounds. All other results were accepted as reported by the laboratory without further qualification as a consequence of this assessment. All qualified and unqualified results for VOC included in this SDG are usable for project objectives.

All compounds, after assessment, met the Project Quantitation Limit (PQL) requirements. The Quantitation Limits (QLs) achieved by the laboratory were at or below the Project Action Limits (PALs) for all target compounds except 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, and 1,1,2,2-tetrachloroethane for which the criteria could not be achieved using the method of analysis (*i.e.*, the PAL is lower than can reasonably be achieved by the method of analysis as indicated in Table 4A of the QAPP).

The following sections discuss the QC issues that required action or affected the data certainty. Further information on all QA/QC issues reviewed during the data usability evaluation can be found in the handwritten checklists completed in Section II.

B. Technical Issues Affecting Accuracy

Holding times, calibration criteria, laboratory control sample recoveries, matrix spike recoveries, and other method-specific QC sample results were reviewed to evaluate the accuracy of the environmental results.

A double blind Performance Evaluation (PE) sample (ERA Lot 607) was submitted to the laboratory as one of the groundwater samples for this site (GW-FS-OW-100). This sample was prepared and analyzed along with the other samples in this SDG and the results of this PE are shown on page 5A of the handwritten checklists. All recovery results were acceptable and no false positive or negative results were reported. These results are an external verification of acceptable laboratory qualitative and quantitative accuracy for VOC analysis of groundwater samples using Method 8260B.

All quality control information associated with accuracy, such as holding times, matrix spike recoveries, surrogate recoveries, and laboratory control sample recoveries for VOC analysis met QAPP criteria for the samples in this SDG.

C. Technical Issues Affecting Precision and Representativeness

The relative percent difference (RPD) between matrix spike and matrix spike duplicate results and between field duplicate pair results were evaluated to assess precision and representativeness of the environmental data.

Precision was acceptable for VOCs based upon the matrix spike (MS) and matrix spike duplicate (MSD) results. These results are an indication of acceptable precision in the laboratory analysis of the groundwater samples for VOCs within this SDG.

One field duplicate pair was associated with this SDG: GW-FS-OW-051 and GW-FS-OW-101. The VOC results met field duplicate precision objectives for the sixteen positively identified VOCs in these samples. These results are an indication of acceptable precision and representativeness of the groundwaters within this SDG for VOC analysis.

D. Technical Issues Affecting Sensitivity

Blank contamination in method and field blanks, initial and continuing calibrations, internal standard responses, and method detection limits (MDLs) were reviewed to assess sensitivity of the results compared to QAPP quantitation limits.

The datasheet (*i.e.*, Lancaster's Analysis Report) for each sample lists the target compounds, "As Received Result", and "As Received Method Detection Limit". If a compound was not detected, the "As Received Result" was shown as "N.D." If the compound was detected at a level between the MDL and Quantitation Limit (QL), a numerical value was reported with a "J" flag to indicate the result was uncertain due to quantitation below the QL. If the compound was detected at a level above the QL, the value was reported without qualification. The manner in which the data were reported is compliant with the reporting requirements of the site QAPP. However, the datasheet is misleading because it suggests that non-detected data are at a level equivalent to the "As Received Method Detection Limit". The QLs do not appear on the datasheets; however, they were reported in the electronic database in the "LIMIT2" field for each compound. The "As Received Method Detection Limit" for each compound is also in the project database as "LIMIT1". Therefore, the definitive groundwater QLs associated with non-detect (*i.e.*, N.D.) results are the LIMIT2 values, equivalent to the laboratory QLs and supported by the calibration curve. Data users are cautioned that the LIMIT1 MDLs are not technically supported by the data presented and should not be used.

The sample-specific QLs (*i.e.*, LIMIT2) reported by the laboratory were equivalent to the Laboratory QLs listed in Table 4A of the site QAPP. These limits were the same as the Project Quantitation Limits (PQLs) for all compounds except chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride. For these five compounds, the PQLs ranged from 1 to 3 µg/L. The laboratory reported initial calibrations using six concentrations of standards from 4 to 300 µg/L. In order to meet the site PQLs, this assessor went beyond the Tier II-type review and evaluated the raw data to determine if lower QLs for these five compounds could be technically supported. Raw data for a seventh standard, not included in the initial calibration summary statistics (Form 6), at 1 µg/L was reported following each initial calibration. During this assessment, the relative response factor (RRF) for chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride was calculated for each 1 µg/L standard (as shown on page 5C of the handwritten checklist). The initial calibration statistics for each compound were then recalculated including the 1 µg/L RRF with the RRFs reported for the other six-levels of standards analyzed. For all four initial calibrations, the percent relative standard deviation (%RSD) including the 1 µg/L standard met calibration criteria; demonstrating acceptable linearity of response for chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride from 1 µg/L to 300 µg/L. Based on this evaluation, the QLs (LIMIT2), for these five compounds were lowered from 5 µg/L to 1 µg/L. These new QLs are now at or below the PQLs listed in Table 4A of the site QAPP for these compounds. The QLs reported for all target compounds were supported by the lowest concentration calibration standard analyzed on the instruments.

The associated rinsate blank, GW-RB-OW-051, reported a trace level, below QL, of acetone. Based on a comparison of the level reported in this blank to levels reported in the samples, the following actions were taken.

- Acetone was negated (U) and the level raised to the sample-specific QL in samples GW-FS-OW-051 and GW-FS-OW-101.

The negated results for acetone are usable for project objectives. The method, field, and trip blanks were all non-detect for VOCs; therefore, blank action to negate or qualify data was not required based on these quality control sample results.

The four initial calibrations met method criteria for all target compounds. Two of the seven continuing calibration standards showed enhanced instrument sensitivity, outside of criteria (%D > -25%), to detection of a few compounds on the day of calibration verification as compared to the sensitivity to these compounds during initial calibration (see page 5B of the handwritten checklist). Since all samples associated with these two calibrations were non-detect for these compounds, no action was required based on this finding.

E. Additional Technical and QA/QC Issues

A review of method compliance, an evaluation of method modifications, and other QA/QC issues were made to evaluate the comparability of the data generated for the Groundwater Investigation project uses.

The "As Received Method Detection Limits" reported by the laboratory are generally those which appear in Table 4A of the site QAPP, under the heading "Laboratory Detection Limits". However, based upon professional experience, these MDLs appear to be higher, and more uniform, than expected for MDLs derived using the SW-846 protocols for MDL determination. This issue is raised since the calibrations for chloromethane and 1,2-dibromo-3-chloropropane were shown to be linear down to 1 µg/L (see Section D, above) while the MDL (LIMIT1) for these two compounds was reported at 2 µg/L. The statistically derived MDL should not be higher than the laboratory QL. Due to these discrepancies and uncertainties in the MDLs reported, data users are cautioned not to use the "LIMIT1" MDL results in the project database (or the "As Received Method Detection Limits" in the laboratory data package) for any data calculations or project decisions.

The laboratory control sample (LCS) limits and matrix spike recovery limits used by the laboratory were different than those defined in the site QAPP. The laboratory may have updated their control limits since the QAPP was finalized, which is acceptable according to SW-846. The new control limits were technically reasonable; therefore, the acceptance criteria shown in the data package were used during this assessment.

Lancaster's policy for VOC laboratory control sample (LCS) analysis is that one LCS must be performed for every 20 field samples analyzed regardless of whether analysis is performed over several days. This interpretation of SW-846 allows an analytical batch to stay open across multiple tunes and calibration verifications. This assessor does not agree with this interpretation of an analytical batch; however, for these aqueous samples, since the continuing calibration standard is similar in nature to the LCS and was analyzed each time the instrument was tuned, no action was taken based on this finding.

After re-submittal of the data (see Section F, below), the correct project-specific compound list of VOCs was reported for the groundwater samples included in this SDG. However, the summary information for the calibrations and spike recoveries (LCS and MS/MSD) reported results for many non-target compounds in addition to those targets requested for this project. These additional compounds were not reviewed during this data usability assessment.

F. Summary of Completeness, Documentation, and Chain-of-Custody Issues

All samples were received at the laboratory intact, at $4^{\circ} \pm 2^{\circ}\text{C}$, and properly preserved ($\text{pH} < 2$).

Data Usability Review - Organics
Davis Liquid Waste Superfund Site, Smithfield, Rhode Island
Remedy Pre-Design Groundwater Investigation, Phase I

The initial data package for DSS01 was shown to be missing several target compounds compared to the VOC list defined in the site QAPP (see page 1A of the handwritten checklist where an e-mail to Lancaster was sent requesting investigation). The laboratory re-issued the data on January 17, 2002 and the re-issued data package was complete and included a narrative, sample results, QC summary forms, Chain-of-Custody (COC) documentation, and all raw data for preparation and analysis of these samples.

Due to software limitations, the laboratory truncated the field sample IDs on the quality control summary forms. Data users are forewarned that for several of the summary forms (*e.g.*, method blank summary, instrument tune summary, Internal Standard summary) many samples in addition to those reported in SDG DSS01 were also summarized (*i.e.*, all samples regardless of client or project that were associated with the quality control element reported, were reported in the summary information). This method of reporting is acceptable; however, it made review of the actual site samples reported for DSS01 very confusing and time consuming.

The laboratory reported results for several analytes at a level below their QL and qualified the data as estimated (J) due to uncertainty in quantitation. During this Data Usability Review, the "J" qualifier on data of this type was accepted, unless otherwise negated by actions taken during assessment, and was associated with the final results (*i.e.*, the "J" was carried forward to the final data usability qualification of results). Estimated results of this type are considered usable for project objectives.

NEH generated a project data summary table based on the electronic data file supplied by Environmental Science Services, Inc. (ESS), including the corrections and qualifications added to the data based on this Data Usability Review. The data summary table of technically valid and usable results for the environmental samples reviewed by NEH is attached to this report.

Data Summary Key for Data Usability Checklist Review

- J - The associated numerical value is an estimated quantity due to quality control criteria exceedance(s). The value is usable for project decisions as an estimated result.
- U - The compound was analyzed for, but was not detected. The associated numerical value is the sample-specific quantitation limit. The value is usable for project decisions as a non-detect result at the reported quantitation limit.
- UJ - The compound was analyzed for, but was not detected. The associated numerical value is the sample-specific quantitation limit and is an estimated quantity. The value is usable for project decisions as a non-detect result at the estimated quantitation limit.
- R - Reject data due to severe or cumulative exceedance of quality control criteria. The value is unusable (compound may or may not be present) for project decisions. Re-sampling and reanalysis may be necessary.
- TB - The compound was detected in a Trip Blank.
- EB - The compound was detected in a non-matrix matched Equipment Blank.
- BB - The compound was detected in a non-matrix matched Bottle Blank.
- NA - Not Analyzed

Validation Checklist Review Acronyms

BB	-	Bottle Blank
CCAL	-	Continuing Calibration
CLP	-	Contract Laboratory Program
%D	-	Percent Difference = $(A - B)/A \times 100$
%Drift	-	Percent Drift = Percent Recovery = $((\text{True-Found})/\text{True} \times 100)$
DQO	-	Data Quality Objective
EB	-	Equipment Blank (Rinsate)
EPA	-	Environmental Protection Agency
FB	-	field blank
g	-	gram
GC/MS	-	Gas Chromatography/Mass Spectrometry
ICAL	-	Initial Calibration
Kg	-	kilogram
L	-	liter
LCS	-	Laboratory Control Sample
MDL	-	Method Detection Limit
MS	-	Matrix Spike
MSD	-	Matrix Spike Duplicate
mg	-	milligram
NA	-	not applicable
ND	-	non-detect
QA	-	Quality Assurance
QC	-	Quality Control
RL	-	Reporting Limit
RPD	-	Relative Percent Difference $((A-B)/\frac{1}{2}(A+B)) \times 100$
%RSD	-	Percent Relative Standard Deviation $(SD/\text{Average Value} \times 100)$
SRM	-	Standard Reference Material
SVOC	-	Semivolatile Organic Compound
TCL	-	Target Compound List
TIC	-	Tentatively Identified Compounds
$\mu\text{g}/\text{Kg}$	-	micrograms per kilogram
$\mu\text{g}/\text{L}$	-	micrograms per liter

SAMP_ID	SAMP_DAT	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILU	TESTED	SA_CD	MATRIX	NOTE
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	75-89-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	67-86-3	Chloroform		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	98-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	10061-02-6	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	10061-01-4	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-008	11/7/2001	DSS01	SW8260B	3722432	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/14/2001	TB1	W	QL lowered
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/14/2001	TB1	W	QL lowered
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	75-89-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/14/2001	TB1	W	

SAMP ID	SAMP DAT	SDG ID	METHOD	LSAMP ID	LAB CAS	LAB CHEM	CONC	LIMIT1	DL FLA	UNITS	LIMIT2	CR C	ER_Q	DILU	TESTED	SA CC	MATRIX	NOTE
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	127-18-4	Tetrachloroethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	108-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/14/2001	TB1	W	QL lowered
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/14/2001	TB1	W	QL lowered
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/14/2001	TB1	W	QL lowered
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	10061-01-3	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/14/2001	TB1	W	
TB-110701-1	11/7/2001	DSS01	SW8260B	3722433	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	75-35-4	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	75-34-3	1,1-Dichloroethane	7	1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	79-01-6	Trichloroethene	2	1	<	ug/l	5	J	J	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/14/2001	N1	GW	

SAMP_ID	SAMP_DAT	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILL	TESTED	SA_CD	MATRIX	NOTE
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	127-18-4	Tetrachloroethene	5	1	<	ug/l	5			1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	100-41-4	Ethylbenzene	4	1	<	ug/l	5	J	J	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	10061-02-6	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	10061-01-4	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-007	11/7/2001	DSS01	SW8260B	3722434	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	541-73-1	1,3-Dichlorobenzene	56	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	106-46-7	1,4-Dichlorobenzene	41	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	95-50-1	1,2-Dichlorobenzene	46	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	75-09-2	Methylene Chloride	74	2	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	67-66-3	Chloroform	72	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	71-55-6	1,1,1-Trichloroethane	36	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	56-23-5	Carbon Tetrachloride	24	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	71-43-2	Benzene	67	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	107-06-2	1,2-Dichloroethane	34	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	79-01-8	Trichloroethene	63	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	75-27-4	Bromodichloromethane	28	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	108-88-3	Toluene	65	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	79-00-5	1,1,2-Trichloroethane	41	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	127-18-4	Tetrachloroethene	62	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	124-48-1	Dibromochloromethane	67	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	108-90-7	Chlorobenzene	27	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	100-41-4	Ethylbenzene	24	1	<	ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	

SAMP ID	SAMP DAT	SDG ID	METHOD	LSAMP ID	LAB CAS	LAB CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILU	TESTED	SA_CQ	MATRIX	NOTE
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	75-25-2	Bromofom	33	1		ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	10061-02-8	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	10061-01-8	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	108-10-1	4-Methyl-2-pentanone	70	3	<	ug/l	10			1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-100	11/7/2001	DSS01	SW8260B	3722435	1330-20-7	Xylene (Total)	91	1		ug/l	5			1	11/20/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	98-82-8	Isopropylbenzene	5	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	95-50-1	1,2-Dichlorobenzene	7	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	120-82-1	1,2,4-Trichlorobenzene	2	1		ug/l	5	J	J	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/15/2001	N1	GW	QL lowered
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	75-01-4	Vinyl Chloride	270	1		ug/l	1			1	11/15/2001	N1	GW	QL lowered
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	75-35-4	1,1-Dichloroethene	1	1		ug/l	5	J	J	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	156-60-5	trans-1,2-Dichloroethene	7	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	75-34-3	1,1-Dichloroethane	33	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	156-59-2	cis-1,2-Dichloroethene	180	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	67-66-3	Chloroform	3	1		ug/l	5	J	J	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	71-55-6	1,1,1-Trichloroethane	79	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	71-43-2	Benzene	1	1		ug/l	5	J	J	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	107-08-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	79-01-6	Trichloroethene	21	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	67-64-1	Acetone		6	<	ug/l	20	J	U	1	11/15/2001	N1	GW	Blank Action
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	108-88-3	Toluene	2	1		ug/l	5	J	J	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	127-18-4	Tetrachloroethene	8	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/15/2001	N1	GW	QL lowered
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	100-41-4	Ethylbenzene	73	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	75-25-2	Bromofom		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/15/2001	N1	GW	QL lowered
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/15/2001	N1	GW	QL lowered
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	10061-02-8	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	10061-01-8	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-051	11/8/2001	DSS01	SW8260B	3724762	1330-20-7	Xylene (Total)	14	1		ug/l	5			1	11/15/2001	N1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	

SAMP_ID	SAMP_DAT	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DIL	TESTED	SA_CC	MATRIX	NOTE
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/15/2001	RB1	GW	QL lowered
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/15/2001	RB1	GW	QL lowered
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	67-64-1	Acetone	9	6		ug/l	20	J	J	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	108-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/15/2001	RB1	GW	QL lowered
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/15/2001	RB1	GW	QL lowered
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/15/2001	RB1	GW	QL lowered
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	10061-01-3	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/15/2001	RB1	GW	
GW-RB-OW-051	11/8/2001	DSS01	SW8260B	3724763	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/15/2001	RB1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	98-82-8	Isopropylbenzene	6	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	95-50-1	1,2-Dichlorobenzene	7	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	120-82-1	1,2,4-Trichlorobenzene	2	1		ug/l	5	J	J	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/15/2001	N1	GW	QL lowered
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	75-01-4	Vinyl Chloride	270	1		ug/l	1			1	11/15/2001	N1	GW	QL lowered
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	75-35-4	1,1-Dichloroethene	1	1		ug/l	5	J	J	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	156-60-5	trans-1,2-Dichloroethene	7	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	75-34-3	1,1-Dichloroethane	34	1		ug/l	5			1	11/15/2001	N1	GW	

SAMP_ID	SAMP_DAT	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DIL	TESTED	SA_CQ	MATRIX	NOTE
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	156-59-2	cis-1,2-Dichloroethene	190	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	67-66-3	Chloroform	3	1		ug/l	5	J	J	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	71-55-6	1,1,1-Trichloroethane	81	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	71-43-2	Benzene	1	1		ug/l	5	J	J	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	79-01-6	Trichloroethene	22	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	67-64-1	Acetone		6	<	ug/l	20	J	U	1	11/15/2001	N1	GW	Blank Action
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	108-88-3	Toluene	2	1		ug/l	5	J	J	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	127-18-4	Tetrachloroethene	8	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/15/2001	N1	GW	QL lowered
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	100-41-4	Ethylbenzene	75	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/15/2001	N1	GW	QL lowered
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/15/2001	N1	GW	QL lowered
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	10061-02-6	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	10061-01-5	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/15/2001	N1	GW	
GW-FS-OW-101	11/8/2001	DSS01	SW8260B	3724764	1330-20-7	Xylene (Total)	14	1		ug/l	5			1	11/15/2001	N1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/17/2001	FB1	GW	QL lowered
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/17/2001	FB1	GW	QL lowered
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	79-01-6	Trichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	

SAMP_ID	SAMP_DAT	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILI	TESTED	SA_CD	MATRIX	NOTE
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/17/2001	FB1	GW	QL lowered
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/17/2001	FB1	GW	QL lowered
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/17/2001	FB1	GW	QL lowered
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	10061-02-6	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	10061-01-4	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/17/2001	FB1	GW	
GW-FB-OW-051	11/8/2001	DSS01	SW8260B	3724765	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/17/2001	FB1	GW	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/16/2001	TB1	W	QL lowered
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/16/2001	TB1	W	QL lowered
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	75-35-4	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	79-01-6	Trichloroethane		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/16/2001	TB1	W	QL lowered
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/16/2001	TB1	W	QL lowered
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/16/2001	TB1	W	QL lowered
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	10061-02-6	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	

SAMP_ID	SAMP_DAT	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILU	TESTED	SA_CD	MATRIX	NOTE
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	10061-01-3	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724768	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/16/2001	TB1	W	
TB-110801-1	11/8/2001	DSS01	SW8260B	3724766	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/16/2001	TB1	W	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	158-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	155-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	71-55-5	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	10061-01-3	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-011	11/8/2001	DSS01	SW8260B	3724767	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered

SAMP_ID	SAMP_DAT	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILU	TESTED	SA_CQ	MATRIX	NOTE
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/14/2001	N1	GW	QL lowered
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	10061-02-6	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	10061-01-3	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/14/2001	N1	GW	
GW-FS-OW-012	11/9/2001	DSS01	SW8260B	3725021	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/14/2001	N1	GW	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/14/2001	TB1	W	QL lowered
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/14/2001	TB1	W	QL lowered
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	

SAMP_ID	SAMP_DAT	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILU	TESTED	SA	CMATRIX	NOTE
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/14/2001	TB1	W	QL lowered
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/14/2001	TB1	W	QL lowered
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/14/2001	TB1	W	QL lowered
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	10061-01-3	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/14/2001	TB1	W	
TB-110901-1	11/9/2001	DSS01	SW8260B	3725022	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/14/2001	TB1	W	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	74-83-9	Bromomethane		2	<	ug/l	6	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	75-89-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	156-80-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	

SAMP_ID	SAMP_DAT	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILU	TESTED	SA_C	MATRIX	NOTE
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	10061-01-4	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-080	11/12/2001	DSS01	SW8260B	3726415	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	10061-01-4	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-034	11/12/2001	DSS01	SW8260B	3726416	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	

SAMP ID	SAMP DAT	SDG ID	METHOD	LSAMP ID	LAB CAS	LAB CHEM	CONC	LIMIT1	DL FLA	UNITS	LIMIT2	CR_C	ER_Q	DILU	TESTED	SA_CD	MATRIX	NOTE
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/20/2001	TB1	W	
TB-111201-1	11/12/2001	DSS01	SW8260B	3726417	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	

SAMP_ID	SAMP_DAT	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILU	TESTED	SA_CD	MATRIX	NOTE
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	75-34-3	1,1-Dichloroethane	3	1	<	ug/l	5	J	J	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	156-59-2	cis-1,2-Dichloroethene	5	1	<	ug/l	5	J	J	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	79-01-6	Trichloroethene	4	1	<	ug/l	5	J	J	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	127-18-4	Tetrachloroethene	1	1	<	ug/l	5	J	J	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	10061-02-6	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	10061-01-5	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-021	11/13/2001	DSS01	SW8260B	3727578	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	95-50-1	1,2-Dichlorobenzene	2	1	<	ug/l	5	J	J	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	75-01-4	Vinyl Chloride	15	1	<	ug/l	1			1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	75-89-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	156-60-5	trans-1,2-Dichloroethene	1	1	<	ug/l	5	J	J	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	75-34-3	1,1-Dichloroethane	11	1	<	ug/l	5			1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	156-59-2	cis-1,2-Dichloroethene	21	1	<	ug/l	5			1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	71-55-6	1,1,1-Trichloroethane	5	1	<	ug/l	5	J	J	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	79-01-6	Trichloroethene	4	1	<	ug/l	5	J	J	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/17/2001	N1	GW	

SAMP ID	SAMP DAT	SDG ID	METHOD	LSAMP ID	LAB CAS	LAB CHEM	CONC	LIMIT1	DL FLA	UNITS	LIMIT2	CR C	ER Q	DILU	TESTED	SA CQ	MATRIX	NOTE
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	127-18-4	Tetrachloroethene	1	1	<	ug/l	5	J	J	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	100-41-4	Ethylbenzene	8	1	<	ug/l	5			1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	79-34-5	1,1,1,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/17/2001	N1	GW	QL lowered
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	10061-02-6	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	10061-01-3	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/17/2001	N1	GW	
GW-FS-OW-043	11/13/2001	DSS01	SW8260B	3727579	1330-20-7	Xylene (Total)	3	1	<	ug/l	5	J	J	1	11/17/2001	N1	GW	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/17/2001	TB1	W	QL lowered
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/17/2001	TB1	W	QL lowered
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/17/2001	TB1	W	QL lowered
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DIL	TESTED	SA_CD	MATRIX	NOTE
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/17/2001	TB1	W	QL lowered
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/17/2001	TB1	W	QL lowered
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	10061-02-6	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	10061-01-5	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/17/2001	TB1	W	
TB-111301-1	11/13/2001	DSS01	SW8260B	3727580	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/17/2001	TB1	W	

Davis Liquid Waste Superfund Site Smithfield, RI
 ESS - Groundwater Investigation Fall 2001
 8260B Data Review Checklist

Lab: Lancaster
 Date Sampled: 11/7/01 - 11/13/01
 Method of Analysis: 8260B

Lab Project #: DSS01
 No. Samples: 10 + 1PE + 1RB + 1FB + 5TB
 Matrix: Groundwater

	Preservation & HT (14d)	Surrogate	LCS	MS	FD RPD ≤ 30%	Accept. Blanks	RL & Quant. Correct	Other
All Samples in Project	✓	✓	✓	✓	✓	✓	Fixed	PE Acceptable
Except:								

Comments: Samples received intact at 4 ± 2°C in 5 shipments. During the initial evaluation of this data, it was determined that the laboratory missed reporting several target compounds. An e-mail was sent on 1/21/02, see page 1A, requesting lab to investigate. Revised data received at NET on 1/17/02.

Revised data contains grossly variable pH log - all samples verified pH < 2. All samples were analyzed within HT ⇒ No action required.

Surrogates - Limits used by lab = QAPP limits. All 4 surrogates in all samples + QC were recovered within criteria ⇒ No Action required

The LCS Acceptance limits in the data are not the same as listed in the QAPP ⇒ Lancaster must have updated their limits since QAPP. Limits used are reasonable as compared to QAPP ⇒ reported limits used for assessment.

Date 1/21/02
 Data Reviewer [Signature]

Rothman Nancy C

From: "Rothman Nancy C" <ncr@ix.netcom.com>
To: "Jeff Moyer" <jsmoyer@lancasterlabs.com>
Cc: "Susan Chapnick" <chapnick@mediaone.net>; "Matthew Becker" <mbecker@essgroup.com>
 <mbecker@essgroup.com>
Sent: Wednesday, January 02, 2002 2:08 PM
Subject: ESS Davis VOC Data Questions
 Jeff:

I called several hours ago and left a voice mail for you; however, decided that an e-mail may be the most effective way of documenting and communicating the issues I have.

I am currently looking at SDG DSS01 for the Davis Site and have the following issues that the laboratory needs to address:

1) The list of Volatile compounds reported is not the same as what was requested in the QAPP. In addition to those compounds that were reported, there are 10 other compounds that were supposed to be reported:

bromodichloromethane
 1,2-dibromo-3-chloropropane
 1,2-dibromoethane
 1,2-dichlorobenzene
 1,3-dichlorobenzene
 1,4-dichlorobenzene
 dichlorodifluoromethane
 isopropylbenzene
 1,2,4-trichlorobenzene
 trichlorofluoromethane

I see from the LCS and calibrations that these compounds were evaluated; therefore, to report these data correctly, the samples will need to be re-quantitated then re-reported using the QAPP required list of compounds (list used + 10 added compounds)

- Data package re-issued on 1/17/02

2) I have been unable to find any documentation of the groundwater pHs (i.e., to ensure pH < 2) in the data package - can you direct me to where this is located or please provide.

- To be provided with re-issued data.

3) There were several method blanks in this SDG that had no apparent LCS associated with them (e.g., VBLKL13). Can you please explain Lancaster's LCS policy. *Policy for VOCs is that LCS is 1 in 20 field sample - LCS can transcend time => not per analytical batch.*

The major issue, is item 1 above since all data, hardcopy (results pages, quant reports, etc.) and all electronic deliverables, will have to be re-issued (so far I have EDD results for DSS01 and DSS02 for volatiles). I don't know what other projects are in the pipeline.

Please let me know about these issues. When the laboratory has reviewed item number 1, please let the distribution list above know your timetable for creating a QAPP compliant deliverable.

thanks
 nancy

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 Skillman, NJ 08558
 T: (908)874-5686
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1/21/02 *ncr*

page 1A

1/2/2002

Lab: Lancaster
 Date Sampled: 11/7/01 - 11/13/01

Lab Project #: D5501
 No. Samples: 10 + 1PE + 1RB + 1FB + 5TB

Method of Analysis: 8260B
 Associated Blanks:

Matrix: Groundwater

MBS: VBLK L09, VBLK L10, VBLK L12, VBLK L13, VBLK L18, VBLK P24 + VBLK N29 - All ND for VOCs
 TBs: TB-11/7/01#1, TB-110801-1, TB-110901-1, TB-111201-1 + TB-111301-1 - All ND for VOCs
 RB: GW-RB-0W-051 ; FB: GW-FB-0W-051

Blank ID	Contaminant / Level	Matrix Related ?	Action Level / Action	Corrected Result
GW-RB-0W-051	Acetone 9.5 ug/L	Y	90 ug/L	GW-FS-0W-051 8.5 ug/L 20 U
				GW-FS-0W-101 9.5 ug/L 20 U
All Other Assoc. Blanks	No Contamination			No Action Required.

8260B Action Summary:

- HT Actions: water: pH >2 or no HCl: 7d < HT ≤ 14 d, J Aromatic det/R Aromatic NDs; Accept all Non-aromatics; pH < 2, 14d < HT < 28 d; J Aromatic det/R Aromatic NDs; J Non-aromatic det/J Non-aromatic ND
- Surrogate Actions: Recovery > Criteria, J det/Accept ND; 10% ≤ Recovery < Criteria, J det/J NDs; Recovery < 10%, J det/R NDs
- Blank Actions: Surrogates outside criteria - Use Judgment if isolated or analysis related
 If contamination in blank(s) exist, if Result < RL, U result at RL; RL < Result < Blank Action, U result at level reported
- MS Actions: %Rec < 10%, J det/ R NDs; 10% < %Rec < Criteria, J det/ J NDs; %Rec > Criteria, J det/Accept NDs- Unspiked Sample only
- LCS Actions: %Rec < 10%, J det/ R NDs; 10% < %Rec < Criteria, J det/ J NDs; %Rec > Criteria, J det/Accept NDs for all Batch by Compound
- FD Action: Both Conc. ≥ 2xRL, RPD > 30%, J det; One result ND, other ≥ 2 x RL, J det/J NDs; Both Conc. < 2xRL; RPD > 30%, LCS OK, Accept data

Date 1/21/02

Data Reviewer M J C. B. K.

Lab: Lancaster
 Date Sampled: 11/7/01 - 11/13/01
 Method of Analysis: 8260B

Lab Project #: NA-112102
DSS01
 No. Samples 10 + 1PE + 1RB + 1FB + 5TB
 Matrix: Groundwater

Additional Notes:

LCS - Lancaster responded to NCR's request for policy that an LCS for VOCs can transcend time (go across multiple analytical batches) but that 1 LCS / 20 field samples is required. As shown on page 6, several samples had LCS associations from other analytical batches. This is Lancaster's interpretation of SW-846 - since every analytical batch had a CCAL + MB, LCS association accepted as reported.

LCS results: LCSWL09, LCSWL10, LCSWL18, LCSWL29 + LCSWP23 To Rec All within criteria =>
 No action required.

MS/MSD done on GW-FS-OW-080 - All To Rec within lab criteria for ms + MSD except:

2-chloroethyl vinyl ether 0% MS + 0% MSD. RPDs all OK between MS + MSD. Since 2-chloroethyl vinyl ether was not a target compound for this project, no action required. All targets were acceptable.

FD pairs: GW-FS-OW-051 + GW-FS-OW-101 (per ESS).

Compound	OW-051 (ug/L)	OW-101 (ug/L)	RPD	Action
isopropyl benzene	5	6	18%	None ↓
1,2-dichlorobenzene	7	7	0%	
1,2,4-trichlorobenzene	2 J	2 J	0%	
Vinyl chloride	270	270	0%	
1,1-dichloroethene	1 J	1 J	0%	
trans-1,2-dichloroethene	7	7	0%	
1,1-dichloroethane	33	34	3.0%	
cis-1,2-dichloroethene	180	190	5.4%	
chloroform	3 J	3 J	0%	
1,1,1-trichloroethane	79	81	2.5%	

continued on next page

Date 1/21/02

Data Reviewer η C. R. K.

Davis Liquid Waste Superfund Site Smithfield, RI

ESS - Groundwater Investigation Fall 2001

8260B Data Review Checklist

Lab: Lancaster

Date Sampled: 11/7/01 - 11/13/01

Method of Analysis: 8260B

Lab Project #: DSS01

No. Samples 1D+1PE+1RB+1FB+5TB

Matrix: Groundwater

Additional Notes:

FD precision control

Compound	OW-051 (ug/L)	OW-101 (ug/L)	RPD	Action
benzene	15	15	0%	None
trichloroethene	21	22	4.6%	
toluene	25	25	0%	
tetrachloroethene	8	8	0%	
ethylbenzene	73	75	2.7%	
xylene (total)	14	14	0%	

FD precision objectives achieved for 16 positive VOCs in these 2 samples - No Action required

A blind (double) PE was sent to the laboratory as sample GW-FS-OW-100 (ERA Catalog # PP-41, LOT No. 607). The results for sample GW-FS-OW-100 was compared with the certified value and acceptance limits for this PE - this comparison is shown on page 5A. No false positives or negatives were reported + all positive results for GW-FS-OW-100 fell within the PE acceptance limits => Laboratory performance was acceptable.

For the reissued data, the compounds reported = QAPP Target compounds. Tuner (Form V) + IS Summary (Form 8) show acceptable performance - No Action Required.

Some Inst. 1P067M

ICAL 11/11/01 - 4 ug/L -> 300 ug/L - 6-levels. %RSD = all <= 15% - Many compounds in addition to targets listed - all Target RFS > 0.05. Although not included in Form 6 information, a 1 ug/L standard was also analyzed during Initial Calibration.

ICAL 11/20/01 - Some characteristics of the 11/11/01 ICAL, including a 1 ug/L std. at end.

ICAL 11/21/01 (Diff. inst. 1P07159) - Avg. RRFs for all targets except Bromoform. Linear regression due for bromoform + verified that curve was not forced through zero + $r^2 > 0.99$ => Acceptable regression analysis.

ICAL 11/21/01 for inst. 1P07163 - Avg. RRF used for all targets (%RSD <= 15%).

Date 1/21/02

Data Reviewer [Signature]

606

ERA Catalog # PP-41, Lot No. 607

Compound	Certified Value (ug/L)	Performance Acceptance Limits	Lab Results (ug/L)	Percent Recovery %	Results Acceptable
1,1,1-Trichloroethane	36.6	27.9-44.2	36	98.4	Yes
1,1,2,2-Tetrachloroethane	< 5		5 U		Yes
1,1,2-Trichloroethane	39.7	31.5-47.4	41	103.3	Yes
1,1-Dichloroethane	< 5		5 U		Yes
1,1-Dichloroethene	< 5		5 U		Yes
1,2-Dichloroethane	32.4	26.0-39.9	34	104.9	Yes
1,2-Dichloropropane	< 5		5 U		Yes
2-Butanone	< 5		10 U		Yes
2-Hexanone	< 5		10 U		Yes
4-Methyl-2-pentanone	72	44.3-96.7	70	97.2	Yes
Acetone	< 5		20 U		Yes
Benzene	65.5	53.5-78.0	67	102.3	Yes
Bromodichloromethane	25.7	20.6-31.0	28	108.9	Yes
Bromoform	31.4	23.8-39.2	33	105.1	Yes
Bromomethane	< 5		5 U		Yes
Carbon Disulfide	< 5		5 U		Yes
Carbon Tetrachloride	24.2	18.3-31.0	24	99.2	Yes
Chlorobenzene	26.8	21.7-31.5	27	100.7	Yes
Chloroethane	< 5		5 U		Yes
Chloroform	70.2	55.5-83.0	72	102.6	Yes
Chloromethane	< 5		5 U		Yes
cis-1,2-Dichloroethene	< 5		5 U		Yes
cis-1,3-Dichloropropene	< 5		5 U		Yes
Dibromochloromethane	66.1	51.1-80.5	67	101.4	Yes
Ethylbenzene	23.1	18.0-27.6	24	103.9	Yes
Methylene Chloride	74.4	56.2-92.9	74	99.5	Yes
Styrene	< 5		5 U		Yes
Tetrachloroethene	59.9	45.8-70.5	62	103.5	Yes
Toluene	64.3	52.0-74.4	65	101.1	Yes
trans-1,2-Dichloroethene	< 5		5 U		Yes
trans-1,3-Dichloropropene	< 5		5 U		Yes
Trichloroethene	62.4	47.1-73.9	63	101.0	Yes
Vinyl Chloride	< 5		5 U		Yes
Xylene (Total)	88.2	61.7-108	90	102.0	Yes
1,2-Dichlorobenzene	44.4	35.5-52.0	46	103.6	Yes
1,3-Dichlorobenzene	56	44.6-64.7	56	100.0	Yes
1,4-Dichlorobenzene	42.6	33.6-50.7	41	96.2	Yes
1,1,1,2-Tetrachloroethane	110	87.0-133	NA	-	Yes

NA = Not analyzed (non-target analyte)

1/21/02 77c. Bk

page 5A

Lab: LancasterDate Sampled: 11/7/01 - 11/13/01

Method of Analysis: 8260B

Lab Project #: D5501No. Samples 10 + 1PE + 1RB + 1FB + 5TB

Matrix: Groundwater

Additional Notes:

CCALs: HPO6719 11/14/01 @ 9:06, Target %D $\leq \pm 25\%$ except Acetone -32% & 2-butanol -26%, due to enhanced sensitivity to detection on day of CCAL.

HPO6719 11/15/01 @ 10:32 - all Targets %D $\leq \pm 25\%$

HPO6719 11/16/01 @ 13:38 - all Targets %D $\leq \pm 25\%$

HPO6719 11/17/01 @ 10:24 - all Targets %D $\leq \pm 25\%$

HPO7159 11/16/01 @ 23:31 - all %D $\leq \pm 25\%$ except 4-methyl-2-pentanol -29% &

2-Hexanol %D = -31% due to enhanced sensitivity.

HPO7163 11/14/01 @ 05:15 - all Target %D $\leq \pm 25\%$

HPO7163 11/14/01 @ 16:55 - all Target %D $\leq \pm 25\%$

For the 2 CCALs showing enhanced sensitivity to detection of a group of compounds, results checked & all associated samples were non-detect for the compounds in question \Rightarrow non-detect good and no action required.

The Analysis Report Pages (i.e. Sample Data sheets or Form 1s) gave a non-numeric report "As Received Result" and "As Received Method Detection Limit" rather than a Sample-Specific Quantitation Limit. The QAPP did not request the lab report QLS equivalent to their MDLs, rather requested lab report any data observed between the MDL + QL as estimated data. The MDLs shown on the Sample Reports is the same as the LIMIT1 in the Database. The QLS are not reported in the hardcopy data package but do appear in the Database as LIMIT2.

On the Analysis Report, if a compound was not detected, the laboratory reported "N.D." as the "As Received Result"; however, the client is cautioned that a non-detect should not be equated with the MDL (LIMIT1) but rather with the LIMIT2 value. The LIMIT2, or QLS, are those which appear in the QAPP Table 4A for Laboratory Quantitation Limit. These LIMITS are equivalent to the Project QLS for all compounds except chloroethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-Tetrachloroethane and vinyl chloride. For these 5 compounds, the PAL is \leq Lab QL (LIMIT2).

Date 1/21/02Data Viewer 77 C. R. K.


Lab: Lancaster
 Date Sampled: 11/7/01 - 11/13/01
 Method of Analysis: 8260B

Lab Project #: D5501
 No. Samples: 10 + 1 PE + 1 RB + 1 PB + 5 STBs
 Matrix: Groundwater

Additional Notes:

For these 5 compounds, the 1ug/L standard run following 6-level ICAL evaluated to verify whether or not the QL (LIMIT) can be lowered to correspond to the PQLs in Table 4A

Compound	VSTD061 RRF HP06719 11/11/01	%RSD		
Chloromethane	0.4985	% RSD = 6.4%	} here - 1ug/L RRF calculated + then ICAL verified with this 7th level to see if calibration OK to 1ug/L. All acceptable	
1,2-dibromo-3-chloropropane	0.1921	% RSD = 10.6%		
1,2-dibromoethane	0.2605 NA 11/21/02	0.3616		% RSD = 1.9%
1,1,2,2-Tetrachloroethane	1.1843	% RSD = 6.2%		
Vinyl chloride	0.3804	0.2394 NA 11/21/02		% RSD = 4.5%

Compound	VSTD001 11/20/01 HP06719	%RSD	
Chloromethane	0.4695	3.5%	} 1ug/L std. if included with other 6-levels of stds give acceptable linearity (%RSD ≤ 30%)
1,2-dibromo-3-chloropropane	0.1854	^{NA 11/21/02} 7.2%	
1,2-dibromoethane	0.3400	3.0%	
1,1,2,2-Tetrachloroethane	1.1373	2.8%	
Vinyl chloride	0.3584	3.4%	

Compound	VSTD001 11/12/01 HP07159	%RSD	
Chloromethane	0.6318	11.2%	} 1ug/L Acceptable included in ICAL.
1,2-dibromo-3-chloropropane	0.1125	10.5%	
1,2-dibromoethane	0.3011	3.7%	
1,1,2,2-tetrachloroethane	0.7702	2.7%	
Vinyl chloride	0.4494	7.9%	

Compound	VSTD001 11/12/01 HP07163	%RSD	
Chloromethane	0.3449	6.8%	} 1ug/L Acceptable if included in ICAL.
1,2-dibromo-3-chloropropane	0.2053	14.3%	
1,2-dibromoethane	0.3497	7.2%	
1,1,2,2-tetrachloroethane	1.0096	6.2%	
Vinyl chloride	0.2614	6.8%	

Date 1/21/02

Data Reviewer M. J. C. B.

Lab: Lancaster
Date Sampled: 11/7/01 - 11/13/01
Method of Analysis: 8260B

Lab Project #: DSS01
No. Samples: 10 + 1PE + 1RB + 1FB + 5TB
Matrix: Groundwater

Additional Notes:

Therefore, for the 5 compounds that the lab reported QLS > PQLs, it was verified during this assessment that the 1 µg/L standard for these was acceptable.

For ~~chloroethane~~ and ~~1,2-dibromo-3-chloropropane~~ Nov 1/21/02. These 5 compounds, the Project Action Limit was the PQL or was lower than the PQL ⇒ Since the 1 µg/L standard was shown to meet instrument calibration specifications, the QL (LIMIT2) for these 5 compounds changed during this assessment to 1 µg/L. For chloroethane + 1,2-dibromo-3-chloropropane, the new LIMIT2 (QL) is lower than the "MDL" or LIMIT1. MDLs are statistically derived numbers based on analysis of 7 replicates of blank spikes performed once a year → the QLS reported for this project corresponds to either the lowest construction standard for calibration or are higher than the lowest construction standard ⇒ they are valid limits for quantitation.

Data package was found to be difficult to review. On all summary forms "too much" information was provided: 1) MB summary (Form 4), turns (Form 5), IS (form 8) - all samples analyzed during sequence reported whether or not they were part of DSS01; 2) Form 3 (MS/MSD + LCS Summary), Form 6 (ICAL Summary) + Form 7 (CCAL Summary) - many compounds reported in addition to targets requested; 3) Data sheets (Analysis Report) somewhat misleadingly suggesting non-detects were at concentrations equivalent to MDLs; however, lab did report "J" value data on these sheets at concentrations > MDL but ≤ QL and 4) Forms use very truncated Client Sample IDs ⇒ Laboratory IDs needed to be used to determine which samples were affected on each form.

Narrative did not raise any additional actions.

Date 1/21/02

Data Reviewer η C. RM

9/21/06

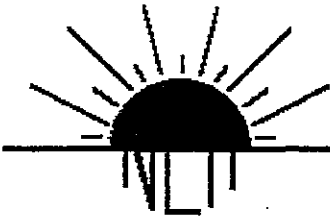
Davis Liquid Waste Superfund Site Smithfield, RI
 ESS - Groundwater Investigation Fall 2001
 8260B Data Review Checklist

Sample ID	Lob ID 372-	Date Sampled	Field Blank	Trip Blank	Method Blank	LCS	Date Analyzed
GW-FS-OW-008	2432	11/7/01	RB-OW-051 FB-OW-051	TB-11/7/01 #1	VBLK09	LCSWL09	11/14/01
TB-11/7/01 #1	2433	↓	NA	NA	↓	↓	↓
GW-FS-OW-007	2434	↓	RB-OW-051 FB-OW-051	TB-11/7/01 #1	↓	↓	↓
GW-FS-OW-100	2435	↓	NA	↓	VBLKL18	LCSWL18	11/20/01
GW-FS-OW-051	4762	11/8/01	RB+FB-OW-051	TB-110801-1	VBLK10	LCSWL10	11/15/01
GW-RB-OW-051	4763	↓	NA	↓	↓	↓	↓
GW-FS-OW-101	4764	↓	RB+FB-OW-051	↓	↓	↓	↓
GW-FB-OW-051	4765	↓	NA	TB-110801-1 NA	VBLKL13	LCSWL10	11/17/01
TB-110801-1	4766	↓	NA	NA	VBLKL12	LCSWL10	11/16/01
GW-FS-OW-011	4767	↓	RB+FB-OW-051	TB-110801-1	VBLKL13	↓	11/17/01
GW-FS-OW-012	5021 4768	11/9/01	↓	TB-110901-1	VBLKP24	LCSWP23	11/14/01
TB-110901-1	5023	↓	NA	NA	↓	↓	↓
GW-FS-OW-080	6415	11/12/01	RB+FB-OW-051	TB-111201-1	VBLKL18	LCSWL18	11/20/01
GW-FS-OW-034	6416	↓	↓	↓	↓	↓	↓
TB-111201-1	6417	↓	NA	NA	↓	↓	↓
GW-FS-OW-021	7578	11/13/01	RB+FB-OW-051	TB-111301-1	VBLKN29	LCSWN29	11/17/01
GW-FS-OW-043	7579	↓	↓	↓	↓	↓	↓
TB-111301-1	7580	↓	NA	NA	↓	↓	↓

Blind PE
 RB
 FD of FS-OW-051
 FB

Date 1/21/02

Data Reviewer MJC. RA



New Environmental Horizons, Inc.

Data Usability Review

Organic Analysis by Method 8260B

EPA Region I Tier II – type review

Client: Environmental Science Services, Inc., Providence, Rhode Island

Site: Davis Liquid Waste Superfund Site, Smithfield, Rhode Island
Remedy Pre-Design Groundwater Investigation, Phase I

Laboratory: Lancaster Laboratories, Lancaster, Pennsylvania

SDG: DSS02

of samples/Analyses: 8 groundwaters + 5 trip blanks + 1 rinsate blank + 1 field blank for Volatile Organic Compounds (VOC)

Initial Reviewer: Dr. Nancy C. Rothman, New Environmental Horizons, Inc. *N.C.R.*

Senior Reviewer: Susan D. Chapnick, New Environmental Horizons, Inc. *S.D. Chapnick*

Date Completed: January 22, 2002

The Data Usability Review, representing a Region I Tier II-type validation, was performed on the data package. The intentions of this review are listed as follows.

1. To determine if the data were generated and reported in accordance with the following:
 - EPA SW-846 Method 8260B and modifications as required to meet project DQOs.
 - *Quality Assurance Project Plan Davis Liquid Waste Superfund Site*, Appendix B-1 of the *Project Operations Plan, Davis Liquid Waste Superfund Site, Smithfield, Rhode Island*, prepared by Environmental Science Services, Inc., August 3, 2001 and updates of November 19, 2001.
 - Region I, EPA-NE *Data Validation Functional Guidelines for Evaluating Environmental Analyses, Part II Volatile/Semivolatile Data Validation Functional Guidelines*, 12/96.
 - *Guidance for Data Useability in Risk Assessment* (Part A), Publication 9285.7-09A, USEPA 1992.
2. To determine if the data met the program data quality objectives (DQOs) for acceptable accuracy, precision, and sensitivity based on the site QAPP and to define the technical usability of the data. The DQOs of completeness and comparability will be determined for the program once all of the data have been assessed.
3. To update the project database with appropriate data quality qualifiers.

The laboratory data packages provided for these environmental samples included sample results and summary quality control (QC) including method blank results, MS recoveries, MS/MSD RPDs, LCS recoveries, and instrument QC sample results. Raw data were also included for all analyses though raw data were not reviewed as part of the Tier II-type data validation/usability assessment. A Tier II-type evaluation, as described in the site QAPP, was performed to determine the usability of the organic results included in this SDG.

The Data Usability Review consists of two sections plus the attached data summary tables generated from the project database. Section I is the Overall Summary of Data Usability including subsections addressing technical usability, accuracy, precision, representativeness, and sensitivity of the data. Section II is a hand-completed checklist for assessing individual indicators of data quality.

I. Overall Summary of Data Usability

A. Summary of Technical Usability

All groundwater, trip blank, and field blank results for Volatile Organic Compounds (VOC) in the laboratory data package reviewed, identified as SDG DSS02 and generated by Lancaster Laboratories, Lancaster, Pennsylvania are usable for project objectives. The results for five compounds in six samples were qualified as estimated (UJ) due to quality control exceedances and the quantitation limit (QL) for five compounds was lowered based upon acceptable instrument calibration characteristics for these compounds. All other results were accepted as reported by the laboratory without further qualification as a consequence of this assessment. All qualified and unqualified results for VOC included in this SDG are usable for project objectives.

All compounds, after assessment, met the Project Quantitation Limit (PQL) requirements except chloromethane and vinyl chloride in three groundwater samples, for which the Project Action Limits were also exceeded, as explained in Section E. The Quantitation Limits (QLs) achieved by the laboratory were at or below the Project Action Limits (PALs) for all other target compounds except 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, and 1,1,2,2-tetrachloroethane for which the criteria could not be achieved using the method of analysis (*i.e.*, the PAL is lower than can reasonably be achieved by the method of analysis as indicated in Table 4A of the QAPP).

The following sections discuss the QC issues that required action or affected the data certainty. Further information on all QA/QC issues reviewed during the data usability evaluation can be found in the handwritten checklists completed in Section II.

B. Technical Issues Affecting Accuracy

Holding times, calibration criteria, laboratory control sample recoveries, matrix spike recoveries, and other method-specific QC sample results were reviewed to evaluate the accuracy of the environmental results.

The matrix spike (MS) and matrix spike duplicate (MSD) analysis provided in SDG DSS02 was for a non-site related sample (*i.e.*, batch QC performed on another client's sample). Therefore, recovery of the target compounds from the site matrix could not be assessed based on the MS/MSD reported in the current SDG. However, the recovery of the target compounds in the MS/MSD analysis performed in SDG DSS01 was acceptable. Note that the site QAPP did not require MS/MSD analyses.

All other quality control information associated with accuracy, such as holding times, surrogate recoveries, laboratory control sample recoveries, and performance evaluation sample recoveries (reported in SDG DSS01) for VOC analysis met QAPP criteria for the samples in this SDG.

C. Technical Issues Affecting Precision and Representativeness

The relative percent difference (RPD) between matrix spike and matrix spike duplicate results and between field duplicate pair results were evaluated to assess precision and representativeness of the environmental data.

Precision based upon the matrix spike (MS) and matrix spike duplicate (MSD) reported in this SDG has no bearing on the evaluation of the samples from this site since, as explained in Section B, the MS/MSD provided was performed on another client's sample. SDG DSS01 did report MS/MSD analysis on a site sample and for this evaluation, precision was acceptable.

One field duplicate pair was associated with this SDG: GW-FS-OW-045 and GW-FS-OW-102. The VOC results met field duplicate precision objectives for the seven positively identified VOCs in these samples. These results are an indication of acceptable precision and representativeness of the groundwaters within this SDG for VOC analysis.

D. Technical Issues Affecting Sensitivity

Blank contamination in method and field blanks, initial and continuing calibrations, internal standard responses, and method detection limits (MDLs) were reviewed to assess sensitivity of the results compared to QAPP quantitation limits.

The datasheet (i.e., Lancaster's Analysis Report) for each sample lists the target compounds, "As Received Result", and "As Received Method Detection Limit". If a compound was not detected, the "As Received Result" was shown as "N.D." If the compound was detected at a level between the MDL and Quantitation Limit (QL), a numerical value was reported with a "J" flag to indicate the result was uncertain due to quantitation below the QL. If the compound was detected at a level above the QL, the value was reported without qualification. The manner in which the data were reported is compliant with the reporting requirements of the site QAPP. However, the datasheet is misleading because it suggests that non-detected data are at a level equivalent to the "As Received Method Detection Limit". The QLs do not appear on the datasheets; however, they were reported in the electronic database in the "LIMIT2" field for each compound. The "As Received Method Detection Limit" for each compound is also in the project database as "LIMIT1". Therefore, the definitive groundwater QLs associated with non-detect (i.e., N.D.) results are the LIMIT2 values, equivalent to the laboratory QLs and supported by the calibration curve. Data users are cautioned that the LIMIT1 MDLs are not technically supported by the data presented and should not be used.

The sample-specific QLs (*i.e.*, LIMIT2) reported by the laboratory were equivalent to the Laboratory QLs listed in Table 4A of the site QAPP. These limits were the same as the Project Quantitation Limits (PQLs) for all compounds except chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride. For these five compounds, the PQLs ranged from 1 to 3 µg/L. The laboratory reported initial calibrations using six concentrations of standards from 4 to 300 µg/L. In order to meet the site PQLs, this assessor went beyond the Tier II-type review and evaluated the raw data to determine if lower QLs for these five compounds could be technically supported. Raw data for a seventh standard, not included in the initial calibration summary statistics (Form 6), at 1 µg/L was reported following each initial calibration. During this assessment, the relative response factor (RRF) for chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride was calculated for each 1 µg/L standard (as shown on page 5 of the handwritten checklist). The initial calibration statistics for each compound were then recalculated including the 1 µg/L RRF with the RRFs reported for the other six-levels of standards analyzed. Two of the three initial calibrations were previously checked in SDG DSS01 and for these, the percent relative standard deviation (%RSD) including the 1 µg/L standard met calibration criteria; demonstrating acceptable linearity of response for chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride from 1 to 300 µg/L. The third initial calibration included in SDG DSS02, demonstrated acceptable calibration results for 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, and 1,1,2,2-tetrachloroethane from 1 to 300 µg/L; however, for chloromethane and vinyl chloride, the lowest acceptable standard for calibration was 4 µg/L. Inclusion of the RRFs for the 1 µg/L standard for these two compounds did not lead to acceptable %RSD results (*i.e.*, %RSD > 30%).

Based on this in-depth evaluation, the QLs (LIMIT2), for 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, and 1,1,2,2-tetrachloroethane in all samples were lowered from 5 µg/L to 1 µg/L. The QLs for chloromethane and vinyl chloride were lowered from 5 µg/L to 1 µg/L in all samples except GW-FS-OW-55, GW-FS-OW-33, TB-111401-1, GW-FS-OW-041, and TB-111501-1 for which the QLs were lowered from 5 µg/L to 4 µg/L (lowest valid concentration standard associated with calibration). The new QLs are now at or below the PQLs listed in Table 4A of the site QAPP with the exception of chloromethane and vinyl chloride in samples GW-FS-OW-55, GW-FS-OW-33, and GW-FS-OW-041 (trip blanks are not included in this discussion since Table 4A is concerned with groundwater results, not field QC results). For all three groundwater samples, chloromethane was non-detect and the QLs reported were above the Project Action Limit requirements. For vinyl chloride, the non-detect result for sample GW-FS-OW-041 exceeded the Project Action Limit requirement (the other two samples reported positive results for vinyl chloride therefore these results are usable as reported). The data user will have to evaluate the usability of these non-detect chloromethane and vinyl chloride results for project objectives. The QLs reported for all target compounds are supported by the lowest valid concentration calibration standard analyzed on the instruments.

The method, field, rinsate, and trip blanks were all non-detect for VOCs; therefore, blank action to negate or qualify data was not required based on these quality control sample results.

The three initial calibrations met method criteria for all target compounds. Two of the eight continuing calibration standards showed decreased instrument sensitivity, outside of criteria ($\%D > +25\%$), to detection of a few compounds on the day of calibration verification as compared to the sensitivity to these compounds during initial calibration (see page 5A of the handwritten checklist). For one of these calibrations, no action was required since none of the samples reported in this SDG were analyzed following this standard. The second continuing calibration for which criteria was not met reported 2-butanone, 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane, and 1,2-dibromo-3-chloropropane outside of criteria due to loss in instrument sensitivity to detection of these compounds. This calibration was associated with analysis of samples GW-FS-OW-045, GW-FS-OW-046, TB-111601-1, GW-FB-OW-045, GW-RB-OW-045, and GW-FS-OW-102. The results for these five compounds in these six samples have been qualified as estimated (UJ) and may be biased low based on the low continuing calibration recovery results.

E. Additional Technical and QA/QC Issues

A review of method compliance, an evaluation of method modifications, and other QA/QC issues were made to evaluate the comparability of the data generated for the Groundwater Investigation project uses.

The "As Received Method Detection Limits" reported by the laboratory are generally those which appear in Table 4A of the site QAPP, under the heading "Laboratory Detection Limits". However, based upon professional experience, these MDLs appear to be higher, and more uniform, than expected for MDLs derived using the SW-846 protocols for MDL determination. This issue is raised since the calibrations for chloromethane and 1,2-dibromo-3-chloropropane were shown to be linear down to 1 $\mu\text{g/L}$ (see Section D, above) while the MDL (LIMIT1) for these two compounds was reported at 2 $\mu\text{g/L}$. The statistically derived MDL should not be higher than the laboratory QL. Due to these discrepancies and uncertainties in the MDLs reported, data users are cautioned not to use the "LIMIT1" MDL results in the project database (or the "As Received Method Detection Limits" in the laboratory data package) for any data calculations or project decisions.

The laboratory control sample (LCS) limits and matrix spike recovery limits used by the laboratory were different than those defined in the site QAPP. The laboratory may have updated their control limits since the QAPP was finalized, which is acceptable according to SW-846. The new control limits were technically reasonable; therefore, the acceptance criteria shown in the data package were used during this assessment.

Lancaster's policy for VOC laboratory control sample (LCS) analysis is that one LCS must be performed for every 20 field samples analyzed regardless of whether analysis is performed over several days. This interpretation of SW-846 allows an analytical batch to stay open across

multiple tunes and calibration verifications. This assessor does not agree with this interpretation of an analytical batch; however, for these aqueous samples, since the continuing calibration standard is similar in nature to the LCS and was analyzed each time the instrument was tuned, no action was taken based on this finding.

Summary information for the calibrations and spike recoveries (LCS and MS/MSD) reported results for many non-target compounds in addition to those targets requested for this project. These additional compounds were not reviewed during this data usability assessment.

F. Summary of Completeness, Documentation, and Chain-of-Custody Issues

All samples were received at the laboratory intact, at $4^{\circ}\pm 2^{\circ}\text{C}$, and properly preserved ($\text{pH} < 2$). Sample GW-FS-OW-102 was not included on the Chain-of-Custody record from the field; however, the laboratory's Sample Administration Receipt Documentation Log indicates that 3 40-mL vials of this sample were received with the samples collected on November 16, 2002. The laboratory logged this sample into their system and provided data for this sample ID.

The data package was complete and included a narrative, sample results, QC summary forms, Chain-of-Custody (COC) documentation, and all raw data for preparation and analysis of these samples.

Due to software limitations, the laboratory truncated the field sample IDs on the quality control summary forms. Data users are forewarned that for several of the summary forms (*e.g.*, method blank summary, instrument tune summary, Internal Standard summary) many samples in addition to those reported in SDG DSS02 were also summarized (*i.e.*, all samples regardless of client or project that were associated with the quality control element reported, were reported in the summary information). This method of reporting is acceptable; however, it made review of the actual site samples reported for DSS02 very confusing and time consuming.

The laboratory reported results for several analytes at a level below their QL and qualified the data as estimated (J) due to uncertainty in quantitation. During this Data Usability Review, the "J" qualifier on data of this type was accepted, unless otherwise negated by actions taken during assessment, and was associated with the final results (*i.e.*, the "J" was carried forward to the final data usability qualification of results). Estimated results of this type are considered usable for project objectives.

NEH generated a project data summary table based on the electronic data file supplied by Environmental Science Services, Inc. (ESS), including the corrections and qualifications added to the data based on this Data Usability Review. The data summary table of technically valid and usable results for the environmental samples reviewed by NEH is attached to this report.

Data Summary Key for Data Usability Checklist Review

- J - The associated numerical value is an estimated quantity due to quality control criteria exceedance(s). The value is usable for project decisions as an estimated result.
- U - The compound was analyzed for, but was not detected. The associated numerical value is the sample-specific quantitation limit. The value is usable for project decisions as a non-detect result at the reported quantitation limit.
- UJ - The compound was analyzed for, but was not detected. The associated numerical value is the sample-specific quantitation limit and is an estimated quantity. The value is usable for project decisions as a non-detect result at the estimated quantitation limit.
- R - Reject data due to severe or cumulative exceedance of quality control criteria. The value is unusable (compound may or may not be present) for project decisions. Re-sampling and reanalysis may be necessary.
- TB - The compound was detected in a Trip Blank.
- EB - The compound was detected in a non-matrix matched Equipment Blank.
- BB - The compound was detected in a non-matrix matched Bottle Blank.
- NA - Not Analyzed

Validation Checklist Review Acronyms

BB	-	Bottle Blank
CCAL	-	Continuing Calibration
CLP	-	Contract Laboratory Program
%D	-	Percent Difference = $(A - B)/A \times 100$
%Drift	-	Percent Drift = Percent Recovery = $((\text{True-Found})/\text{True} \times 100)$
DQO	-	Data Quality Objective
EB	-	Equipment Blank (Rinsate)
EPA	-	Environmental Protection Agency
FB	-	field blank
g	-	gram
GC/MS	-	Gas Chromatography/Mass Spectrometry
ICAL	-	Initial Calibration
Kg	-	kilogram
L	-	liter
LCS	-	Laboratory Control Sample
MDL	-	Method Detection Limit
MS	-	Matrix Spike
MSD	-	Matrix Spike Duplicate
mg	-	milligram
NA	-	not applicable
ND	-	non-detect
QA	-	Quality Assurance
QC	-	Quality Control
RL	-	Reporting Limit
RPD	-	Relative Percent Difference $([(A-B) / \frac{1}{2}(A+B)] \times 100)$
%RSD	-	Percent Relative Standard Deviation $(SD/\text{Average Value} \times 100)$
SRM	-	Standard Reference Material
SVOC	-	Semivolatile Organic Compound
TCL	-	Target Compound List
TIC	-	Tentatively Identified Compounds
$\mu\text{g/Kg}$	-	micrograms per kilogram
$\mu\text{g/L}$	-	micrograms per liter

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	74-87-3	Chloromethane		2	<	ug/l	4	U	U		11/20/2001	N1	GW	QL lowered
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	75-01-4	Vinyl Chloride		2	<	ug/l	4	J	J		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	74-83-9	Bromomethane		2	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	75-00-3	Chloroethane		2	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	156-60-5	trans-1,2-Dichloroethene		4	<	ug/l	5	J	J		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	75-34-3	1,1-Dichloroethane		13	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	156-59-2	cis-1,2-Dichloroethene		170	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	67-66-3	Chloroform		5	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	71-55-6	1,1,1-Trichloroethane		51	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	71-43-2	Benzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	79-01-6	Trichloroethene		69	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	67-64-1	Acetone		6	<	ug/l	20	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	78-93-3	2-Butanone		3	<	ug/l	10	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	108-88-3	Toluene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	127-18-4	Tetrachloroethene		100	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U		11/20/2001	N1	GW	QL lowered
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	100-42-5	Styrene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	75-25-2	Bromoform		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U		11/20/2001	N1	GW	QL lowered
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U		11/20/2001	N1	GW	QL lowered
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	10061-02-2	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	591-78-6	2-Hexanone		3	<	ug/l	10	U	U		11/20/2001	N1	GW	
GW-FS-OW-55	11/14/2001	DSS02	SW8260B	3729007	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	74-87-3	Chloromethane		2	<	ug/l	4	U	U		11/20/2001	N1	GW	QL lowered
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	75-01-4	Vinyl Chloride		2	<	ug/l	4	J	J		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	74-83-9	Bromomethane		2	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	75-00-3	Chloroethane		2	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	75-35-4	1,1-Dichloroethene		4	<	ug/l	5	J	J		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	75-34-3	1,1-Dichloroethane		19	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	156-59-2	cis-1,2-Dichloroethene		35	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	67-66-3	Chloroform		1	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	71-55-6	1,1,1-Trichloroethane		7	<	ug/l	5	U	U		11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U		11/20/2001	N1	GW	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	107-06-2	1,2-Dichloroethane	1	1		ug/l	5	J	J	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	79-01-6	Trichloroethene	40	1		ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	127-18-4	Tetrachloroethene	11	1		ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	10061-02-1	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-33	11/14/2001	DSS02	SW8260B	3729008	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	74-87-3	Chloromethane		2	<	ug/l	4	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111401	11/14/2001	DSS02	SW8260B	3729009	75-01-4	Vinyl Chloride		1	<	ug/l	4	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	75-89-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	156-60-5	trans-1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	75-34-3	1,1-Dichloroethane		1	<	ug/l	6	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	156-59-2	cis-1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	67-88-3	Chloroform		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	79-01-6	Trichloroethene		1	<	ug/l	6	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	75-15-0	Carbon Disulfide		1	<	ug/l	6	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111401	11/14/2001	DSS02	SW8260B	3729009	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111401	11/14/2001	DSS02	SW8260B	3729009	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111401	11/14/2001	DSS02	SW8260B	3729009	10061-02-1	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	

SAMP ID	SAMP DATE	SDG ID	METHOD	LSAMP ID	LAB CAS	LAB CHEM	CONC	LIMIT1	DL FL	UNITS	LIMIT2	CR C	ER Q	DILUT	TESTED	SA CODE	MATRIX	NOTE
TB-111401	11/14/2001	DSS02	SW8260B	3729009	10061-01-	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/20/2001	TB1	W	
TB-111401	11/14/2001	DSS02	SW8260B	3729009	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	95-50-1	1,2-Dichlorobenzene	26	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	74-87-3	Chloromethane		2	<	ug/l	4	U	U	1	11/20/2001	N1	GW	QL lowered
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	75-01-4	Vinyl Chloride		1	<	ug/l	4	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	75-00-3	Chloroethane	31	2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	156-80-5	trans-1,2-Dichloroethene	4	1	<	ug/l	5	J	J	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	75-34-3	1,1-Dichloroethane	130	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	156-59-2	cis-1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	71-55-6	1,1,1-Trichloroethane	4	1	<	ug/l	5	J	J	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	71-43-2	Benzene	7	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	107-06-2	1,2-Dichloroethane	1	1	<	ug/l	5	J	J	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	79-01-6	Trichloroethene	1	1	<	ug/l	5	J	J	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	67-64-1	Acetone	6	<	ug/l	20	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	75-15-0	Carbon Disulfide	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	78-93-3	2-Butanone	3	<	ug/l	10	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	78-87-5	1,2-Dichloropropane	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	108-88-3	Toluene	1	1	<	ug/l	5	J	J	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	79-00-5	1,1,2-Trichloroethane	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	127-18-4	Tetrachloroethane	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	124-48-1	Dibromochloromethane	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	106-93-4	1,2-Dibromoethane	1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	108-90-7	Chlorobenzene	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	100-41-4	Ethylbenzene	95	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	100-42-5	Styrene	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	75-25-2	Bromoform	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	79-34-5	1,1,2,2-Tetrachloroethane	1	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	96-12-8	1,2-Dibromo-3-chloropropane	2	<	ug/l	1	U	U	1	11/20/2001	N1	GW	QL lowered	
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	10061-02-	trans-1,3-Dichloropropene	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	10061-01-	cis-1,3-Dichloropropene	1	<	ug/l	5	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	108-10-1	4-Methyl-2-pentanone	3	<	ug/l	10	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	591-78-6	2-Hexanone	3	<	ug/l	10	U	U	1	11/20/2001	N1	GW		
GW-FS-OW-041	11/15/2001	DSS02	SW8260B	3729010	1330-20-7	Xylene (Total)	3	1	<	ug/l	5	J	J	1	11/20/2001	N1	GW	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	74-87-3	Chloromethane		2	<	ug/l	4	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	75-01-4	Vinyl Chloride		1	<	ug/l	4	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	156-80-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	ICR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/20/2001	TB1	W	QL lowered
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	10061-02	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	10061-01	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/20/2001	TB1	W	
TB-111501-1	11/15/2001	DSS02	SW8260B	3729011	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/20/2001	TB1	W	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/21/2001	N1	GW	QL lowered
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	75-01-4	Vinyl Chloride	17	1	<	ug/l	1	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	156-60-5	trans-1,2-Dichloroethene		2	<	ug/l	5	J	J	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	75-34-3	1,1-Dichloroethane		20	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	156-59-2	cis-1,2-Dichloroethene		91	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	71-55-6	1,1,1-Trichloroethane		6	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	79-01-6	Trichloroethene		14	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/21/2001	N1	GW	CCAL low
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	127-18-4	Tetrachloroethene		3	<	ug/l	5	J	J	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/21/2001	N1	GW	QL lowered
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	

SAMP ID	SAMP DATE	SDG ID	METHOD	LSAMP ID	LAB CAS	LAB CHEM	CONC	LIMIT1	OL FL	UNITS	LIMIT2	CR C	ER Q	DILUT	TESTED	SA CODE	MATRIX	NOTE
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	UJ	1	11/21/2001	N1	GW	QL lowered + CCAL low
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	UJ	1	11/21/2001	N1	GW	QL lowered + CCAL low
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	10061-02	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	10061-01	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	UJ	1	11/21/2001	N1	GW	CCAL low
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	591-78-6	2-Hexanone		3	<	ug/l	10	U	UJ	1	11/21/2001	N1	GW	CCAL low
GW-FS-OW-045	11/16/2001	DSS02	SW8260B	3730170	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/21/2001	N1	GW	QL lowered
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	75-01-4	Vinyl Chloride	20	1	<	ug/l	1			1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	156-60-5	trans-1,2-Dichloroethene	1	1	<	ug/l	5	J	J	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	75-34-3	1,1-Dichloroethane	11	1	<	ug/l	5			1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	156-59-2	cis-1,2-Dichloroethene	18	1	<	ug/l	5			1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	71-55-6	1,1,1-Trichloroethane	7	1	<	ug/l	5			1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	79-01-6	Trichloroethene	4	1	<	ug/l	5	J	J	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	78-93-3	2-Butanone		3	<	ug/l	10	U	UJ	1	11/21/2001	N1	GW	CCAL low
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	127-18-4	Tetrachloroethene	2	1	<	ug/l	5	J	J	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/21/2001	N1	GW	QL lowered
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	UJ	1	11/21/2001	N1	GW	QL lowered + CCAL low
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	UJ	1	11/21/2001	N1	GW	QL lowered + CCAL low
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	10061-02	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	10061-01	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	UJ	1	11/21/2001	N1	GW	CCAL low
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	591-78-6	2-Hexanone		3	<	ug/l	10	U	UJ	1	11/21/2001	N1	GW	CCAL low
GW-FS-OW-046	11/16/2001	DSS02	SW8260B	3730171	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/21/2001	N1	GW	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	11/21/2001	TB1	W	QL lowered
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/21/2001	TB1	W	

SAMP ID	SAMP DATE	SDG ID	METHOD	LSAMP ID	LAB CAS	LAB CHEM	CONC	LIMIT1	DL FL	UNITS	LIMIT2	CR C	ER Q	DILUT	TESTED	SA CODE	MATRIX	NOTE
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	75-35-4	1,1-Dichloroethene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	75-09-2	Methylene Chloride	2	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	156-60-5	trans-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	75-34-3	1,1-Dichloroethane	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	156-59-2	cis-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	67-66-3	Chloroform	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	71-55-6	1,1,1-Trichloroethane	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	56-23-5	Carbon Tetrachloride	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	71-43-2	Benzene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	107-06-2	1,2-Dichloroethane	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	79-01-6	Trichloroethene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	67-64-1	Acetone	6	<	ug/l	20	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	75-15-0	Carbon Disulfide	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	78-93-3	2-Butanone	3	<	ug/l	10	U	U	U	1	11/21/2001	TB1	W	CCAL low
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	78-87-5	1,2-Dichloropropane	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	75-27-4	Bromodichloromethane	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	108-88-3	Toluene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	79-00-5	1,1,2-Trichloroethane	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	127-18-4	Tetrachloroethene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	124-48-1	Dibromochloromethane	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	106-93-4	1,2-Dibromoethane	1	<	ug/l	1	U	U	U	1	11/21/2001	TB1	W	QL lowered
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	108-90-7	Chlorobenzene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	100-41-4	Ethylbenzene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	100-42-5	Styrene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	75-25-2	Bromoform	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	79-34-5	1,1,2,2-Tetrachloroethane	1	<	ug/l	1	U	U	U	1	11/21/2001	TB1	W	QL lowered + CCAL low
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	96-12-8	1,2-Dibromo-3-chloropropane	2	<	ug/l	1	U	U	U	1	11/21/2001	TB1	W	QL lowered + CCAL low
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	10061-02	trans-1,3-Dichloropropene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	10061-01	cis-1,3-Dichloropropene	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	108-10-1	4-Methyl-2-pentanone	3	<	ug/l	10	U	U	U	1	11/21/2001	TB1	W	CCAL low
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	591-78-6	2-Hexanone	3	<	ug/l	10	U	U	U	1	11/21/2001	TB1	W	CCAL low
TB-111601-1	11/16/2001	DSS02	SW8260B	3730172	1330-20-7	Xylene (Total)	1	<	ug/l	5	U	U	U	1	11/21/2001	TB1	W	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	74-97-5	Bromochloromethane	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	98-82-8	Isopropylbenzene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	541-73-1	1,3-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	105-46-7	1,4-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	95-50-1	1,2-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	120-82-1	1,2,4-Trichlorobenzene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	75-71-8	Dichlorodifluoromethane	2	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	74-87-3	Chloroethane	2	<	ug/l	1	U	U	U	1	11/21/2001	FB1	GW	QL lowered
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	75-01-4	Vinyl Chloride	1	<	ug/l	1	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	74-83-9	Bromomethane	2	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	75-00-3	Chloroethane	2	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	75-69-4	Trichlorofluoromethane	2	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	75-35-4	1,1-Dichloroethene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	75-09-2	Methylene Chloride	2	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	156-60-5	trans-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	75-34-3	1,1-Dichloroethane	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	156-59-2	cis-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	67-66-3	Chloroform	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	71-55-6	1,1,1-Trichloroethane	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	56-23-5	Carbon Tetrachloride	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	71-43-2	Benzene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	107-06-2	1,2-Dichloroethane	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	79-01-6	Trichloroethene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	67-64-1	Acetone	6	<	ug/l	20	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	75-15-0	Carbon Disulfide	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	78-93-3	2-Butanone	3	<	ug/l	10	U	U	U	1	11/21/2001	FB1	GW	CCAL low
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	78-87-5	1,2-Dichloropropane	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	75-27-4	Bromodichloromethane	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	108-88-3	Toluene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	79-00-5	1,1,2-Trichloroethane	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	127-18-4	Tetrachloroethene	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	124-48-1	Dibromochloromethane	1	<	ug/l	5	U	U	U	1	11/21/2001	FB1	GW	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U		11/21/2001	FB1	GW	QL lowered
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U		11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U		11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	100-42-5	Styrene		1	<	ug/l	5	U	U		11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	75-25-2	Bromoform		1	<	ug/l	5	U	U		11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	UJ		11/21/2001	FB1	GW	QL lowered + CCAL low
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	UJ		11/21/2001	FB1	GW	QL lowered + CCAL low
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	10061-02-	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U		11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	10061-01-	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U		11/21/2001	FB1	GW	
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	UJ		11/21/2001	FB1	GW	CCAL low
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	591-78-6	2-Hexanone		3	<	ug/l	10	U	UJ		11/21/2001	FB1	GW	CCAL low
GW-FB-OW-045	11/16/2001	DSS02	SW8260B	3730173	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U		11/21/2001	FB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	74-87-3	Chloromethane		2	<	ug/l	1	U	U		11/21/2001	RB1	GW	QL lowered
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	74-83-9	Bromomethane		2	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	75-00-3	Chloroethane		2	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	75-59-4	Trichlorofluoromethane		2	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	67-66-3	Chloroform		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	71-43-2	Benzene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	79-01-6	Trichloroethene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	67-64-1	Acetone		6	<	ug/l	20	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	78-93-3	2-Butanone		3	<	ug/l	10	U	UJ		11/21/2001	RB1	GW	CCAL low
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	78-67-5	1,2-Dichloropropane		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	108-88-3	Toluene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U		11/21/2001	RB1	GW	QL lowered
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	100-42-5	Styrene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	75-25-2	Bromoform		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	UJ		11/21/2001	RB1	GW	QL lowered + CCAL low
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	UJ		11/21/2001	RB1	GW	QL lowered + CCAL low
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	10061-02-	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	10061-01-	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	UJ		11/21/2001	RB1	GW	CCAL low
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	591-78-6	2-Hexanone		3	<	ug/l	10	U	UJ		11/21/2001	RB1	GW	CCAL low
GW-RB-OW-045	11/16/2001	DSS02	SW8260B	3730174	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U		11/21/2001	RB1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U		11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U		11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U		11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U		11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U		11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U		11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U		11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	74-87-3	Chloromethane		2	<	ug/l	1	U	U		11/21/2001	N1	GW	QL lowered

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	75-01-4	Vinyl Chloride	17	1		ug/l	1			1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	74-83-9	Bromomethane	2	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	75-00-3	Chloroethane	2	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	75-69-4	Trichlorofluoromethane	2	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	75-35-4	1,1-Dichloroethene	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	75-09-2	Methylene Chloride	2	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	156-60-5	trans-1,2-Dichloroethene	2	1		ug/l	5	J	J	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	75-34-3	1,1-Dichloroethane	20	1		ug/l	5			1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	156-59-2	cis-1,2-Dichloroethene	87	1		ug/l	5			1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	67-66-3	Chloroform	2	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	71-55-6	1,1,1-Trichloroethane	6	1		ug/l	5			1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	56-23-5	Carbon Tetrachloride	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	71-43-2	Benzene	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	107-06-2	1,2-Dichloroethane	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	79-01-6	Trichloroethene	13	1		ug/l	5			1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	67-64-1	Acetone	6	<		ug/l	20	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	75-15-0	Carbon Disulfide	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	78-93-3	2-Butanone	3	<		ug/l	10	U	U	1	11/21/2001	N1	GW	CCAL low
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	78-87-5	1,2-Dichloropropane	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	75-27-4	Bromodichloromethane	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	108-88-3	Toluene	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	79-00-5	1,1,2-Trichloroethane	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	127-18-4	Tetrachloroethene	3	1		ug/l	5	J	J	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	124-48-1	Dibromochloromethane	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	106-93-4	1,2-Dibromoethane	1	<		ug/l	1	U	U	1	11/21/2001	N1	GW	QL lowered
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	108-90-7	Chlorobenzene	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	100-41-4	Ethylbenzene	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	100-42-5	Styrene	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	75-25-2	Bromoform	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	79-34-5	1,1,2,2-Tetrachloroethane	1	<		ug/l	1	U	U	1	11/21/2001	N1	GW	QL lowered + CCAL low
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	96-12-8	1,2-Dibromo-3-chloropropane	2	<		ug/l	1	U	U	1	11/21/2001	N1	GW	QL lowered + CCAL low
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	10061-02	trans-1,3-Dichloropropene	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	10061-01	cis-1,3-Dichloropropene	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	108-10-1	4-Methyl-2-pentanone	3	<		ug/l	10	U	U	1	11/21/2001	N1	GW	CCAL low
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	591-78-6	2-Hexanone	3	<		ug/l	10	U	U	1	11/21/2001	N1	GW	CCAL low
GW-FS-OW-102	11/16/2001	DSS02	SW8260B	3730175	1330-20-7	Xylene (Total)	1	<		ug/l	5	U	U	1	11/21/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	74-97-5	Bromochloromethane	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	98-82-8	Isopropylbenzene	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	541-73-1	1,3-Dichlorobenzene	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	106-46-7	1,4-Dichlorobenzene	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	95-50-1	1,2-Dichlorobenzene	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	120-82-1	1,2,4-Trichlorobenzene	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	75-71-8	Dichlorodifluoromethane	2	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	74-87-3	Chloroethane	2	<		ug/l	1	U	U	1	11/23/2001	N1	GW	QL lowered
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	75-01-4	Vinyl Chloride	2	1		ug/l	1	J	J	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	74-83-9	Bromomethane	2	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	75-00-3	Chloroethane	2	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	75-69-4	Trichlorofluoromethane	2	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	75-35-4	1,1-Dichloroethene	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	75-09-2	Methylene Chloride	2	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	156-60-5	trans-1,2-Dichloroethene	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	75-34-3	1,1-Dichloroethane	1	1		ug/l	5	J	J	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	156-59-2	cis-1,2-Dichloroethene	2	1		ug/l	5	J	J	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	67-66-3	Chloroform	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	71-55-6	1,1,1-Trichloroethane	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	56-23-5	Carbon Tetrachloride	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	71-43-2	Benzene	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	107-06-2	1,2-Dichloroethane	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	79-01-6	Trichloroethene	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	67-64-1	Acetone	6	<		ug/l	20	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	75-15-0	Carbon Disulfide	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	78-93-3	2-Butanone	3	<		ug/l	10	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	78-87-5	1,2-Dichloropropane	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	75-27-4	Bromodichloromethane	1	<		ug/l	5	U	U	1	11/23/2001	N1	GW	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/23/2001	N1	GW	QL lowered
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/23/2001	N1	GW	QL lowered
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/23/2001	N1	GW	QL lowered
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	10081-02-	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	10061-01-	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/23/2001	N1	GW	
GW-FS-OW-038	11/19/2001	DSS02	SW8260B	3730807	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/23/2001	N1	GW	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	74-87-3	Chloroethane		2	<	ug/l	1	U	U	1	11/23/2001	TB1	W	QL lowered
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	75-35-4	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	67-68-3	Chloroform		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	71-43-2	Benzene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	67-64-1	Acetone		6	<	ug/l	20	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/23/2001	TB1	W	QL lowered
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/23/2001	TB1	W	QL lowered
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/23/2001	TB1	W	QL lowered
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	10061-02-	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	10061-01-	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/23/2001	TB1	W	
TB-111901-1	11/19/2001	DSS02	SW8260B	3730808	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/23/2001	TB1	W	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	11/29/2001	N1	GW	
GW-FS-OW-036	11/2																	

SAMP ID	SAMP DATE	SDG ID	METHOD	LSAMP ID	LAB CAS	LAB CHEM	CONC	LIMIT1	DL	FI	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	95-50-1	1,2-Dichlorobenzene		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	120-82-1	1,2,4-Trichlorobenzene		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	75-71-8	Dichlorodifluoromethane		2	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	74-87-3	Chloromethane		2	<		ug/l	1	U	U	U	11/29/2001	N1	GW	QL lowered
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	75-01-4	Vinyl Chloride	2	1			ug/l	1	J	J	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	74-83-9	Bromomethane		2	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	75-00-3	Chloroethane		2	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	75-69-4	Trichlorofluoromethane		2	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	75-35-4	1,1-Dichloroethene	2	1			ug/l	5	J	J	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	75-09-2	Methylene Chloride		2	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	156-60-5	trans-1,2-Dichloroethene		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	75-34-3	1,1-Dichloroethane	11	1			ug/l	5			U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	156-59-2	cis-1,2-Dichloroethane	21	1			ug/l	5			U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	67-66-3	Chloroform		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	71-55-6	1,1,1-Trichloroethane	1	1			ug/l	5	J	J	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	56-23-5	Carbon Tetrachloride		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	71-43-2	Benzene		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	107-06-2	1,2-Dichloroethane		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	79-01-6	Trichloroethene	18	1			ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	67-64-1	Acetone		6	<		ug/l	20	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	75-15-0	Carbon Disulfide		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	78-93-3	2-Butanone		3	<		ug/l	10	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	78-87-5	1,2-Dichloropropane		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	75-27-4	Bromodichloromethane		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	108-88-3	Toluene		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	79-00-5	1,1,2-Trichloroethane		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	127-18-4	Tetrachloroethene		19	1		ug/l	5			U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	124-48-1	Dibromochloromethane		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	108-93-4	1,2-Dibromoethane		1	<		ug/l	1	U	U	U	11/29/2001	N1	GW	QL lowered
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	108-90-7	Chlorobenzene		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	100-41-4	Ethylbenzene		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	100-42-5	Styrene		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	75-25-2	Bromoform		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	79-34-5	1,1,2,2-Tetrachloroethane		1	<		ug/l	1	U	U	U	11/29/2001	N1	GW	QL lowered
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	96-12-8	1,2-Dibromo-3-chloropropane		2	<		ug/l	1	U	U	U	11/29/2001	N1	GW	QL lowered
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	10061-02-1	trans-1,3-Dichloropropene		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	10061-01-1	cis-1,3-Dichloropropene		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	108-10-1	4-Methyl-2-pentanone		3	<		ug/l	10	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	591-78-6	2-Hexanone		3	<		ug/l	10	U	U	U	11/29/2001	N1	GW	
GW-FS-OW-036	11/20/2001	DSS02	SW8260B	3731915	1330-20-7	Xylene (Total)		1	<		ug/l	5	U	U	U	11/29/2001	N1	GW	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	74-97-5	Bromochloromethane		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	98-82-8	Isopropylbenzene		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	541-73-1	1,3-Dichlorobenzene		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	106-46-7	1,4-Dichlorobenzene		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	95-50-1	1,2-Dichlorobenzene		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	120-82-1	1,2,4-Trichlorobenzene		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	75-71-8	Dichlorodifluoromethane		2	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	74-87-3	Chloromethane		2	<		ug/l	1	U	U	U	11/29/2001	TB1	W	QL lowered
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	75-01-4	Vinyl Chloride		1	<		ug/l	1	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	74-83-9	Bromomethane		2	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	75-00-3	Chloroethane		2	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	75-69-4	Trichlorofluoromethane		2	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	75-35-4	1,1-Dichloroethene		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	75-09-2	Methylene Chloride		2	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	156-60-5	trans-1,2-Dichloroethene		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	75-34-3	1,1-Dichloroethane		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	156-59-2	cis-1,2-Dichloroethane		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	67-66-3	Chloroform		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	71-55-6	1,1,1-Trichloroethane		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	56-23-5	Carbon Tetrachloride		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	71-43-2	Benzene		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	107-06-2	1,2-Dichloroethane		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	79-01-6	Trichloroethene		1	<		ug/l	5	U	U	U	11/29/2001	TB1	W	
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	67-64-1	Acetone		6	<		ug/l	20	U	U	U	11/29/2001	TB1	W	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUTI	TESTED	SA_CODE	MATRIX	NOTE		
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	108-88-3	Toluene		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	11/29/2001	TB1	W	QL lowered		
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	106-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	100-42-5	Styrene		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	11/29/2001	TB1	W	QL lowered		
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	11/29/2001	TB1	W	QL lowered		
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	10061-02-1	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	11/29/2001	TB1	W			
TB-112001-1	11/20/2001	DSS02	SW8260B	3731916	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	11/29/2001	TB1	W			

Davis Liquid Waste Superfund Site Smithfield, RI
 ESS - Groundwater Investigation Fall 2001
 8260B Data Review Checklist

Lab: L. Laster
 Date Sampled: 11/14/01 - 11/20/01
 Method of Analysis: 8260B

Lab Project #: DSS02
 No. Samples: 8 + 1RB + 1FB + 5TBs
 Matrix: Groundwater

	Preservation & HT (14d)	Surrogate	LCS	MS	FD RPD < 30%	Accept. Blanks	RL & Quant. Correct	Other
All Samples in Project	✓	✓	✓	Unable to Assess	✓	✓	Fixed	
Except:								
OW-045, OW-046, TB-111601-1								} US 5 amps due to CCAL being outside criteria
FB-OW-045, RB-OW-045 +								
OW-102								

All samples were received intact at 4±2°C, properly preserved (pH < 2 ✓). Sample Comments: GW-FS-OW-102 collected 11/16/01 did not appear on the chain-of-custody from the field; however, the Laboratory Sample Administration Receipt Documentation Log indicates 3 40-ml VOA vials were received with this sample ID - The sample was logged in for analysis. All samples were analyzed within HT ⇒ No Action Required.

Surrogates - All 4 surrogates in all samples + QC were recovered within criteria ⇒ No Action required.

Date 1/22/02
 Data Reviewer NJC. Rk

Lab: Lancaster
 Date Sampled: 11/14/01 - 11/20/01
 Method of Analysis: 8260B

Lab Project #: D5502
 No. Samples 8 + 1RB + 1FB + 5TB
 Matrix: Groundwater

Additional Notes:

LCS' - limits used \neq QAPP limits - Assumed updated by Lancaster + lab limits used for assessment. Some LCS samples associated with Sample were from prior days (i.e. Lancaster allows LCS to transcend batches) -

LCSW/L91 - All 90 Rec OK except ethyl ether low - since ethyl ether is not a target for this project, no action required.

LCSW/N00 - All 90 Rec OK

LCSW/N44 - All 90 Rec OK except di-isopropyl ether low - this is not a target for project \Rightarrow No Action required.

LCSW/T33 - All 90 Rec OK

No Action required based on LCS results.

MS/MSD done on a non-site related sample (i.e., MS/MSD reported as batch QC for analysis on another client's sample). Recovery + RPD issues noted; however, since the unspliked sample is not related to the Davis site, no action required. No spike recovery from the Davis site matrix presented in this SD/G.

FD pair = GW-FS-OW-045 and GW-FS-OW-102

Compound	OW-045 ($\mu\text{g/L}$)	OW-102 ($\mu\text{g/L}$)	RPD	Action
Vinyl chloride	17	17	0%	None
trans-1,2-dichloroethene	25	25	0%	
1,1-dichloroethane	20	20	0%	
cis-1,2-dichloroethene	91	87	4.5%	
1,1,1-trichloroethane	6	6	0%	
trichloroethene	14	13	7.4%	
tetrachloroethene	35	35	0%	

FD precision objectives met based on acceptable precision for 7 positively detected VOCs in the FD pair.

Date 1/22/02

Data Reviewer M. J. C. R/K

Lab: Lancaster
 Date Sampled: 11/14/01-11/20/01
 Method of Analysis: 8260B

Lab Project #: DSS02
 No. Samples: 8 + 1RB + 1FB + 1TB
 Matrix: Groundwater

Additional Notes:

- Compounds reported = QAPP Targets. Data sheet shows "As Received Method Detection Limit" but no Quantitation Limit. Database shows QL as LIMIT2. Client should use LIMIT2 in evaluation of non-detects NOT LIMIT1=MDL. LIMIT1 should be disregarded by client.
 - The QLS (LIMIT2) meet QAPP PQLs for all compounds except chloroethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride.

As was found in the review of SDG# DSS01, lab analyzed a 1ug/L standard during initial calibration but did not include this standard in the ICAAL statistics (average RRF and %RSD). During this assessment, the 1ug/L std. RRFs for these 5 compounds calculated + the ICAAL statistics recalculated (using 1ug/L → 300ug/L RRFs - 7 in all) to determine if QL for these 5 compounds could be lowered to the PQL.

DSS02 ICAALs of HPO6719 on 11/20/01 + HPO7159 on 11/21/01 verified during DSS01 assessment (see pg. 5c of the DSS01 checklist). New ICAALs in DSS02 -

Compound	STD001 10/08/01 SH08363 RRF	ICAAAL %RSD	
chloroethane	2.2083	30.7%	*
1,2-dibromo-3-chloropropane	0.1914	4.7%	} verified calibration OK from 1ug/L → 300ug/L
1,2-dibromoethane	0.5041	5.2%	
1,1,2,2-tetrachloroethane	1.6299	7.8%	
Vinyl chloride	1.2596	32.0%	*

* The response for the 2 compounds in the 1ug/L standard was ~ twice as high as expected which lead to RRFs higher than expected which subsequently lead to %RSDs across 7-levels (1ug/L → 300ug/L) outside Regional acceptance criteria (%RSD ≤ 30%). Therefore, for chloroethane + vinyl chloride, the lowest acceptable calibration standard on instrument SH08363 was 4ug/L not 1ug/L.

The Samples analyzed on SH08363 were GW-FS-OW-55, GW-FS-OW-33, TB-111401-1, GW-FS-OW-041 + TB-111501-1.

Date 1/22/02

Data Reviewer M. C. B. K.

Lab: LancasterDate Sampled: 11/14/01 - 11/20/01Method of Analysis: 8260BLab Project #: DSS02No. Samples: 8 + 1RB + 1FB + 5TBsMatrix: Groundwater

Additional Notes:

- Based on this review of the standards, the following actions were taken in the database:
- * 1) The QLS (LIMIT2) for 1,2-dibromo-3-chloropropane, 1,2-dibromoethane and 1,1,2,2-tetrachloroethane were lowered from 5ug/L to 1ug/L
 - 2) The QLS (LIMIT2) for chloroethane + vinyl chloride lowered from 5ug/L to 1ug/L for all samples except GW-FS-OW-55, GW-FS-OW-33, TB-111401-1, GW-FS-OW-041 + TB-111401-1. For these 3 GWS + 2 TBs, the QL for chloroethane + vinyl chloride lowered from 5ug/L to 4ug/L (last valid calib. std. conc.).

The Project QLS were met for all analytes except chloroethane + vinyl chloride in GW-FS-OW-55, GW-FS-OW-33 + GW-FS-OW-041 (PQLs not applicable to TBs).

All QLS met requirements for Project Action Limits except for 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane in all samples since PAL too low for method 8260B analysis.

non-detected QLS for chloroethane in GW-FS-OW-55, GW-FS-OW-33 + GW-FS-OW-041 exceeded PALs + vinyl chloride in GW-FS-OW-041 non-detected exceeded PAL (other 2 samples reported positive results for vinyl chloride).

ICALS - 3 met criteria (either %RSD \leq 15% + Avg. RRF used in Regression analysis due with $r^2 > 0.99$).

CCALs: Only Targets evaluated. HPO6719 11/21/01 @ 08:41 OK, HPO6719 @ 11/23/01 07:42 OK, HPO7159 11/19/01 @ 16:32 OK

HPO7159 11/20/01 @ 04:31 all OK except 2-Hexanone %D = 29% (Req. 1 culture %D \leq \pm 25%) due to loss in sensitivity in CCAL as compared to ICAL

HPO7159 11/21/01 @ 08:28 2-Butanone %D = 32%, 4-Methyl-2-pentanone %D = 45%, 2-Hexanone %D = 51% - All due to loss in sensitivity during CCAL. Also 1,1,2,2-Tetrachloroethane %D = 29% + 1,2-dibromo-3-chloropropane %D = 39% - loss in sensitivity.

HPO7159 11/28/01 @ 20:00 - All OK

SH08363 11/19/01 @ 09:24 - All OK + SH08363 11/20/01 @ 08:23 OK

Date 1/22/02

Data Reviewer

M. C. R. K.5
1

Lab: Lancaster
Date Sampled: 11/14/01 - 11/20/01
Method of Analysis: 8260B

Lab Project #: DSS02
No. Samples: 8 + 1RB + 1FB + 5TBs
Matrix: Groundwater

Additional Notes:

∴ 2 of 8 CCALs had various Targets with instrument sensitivity less than criteria.

HPO7159 11/20/01 @ 04:31 associated with various samples not related to DSS02 ⇒ No Action required.

HPO7155 11/21/01 C.0812B associated with analysis of Samples GW-FS-OW-045, GW-FS-OW-046, TB-111601-1, GW-FB-OW-045, GW-RB-OW-045 and GW-FS-OW-102.

* Action: 2-Butanone, 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane, and 1,2-dibromo-3-chloropropane in 6 Samples listed above qualified as colimated (M) with a possible low bias based on observed loss of instrument sensitivity to detection of these compounds on the day of analysis.

Data package complex for evaluation due to 1) Truncation of Field IDs in Summary info 2) Inclusion of several compounds in addition to Targets in M/LMED, LCS, ICAL & CCAL information + 3) due to inclusion of many non-SDG related samples in the Summary Forms.

Date 1/22/02

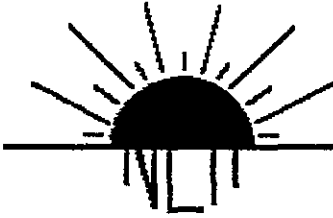
Data Reviewer MJC.RK

Davis Liquid Waste Superfund Site Smithfield, RI
 ESS - Groundwater Investigation Fall 2001
 8260B Data Review Checklist

Sample ID	Date Sampled	Field Blank	Trip Blank	Method Blank	LCS	Date Analyzed	
GW-FS-OW-55	3729007	11/14/01	FB+RB-OW-045	TB-111401-1	VBLKT34	LCSWT33	11/20/01
GW-FS-OW-33	29008	↓	↓	↓	↓	↓	↓
TB-111401-1	29009	↓	NA	NA	↓	↓	↓
GW-FS-OW-041	29010	11/15/01	FB+RB-OW-045	TB-111501-1	↓	↓	↓
TB-111501-1	29011	↓	NA	NA	↓	↓	↓
GW-FS-OW-045	3730170	11/16/01	FB+RB-OW-045	TB-111601-1	VBLKN36	LCSWN00	11/21/01
GW-FS-OW-046	30171	↓	↓	↓	↓	↓	↓
TB-111601-1	30172	↓	NA	NA	↓	↓	↓
GW-FB-OW-045	30173	↓	NA	TB-111601-1	↓	↓	↓
GW-RB-OW-045	30174	↓	NA	↓	↓	↓	↓
GW-FS-OW-038	30807	11/19/01	FB+RB-OW-045	TB-111901-1	VBLKL21	LCSWL91	11/23/01
TB-111901-1	30808	↓	NA	NA	↓	↓	↓
GW-FS-OW-036	31915	11/20/01	FB+RB-OW-045	TB-112001-1	VBLKN44	LCSWN44	11/29/01
TB-112001-1	31916	↓	NA	NA	↓	↓	↓
* GW-FS-OW-102	30175	11/16/01	FB+RB-OW-045	TB-111601-1	VBLKN36	LCSWN00	11/21/01
* Did not appear on the chain-of-custody record from the field but was received at the lab							

Date 1/22/02

Data Reviewer MJC.RK



New Environmental Horizons, Inc.

Data Usability Review

Organic Analysis by Method 8260B

EPA Region I Tier II – type review

Client: Environmental Science Services, Inc., Providence, Rhode Island

Site: Davis Liquid Waste Superfund Site, Smithfield, Rhode Island
Remedy Pre-Design Groundwater Investigation, Phase I

Laboratory: Lancaster Laboratories, Lancaster, Pennsylvania

SDG: DSS05

of samples/Analyses: 12 groundwaters + 5 trip blanks + 1 rinsate blank + 1 field blank sample for Volatile Organic Compounds (VOC)

Initial Reviewer: Dr. Nancy C. Rothman, New Environmental Horizons, Inc. *N.C.R.*

Senior Reviewer: Susan D. Chapnick, New Environmental Horizons, Inc. *S.D. Chapnick*

Date Completed: January 23, 2002

The Data Usability Review, representing a Region I Tier II-type validation, was performed on the data package. The intentions of this review are listed as follows.

1. To determine if the data were generated and reported in accordance with the following:
 - EPA SW-846 Method 8260B and modifications as required to meet project DQOs.
 - *Quality Assurance Project Plan Davis Liquid Waste Superfund Site*, Appendix B-1 of the *Project Operations Plan, Davis Liquid Waste Superfund Site, Smithfield, Rhode Island*, prepared by Environmental Science Services, Inc., August 3, 2001 and updates of November 19, 2001.
 - Region I, EPA-NE *Data Validation Functional Guidelines for Evaluating Environmental Analyses, Part II Volatile/Semivolatile Data Validation Functional Guidelines*, 12/96.
 - *Guidance for Data Useability in Risk Assessment (Part A)*, Publication 9285.7-09A, USEPA 1992.
2. To determine if the data met the program data quality objectives (DQOs) for acceptable accuracy, precision, and sensitivity based on the site QAPP and to define the technical usability of the data. The DQOs of completeness and comparability will be determined for the program once all of the data have been assessed.
3. To update the project database with appropriate data quality qualifiers.

The laboratory data packages provided for these environmental samples included sample results and summary quality control (QC) including method blank results, MS recoveries, MS/MSD RPDs, LCS recoveries, and instrument QC sample results. Raw data were also included for all analyses though raw data were not reviewed as part of the Tier II-type data validation/usability assessment. A Tier II-type evaluation, as described in the site QAPP, was performed to determine the usability of the organic results included in this SDG.

The Data Usability Review consists of two sections plus the attached data summary tables generated from the project database. Section I is the Overall Summary of Data Usability including subsections addressing technical usability, accuracy, precision, representativeness, and sensitivity of the data. Section II is a hand-completed checklist for assessing individual indicators of data quality.

I. Overall Summary of Data Usability

A. Summary of Technical Usability

All groundwater, trip blank, field blank, and performance evaluation results for Volatile Organic Compounds (VOC) in the laboratory data package reviewed, identified as SDG DSS05 and generated by Lancaster Laboratories, Lancaster, Pennsylvania are usable for project objectives. The quantitation limit (QL) for five compounds was lowered based upon acceptable instrument calibration characteristics for these compounds. All other results were accepted as reported by the laboratory without further qualification as a consequence of this assessment. All qualified and unqualified results for VOC included in this SDG are usable for project objectives.

All compounds, after assessment, met the Project Quantitation Limit (PQL) requirements. The Quantitation Limits (QLs) achieved by the laboratory were at or below the Project Action Limits (PALs) for all target compounds except 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, and 1,1,2,2-tetrachloroethane for which the criteria could not be achieved using the method of analysis (*i.e.*, the PAL is lower than can reasonably be achieved by the method of analysis as indicated in Table 4A of the QAPP).

The following sections discuss the QC issues that required action or affected the data certainty. Further information on all QA/QC issues reviewed during the data usability evaluation can be found in the handwritten checklists completed in Section II.

B. Technical Issues Affecting Accuracy

Holding times, calibration criteria, laboratory control sample recoveries, matrix spike recoveries, and other method-specific QC sample results were reviewed to evaluate the accuracy of the environmental results.

The matrix spike (MS) and matrix spike duplicate (MSD) analysis provided in SDG DSS05 was for a non-site related sample (*i.e.*, batch QC performed on another client's sample). Therefore, recovery of the target compounds from the site matrix could not be assessed based on the MS/MSD reported in the current SDG. However, the recovery of the target compounds in the MS/MSD analysis performed in SDG DSS01 was acceptable. Note that the site QAPP did not require MS/MSD analyses.

All other quality control information associated with accuracy, such as holding times, surrogate recoveries, laboratory control sample recoveries, and performance evaluation sample recoveries (reported in SDG DSS01) for VOC analysis met QAPP criteria for the samples in this SDG.

C. Technical Issues Affecting Precision and Representativeness

The relative percent difference (RPD) between matrix spike and matrix spike duplicate results and between field duplicate pair results were evaluated to assess precision and representativeness of the environmental data.

Precision based upon the matrix spike (MS) and matrix spike duplicate (MSD) reported in this SDG has no bearing on the evaluation of the samples from this site since, as explained in Section B, the MS/MSD provided was performed on another client's sample. SDG DSS01 did report MS/MSD analysis on a site sample and for this evaluation, precision was acceptable.

One field duplicate pair was associated with this SDG: GW-FS-OW-95R and GW-FS-OW-103. The VOC results for both samples were all non-detect; therefore, precision from the field through analysis could not be assessed.

D. Technical Issues Affecting Sensitivity

Blank contamination in method and field blanks, initial and continuing calibrations, internal standard responses, and method detection limits (MDLs) were reviewed to assess sensitivity of the results compared to QAPP quantitation limits.

The datasheet (*i.e.*, Lancaster's Analysis Report) for each sample lists the target compounds, "As Received Result", and "As Received Method Detection Limit". If a compound was not detected, the "As Received Result" was shown as "N.D." If the compound was detected at a level between the MDL and Quantitation Limit (QL), a numerical value was reported with a "J" flag to indicate the result was uncertain due to quantitation below the QL. If the compound was detected at a level above the QL, the value was reported without qualification. The manner in which the data were reported is compliant with the reporting requirements of the site QAPP. However, the datasheet is misleading because it suggests that non-detected data are at a level equivalent to the "As Received Method Detection Limit". The QLs do not appear on the datasheets; however, they were reported in the electronic database in the "LIMIT2" field for each compound. The "As Received Method Detection Limit" for each compound is also in the project database as "LIMIT1". Therefore, the definitive groundwater QLs associated with non-detect (*i.e.*, N.D.) results are the LIMIT2 values, equivalent to the laboratory QLs and supported by the calibration curve. Data users are cautioned that the LIMIT1 MDLs are not technically supported by the data presented and should not be used.

The sample-specific QLs (*i.e.*, LIMIT2) reported by the laboratory were equivalent to the Laboratory QLs listed in Table 4A of the site QAPP. These limits were the same as the Project Quantitation Limits (PQLs) for all compounds except chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride. For these five compounds, the PQLs ranged from 1 to 3 µg/L. The laboratory reported initial calibrations using

six concentrations of standards from 4 to 300 µg/L. In order to meet the site PQLs, this assessor went beyond the Tier II-type review and evaluated the raw data to determine if lower QLs for these five compounds could be technically supported. Raw data for a seventh standard, not included in the initial calibration summary statistics (Form 6), at 1 µg/L was reported following each initial calibration. During this assessment, the relative response factor (RRF) for chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride was calculated for each 1 µg/L standard (as shown on page 5 of the handwritten checklist). The initial calibration statistics for each compound were then recalculated including the 1 µg/L RRF with the RRFs reported for the other six-levels of standards analyzed. For all three initial calibrations, the percent relative standard deviation (%RSD) including the 1 µg/L standard met calibration criteria; demonstrating acceptable linearity of response for chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane, and vinyl chloride from 1 µg/L to 300 µg/L. Based on this evaluation, the QLs (LIMIT2), for these five compounds were lowered from 5 µg/L to 1 µg/L. These new QLs are now at or below the PQLs listed in Table 4A of the site QAPP for these compounds. The QLs reported for all target compounds were supported by the lowest concentration calibration standard analyzed on the instruments.

The method, field, rinsate, and trip blanks were all non-detect for VOCs; therefore, blank action to negate or qualify data was not required based on these quality control sample results.

The three initial calibrations met method criteria for all target compounds. Three of the seven continuing calibration standards showed enhanced instrument sensitivity, outside of criteria (%D > +25%), to detection of a few compounds on the day of calibration verification as compared to the sensitivity to these compounds during initial calibration (see page 5A of the handwritten checklist). Since all samples associated with these three calibrations were non-detect for these compounds, no action was required based on this finding.

E. Additional Technical and QA/QC Issues

A review of method compliance, an evaluation of method modifications, and other QA/QC issues were made to evaluate the comparability of the data generated for the Groundwater Investigation project uses.

The "As Received Method Detection Limits" reported by the laboratory are generally those which appear in Table 4A of the site QAPP, under the heading "Laboratory Detection Limits". However, based upon professional experience, these MDLs appear to be higher, and more uniform, than expected for MDLs derived using the SW-846 protocols for MDL determination. This issue is raised since the calibrations for chloromethane and 1,2-dibromo-3-chloropropane were shown to be linear down to 1 µg/L (see Section D, above) while the MDL (LIMIT1) for these two compounds was reported at 2 µg/L. The statistically derived MDL should not be higher than the laboratory QL. Due to these discrepancies and uncertainties in the MDLs reported, data users are cautioned

not to use the "LIMIT1" MDL results in the project database (or the "As Received Method Detection Limits" in the laboratory data package) for any data calculations or project decisions.

The laboratory control sample (LCS) limits and matrix spike recovery limits used by the laboratory were different than those defined in the site QAPP. The laboratory may have updated their control limits since the QAPP was finalized, which is acceptable according to SW-846. The new control limits were technically reasonable; therefore, the acceptance criteria shown in the data package were used during this assessment.

Lancaster's policy for VOC laboratory control sample (LCS) analysis is that one LCS must be performed for every 20 field samples analyzed regardless of whether analysis is performed over several days. This interpretation of SW-846 allows an analytical batch to stay open across multiple tunes and calibration verifications. This assessor does not agree with this interpretation of an analytical batch; however, for these aqueous samples, since the continuing calibration standard is similar in nature to the LCS and was analyzed each time the instrument was tuned, no action was taken based on this finding.

In the evaluation of continuing calibration verification, the %D formula used in SDG DSS05 was different from that used in DSS01 and DSS02. In the current SDG, a positive %D indicated enhanced sensitivity to detection of the compound during continuing calibration and a negative %D indicated a decrease in instrument sensitivity. The prior SDGs used the more common convention, as shown on page 9 of this report, where a positive %D indicates a decrease in sensitivity while a negative %D indicates enhanced instrument sensitivity during continuing calibration. No action was needed other than to note this anomaly.

Sample GW-FS-OW-52 was initially analyzed undiluted (dilution factor (DF) = 1); however, ethylbenzene was at a level exceeding the accurate calibration range of the instrument. The sample was reanalyzed at DF=2 reporting ethylbenzene within the calibration range. Raw data for both sets of analyses are present in the data package. All data from the DF=1 analysis were accepted for reporting of results except ethylbenzene which was accepted for reporting from the DF=2 analysis. The Analysis Report and database reported by the laboratory reflect this data acceptance strategy.

The summary information for the calibrations and spike recoveries (LCS and MS/MSD) reported results for many non-target compounds in addition to those targets requested for this project. These additional compounds were not reviewed during this data usability assessment.

F. Summary of Completeness, Documentation, and Chain-of-Custody Issues

All samples were received at the laboratory intact, at $4^{\circ} \pm 2^{\circ}\text{C}$, and properly preserved ($\text{pH} < 2$). Samples GW-FS-OW-81, GW-FS-OW-83, GW-FS-OW-84 were listed on the Chain-of-Custody

Data Usability Review - Organics
Davis Liquid Waste Superfund Site, Smithfield, Rhode Island
Remedy Pre-Design Groundwater Investigation, Phase I

record as GS-FS-OW-81, GS-FS-OW-83, GS-FS-OW-84. The sample IDs were changed by the laboratory upon receipt after consultation with the client.

The data package was complete and included a narrative, sample results, QC summary forms, Chain-of-Custody (COC) documentation, and all raw data for preparation and analysis of these samples.

The Analysis Reports (i.e., datasheets) for samples GW-FS-OW-81, GW-FS-OW-83, GW-FS-OW-84, and TB-120501-1 were reported in error since each target compound appears to have been listed twice on the datasheets. The database does not have two entries per compound for these samples; therefore, this anomaly does not affect the usability of the data.

Due to software limitations, the laboratory truncated the field sample IDs on the quality control summary forms. Data users are forewarned that for several of the summary forms (*e.g.*, method blank summary, instrument tune summary, Internal Standard summary) many samples in addition to those reported in SDG DSS05 were also summarized (*i.e.*, all samples regardless of client or project that were associated with the quality control element reported, were reported in the summary information). This method of reporting is acceptable; however, it made review of the actual site samples reported for DSS05 very confusing and time consuming.

The laboratory reported results for several analytes at a level below their QL and qualified the data as estimated (J) due to uncertainty in quantitation. During this Data Usability Review, the "J" qualifier on data of this type was accepted, unless otherwise negated by actions taken during assessment, and was associated with the final results (*i.e.*, the "J" was carried forward to the final data usability qualification of results). Estimated results of this type are considered usable for project objectives.

NEH generated a project data summary table based on the electronic data file supplied by Environmental Science Services, Inc. (ESS), including the corrections and qualifications added to the data based on this Data Usability Review. The data summary table of technically valid and usable results for the environmental samples reviewed by NEH is attached to this report.

Data Summary Key for Data Usability Checklist Review

- J - The associated numerical value is an estimated quantity due to quality control criteria exceedance(s). The value is usable for project decisions as an estimated result.
- U - The compound was analyzed for, but was not detected. The associated numerical value is the sample-specific quantitation limit. The value is usable for project decisions as a non-detect result at the reported quantitation limit.
- UJ - The compound was analyzed for, but was not detected. The associated numerical value is the sample-specific quantitation limit and is an estimated quantity. The value is usable for project decisions as a non-detect result at the estimated quantitation limit.
- R - Reject data due to severe or cumulative exceedance of quality control criteria. The value is unusable (compound may or may not be present) for project decisions. Re-sampling and reanalysis may be necessary.
- TB - The compound was detected in a Trip Blank.
- EB - The compound was detected in a non-matrix matched Equipment Blank.
- BB - The compound was detected in a non-matrix matched Bottle Blank.
- NA - Not Analyzed

Validation Checklist Review Acronyms

BB	-	Bottle Blank
CCAL	-	Continuing Calibration
CLP	-	Contract Laboratory Program
%D	-	Percent Difference = $(A - B)/A \times 100$
%Drift	-	Percent Drift = Percent Recovery = $((\text{True-Found})/\text{True} \times 100)$
DQO	-	Data Quality Objective
EB	-	Equipment Blank (Rinsate)
EPA	-	Environmental Protection Agency
FB	-	field blank
g	-	gram
GC/MS	-	Gas Chromatography/Mass Spectrometry
ICAL	-	Initial Calibration
Kg	-	kilogram
L	-	liter
LCS	-	Laboratory Control Sample
MDL	-	Method Detection Limit
MS	-	Matrix Spike
MSD	-	Matrix Spike Duplicate
mg	-	milligram
NA	-	not applicable
ND	-	non-detect
QA	-	Quality Assurance
QC	-	Quality Control
RL	-	Reporting Limit
RPD	-	Relative Percent Difference $((A-B) / \frac{1}{2}(A+B)) \times 100$
%RSD	-	Percent Relative Standard Deviation $(SD/\text{Average Value} \times 100)$
SRM	-	Standard Reference Material
SVOC	-	Semivolatile Organic Compound
TCL	-	Target Compound List
TIC	-	Tentatively Identified Compounds
$\mu\text{g}/\text{Kg}$	-	micrograms per kilogram
$\mu\text{g}/\text{L}$	-	micrograms per liter

SAMP_ID	SAMP_DA	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	98-82-8	Isopropylbenzene	16	1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	J	J	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	95-50-1	1,2-Dichlorobenzene	19	1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	120-82-1	1,2,4-Trichlorobenzene		2	<	ug/l	5	J	J	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/6/2001	N1	GW	QL lowered
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	75-01-4	Vinyl Chloride	290	1	<	ug/l	1	U	U	1	12/6/2001	N1	GW	QL lowered
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	156-60-5	trans-1,2-Dichloroethene	5	1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	75-34-3	1,1-Dichloroethane	94	1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	156-59-2	cis-1,2-Dichloroethene	34	1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	67-66-3	Chloroform		2	<	ug/l	5	J	J	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	71-55-6	1,1,1-Trichloroethane	140	1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	58-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	71-43-2	Benzene		2	<	ug/l	5	J	J	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	J	J	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	79-01-6	Trichloroethene		2	<	ug/l	5	J	J	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	67-64-1	Acetone		6	<	ug/l	20	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	108-89-3	Toluene		7	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	79-00-5	1,1,2-Trichloroethane		2	<	ug/l	5	J	J	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	127-18-4	Tetrachloroethene		4	<	ug/l	5	J	J	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/6/2001	N1	GW	QL lowered
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	108-90-7	Chlorobenzene		1	<	ug/l	5	J	J	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	100-41-4	Ethylbenzene	310	2	<	ug/l	10	U	U	2	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	79-34-5	1,1,1,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/6/2001	N1	GW	QL lowered
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/6/2001	N1	GW	QL lowered
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	10061-02-1	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/6/2001	N1	GW	
GW-FS-OW-052	12/3/2001	DSS05	SW8260B	3737558	1330-20-7	Xylene (Total)	160	1	<	ug/l	5	U	U	1	12/6/2001	N1	GW	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/6/2001	TB1	W	QL lowered
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/6/2001	TB1	W	QL lowered
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/6/2001	TB1	W	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FLAG	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	156-59-2	cis-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	67-86-3	Chloroform	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	71-55-6	1,1,1-Trichloroethane	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	56-23-5	Carbon Tetrachloride	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	71-43-2	Benzene	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	107-06-2	1,2-Dichloroethane	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	79-01-6	Trichloroethene	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	67-64-1	Acetone	6	<	ug/l	20	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	75-15-0	Carbon Disulfide	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	78-93-3	2-Butanone	3	<	ug/l	10	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	78-87-5	1,2-Dichloropropane	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	75-27-4	Bromodichloromethane	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	108-88-3	Toluene	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	79-00-5	1,1,2-Trichloroethane	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	127-18-4	Tetrachloroethene	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	124-48-1	Dibromochloromethane	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	106-93-4	1,2-Dibromoethane	1	<	ug/l	1	U	U	U	1	12/6/2001	TB1	W	QL lowered
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	108-90-7	Chlorobenzene	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	100-41-4	Ethylbenzene	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	100-42-5	Styrene	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	75-25-2	Bromoform	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	79-34-5	1,1,2,2-Tetrachloroethane	1	<	ug/l	1	U	U	U	1	12/6/2001	TB1	W	QL lowered
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	96-12-8	1,2-Dibromo-3-chloropropane	2	<	ug/l	1	U	U	U	1	12/6/2001	TB1	W	QL lowered
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	10061-02-	trans-1,3-Dichloropropene	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	10061-01-	cis-1,3-Dichloropropene	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	108-10-1	4-Methyl-2-pentanone	3	<	ug/l	10	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	591-78-6	2-Hexanone	3	<	ug/l	10	U	U	U	1	12/6/2001	TB1	W	
TB-120301-1	12/3/2001	DSS05	SW8260B	3737559	1330-20-7	Xylene (Total)	1	<	ug/l	5	U	U	U	1	12/6/2001	TB1	W	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	74-97-5	Bromochloromethane	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	98-82-8	Isopropylbenzene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	541-73-1	1,3-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	106-46-7	1,4-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	95-50-1	1,2-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	120-82-1	1,2,4-Trichlorobenzene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	75-71-8	Dichlorodifluoromethane	2	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	74-87-3	Chloromethane	2	<	ug/l	1	U	U	U	1	12/8/2001	N1	GW	QL lowered
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	75-01-4	Vinyl Chloride	1	<	ug/l	1	U	U	U	1	12/8/2001	N1	GW	QL lowered
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	74-83-9	Bromomethane	2	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	75-00-3	Chloroethane	2	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	75-69-4	Trichlorofluoromethane	2	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	75-35-4	1,1-Dichloroethane	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	75-09-2	Methylene Chloride	2	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	156-60-5	trans-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	75-34-3	1,1-Dichloroethane	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	156-59-2	cis-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	67-66-3	Chloroform	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	71-55-6	1,1,1-Trichloroethane	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	56-23-5	Carbon Tetrachloride	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	71-43-2	Benzene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	107-06-2	1,2-Dichloroethane	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	79-01-6	Trichloroethene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	67-64-1	Acetone	6	<	ug/l	20	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	75-15-0	Carbon Disulfide	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	78-93-3	2-Butanone	3	<	ug/l	10	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	78-87-5	1,2-Dichloropropane	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	75-27-4	Bromodichloromethane	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	108-88-3	Toluene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	79-00-5	1,1,2-Trichloroethane	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	127-18-4	Tetrachloroethene	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	124-48-1	Dibromochloromethane	1	<	ug/l	5	U	U	U	1	12/8/2001	N1	GW	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	108-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/8/2001	N1	GW	QL lowered
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	75-25-2	Bromofom		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/8/2001	N1	GW	QL lowered
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/8/2001	N1	GW	QL lowered
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	10061-02-1	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	10061-01-4	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS05	SW8260B	3738473	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/8/2001	N1	GW	QL lowered
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/8/2001	N1	GW	QL lowered
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	156-80-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	75-34-3	1,1-Dichloroethane	1	1	<	ug/l	5	J	J	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	156-59-2	cis-1,2-Dichloroethene	19	1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	67-86-3	Chloroform		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	71-55-6	1,1,1-Trichloroethane	3	1	<	ug/l	5	J	J	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	79-01-6	Trichloroethene	3	1	<	ug/l	5	J	J	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	67-84-1	Acetone		6	<	ug/l	20	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	75-16-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	127-18-4	Tetrachloroethene	3	1	<	ug/l	5	J	J	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/8/2001	N1	GW	QL lowered
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	75-25-2	Bromofom		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/8/2001	N1	GW	QL lowered
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	98-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/8/2001	N1	GW	QL lowered
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	10061-02-1	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	10061-01-4	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/8/2001	N1	GW	
GW-FS-OW-85	12/4/2001	DSS05	SW8260B	3738474	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/8/2001	N1	GW	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/8/2001	TB1	W	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUTI	TESTED	SA_CODE	MATRIX	NOTE
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	95-50-1	1,2-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	120-82-1	1,2,4-Trichlorobenzene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	75-71-8	Dichlorodifluoromethane	2	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	74-87-3	Chloromethane	2	<	ug/l	1	U	U	U	1	12/8/2001	TB1	W	QL lowered
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	75-01-4	Vinyl Chloride	1	<	ug/l	1	U	U	U	1	12/8/2001	TB1	W	QL lowered
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	74-83-9	Bromomethane	2	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	75-00-3	Chloroethane	2	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	75-69-4	Trichlorofluoromethane	2	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	75-35-4	1,1-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	75-09-2	Methylene Chloride	2	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	156-60-5	trans-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	75-34-3	1,1-Dichloroethane	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	156-59-2	cis-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	67-66-3	Chloroform	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	71-55-6	1,1,1-Trichloroethane	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	56-23-5	Carbon Tetrachloride	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	71-43-2	Benzene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	107-06-2	1,2-Dichloroethane	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	79-01-6	Trichloroethene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	67-64-1	Acetone	6	<	ug/l	20	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	75-15-0	Carbon Disulfide	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	78-93-3	2-Butanone	3	<	ug/l	10	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	78-87-5	1,2-Dichloropropane	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	75-27-4	Bromodichloromethane	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	108-88-3	Toluene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	79-00-5	1,1,2-Trichloroethane	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	127-18-4	Tetrachloroethene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	124-48-1	Dibromochloromethane	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	106-93-4	1,2-Dibromoethane	1	<	ug/l	1	U	U	U	1	12/8/2001	TB1	W	QL lowered
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	108-90-7	Chlorobenzene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	100-41-4	Ethylbenzene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	100-42-5	Styrene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	75-25-2	Bromoform	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	79-34-5	1,1,2,2-Tetrachloroethane	1	<	ug/l	1	U	U	U	1	12/8/2001	TB1	W	QL lowered
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	96-12-8	1,2-Dibromo-3-chloropropane	2	<	ug/l	1	U	U	U	1	12/8/2001	TB1	W	QL lowered
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	10061-02-4	trans-1,3-Dichloropropene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	10061-01-4	cis-1,3-Dichloropropene	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	108-10-1	4-Methyl-2-pentanone	3	<	ug/l	10	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	591-78-6	2-Hexanone	3	<	ug/l	10	U	U	U	1	12/8/2001	TB1	W	
TB-120401-1	12/4/2001	DSS05	SW8260B	3738475	1330-20-7	Xylene (Total)	1	<	ug/l	5	U	U	U	1	12/8/2001	TB1	W	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	74-97-5	Bromochloromethane	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	98-82-8	Isopropylbenzene	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	541-73-1	1,3-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	106-46-7	1,4-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	95-50-1	1,2-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	120-82-1	1,2,4-Trichlorobenzene	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	75-71-8	Dichlorodifluoromethane	2	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	74-87-3	Chloromethane	2	<	ug/l	1	U	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	75-01-4	Vinyl Chloride	1	<	ug/l	1	U	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	74-83-9	Bromomethane	2	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	75-00-3	Chloroethane	2	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	75-69-4	Trichlorofluoromethane	2	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	75-35-4	1,1-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	75-09-2	Methylene Chloride	2	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	156-60-5	trans-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	75-34-3	1,1-Dichloroethane	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	156-59-2	cis-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	67-66-3	Chloroform	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	71-55-6	1,1,1-Trichloroethane	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	56-23-5	Carbon Tetrachloride	1	<	ug/l	5	U	U	U	1	12/10/2001	N1	GW	

SAMP_ID	SAMP_DA	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUTN	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	107-08-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	67-64-1	Acetone		6	<	ug/l	20	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	108-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	75-25-2	Bromofom		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	10061-02-1	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS05	SW8260B	3739278	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	1330-20-7	m+p-Xylene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	95-47-6	o-Xylene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	156-80-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	J	J	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	79-01-6	Trichloroethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	67-84-1	Acetone		6	<	ug/l	20	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	

SAMP_ID	SAMP_DA	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	75-25-2	Bromoforn		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	98-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	10061-01-4	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-83	12/5/2001	DSS05	SW8260B	3739279	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	75-69-4	Trichlorofluoromethane	14	2	<	ug/l	5			1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	158-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	75-34-3	1,1-Dichloroethane	1	1	<	ug/l	5	J	J	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	156-59-2	cis-1,2-Dichloroethene	26	1	<	ug/l	5			1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	67-66-3	Chloroform	1	1	<	ug/l	5	J	J	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	71-55-6	1,1,1-Trichloroethane	5	1	<	ug/l	5			1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	79-01-6	Trichloroethene	6	1	<	ug/l	5			1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	67-64-1	Acetone		6	<	ug/l	20	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	127-18-4	Trachloroethene	2	1	<	ug/l	5	J	J	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	75-25-2	Bromoforn		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	98-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/10/2001	N1	GW	QL lowered
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	10061-01-4	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/10/2001	N1	GW	
GW-FS-OW-84	12/5/2001	DSS05	SW8260B	3739280	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/10/2001	N1	GW	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/10/2001	TB1	W	

SAMP_ID	SAMP_DA	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUTI	TESTED	SA_CODE	MATRIX	NOTE
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	75-71-8	Dichlorodifluoromethane		2 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	74-87-3	Chloromethane		2 <		ug/l	1 U		U	1	12/10/2001	TB1	W	QL lowered
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	75-01-4	Vinyl Chloride		1 <		ug/l	1 U		U	1	12/10/2001	TB1	W	QL lowered
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	74-83-9	Bromomethane		2 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	75-00-3	Chloroethane		2 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	75-69-4	Trichlorofluoromethane		2 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	75-35-4	1,1-Dichloroethene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	75-09-2	Methylene Chloride		2 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	156-60-5	trans-1,2-Dichloroethene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	75-34-3	1,1-Dichloroethane		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	156-59-2	cis-1,2-Dichloroethene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	67-66-3	Chloroform		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	71-55-6	1,1,1-Trichloroethane		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	56-23-5	Carbon Tetrachloride		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	71-43-2	Benzene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	107-06-2	1,2-Dichloroethane		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	79-01-6	Trichloroethene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	67-64-1	Acetone		6 <		ug/l	20 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	75-15-0	Carbon Disulfide		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	78-93-3	2-Butanone		3 <		ug/l	10 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	78-87-5	1,2-Dichloropropane		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	75-27-4	Bromodichloromethane		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	108-88-3	Toluene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	79-00-5	1,1,2-Trichloroethane		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	127-18-4	Tetrachloroethene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	124-48-1	Dibromochloromethane		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	108-93-4	1,2-Dibromoethane		1 <		ug/l	1 U		U	1	12/10/2001	TB1	W	QL lowered
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	108-90-7	Chlorobenzene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	100-41-4	Ethylbenzene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	100-42-5	Styrene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	75-25-2	Bromofom		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	79-34-5	1,1,2,2-Tetrachloroethane		1 <		ug/l	1 U		U	1	12/10/2001	TB1	W	QL lowered
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	98-12-8	1,2-Dibromo-3-chloropropane		2 <		ug/l	1 U		U	1	12/10/2001	TB1	W	QL lowered
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	10061-02-4	trans-1,3-Dichloropropene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	10061-01-4	cis-1,3-Dichloropropene		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	108-10-1	4-Methyl-2-pentanone		3 <		ug/l	10 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	591-78-6	2-Hexanone		3 <		ug/l	10 U		U	1	12/10/2001	TB1	W	
TB-120501-1	12/5/2001	DSS05	SW8260B	3739281	1330-20-7	Xylene (Total)		1 <		ug/l	5 U		U	1	12/10/2001	TB1	W	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	74-87-5	Bromochloromethane		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	98-82-8	Isopropylbenzene		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	541-73-1	1,3-Dichlorobenzene		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	106-46-7	1,4-Dichlorobenzene		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	95-50-1	1,2-Dichlorobenzene		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	120-82-1	1,2,4-Trichlorobenzene		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	75-71-8	Dichlorodifluoromethane		2 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	74-87-3	Chloromethane		2 <		ug/l	1 U		U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	75-01-4	Vinyl Chloride		1 <		ug/l	1 U		U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	74-83-9	Bromomethane		2 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	75-00-3	Chloroethane		2 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	75-69-4	Trichlorofluoromethane		2 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	75-35-4	1,1-Dichloroethene		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	75-09-2	Methylene Chloride		2 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	156-60-5	trans-1,2-Dichloroethene		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	75-34-3	1,1-Dichloroethane		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	156-59-2	cis-1,2-Dichloroethene		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	67-66-3	Chloroform		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	71-55-6	1,1,1-Trichloroethane		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	56-23-5	Carbon Tetrachloride		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	71-43-2	Benzene		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	107-06-2	1,2-Dichloroethane		1 <		ug/l	5 U		U	1	12/11/2001	N1	GW	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FLAG	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	67-84-1	Acetone		6	<	ug/l	20	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	10081-02-6	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	10061-01-3	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS05	SW8260B	3740547	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	74-87-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/12/2001	N1	GW	QL lowered
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/12/2001	N1	GW	QL lowered
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	74-83-8	Bromomethane		2	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	156-80-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	67-84-1	Acetone	38	6	<	ug/l	20	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	78-93-3	2-Butanone	12	3	<	ug/l	10	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/12/2001	N1	GW	QL lowered
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-96(o)	12/6/2001	DSS05	SW8260B	3740548	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/12/2001	N1	GW	QL lowered

SAMP_ID	SAMP_DA	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-98(o)	12/6/2001	DSS05	SW8260B	3740548	98-12-8	1,2-Dibromo-3-chloropropane	2	<	ug/l	1	U	U	U	1	12/12/2001	N1	GW	QL lowered
GW-FS-OW-98(o)	12/6/2001	DSS05	SW8260B	3740548	10061-02-4	trans-1,3-Dichloropropene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-98(o)	12/6/2001	DSS05	SW8260B	3740548	10061-01-1	cis-1,3-Dichloropropene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-98(o)	12/6/2001	DSS05	SW8260B	3740548	108-10-1	4-Methyl-2-pentanone	3	<	ug/l	10	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-98(o)	12/6/2001	DSS05	SW8260B	3740548	591-78-6	2-Hexanone	3	<	ug/l	10	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-98(o)	12/6/2001	DSS05	SW8260B	3740548	1330-20-7	Xylene (Total)	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	74-97-5	Bromochloromethane	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	98-82-8	Isopropylbenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	541-73-1	1,3-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	106-46-7	1,4-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	95-50-1	1,2-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	120-82-1	1,2,4-Trichlorobenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	75-71-8	Dichlorodifluoromethane	2	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	74-87-3	Chloromethane	2	<	ug/l	1	U	U	U	1	12/12/2001	N1	GW	QL lowered
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	75-01-4	Vinyl Chloride	1	<	ug/l	1	U	U	U	1	12/12/2001	N1	GW	QL lowered
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	74-83-9	Bromomethane	2	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	75-00-3	Chloroethane	2	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	75-69-4	Trichlorofluoromethane	2	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	75-35-4	1,1-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	75-09-2	Methylene Chloride	2	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	166-60-5	trans-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	75-34-3	1,1-Dichloroethane	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	156-59-2	cis-1,2-Dichloroethene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	67-66-3	Chloroform	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	71-55-8	1,1,1-Trichloroethane	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	56-23-5	Carbon Tetrachloride	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	71-43-2	Benzene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	107-06-2	1,2-Dichloroethane	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	79-01-6	Trichloroethene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	67-64-1	Acetone	6	<	ug/l	20	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	75-15-0	Carbon Disulfide	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	78-93-3	2-Butanone	3	<	ug/l	10	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	78-87-5	1,2-Dichloropropane	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	75-27-4	Bromodichloromethane	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	108-68-3	Toluene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	79-00-5	1,1,2-Trichloroethane	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	127-18-4	Tetrachloroethene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	124-48-1	Dibromochloromethane	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	106-93-4	1,2-Dibromoethane	1	<	ug/l	1	U	U	U	1	12/12/2001	N1	GW	QL lowered
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	108-90-7	Chlorobenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	100-41-4	Ethylbenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	100-42-5	Styrene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	75-25-2	Bromoform	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	79-34-5	1,1,2,2-Tetrachloroethane	1	<	ug/l	1	U	U	U	1	12/12/2001	N1	GW	QL lowered
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	96-12-8	1,2-Dibromo-3-chloropropane	2	<	ug/l	1	U	U	U	1	12/12/2001	N1	GW	QL lowered
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	10061-02-4	trans-1,3-Dichloropropene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	10061-01-1	cis-1,3-Dichloropropene	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	108-10-1	4-Methyl-2-pentanone	3	<	ug/l	10	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	591-78-6	2-Hexanone	3	<	ug/l	10	U	U	U	1	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS05	SW8260B	3740549	1330-20-7	Xylene (Total)	1	<	ug/l	5	U	U	U	1	12/12/2001	N1	GW	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	74-97-5	Bromochloromethane	1	<	ug/l	5	U	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	98-82-8	Isopropylbenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	541-73-1	1,3-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	106-46-7	1,4-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	95-50-1	1,2-Dichlorobenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	120-82-1	1,2,4-Trichlorobenzene	1	<	ug/l	5	U	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	75-71-8	Dichlorodifluoromethane	2	<	ug/l	5	U	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	74-87-3	Chloromethane	2	<	ug/l	1	U	U	U	1	12/12/2001	TB1	W	QL lowered
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	75-01-4	Vinyl Chloride	1	<	ug/l	1	U	U	U	1	12/12/2001	TB1	W	QL lowered
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	74-83-9	Bromomethane	2	<	ug/l	5	U	U	U	1	12/12/2001	TB1	W	

SAMP_ID	SAMP_DA	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	67-64-1	Acetone		6	<	ug/l	20	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/12/2001	TB1	W	QL lowered
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	79-34-5	1,1,1,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/12/2001	TB1	W	QL lowered
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/12/2001	TB1	W	QL lowered
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	10061-01-4	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/12/2001	TB1	W	
TB-120601-1	12/6/2001	DSS05	SW8260B	3740550	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/12/2001	TB1	W	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	75-35-4	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	67-64-1	Acetone		6	<	ug/l	20	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	

SAMP_ID	SAMP_DA	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUTI	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	10061-02-1	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS05	SW8260B	3740937	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	67-64-1	Acetone		6	<	ug/l	20	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	10061-02-1	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	

SAMP_ID	SAMP_DA	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUTI	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-96R	12/7/2001	DSS05	SW8260B	3740938	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	108-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	67-86-3	Chloroform		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	58-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	67-64-1	Acetone		8	<	ug/l	20	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	78-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	75-25-2	Bromofom		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	98-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/11/2001	N1	GW	QL lowered
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	10061-02-1	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/11/2001	N1	GW	
GW-FS-OW-103	12/7/2001	DSS05	SW8260B	3740939	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/11/2001	N1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	108-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/11/2001	FB1	GW	QL lowered
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/11/2001	FB1	GW	QL lowered
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FLAG	UNITS	LIMIT2	CR_C	ER_Q	DILUTION	TESTED	SA_CODE	MATRIX	NOTE
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	67-64-1	Acetone		6	<	ug/l	20	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/11/2001	FB1	GW	QL lowered
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	75-25-2	Bromoform		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/11/2001	FB1	GW	QL lowered
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/11/2001	FB1	GW	QL lowered
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	10081-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/11/2001	FB1	GW	
GW-FB-OW-95R	12/7/2001	DSS05	SW8260B	3740940	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/11/2001	FB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/11/2001	RB1	GW	QL lowered
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/11/2001	RB1	GW	QL lowered
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	75-35-4	1,1-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	79-01-6	Trichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	67-64-1	Acetone		6	<	ug/l	20	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	

SAMP_ID	SAMP_DA	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DILUT	TESTED	SA_CODE	MATRIX	NOTE
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/11/2001	RB1	GW	QL lowered
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	75-25-2	Bromofom		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/11/2001	RB1	GW	QL lowered
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/11/2001	RB1	GW	QL lowered
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/11/2001	RB1	GW	
GW-RB-OW-95R	12/7/2001	DSS05	SW8260B	3740941	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/11/2001	RB1	GW	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	74-97-5	Bromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	98-82-8	Isopropylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	541-73-1	1,3-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	106-46-7	1,4-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	95-50-1	1,2-Dichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	120-82-1	1,2,4-Trichlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	75-71-8	Dichlorodifluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	74-87-3	Chloromethane		2	<	ug/l	1	U	U	1	12/11/2001	TB1	W	QL lowered
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	75-01-4	Vinyl Chloride		1	<	ug/l	1	U	U	1	12/11/2001	TB1	W	QL lowered
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	74-83-9	Bromomethane		2	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	75-00-3	Chloroethane		2	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	75-69-4	Trichlorofluoromethane		2	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	75-35-4	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	75-09-2	Methylene Chloride		2	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	156-60-5	trans-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	75-34-3	1,1-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	156-59-2	cis-1,2-Dichloroethene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	67-66-3	Chloroform		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	71-55-6	1,1,1-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	56-23-5	Carbon Tetrachloride		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	71-43-2	Benzene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	107-06-2	1,2-Dichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	79-01-6	Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	67-64-1	Acetone		6	<	ug/l	20	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	75-15-0	Carbon Disulfide		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	78-93-3	2-Butanone		3	<	ug/l	10	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	78-87-5	1,2-Dichloropropane		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	75-27-4	Bromodichloromethane		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	108-88-3	Toluene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	79-00-5	1,1,2-Trichloroethane		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	127-18-4	Tetrachloroethene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	124-48-1	Dibromochloromethane		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	106-93-4	1,2-Dibromoethane		1	<	ug/l	1	U	U	1	12/11/2001	TB1	W	QL lowered
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	108-90-7	Chlorobenzene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	100-41-4	Ethylbenzene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	100-42-5	Styrene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	75-25-2	Bromofom		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	79-34-5	1,1,2,2-Tetrachloroethane		1	<	ug/l	1	U	U	1	12/11/2001	TB1	W	QL lowered
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	96-12-8	1,2-Dibromo-3-chloropropane		2	<	ug/l	1	U	U	1	12/11/2001	TB1	W	QL lowered
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	10061-02-4	trans-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	10061-01-1	cis-1,3-Dichloropropene		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	108-10-1	4-Methyl-2-pentanone		3	<	ug/l	10	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	591-78-6	2-Hexanone		3	<	ug/l	10	U	U	1	12/11/2001	TB1	W	
TB-120701-1	12/7/2001	DSS05	SW8260B	3740942	1330-20-7	Xylene (Total)		1	<	ug/l	5	U	U	1	12/11/2001	TB1	W	

Davis Liquid Waste Superfund Site Smithfield, RI
 ESS - Groundwater Investigation Fall 2001
 8260B Data Review Checklist

Lab: Lancaster
 Date Sampled: 12/03/01 - 12/07/01
 Method of Analysis: 8260B

Lab Project #: DSS05
 No. Samples: 12 + 1RB + 1FB + 5TB
 Matrix: Groundwater

	Preservation & HT (14d)	Surrogate	LCS	MS	FD RPD<30%	Accept. Blanks	RL & Quant. Correct	Other
All Samples in Project	✓	✓	✓	Unable to Assess	Unable to Assess	✓	Fixed	NA
Except:								

Comments: Coolers received intact at 4±2°C. COC for samples collected on 12/5/01 lists Sample IDs as GS-FS-OW-81, GS-FS-OW-83 + GS-FS-OW-84. IDs changed per Anna Frye to GW- prefix. All samples verified at pH < 2, and all samples were analyzed within HT ⇒ No Action Required

All 4 Surrogates in all samples + QC were received within criteria ⇒ No Action Required

LCS-limits used are updated Lab limits ≠ QAPP limits. Lab limits used for assessment. LCS policy for Lab is that 1 LCS/20 field samples ⇒ LCS can transcend time.

Date 1/23/02

Data Reviewer η C. R. K.

Lab: LANCASTER
Date Sampled: 12/03/01 - 12/07/01
Method of Analysis: 8260B

Lab Project #: DSS05
No. Samples: 12+1RB+1FB+5TB
Matrix: Groundwater

Additional Notes:

LCSWL36, LCSWP55 + LCSWP58 - All 3 Rec OK
LCSWL42 - All OK except Dichlorofluoromethane high at 134% rec. + 3-chloro-1,3-butadiene high at 129%. This last compound is not a target => No Action required. All samples associated with LCSWL42 were non-detected for dichlorodifluoromethane => no action required based on high recovery
mslmsd reported on a non-site related sample (i.e. batch QC) => recovery + RPD information meaningless for Davis samples.
DSS01, DSS02 + DSS05 (3 GW VOC SDGs) - 30 field samples + in DSS01 1 mslmsd on site samples - DSS02 + DSS05 mslmsd on non-site sample => only 1 mslmsd / 30 field samples. QAPP did not have an mslmsd frequency requirement for VOCs => since lab did perform mslmsd for each SDG, lab method compliant.
FD pair = GW-FS-OW-95B and GW-FS-OW-103 - Both samples were non-detected for all VOCs => can not assess FD precision based on these results.
The Analysis Reports (data sheets) for samples GW-FS-OW-81, GW-FS-OW-83, GW-FS-OW-84 and TB-120501-1 are in error since each target compound appears to have been reported twice (?). For example Acetone twice, etc.? Database does not have two entries / compound for these samples.
Sample GW-FS-OW-52 was analyzed at a 1:1 dilution (Dilution Factor = 1) and Ethylbenzene was reported at a concentration exceeding the instrument calibration range. The sample was reanalyzed at DF=2 + ethylbenzene was reported within the accurate quantitation range. In reporting results, lab reported all DF=1 data except ethylbenzene which was reported from the DF=2 analysis. Raw data for both runs present + manner in which lab reported results acceptable.

Date 1/23/02

Data Reviewer N. C. R. M.

Davis Liquid Waste Superfund Site Smithfield, RI
 ESS - Groundwater Investigation Fall 2001
 8260B Data Review Checklist

Lab: Lancaster
 Date Sampled: 12/03/01 - 12/07/01
 Method of Analysis: 8260B

Lab Project #: DSS05
 No. Samples: 12 + 1RB + 1FB + 5TB
 Matrix: Groundwater

Additional Notes:

Data sheets show "As Received Method Detection Limits" rather than Quantitation Limits - Database has QLS reported in LIMIT2 field. Data user cautioned to disregard the MDLs (LIMIT1) since these are not supported by the calibrations.

LIMIT2 QLS are same as Lab QLS in Table 4A which are the ^{same} same as the Project QLS (PQLs) with the exception of chloromethane, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane, 1,1,2,2-tetrachloroethane + vinyl chloride for which PQLs range from 1 - 3 µg/L.

Lab reported 6-level ICALs from 4 µg/L → 300 µg/L; however, a 7th std. at 1 µg/L was analyzed but not included in curve statistics. During this assessment, the RRFs for these 5 compounds in the 1 µg/L stds were calculated + then the calibration (initial) statistics recalculated using 1 µg/L + 6-levels RRFs in Form 6 to determine if instruments accurate to 1 µg/L for the 5 compounds.

ICAL HPO6719 on 11/20/01 - 1 µg/L verified in SDG DSS01

VSTD001 HPO67

Compound	12/6/01 RRF	% RSD	} verified calibration acceptable from 1 µg/L → 300 µg/L
chloromethane	0.5711	10.4%	
1,2-dibromo-3-chloropropane	0.1939	8.3%	
1,2-dibromoethane	0.3743	4.1%	
1,1,2,2-tetrachloroethane	1.1124	3.7%	
vinyl chloride	0.3831	2.7%	

VSTD001 HPO7163 12/6/01

Compound	RRF	% RSD	} % RSDs < 30% ⇒ verified OK from 1 µg/L → 300 µg/L
chloromethane	0.5547	10.0%	
1,2-dibromo-3-chloropropane	0.1708	18.6%	
1,2-dibromoethane	0.3716	4.0%	
1,1,2,2-tetrachloroethane	1.0596	3.3%	
vinyl chloride	0.4348	6.7%	

* Action: QLS (LIMIT2) lowered from 5 µg/L to 1 µg/L for these 5 compounds in all samples.

Date 1/23/02

Data Reviewer 77 C. P. K.

5016

Lab: Lancaster
Date Sampled: 12/03/01 - 12/07/01
Method of Analysis: 8260B

Lab Project #: D5505
No. Samples: 12+1RB+1FB+5TB
Matrix: Groundwater

Additional Notes:

ICALs (3) met criteria

CCALs: HPO6719 1215/01 @ 09:25 - All Targets OK ($90D \leq \pm 25\%$)

HPO6719 1215/01 @ 21:57, all OK except Trichlorofluoromethane $90D = 28\%$ due to enhanced sensitivity (note prior Fcm 7's evaluated in D5501 + D5502 used different $90D$ convention - neg. $90D \Rightarrow$ enhanced sensitivity, + $90D \Rightarrow$ decreased sensitivity. For this CCAL though + $90D \Rightarrow$ enhanced sens., - $90D \Rightarrow$ decreased sensitivity. D5502 re-verified ✓)

HPO6719 1214/01 @ 09:44 - All Targets OK

HPO6719 1212/01 @ 09:40 - All OK except Dichlorodifluoromethane $90D = 30\%$ due to enhanced sensitivity

HPO7163 1217/01 @ 22:05 - All Targets OK

HPO7163 1218/01 @ 11:25 - All Targets OK

HPO7163 1219/01 @ 21:01 - All Targets OK except Bromomethane $90D = 27\%$ due to enhanced sensitivity.

All samples associated with the 3 CCALs which showed enhanced sensitivity for selected targets were non-detect for those targets \Rightarrow No Action required.

Note 1) Sample IDs truncated on Summary Forms 2) Summary forms show all samples analyzed with GC element regardless of whether they were related to this project 3) LCS, msl/msd, and calibrations showed many non-target compounds in addition to the targets.

Date 1/23/02

Data Reviewer MJC.RM

Davis Liquid Waste Superfund Site Smithfield, RI
 ESS - Groundwater Investigation Fall 2001
 8260B Data Review Checklist

Sample ID	Date Sampled	Field Blank	Trip Blank	Method Blank	LCS	Date Analyzed
GW-FS-OW-52 3737558	12/3/01	FB+RB-OW-95R	TB-120301-1	VBLK L37	LCSWL36	12/05/01
TB-120301-1 37559	12/3/01	NA	NA	↓	↓	↓
GW-FS-OW-86 38473	12/4/01	FB+RB-OW-95R	TB-120401-1	VBLK P56	LCSWP55	12/08/01
GW-FS-OW-85 38474	↓	↓	↓	↓	↓	↓
TB-120401-1 38475	↓	NA	NA	↓	↓	↓
GW-FS-OW-81 39278	12/05/01	FB+RB-OW-95R	TB-120501-1	VBLK P58	LCSWP58	12/10/01
GW-FS-OW-83 39279	↓	↓	↓	↓	↓	↓
GW-FS-OW-84 39280	↓	↓	↓	↓	↓	↓
TB-120501-1 39281	↓	NA	NA	↓	↓	↓
GW-FS-OW-82 40547	12/06/01	FB+RB-OW-95R	TB-120601-1	VBLK L42	LCSWL42	12/11/01
GW-FS-OW-96(O) 40548	↓	↓	↓	VBLK L43	LCSWL42	12/12/01
GW-FS-OW-95(O) 40549	↓	↓	↓	↓	↓	↓
TB-120601-1 40550	↓	NA	NA	↓	↓	↓
GW-FS-OW-95R 40937	12/07/01	FB+RB-OW-95R	TB-120701-1	VBLK L42	LCSWL42	12/11/01
GW-FS-OW-96R 40938	↓	↓	↓	↓	↓	↓
GW-FS-OW-103 40939	↓	↓	↓	↓	↓	↓
GW-FB-OW-95R 40940	↓	NA	↓	↓	↓	↓
GW-RB-OW-95R 40941	↓	NA	↓	↓	↓	↓
TB-120701-1 40942	↓	NA	NA	↓	↓	↓

SA + DL

Date 1/23/02

Data Crewer 770.RK

MNA Parameters - Groundwater	Reported in SDG?	LCS	MB	MS	MD	FD	Associated Field Blanks	Associated Rinsate Blanks	HT/Preservation	Action/Qualifier
		80-120% Recovery	< RL in ug/L	75-125 % Recovery	≤ 20% RPD	≤ 30% RPD	< RL in ug/L	< RL in ug/L	4 ± 2°C	U or R?
Alkalinity to pH 8.3	Yes	✓	NA	✓	✓	NA	NA	NA	14D ✓	No
Alkalinity to pH 4.5		✓	↓	✓ ^{non}	✓				14D ✓	
Nitrite Nitrogen		✓	✓	LOW-038 ⁰³⁸	LOW-036 ⁰³⁶				48H ✓✓✓	
Nitrate Nitrogen		✓	✓	LOW-038	✓			NON	48H+28D ✓	
Sulfide		✓	✓	✓	✓				pH>9, 7D ✓✓✓	
Total Organic Carbon		✓	✓	LOW-036	✓				pH<2, 28D ✓	
Chloride (titrimetric)		✓	✓	✓	✓				28D ✓	
Sulfate (turbidimetric)		✓	✓	✓	✓				28D ✓	
Iron (total)		✓	✓	NA	NA	NA	NA	NA	pH<2, 180D ✓	
Manganese (total)	↓	✓	✓	NA	NA	NA	NA	NA	pH<2, 180D ✓	↓
Iron (filtered)	NO								pH<2, filtered 24H, 180D	
Manganese (filtered)	NO								pH<2, filtered 24H, 180D	

Comments: Per the QAPP, the MNA Parameters are evaluated only to determine whether rejection (qualified "R") or negation (qualified "U") of results may be warranted. If a MNA Parameter was reported in the SDG, the Quality Control, as indicated in the above table, was evaluated and the table completed with the following notations: "✓" if QC within criteria; "L" if QC out and data has possible Low Bias; "H" if QC out and data has possible High Bias; "I" if QC is out and data is of Indeterminate Bias; "U" result should be negated; "R" result is rejected and is unusable for project objectives; and "NA" for QC parameter Not Available - unable to assess. Notes below explain details of "R" or "U" actions.

Notes: Samples received intact at 4±2°C in 3 shipments. Nitrate HT per method 353.2 is 28 days. For methods, full CLP-like data package provided. MS for metals was batch QC (i.e., non-site matrix used for MS) ⇒ not applicable for these samples. MD also on non-site related samples ⇒ not applicable. For MS + MD's - % RPDs + RPDs OK ⇒ Batch seems to have no obvious anomalies for metals determination - No evidence in data package to suggest data for Fe + Mn should be negated or rejected - also no evidence for bias in these results - data as reported on Form I's checked versus database - no change from as reported by lab. These total Fe + Mn results compared to Dissolved results presented in D5504. The D5503 Total Metals were either higher or comparable (within RPD±20%) to dissolved values ⇒ data for Total + Dissolved

MS for OW-038 Nitrate recovered low (73%), Nitrite on OW-036 recovered low (67%) and TOC on OW-036 recovered low (62%). MS for Nitrate, Nitrite + TOC done on each sample + all other results were within criteria

Date: 1/15/02

Data Reviewer: 77C. RL

Notes: MDS for Nitrite, Nitrate + TOC - Lab control limits very tight. For this assessment, QAPP limit of RPD $\leq 20\%$ used.

MD results acceptable for all analytes except OW-036 Nitrate at 47% \Rightarrow Nitrite in OW-036 considered estimated with indeterminate bias due to MD imprecision.

LCS results for Nitrite, Nitrate + TOC all within 90-110% recovery - all OK

MS/MSD for Alkalinity, Chloride, Sulfate + Sulfide - All %RCL OK + RPDs met lab criteria

MD analysis - Lab's limits tighter than requested in QAPP - assessment used RPD $\leq 20\%$. MD precision for alkalinity, chloride, sulfate + sulfide acceptable

LCS recovery for these 4 parameters all within 90-110% \Rightarrow Acceptable

Based on this assessment of the data, no action to negate (N) or reject (R) results required.

The hardcopy data was checked versus the database results. Those results reported above the sample-specific MDL (but limit 1 in Database) and below the sample-specific Quantitation Limit (Limit 2) were qualified as estimated (J) by the lab to indicate the results are estimated below the QLS. The "J" values reported by the lab were not changed during this assessment (i.e., these "J" values remained as "J" values in the ER-Q (Data Validation Qualifier Field in the Database).

* Based on this assessment, the Nitrate result for GW-FS-OW-038 should be considered estimated and may be biased low based on MS recovery results.

The ~~Nitrate~~ Nitrate + TOC results for GW-FS-OW-036 should be considered estimated and may be biased low based on MS recovery results.

The Nitrite result for GW-FS-OW-036 should be considered estimated with indeterminate bias based upon MD imprecision and low MS recovery.

Per the QAPP, the estimation of results for Nitrite, Nitrate + TOC in these 2 samples listed above (where 11502 was not added to the database (i.e. J qualifier to these data in ER-Q field) was not added). Note added to Database about possible Bias for Nitrite, Nitrate + TOC for these 2 samples.

Date: 1/15/02

Data Reviewer: M. J. C. R. K.

Davis Liquid Waste Superfund Site
Smithfield, Rhode Island
ESS - Remedy Pre-Design Groundwater Investigation Phase 1 - 2001

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL	FL	UNITS	LIMIT2	CR	C	ER	Q	DILU	TESTED	TIME	MATRIX	NOTE
GW-FS-OW-038	11/19/2001	DSS03	E310.1	3730837	ALK8.3	Alkalinity to pH 8.3		0.41	<		mg/l	2	U		U		1	11/29/2001	6:00	GW	
GW-FS-OW-038	11/19/2001	DSS03	E310.1	3730837	ALK4.5	Alkalinity to pH 4.5	12.2	0.41			mg/l	2					1	11/29/2001	8:00	GW	
GW-FS-OW-038	11/19/2001	DSS03	E353.2	3730837	14797-65-0	Nitrite Nitrogen		0.015	<		mg/l	0.05	U		U		1	11/20/2001	20:32	GW	
GW-FS-OW-038	11/19/2001	DSS03	E353.2	3730837	14797-55-8	Nitrate Nitrogen		0.04	<		mg/l	0.1	U		U		1	11/27/2001	16:34	GW	Low MS recovery, possible low bias
GW-FS-OW-038	11/19/2001	DSS03	E376.2	3730837	18496-25-8	Sulfide	0.022	0.022			mg/l	0.1	J		J		1	11/21/2001	9:30	GW	
GW-FS-OW-038	11/19/2001	DSS03	E415.1	3730837	TOC	Total Organic Carbon	0.67	0.6			mg/l	2	J		J		1	11/29/2001	14:25	GW	
GW-FS-OW-038	11/19/2001	DSS03	E325.3	3730837	16887-00-6	Chloride (titrimetric)	6.0	0.4			mg/l	2					1	11/28/2001	10:48	GW	
GW-FS-OW-038	11/19/2001	DSS03	E375.4	3730837	14808-79-8	Sulfate (turbidimetric)	4.1	1.5			mg/l	5	J		J		1	12/3/2001	7:22	GW	
GW-FS-OW-038	11/19/2001	DSS03	SW6010B	3730837	7439-89-6	Iron		0.038	<		mg/l	0.1	U		U		1	12/3/2001	12:32	GW	
GW-FS-OW-038	11/19/2001	DSS03	SW6010B	3730837	7439-96-5	Manganese	0.162	0.0006			mg/l	0.01					1	12/3/2001	12:32	GW	
GW-FS-OW-036	11/20/2001	DSS03	E310.1	3731899	ALK8.3	Alkalinity to pH 8.3		0.41	<		mg/l	2	U		U		1	11/29/2001	9:07	GW	
GW-FS-OW-036	11/20/2001	DSS03	E310.1	3731899	ALK4.5	Alkalinity to pH 4.5	44	0.41			mg/l	2					1	11/29/2001	9:07	GW	
GW-FS-OW-036	11/20/2001	DSS03	E353.2	3731899	14797-65-0	Nitrite Nitrogen		0.015	<		mg/l	0.05	U		U		1	11/21/2001	21:35	GW	Low MS recovery + MD Imprecision - Indeterminate bias
GW-FS-OW-036	11/20/2001	DSS03	E353.2	3731899	14797-55-8	Nitrate Nitrogen		0.04	<		mg/l	0.1	U		U		1	12/5/2001	17:26	GW	
GW-FS-OW-036	11/20/2001	DSS03	E376.2	3731899	18496-25-8	Sulfide	0.029	0.022			mg/l	0.1	J		J		1	11/21/2001	9:30	GW	
GW-FS-OW-036	11/20/2001	DSS03	E415.1	3731899	TOC	Total Organic Carbon	1.2	0.6			mg/l	2	J		J		1	11/29/2001	18:44	GW	Low MS recovery, possible low bias
GW-FS-OW-036	11/20/2001	DSS03	E325.3	3731899	16887-00-6	Chloride (titrimetric)	34.6	0.4			mg/l	2					1	11/28/2001	10:48	GW	
GW-FS-OW-036	11/20/2001	DSS03	E375.4	3731899	14808-79-8	Sulfate (turbidimetric)	6.5	1.5			mg/l	5					1	12/3/2001	7:22	GW	
GW-FS-OW-036	11/20/2001	DSS03	SW6010B	3731899	7439-89-6	Iron		0.038	<		mg/l	0.1	U		U		1	12/3/2001	13:01	GW	
GW-FS-OW-036	11/20/2001	DSS03	SW6010B	3731899	7439-96-5	Manganese	0.274	0.0006			mg/l	0.01					1	12/3/2001	13:01	GW	
GW-FS-OW-052	12/3/2001	DSS03	E310.1	3737546	ALK8.3	Alkalinity to pH 8.3		0.41	<		mg/l	2	U		U		1	12/6/2001	19:12	GW	
GW-FS-OW-052	12/3/2001	DSS03	E310.1	3737546	ALK4.5	Alkalinity to pH 4.5	68.7	0.41			mg/l	2					1	12/6/2001	19:12	GW	
GW-FS-OW-052	12/3/2001	DSS03	E353.2	3737546	14797-65-0	Nitrite Nitrogen	0.048	0.015			mg/l	0.05	J		J		1	12/4/2001	21:31	GW	
GW-FS-OW-052	12/3/2001	DSS03	E353.2	3737546	14797-55-8	Nitrate Nitrogen		0.04	<		mg/l	0.1	U		U		1	12/12/2001	16:59	GW	
GW-FS-OW-052	12/3/2001	DSS03	E376.2	3737546	18496-25-8	Sulfide	0.24	0.022			mg/l	0.1					1	12/6/2001	11:10	GW	
GW-FS-OW-052	12/3/2001	DSS03	E415.1	3737546	TOC	Total Organic Carbon	4.4	0.6			mg/l	2					1	12/5/2001	12:33	GW	
GW-FS-OW-052	12/3/2001	DSS03	E325.3	3737546	16887-00-6	Chloride (titrimetric)	41.2	0.4			mg/l	2					1	12/10/2001	13:23	GW	
GW-FS-OW-052	12/3/2001	DSS03	E375.4	3737546	14808-79-8	Sulfate (turbidimetric)	6.1	1.5			mg/l	5					1	12/6/2001	7:10	GW	
GW-FS-OW-052	12/3/2001	DSS03	SW6010B	3737546	7439-89-6	Iron	20.6	0.038			mg/l	0.1					1	12/6/2001	21:38	GW	
GW-FS-OW-052	12/3/2001	DSS03	SW6010B	3737546	7439-96-5	Manganese	4.1	0.0006			mg/l	0.01					1	12/6/2001	21:38	GW	

U = Compound is not detected. Associated value is the reporting limit (RL). UJ = Compound is not detected at an estimated RL. J = Result is an estimated value. See Data Usability Report for details.

ESS - Remedy Pre-Design Groundwater Investigation Phase 1 - 2001

SAMP_ID	SAMP_DAT	SAMP	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FL	UNITS	LIMIT2	CR_C	ER_Q	DIL	TESTED	MATRIX	NOTE
GW-FS-OW-038	11/19/2001	11:00	DSS04	SW6010B	3730841	7439-89-6	Iron		0.038	<	mg/l	0.1	U	U	1	12/3/2001	GW	
GW-FS-OW-038	11/19/2001	11:00	DSS04	SW6010B	3730841	7439-96-5	Manganese	0.156	6E-04		mg/l	0.01			1	12/3/2001	GW	
GW-FS-OW-036	11/20/2001	12:40	DSS04	SW6010B	3731900	7439-89-6	Iron		0.038	<	mg/l	0.1	U	U	1	12/3/2001	GW	
GW-FS-OW-036	11/20/2001	12:40	DSS04	SW6010B	3731900	7439-96-5	Manganese	0.276	6E-04		mg/l	0.01			1	12/3/2001	GW	
GW-FS-OW-052	12/3/2001	16:00	DSS04	SW6010B	3737547	7439-89-6	Iron	20.4	0.038		mg/l	0.1			1	12/6/2001	GW	
GW-FS-OW-052	12/3/2001	16:00	DSS04	SW6010B	3737547	7439-96-5	Manganese	4.07	6E-04		mg/l	0.01			1	12/6/2001	GW	

U = Compound is not detected. R = Result is rejected and is unusable for project objectives. See Data Review Checklist for details.

Lab: Lancaster
 Date(s) Sampled: 12/4/01 - 12/7/01

Davis Liquid Waste Superfund Site, Smithfield, RI
 ESS - Remedy Pre-Design Groundwater Investigation, Phase I

SDG #: D5506
 No. Samples: 5
 Matrix: Groundwater

MNA Parameters - Groundwater	Reported in SDG?	LCS	MB	MS	MD	FD	Associated Field Blanks	Associated Rinsate Blanks	HT/Preservation	Action/Qualifier
		80-120% Recovery	< RL in ug/L	75-125 % Recovery	≤ 20% RPD	≤ 30% RPD	< RL in ug/L	< RL in ug/L	4 ± 2°C	None/Rejection/Use R?
Alkalinity to pH 8.3	✓	✓	None/Use ✓	✓	✓	NA	NA	NA	14D ✓	None
Alkalinity to pH 4.5	✓	✓	✓	✓	✓	NA	NA	NA	14D ✓	
Nitrite Nitrogen	✓	✓	✓	✓	✓	NA	NA	NA	48H ✓	
Nitrate Nitrogen	✓	✓	✓	✓	NA	NA	NA	NA	48H-28D ✓	
Sulfide	✓	✓	✓	✓	✓	NA	NA	NA	pH>9, 7D ✓	
Total Organic Carbon	✓	✓	NO HB in	✓	✓	NA	NA	NA	pH<2, 28D ✓	
Chloride (titrimetric)	✓	✓	✓	✓	✓	NA	NA	NA	28D ✓	
Sulfate (turbidimetric)	✓	✓	✓	✓	✓	NA	NA	NA	28D ✓	
Iron (total)	✓	✓	NO HB in	✓	✓	NA	NA	NA	pH<2, 180D ✓	None
Manganese (total)	✓	✓	No	✓	✓	NA	NA	NA	pH<2, 180D ✓	None
Iron (filtered)	ND								pH<2, filtered 24H, 180D	
Manganese (filtered)	NO								pH<2, filtered 24H, 180D	

Comments: Per the QAPP, the MNA Parameters are evaluated only to determine whether rejection (qualified "R") or negation (qualified "U") of results may be warranted. If a MNA Parameter was reported in the SDG, the Quality Control, as indicated in the above table, was evaluated and the table completed with the following notations: "✓" if QC within criteria; "L" if QC out and data has possible Low Bias; "H" if QC out and data has possible High Bias; "I" if QC is out and data is of Indeterminate Bias; "U" result should be negated; "R" result is rejected and is unusable for project objectives; and "NA" for QC parameter Not Available - unable to assess. Notes below explain details of "R" or "U" actions.

QAPP indicates only "R" actions to be taken Nov 1/23/02

Notes: All samples were received intact at 4 ± 2°C. All HTS met, no Action Required. pH not listed for samples ⇒ assumed to be OK.

Metals Data: Prep Blank Reported Fe at 45.74 ug/L + Mn at 0.640 ug/L - All other Blanks (calibration) were < MDL.

Blank Action evaluation

	Blank Conc.	Blank Action Level	Actions/Notes
Fe	45.74 ug/L	228.7 ug/L	AW-86, OW-1123/01 OW-81 + OW-95(d) < B.A. Level.
Mn	0.64 ug/L	3.2 ug/L	All Mn above B.A. Level ⇒ OK as reported

Based on Preparation Blank result for Fe, the result reported for Fe in OW-81 + OW-95(d), which are below the Blank Action Level, may be biased high as reported (per QAPP, no negation preferred) - Note added to database "may be biased high" for Fe for these 2 samples.

Date: 1/23/02

Data Reviewer: M. C. R. K.

Notes:

Metals mslmsd due on non-site related sample - 90 Rec + RPDs for Fe + Mn acceptable however MD on non-site related sample. MD precision acceptable however

Nitrate, Nitrite + TOC evaluation:

MBS - all ND except TOC 0.166 mg/L for MB associated with GW-82, GW-95(a) + GW-95R - for all 3 samples TOC reported $\leq 5 \times$ MB \Rightarrow Note added to Database for these that result may be biased high.

MS/MSD Nov 1/23/02 MS analysis for Nitrate - 90 Rec all OK \Rightarrow No Action
MS Nitrite 90 Rec all OK \Rightarrow No Action
MS TOC 90 Rec all OK \Rightarrow No Action

MD Analysis - Lab Control limits tighter than QAPP (RPD $\leq 20\%$) - Assessment used QAPP limits - Nitrate + TOC OK, Sample/MD non-detect for Nitrite \Rightarrow Can't assess precision

LCS - All OK for Nitrate, Nitrite + TOC

Alkalinity, Chloride, Sulfate + Sulfide -

Labs mslmsd RPD acceptance limits very tight \Rightarrow Alkalinity Data Flagged at RPD = 420 - 490 RPD acceptable (using MD precision objective of RPD $\leq 20\%$) \Rightarrow No Action
90 Rec of mslmsd all within criteria

MD precision all Acceptable

LCS/LCSD - 90 Rec all Acceptable - RPD OK

\therefore No Action required to Reject (R) any MNA Data in DSS06. 2 Iron results +

3 TOC results may be biased high based on the reported level of Iron + TOC in associated method blanks. - Note added to Database.

DSS07 Filtered Fe + Mn Results for these samples (DSS06) - All Total Results are $>$ Filtered and are comparable (i.e. RPD $\leq 120\%$ between Filtered + Total Metals) \Rightarrow Results are reasonable - No Action required.

Sample ID GS-FS-OW-86 was changed to GW-FS-OW-86 in data file

Date: 1/23/02

Data Reviewer: M J C. Rik

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS_ID	LAB_CHEM	CONC	LIMIT1	DL_FLAG	UNITS	LIMIT2	CR_C	ER_Q	DILUTION	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-86	12/4/2001	DSS06	E310.1	3738476	ALK8.3	Alkalinity to pH 8.3		0.41	<	mg/l	2	U	U		12/11/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS06	E310.1	3738476	ALK4.5	Alkalinity to pH 4.5	41.3	0.41		mg/l	2				12/11/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS06	E353.2	3738476	14797-65-0	Nitrite Nitrogen		0.015	<	mg/l	0.05	U	U		12/5/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS06	E353.2	3738476	14797-55-8	Nitrate Nitrogen	0.075	0.04		mg/l	0.1	J	J		12/12/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS06	E376.2	3738476	18496-25-8	Sulfide	0.035	0.022		mg/l	0.1	J	J		12/6/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS06	E415.1	3738476	TOC	Total Organic Carbon	1.15	0.6		mg/l	2	J	J		12/6/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS06	E325.3	3738476	16887-00-6	Chloride (titrimetric)	2.9	0.4		mg/l	2				12/10/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS06	E375.4	3738476	14808-79-8	Sulfate (turbidimetric)	7.4	1.5		mg/l	5				12/6/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS06	SW6010B	3738476	7439-89-6	Iron	26.5	0.038		mg/l	0.1				12/12/2001	N1	GW	
GW-FS-OW-86	12/4/2001	DSS06	SW6010B	3738476	7439-98-5	Manganese	0.0667	0.00062		mg/l	0.01				12/12/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS06	E310.1	3739282	ALK8.3	Alkalinity to pH 8.3		0.41	<	mg/l	2	U	U		12/11/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS06	E310.1	3739282	ALK4.5	Alkalinity to pH 4.5	2.2	0.41		mg/l	2				12/11/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS06	E353.2	3739282	14797-65-0	Nitrite Nitrogen		0.015	<	mg/l	0.05	U	U		12/6/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS06	E353.2	3739282	14797-55-8	Nitrate Nitrogen		0.04	<	mg/l	0.1	U	U		12/15/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS06	E376.2	3739282	18496-25-8	Sulfide		0.022	<	mg/l	0.1	U	U		12/6/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS06	E415.1	3739282	TOC	Total Organic Carbon	0.71	0.6		mg/l	2	J	J		12/11/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS06	E325.3	3739282	16887-00-6	Chloride (titrimetric)	2.6	0.4		mg/l	2				12/10/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS06	E375.4	3739282	14808-79-8	Sulfate (turbidimetric)	6.3	1.5		mg/l	5				12/11/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS06	SW6010B	3739282	7439-89-6	Iron	0.0532	0.038		mg/l	0.1	J	J		12/12/2001	N1	GW	May be biased high
GW-FS-OW-81	12/5/2001	DSS06	SW6010B	3739282	7439-98-5	Manganese	0.018	0.00062		mg/l	0.01				12/12/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS06	E310.1	3740579	ALK8.3	Alkalinity to pH 8.3		0.41	<	mg/l	2	U	U		12/13/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS06	E310.1	3740579	ALK4.5	Alkalinity to pH 4.5	48.2	0.41		mg/l	2				12/13/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS06	E353.2	3740579	14797-65-0	Nitrite Nitrogen		0.015	<	mg/l	0.05	U	U		12/8/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS06	E353.2	3740579	14797-55-8	Nitrate Nitrogen		0.04	<	mg/l	0.1	U	U		12/15/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS06	E376.2	3740579	18496-25-8	Sulfide	0.022	0.022		mg/l	0.1	J	J		12/12/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS06	E415.1	3740579	TOC	Total Organic Carbon	1.29	0.6		mg/l	2	J	J		12/11/2001	N1	GW	May be biased high
GW-FS-OW-82	12/6/2001	DSS06	E325.3	3740579	16887-00-6	Chloride (titrimetric)	2.6	0.4		mg/l	2				12/10/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS06	E375.4	3740579	14808-79-8	Sulfate (turbidimetric)	3	1.5		mg/l	5	J	J		12/11/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS06	SW6010B	3740579	7439-89-6	Iron	4.65	0.038		mg/l	0.1				12/12/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS06	SW6010B	3740579	7439-98-5	Manganese	0.0175	0.00062		mg/l	0.01				12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS06	E310.1	3740580	ALK8.3	Alkalinity to pH 8.3		0.41	<	mg/l	2	U	U		12/13/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS06	E310.1	3740580	ALK4.5	Alkalinity to pH 4.5	2.1	0.41		mg/l	2				12/13/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS06	E353.2	3740580	14797-65-0	Nitrite Nitrogen		0.015	<	mg/l	0.05	U	U		12/8/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS06	E353.2	3740580	14797-55-8	Nitrate Nitrogen		0.04	<	mg/l	0.1	U	U		12/15/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS06	E376.2	3740580	18496-25-8	Sulfide	0.024	0.022		mg/l	0.1	J	J		12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS06	E415.1	3740580	TOC	Total Organic Carbon	2.1	0.6		mg/l	2				12/11/2001	N1	GW	May be biased high
GW-FS-OW-95(o)	12/6/2001	DSS06	E325.3	3740580	16887-00-6	Chloride (titrimetric)	2.7	0.4		mg/l	2				12/10/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS06	E375.4	3740580	14808-79-8	Sulfate (turbidimetric)	6	1.5		mg/l	5				12/11/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS06	SW6010B	3740580	7439-89-6	Iron	0.0652	0.038		mg/l	0.1	J	J		12/12/2001	N1	GW	May be biased high
GW-FS-OW-95(o)	12/6/2001	DSS06	SW6010B	3740580	7439-98-5	Manganese	0.0297	0.00062		mg/l	0.01				12/12/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS06	E310.1	3740947	ALK8.3	Alkalinity to pH 8.3	13.8	0.41		mg/l	2				12/13/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS06	E310.1	3740947	ALK4.5	Alkalinity to pH 4.5	50.6	0.41		mg/l	2				12/13/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS06	E353.2	3740947	14797-65-0	Nitrite Nitrogen		0.015	<	mg/l	0.05	U	U		12/8/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS06	E353.2	3740947	14797-55-8	Nitrate Nitrogen	0.16	0.04		mg/l	0.1				12/24/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS06	E376.2	3740947	18496-25-8	Sulfide	0.024	0.022		mg/l	0.1	J	J		12/12/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS06	E415.1	3740947	TOC	Total Organic Carbon	2.5	0.6		mg/l	2				12/12/2001	N1	GW	May be biased high
GW-FS-OW-95R	12/7/2001	DSS06	E325.3	3740947	16887-00-6	Chloride (titrimetric)	3.1	0.4		mg/l	2				12/10/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS06	E375.4	3740947	14808-79-8	Sulfate (turbidimetric)	19.9	1.5		mg/l	5				12/11/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS06	SW6010B	3740947	7439-89-6	Iron	0.531	0.038		mg/l	0.1				12/12/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS06	SW6010B	3740947	7439-98-5	Manganese	0.0111	0.00062		mg/l	0.01				12/12/2001	N1	GW	

MNA Parameters - Groundwater	Reported in SDG?	LCS	MB	MS	MD	FD	Associated Field Blanks	Associated Rinsate Blanks	HT/Preservation	Action/Qualifier
		80-120% Recovery	< RL in ug/L	75-125 % Recovery	≤ 20% RPD	≤ 30% RPD	< RL in ug/L	< RL in ug/L	4 ± 2°C	<u>NM 1/23/02</u> ✓ or R?
Alkalinity to pH 8.3	No								14D	
Alkalinity to pH 4.5									14D	
Nitrite Nitrogen									48H	
Nitrate Nitrogen									48H	
Sulfide									pH>9, 7D	
Total Organic Carbon									pH<2, 28D	
Chloride (titrimetric)									28D	
Sulfate (turbidimetric)									28D	
Iron (total)									pH<2, 180D	
Manganese (total)			OW-82 H	<u>NM 1/23/02</u>					pH<2, 180D	
Iron (filtered)	✓	✓	<u>OW-86 H</u>	✓	✓	NA	NA	NA	pH<2, filtered 24H, 180D	✓ None
Manganese (filtered)	✓	✓	<u>OW-82 H</u>	✓	✓	NA	↓	↓	pH<2, filtered 24H, 180D	✓ ↓

Comments: Per the QAPP, the MNA Parameters are evaluated only to determine whether rejection (qualified "R") or negation (qualified "U") of results may be warranted. If a MNA Parameter was reported in the SDG, the Quality Control, as indicated in the above table, was evaluated and the table completed with the following notations: "✓" if QC within criteria; "L" if QC out and data has possible Low Bias; "H" if QC out and data has possible High Bias; "I" if QC is out and data is of Indeterminate Bias; "U" result should be negated; "R" result is rejected and is unusable for project objectives; and "NA" for QC parameter Not Available - unable to assess. Notes below explain details of "R" or "U" actions. Per QAPP, only action to be taken is Rejection (R) - NM 1/23/02

Notes: These 5 samples were filtered in the field. Samples were received intact at 4 ± 2°C. pH not noted => assumed to be OK

Method Blank reported 45.7 ug/L Fe + 0.640 ug/L Mn - Blank Action Level = 5 x level in Blank. (Fe level) = 228.5 ug/L = 0.2285 mg/L + Mn level = 3.2 ug/L = 0.0032 mg/L. Samples reporting Fe at level below 0.2285 were OW-86 (all other samples non-detected) - Note added to Database re: result for Iron for OW-86 that result may be biased high

For Mn: All samples except OW-82 either non-detected or Mn at level > 0.0032 mg/L. Note added to Database re: result for Mn for OW-82 that result may be biased high.

MS, LCS + MD all OK - No FD with samples - No Action other than to note possible high bias in 2 results required. No rejection of data.

Totals (DSS06) + Filtered reasonable => No Action
 Sample ID GS-FS-OW-86 was changed to GW-FS-OW-86 in data file

Date: 1/23/02
 Data Reviewer: [Signature]

SAMP_ID	SAMP_DATE	SDG_ID	METHOD	LSAMP_ID	LAB_CAS	LAB_CHEM	CONC	LIMIT1	DL_FLAG	UNITS	LIMIT2	CR_C	ER_Q	TESTED	SA_CODE	MATRIX	NOTE
GW-FS-OW-86	12/4/2001	DSS07	SW6010B	3738477	7439-89-6	Iron	0.044	0.038		mg/l	0.1	J	J	12/12/2001	N1	GW	May be biased high
GW-FS-OW-86	12/4/2001	DSS07	SW6010B	3738477	7439-96-5	Manganese	0.0182	0.0062		mg/l	0.01			12/12/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS07	SW6010B	3739283	7439-89-6	Iron		0.038	<	mg/l	0.1	U	U	12/12/2001	N1	GW	
GW-FS-OW-81	12/5/2001	DSS07	SW6010B	3739283	7439-96-5	Manganese	0.0196	0.0062		mg/l	0.01			12/12/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS07	SW6010B	3740581	7439-89-6	Iron		0.038	<	mg/l	0.1	U	U	12/12/2001	N1	GW	
GW-FS-OW-82	12/6/2001	DSS07	SW6010B	3740581	7439-96-5	Manganese	0.0027	0.0062		mg/l	0.01	J	J	12/12/2001	N1	GW	May be biased high
GW-FS-OW-95(o)	12/6/2001	DSS07	SW6010B	3740582	7439-89-6	Iron		0.038	<	mg/l	0.1	U	U	12/12/2001	N1	GW	
GW-FS-OW-95(o)	12/6/2001	DSS07	SW6010B	3740582	7439-96-5	Manganese	0.0296	0.0062		mg/l	0.01			12/12/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS07	SW6010B	3740948	7439-89-6	Iron		0.038	<	mg/l	0.1	U	U	12/12/2001	N1	GW	
GW-FS-OW-95R	12/7/2001	DSS07	SW6010B	3740948	7439-96-5	Manganese		0.0062	<	mg/l	0.01	U	U	12/12/2001	N1	GW	

MNA Parameter	PQL	PQL Met?	LCS	MB	MS	MD	HT/Preservation	Action/Qualifier
			70-130% Recovery	< RL in ug/L	75-125 % Recovery	≤ 20% RPD	4 ± 2°C, 14 days	U or R?
Carbon Dioxide	600 ug/L	✓	✓	✓	NA	NA	HT out for all	NA
Methane	0.02 ug/L	✓	✓	✓	↓	↓	↓	↓
Ethane	5 ng/L	✓	✓	✓	↓	↓	↓	↓
Ethene	5 ng/L	✓	✓	✓	↓	↓	↓	↓

Comments: Per the QAPP, the MNA Parameters are evaluated only to determine whether rejection (qualified "R") or negation (qualified "U") of results may be warranted. If a MNA Parameter was reported in the SDG, the Quality Control, as indicated in the above table, was evaluated and the table completed with the following notations: "✓" if QC within criteria; "L" if QC out and data has possible Low Bias; "H" if QC out and data has possible High Bias; "I" if QC is out and data is of Indeterminate Bias; "U" result should be negated; "R" result is rejected and is unusable for project objectives; and "NA" for QC parameter Not Available - unable to assess. Notes below explain details of "R" or "U" actions.

Notes: Note on Sample Identification report indicates Sample GW-FS-OW-82, received on 12/7/01 was broken when received (i.e. 5 Samples sent for gas analysis; however no results for GW-FS-OW-82 since sample broken).

All Samples were analyzed on 12/27/01 (HT = 14 days ⇒ analysis should have been accomplished by 12/17/01 - 12/20/01) - Since HT < 28 days (ie, not in the region of extreme HT exceedance), & since positive detected results were obtained for all gases in all 4 Samples ⇒ All Results considered estimated with a possible low bias due to HT exceedance.

No action required to negate (U) or reject (R) data for the Gases in these 4 Samples; however all data should be considered estimated with a possible low bias due to HT exceedance.

Date: 1/15/02

Data Reviewer: M. C. R. [Signature]

Lab: Microseeps
 Date(s) Sampled: 11/19 + 11/20/01

Davis Liquid Waste Superfund Site, Smithfield, RI
 ESS - Remedy Pre-Design Groundwater Investigation, Phase I

SDG #: P0111344
 No. Samples: 2
 Matrix: Groundwater

MNA Parameter	PQL	PQL Met?	LCS	MB	MS	MD	HT/Preservation	Action/Qualifier
			70-130% Recovery	< RL in ug/L	75-125 % Recovery	≤ 20% RPD	4 ± 2°C, 14 days	U or R?
Carbon Dioxide	600 ug/L	✓	✓	✓	NA	NA	HT met for GW-038	None
Methane	0.02 ug/L	✓	✓	✓	↓	↓	↓	↓
Ethane	5 ng/L	✓	✓	✓	↓	↓	↓	↓
Ethene	5 ng/L	✓	✓	✓	↓	↓	↓	↓

Comments: Per the QAPP, the MNA Parameters are evaluated only to determine whether rejection (qualified "R") or negation (qualified "U") of results may be warranted. If a MNA Parameter was reported in the SDG, the Quality Control, as Indicated in the above table, was evaluated and the table completed with the following notations: "✓" if QC within criteria; "L" if QC out and data has possible Low Bias; "H" if QC out and data has possible High Bias; "I" if QC is out and data is of Indeterminate Bias; "U" result should be negated; "R" result is rejected and is unusable for project objectives; and "NA" for QC parameter Not Available - unable to assess. Notes below explain details of "R" or "U" actions.

Notes: Temperature & condition upon receipt not documented. Samples analyzed 12/14/01.
 Sample GW-FS-OW-038 collected on 11/19/01 ⇒ Analysis conducted 1 day beyond 14 day HT. GW-FS-OW-036 collected on 11/20/01 analyzed within HT.

∴ All results for GW-FS-OW-038 are considered estimated and may be biased low due to slight HT exceedance

LCS data reported as % Deviation of measured versus true instead of % Recovery - % Recovery calculated & All LCS results acceptable.

No Action required for negation or rejection of Gases for Sample GW-FS-OW-038 and GW-FS-OW-036. GW-FS-OW-038 results may be biased low.

Date: 1/15/02
 Data Reviewer: N.C.R.

Lab: Microseeps
 Date: Sampled: 12/7/01

Davis Liquid Waste Spill Site, Smithfield, RI
 ESS - Remedy Pre-Design Groundwater Investigation, Phase I

SDG #: P011-02
 No. Samples: 1
 Matrix: Groundwater

MNA Parameter	PQL	PQL Met?	LCS	MB	MS	MD	HT/Preservation	Action/Qualifier
			70-130% Recovery	< RL in ug/L	75-125 % Recovery	≤ 20% RPD	4 ± 2°C, 14 days	U or R?
Carbon Dioxide	600 ug/L	✓	✓	✓	NA	NA	outside HT by logging	NA
Methane	0.02 ug/L	✓	✓	✓	↓	↓	↓	↓
Ethane	5 ng/L	✓	✓	✓	↓	↓	↓	↓
Ethene	5 ng/L	✓	✓	✓	↓	↓	↓	↓

Comments: Per the QAPP, the MNA Parameters are evaluated only to determine whether rejection (qualified "R") or negation (qualified "U") of results may be warranted. If a MNA Parameter was reported in the SDG, the Quality Control, as indicated in the above table, was evaluated and the table completed with the following notations: "✓" if QC within criteria; "L" if QC out and data has possible Low Bias; "H" if QC out and data has possible High Bias; "I" if QC is out and data is of Indeterminate Bias; "U" result should be negated; "R" result is rejected and is unusable for project objectives; and "NA" for QC parameter Not Available - unable to assess. Notes below explain details of "R" or "U" actions.

Notes: No condition upon receipt documented - Sample GW-FS-OW-95R collected 12/7/01 and analyzed 12/27/01 ⇒ Analyzed 20 days from collection ⇒ Outside of HT by logging.

LCS + MB OK - No action required to negate (U) or reject (R) the data presented for this sample; however, the gas results for GW-FS-OW-95R may be biased low due to exceedance of Holding Time - data should be considered estimated.

Date: 1/15/02

Data Reviewer: [Signature]

Lab: Microseeps
 Date(s) Sampled: 12/11/01

Davis Liquid Waste Superfund Site, Smithfield, RI
 ESS - Remedy Pre-Design Groundwater Investigation, Phase I

SDG #: P0112179
 No. Samples: 1
 Matrix: Groundwater

MNA Parameter	PQL	PQL Met?	LCS	MB	MS	MD	HT/Preservation	Action/Qualifier
			70-130% Recovery	< RL in ug/L	75-125 % Recovery	≤ 20% RPD	4 ± 2°C, 14 days	U or R?
Carbon Dioxide	600 ug/L	✓	✓	✓	NA	NA	HT out by 3 days	None
Methane	0.02 ug/L	✓	✓	✓	↓	↓	↓	↓
Ethane	5 ng/L	✓	✓	✓	↓	↓	↓	↓
Ethene	5 ng/L	✓	✓	✓	↓	↓	↓	↓

Comments: Per the QAPP, the MNA Parameters are evaluated only to determine whether rejection (qualified "R") or negation (qualified "U") of results may be warranted. If a MNA Parameter was reported in the SDG, the Quality Control, as indicated in the above table, was evaluated and the table completed with the following notations: "✓" if QC within criteria; "L" if QC out and data has possible Low Bias; "H" if QC out and data has possible High Bias; "I" if QC is out and data is of Indeterminate Bias; "U" result should be negated; "R" result is rejected and is unusable for project objectives; and "NA" for QC parameter Not Available - unable to assess. Notes below explain details of "R" or "U" actions.

Notes: No Temperature or condition upon receipt documented.

1 sample, GW-F5-0W-82, collected 12/11/01 and analyzed 12/28/01 (17 days from collection => 3 days outside HT).

∴ Results for GW-F5-0W-82 are considered estimated and may be biased

(L).

LCS + MB OK - No action required to negate or reject results for this one sample. Results considered estimated with possible low bias due to HT exceedance.

Date: 1/15/02

Data Viewer: NJC/BK



APPENDIX G

Summary of Water Quality Data by Sample Location



Table 1
 Data Summary Table - Volatile Organic Compounds
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OW-008 11/07/2001 Primary	OW-011 11/08/2001 Primary	OW-012 11/09/2001 Primary	OW-021 11/13/2001 Primary
1,1,1-Trichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	(ug/l)	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,1-Dichloroethane	(ug/l)	5 U	5 U	5 U	3 J
1,1-Dichloroethylene	(ug/l)	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichloropropane	(ug/l)	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
2-Hexanone	(ug/l)	10 U	10 U	10 U	10 U
Acetone	(ug/l)	20 U	20 U	20 U	20 U
Benzene	(ug/l)	5 U	5 U	5 U	5 U
Bromodichloromethane	(ug/l)	5 U	5 U	5 U	5 U
Bromoform	(ug/l)	5 U	5 U	5 U	5 U
Carbon disulfide	(ug/l)	5 U	5 U	5 U	5 U
Carbon tetrachloride	(ug/l)	5 U	5 U	5 U	5 U
Chlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
Chlorobromomethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroform	(ug/l)	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethylene	(ug/l)	5 U	5 U	5 U	5 J
cis-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
DBCP	(ug/l)	1 U	1 U	1 U	1 U
Dibromochloromethane	(ug/l)	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	(ug/l)	5 U	5 U	5 U	5 U
EDB	(ug/l)	1 U	1 U	1 U	1 U
Ethylbenzene	(ug/l)	5 U	5 U	5 U	5 U
Isopropylbenzene	(ug/l)	5 U	5 U	5 U	5 U

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 1
 Data Summary Table - Volatile Organic Compounds
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OW-008 11/07/2001 Primary	OW-011 11/08/2001 Primary	OW-012 11/09/2001 Primary	OW-021 11/13/2001 Primary
Methyl bromide	(ug/l)	5 U	5 U	5 U	5 U
Methyl chloride	(ug/l)	1 U	1 U	1 U	1 U
Methyl ethyl ketone	(ug/l)	10 U	10 U	10 U	10 U
Methyl isobutyl ketone (MIBK)	(ug/l)	10 U	10 U	10 U	10 U
Methylene chloride	(ug/l)	5 U	5 U	5 U	5 U
Styrene	(ug/l)	5 U	5 U	5 U	5 U
Tetrachloroethylene	(ug/l)	5 U	5 U	5 U	1 J
Toluene	(ug/l)	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	(ug/l)	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
Trichloroethylene	(ug/l)	5 U	5 U	5 U	4 J
Trichlorofluoromethane	(ug/l)	5 U	5 U	5 U	5 U
Vinyl chloride	(ug/l)	1 U	1 U	1 U	1 U
Xylene (total)	(ug/l)	5 U	5 U	5 U	5 U
Sum of Constituents	(ug/l)	0.00	0.00	0.00	13.00

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 1
 Data Summary Table - Volatile Organic Compounds
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	OW-034	OW-038	OW-043	OW-045
		11/12/2001	11/19/2001	11/13/2001	11/16/2001
		Primary	Primary	Primary	Primary
1,1,1-Trichloroethane	(ug/l)	5 U	5 U	5 J	6
1,1,2,2-Tetrachloroethane	(ug/l)	1 U	1 U	1 U	1 UJ
1,1,2-Trichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,1-Dichloroethane	(ug/l)	5 U	1 J	11	20
1,1-Dichloroethylene	(ug/l)	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	(ug/l)	5 U	5 U	2 J	5 U
1,2-Dichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichloropropane	(ug/l)	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
2-Hexanone	(ug/l)	10 U	10 U	10 U	10 UJ
Acetone	(ug/l)	20 U	20 U	20 U	20 U
Benzene	(ug/l)	5 U	5 U	5 U	5 U
Bromodichloromethane	(ug/l)	5 U	5 U	5 U	5 U
Bromoform	(ug/l)	5 U	5 U	5 U	5 U
Carbon disulfide	(ug/l)	5 U	5 U	5 U	5 U
Carbon tetrachloride	(ug/l)	5 U	5 U	5 U	5 U
Chlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
Chlorobromomethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroform	(ug/l)	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethylene	(ug/l)	5 U	2 J	21	91
cis-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
DBCP	(ug/l)	1 U	1 U	1 U	1 UJ
Dibromochloromethane	(ug/l)	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	(ug/l)	5 U	5 U	5 U	5 U
EDB	(ug/l)	1 U	1 U	1 U	1 U
Ethylbenzene	(ug/l)	5 U	5 U	8	5 U
Isopropylbenzene	(ug/l)	5 U	5 U	5 U	5 U

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 1
 Data Summary Table - Volatile Organic Compounds
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE	OW-034	OW-038	OW-043	OW-045
	DATE	11/12/2001	11/19/2001	11/13/2001	11/16/2001
	RESULT TYPE	Primary	Primary	Primary	Primary
Methyl bromide	(ug/l)	5 U	5 U	5 U	5 U
Methyl chloride	(ug/l)	1 U	1 U	1 U	1 U
Methyl ethyl ketone	(ug/l)	10 U	10 U	10 U	10 UJ
Methyl isobutyl ketone (MIBK)	(ug/l)	10 U	10 U	10 U	10 UJ
Methylene chloride	(ug/l)	5 U	5 U	5 U	5 U
Styrene	(ug/l)	5 U	5 U	5 U	5 U
Tetrachloroethylene	(ug/l)	5 U	5 U	1 J	3 J
Toluene	(ug/l)	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	(ug/l)	5 U	5 U	1 J	2 J
trans-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
Trichloroethylene	(ug/l)	5 U	5 U	4 J	14
Trichlorofluoromethane	(ug/l)	5 U	5 U	5 U	5 U
Vinyl chloride	(ug/l)	1 U	2 J	15	17
Xylene (total)	(ug/l)	5 U	5 U	3 J	5 U
Sum of Constituents	(ug/l)	0.00	5.00	71.00	153.00

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 1
 Data Summary Table - Volatile Organic Compounds
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	OW-045	OW-046	OW-051	OW-051
		11/16/2001 RESULT TYPE Duplicate 1	11/16/2001 Primary	11/08/2001 Primary	11/08/2001 Duplicate 1
1,1,1-Trichloroethane	(ug/l)	6	7	79	81
1,1,2,2-Tetrachloroethane	(ug/l)	1 UJ	1 UJ	1 U	1 U
1,1,2-Trichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,1-Dichloroethane	(ug/l)	20	11	33	34
1,1-Dichloroethylene	(ug/l)	5 U	5 U	1 J	1 J
1,2,4-Trichlorobenzene	(ug/l)	5 U	5 U	2 J	2 J
1,2-Dichlorobenzene	(ug/l)	5 U	5 U	7	7
1,2-Dichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichloropropane	(ug/l)	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
2-Hexanone	(ug/l)	10 UJ	10 UJ	10 U	10 U
Acetone	(ug/l)	20 U	20 U	20 U	20 U
Benzene	(ug/l)	5 U	5 U	1 J	1 J
Bromodichloromethane	(ug/l)	5 U	5 U	5 U	5 U
Bromoform	(ug/l)	5 U	5 U	5 U	5 U
Carbon disulfide	(ug/l)	5 U	5 U	5 U	5 U
Carbon tetrachloride	(ug/l)	5 U	5 U	5 U	5 U
Chlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
Chlorobromomethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroform	(ug/l)	5 U	5 U	3 J	3 J
cis-1,2-Dichloroethylene	(ug/l)	87	18	180	190
cis-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
DBCP	(ug/l)	1 UJ	1 UJ	1 U	1 U
Dibromochloromethane	(ug/l)	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	(ug/l)	5 U	5 U	5 U	5 U
EDB	(ug/l)	1 U	1 U	1 U	1 U
Ethylbenzene	(ug/l)	5 U	5 U	73	75
Isopropylbenzene	(ug/l)	5 U	5 U	5	6

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 1
 Data Summary Table - Volatile Organic Compounds
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	OW-045 11/16/2001 Duplicate 1	OW-046 11/16/2001 Primary	OW-051 11/08/2001 Primary	OW-051 11/08/2001 Duplicate 1
Methyl bromide	(ug/l)	5 U	5 U	5 U	5 U
Methyl chloride	(ug/l)	1 U	1 U	1 U	1 U
Methyl ethyl ketone	(ug/l)	10 UJ	10 UJ	10 U	10 U
Methyl isobutyl ketone (MIBK)	(ug/l)	10 UJ	10 UJ	10 U	10 U
Methylene chloride	(ug/l)	5 U	5 U	5 U	5 U
Styrene	(ug/l)	5 U	5 U	5 U	5 U
Tetrachloroethylene	(ug/l)	3 J	2 J	8	8
Toluene	(ug/l)	5 U	5 U	2 J	2 J
trans-1,2-Dichloroethene	(ug/l)	2 J	1 J	7	7
trans-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
Trichloroethylene	(ug/l)	13	4 J	21	22
Trichlorofluoromethane	(ug/l)	5 U	5 U	5 U	5 U
Vinyl chloride	(ug/l)	17	20	270	270
Xylene (total)	(ug/l)	5 U	5 U	14	14
Sum of Constituents	(ug/l)	148.00	63.00	706.00	723.00

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 1
 Data Summary Table - Volatile Organic Compounds
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OW-052 12/03/2001 Primary	OW-055 11/14/2001 Primary	OW-081 12/05/2001 Primary	OW-083 12/05/2001 Primary
1,1,1-Trichloroethane	(ug/l)	140	51	5 U	5 U
1,1,2,2-Tetrachloroethane	(ug/l)	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	(ug/l)	2 J	5 U	5 U	5 U
1,1-Dichloroethane	(ug/l)	94	13	5 U	5 U
1,1-Dichloroethylene	(ug/l)	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	(ug/l)	2 J	5 U	5 U	5 U
1,2-Dichlorobenzene	(ug/l)	19	5 U	5 U	5 U
1,2-Dichloroethane	(ug/l)	1 J	5 U	5 U	5 U
1,2-Dichloropropane	(ug/l)	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	(ug/l)	1 J	5 U	5 U	5 U
2-Hexanone	(ug/l)	10 U	10 U	10 U	10 U
Acetone	(ug/l)	20 U	20 U	20 U	20 U
Benzene	(ug/l)	2 J	5 U	5 U	5 U
Bromodichloromethane	(ug/l)	5 U	5 U	5 U	5 U
Bromoform	(ug/l)	5 U	5 U	5 U	5 U
Carbon disulfide	(ug/l)	5 U	5 U	5 U	5 U
Carbon tetrachloride	(ug/l)	5 U	5 U	5 U	5 U
Chlorobenzene	(ug/l)	1 J	5 U	5 U	5 U
Chlorobromomethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroform	(ug/l)	2 J	5	5 U	5 U
cis-1,2-Dichloroethylene	(ug/l)	34	170	5 U	1 J
cis-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
DBCP	(ug/l)	1 U	1 U	1 U	1 U
Dibromochloromethane	(ug/l)	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	(ug/l)	5 U	5 U	5 U	5 U
EDB	(ug/l)	1 U	1 U	1 U	1 U
Ethylbenzene	(ug/l)	310	5 U	5 U	5 U
Isopropylbenzene	(ug/l)	16	5 U	5 U	5 U

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 1
 Data Summary Table - Volatile Organic Compounds
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OW-052 12/03/2001 Primary	OW-055 11/14/2001 Primary	OW-081 12/05/2001 Primary	OW-083 12/05/2001 Primary
Methyl bromide	(ug/l)	5 U	5 U	5 U	5 U
Methyl chloride	(ug/l)	1 U	4 U	1 U	1 U
Methyl ethyl ketone	(ug/l)	10 U	10 U	10 U	10 U
Methyl isobutyl ketone (MIBK)	(ug/l)	10 U	10 U	10 U	10 U
Methylene chloride	(ug/l)	5 U	5 U	5 U	5 U
Styrene	(ug/l)	5 U	5 U	5 U	5 U
Tetrachloroethylene	(ug/l)	4 J	100	5 U	5 U
Toluene	(ug/l)	7	5 U	5 U	5 U
trans-1,2-Dichloroethene	(ug/l)	5	4 J	5 U	5 U
trans-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
Trichloroethylene	(ug/l)	2 J	69	5 U	5 U
Trichlorofluoromethane	(ug/l)	5 U	5 U	5 U	5 U
Vinyl chloride	(ug/l)	290	2 J	1 U	1 U
Xylene (total)	(ug/l)	160	5 U	5 U	5 U
Sum of Constituents	(ug/l)	1092.00	414.00	0.00	1.00

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 1
 Data Summary Table - Volatile Organic Compounds
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	OW-095(O)	OW-096(O)
		12/06/2001	12/06/2001
	RESULT TYPE	Primary	Primary
1,1,1-Trichloroethane	(ug/l)	5 U	5 U
1,1,2,2-Tetrachloroethane	(ug/l)	1 U	1 U
1,1,2-Trichloroethane	(ug/l)	5 U	5 U
1,1-Dichloroethane	(ug/l)	5 U	5 U
1,1-Dichloroethylene	(ug/l)	5 U	5 U
1,2,4-Trichlorobenzene	(ug/l)	5 U	5 U
1,2-Dichlorobenzene	(ug/l)	5 U	5 U
1,2-Dichloroethane	(ug/l)	5 U	5 U
1,2-Dichloropropane	(ug/l)	5 U	5 U
1,3-Dichlorobenzene	(ug/l)	5 U	5 U
1,4-Dichlorobenzene	(ug/l)	5 U	5 U
2-Hexanone	(ug/l)	10 U	10 U
Acetone	(ug/l)	20 U	38
Benzene	(ug/l)	5 U	5 U
Bromodichloromethane	(ug/l)	5 U	5 U
Bromoform	(ug/l)	5 U	5 U
Carbon disulfide	(ug/l)	5 U	5 U
Carbon tetrachloride	(ug/l)	5 U	5 U
Chlorobenzene	(ug/l)	5 U	5 U
Chlorobromomethane	(ug/l)	5 U	5 U
Chloroethane	(ug/l)	5 U	5 U
Chloroform	(ug/l)	5 U	5 U
cis-1,2-Dichloroethylene	(ug/l)	5 U	5 U
cis-1,3-Dichloropropene	(ug/l)	5 U	5 U
DBCP	(ug/l)	1 U	1 U
Dibromochloromethane	(ug/l)	5 U	5 U
Dichlorodifluoromethane	(ug/l)	5 U	5 U
EDB	(ug/l)	1 U	1 U
Ethylbenzene	(ug/l)	5 U	5 U
Isopropylbenzene	(ug/l)	5 U	5 U

The following qualifier(s) exist: Expert: U NA=Not analyzed

Table 1
 Data Summary Table - Volatile Organic Compounds
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OW-095(O) 12/06/2001 Primary	OW-096(O) 12/06/2001 Primary
Methyl bromide	(ug/l)	5 U	5 U
Methyl chloride	(ug/l)	1 U	1 U
Methyl ethyl ketone	(ug/l)	10 U	12
Methyl isobutyl ketone (MIBK)	(ug/l)	10 U	10 U
Methylene chloride	(ug/l)	5 U	5 U
Styrene	(ug/l)	5 U	5 U
Tetrachloroethylene	(ug/l)	5 U	5 U
Toluene	(ug/l)	5 U	5 U
trans-1,2-Dichloroethene	(ug/l)	5 U	5 U
trans-1,3-Dichloropropene	(ug/l)	5 U	5 U
Trichloroethylene	(ug/l)	5 U	5 U
Trichlorofluoromethane	(ug/l)	5 U	5 U
Vinyl chloride	(ug/l)	1 U	1 U
Xylene (total)	(ug/l)	5 U	5 U
Sum of Constituents	(ug/l)	0.00	50.00

The following qualifier(s) exist: Expert: U NA=Not analyzed

Table 2
 Data Summary Table - Volatile Organic Compounds
 Bedrock Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/11/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OW-007 11/07/2001 Primary	OW-033 11/14/2001 Primary	OW-036 11/20/2001 Primary	OW-041 11/15/2001 Primary
1,1,1-Trichloroethane	(ug/l)	5 U	7	1 J	4 J
1,1,2,2-Tetrachloroethane	(ug/l)	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,1-Dichloroethane	(ug/l)	7	19	11	130
1,1-Dichloroethylene	(ug/l)	5 U	4 J	2 J	5 U
1,2,4-Trichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	26
1,2-Dichloroethane	(ug/l)	5 U	1 J	5 U	1 J
1,2-Dichloropropane	(ug/l)	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
2-Hexanone	(ug/l)	10 U	10 U	10 U	10 U
Acetone	(ug/l)	20 U	20 U	20 U	20 U
Benzene	(ug/l)	5 U	5 U	5 U	7
Bromodichloromethane	(ug/l)	5 U	5 U	5 U	5 U
Bromoform	(ug/l)	5 U	5 U	5 U	5 U
Carbon disulfide	(ug/l)	5 U	5 U	5 U	5 U
Carbon tetrachloride	(ug/l)	5 U	5 U	5 U	5 U
Chlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
Chlorobromomethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroethane	(ug/l)	5 U	5 U	5 U	31
Chloroform	(ug/l)	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethylene	(ug/l)	5 U	35	21	5 U
cis-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
DBCP	(ug/l)	1 U	1 U	1 U	1 U
Dibromochloromethane	(ug/l)	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	(ug/l)	5 U	5 U	5 U	5 U
EDB	(ug/l)	1 U	1 U	1 U	1 U
Ethylbenzene	(ug/l)	4 J	5 U	5 U	95
Isopropylbenzene	(ug/l)	5 U	5 U	5 U	5 U

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 2
 Data Summary Table - Volatile Organic Compounds
 Bedrock Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/11/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE	OW-007	OW-033	OW-036	OW-041
	DATE	11/07/2001	11/14/2001	11/20/2001	11/15/2001
	RESULT TYPE	Primary	Primary	Primary	Primary
Methyl bromide	(ug/l)	5 U	5 U	5 U	5 U
Methyl chloride	(ug/l)	1 U	4 U	1 U	4 U
Methyl ethyl ketone	(ug/l)	10 U	10 U	10 U	10 U
Methyl isobutyl ketone (MIBK)	(ug/l)	10 U	10 U	10 U	10 U
Methylene chloride	(ug/l)	5 U	5 U	5 U	5 U
Styrene	(ug/l)	5 U	5 U	5 U	5 U
Tetrachloroethylene	(ug/l)	5	11	19	5 U
Toluene	(ug/l)	5 U	5 U	5 U	1 J
trans-1,2-Dichloroethene	(ug/l)	5 U	5 U	5 U	4 J
trans-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
Trichloroethylene	(ug/l)	2 J	40	18	1 J
Trichlorofluoromethane	(ug/l)	5 U	5 U	5 U	5 U
Vinyl chloride	(ug/l)	1 U	2 J	2 J	4 U
Xylene (total)	(ug/l)	5 U	5 U	5 U	3 J
Sum of Constituents	(ug/l)	18.00	119.00	74.00	303.00

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 2
 Data Summary Table - Volatile Organic Compounds
 Bedrock Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/11/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OW-080 11/12/2001 Primary	OW-082 12/06/2001 Primary	OW-084 12/05/2001 Primary	OW-085 12/04/2001 Primary
1,1,1-Trichloroethane	(ug/l)	5 U	5 U	5	3 J
1,1,2,2-Tetrachloroethane	(ug/l)	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,1-Dichloroethane	(ug/l)	5 U	5 U	1 J	1 J
1,1-Dichloroethylene	(ug/l)	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichloropropane	(ug/l)	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
2-Hexanone	(ug/l)	10 U	10 U	10 U	10 U
Acetone	(ug/l)	20 U	20 U	20 U	20 U
Benzene	(ug/l)	5 U	5 U	5 U	5 U
Bromodichloromethane	(ug/l)	5 U	5 U	5 U	5 U
Bromoform	(ug/l)	5 U	5 U	5 U	5 U
Carbon disulfide	(ug/l)	5 U	5 U	5 U	5 U
Carbon tetrachloride	(ug/l)	5 U	5 U	5 U	5 U
Chlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
Chlorobromomethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroform	(ug/l)	5 U	5 U	1 J	5 U
cis-1,2-Dichloroethylene	(ug/l)	5 U	5 U	26	19
cis-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
DBCP	(ug/l)	1 U	1 U	1 U	1 U
Dibromochloromethane	(ug/l)	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	(ug/l)	5 U	5 U	5 U	5 U
EDB	(ug/l)	1 U	1 U	1 U	1 U
Ethylbenzene	(ug/l)	5 U	5 U	5 U	5 U
Isopropylbenzene	(ug/l)	5 U	5 U	5 U	5 U

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 2
 Data Summary Table - Volatile Organic Compounds
 Bedrock Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/11/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OW-080 11/12/2001 Primary	OW-082 12/06/2001 Primary	OW-084 12/05/2001 Primary	OW-085 12/04/2001 Primary
Methyl bromide	(ug/l)	5 U	5 U	5 U	5 U
Methyl chloride	(ug/l)	1 U	1 U	1 U	1 U
Methyl ethyl ketone	(ug/l)	10 U	10 U	10 U	10 U
Methyl isobutyl ketone (MIBK)	(ug/l)	10 U	10 U	10 U	10 U
Methylene chloride	(ug/l)	5 U	5 U	5 U	5 U
Styrene	(ug/l)	5 U	5 U	5 U	5 U
Tetrachloroethylene	(ug/l)	5 U	5 U	2 J	3 J
Toluene	(ug/l)	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	(ug/l)	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
Trichloroethylene	(ug/l)	5 U	5 U	6	3 J
Trichlorofluoromethane	(ug/l)	5 U	5 U	14	5 U
Vinyl chloride	(ug/l)	1 U	1 U	1 U	1 U
Xylene (total)	(ug/l)	5 U	5 U	5 U	5 U
Sum of Constituents	(ug/l)	0.00	0.00	55.00	29.00

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 2
 Data Summary Table - Volatile Organic Compounds
 Bedrock Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/11/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OW-086 12/04/2001 Primary	OW-095(R) 12/07/2001 Primary	OW-095(R) 12/07/2001 Duplicate 1	OW-096(R) 12/07/2001 Primary
1,1,1-Trichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	(ug/l)	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,1-Dichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,1-Dichloroethylene	(ug/l)	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichloroethane	(ug/l)	5 U	5 U	5 U	5 U
1,2-Dichloropropane	(ug/l)	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
2-Hexanone	(ug/l)	10 U	10 U	10 U	10 U
Acetone	(ug/l)	20 U	20 U	20 U	20 U
Benzene	(ug/l)	5 U	5 U	5 U	5 U
Bromodichloromethane	(ug/l)	5 U	5 U	5 U	5 U
Bromoform	(ug/l)	5 U	5 U	5 U	5 U
Carbon disulfide	(ug/l)	5 U	5 U	5 U	5 U
Carbon tetrachloride	(ug/l)	5 U	5 U	5 U	5 U
Chlorobenzene	(ug/l)	5 U	5 U	5 U	5 U
Chlorobromomethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroethane	(ug/l)	5 U	5 U	5 U	5 U
Chloroform	(ug/l)	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethylene	(ug/l)	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
DBCP	(ug/l)	1 U	1 U	1 U	1 U
Dibromochloromethane	(ug/l)	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	(ug/l)	5 U	5 U	5 U	5 U
EDB	(ug/l)	1 U	1 U	1 U	1 U
Ethylbenzene	(ug/l)	5 U	5 U	5 U	5 U
Isopropylbenzene	(ug/l)	5 U	5 U	5 U	5 U

The following qualifier(s) exist: Expert: U NA=Not analyzed

Table 2
 Data Summary Table - Volatile Organic Compounds
 Bedrock Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/11/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE RESULT TYPE	OW-086 12/04/2001 Primary	OW-095(R) 12/07/2001 Primary	OW-095(R) 12/07/2001 Duplicate 1	OW-096(R) 12/07/2001 Primary
Methyl bromide	(ug/l)	5 U	5 U	5 U	5 U
Methyl chloride	(ug/l)	1 U	1 U	1 U	1 U
Methyl ethyl ketone	(ug/l)	10 U	10 U	10 U	10 U
Methyl isobutyl ketone (MIBK)	(ug/l)	10 U	10 U	10 U	10 U
Methylene chloride	(ug/l)	5 U	5 U	5 U	5 U
Styrene	(ug/l)	5 U	5 U	5 U	5 U
Tetrachloroethylene	(ug/l)	5 U	5 U	5 U	5 U
Toluene	(ug/l)	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	(ug/l)	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	(ug/l)	5 U	5 U	5 U	5 U
Trichloroethylene	(ug/l)	5 U	5 U	5 U	5 U
Trichlorofluoromethane	(ug/l)	5 U	5 U	5 U	5 U
Vinyl chloride	(ug/l)	1 U	1 U	1 U	1 U
Xylene (total)	(ug/l)	5 U	5 U	5 U	5 U
Sum of Constituents	(ug/l)	0.00	0.00	0.00	0.00

The following qualifier(s) exist: Expert: U NA=Not analyzed

Table 3
 Data Summary Table - MNA Parameters
 Overburden Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/06/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	OW-038 11/19/2001	OW-052 12/03/2001	OW-081 12/05/2001	OW-095(O) 12/06/2001
Alkalinity to pH 4.5	(mg/l)	12.2	68.7	2.2	2.1
Alkalinity to pH 8.3	(mg/l)	0.41 U	0.41 U	0.41 U	0.41 U
Carbon Dioxide	(mg/l)	22	87	21	24
Chloride	(mg/l)	6	41.2	2.6	2.7
Ethane	(ng/l)	68	3800	1700	1100
Ethylene	(ng/l)	750	350000	300	210
Iron	(mg/l)	0.038 U	20.6	0.0532 J	0.0652 J
Iron (Dissolved)	(mg/l)	0.038 U	20.4	0.038 U	0.038 U
Manganese	(mg/l)	0.162	4.1	0.018	0.0297
Manganese (Dissolved)	(mg/l)	0.156	4.07	0.0196	0.0296
Methane	(ug/l)	8.9	480	14	8.4
Nitrate	(mg/l)	0.04 U	0.04 U	0.04 U	0.04 U
Nitrite (as N)	(mg/l)	0.015 U	0.048 J	0.015 U	0.015 U
Sulfate	(mg/l)	4.1 J	6.1	6.3	6
Sulfide	(mg/l)	0.022 J	0.24	0.022 U	0.024 J
TOC	(mg/l)	0.67 J	4.4	0.71 J	2.1

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 4
 Data Summary Table - MNA Parameters
 Bedrock Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/11/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	OW-036 11/20/2001	OW-082 12/06/2001	OW-082 12/11/2001	OW-086 12/04/2001
Alkalinity to pH 4.5	(mg/l)	44	48.2	NA	41.3
Alkalinity to pH 8.3	(mg/l)	0.41 U	0.41 U	NA	0.41 U
Carbon Dioxide	(mg/l)	<0.60	NA	0.62	14
Chloride	(mg/l)	34.6	2.6	NA	2.9
Ethane	(ng/l)	16	NA	<5.0	430
Ethylene	(ng/l)	2500	NA	<5.0	1900
Iron	(mg/l)	0.038 U	4.65	NA	26.5
Iron (Dissolved)	(mg/l)	0.038 U	0.038 U	NA	0.044 J
Manganese	(mg/l)	0.274	0.0175	NA	0.0667
Manganese (Dissolved)	(mg/l)	0.276	0.0027 J	NA	0.0182
Methane	(ug/l)	150	NA	3.2	3.3
Nitrate	(mg/l)	0.04 U	0.04 U	NA	0.075 J
Nitrite (as N)	(mg/l)	0.015 U	0.015 U	NA	0.015 U
Sulfate	(mg/l)	6.5	3 J	NA	7.4
Sulfide	(mg/l)	0.029 J	0.022 J	NA	0.035 J
TOC	(mg/l)	1.2 J	1.29 J	NA	1.15 J

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

Table 4
 Data Summary Table - MNA Parameters
 Bedrock Wells
 Davis Liquid Waste Superfund Site
 Smithfield, Rhode Island

PERIOD: From 11/07/2001 thru 12/11/2001 - Inclusive
 SAMPLE TYPE: Water

CONSTITUENT	SITE DATE	OW-095(R) 12/07/2001
Alkalinity to pH 4.5	(mg/l)	50.6
Alkalinity to pH 8.3	(mg/l)	13.8
Carbon Dioxide	(mg/l)	<0.60
Chloride	(mg/l)	3.1
Ethane	(ng/l)	160
Ethylene	(ng/l)	190
Iron	(mg/l)	0.531
Iron (Dissolved)	(mg/l)	0.038 U
Manganese	(mg/l)	0.0111
Manganese (Dissolved)	(mg/l)	0.00062 U
Methane	(ug/l)	0.82
Nitrate	(mg/l)	0.16
Nitrite (as N)	(mg/l)	0.015 U
Sulfate	(mg/l)	19.9
Sulfide	(mg/l)	0.024 J
TOC	(mg/l)	2.5

The following qualifier(s) exist: Expert: U, J NA=Not analyzed

US EPA DATA QUALIFIERS

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
J	Estimated value	U	Compound was not detected
N	Presumptive evidence of a compound (TICs only)	W	Post digestion spike out of control limits
P	Concentration difference between primary and confirmation columns >25%	*	Duplicate Analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA <0.995
X,Y,Z	Defined in case narrative		
[], Bold, Italics > SWDC			

APPENDIX H

MNA Criteria and Calculations

Table H-1
Analytical Parameters and Weighting for Numerical Ranking
Davis Liquid Waste Superfund Site, Smithfield, Rhode Island

Analyte	Concentration in Most Contaminated Zone	Interpretation	Points Awarded
Oxygen ^a	< 0.5 mg/L	Tolerated, suppresses reductive dechlorination at higher concentrations	3
Oxygen ^a	> 2 mg/L	Vinyl chloride may be oxidized aerobically, but reductive dechlorination will not occur (assumes 2 mg/L as the limit for anaerobic conditions)	-3
Nitrate ^a	< 1 mg/L	May compete with reductive pathway at higher concentrations	2
Iron (II) ^a	> 1 mg/L	Reductive pathway possible, vinyl chloride may be oxidized under Fe(III)- reducing conditions	3
Sulfate ^a	< 20 mg/L	May compete with reductive pathway at higher concentrations	2
Sulfide ^a	> 1 mg/L	Reductive pathway possible	3
Methane ^a	> 0.5 mg/L	Ultimate daughter product, vinyl chloride accumulates	3
Methane ^a	< 0.5 mg/L	Vinyl chloride oxidizes	0
Oxidation reduction potential ^a	< 50 mV	Reductive pathway possible	1
	< -100 mV	Reductive pathway likely	2
pH ^a	5 < pH < 9	Optimal range for reductive pathway	0
	5 > pH > 9	Outside optimal range for reductive pathway	-2
TOC	> 20 mg/L	Carbon and energy source; drives dechlorination; can be natural or anthropogenic	2
Temperature ^a	> 20°C	At T >20°C, biochemical process is accelerated	1
Carbon dioxide	> 2 x background	Ultimate oxidative daughter product	1
Alkalinity	> 2 x background	Results from interaction of carbon dioxide with aquifer minerals	1
Chloride ^a	> 2 x background	Daughter product of organic chlorine	2
Hydrogen	> 1 nM	Reductive pathway possible; vinyl chloride may accumulate	3
Hydrogen	< 1 nM	Vinyl chloride oxidized	0
Volatile fatty acids	> 0.1 mg/L	Intermediates resulting from biodegradation of aromatic compounds; carbon and energy source	2
BTEX ^a	> 0.1 mg/L	Carbon and energy source; drives dechlorination	2

Table H-1
Analytical Parameters and Weighting for Numerical Ranking
Davis Liquid Waste Superfund Site, Smithfield, Rhode Island

Analyte	Concentration in Most Contaminated Zone	Interpretation	Points Awarded
Tetrachloroethene ^a	--	Material released	0
Trichloroethene ^a	--	Material released Daughter of product of perchloroethene	0 2 ^b
Dichloroethene ^a (cis-1,2-, trans-1,2-)	--	Material released Daughter product of trichloroethene; if amount of cis-1,2-dichloroethene is greater than 80 percent of total dichloroethene, it is likely a daughter product of trichloroethene	0 2 ^b
Vinyl chloride ^a	--	Material released Daughter product of dichloroethenes	0 2 ^b
Ethene/Ethane	> 0.01 mg/L > 0.1 mg/L	Daughter product of vinyl chloride/ethene Daughter product of vinyl chloride/ethene	2 3
Chloroethane ^a	--	Daughter product of vinyl chloride under reducing conditions	2
1,1,1-Trichloroethane ^a	--	Material released	0
1,1-Dichloroethene ^a	--	Daughter product of trichloroethene or chemical reaction of 1,1,1-trichloroethane	2 ^b
1,2-Dichloroethane	--	Daughter product of 1,1,1-trichloroethane	2

^a Required Analysis

^b Points awarded only if it can be shown that the compound is a daughter product (i.e., not a constituent of the source)

Table H-2
Interpretation of Points Awarded during Numerical Ranking
Davis Liquid Waste Superfund Site, Smithfield, Rhode Island

Score	Interpretation
0 to 5	Inadequate evidence for reductive dechlorination of chlorinated organics
6 to 14	Limited evidence for reductive dechlorination of chlorinated organics
15 to 20	Adequate evidence for reductive dechlorination of chlorinated organics
>20	Strong evidence for reductive dechlorination of chlorinated organics

Table H-3
Ratios of VOC Daughter Products to Parent Compounds
 Davis Liquid Waste Superfund Site, Smithfield, Rhode Island

Monitoring Well	Sample Date	cis-1,2-DCE: TCE	VC: cis-1,2-DCE	1,1-DCE: 1,1,1-TCA
Overburden Wells				
Upgradient				
OW-81	12/5/01	-	-	-
OW-95O	12/6/01	-	-	-
OW-96O	12/6/01	-	-	-
Source Area				
OW-43	11/13/01	5.25	0.71	1.00
OW-45	11/16/01	6.50	0.19	0.83
OW-46	11/16/01	4.50	1.11	0.71
OW-51	11/8/01	8.57	1.50	0.01
OW-52	12/3/01	17.00	8.53	0.01
OW-55	11/14/01	2.46	0.01	0.10
OW-83	12/5/01	0.20	1.00	-
Downgradient				
OW-08	11/7/01	-	-	-
OW-11	11/8/01	-	-	-
OW-12	11/6/01	-	-	-
OW-21	11/13/01	1.25	0.20	-
OW-34	11/12/01	-	-	-
OW-38	11/19/01	0.40	1.00	-
Bedrock Wells				
Upgradient				
OW-82	12/6/01	-	-	-
OW-95R	12/4/01	-	-	-
OW-96R	12/7/01	-	-	-
Source Area				
OW-41	11/15/01	5.00	-	1.25
OW-84	12/5/01	4.33	0.04	1.00
OW-85	12/4/01	6.33	0.05	1.67
Downgradient				
OW-07	11/7/01	2.50	-	-
OW-33	11/14/01	0.88	0.06	0.57
OW-36	11/20/01	1.17	0.10	2.00
OW-80	11/12/01	-	-	-
OW-86	12/4/01	-	-	-

Notes:

- = neither compound was detected

TCE = trichloroethene

cis-1,2-DCE = cis-1,2-Dichloroethene

VC = Vinyl chloride

1,1-DCE = 1,1-Dichloroethene

1,1,1-TCA = 1,1,1-Trichloroethane

Table H-4a.

**Analytical Data and Natural Attenuation Numerical Ranking: Overburden Wells
Davis Liquid Waste Superfund Site, Smithfield, Rhode Island**

Parameter	Units	Upgradient				Source		Down/sidegradient	
		OW-81	points	OW-95O	points	OW-52	points	OW-38	points
pH		5.24	0	5.21	0	6.24	0	6.03	0
DO	mg/L	4.5	-3	6.9	-3	0.4		0.5	
Temperature	°C	11.6		12.9		12.6	3	12.4	
ORP	mV	215		116.2		-176.5	2	123.6	
Alkalinity, as CaCO3	mg/L	2.2		2.1		68.7	1	12.2	1
Dissolved CO2	mg/L	21		24		87	1	22	
Chloride	mg/L	2.6		2.7		41.2	1	6	1
Nitrate, as N	mg/L	<0.04	2	<0.04	2	<0.04	2	<0.04	2
Sulfate	mg/L	6.3	2	6	2	6.1	2	4.1	2
Sulfide	mg/L	<0.022		0.024		0.24		0.022	
TOC	mg/L	0.71		2.1		4.4		0.67	
Ethane	mg/L	0.0017		0.0011		0.0038		0.00068	
Ethene	mg/L	0.0003		0.00021		0.35	3	0.00075	
Methane	mg/L	0.014		0.0084		0.48		0.0089	
Iron (dissolved)	mg/L	<0.038		<0.038		20.4	3	<0.038	
Iron (total)	mg/L	0.0532		0.0652		20.6		<0.038	
Volatiles by 8260B:									
Chloroethane	ug/L	<5		<5		<5		<5	
1,1-Dichloroethane	ug/L	<5		<5		94	2	1	2
1,2-Dichloroethane	ug/L	<5		<5		1		<5	
1,1-Dichloroethene	ug/L	<5		<5		<5		<5	
cis-1,2-Dichloroethene	ug/L	<5		<5		34	2	2	2
trans-1,2-Dichloroethene	ug/L	<5		<5		5		<5	
Tetrachloroethene (PCE)	ug/L	<5		<5		4		<5	
1,1,1-Trichloroethane	ug/L	<5		<5		140		<5	
1,1,2-Trichloroethane	ug/L	<5		<5		2		<5	
Trichloroethene (TCE)	ug/L	<5		<5		2		<5	
Vinyl chloride	ug/L	<1		<1		290	2	2	2
Benzene	ug/L	<5		<5		2		<5	
Toluene	ug/L	<5		<5		7		<5	
Ethylbenzene	ug/L	<5		<5		310	2	<5	
Xylenes, total	ug/L	<5		<5		160		<5	
total points			1		1		26		12

Table H-4b.
Analytical Data and Natural Attenuation Numerical Ranking: Bedrock Wells
Davis Liquid Waste Superfund Site, Smithfield, Rhode Island

Parameter	Units	Upgradient				Down/sidegradient			
		OW-82	points	OW-95R	points	OW-36	points	OW-86	points
pH		8.42	0	10.01	-2	8.49	0	6.68	0
DO	mg/L	1.1		4	-3	2.2	-3	4	-3
Temperature	°C	12.6		11.5		9.8		13.5	
ORP	mV	18.3	1	2	1	21.4	1	20.6	1
Alkalinity, as CaCO3	mg/L	48.2		50.6		44		41.3	
Dissolved CO2	mg/L	0.62		<0.6		<0.6		14	1
Chloride	mg/L	2.6		3.1		34.6	2	2.9	
Nitrate, as N	mg/L	<0.04	2	0.16	2	<0.04	2	0.075	2
Sulfate	mg/L	3	2	19.9	2	6.5	2	7.4	2
Sulfide	mg/L	0.022		0.024		0.029		0.035	
TOC	mg/L	1.29		2.5		1.2		1.15	
Ethane	mg/L	<0.000005		0.00016		0.000016		0.00043	
Ethene	mg/L	<0.000005		0.00019		0.0025		0.0019	
Methane	mg/L	0.0033		0.00082		0.15		0.0033	
Iron (dissolved)	mg/L	<0.038		<0.038		<0.038		0.044	
Iron (total)	mg/L	4.65		0.531		<0.038		26.5	
Volatiles by 8260B:									
Chloroethane	ug/L	<5		<5		<5		<5	
1,1-Dichloroethane	ug/L	<5		<5		11		<5	
1,2-Dichloroethane	ug/L	<5		<5		<5		<5	
1,1-Dichloroethene	ug/L	<5		<5		2		<5	
cis-1,2-Dichloroethene	ug/L	<5		<5		21	2	<5	
trans-1,2-Dichloroethene	ug/L	<5		<5		<5		<5	
Tetrachloroethene (PCE)	ug/L	<5		<5		19		<5	
1,1,1-Trichloroethane	ug/L	<5		<5		1		<5	
1,1,2-Trichloroethane	ug/L	<5		<5		<5		<5	
Trichloroethene (TCE)	ug/L	<5		<5		18		<5	
Vinyl chloride	ug/L	<1		<1		2	2	<1	
Benzene	ug/L	<5		<5		<5		<5	
Toluene	ug/L	<5		<5		<5		<5	
Ethylbenzene	ug/L	<5		<5		<5		<5	
Xylenes, total	ug/L	<5		<5		<5		<5	
total points			5		0		8		3



APPENDIX I

Field Equipment Calibration Logs



Multiparameter Instrument Calibration Daily Log

Date: 11/6/01 Instrument Type and Model Number: YSI 600 MDS XLPM
 Personnel: LB JC mbb Instrument Serial Number: 0000698

DISSOLVED OXYGEN

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
13:15	742.3	Y to 97.6%	2 min				

pH

CALIBRATION - Daily

Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
12:10	7	15.84°C	Y	1 min	Calitech pH7 / 2675 / 6-5-03
12:20	4	16.13	Y	1 min	Calitech pH 10 / 2464 / 5-22-02
12:15	10	15.89	Y	1 min	Calitech pH 4 / 2600 / 3-29-03

QUALITY CHECK - @ calibration, midday, end of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

CONDUCTIVITY

CALIBRATION - Daily

Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
12:00	1,000 us/cm	Y	1 min	Conductivity 1000 us/cm / 7-6-02 / lot 2724 US Env. Rental

QUALITY CHECK - @ calibration, midday, end of day

Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
					Calitech / 5-0100A / 2-1-02

REDOX POTENTIAL

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
12:30	Y	2 min	100 millivolts

QUALITY CHECK - midday, end of day

Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp C	Standard Solution (Name / Lot# / Expiration Date)

DISSOLVED OXYGEN - DOWN HOLE METER

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

PID

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
13:00	Y	1 1/2 min	Scotty V / Scotty 5 / - 244 ppm

QUALITY CHECK - midday, end of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)

UNIT #
MODEL #
out of 248 ppm

Multiparameter Instrument Calibration Daily Log

Date: 11/7/01 Instrument Type and Model Number: YSI 600XLm
 Personnel: MOR, J, LB Instrument Serial Number: "

DISSOLVED OXYGEN							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
09:37	743.3	Y	2 min	0.97%			
14:30	742.6	Y	2 min	0.93%			

pH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0945	7	15.53	Y	1 min	see 11-06
0947	10	15.53	Y	2 min	
0950	4	15.68	Y	1 min	↓

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
14:15	4	1 min	4.00	13.35	
14:16	7	5 min	6.93	13.66	
14:21	10	3 min	9.95	13.68	

CONDUCTIVITY					
CALIBRATION - Daily					
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Temp C	Standard Solution (Name / Lot# / Expiration Date)
0940	1000 us/cm	Y	5 min		see 11/6/01

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
14:33	1000	2 min	999		

REDOX POTENTIAL				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
0955	Y	2 min	see 11/6/01	14:40 recalibrated @ 100 millivolts

QUALITY CHECK - midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp C	Standard Solution (Name / Lot# / Expiration Date)

DISSOLVED OXYGEN - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
0950	Y	1 min	244 ppm out of 243 isobutylamine	UNIT = see 11/6/01 MODEL # check @ 14:00 OK @ 242 ppm

QUALITY CHECK - midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

Multiparameter Instrument Calibration Daily Log

Date: 11/8/01 Instrument Type and Model Number: YSI 600 XLM
 Personnel: MDS LB Instrument Serial Number: 0000698

DISSOLVED OXYGEN

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (≤0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
9:05	750.0	Y	1 min @ 98.7%				
1403	748.9	Y	3 min @ 97.6%				
1640	749.9			0.13	15.2°C	8 min	

pH

CALIBRATION - Daily

Time	Standard	Temp °C	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:08	7	15.81	Y	~2 min	See 11/6/01
9:17	4	15.16	Y	2 min	
9:16	10	18.71	Y	2 min	

QUALITY CHECK - @ calibration, midday, and of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1408	4	3 min	4.14	19.51	recalibrated to 4.0, 7.0 + 10.0
1411	7	3 min	6.88	16.84	
1415	10	4 min	10.0	17.32	

CONDUCTIVITY

CALIBRATION - Daily

Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:58	1000	Y	~1 min	See 11/6/01

QUALITY CHECK - @ calibration, midday, and of day

Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1418	1000	1 min	995	16.36	See 11/6/01

REDOX POTENTIAL

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:21	Y	1 min	Caltech / 5-0100A / 2-1-02 100mV

QUALITY CHECK - midday, and of day

Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1420	100mV	2 min	84.5	16.86	recalibrated to 100mV STD

at 16.86°
actually
~114mV

DISSOLVED OXYGEN - DOWN HOLE METER

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (≤0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
15:00	Calibrated	to 100% + 0 salinity =	99.6%	99.6%	40°C		YSI-55-Downhole
1640	Reading	99.8%	8 min	0.40	40°C		

PID

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:40	Y	1 min	Scotty V / Scotty 51 247 out of 248 ppm

UNIT # See 11/6/01

MODEL #

QUALITY CHECK - midday, and of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1421	248	1 min	247		See above

Multiparameter Instrument Calibration Daily Log

Date: 11/9/01 Instrument Type and Model Number: YSI 600 XLM
 Personnel: LB, MDR, JIC Instrument Serial Number: 0000698

DISSOLVED OXYGEN							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp °C	Stabilization Time (approx. 3 min)	Comments
9:20	746.3	Y	5 min	0.15	17.79	3 min	
1400	746.9			0.15	15.36	4.5 min	

pH						
CALIBRATION - Daily						
Time	Standard	Temp °C	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
9:27	7.0	18.30	Y	3 min	See 11/6/01	
9:30	4.0	18.14	Y	3 min		
9:34	10.0	17.46	Y	4 min		

QUALITY CHECK - @ calibration, midday, end of day						
Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)	
1405	7.0	3 min	7.02	16.02	See 11/6/01	
1408	4.0	2 min	4.05	15.50		
1411	10.0	3 min	9.95	16.61		

CONDUCTIVITY						
CALIBRATION - Daily						
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)		
9:41	1000	Y	4 min	See 11/6/01		

QUALITY CHECK - @ calibration, midday, end of day						
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)	
9:45	100	2 min	107	15.51	GHI International / 1000L3120-105 / 8-20-03	
1415	500	3 min	506	16.09	GHI International / 1000L3120-105 / 8-20-03	

REDOX POTENTIAL						
CALIBRATION - Daily						
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)			
9:49	Y	3 min	See 11/6/01			

QUALITY CHECK - midday, end of day						
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)	
1418	100 mV	2 min	97.9	16.16	See 11/6/01	

DISSOLVED OXYGEN - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

PID						
CALIBRATION - Daily						
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)			
9:48	Y	1 min	242 ppm out of 248			

QUALITY CHECK - midday, end of day						
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)	
1415	248	1 min	242 ppm		See 11/6/01	

UNIT # See 11/6/01
 MODEL # See 11/6/01

Multiparameter Instrument Calibration Daily Log

Date: 11/9/01 Instrument Type and Model Number: YSI 600 XLII - 2nd Instrument
 Personnel: ZB Instrument Serial Number: 0150851

DISSOLVED OXYGEN

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
10:53	750.9	Y	1 min		13.5		
10:57			4 min	0.25			

pH

CALIBRATION - Daily

Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
10:58	7.0	17.08	Y	1 min	See 11/6/01
11:00	4.0	17.28	Y	1 min	
11:07	10.0	17.48	Y	1 min	

QUALITY CHECK - @ calibration, midday, and of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

CONDUCTIVITY

CALIBRATION - Daily

Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
11:07	1000	Y	1 min	See 11/6/01

QUALITY CHECK - @ calibration, midday, and of day

Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

REDOX POTENTIAL

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
11:10	Y	2 min	See 11/6/01

QUALITY CHECK - midday, end of day

Time	Standard	Stabilization Time (>5 min)	Reading (mV)	Temp C	Standard Solution (Name / Lot# / Expiration Date)

DISSOLVED OXYGEN - DOWN HOLE METER

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

PID

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	UNIT #	MODEL #

QUALITY CHECK - midday, end of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)

Multiparameter Instrument Calibration Daily Log

Date: 11-17-01 Instrument Type and Model Number: YSI 700 XLM
 Personnel: JCL/AB Instrument Serial Number: 7010618

DISSOLVED OXYGEN							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
0900	753.6	Y	4.2 min	0.34	13.37	3 min	@ 99.1%
1150				0.09	10.53	3 min	
1600				0.10	9.98	3 min	

pH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0915	7	13.59	Y	1 min	
0917	4	13.34	Y	1 min	
0918	10	13.25		2 min	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
1153/1604	4	1 min/1	3.93/4.02	10.19/9.58	
1156/1607	7	1 min/2	6.90/6.93	10.21/9.17	
1157/1609	10	7 min/2	9.90/10.05	10.30/8.93	

CONDUCTIVITY					
CALIBRATION - Daily					
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
0922	1800	Y	5 min		

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
1200	100	2 min	106	11.08	
1610	500	1 min	492	9.39	

REDOX POTENTIAL			
CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0929	Y	3 min	Caltech/2816/9-6-02

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp C	Standard Solution (Name / Lot# / Expiration Date)
1405	100 mV	1 min	102.7	10.13	
1415	100 mV	2 min	104.7	8.63	

DISSOLVED OXYGEN - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
1303							

PID					
CALIBRATION - Daily					
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)		
0905	Y	1 min	246 ppm int / 245 ppm		

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)
1330	245 iso-but	1 min	246		

UNIT #
MODEL #

Multiparameter Instrument Calibration Daily Log

Date: 11/13/01 Instrument Type and Model Number: YSI 600 XL
 Personnel: L.A. JCG, MAA Instrument Serial Number: F010698

DISSOLVED OXYGEN						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp °C	Stabilization Time (approx. 3 min)
7:30	963.0	Y	4 min	0.11	18.55	
12:00	758.0			0.01	12.91	3 min
15:31	757.0			0.04	25.27	3 min

pH						
CALIBRATION - Daily						
Time	Standard	Temp °C	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
7:35	7	18.00	Y	4 min		
7:40	4	17.80	Y	4 min		
7:49	10	18.48	Y	3 min		

QUALITY CHECK - @ calibration, midday, and end of day						
Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)	
12:04/1600	7	3 min	6.94/7.00	14.98	24.74	
12:07/1603	4	3 min	3.94/4.04	14.99	24.68	
12:11/1606	10	4 min	9.99/9.93	16.88	24.84	

CONDUCTIVITY						
CALIBRATION - Daily						
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)		
7:51	1000 us/cm	Y	2 min			

QUALITY CHECK - @ calibration, midday, and end of day						
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)	
17:15	100	4 min	109	15.75		
16:10	500	2 min	498	22.70		

REDOX POTENTIAL						
CALIBRATION - Daily						
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)			
7:53	Y	3 min				

QUALITY CHECK - midday, and end of day						
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)	
12:20	100 mV	1 min	108.1	17.80		
16:15	100 mV	2 min	94.4	24.28		

DISSOLVED OXYGEN - DOWN HOLE METER						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)

PID						
CALIBRATION - Daily						
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	UNIT #	Model #	
8:55	Y	2 min	247 out of 24800 m			

QUALITY CHECK - midday, and end of day						
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)	
11:58	248	1 min	242			
15:47	248	1 min	248			

Multiparameter Instrument Calibration Daily Log

Date: 11-14-01 Instrument Type and Model Number: YSI 600 XLH
 Personnel: JUCI M. L. B. Instrument Serial Number: 0150551

DISSOLVED OXYGEN							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
8:50	757.3	Y @ 99.6%	2 min	0.1 ug/L	15.30	4 min	
11:16				0.10	14.53	2 min	
14:19				0.08	16.12	2 min	

PH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:56	7	14.63	Y	1 min	
8:58	4	14.46	Y	2 min	
9:00	10	14.59	Y	2 min	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
11:18/14:22	7	1/2	6.97/6.95	14.11/16.49	
11:20/14:26	4	2/3	4.04/4.06	13.72/16.44	
11:22/14:31	10	2/2	10.04/10.02	13.97/16.44	

CONDUCTIVITY				
CALIBRATION - Daily				
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:10	1000	Y	6 min	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
11:24	500	3 min	503	14.13	
14:35	100	4 min	104	16.33	

REDOX POTENTIAL			
CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:12	Y	3 min	

QUALITY CHECK - midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp C	Standard Solution (Name / Lot# / Expiration Date)
11:27	100mV	1 min	98.1	13.85	
14:41	100mV	2 min	91.5	16.80	

DISSOLVED OXYGEN - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

CALIBRATION - Daily				UNIT #	MODEL #
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)		
9:06	Y	1 min	248 out of 248 ppm		

QUALITY CHECK - midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)
11:28	248	1 min	248		
14:45	248	1 min	248		

Multiparameter Instrument Calibration Daily Log

Date: 11/15/01 Instrument Type and Model Number: YSI 600XL
 Personnel: JLC/LB Instrument Serial Number: 0001098

DISSOLVED OXYGEN							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
8:33	750.1	Y	4 min	0.01	15.04	3 min	
12:45				0.04	15.04	3 min	
14:12				0.03	16.58	3 min	

pH					
CALIBRATION - Daily					
Time	Standard	Temp °C	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:38	7	15.86	Y	2 min	
8:40	4	15.75	Y	2 min	
	10	16.18	Y	2 min	

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
14:00	7	2 min	7.01	16.54	
14:24	4	2 min	7.03	16.80	
1	10	1	10.02	17.08	

CONDUCTIVITY					
CALIBRATION - Daily					
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
8:48	1000	Y	4 min		

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
14:30	1000	6 min	1004	16.81	
14:42	500	3 min	506	17.00	

REDOX POTENTIAL			
CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:53	Y	2 min	

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
14:45	100 mV	2 min	98.2	16.91	

DISSOLVED OXYGEN - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
14:40	752.3	Y	15 min		16.9 °C		0% salinity, 100%
14:19				0.25	16.2 °C	3 min	

PID			
CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:35	Y	2 min	244 out of 248 ppm

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)
14:30	248 ppm	1 min	249		

Multiparameter Instrument Calibration Daily Log

Date: 11/15/01 Instrument Type and Model Number: YSI 600 XLIM
 Personnel: LB Instrument Serial Number: 015081

DISSOLVED OXYGEN							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
1200	752.7	Y	2 min @ 99.0%				

pH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
1203	7	15.29	Y	1 min	
1206	4	15.90	Y	2 min	
1209	10	15.77	Y	1 min	

QUALITY CHECK - @ calibration, midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

CONDUCTIVITY				
CALIBRATION - Daily				
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
1212	1000	Y	3 min	

QUALITY CHECK - @ calibration, midday, end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

REDOX POTENTIAL			
CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
1216	Y	3 min	

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp C	Standard Solution (Name / Lot# / Expiration Date)

DISSOLVED OXYGEN - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

PID				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	UNIT #

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

Multiparameter Instrument Calibration Daily Log

Date: 7/11/01 Instrument Type and Model Number: YSI 600 XLM
 Personnel: B.M.B. Instrument Serial Number: 0050698
JLC

DISSOLVED OXYGEN

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
8:30	747.0	Y	2 min @ 10.7%				
13:00	747.0	Y	2 min	0.1	16.01		replaced membrane
15:15	746.9			0.20	18.72	3 min	

pH

CALIBRATION - Daily

Time	Standard	Temp °C	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:46	7	17.24	Y	3 min	
8:49	4	17.23	Y	3 min	
8:53	10	17.17	Y	3 min	

QUALITY CHECK - @ calibration, midday, and of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
13:00/15:20	7		6.9 / 6.9	18.58 / 18.02	
15:23	4		4.5 / 4.0	18.6 / 18.10	
15:26	10		9.2 / 9.93	18.7 / 18.07	

CONDUCTIVITY

CALIBRATION - Daily

Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:05	1000	Y	5 min	

QUALITY CHECK - @ calibration, midday, and of day

Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
13:00	500	3 min	500	17.11	
15:01	100	4 min	105	18.76	

REDOX POTENTIAL

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:10	Y	2 min	

QUALITY CHECK - midday, end of day

Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
13:00	100	2	100		
15:39	100	3 min	104.6		

DISSOLVED OXYGEN - DOWN-HOLE METER

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

PID

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:44	Y	1 min	244 out of 248 ppm

QUALITY CHECK - midday, end of day

Time	Standard ppm	Stabilization Time (>5 min)	Reading ppm	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
13:05	248	1 min	244		
15:39	248	1 min	244		

UNIT #
MODEL #

(followed criteria as table 9A)
 JLC + MBB
 instrument precision actually +5-20 mV

Multiparameter Instrument Calibration Daily Log

Date: 1-19-01 Instrument Type and Model Number: YSI 600 XL
 Personnel: JCB Instrument Serial Number: 0020698

DISSOLVED OXYGEN

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
824	749.8	Y	1 min	0.10	14.59	5 min	
1302	742.3	Y		0.13	17.56	5	
1700	741.0			0.11	15.21	5	

pH

CALIBRATION - Daily

Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
830	7	14.67	Y	4	
835	4	14.54	Y	1	
837	10	14.67	Y	2	

QUALITY CHECK - @ calibration, midday, and of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
1059/1705	7	2 / 3	703/705	17.1/15.10	
1259/1707	4	2 / 2	392/396	12.5/15.08	
1311/1709	10	3 / 2	10.02/10.57	13.0/15.01	

CONDUCTIVITY

CALIBRATION - Daily

Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
810	1000	Y	2	

QUALITY CHECK - @ calibration, midday, and of day

Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
1315	100	4	105	17.92	
1715	500	5	496	14.96	

REDOX POTENTIAL

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
847	Y	2	

Calibrated to 0 mV due to temp of 25°C

QUALITY CHECK - midday, and of day

Time	Standard (mV)	Stabilization Time (>5 min)	Reading (mV)	Temp C	Standard Solution (Name / Lot# / Expiration Date)
1320	100	1	108.0	17.50	
1720	100	1	109.1	14.94	

DISSOLVED OXYGEN - DOWN HOLE METER

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

PID

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
830	Y		244 out of 248

UNIT #
MODEL #

QUALITY CHECK - midday, end of day

Time	Standard PPM	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)
1510	248	1	244		
1721	248	1	244		

Multiparameter Instrument Calibration Daily Log

Date: 11/20/01 Instrument Type and Model Number: YSI 600 XLM
 Personnel: _____ Instrument Serial Number: 0010198

DISSOLVED OXYGEN*							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
8:32	740.7	Y	3 min	95%			
1236	738.7	Y		0.08	10.50	3 min	

pH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:39	7	15.99	Y	3	
8:47	4	15.73	Y	4	
8:50	10	15.37	Y	3	

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
12:31	7	3'	7.05	9.72	
12:42	4	3'	4.0	9.78	
12:46	10	3'	10.05	9.72	

CONDUCTIVITY				
CALIBRATION - Daily				
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:53	1000	Y	3	

QUALITY CHECK - @ calibration, midday, end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
13:00	100	5 min	104	10.20	

REDOX POTENTIAL			
CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:56	Y	2 min	Calib. to 114mV at 11.3°C

QUALITY CHECK - midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mV)	Temp C	Standard Solution (Name / Lot# / Expiration Date)
13:07	100	2 min	106.7	21.21	

DISSOLVED OXYGEN* - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
13:07							

CALIBRATION - Daily				UNIT #
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	MODEL #
8:35	Y	1 min	246 out of 248	

QUALITY CHECK - midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
13:15	248	1 min	246		

Multiparameter Instrument Calibration Daily Log

Date: 12/3/01 Instrument Type and Model Number: YSI 600XLm
 Personnel: MDB + LB Instrument Serial Number: 013085

changed DO meter

DISSOLVED OXYGEN							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp °C	Stabilization Time (approx. 3 min)	Comments
1030	757.4	Y	5 min		12.19		94.6%
1545	755.0			0.10	12.56	2 min	

pH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:00	7.0	15.77	Y	1 min	
↓	4.0		Y		
↓	10.0		Y	↓	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1540	7	2 min	7.04	11.58	
1540	7	2 min	7.04	11.58	
1553	4	1	3.95	11.56	
1555	10	2	10.05	11.33	

CONDUCTIVITY				
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
1030	1000	Y	5 min	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1558	500	5 min	505	11.76	

REDOX POTENTIAL			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:00	Y	1 min	@ 100 mV Calitech 12816 / 9-6-02

QUALITY CHECK - midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mV)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1601	100 mV	2 min	109.3	10.48	

DISSOLVED OXYGEN - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
1030							

PID			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:00	Y	1 min	@ 240 ppm

QUALITY CHECK - midday, end of day					
Time	Standard ppm	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)
1557	248	1 min	240		

UNIT #
MODEL #

Multiparameter Instrument Calibration Daily Log

Date: 12/4/01 Instrument Type and Model Number: YSI 630X
 Personnel: CB, LA Instrument Serial Number: 015051 = 4
000-86

DISSOLVED OXYGEN						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp °C	Stabilization Time (approx. 3 min)
0914	757.6	Y	2 min		10.62	
1533	757.2		5	0.19	14.30	

pH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0922	7	13.55	Y	2	
0924	4	13.45	Y	2	
0926	10	12.95	Y	4	

QUALITY CHECK - @ calibration, midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1538	7	2	6.90	14.56	
1540	4	2	4.00	14.68	
1542	10	2	9.98	14.37	

CONDUCTIVITY					
CALIBRATION - Daily					
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
0930	1000	Y	3 min		

QUALITY CHECK - @ calibration, midday, end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1545	500	3	501	14.34	

REDOX POTENTIAL			
CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0934	Y	2 min	100mV

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mV)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1548	100mV	2	119.2	15.06	

DISSOLVED OXYGEN - DOWN HOLE METER						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp °C	Stabilization Time (approx. 3 min)
1200	757	Y	5 min		16.2	
1519			3 min	0.31	15.1	

PID			
CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0945	Y	2 min	240 out of 248 ppm

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)

Multiparameter Instrument Calibration Daily Log

Date: 12/4/01 Instrument Type and Model Number: YSI 700 XLM
 Personnel: LWLJ Instrument Serial Number: 01C0134 - 010-85

DISSOLVED OXYGEN							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
11:19	768.1	Y	3 min	0	14.10		100.1 %
14:40	757.3	N	3 min	0.04			

pH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
11:23	7.0	12.51	Y	2 min	6.91 pH
11:27	4.0	13.46	Y	2 min	4.04 pH
11:32	10.0	12.67	Y	3 min	10.17 pH

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
14:50	7.0	2 min	6.94	14.72	
14:53	4.0	2 min	4.02	14.66	
14:56	10.0	2 min	10.00	14.66	

CONDUCTIVITY					
CALIBRATION - Daily					
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
11:38	1,000	Y	2 min		

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
14:50	1,000	2 min	1022	14.53	
14:50	500	3 min	492	14.47	

REDOX POTENTIAL					
CALIBRATION - Daily					
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)		
11:45	Y	2 min			

QUALITY CHECK - midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mV)	Temp C	Standard Solution (Name / Lot# / Expiration Date)
15:05	100 mV	3 min	117.2	13.87	

DISSOLVED OXYGEN - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

PID					
CALIBRATION - Daily					
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)		

QUALITY CHECK - midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

UNIT #
MODEL #

Multiparameter Instrument Calibration Daily Log

Date: 12/5/01 Instrument Type and Model Number: YSI 600XLM
 Personnel: LB Instrument Serial Number: 0120851 - 000-83, 84

DISSOLVED OXYGEN						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)
8:39	756.7	Y	2 min	99.6%	13.75	
1309	756.1			0.03	17.92	3 min
1535	755.7		4 min	0.01	21.88	

pH					
CALIBRATION - Daily					
Time	Standard	Temp °C	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:41	7	15.88	Y	3	
8:44	4	15.91	Y	2	
8:46	10	15.72	Y	2	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1311/1539	7	2 / 2	6.92 / 6.93	18.01	
1313/1542	4	2 / 2	4.00 / 4.01	18.22	
1535/1544	10	2 / 2	10.00 / 9.99	18.49	

CONDUCTIVITY				
CALIBRATION - Daily				
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:57	1000	Y	3	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1320	100	5	105	18.04	
1548	100	2	504	20.46	

REDOX POTENTIAL				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
8:58	Y	2 min	Ortech / 2816 / 9/6/2002	

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1325	100mV	1 min	104.3	22.11	
1555	100mV	1 min	111.0	19.09	

DISSOLVED OXYGEN - DOWN HOLE METER						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)
1350	755	Y	5 min	99%	19.7	

PID				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
			UNIT # MODEL #	

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)
859	248	2 min	246		
1545	248	1 min	246		

Multiparameter Instrument Calibration Daily Log

Date: 12/3/01 Instrument Type and Model Number: YSI 800 XLM
 Personnel: LW Instrument Serial Number: 01C0134 1992-81

DISSOLVED OXYGEN							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
8:44	756.6	Y	2min	97.8%	13.65		
15:11	756.4	N	0min	6.23	20.47		

pH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:48	7.0	15.44	Y	2min	
8:51	4.0	15.53	Y	2min	
8:54	10.0	15.32	Y	2min	

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
15:17	7.0	3min	6.93	20.31	
15:21	4.0	2min	4.04	20.41	
15:24	10.0	2min	10.00	20.26	

CONDUCTIVITY				
CALIBRATION - Daily				
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:58	1,000	Y	2min	

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
15:26	500	3min	499	20.47	

REDOX POTENTIAL				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
9:03	Y	3min	Coatech/2816/9/6/2002	

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp C	Standard Solution (Name / Lot# / Expiration Date)

DISSOLVED OXYGEN - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp °C	Stabilization Time (approx. 3 min)	Comments
1330	755	Y	3min	97.8%	13.65		
1350	755	Y	5min	97.8%	19.2		

P.I.D.				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)

UNIT #
MODEL #

Multiparameter Instrument Calibration Daily Log

Not using

Date: 12/6/01 Instrument Type and Model Number: YSI 600 XLM
 Personnel: _____ Instrument Serial Number: 00D0693
0830 replaced DO membrane

DISSOLVED OXYGEN

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
8:49	746.7	Y	4 min	90.1%	19.73		

AS jumping around too much

pH

CALIBRATION - Daily

Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
8:36	7.0	17.64	Y	3 min	
9:03	4.0	16.61	Y	3 min	
9:07	10.0	17.13	Y	4 min	

QUALITY CHECK - @ calibration, midday, and of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

CONDUCTIVITY

CALIBRATION - Daily

Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:13	1000	Y	3 min	

QUALITY CHECK - @ calibration, midday, end of day

Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

REDOX POTENTIAL

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:16	Y	5 min	

QUALITY CHECK - midday, end of day

Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp C	Standard Solution (Name / Lot# / Expiration Date)

DISSOLVED OXYGEN - DOWN HOLE METER

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

PID

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)

UNIT #

MODEL #

QUALITY CHECK - midday, end of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)

Multiparameter Instrument Calibration Daily Log

Date: 12/01 Instrument Type and Model Number: YSI 600 XLM
 Personnel: L.B. LW Instrument Serial Number: 910851 = used on 9/2/15

DISSOLVED OXYGEN						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp °C	Stabilization Time (approx. 3 min)
0835	750.0	Y	2 min	98.7%	14.18	
1147			2 min	0.12	21.22	

CALIBRATION - Daily					
Time	Standard	Temp °C	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0838	7	13.83	Y	2 min	
0841	4	14.05	Y	2	
0843	10	14.29	Y	3	

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1150	7	2	6.98	21.3	
1653	4	3	9.05	21.45	
1656	10	3	9.97	22.31	

CALIBRATION - Daily				
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0907	1000	Y	4 min	

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1700	500	3 min	704	21.28	

CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0912	Y	2 min	

QUALITY CHECK - midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1416	100mV	1 min	111.2	19.76	

DISSOLVED OXYGEN - DOWN HOLE METER						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)

CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)

QUALITY CHECK - midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)

UNIT #
MODEL #

Multiparameter Instrument Calibration Daily Log

Date: 12/6/01 Instrument Type and Model Number: YSI 600 XLM
 Personnel: LBJ/LLW Instrument Serial Number: 0940 replaced DO membrane
01C.0134 OW=950, DW-82

DISSOLVED OXYGEN						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp °C	Stabilization Time (approx. 3 min)
0948	750.1	Y	2min		14.56	
1405				0.15	20.32	2
1645				0.04	22.93	2

CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0953	7	18.62	Y	2	
1000	4	18.73	Y	2	
1602	10	18.91	Y	2	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1407/1412	7	2/3	6.91/6.99	21.21/21.31	
1409/1650	4	2/2	4.03/4.10	21.49/21.87	
1412/1653	10	2/3	9.94/10.06	21.93/23.07	

CALIBRATION - Daily				
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
1017	1000	Y	5min	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1415	100	5min	104	19.99	
1658	500	3min	505	21.43	

CALIBRATION - Daily			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
1024	Y	2min	

113 mV at 17°C

QUALITY CHECK - midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1421	100 mV	1min	110.0	21.79	
1701	100 mV	1min	109.6	20.38	

DISSOLVED OXYGEN - DOWN HOLE METER						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp °C	Stabilization Time (approx. 3 min)
1445	747	Y	2min	0.25	21.7	
1610				0.35	21.50	

CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	UNIT = Photovac PE
	already calibrated		Photovac	MODEL #

QUALITY CHECK - midday, and end of day					
Time	Standard ppm	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1621	248	1min	287		Same

60

Multiparameter Instrument Calibration Daily Log

Date: 12/7/01
 Personnel: LR

Instrument Type and Model Number: YSI 600 XLM
 Instrument Serial Number: 01C034

FOR WELL 911-96

DISSOLVED OXYGEN						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp (°C)	Stabilization Time (approx. 3 min)
0907	747	Y	5 min		10.55	
1336	748	N	4 min	0.21	18.55	

pH					
CALIBRATION - Daily					
Time	Standard	Temp (°C)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
0909	7	10.59	Y	4	
0915	4	10.75	Y	4	
0919	10	10.46	Y	3	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp (°C)	Standard Solution (Name / Lot# / Expiration Date)
1342	7	2	6.98	17.19	
1344	4	3	7.08	17.26	
1348	10	2	10.03	17.78	

CONDUCTIVITY				
CALIBRATION - Daily				
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
974	1000	Y	3	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp (°C)	Standard Solution (Name / Lot# / Expiration Date)
1352	500	4 min	504	15.14	

REDOX POTENTIAL				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
930	Y	1 min	110 at 19°C	

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp (°C)	Standard Solution (Name / Lot# / Expiration Date)
1356	100mV	2 min	109.7	17.01	

DISSOLVED OXYGEN - DOWN HOLE METER						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)

PID				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	

UNIT #
 MODEL #

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)

Multiparameter Instrument Calibration Daily Log

Date: 12/7/01 Instrument Type and Model Number: YSI 600 XLM For well: OU-95A
 Personnel: LS Instrument Serial Number: 0150851

DISSOLVED OXYGEN

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (±0.5 mg/L)	Temp °C	Stabilization Time (approx. 3 min)	Comments
9:06	747.6	Y	4		9.60		
1325	747.4	N	3	0.13	17.45		

pH

CALIBRATION - Daily

Time	Standard	Temp °C	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:14	7	10.31	Y	3	
9:17	4	10.59	Y	3	
9:21	10	10.36	Y	4	

QUALITY CHECK - @ calibration, midday, and end of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
10:00	7	2 min	6.83	16.34	
1333	4	2 min	4.05	16.16	
1328	10	2 min	9.99	17.00	

CONDUCTIVITY

CALIBRATION - Daily

Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:27	1000	Y	4	

QUALITY CHECK - @ calibration, midday, end of day

Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
1344	500	1	505	14.79	

REDOX POTENTIAL

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:35	Y	1 min	110mV at 19°C

QUALITY CHECK - midday, end of day

Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp °C	Standard Solution (Name / Lot# / Expiration Date)
9:35	100mV			18.23	
13:49	100mV	4 min	110.9	17.81	

DISSOLVED OXYGEN - DOWN HOLE METER

Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day

Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (±0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
11:30	750	Y	20 min (69%)		14.5°C		
1:57:5	747	N	10 min	0.40	16.9°C		

PID

CALIBRATION - Daily

Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:30	Y	1 min	248 ppm Isobutylme

UNIT = AE Photovac
 MODEL # 2020
 SN # ED JF 316

QUALITY CHECK - midday, end of day

Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)
13:50	248 ppm	1 min	270 ppm		

12/7/01
 LS
 165

Multiparameter Instrument Calibration Daily Log

Date: 12/11/01 Instrument Type and Model Number: COOXL
 Personnel: LWIMBETC Instrument Serial Number: 99.K0036

DISSOLVED OXYGEN						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)
9:02	754.7	Y	3min.	101.4%	8.67	

pH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
9:07	7.0	11.58	Y	2min	Calitech / 2675 / 6/3/2003
9:11	4.0	11.17	Y	3min	" / 2600 / 3/29/2003
9:15	10.0	10.64	Y	3min	" / 2444 / 5/22/2002

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

CONDUCTIVITY					
CALIBRATION - Daily					
Time	Standard (>1000 us/cm)	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
9:19	1000 us/cm	Y	3min	Calitech / 2724 / 7/6/2002	

QUALITY CHECK - @ calibration, midday, and end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)

REDOX POTENTIAL				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
9:25	Y		Calitech / 2816 / 9/6/2002	

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp C	Standard Solution (Name / Lot# / Expiration Date)

DISSOLVED OXYGEN - DOWN HOLE METER						
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day						
Time	Barometric Pressure (mm - Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)

PID				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	
9:41	Y	1min	Spec Air / 1/9/2002	

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)
12:48	100ppm	1min	104ppm		

not cal
 @ end
 of day
 as
 not
 used
 on
 well

UNIT # Perkin Elmer
 MODEL # Photovac
 2020

Multiparameter Instrument Calibration Daily Log

Date: 11/10/01 Instrument Type and Model Number: YSI 600 XL
 Personnel: WDB Instrument Serial Number: 99K005

DISSOLVED OXYGEN							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments
11:00	757.7	Y	5 min				
13:45	752.5	N	5 min	0.32	8.96		

pH					
CALIBRATION - Daily					
Time	Standard	Temp	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
10:49	7.0	9.30	Y	5 min	
10:51	4.0	9.3	Y	2 min	
10:53	10.0	9.3	Y	2 min	

QUALITY CHECK - @ calibration, midday, and of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
13:50	7.0	3 min	6.91	8.84	
13:54	4.0	3 min	3.88	9.01	
13:58	10.0	3 min	10.03	9.97	

CONDUCTIVITY				
Time	Standard (>1000 us/cm)	Calibrates (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
10:41	1000 us	Y	5 min	

*no other cond. sol'n available

QUALITY CHECK - @ calibration, midday, end of day					
Time	Standard (us/cm)	Stabilization Time (>5 min)	Reading	Temp C	Standard Solution (Name / Lot# / Expiration Date)
14:02	1000	3 min	1030	9.12	

REDOX POTENTIAL			
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)
14:55	Y	3 min	@ 100 mV

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading (mv)	Temp C	Standard Solution (Name / Lot# / Expiration Date)
14:06	100 mV	4 min	105.2	8.05	

DISSOLVED OXYGEN - DOWN HOLE METER							
Calibrate to % DO in air DAILY with zero DO to check calibration at midday and end of day							
Time	Barometric Pressure (mm Hg)	Calibrate (y/n)	Stabilization Time (>5 min)	Zero DO Check (<0.5 mg/L)	Temp	Stabilization Time (approx. 3 min)	Comments

PID				
CALIBRATION - Daily				
Time	Calibrate (y/n)	Stabilization Time (>5 min)	Standard Solution (Name / Lot# / Expiration Date)	

UNIT #
MODEL #

QUALITY CHECK - midday, end of day					
Time	Standard	Stabilization Time (>5 min)	Reading	Temp	Standard Solution (Name / Lot# / Expiration Date)