ENVIRON

265237

June 2, 1998

Ms. Sheri Bianchin, RPM
Mail Code SR-J6
USEPA Region V
77 West Jackson Blvd.
Chicago, IL 60604-3590

Re: Response to EPA's 4/28/98 Review of the Baseline Risk Assessment Deliverable
ACS NPL Site, Griffith, Indiana

Dear Ms. Bianchin:

The American Chemical Service (ACS) Technical Committee received EPA's "Review of the Baseline Risk Assessment Deliverable" (March 11, 1998) on April 28, 1998. In the review, EPA requests additional information, including several tables, sections of the Revised Baseline Risk Assessment report, and clarification of several issues. Please find attached several of the items requested:

(1) Response to the U.S. EPA Review of the March 11, 1998 Baseline Risk Assessment Deliverable: The response identifies which issues are addressed in the tables included in this submittal and attempts to clarify the identified issues.

(2) Drafts of Tables 2-1 through 2-8 of the Revised Baseline Risk Assessment: These tables address the first three items requested in Attachment 1 of EPA's review, as well as several of the comments in Attachment 2.

(3) Table 9: Key to Assignment of Ground Water Sample IDs: Sample IDs for ground water in Tables 2-3 and 2-7 are different from those presented in the October 1997 draft Baseline Risk Assessment report (BRA). Sample IDs in the 1997 BRA were consistent with those originally compiled from multiple sources, with minor additions to distinguish between samples collected at different times but assigned the same Field ID. Based on a comment from Black & Veatch, ground water samples were assigned new Sample IDs for the risk assessment to establish greater consistency and facilitate identification. Samples were also assigned a single date identifying the month and year of collection, since the original dates occasionally differed by a day or two for separate laboratory analyses of the same sample (e.g., VOCs vs inorganics). This table provides a key to the 1997 BRA Sample IDs and the new Sample IDs as well as the assigned dates. Both sets of Sample IDs and dates were included in the updated Database provided to USEPA in April.

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(4) Table 10: Skin Surface Area Calculations: This table provides the values from USEPA guidance used to calculate skin surface areas for assessment of dermal exposures, in response to Comment 25 of Attachment 2.

It appears that additional discussion with USEPA may be valuable to resolve outstanding questions prior to submitting the additional requested items. ENVIRON will continue discussions with Pat Van Leeuwen to resolve these issues.

Sincerely,

Stephen T. Washburn
Principal

STW:dmd
5543A:\WP\7377_1.WPD

cc: ACS Technical Committee

RESPONSE TO APRIL 28, 1998, U.S. EPA REVIEW OF THE MARCH 11, 1998, BASELINE RISK ASSESSMENT DELIVERABLE AMERICAN CHEMICAL SERVICE, INC., NPL SUPERFUND SITE, GRIFFITH, INDIANA

ATTACHMENT 1

1. **Comment:**

   Submit a Table showing contaminants at the Site clearly indicating which contaminants retained for the RA and which were eliminated from the assessment including reasons for elimination.

   Response:

   See draft Tables 2-5 through 2-8, attached.

2. **Comment:**

   Submit a Table showing summary statistics for contaminants for each Site area (media, number, range, mean - arithmetic or geometric, UCL on the mean, value used in the RA for this area and media).

   Response:

   See draft Tables 2-5 through 2-8, attached. Summary statistics for the excavation and construction scenarios are not yet included in Table 2-5, because U.S. EPA has requested (5/21/98 phone conversation) that the Committee propose a depth averaging scheme in lieu of the subsurface-only evaluation previously requested. The Committee will provide the proposed approach, data analysis to support the approach, and the summary statistics in a separate deliverable. Samples to be included in the analysis are listed in Table 2-1C.

3. **Comment:**

   Submit a Table showing which sampling points used in the summary statistics (above) for the calculation of the contaminant concentrations for each medium and area.

Response:

See draft Tables 2-1 through 2-4, attached.

4. **Comment:**

Complete Section 3 of the risk assessment, including all scenario descriptions, pathways pertinent to these scenarios, equations for risk calculations for all pathways, and tables of parameter values for these scenarios. This Section should be in the final format, which once approved, will not change in the completed risk assessment for the Site.

Response:

The Committee will provide Section 3 after further discussion with U.S. EPA to resolve outstanding issues.

5. **Comment:**

Provide all methodologies (Appendixes) that will be used in the completed document, as well as the Reference Section.

Response:

The Committee will provide the Appendices after further discussion with U.S. EPA to resolve outstanding issues.

6. **Comment:**

Where alternate scenario calculations are considered to address uncertainty in the assessment, the methodology will be clearly described. The 1997 Exposure Factors Handbook will be used instead of the 1996 draft version or open literature sources. Open literature sources will only be considered for use when the submission has NOT been previously reviewed by U.S. EPA.

Response:

The Committee agrees to clearly describe all methodologies used in the risk assessment, and to use the 1997 *Exposure Factors Handbook* instead of the 1996 draft version. Consistent with U.S. EPA's requirement, open literature sources will only be considered for use when the submission has not been previously reviewed by U.S. EPA.

ATTACHMENT 2

Specific Comments

1. Comment:

Transmittal Letter. *The transmittal letter makes a comment regarding off-site potable uses of upper aquifer ground water. U.S. EPA believes that a screening-level evaluation of the risks is not adequate. While it is likely that there are not upper aquifer users for drinking water; this can not be clearly demonstrated. Furthermore, U.S. EPA policies require that the beneficial uses protected and restored. The upper aquifer is designated as one for current or potential users for drinking water purposes. The RA must address any risk to off-site exposure to potable water.*

Response:

The Committee strongly agrees with U.S. EPA that it is likely that there are not upper aquifer users for drinking water. As discussed in greater detail below, the physical characteristics of the shallow aquifer, as well as ground water quality in the shallow aquifer, eliminate drinking water as a reasonable current or future use near the ACS site. In response to U.S. EPA's comment, it should also be noted that U.S. EPA policy clearly distinguishes between aquifer protection and aquifer restoration, emphasizing the need to take a "realistic approach to restoration based on actual and reasonably expected uses of the resource" (USEPA, 1991).

Three geologic units have been identified in the vicinity of the Site: an upper sand and gravel unit (i.e., the upper aquifer), a clay confining layer, and a lower sand and gravel unit (i.e., the lower aquifer). In the Site monitoring wells, the average depth to the top of the clay confining layer is about 15 to 20 feet below ground surface (bgs).

A thorough survey of private wells in the area was performed by Warzyn (now Montgomery Watson) during the Remedial Investigation (Warzyn, 1991). Well records that were collected during this survey indicate that all private wells in the vicinity of the site (on Reder Rd., Colfax Ave., and Arbogast St.) are screened in the lower aquifer, at depths ranging from 45 to 65 feet below ground surface. Appendix L of the RI provides the private well logs of these and other wells in Griffith. The majority of the logs provide descriptions of the formations at the well location, and document the presence of the clay layer and that the well is screened below the clay layer. Well records were not available for two wells in Area 5A, along Reder Road. However, constituent concentrations collected from these two private wells (and all of the other private wells) are significantly lower than concentrations measured in the upper aquifer in that area, and are similar to those measured in the lower aquifer. Thus, there is no evidence that any private wells are currently screened above the clay layer in Areas 5A or 5B, or are being influenced by ground water quality in the upper aquifer.

The Committee notes that Indiana has not assigned any designation to the upper aquifer, or to other aquifers in the state. According to the ROD, ground water in the upper and lower aquifers is considered Class II under U.S. EPA guidelines for ground water classification, and the water could therefore theoretically be used for drinking water. However, in the vicinity of the site, the clay confining layer that divides the aquifers is too shallow for wells to be installed in the upper aquifer. The depth of the clay layer averages less than 20 feet below ground surface at and around the Site. Montgomery Watson has contacted several licensed drillers in the Griffith area. The drillers indicated that they would not install a shallow well (i.e., within about 30 feet of the ground surface) because of professional concerns about the following: (1) a property with its own water supply is likely to have a septic system that could contaminate such a shallow well, and (2) the yield of the well may not be adequate.

Furthermore, Indiana state regulations require that "a well must be cased to a depth of at least twenty-five (25) feet below the ground surface unless otherwise approved by the division" (310 IAC 16-4-1 Casing). As shown below, the depth to clay at offsite monitoring well locations ranges from 11 to 32 feet bgs, with an average of 19 feet bgs in Area 5A and 13 feet bgs in Area 5B. Only three of the 23 monitoring wells indicated a depth to clay of greater than 25 feet bgs, all located toward the western edge of Area 5A, adjacent to the ACS Site. The deepest, 32 feet bgs at MW-06, is located just south of the Site and west of Colfax Ave. Crossing Colfax, going east, the clay layer rises toward the surface, so that within about 600 feet of MW-06 the depth to clay is only 20 feet bgs. Because depth to clay is so shallow, any new wells would need to extend through the clay into the lower aquifer, absent a divisional approval.

Depth to the Clay Confining Layer Offsite (Areas 5A and 5B)

Location	Area	Depth to Clay (ft)
MW-06	5A	32
MW-07	5A	20.5
MW-11	5B	20.3
MW-12	5A	20.2
MW-17	5A	NA
MW-18	5A	20
MW-19	5A	23
MW-20	5A	NA
MW-22	5A	20.5
MW-28	5A	27.5
MW-36	5A	15
MW-37	5B	14
MW-38	5B	11.5
MW-39	5B	11
MW-40	5B	13.5
MW-41	5A	13
MW-42	5A	14

Depth to the Clay Confining Layer Offsite (Areas 5A and 5B)		
Location	**Area**	**Depth to Clay (ft)**
MW-43	5A	18
MW-44	5A	11
MW-45	5A	11
MW-47	5A	13
MW-48	5B	11.5
MW-50	5A	29.5

In addition to state law and the shallow depth of the clay layer, the background quality of water in the upper aquifer as compared to the lower aquifer supports a preference for well installation into the lower aquifer. According to Indiana's Department of Natural Resources "Water Resource Availability in the Lake Michigan Region, Indiana" (1994), much of the ground water in Indiana has a high iron and manganese content. The Federal government has established Secondary Maximum Contaminant Levels (SMCLs) for iron and manganese (0.3 mg/L and 0.05 mg/L, respectively), based on taste, odor, and color. The table below summarizes off-site (i.e., Areas 5A and 5B combined) iron and manganese concentrations in the upper and lower aquifers. Upper aquifer average concentrations are based on data from wells outside the plumes (i.e., wells MW-6, MW-45, MW-48 are excluded). As shown, background concentrations in both aquifers are higher than SMCLs for iron and manganese, but the lower aquifer water is of better quality than the upper aquifer water.

Off-Site Iron and Manganese Concentrations in Ground Water			
Chemical	**SMCL (mg/L)**	**Off-site Upper Aquifer Conc. Outside the Plumes(mg/L) Average (Max)**	**Off-site Lower Aquifer Conc. (mg/L) Average (Max)**
Iron	0.3	7.7 (47.5)	3.7 (13.15)
Manganese	0.05	0.51(1.6)	0.11 (0.26)

As discussed above, use of the upper aquifer near the Site for drinking water is not currently occurring, and is <u>not</u> reasonably expected in the future. However, to address previous USEPA comments, the Committee has agreed to include the drinking water pathway as a bounding scenario in the risk assessment. Given the lack of current drinking water exposures to the shallow aquifer, and the extremely low probability of future exposures, this scenario will be included in the Uncertainty Analysis section.

2. **Comment:**

Transmittal Letter. The transmittal letter make a comment regarding short-term, acute risks associated with trucks and other heavy equipment driving over buried drums in Area 1. A semi-quantitative risk assessment is preferable by U.S. EPA.

Response:

A semi-quantitative risk assessment will be performed to the extent the data allow. It should be recognized, however, that only limited data are available on the specific composition of materials in the drums in Area 1.

3. **Comment:**

Comment 2 Response. The response to the U.S. EPA comment reflects EPA's desire to include the most recent data; however, it does not address the issue of sample identification that was discussed in the February meeting. It should be clarified that EPA expects a complete listing, in tabular form, of all samples used in the development of exposure concentrations, by media. This will enable EPA to adequately review the data inputs and duplicate the statistics provided.

Response:

Tables 2-1 through 2-4 (attached) provide a complete listing, in tabular form, of all samples used in the development of exposure concentrations, by media. These tables, which will be included in the revised risk assessment, also identify those samples that were not included in the development of exposure concentrations and the rationale for their elimination (e.g., outside the center of the plume).

4. **Comment:**

Comment 8 Response. The response to the EPA comment clearly indicates that a rationale will be provided and a list of chemicals to be eliminated prior to submittal of the Baseline RA. U.S. EPA has not yet received this information. Please provide it.

Response:

Tables 2-5 through 2-8 (attached) identify the chemicals that were not selected for detailed evaluation in the risk assessment, and the rationale for their exclusion. As noted in the text of the October 1997 draft Revised Baseline Risk Assessment, chemicals were excluded (1) if they were major earth elements, or (2) if they were detected in less than five percent of the samples from the given medium, area, and depth. The notes in Tables 2-5 through 2-8, which will be included in the revised risk assessment, clearly identify which of these two reasons was the basis for elimination.

5. **Comment:**

Comment 9 Response. The response indicates that only a small fraction...of soil samples (for VOC analysis)...collected from test pits. These need to be clearly identified. Test pit data should not be used in deriving onsite averages, without some review. These data may need separate analysis.

Response:

Test pit samples are identified in the Key to Sample IDs and included in Table 2-1. In the current version of the risk assessment, test pit samples have been included in calculating exposure point concentrations for soil. As required by U.S. EPA, however, a separate review will be performed to identify the effect of combining the test pit data with data from other types of soil samples. The risk assessment will discuss the results of the review, and indicate if inclusion of the test pit samples has a significant impact on the risk estimates.

6. **Comment:**

Comment 12a Response. Clarify whether this applies to trespassers, or future site workers.

Response:

The bounding estimate based on the maximum concentration detected in any sample would apply to future trespassers and future workers. It would not apply to current trespassers, because the maximum contaminant concentrations are generally at depth.

7. **Comment:**

Comment 12c Response. U.S. EPA believes that the use of depth-weighted averages can also be supported for the excavation worker. This scenario focuses on the future routine worker exposed to surface soil. Obviously, the bounds are the surface soil concentration and the subsurface soil concentration.

Response:

Soil concentrations for excavation and construction will be based on samples collected from the ground surface to the depth of excavation. Per a conversation with U.S. EPA (5/21/98), the Committee will propose a depth averaging scheme for excavation/ construction scenarios. Table 2-1C identifies the samples that will be included in the construction scenarios. A TAL/TCL Group-specific approach may be required due to differences in availability of data (e.g. Table 2-5, Area 3 surface VOCs vs surface PCB analyses).

As agreed, the bounds for future routine workers exposed to surface soil are the surface soil concentration and the subsurface soil concentration. Since all soil data from Area 2 were collected at least two feet below ground surface, calculations of risk for all soil exposures in this area will be based on subsurface soil concentrations.

7. **Comment:**

Comment 15b Response. Justify the conclusion stated here that the surface water been determined to be runoff. Discuss whether it could be a groundwater seep.

Response:

As stated previously, the surface water that was sampled by EPA is no longer present at the site. It appears to have been a puddle of runoff because ground water at this location is approximately four feet below ground surface and because the puddle has not reappeared through times of high ground water.

8. **Comment:**

Comment 16 Response. Cite tables in August 1998 used to derive values. Different tables suggest different values.

Response:

Table 15-65 and 15-67 (USEPA 1997) will be used to derive the exposure frequencies and exposure times for swimming/wading. Specifically, the central tendency (CT) values will be based on the 50th percentile and the reasonable maximum exposure (RME) values will be based on the 90th percentile from these tables for the age group.

9. **Comment:**

Comment 17 Response. This is an interesting definition of a "hot spot" - an area where the majority of the most contaminated samples are located. U.S. EPA suggests there are multiple hot spots for multiple contaminants, based on site activities and disposal practices. Please clarify.

Response:

The Committee is not aware of any specific U.S. EPA definition of "hot spot", although Risk Assessment Guidance for Superfund (RAGS) refers to hot spots simply as "areas of very high contaminant concentrations" (p. 4-11). In any case, the risk assessment will be performed using the exposure point concentration methodologies previously agreed upon by the Committee and U.S. EPA, and will address the heterogeneity of chemical distribution at the ACS Site.

10. Comment:

Comment 19a Response. For modeled air lead concentrations, the assumption should be negligible site contribution to ambient concentration, but never less than ambient concentration, in assessing total risk. The same applies to other contaminants in the air. The question if whether the modeled increment from the site, when added to the ambient level, create a risk. Please clarify.

Response:

The modeled increment of airborne lead from the site will be added to the default air concentration in the IEUBK model, to estimate hypothetical blood lead levels. The text of the risk assessment will clearly indicate that this approach has been used.

11. Comment:

Comment 19d Response. Vinyl chloride in soil gas can come from volatilization from the groundwater (i.e., this depends on solubility and site-specific factors), and from movement of volatiles in soil. Please clarify.

Response:

The sentence "Vinyl chloride in soil gas can come from volatilization from the ground water (i.e., dependent on solubility and site-specific factors), and from movement of volatiles in soil." will be added to the discussion of vinyl chloride in the risk assessment.

12. Comment:

Comment 15, & 20 Responses. The response to EPA's comment indicates a potential misunderstanding that should be clarified. The response states that the surface water sample collected by EPA in Area 4B is a runoff puddle and intermittent. This may be true; however, it is still unclear as to whether this data is part of the surface water concentration for Area 4B.

This may be clarified by the response to Comment 2; however, EPA should make it clear that, although the puddle may be intermittent, it reflects typical puddling that may reflect a point of exposure to trespassers and routing workers should therefore be included in the data set.

Response:

The data from the puddle has been and is included in the data set and the risk calculations. As shown in Tables 2-4 and 2-8, the surface water sample collected by EPA in Area 4B is the only surface water data for Area 4B. Any analysis of exposures to surface water in this area is based on this sample alone. Additional surface water data were not collected from this area during other sampling events because surface water is only intermittently

present in this area. It is considered highly conservative to use the results of this sample to characterize typical chronic exposures to trespassers and workers since the water is rarely present. However, this sample has been and will be used for such characterization in the risk assessment.

13. Comment:

Comment 22a Response. *There should be a difference in the current routine worker and future routine worker access to subsurface soil. U.S. EPA have been lead to believe that it is currently restricted. Please clarify.*

Response:

The behavior of the current routine worker and the future routine worker are not assumed to differ with respect to contact with surface and subsurface soil. However, uncertainty exists as to what concentrations will be present in the surface soil in the future. If subsurface soils are disturbed by excavation, future surface soil concentrations could be more similar to what is currently measured in the subsurface. For this reason, the future surface soil concentrations to which a future routine worker would be exposed are approximated in the risk assessment using the subsurface soil concentrations as a bounding estimate, as requested by EPA. Current routine workers are assumed to be exposed to current surface soil concentrations. The distinction between current and potential future surface soil concentrations is made in Section 3.2 and 3.3 of the risk assessment, rather than Section 3.4 which focuses on the characteristics and behavior of the receptors.

14. Comment:

Comment to 22c Response. *The Baseline RA must incorporate U.S. EPA's analysis of Kissel's data (EFH, August 1997); no other review of the data is acceptable for the RA calculation. U.S. EPA agreed that the Kissel data could be used in the uncertainty discussion. It should NOT have equal weight in the main text of the report.*

Response:

Kissel's data regarding soil adherence will be included in the uncertainty section of the risk assessment.

15. Comment:

Comment 23c Response. *Obviously, the RFC concentrations cannot be protective for all receptors and all scenarios. The receptors have different breathing patterns. The construction worker breathes at a rate of about 3.5 m3/hr; therefore he breathes more than the 20 m3/hr for the resident in only 8 hours!*

Response:

U.S. EPA defines the chronic RfC as an "estimate (with uncertainty spanning perhaps an order of magnitude) of the daily exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime" (HEAST, USEPA 1997). Based on previous discussions with EPA and EPA's Comment 17, and consistent with the 1997 *Exposure Factors Handbook*, it is assumed that the construction worker will have an inhalation rate of 2.5 m^3/hr.

16. Comment:

Comment 22g, 29d, and 32e Responses. *EPA had agreed to clarify the apparent inconsistencies between the permeability coefficients promulgated in the Supplemental Dermal Risk Assessment Guidance (8/92) and provide direction to ENVIRON. It should be noted that ENVIRON indicates that they will use the values in the EPA Dermal Exposure Assessment Document (1/92) unless this issue is clarified. U.S. EPA suggests that they should use the Supplemental values for consistency within Region V, even if they are wrong, until the issue is clarified.*

Response:

The Committee would prefer to use the *correct* permeability coefficients, to the extent the values can be estimated with available data. The comment directs the Committee to use the Supplemental values, "*even if they are wrong,* until the issue is clarified". Subsequent conversations with U.S. EPA (5/21/98) indicate that the issue has been further clarified, such that the values in the U.S. EPA Dermal Exposure Assessment document (1/92) should be used. The Committee would appreciate written confirmation of this clarification before moving forward with this issue.

17. Comment:

Comment 23c Response. *The response indicates that the ACS Order Respondents agree in principal with the U.S. EPA comment and agrees to make the indicated revision; however, U.S. EPA was specific in the inhalation rate to be used (2.5). It should be reiterated that this value should be used since the response does not specifically mention the value.*

Response:

It was understood that the risk assessment uses Reference Concentrations (RfCs) rather than Reference Doses (RfDs) to evaluate inhalation exposures. As such, the exposure equation does not explicitly include an inhalation rate. Rather, the RfCs provided by U.S. EPA incorporate an assumed inhalation rate of 20 m^3/day, which corresponds to an inhalation rate of 2.5 m^3/hour when applied directly to a worker without adjustment (i.e., assuming the entire 20 m^3 is inhaled during an 8-hour workday at the site). It was agreed at the February meeting that adjustments for the fraction of day at the site would be

removed for worker scenarios, so the 2.5 m^3/hour has been and will be incorporated in the risk calculations.

18. Comment:

Comment 25 Response. The exposure calculations are baffling. It appears that an acute exposure has been derived (i.e., which exceeds some threshold values, such as the Region 3 emergency removal criteria, which are a 10-4 CA risk or a HQ of 10 for non-CA). Discuss the meaning and in particular whether an emergency removal is warranted. Additionally, the last sentence is not clear. (i.e., ... carcinogenicity is not normally considered to be an acute event.) However, lots of non-CA endpoints can be acute events. Please clarify.

Response:

No exposure calculations were included in the response, nor were acute exposures derived, so the basis for this comment is not clear. The 3/11/98 response stated that the baseline risk assessment will separately evaluate risks from chronic exposures, subchronic exposures, and acute exposures, using the appropriate averaging time for each. The same cancer toxicity criteria are applied regardless of the length of exposure. For noncancer effects, the toxicity criteria (i.e. RfDs and RfCs) are specific to the exposure duration/averaging time category, and only inhalation criteria are available to evaluate the acute (i.e. less than 10 days) exposures.

Based on subsequent conversations with U.S. EPA (5/21/98), it seems that evaluation of an acute scenario within the baseline risk assessment may not be necessary or appropriate. There is no established approach for such an evaluation, though U.S. EPA Region 5 has indicated that Regions 3 and 9 may have concentration values to use for comparison to Site concentrations. The Committee will consider use of these numbers and further discuss the issue with U.S. EPA Region 5. In any event, if an acute exposure scenario is considered in the baseline risk assessment, it would be evaluated in a separate section of the assessment, per U.S. EPA's suggestion.

19. Comment:

Comment 26c Response. Regarding the Kissel information, U.S. EPA is not certain that the 1996 EFH reports the 95th UCL on the mean for Kissel's workers. Anyway, the data in the 1998 EFH is different ... more data has been added, with a larger standard deviation.

Response:

No response necessary.

20. Comment:

Comment 29 Response. This issue was never fully resolved in the February meeting and ENVIRON agreed to get more data to discuss the trespasser soil ingestion rate issues. The response proposes trespassing frequencies for both the current and future scenario. The discussion of overall time spent is misleading and nonsensical. Time is hard to assess. For example, someone who takes a daily 12 min shower spends 72 hours, or nearly 2 weeks/year, in the shower. U.S. EPA would not want to even calculate how much time is spent on other necessary bodily activities. This is a ludicrous discussion and detracts from reasonable assessment of exposure.

The response makes an assumption that trespassing occurs one day per week (a reasonable assumption) between April and October (RME) and June through August (CT). However, there is no reasonable rationale provided for the RME time period (April through October). U.S. EPA's opinion is that the RME should be year-round and the CT should be during the "active outdoor months" (April-October).

The response also proposes that a trespasser would spend 1.5 hours per day at the site for each trespassing event. Clarify how 1.5 hours was derived for this receptor. Table 15-86 in the 1998 EFH says the 50th percentile value is 135 min (ages 12-17) and 165 min (ages 5-11). This does not make sense.

Regarding the comment on the source of soil ingested, U.S. EPA's logic is that if the trespasser spends ALL of his outdoor time on-site on a given day, it is not unreasonable that he gets all of his soil ingestion for the day onsite. How much DOES he get while watching television or sleeping .... or eating or reading a book or .... ?

The future scenario, as proposed, appears acceptable and addresses the U.S. EPA comment.

Response:

The basis for the specified trespassing time period was U.S. EPA's 2/10/98 Comment 30a:

> "EPA does not expect that children will trespass on the site in winter. The EPA scenario assumes 1 day/week in April, May, September and October and 3 days/week in summer months of June, July and August as a basis for the 54 day exposure. This exposure scenario...is required for trespass scenarios in Region 5. The non-carcinogenic risks from these exposures should be averaged over 7 months."

Thus, the time period of April to October was assumed for all trespassing scenarios in the response. The scenario described above was assumed for current trespassing in Areas 4A and 4B and for future trespassing in all Areas. Current trespassing in Areas 1, 2, and 3, is more controlled than Areas 4A or 4B, because of the presence of the active ACS

facility and the fence. Available information, including the results of monthly fenceline checks at the ACS Site, demonstrate that no evidence of trespassing within the fenced area (i.e., Areas 1, 2, and 3) has been observed. Thus, under the current scenario, negligible exposures of trespassers in Areas 1, 2, and 3 will be assumed in the Risk Assessment. However, the future trespassing scenario for Areas 1, 2, and 3 will be based on U.S. EPA's default scenario. The default U.S. EPA scenario will also be used for current and future trespasser scenarios in Areas 4A and 4B, because they are not within the fenced area.

21. Comment:

Comment 31 Response. *U.S. EPA requested that the that clarification be provided to indicate that the trespasser activity scenario is unrestricted at Areas 4 and 4B. At the meeting, there was agreement to make this clarification; however, the response is somewhat inconsistent with the agreement in the meeting in that they state that they will indicate "that more frequent trespassing could occur in the future is conditions change at the site." U.S. EPA believes that trespasser access to site 4 and 4B is completely uncontrolled now and that the Baseline RA should clearly indicate this.*

Response:

The distinction between current access to Areas 4A and 4B and current access to Areas 1, 2, and 3 is spelled out in the 3/11/98 Comment 29 Response (which is referred to in the Comment 31 Response). As noted, trespasser access to Areas 4A and 4B is assumed to be uncontrolled under both current and future scenarios. The difference between current and future exposure exists for Areas 1, 2, and 3 which are currently controlled, but could hypothetically be uncontrolled in the future.

22. Comment:

Comment 32d Response. *U.S. EPA believes that the average child is bathed more than 3 times a week; 5 - 7 times a week is more realistic. The RME is not even once/day. Please clarify what table this information was derived from.*

Response:

The bathing frequencies proposed (i.e., 3 days per week for central tendency and 5 days per week for reasonable maximum) were based on professional judgment since U.S. EPA's Exposure Factors Handbook (1997) does not provide information on the frequency with which children take baths. Bathing frequencies are only provided for adults. According to the EFH, only 7% of the adults reported taking (or giving) a bath on the day before the survey was conducted (p. 15-16). No information is provided regarding the number of baths taken per week by adults <u>or</u> children. The Committee will review the open literature to determine if any data on bathing frequencies for children are available. The Committee would appreciate receiving any data U.S. EPA may have on this issue.

It should be recognized that, under the RME scenario, the bathing duration is assumed to be 45 minutes. It is believed that the proposed RME scenario (i.e., 5 days per week, 45 minutes per bath) provides a conservative estimate of bathing time, since it is unlikely that every bath would take 45 minutes as assumed in the scenario.

23. Comment:

Comment 34 Response. *See above discussion about acute exposures again.*

Response:

See above discussion ("Comment 18. Comment 25 Response") about acute exposures.

24. Comment:

Comment 38g Response. *To state it again, 50 mg a day is the CT ingestion rate for the indoor worker; 100 mg/day is the RME value. If the worker is an outdoor worker, the ingestion rate is higher ... the CT value may be 100 mg /day. The use of 50 mg/day for the RME indoor worker is UNACCEPTABLE.*

Response:

Comment 38g refers to estimation of lead exposures. The models for assessing risks associated with exposures to lead in soil require the use of central tendency (CT) values to estimate the final distribution of blood lead levels. Consistent with CT soil ingestion rate being used throughout the rest of the report and consistent with "Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil" (USEPA 1996), the EPA default ingestion rate of 50 mg/day will be used for estimation of the distribution of lead exposures. As stated previously in responses to earlier comments (e.g., Comment 22b Response), a soil ingestion rate of 100 mg/day will be assumed to evaluate RME ingestion of chemicals other than lead.

25. Comment:

Tables of Exposure Values. As U.S. EPA has requested before, it is not always easy to see how the parameter values have been derived. Several alternate combinations of inputs would give the final parameter value. U.S. EPA would like to see more specific information so as to avoid guessing. Also, the table includes both the input parameter values for all scenarios and the calculated intake. As stated above, U.S. EPA would like to see cleaner tables, list the scenarios, list the inputs, summarize the outputs in a separate table. This IS a public document ..... please keep it simple.

Response:

The scenarios and inputs have been and will be included in these tables. Per EPA's request, the calculated intake factors (i.e., the outputs) will be removed from the tables of Exposure Values. The derivations of the skin surface areas presented in the tables are provided in Table 10, attached.

Land Use Memorandum Comments:

26. Comments:

Comment 15 Response. The response to the U.S. EPA comment is incomplete. EPA also requested information specifically about groundwater use restrictions on surrounding properties as well as on those properties constituting the site. Further, the response does not discuss the status of current groundwater users as requested.

Response:

As stated previously, the Committee has already secured filed deed restrictions concerning ground water use for the properties composing the ACS Site. With respect to the private properties outside of the Site, it is the Committee's understanding that those properties are subject to an Indiana State regulation (310 IAC 16-4-1 Casing) which requires that well casings be installed to a depth of at least 25 feet below ground surface. As discussed previously in the response to Comment 1 (page 3), the clay layer separating the upper and lower aquifers is shallower than 25 feet below ground surface throughout most of the site and surrounding areas. It is our understanding that this existing State ordinance therefore restricts installation of wells into the upper aquifer.

It is also the Committee's understanding that the private properties outside of the Site are subject to a Town of Griffith Ordinance which restricts the installation of drinking water wells in areas proximate to impacted ground water:

> *P-1604.2 Well locations: A potable ground water source or pump suction line shall not be located closer to potential sources of contamination than the distances shown on Table P 1604.2 ...The distances on Table P-1604.2 constitute minimum separation and shall be increased in areas of creviced rock or limestone, or where the direction of movement of the ground water is from sources of contamination toward the well.*

It is our understanding that this existing ordinance could be applied to prevent the installation of drinking water wells at properties surrounding the ACS Site if the Town elected to do so. The Committee does not have the authority to require private property owners outside of a Superfund Site to file deed restrictions on their properties. This is particularly true when there are no impacts on their properties, as is the case here.

With respect to current ground water uses in the area of the ACS Site, that information has been provided to the Agency several times in the past. Most recently, the information was provided in the documents sent to EPA to address questions raised in our meeting of April 28, 1998. That package was submitted on May 4, 1998.

27. Comment:

Comment 19 Response. *The response to the U.S. EPA comment does not get to the root of the issue. EPA clearly wants all potable uses of groundwater at the site covered under the deed restrictions. The ACS Order Respondents appear to be reluctant to formally restrict future non-residential uses of groundwater at the site based on the last sentence of the reply, which is conjectural.*

Response:

As stated in its previous responses, the Committee has already secured deed restrictions for the ACS Site that restrict the use of ground water for potable purposes. The deed restrictions also restrict the development of the Site for residential purposes. The Committee is confused as to the Agency's conclusion that we are reluctant to obtain deed restrictions that will limit future potable ground water use. We have already had such restrictions filed for all property within the ACS Site. Those restrictions speak in terms of potable and other uses and are not defined to residential use alone. If additional restrictions are necessary, the Committee is willing to consider seeking their imposition on property within the ACS Site.

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Table 2-1a: Surface Soil Samples
ACS NPL Site, Griffith, IN
SAMPLES INCLUDED IN RISK CALCULATIONS (a)

Area 1 SURFACE (0-2 ft)			Area 3 SURFACE (0-2 ft)			Area 5 SURFACE (0-2 ft)		
Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date
SA-03	ACS-SA03-03	Aug-89	SA-01	ACS-SA01-03	Jul-89	SS01*	ACS-SS01-001	Sep-97
SS101	ACS-SS101	Sep-97	SA-02	ACS-SA02-03	Jul-89	SS01*	ACS-SS01-101	Sep-97
SS102	ACS-SS102	Sep-97	SB-031	ACS-SB31-02	May-90	SS02*	ACS-SS02-001	Sep-97
SS103	ACS-SS103	Sep-97	SB-032	ACS-SB32-02	May-90			
SS103	ACS-SS103-DUP	Sep-97	SB-033	ACS-SB33-02	May-90			
SS104	ACS-SS104	Sep-97	SB-043	ACS-SB43-01	Jun-90			
SS105	ACS-SS105	Sep-97	SB-044	ACS-SB44-01	Jun-90			
SS106	ACS-SS106	Sep-97	SB-045	ACS-SB45-01	Jun-90			
SS107	ACS-SS107	Sep-97	SB-046	ACS-SB46-01	Jun-90			
SS108	ACS-SS108	Sep-97	SB-047	ACS-SB47-01	Jun-90			
SS109*	ACS-SS109	Sep-97	SB-048	ACS-SB48-01	Jun-90			
SS110*	ACS-SS110	Sep-97	SB-050	ACS-SB50-01	Jun-90			
SS111*	ACS-SS111	Sep-97	SB-052	ACS-SB52-01	Jun-90			
SS112*	ACS-SS112	Sep-97	SB-053	ACS-SB53-01	Jun-90			
SS113*	ACS-SS113	Sep-97						

Note:
Duplicate samples were denoted with a "DUP" or "-101" in the Sample ID, and averaged with the associated sample prior to data summary or risk calculations.
(a) All samples collected from 0-2 feet below ground surface were included in risk calculations.

Table 2-1b: Subsurface Soil and Waste Samples
ACS NPL Site, Griffith, IN
SAMPLES INCLUDED IN RISK CALCULATIONS (a)

Area 1 SUBSURFACE (2-10 ft)			Area 2 SUBSURFACE (2-10 ft)			Area 3 SUBSURFACE (2-10 ft)		
Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date
FIRE POND	SS01	Sep-96	D-01-S	D01-S-IEA	Jul-97	KP-01-S	KP01-S-IEA	Jul-97
FIRE POND	SS01-D	Sep-96	D-02-S	D02-S-IEA	Jul-97	SB-001	ACS-SB01-03	Aug-89
FIRE POND	SS02	Sep-96	SA-01-S	SA01-S-IEA-01	Jul-97	SB-001	ACS-SB01-09	Aug-89
SB-008	ACS-SB08-06	Aug-89	SA-01-S	SA01-S-IEA-02	Jul-97	SB-002	ACS-SB02-05.5	Aug-89
SB-008	ACS-SB08-10	Aug-89	SA-02-S	SA02-S-IEA	Jul-97	SB-002	ACS-SB02-07	Aug-89
SB-009	ACS-SB09-06	Aug-89	SA-04-S	SA04-S-IEA	Jul-97	SB-002	ACS-SB02-08.5	Aug-89
SB-009	ACS-SB09-10	Aug-89	SB-004	ACS-SB04-05	Aug-89	SB-029	ACS-SB29-08	May-90
SB-010	ACS-SB10-05	Aug-89	SB-028	ACS-SB28-08	May-90	SB-030	ACS-SB30-10	May-90
SB-010	ACS-SB10-10	Aug-89	SB-036	ACS-SB36-10	Jun-90	SB-041	ACS-SB41-05.5	Jun-90
SB-011	ACS-SB11-05	Aug-89	SB-037	ACS-SB37-10	Jun-90	SB-043	ACS-SB43-04.5	Jun-90
SB-011	ACS-SB11-10	Aug-89	SB-038	ACS-SB38-10	Jun-90	SB-044	ACS-SB44-04.5	Jun-90
SB-012	ACS-SB12-05	Aug-89	SB-039	ACS-SB39-10	Jun-90	SB-045	ACS-SB45-04.5	Jun-90
SB-012	ACS-SB12-10	Aug-89	SB-040	ACS-SB40-10	Jun-90	SB-046	ACS-SB46-04.5	Jun-90
SB-013	ACS-SB13-05	Aug-89	SB-042	ACS-SB42-05.5	Jun-90	SB-047	ACS-SB47-04.5	Jun-90
SB-013	ACS-SB13-10	Aug-89	SB-077	SB77-07-FT	Jun-93	SB-048	ACS-SB48-04.5	Jun-90
SB-016	ACS-SB16-06	Sep-89	SB-077	SB77-09-FT	Jun-93	SB-049	ACS-SB49-04.5	Jun-90
SB-017	ACS-SB17-06.5	Sep-89	SB-078	SB78-07-FT	Jun-93	SB-050	ACS-SB50-04.5	Jun-90
SB-018	ACS-SB18-07	Sep-89	SB-078	SB78-10-FT	Jun-93	SB-051	ACS-SB51-04.5	Jun-90
SB-020	ACS-SB20-07	May-90	SB-079	SB79-06-FT	Jun-93	SB-052	ACS-SB52-04.5	Jun-90
SB-021	ACS-SB21-07	May-90	SB-079	SB79-08-FT	Jun-93	SB-053	ACS-SB53-04.5	Jun-90
SB-055	ACS-SB55-07	Jun-90	SB-080	SB80-06-FT	Jun-93	SB-054	ACS-SB54-04.5	Jun-90
SB-056	ACS-SB56-07	Jun-90	SB-080	SB80-08-FT	Jun-93	SB-084	SB84-05-FT	Jun-93
SB-057	ACS-SB57-07	Jun-90	SB-081	SB81-04-FT	Jun-93	SB-085	SB85-05-FT	Jun-93
SB-058	ACS-SB58-07	Jun-90	SB-081	SB81-06-FT	Jun-93	SB-086	SB86-03-FT	Jun-93
SB-059	ACS-SB59-07	Jun-90	SB-082	SB82-04.5-FT	Jun-93	SB-087	SB87-07-FT	Jun-93
SB-060	ACS-SB60-07	Jun-90	SB-082	SB82-06.5-FT	Jun-93	SB-088	SB88-07.5-FT	Jun-93
SB-061	ACS-SB61-07	Jun-90	SB-083	SB83-06.5-FT	Jun-93	SP-01-S	SP01-S-IEA	Jul-97
SB-062	ACS-SB62-07	Jun-90	SB-083	SB83-06.5-FT-(91)	Jun-93	SP-02-S	SP02-S-IEA	Jul-97
SB-063	ACS-SB63-07	Jun-90	T-12-S	T12-S-IEA	Jul-97	TP-01	ACS-TP01-03.5	Aug-89
SB-064	ACS-SB64-07	Jun-90				TP-01	ACS-TP01-06	Aug-89
SB-065	ACS-SB65-07	Jun-90						
SB-066	ACS-SB66-07	Jun-90						
SB-067	ACS-SB67-07	Jun-90						

Table 2-1b: Subsurface Soil and Waste Samples
ACS NPL Site, Griffith, IN
SAMPLES INCLUDED IN RISK CALCULATIONS (a)

Area 1 SUBSURFACE (2-10 ft)			Area 2 SUBSURFACE (2-10 ft)			Area 3 SUBSURFACE (2-10 ft)		
SB-068	ACS-SB68-07	Jun-90	Liquid Samples from Drums (b):					
SB-069	ACS-SB69-08	Jun-90	SA-02-S	SA02-O-IEA-01	Jul-97			
SB-070	ACS-SB70-08	Jun-90	SA-02-S	SA02-O-IEA-02	Jul-97			
SB-071	ACS-SB71-08	Jun-90	SA-04-S	SA04-O-IEA-01	Jul-97			
SB-072	ACS-SB72-08	Jun-90	SA-04-S	SA04-O-IEA-02	Jul-97			
SB-073	ACS-SB73-05	Jun-90						
SB-074	ACS-SB74-05	Jun-90						
SB-089	SB89-03-FT	Jun-93						
SB-089	SB89-05-FT	Jun-93						
SB-089	SB89-05-FT-(91)	Jun-93						
SB-090	SB90-03-FT	Jun-93						
SB-090	SB90-05-FT	Jun-93						
SB-090	SB90-05-FT-(91)	Jun-93						
SB-091	SB91-03-FT	Jun-93						
SB-091	SB91-05-FT	Jun-93						
SB-092	SB92-03-FT	Jun-93						
SB-092	SB92-05-FT	Jun-93						
SB-093	SB93-03-FT	Jun-93						
SB-093	SB93-05-FT	Jun-93						
SB-094	SB94-03-FT	Jun-93						
SB-094	SB94-05-FT	Jun-93						
SB-095	SB95-03-FT	Jun-93						
SB-096	SB96-03-FT	Jun-93						
SB-110	ACS-SB110-SS4-07-09'	Jan-96						
SB-113	ACS-SB113-SS4-07-09'	Jan-96						
SB-113	ACS-SB113-SS4-07-09'-DIL	Jan-96						
SB-118	ACS-SB118-SS3-06-08'	Jan-96						
SB-119	ACS-SB119-SS3-06-08'	Jan-96						
SB-127	ACS-SB127-SS3-06-08'	Jan-96						
SB-127	ACS-SB127-SS3-06-08'-DIL	Jan-96						
SB-128	ACS-SB128-SS3-06-08'	Jan-96						
SB-128	ACS-SB128-SS3-06-08'-DIL	Jan-96						
SB-128	ACS-SB128-SS3-06-08'-DUP	Jan-96						
SB-128	ACS-SB128-SS3-06-08'-DUP-DIL	Jan-96						

Table 2-1b: Subsurface Soil and Waste Samples
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS (a)

Area 1			Area 2			Area 3		
SUBSURFACE (2-10 ft)			SUBSURFACE (2-10 ft)			SUBSURFACE (2-10 ft)		
TP-02	ACS-TP02-03	Aug-89						
TP-02	ACS-TP02-05	Aug-89						
TP-03	ACS-TP03-09	Aug-89						
TP-04	ACS-TP04-08	Aug-89						
TP-05	ACS-TP05-03	Aug-89						
TP-06	ACS-TP06-04	Aug-89						
TP-07	ACS-TP07-03	Aug-89						

Note:
See attached key to Sample Ids.
Duplicate samples were denoted with a "DUP", "-D", or "(91)" in the Sample ID, and averaged with the associated sample prior to data summary or risk calculations.
Diluted samples: denoted with a "DIL" in the Sample ID. In data summary and risk calculations, the detected concentration from the diluted sample was used for all detects (rather than the analytical result from the undiluted sample). For chemicals that were not detected in either the diluted or undiluted lab analysis for a sample, the detection limit from the undiluted analysis was retained as the detection limit.
(a) No samples collected from 2-10 feet were excluded from risk calculations.
(b) Liquid samples from drums were denoted with an "O" in the Sample ID and were only evaluated for acute exposures.

Table 2-1c: Surface/Subsurface Soil and Waste Samples - For Construction Scenario
ACS NPL Site, Griffith, IN
SAMPLES INCLUDED IN RISK CALCULATIONS (a)

Area 2 CONSTRUCTION (0-4 ft)			Area 2 CONSTRUCTION (0-10 ft)			Area 3 CONSTRUCTION (0-4 ft)			Area 3 CONSTRUCTION (0-10 ft)		
Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date
D-01-S	D01-S-IEA	Jul-97	D-01-S	D01-S-IEA	Jul-97	SA-01	ACS-SA01-03	Jul-89	SA-01	ACS-SA01-03	Jul-89
D-02-S	D02-S-IEA	Jul-97	D-02-S	D02-S-IEA	Jul-97	SA-02	ACS-SA02-03	Jul-89	SA-02	ACS-SA02-03	Jul-89
SA-01-S	SA01-S-IEA-01	Jul-97	SA-01-S	SA01-S-IEA-01	Jul-97	SB-031	ACS-SB31-02	May-90	SB-031	ACS-SB31-02	May-90
SA-01-S	SA01-S-IEA-02	Jul-97	SA-01-S	SA01-S-IEA-02	Jul-97	SB-032	ACS-SB32-02	May-90	SB-032	ACS-SB32-02	May-90
SA-02-S	SA02-S-IEA	Jul-97	SA-02-S	SA02-S-IEA	Jul-97	SB-033	ACS-SB33-02	May-90	SB-033	ACS-SB33-02	May-90
SA-04-S	SA04-S-IEA	Jul-97	SA-04-S	SA04-S-IEA	Jul-97	SB-043	ACS-SB43-01	Jun-90	SB-043	ACS-SB43-01	Jun-90
SB-081	SB81-04-FT	Jun-93	SB-004	ACS-SB04-05	Aug-89	SB-044	ACS-SB44-01	Jun-90	SB-044	ACS-SB44-01	Jun-90
T-12-S	T12-S-IEA	Jul-97	SB-028	ACS-SB28-08	May-90	SB-045	ACS-SB45-01	Jun-90	SB-045	ACS-SB45-01	Jun-90
			SB-036	ACS-SB36-10	Jun-90	SB-046	ACS-SB46-01	Jun-90	SB-046	ACS-SB46-01	Jun-90
			SB-037	ACS-SB37-10	Jun-90	SB-047	ACS-SB47-01	Jun-90	SB-047	ACS-SB47-01	Jun-90
Liquid Samples from Drums (b):			SB-038	ACS-SB38-10	Jun-90	SB-048	ACS-SB48-01	Jun-90	SB-048	ACS-SB48-01	Jun-90
SA-02-S	SA02-O-IEA-01	Jul-97	SB-039	ACS-SB39-10	Jun-90	SB-050	ACS-SB50-01	Jun-90	SB-050	ACS-SB50-01	Jun-90
SA-02-S	SA02-O-IEA-02	Jul-97	SB-040	ACS-SB40-10	Jun-90	SB-052	ACS-SB52-01	Jun-90	SB-052	ACS-SB52-01	Jun-90
SA-04-S	SA04-O-IEA-01	Jul-97	SB-042	ACS-SB42-05.5	Jun-90	SB-053	ACS-SB53-01	Jun-90	SB-053	ACS-SB53-01	Jun-90
SA-04-S	SA04-O-IEA-02	Jul-97	SB-077	SB77-07-FT	Jun-93	KP-01-S	KP01-S-IEA	Jul-97	KP-01-S	KP01-S-IEA	Jul-97
			SB-077	SB77-09-FT	Jun-93	SB-001	ACS-SB01-03	Aug-89	SB-001	ACS-SB01-03	Aug-89
			SB-078	SB78-07-FT	Jun-93	SB-086	SB86-03-FT	Jun-93	SB-086	SB86-03-FT	Jun-93
			SB-078	SB78-10-FT	Jun-93	SP-01-S	SP01-S-IEA	Jul-97	SP-01-S	SP01-S-IEA	Jul-97
			SB-079	SB79-06-FT	Jun-93	SP-02-S	SP02-S-IEA	Jul-97	SP-02-S	SP02-S-IEA	Jul-97
			SB-079	SB79-08-FT	Jun-93	TP-01	ACS-TP01-03.5	Aug-89	TP-01	ACS-TP01-03.5	Aug-89
			SB-080	SB80-06-FT	Jun-93				SB-001	ACS-SB01-09	Aug-89
			SB-080	SB80-08-FT	Jun-93				SB-002	ACS-SB02-05.5	Aug-89
			SB-081	SB81-04-FT	Jun-93				SB-002	ACS-SB02-07	Aug-89
			SB-081	SB81-06-FT	Jun-93				SB-002	ACS-SB02-08.5	Aug-89
			SB-082	SB82-04.5-FT	Jun-93				SB-029	ACS-SB29-08	May-90
			SB-082	SB82-06.5-FT	Jun-93				SB-030	ACS-SB30-10	May-90
			SB-083	SB83-06.5-FT	Jun-93				SB-041	ACS-SB41-05.5	Jun-90
			SB-083	SB83-06.5-FT-(91)	Jun-93				SB-043	ACS-SB43-04.5	Jun-90
			T-12-S	T12-S-IEA	Jul-97				SB-044	ACS-SB44-04.5	Jun-90
									SB-045	ACS-SB45-04.5	Jun-90
									SB-046	ACS-SB46-04.5	Jun-90
									SB-047	ACS-SB47-04.5	Jun-90

Table 2-1c: Surface/Subsurface Soil and Waste Samples - For Construction Scenario
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS (a)

Area 2 CONSTRUCTION (0-4 ft)			Area 2 CONSTRUCTION (0-10 ft)			Area 3 CONSTRUCTION (0-4 ft)			Area 3 CONSTRUCTION (0-10 ft)		
									SB-048	ACS-SB48-04.5	Jun-90
			Liquid Samples from Drums (b):						SB-049	ACS-SB49-04.5	Jun-90
			SA-02-S	SA02-O-IEA-01	Jul-97				SB-050	ACS-SB50-04.5	Jun-90
			SA-02-S	SA02-O-IEA-02	Jul-97				SB-051	ACS-SB51-04.5	Jun-90
			SA-04-S	SA04-O-IEA-01	Jul-97				SB-052	ACS-SB52-04.5	Jun-90
			SA-04-S	SA04-O-IEA-02	Jul-97				SB-053	ACS-SB53-04.5	Jun-90
									SB-054	ACS-SB54-04.5	Jun-90
									SB-084	SB84-05-FT	Jun-93
									SB-085	SB85-05-FT	Jun-93
									SB-087	SB87-07-FT	Jun-93
									SB-088	SB88-07.5-FT	Jun-93
									TP-01	ACS-TP01-06	Aug-89

Note:
Duplicate samples were denoted with a "DUP" or "-101" in the Sample ID, and averaged with the associated sample prior to data summary or risk calculations.
(a) All samples collected from 0-4 feet, or from 0-10 feet, were included in risk calculations for construction.
(b) Liquid samples from drums were denoted with an "O" in the Sample ID and were only evaluated for acute exposures.

Table 2-1d: Deep Soil Samples
ACS NPL Site, Griffith, IN
SAMPLES NOT INCLUDED IN RISK CALCULATIONS (a)

Area 1 DEEP (>10 ft)			Area 2 DEEP (>10 ft)			Area 3 DEEP (>10 ft)		
Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date
SB-014	ACS-SB14-11	Sep-89	SB-003	ACS-SB03-12	Aug-89	SB-041	ACS-SB41-23.5	Jun-90
SB-015	ACS-SB15-13	Sep-89	SB-003	ACS-SB03-17	Aug-89	SB-087	SB87-11-FT	Jun-93
SB-021	ACS-SB21-12	May-90	SB-003	ACS-SB03-20	Aug-89	SB-088	SB88-10.5-FT	Jun-93
SB-022	ACS-SB22-12	May-90	SB-004A	ACS-SB04A-19	Aug-89			
SB-023	ACS-SB23-12	May-90	SB-005	ACS-SB05-14	Aug-89			
SB-035	ACS-SB35-17	May-90	SB-005	ACS-SB05-17	Aug-89			
SB-055	ACS-SB55-16	Jun-90	SB-006	ACS-SB06-11.5	Aug-89			
SB-056	ACS-SB56-16	Jun-90	SB-006	ACS-SB06-15	Aug-89			
SB-057	ACS-SB57-16	Jun-90	SB-007	ACS-SB07-14	Aug-89			
SB-058	ACS-SB58-16	Jun-90	SB-007	ACS-SB07-19	Aug-89			
SB-059	ACS-SB59-16	Jun-90	SB-024R	ACS-SB24-12	May-90			
SB-060	ACS-SB60-16	Jun-90	SB-024R	ACS-SB24-21	May-90			
SB-061	ACS-SB61-16	Jun-90	SB-024R	ACS-SB24R-26	Jun-90			
SB-062	ACS-SB62-16	Jun-90	SB-025R	ACS-SB25-11	May-90			
SB-063	ACS-SB63-15.5	Jun-90	SB-025R	ACS-SB25-21	May-90			
SB-064	ACS-SB64-16	Jun-90	SB-025R	ACS-SB25R-29	Jun-90			
SB-065	ACS-SB65-16	Jun-90	SB-026R	ACS-SB26-11	May-90			
SB-066	ACS-SB66-16	Jun-90	SB-026R	ACS-SB26-21	May-90			
SB-067	ACS-SB67-16	Jun-90	SB-026R	ACS-SB26R-26	Jun-90			
SB-068	ACS-SB68-16	Jun-90	SB-027R	ACS-SB27-11	May-90			
SB-069	ACS-SB69-21.5	Jun-90	SB-027R	ACS-SB27-21	May-90			
SB-070	ACS-SB70-20.5	Jun-90	SB-027RR	ACS-SB27RR-24	Jun-90			
SB-071	ACS-SB71-20.5	Jun-90	SB-036	ACS-SB36-17	Jun-90			
SB-072	ACS-SB72-20.5	Jun-90	SB-036	ACS-SB36-23.5	Jun-90			
SB-073	ACS-SB73-19	Jun-90	SB-037	ACS-SB37-17	Jun-90			
SB-074	ACS-SB74-19	Jun-90	SB-037	ACS-SB37-23.5	Jun-90			
SB-075	ACS-SB75-15	Jun-90	SB-038	ACS-SB38-20	Jun-90			
SB-112	ACS-SB112-SS5-09-11'	Jan-96	SB-038	ACS-SB38-23.5	Jun-90			
SB-112	ACS-SB112-SS5-09-11'-DIL	Jan-96	SB-039	ACS-SB39-17	Jun-90			
SB-124	ACS-SB124-SS4-08.5-10.5'	Jan-96	SB-039	ACS-SB39-23.5	Jun-90			
SB-124	ACS-SB124-SS4-08.5-10.5'-DIL	Jan-96	SB-042	ACS-SB42-20	Jun-90			
SB-129	ACS-SB129-SS5-11-13'	Jan-96	SB-083	SB83-10.5-FT	Jun-93			
SB-129	ACS-SB129-SS5-11-13'-DIL	Jan-96	SB-214	ACS-SB214-SS6-13.5-15.5'	Jan-96			
			SB-214	ACS-SB214-SS6-13.5-15.5'-DIL	Jan-96			

Note:
(a) Direct exposure to deep soil (I.e., greater than 10 feet below ground surface) is not expected to occur under current or future land use so these samples were not included in risk calculations.

Table 2-1(a,b,c,d): Key to Sample IDs for Soil and Waste Samples

ACS-SA*xx-yy* represents surface area samples collected in 1989 as part of the RI. ACS is the site ID, and SAxx is the location. The yy indicates the default depth for this type of sample (see p. 2-7 of 1991 RI), but was not used in the collection of these samples (see p. 3-3 of 1991 RI). Non-VOCs based on composite from five discrete locations within a 50' diameter area, collected 0.5 to 1.5 feet from the surface. VOCs based on grab sample from one of the five discrete locations (also 0.5 to 1.5 feet from the surface), selected for highest contamination based on visual observation and Hnu readings.

ACS-SB*xx-yy* represents discrete soil boring samples collected in 1989 and 1990 as part of the RI. SBxx is the soil boring location and yy is the sample depth in feet.

ACS-SB*xxx*-SS*w-yy-zz'* represents discrete soil boring samples collected in 1996. ACS is the site ID, SBxxx is the soil boring location, SSw is the sample number, yy is the top depth of the sample, zz is the bottom depth of the sample, and the apostrophe indicates the depth is in feet. Duplicate samples were denoted by "DUP" following the sample ID. Diluted samples were denoted by "DIL" following the sample ID.

ACS-SS*xx-yyy* represents discrete surface soil samples collected in 1997 by the EPA near residences east of the Site. ACS is the site ID, SSxx is the sample location, and yyy is the sample number. The duplicate sample was denoted by a "101" for the yyy in the sample ID.

ACS-SS*xxx* represents samples collected in 1997 by Montgomery Watson from surface soil in Area 1 (i.e., the ACS facility). ACS is the site ID and SSxxx is the sample location. The duplicate sample was denoted by a "-DUP" following the sample ID. A "*" following the SSxxx in the Location field indicates a discrete sample collected 0 to 0.5 feet from the surface at a location selected by USEPA. For samples without a "*" in the Location field, non-VOCs were based on a composite from five discrete locations within a 60' diameter area, collected 0 to 0.5 feet from the surface. VOCs were based on a grab sample from one of the five discrete locations (also 0 to 0.5 feet from the surface), selected for highest contamination based on visual observation and PID readings.

ACS-TP*xx-yy* represents discrete test pit samples collected in 1989 and 1990 as part of the RI. ACS is the site ID, TPxx is the test pit location, and yy is the sample depth in feet.

D*xx*-S-IEA represents composite samples of screened soil from test pits in the drum disposal area collected as part of the 1997 pretreatment/materials handling study. Dxx is the test pit location, S stands for soil sample and IEA is the name of the lab.

KP*xx*-S-IEA represents composite samples of screened soil from test pits in the Kapica/Pazmey area collected as part of the 1997 pretreatment/materials handling study. KPxx is the

test pit location, S stands for soil sample and IEA is the name of the lab.

SA*xx*-O-IEA-*yy* represents grab samples of liquids collected from ruptured or deteriorated drums encountered during the 1997 pretreatment/materials handling study. SAxx is the test pit location, O stands for organic liquid, IEA is the name of the lab, and yy is the sample number.

SA*xx*-S-IEA-*yy* represents composite soil samples from reopened test pits during the 1997 pretreatment/materials handling study. SAxx is the test pit location, S stands for soil sample, IEA is the name of the lab, and yy is the sample number.

SB*xx*-*yy*-FT represents discrete soil boring samples collected in 1993. SBxx is the soil boring location, yy is the sample depth, and FT indicates the depth is in feet. Duplicate samples were denoted by "(91)" following the sample ID.

SPxx-S-IEA represents composite samples of screened soil collected as part of the 1997 pretreatment/materials handling study from spoil piles excavated from the south and southwestern portions of the site during installation of the barrier wall. Spxx is the test pit location, S stands for soil sample and IEA is the name of the lab.

SS*xx* represents samples collected in 1996 by the EPA from excavated soil near the fire pond. SSxx is the sample number. Duplicate samples were denoted by a "D" following the sample ID.

T*xx*-S-IEA represents a soil sample collected as part of the 1997 pretreatment/materials handling study from a trench at the edge of buried drums. Txx is the trench location, S stands for soil sample and IEA is the name of the lab.

Table 2-2: Sediment Samples
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS

Area 1			Area 2			Area 4A (a)			Area 4B			Area 6			SAMPLES NOT INCLUDED IN RISK CALCULATIONS			
Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	
SD-01	ACS-SD-01-01	Jul-89	SD-15	ACS-SD-15-01	Jul-90	SD-17	APD-SD-17-01	May-96	SD-28	APD-SD-28-01	May-96	SD-06	ACS-SD-06-01	Jul-89	SD-08	ACS-SD-08-01	Jul-89	(a)
SD-02	ACS-SD-02-01	Jul-89	SD-05	ACS-SD-05-01	Jul-89	SD-17	APD-SD-17-01-RE	May-96	SD-29	APD-SD-29-01	May-96	SD-13	ACS-SD-13-01	May-90	SD-09	ACS-SD-09-01	Jul-89	(a)
						SD-32	APD-SD-32-01	May-96	SD-29	APD-SD-29-01-RE	May-96	SD-14	ACS-SD-14-01	May-90	ST-03	ACS-ST03-001	Sep-97	(b)
						A-02	APD-SD-A02 (0.5)	Nov-96	SD-29	APD-SD-29-91	May-96	ST-04	ACS-ST04-001	Sep-97				
						A-05	APD-SD-A05 (0.5)	Nov-96	SD-29	APD-SD-29-91-RE	May-96	ST-04	ACS-ST04-101	Sep-97				
						A-05	APD-SD-A05 (1.5)	Nov-96	SD-30	APD-SD-30-01	May-96	ST-05	ACS-ST05-001	Sep-97				
						A-09	APD-SD-A09 (0.5)	Nov-96	ST-01	ACS-ST01-001	Sep-97	ST-06	ACS-ST06-001	Sep-97				
						A-10	APD-SD-A10 (0.5)	Nov-96	ST-02	ACS-ST02-001	Sep-97	ST-07	ACS-ST07-001	Sep-97				
						B-01	APD-SD-B01 (0.5)	Nov-96				ST-08	ACS-ST08-001	Sep-97				
						B-04	APD-SD-B04 (0.5)	Nov-96				ST-09	ACS-ST09-001	Sep-97				
						B-05	APD-SD-B05 (0.5)	Nov-96				ST-10	ACS-ST10-001	Sep-97				
						B-05	APD-SD-B05 (1.0)	Nov-96				ST-11	ACS-ST11-001	Sep-97				
						B-06	APD-SD-B06 (0.5)	Nov-96										
						B-07	APD-SD-B07 (0.5)	Nov-96										
						B-08	APD-SD-B08 (0.5)	Nov-96										
						B-09	APD-SD-B09 (0.5)	Nov-96										
						B-09	APD-SD-B09 (1.0)	Nov-96										
						B-10	APD-SD-B10 (0.5)	Nov-96										
						B-10	APD-SD-B10 (1.0)	Nov-96										
						B-11	APD-SD-B11 (0.5)	Nov-96										
						C-02	APD-SD-C02 (0.5)	Nov-96										
						C-04	APD-SD-C04 (0.5)	Nov-96										
						C-05	APD-SD-C05 (0.5)	Nov-96										
						C-05	APD-SD-C05 (1.0)	Nov-96										
						C-05	APD-SD-C05 (1.5)	Nov-96										
						C-06	APD-SD-C06 (0.5)	Nov-96										
						C-06	APD-SD-C06 (1.0)	Nov-96										
						C-07	APD-SD-C07 (0.5)	Nov-96										
						C-07	APD-SD-C07 Dup (0.5)	Nov-96										
						C-07	APD-SD-C07 (1.0)	Nov-96										
						C-07	APD-SD-C07 (1.5)	Nov-96										
						C-08	APD-SD-C08 (0.5)	Nov-96										
						C-08	APD-SD-C08 (1.0)	Nov-96										
						C-09	APD-SD-C09 (1.0)	Nov-96										
						C-10	APD-SD-C10 (0.5)	Nov-96										
						C-10	APD-SD-C10 (1.0)	Nov-96										
						C-11	APD-SD-C11 (0.5)	Nov-96										
						C-11	APD-SD-C11 (1.0)	Nov-96										
						C-11	APD-SD-C11 (1.5)	Nov-96										
						D-03	APD-SD-D03 (0.5)	Nov-96										
						D-06	APD-SD-D06 (0.5)	Nov-96										
						D-07	APD-SD-D07 (0.5)	Nov-96										
						D-08	APD-SD-D08 (0.5)	Nov-96										
						D-09	APD-SD-D09 (0.5)	Nov-96										
						D-10	APD-SD-D10 (0.5)	Nov-96										
						D-11	APD-SD-D11 (0.5)	Nov-96										
						D-11	APD-SD-D11 (1.0)	Nov-96										
						DOWNSTREAM	APD-Culvert Downstream (0.5)	Nov-96										
						OUTFALL	APD-Culvert Outfall (0.5)	Nov-96										
						OUTFALL	APD-Culvert Outfall (1.0)	Nov-96										
						SD-03	ACS-SD-03-01	Jul-89										
						SD-04	ACS-SD-04-01	Jul-89										
						SD-07A	ACS-SD-07A-01	Jul-89										
						SD-07B	ACS-SD-07B-01	Jul-89										

Table 2-2: Sediment Samples
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS															SAMPLES NOT INCLUDED IN RISK CALCULATIONS		
Area 1			Area 2			Area 4A (a)			Area 4B			Area 6					
Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date
						SD-07C	ACS-SD-07C-01	Jul-89									
						SD-10	ACS-SD-10-01	May-90									
						SD-11	ACS-SD-11-01	May-90									
						SD-12	ACS-SD-12-01	May-90									
						SD-16	ACS-SD-16-01	Jul-90									
						SD-18	APD-SD-18-01	May-96									
						SD-18	APD-SD-18-91	May-96									
						SD-19	APD-SD-19-01	May-96									
						SD-20	APD-SD-20-01	May-96									
						SD-20	APD-SD-20-01-RE	May-96									
						SD-21	APD-SD-21-01	May-96									
						SD-21	APD-SD-21-01-RE	May-96									
						SD-22	APD-SD-22-01	May-96									
						SD-22	APD-SD-22-01-RE	May-96									
						SD-22	APD-SD-22-91	May-96									
						SD-23	APD-SD-23-01	May-96									
						SD-23	APD-SD-23-01-RE	May-96									
						SD-24	APD-SD-24-01	May-96									
						SD-25	APD-SD-25-01	May-96									
						SD-26	APD-SD-26-01	May-96									
						SD-26	APD-SD-26-91	May-96									
						SD-27	APD-SD-27-01	May-96									
						SD-31	APD-SD-31-01	May-96									
						SD-33	APD-SD-33-01	May-96									
						SD-33	APD-SD-33-01-RE	May-96									
						SD-34	APD-SD-34-01	May-96									
						SD-35	APD-SD-35-01	May-96									
						SD-35	APD-SD-35-01-RE	May-96									
						SD-36	APD-SD-36-01	May-96									
						SD-37	APD-SD-37-01	May-96									
						SD-38	APD-SD-38-01	May-96									
						T-1 (A)	APD-SD-T1 (A) (0.5)	Nov-96									
						T-1 (B)	APD-SD-T1 (B) (0.5)	Nov-96									
						T-1 (B)	APD-SD-T1 (B) (1.0)	Nov-96									
						T-1 (C)	APD-SD-T1 (C) (0.5)	Nov-96									
						T-1 (C)	APD-SD-T1 (C) (1.0)	Nov-96									
						T-1 (D)	APD-SD-T1 (D) (0.5)	Nov-96									
						T-1 (D)	APD-SD-T1 (D) (1.0)	Nov-96									
						T-1 (E)	APD-SD-T1 (E) (0.5)	Nov-96									
						T-2 (A)	APD-SD-T2 (A) (0.5)	Nov-96									
						T-2 (A)	APD-SD-T2 (A) (1.0)	Nov-96									
						T-2 (B)	APD-SD-T2 (B) (0.5)	Nov-96									
						T-2 (B)	APD-SD-T2 (B) (1.0)	Nov-96									
						T-2 (C)	APD-SD-T2 (C) (0.5)	Nov-96									
						T-2 (C)	APD-SD-T2 (C) (1.0)	Nov-96									
						T-2 (C)	APD-SD-T2 (C) (1.5)	Nov-96									
						T-2 (D)	APD-SD-T2 (D) (0.5)	Nov-96									
						T-2 (D)	APD-SD-T2 (D) (1.0)	Nov-96									
						T-2 (D)	APD-SD-T2 (D) (1.5)	Nov-96									
						T-2 (E)	APD-SD-T2 (E) (0.5)	Nov-96									
						T-3 (A)	APD-SD-T3 (A) (0.5)	Nov-96									
						T-3 (A)	APD-SD-T3 (A) (1.0)	Nov-96									
						T-3 (A)	APD-SD-T3 (A) (1.5)	Nov-96									
						T-3 (B)	APD-SD-T3 (B) (0.5)	Nov-96									

Table 2-2: Sediment Samples
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS															SAMPLES NOT INCLUDED IN RISK CALCULATIONS		
Area 1			Area 2			Area 4A (a)			Area 4B			Area 6					
Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date	Location	Sample ID	Date
						T-3 (B)	APD-SD-T3 (B) (1.0)	Nov-96									
						T-3 (B)	APD-SD-T3 (B) (1.5)	Nov-96									
						T-3 (C)	APD-SD-T3 (C) (1.0)	Nov-96									
						T-3 (D)	APD-SD-T3 (D) (0.5)	Nov-96									
						T-3 (D)	APD-SD-T3 (D) (1.0)	Nov-96									
						T-3 (E)	APD-SD-T3 (E) (0.5)	Nov-96									
						T-4 (A)	APD-SD-T4 (A) (0.5)	Nov-96									
						T-4 (B)	APD-SD-T4 (B) (0.5)	Nov-96									
						T-4 (C)	APD-SD-T4 (C) (1.0)	Nov-96									
						T-4 (C)	APD-SD-T4 (C) (1.5)	Nov-96									
						T-4 (D)	APD-SD-T4 (D) (0.5)	Nov-96									
						UPSTREAM1	APD-Culvert Upstream (1) (0.5)	Nov-96									
						UPSTREAM2	APD-Culvert Upstream (2) (0.5)	Nov-96									

Note:
Duplicate samples were denoted with "-91", "Dup", or "-101" in the Sample ID, and were averaged with the associated sample prior to data summary or risk calculations.
(a) Sediment samples from Area 5 were collected near several industrial properties and so were not included in risk calculations. Soil samples collected at residential properties adjacent to the Site were used to evaluate residential exposure instead.
(b) The sample from Turkey Creek was collected over a mile from the site near Broad Street, and is therefore not grouped with samples from Area 6, and not included in risk calculations.

Table 2-2: Key to Sample IDs for Sediment Samples

ACS-SD-*xx-yy* represents sediment samples collected in 1989 and 1990 as part of the RI. ACS is the Site ID, SD indicates sediment sample, xx is the location and yy is the sample number.

APD-SD-*xx-yy* represents sediment samples collected in May 1996 as part of the wetland investigation. APD indicates ACS Pre-Design Investigation, SD indicates sediment sample, xx is the location and yy is the sample number. Duplicate samples are denoted with a sample number of "-91". Laboratory reextract samples are denoted with a "-RE" following the sample number.

APD-SD-*xxx* (*yy*) represents sediment samples collected in November 1996 as part of the wetland investigation. APD indicates ACS Pre-Design Investigation, SD indicates sediment sample, xxx is the location, and (yy) is the sample depth in feet. The duplicate sample is denoted with a "Dup" following the sample location.

APD-*zzzzz* (*yy*) represents sediment samples collected south of the Chesapeake & Ohio railroad tracks in November 1996 as part of the wetland investigation. APD indicates ACS Pre-Design Investigation, the word (-zzzz) is the location, and (yy) is the sample depth in feet.

ACS-ST*xx-yyy* represents sediment samples collected in 1997 by USEPA. ACS is the Site ID, ST indicates sediment sample, xx is the location and yyy is the sample number. The duplicate sample is denoted with a sample number of "101".

Table 2-3a: Ground Water Samples Collected from Upper Aquifer
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS												SAMPLES NOT INCLUDED IN RISK CALCULATIONS			
AREA 1			AREA 4B (a)			AREA 5A			AREA 5B						
Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	
MW-02	MW02-01-1989	Aug-89	MW-03	MW03-01-1989	Aug-89	MW-06	MW06-01-1989	Aug-89	MW-48	MW48-01-1996	Aug-96	M-1S	M01S-01-1997	Mar-97	(b,d)
MW-02	MW02-02-1990	May-90	MW-03	MW03-02-1990	May-90	MW-06	MW06-02-1990	May-90	MW-48	MW48-01-1997	Mar-97	M-1S	M01S-02-1997	Jun-97	(b,d)
MW-03	MW03-01-1989	Aug-89	MW-03	MW03-01-1994	Dec-94	MW-06	MW06-01-1994	Dec-94	MW-48	MW48-01-1997-EPA	Mar-97	M-1S	M01S-03-1997	Sep-97	(b,d)
MW-03	MW03-02-1990	May-90	MW-04	MW04-01-1989	Aug-89	MW-06	MW06-01-1996	Nov-96	MW-48	MW48-02-1997	Jun-97	M-1S	M01S-04-1997	Dec-97	(b,d)
MW-03	MW03-01-1994	Dec-94	MW-04	MW04-02-1990	May-90	MW-06	MW06-01-1997-EPA	Mar-97	MW-48	MW48-03-1997	Sep-97	M-2S	M02S-02-1997	Jun-97	(b,d)
MW-04	MW04-01-1989	Aug-89	MW-04	MW04-01-1994	Dec-94	MW-06	MW06-01-1997-EPA-DUP	Mar-97	MW-48	MW48-04-1997	Dec-97	M-3S	M03S-01-1997	Mar-97	(b,d)
MW-04	MW04-02-1990	May-90	MW-11	MW11-01-1990	May-90	MW-06	MW06-01-1997	Apr-97				M-3S	M03S-01-1997	Mar-97	(b,d)
MW-04	MW04-01-1994	Dec-94	MW-11	MW11-02-1990	Jul-90	MW-06	MW06-02-1997	Jul-97				M-3S	M03S-01-1997-DUP	Mar-97	(b,d)
MW-05	MW05-01-1989	Aug-89	MW-11	MW11-03-1991	Jan-91	MW-06	MW06-03-1997	Sep-97				M-3S	M03S-01-1997-DUP	Mar-97	(b,d)
MW-05	MW05-02-1990	May-90	MW-11	MW11-04-1991	Aug-91	MW-06	MW06-04-1997	Dec-97				M-3S	M03S-01-1997-EPA	Mar-97	(b,d)
MW-05	MW05-01-1994	Dec-94	MW-11	MW11-01-1995	Jan-95	MW-45	MW45-01-1996	Aug-96				M-3S	M03S-02-1997	Jun-97	(b,d)
			MW-11	MW11-01-1996	Nov-96	MW-45	MW45-01-1997	Apr-97				M-3S	M03S-03-1997	Sep-97	(b,d)
			MW-11	MW11-01RE-1996	Nov-96	MW-45	MW45-01-1997-DUP	Apr-97				M-3S	M03S-03-1997-DUP	Sep-97	(b,d)
			MW-11	MW11-01-1997	Mar-97	MW-45	MW45-02-1997	Jun-97				M-3S	M03S-04-1997	Dec-97	(b,d)
			MW-11	MW11-02-1997	Jun-97	MW-45	MW45-03-1997	Sep-97				M-3S	M03S-04-1997-DUP	Dec-97	(b,d)
			MW-11	MW11-03-1997	Sep-97	MW-45	MW45-04-1997	Dec-97				M-4S	M04S-01-1995	Jan-95	(b,d)
			MW-11	MW11-04-1997	Dec-97							M-4S	M04S-01-1997	Mar-97	(b,d)
			MW-39	MW39-01-1996	Aug-96							M-4S	M04S-01-1997-EPA	Mar-97	(b,d)
			MW-39	MW39-01-1997	Mar-97							M-4S	M04S-02-1997	Jun-97	(b,d)
			MW-39	MW39-02-1997	Jun-97							M-4S	M04S-03-1997	Sep-97	(b,d)
			MW-39	MW39-03-1997	Sep-97							M-4S	M04S-04-1997	Dec-97	(b,d)
			MW-39	MW39-04-1997	Dec-97							MW-01	MW01-01-1989	Aug-89	(b,d)
			MW-48	MW48-01-1996	Aug-96							MW-03	MW03-01F-1994	Dec-94	(c)
			MW-48	MW48-01-1997	Mar-97							MW-05	MW05-01F-1994	Dec-94	(c)
			MW-48	MW48-01-1997-EPA	Mar-97							MW-06	MW06-01F-1994	Dec-94	(c)
			MW-48	MW48-02-1997	Jun-97							MW-06	MW06-01F-1996	Nov-96	(c)
			MW-48	MW48-03-1997	Sep-97							MW-11	MW11-01F-1995	Jan-95	(c)
			MW-48	MW48-04-1997	Dec-97							MW-11	MW11-01F-1996	Nov-96	(c)
			MW-49	MW49-01-1996	Aug-96							MW-12	MW12-01-1990	May-90	(d)
			MW-49	MW49-01-1996-DUP	Aug-96							MW-12	MW12-01-1995	Jan-95	(d)
			MW-49	MW49-01-1997	Apr-97							MW-12	MW12-01-1996	Nov-96	(d)
			MW-49	MW49-02-1997	Jun-97							MW-12	MW12-01-1996-DUP	Nov-96	(d)
			MW-49	MW49-02-1997-DUP	Jun-97							MW-12	MW12-01-1997	Mar-97	(d)
			MW-49	MW49-03-1997	Sep-97							MW-12	MW12-01F-1995	Jan-95	(c,d)
			MW-49	MW49-03-1997-DUP	Sep-97							MW-12	MW12-01F-1996	Nov-96	(c,d)
			MW-49	MW49-04-1997	Dec-97							MW-12	MW12-01F-1996-DUP	Nov-96	(c,d)
												MW-12	MW12-02-1990	Jul-90	(d)
												MW-12	MW12-02-1997	Jun-97	(d)
												MW-12	MW12-03-1991	Jan-91	(d)
												MW-12	MW12-03-1997	Oct-97	(d)
												MW-12	MW12-04-1991	Aug-91	(d)
												MW-12	MW12-04-1997	Dec-97	(d)
												MW-13	MW13-01-1990	May-90	(b,d)
												MW-13	MW13-01-1995	Jan-95	(b,d)
												MW-13	MW13-01-1996	Nov-96	(b,d)
												MW-13	MW13-01-1997	Mar-97	(b,d)
												MW-13	MW13-01F-1995	Jan-95	(b,c,d)
												MW-13	MW13-01F-1996	Nov-96	(b,c,d)
												MW-13	MW13-02-1990	Jul-90	(b,d)
												MW-13	MW13-02-1997	Jun-97	(b,d)
												MW-13	MW13-03-1991	Jan-91	(b,d)
												MW-13	MW13-03-1997	Oct-97	(b,d)
												MW-13	MW13-04-1991	Aug-91	(b,d)

Table 2-3a: Ground Water Samples Collected from Upper Aquifer
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS												SAMPLES NOT INCLUDED IN RISK CALCULATIONS			
AREA 1			AREA 4B (a)			AREA 5A			AREA 5B						
Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	
												MW-13	MW13-04-1997	Dec-97	(b,d)
												MW-14	MW14-01-1990	May-90	(b,d)
												MW-14	MW14-01-1995	Jan-95	(b,d)
												MW-14	MW14-01-1996	Nov-96	(b,d)
												MW-14	MW14-01-1997	Mar-97	(b,d)
												MW-14	MW14-01-1997-EPA	Mar-97	(b,d)
												MW-14	MW14-01F-1995	Jan-95	(b,c)
												MW-14	MW14-01F-1996	Nov-96	(b,c,d)
												MW-14	MW14-02-1990	Jul-90	(b,d)
												MW-14	MW14-02-1997	Jun-97	(b,d)
												MW-14	MW14-03-1991	Jan-91	(b,d)
												MW-14	MW14-03-1997	Sep-97	(b,d)
												MW-14	MW14-04-1991	Aug-91	(b,d)
												MW-15	MW15-01-1990	May-90	(b,d)
												MW-15	MW15-01-1995	Jan-95	(b,d)
												MW-15	MW15-01-1996	Nov-96	(b,d)
												MW-15	MW15-01-1997	Apr-97	(b,d)
												MW-15	MW15-01-1997-EPA	Mar-97	(b,d)
												MW-15	MW15-01F-1995	Jan-95	(b,c,d)
												MW-15	MW15-01F-1996	Nov-96	(b,c,d)
												MW-15	MW15-02-1990	Jul-90	(b,d)
												MW-15	MW15-02-1997	Jun-97	(b,d)
												MW-15	MW15-03-1991	Jan-91	(b,d)
												MW-15	MW15-03-1997	Sep-97	(b,d)
												MW-15	MW15-04-1991	Aug-91	(b,d)
												MW-15	MW15-04-1991-DUP	Aug-91	(b,d)
												MW-15	MW15-04-1997	Dec-97	(b,d)
												MW-16	MW16-01-1990	May-90	(b,d)
												MW-16	MW16-01-1995	Jan-95	(b,d)
												MW-16	MW16-01F-1995	Jan-95	(b,c,d)
												MW-16	MW16-02-1990	Jul-90	(b,d)
												MW-17	MW17-01-1990	May-90	(d)
												MW-17	MW17-01-1994	Dec-94	(d)
												MW-17	MW17-01F-1994	Dec-94	(c,d)
												MW-17	MW17-02-1990	Jul-90	(d)
												MW-18	MW18-01-1994	Dec-94	(d)
												MW-18	MW18-01-1996	Nov-96	(d)
												MW-18	MW18-01-1997	Mar-97	(d)
												MW-18	MW18-01F-1994	Dec-94	(c,d)
												MW-18	MW18-01F-1996	Nov-96	(c,d)
												MW-18	MW18-02-1990	Jul-90	(d)
												MW-18	MW18-02-1997	Jun-97	(d)
												MW-18	MW18-03-1997	Sep-97	(d)
												MW-18	MW18-04-1997	Dec-97	(d)
												MW-19	MW19-01-1991	Jan-91	(d)
												MW-19	MW19-01-1991-DUP	Jan-91	(d)
												MW-19	MW19-01-1994	Dec-94	(d)
												MW-19	MW19-01-1996	Nov-96	(d)
												MW-19	MW19-01-1997	Mar-97	(d)
												MW-19	MW19-01F-1994	Dec-94	(c,d)
												MW-19	MW19-01F-1996	Nov-96	(c,d)
												MW-19	MW19-02-1991	Aug-91	(d)

Table 2-3a: Ground Water Samples Collected from Upper Aquifer
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS												SAMPLES NOT INCLUDED IN RISK CALCULATIONS			
AREA 1			AREA 4B (a)			AREA 5A			AREA 5B						
Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	
												MW-19	MW19-02-1997	Jun-97	(d)
												MW-19	MW19-03-1997	Sep-97	(d)
												MW-19	MW19-04-1997	Dec-97	(d)
												MW-20	MW20-01-1991	Jan-91	(d)
												MW-20	MW20-01-1994	Dec-94	(d)
												MW-20	MW20-01F-1994	Dec-94	(c,d)
												MW-20	MW20-02-1997	Aug-91	(d)
												MW-37	MW37-01-1996	Aug-96	(d)
												MW-37	MW37-01-1997	Mar-97	(d)
												MW-37	MW37-01F-1996	Aug-96	(c,d)
												MW-37	MW37-02-1997	Jun-97	(d)
												MW-37	MW37-03-1997	Sep-97	(d)
												MW-37	MW37-03-1997-DUP	Sep-97	(d)
												MW-37	MW37-04-1997	Dec-97	(d)
												MW-38	MW38-01-1996	Aug-96	(d)
												MW-38	MW38-01-1997	Mar-97	(d)
												MW-38	MW38-01F-1996	Aug-96	(c,d)
												MW-38	MW38-02-1997	Jun-97	(d)
												MW-38	MW38-03-1997	Sep-97	(d)
												MW-38	MW38-04-1997	Dec-97	(d)
												MW-39	MW39-01F-1996	Aug-96	(c)
												MW-40	MW40-01-1996	Aug-96	(d)
												MW-40	MW40-01-1997	Mar-97	(d)
												MW-40	MW40-01-1997-EPA	Mar-97	(d)
												MW-40	MW40-01F-1996	Aug-96	(c,d)
												MW-40	MW40-02-1997	Jun-97	(d)
												MW-40	MW40-03-1997	Sep-97	(d)
												MW-40	MW40-03-1997-DUP	Sep-97	(d)
												MW-40	MW40-04-1997	Dec-97	(d)
												MW-40	MW40-04-1997-DUP	Dec-97	(d)
												MW-41	MW41-01-1996	Aug-96	(d)
												MW-41	MW41-01-1997	Mar-97	(d)
												MW-41	MW41-01F-1996	Aug-96	(c,d)
												MW-41	MW41-02-1997	Jun-97	(d)
												MW-41	MW41-02-1997-DUP	Jun-97	(d)
												MW-41	MW41-03-1997	Sep-97	(d)
												MW-41	MW41-04-1997	Dec-97	(d)
												MW-42	MW42-01-1996	Aug-96	(d)
												MW-42	MW42-01-1997	Mar-97	(d)
												MW-42	MW42-01-1997-EPA	Mar-97	(d)
												MW-42	MW42-01F-1996	Aug-96	(c,d)
												MW-42	MW42-02-1997	Jun-97	(d)
												MW-42	MW42-02-1997-DUP	Jun-97	(d)
												MW-42	MW42-03-1997	Sep-97	(d)
												MW-42	MW42-04-1997	Dec-97	(d)
												MW-43	MW43-01-1996	Aug-96	(d)
												MW-43	MW43-01-1997	Mar-97	(d)
												MW-43	MW43-01F-1996	Aug-96	(c,d)
												MW-43	MW43-02-1997	Jun-97	(d)
												MW-43	MW43-03-1997	Sep-97	(d)
												MW-43	MW43-04-1997	Dec-97	(d)

Table 2-3a: Ground Water Samples Collected from Upper Aquifer
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS												SAMPLES NOT INCLUDED IN RISK CALCULATIONS			
AREA 1			AREA 4B (a)			AREA 5A			AREA 5B						
Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	Well	Sample ID	Date	
												MW-44	MW44-01-1996	Aug-96	(d)
												MW-44	MW44-01-1997	Mar-97	(d)
												MW-44	MW44-01-1997-DUP	Mar-97	(d)
												MW-44	MW44-01F-1996	Aug-96	(c,d)
												MW-44	MW44-02-1997	Jun-97	(d)
												MW-44	MW44-03-1997	Sep-97	(d)
												MW-44	MW44-04-1997	Dec-97	(d)
												MW-45	MW45-01F-1996	Aug-96	(c)
												MW-46	MW46-01-1996	Aug-96	(b,d)
												MW-46	MW46-01-1997	Mar-97	(b,d)
												MW-46	MW46-01F-1996	Aug-96	(b,c,d)
												MW-46	MW46-02-1997	Jun-97	(b,d)
												MW-46	MW46-03-1997	Sep-97	(b,d)
												MW-46	MW46-04-1997	Dec-97	(b,d)
												MW-47	MW47-01-1996	Aug-96	(b,d)
												MW-47	MW47-01-1996-DUP	Aug-96	(b,d)
												MW-47	MW47-01-1997	Mar-97	(b,d)
												MW-47	MW47-01F-1996	Aug-96	(b,c,d)
												MW-47	MW47-01F-1996-DUP	Aug-96	(b,c,d)
												MW-47	MW47-02-1997	Jun-97	(b,d)
												MW-47	MW47-04-1997	Dec-97	(b,d)
												MW-47	MW47-04-1997-DUP	Dec-97	(b,d)
												MW-48	MW48-01F-1996	Aug-96	(c)
												MW-49	MW49-01F-1996	Aug-96	(c)
												MW-49	MW49-01F-1996-DUP	Aug-96	(c)

Note: Duplicate samples, denoted with "-DUP" in the Sample ID, were averaged with the associated sample prior to data summary or risk calculations.

(a) No Upper Aquifer wells are located within Area 4B, so samples from the closest Upper Aquifer wells in neighboring areas are used to estimate concentrations in Area 4B.

(b) Monitoring well was not included in risk calculations because it is located in an area where no residential or industrial well is expected to be installed (i.e., wetlands, Griffith Municipal Landfill, or gas pipeline right-of-way).

(c) Consistent with USEPA Region 5 guidance, filtered (dissolved) samples, denoted with an "F-" in the Sample ID, were NOT included in the data summary and risk calculations. Total (nondissolved) analytical results for the samples were used instead.

(d) Consistent with USEPA Region 5 guidance, this monitoring well was not included in risk calculations because it is not located in the center of the off-site plume. Limiting calculations to data from wells in the center of the plume provides a conservative estimate of risk for locations outside the plume (i.e., more likely to overestimate than underestimate risk).

Table 2-3b: Ground Water Samples Collected from Lower Aquifer
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS						SAMPLES NOT INCLUDED IN RISK CALCULATIONS			
OVERALL (a)			AREA 5A (b)						
Well	SampleID	Date	Well	SampleID	Date	Well	SampleID	Date	
IW1	IW1-1997	Nov-97	MW-07	MW07-01-1990	May-90	MW-07	MW07-01F-1995	Jan-95	(c)
IW1	IW1-1997-DUP	Nov-97	MW-07	MW07-02-1990	Jul-90	MW-07	MW07-01F-1995-DUP	Jan-95	(c)
IW2	IW2-1997	Nov-97	MW-07	MW07-03-1991	Jan-91	MW-08	MW08-01F-1994	Dec-94	(c)
IW3	IW3-1997	Nov-97	MW-07	MW07-03-1991-DUP	Jan-91	MW-08	MW08-01F-1996	Nov-96	(c)
IW4	IW4-1997	Nov-97	MW-07	MW07-01-1995	Jan-95	MW-09	MW09-01F-1995	Jan-95	(c)
IW4	IW4-1997-DUP	Nov-97	MW-07	MW07-01-1995-DUP	Jan-95	MW-09	MW09-01F-1996	Nov-96	(c)
IW6	IW6-1997	Nov-97	MW-07	MW07-01-1996	Nov-96	MW-10	MW10-01F-1995	Jan-95	(c)
M-4D	M04D-01-1995	Jan-95	MW-07	MW07-01-1997	Mar-97	MW-10C	MW10C-01F-1996	Nov-96	(c)
M-4D	M04D-01-1997	Mar-97	MW-07	MW07-02-1997	Jun-97	MW-21	MW21-01F-1995	Jan-95	(c)
M-4D	M04D-01-1997-EPA	Mar-97	MW-07	MW07-03-1997	Sep-97	MW-21	MW21-01F-1995-DUP	Jan-95	(c)
M-4D	M04D-02-1997	Jun-97	MW-07	MW07-04-1997	Dec-97	MW-22	MW22-01F-1994	Dec-94	(c)
M-4D	M04D-03-1997	Sep-97	MW-22	MW22-01-1991	Jan-91	MW-22	MW22-01F-1994-DUP	Dec-94	(c)
M-4D	M04D-04-1997	Dec-97	MW-22	MW22-01-1994	Dec-94	MW-22	MW22-01F-1996	Nov-96	(c)
MW-07	MW07-01-1990	May-90	MW-22	MW22-01-1994-DUP	Dec-94	MW-23	MW23-01F-1995	Jan-95	(c)
MW-07	MW07-02-1990	Jul-90	MW-22	MW22-01-1996	Nov-96	MW-23	MW23-01F-1996	Nov-96	(c)
MW-07	MW07-03-1991	Jan-91	MW-22	MW22-01-1997	Mar-97	MW-24	MW24-01F-1995	Jan-95	(c)
MW-07	MW07-03-1991-DUP	Jan-91	MW-22	MW22-02-1997	Jul-97	MW-24	MW24-01F-1996	Nov-96	(c)
MW-07	MW07-01-1995	Jan-95	MW-22	MW23-03-1997	Sep-97	MW-28	MW28F-1996	Mar-96	(c)
MW-07	MW07-01-1995-DUP	Jan-95	MW-22	MW22-04-1997	Dec-97	MW-29	MW29F-1996	Mar-96	(c)
MW-07	MW07-01-1996	Nov-96	MW-28	MW28-1996	Mar-96	MW-30	MW30F-1996	Mar-96	(c)
MW-07	MW07-01-1997	Mar-97	MW-28	MW28-01-1997	Mar-97	MW-31	MW31F-1996	Mar-96	(c)
MW-07	MW07-02-1997	Jun-97	MW-28	MW28-01-1997-EPA	Mar-97	MW-32	MW32F-1996	Mar-96	(c)
MW-07	MW07-03-1997	Sep-97	MW-28	MW28-02-1997	Jun-97	MW-33	MW33F-1996	Mar-96	(c)
MW-07	MW07-04-1997	Dec-97	MW-28	MW28-03-1997	Sep-97	MW-34	MW34F-1996	Mar-96	(c)
MW-08	MW08-01-1990	May-90	MW-28	MW28-04-1997	Dec-97	MW-35	MW35F-1996	Mar-96	(c)
MW-08	MW08-02-1990	Jul-90	MW-36	MW36-1996	Mar-96	MW-36	MW36F-1996	Mar-96	(c)
MW-08	MW08-03-1991	Jan-91	MW-36	MW36-01-1997	Mar-97	MW-50	MW50-01F-1996	Nov-96	(c)
MW-08	MW08-01-1994	Dec-94	MW-36	MW36-02-1997	Jun-97	MW-51	MW51-01F-1996	Nov-96	(c)
MW-08	MW08-01-1996	Nov-96	MW-36	MW36-03-1997	Sep-97	MW-51	MW51-01F-1996-DUP	Nov-96	(c)
MW-08	MW08-01-1997	Mar-97	MW-36	MW36-04-1997	Dec-97	MW-52	MW52-01F-1996	Dec-96	(c)
MW-08	MW08-02-1997	Jun-97	MW-50	MW50-01-1996	Nov-96	MW-53	MW53-01F-1996	Dec-96	(c)
MW-08	MW08-03-1997	Sep-97	MW-50	MW50-01-1997	Mar-97	MW-54	MW54-01F-1996	Dec-96	(c)
MW-08	MW08-04-1997	Dec-97	MW-50	MW50-01-1997-DUP	Mar-97	MW-55	MW55-01F-1996	Dec-96	(c)
MW-08	MW08-04-1997-DUP	Dec-97	MW-50	MW50-02-1997	Jun-97	MW-55	MW55-01F-1996-DUP	Dec-96	(c)
MW-09	MW09-01-1990	May-90							
MW-09	MW09-02-1990	Jul-90							
MW-09	MW09-03-1991	Jan-91							
MW-09	MW09-01-1995	Jan-95							
MW-09	MW09-01-1996	Nov-96							
MW-09	MW09-01-1997-EPA	Mar-97							
MW-09	MW09-01-1997	Apr-97							
MW-09	MW09-02-1997	Jun-97							
MW-09	MW09-02-1997-DUP	Jun-97							
MW-09	MW09-03-1997	Sep-97							
MW-10	MW10-01-1990	May-90							
MW-10	MW10-02-1990	Jul-90							
MW-10	MW10-03-1991	Jan-91							
MW-10	MW10-01-1995	Jan-95							
MW-10C	MW10C-01-1990	Jul-90							
MW-10C	MW10C-03-1991	Jan-91							
MW-10C	MW10C-01-1996	Nov-96							
MW-10C	MW10C-01-1997	Mar-97							
MW-10C	MW10C-01-1997-EPA	Mar-97							
MW-10C	MW10C-02-1997	Jun-97							
MW-10C	MW10C-02-1997-DUP	Jun-97							
MW-10C	MW10C-03-1997	Sep-97							
MW-21	MW21-01-1991	Jan-91							
MW-21	MW21-01-1995	Jan-95							
MW-21	MW21-01-1995-DUP	Jan-95							
MW-21	MW21-01-1996	Nov-96							
MW-21	MW21-01-1997	Mar-97							
MW-21	MW21-02-1997	Jun-97							
MW-21	MW21-03-1997	Oct-97							
MW-22	MW22-01-1991	Jan-91							

Table 2-3b: Ground Water Samples Collected from Lower Aquifer
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS						SAMPLES NOT INCLUDED IN RISK CALCULATIONS		
OVERALL (a)			AREA 5A (b)					
Well	SampleID	Date	Well	SampleID	Date	Well	SampleID	Date
MW-22	MW22-01-1994	Dec-94						
MW-22	MW22-01-1994-DUP	Dec-94						
MW-22	MW22-01-1996	Nov-96						
MW-22	MW22-01-1997	Mar-97						
MW-22	MW22-02-1997	Jul-97						
MW-22	MW22-03-1997	Sep-97						
MW-22	MW22-04-1997	Dec-97						
MW-23	MW23-01-1991	Jan-91						
MW-23	MW23-01-1995	Jan-95						
MW-23	MW23-01-1996	Nov-96						
MW-23	MW23-01-1997	Mar-97						
MW-23	MW23-01-1997-EPA	Mar-97						
MW-23	MW23-02-1997	Jun-97						
MW-23	MW23-02-1997-DUP	Jun-97						
MW-23	MW23-03-1997	Sep-97						
MW-23	MW23-04-1997	Dec-97						
MW-24	MW24-01-1991	Jan-91						
MW-24	MW24-01-1995	Jan-95						
MW-24	MW24-01-1996	Nov-96						
MW-24	MW24-01-1997	Mar-97						
MW-24	MW24-02-1997	Jun-97						
MW-24	MW24-03-1997	Sep-97						
MW-24	MW24-04-1997	Dec-97						
MW-28	MW28-1996	Mar-96						
MW-28	MW28-01-1997	Mar-97						
MW-28	MW28-01-1997-EPA	Mar-97						
MW-28	MW28-02-1997	Jun-97						
MW-28	MW28-03-1997	Sep-97						
MW-28	MW28-04-1997	Dec-97						
MW-29	MW29-1996	Mar-96						
MW-29	MW29-01-1997	Mar-97						
MW-29	MW29-02-1997	Jun-97						
MW-29	MW29-03-1997	Sep-97						
MW-30	MW30-1996	Mar-96						
MW-30	MW30-01-1997	Mar-97						
MW-30	MW30-02-1997	Jun-97						
MW-30	MW30-03-1997	Oct-97						
MW-30	MW30-04-1997	Dec-97						
MW-31	MW31-1996	Mar-96						
MW-31	MW31-01-1997	Mar-97						
MW-31	MW31-02-1997	Jun-97						
MW-31	MW31-03-1997	Sep-97						
MW-31	MW31-04-1997	Dec-97						
MW-32	MW32-1996	Mar-96						
MW-32	MW32-1996-DUP	Mar-96						
MW-32	MW32-01-1997	Mar-97						
MW-32	MW32-02-1997	Jun-97						
MW-32	MW32-03-1997	Sep-97						
MW-32	MW32-04-1997	Dec-97						
MW-33	MW33-1996	Mar-96						
MW-33	MW33-01-1997	Mar-97						
MW-33	MW33-02-1997	Jun-97						
MW-33	MW33-03-1997	Oct-97						
MW-33	MW33-04-1997	Dec-97						
MW-34	MW34-1996	Mar-96						
MW-34	MW34-01-1997	Mar-97						
MW-34	MW34-02-1997	Jun-97						
MW-34	MW34-03-1997	Sep-97						
MW-34	MW34-04-1997	Dec-97						
MW-35	MW35-1996	Mar-96						
MW-36	MW36-1996	Mar-96						
MW-36	MW36-01-1997	Mar-97						
MW-36	MW36-02-1997	Jun-97						
MW-36	MW36-03-1997	Sep-97						

Table 2-3b: Ground Water Samples Collected from Lower Aquifer
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS						SAMPLES NOT INCLUDED IN RISK CALCULATIONS		
OVERALL (a)			AREA 5A (b)					
Well	SampleID	Date	Well	SampleID	Date	Well	SampleID	Date
MW-36	MW36-04-1997	Dec-97						
MW-50	MW50-01-1996	Nov-96						
MW-50	MW50-01-1997	Mar-97						
MW-50	MW50-01-1997-DUP	Mar-97						
MW-50	MW50-02-1997	Jun-97						
MW-51	MW51-01-1996	Nov-96						
MW-51	MW51-01-1996-DUP	Nov-96						
MW-51	MW51-01-1997	Mar-97						
MW-51	MW51-01-1997-EPA	Mar-97						
MW-51	MW51-02-1997	Jun-97						
MW-51	MW51-03-1997	Oct-97						
MW-51	MW51-04-1997	Dec-97						
MW-52	MW52-01-1996	Dec-96						
MW-52	MW52-01-1997	Mar-97						
MW-52	MW52-02-1997	Jun-97						
MW-52	MW52-03-1997	Sep-97						
MW-52	MW52-04-1997	Dec-97						
MW-53	MW53-01-1996	Dec-96						
MW-53	MW53-01-1997	Mar-97						
MW-53	MW53-01-1997-DUP	Mar-97						
MW-53	MW53-02-1997	Jun-97						
MW-53	MW53-03-1997	Sep-97						
MW-53	MW53-04-1997	Dec-97						
MW-54	MW54-01-1996	Dec-96						
MW-54	MW54-01-1997	Mar-97						
MW-54	MW54-02-1997	Jun-97						
MW-54	MW54-03-1997	Sep-97						
MW-54	MW54-04-1997	Dec-97						
MW-55	MW55-01-1996	Dec-96						
MW-55	MW55-01-1996-DUP	Dec-96						
MW-55	MW55-01-1997	Mar-97						
MW-55	MW55-02-1997	Jun-97						
MW-55	MW55-03-1997	Sep-97						
MW-55	MW55-04-1997	Dec-97						

Note: Duplicate samples (i.e., with "-DUP" in the Sample ID), were averaged with the associated sample prior to data summary and risk calculations.

(a) At the request of USEPA, all Production Well and On-site Lower Aquifer Monitoring Well samples were used to evaluate hypothetical future on-site ground water use.

(b) All Off-site Lower Aquifer Monitoring Well samples (all located in Area 5A) were used to evaluate hypothetical future off-site ground water use.

(c) Consistent with USEPA Region 5 guidance, filtered (dissolved) samples, denoted with an "F-" in the Sample ID, were NOT included in the data summary and risk calculations. Total (unfiltered) analytical results were included in the data summary and risk calculations instead. By not including filtered samples, risk calculations are conservative, i.e., more likely to overestimate than underestimate risk.

Table 2-3c: Ground Water Samples Collected from Private Wells
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS			SAMPLES NOT INCLUDED IN RISK CALCULATIONS			
AREAS 5A/5B/6 (a)			AREA 5B			
Well	SampleID	Date	Well	SampleID	Date	
PW-01	PW01-01-1990	Jun-90	PW-06	PW06-01-1990	Jun-90	(b)
PW-02	PW02-01-1990	Jun-90	PW-07	PW07-01-1990	Jun-90	(b)
PW-03	PW03-01-1990	Jun-90				
PW-04	PW04-01-1990	Jun-90				
PW-05	PW05-01-1990	Jun-90				
PW-08	PW08-01-1990	Jun-90				
PW-09	PW09-01-1991	Jan-91				
PW-10	PW10-01-1991	Jan-91				
PW-10	PW10-01-1991-DUP	Jan-91				
PW-A	PWA-01-1997-EPA	Mar-97				
PW-A	PWA-01-1997	Mar-97				
PW-B	PWB-01-1997-EPA	Mar-97				
PW-B	PWB-01-1997	Mar-97				
PW-C	PWC-01-1997-EPA	Mar-97				
PW-C	PWC-01-1997	Mar-97				
PW-D	PWD-01-1997	Apr-97				
PW-D	PWD-02-1997	Oct-97				
PW-I	PWI-01-1997-EPA	Mar-97				
PW-I	PWI-01-1997	Mar-97				
PW-I	PWI-01-1997-DUP	Mar-97				
PW-J	PWJ-01-1997	Mar-97				
PW-K	PWK-01-1997	Mar-97				
PW-K	PWK-02-1997	Oct-97				
PW-L	PWL-01-1997	Apr-97				
PW-N	PWN-01-1997	Mar-97				
PW-RC	PWRC-01-1997	Apr-97				
PW-RC	PWRC-02-1997	Oct-97				
PW-RE	PWRE-01-1997	Apr-97				
PW-RE	PWRE-01-1997-DUP	Apr-97				
PW-RE	PWRE-02-1997	Oct-97				
PW-RW	PWRW-01-1997	Apr-97				
PW-S	PWS-01-1997	Mar-97				
PW-T	PWT-01-1997	Mar-97				
PW-U	PWU-01-1997	Apr-97				
PW-V	PWV-01-1997	Apr-97				
PW-W	PWW-01-1997	Apr-97				
PW-X	PWX-01-1997	Apr-97				
PW-Y	PWY-02-1997	Oct-97				
PW-Y	PWY-02-1997-DUP	Oct-97				
PW-Z	PWZ-02-1997	Oct-97				

Note: Duplicate samples (i.e., with "-DUP" in the Sample ID), were averaged with the associated sample prior to data summary and risk calculations.

(a) Private Well samples were used to evaluate current off-site ground water use.

(b) Industrial Wells: PW-06 and PW-07 are closed wells from an off-site industrial property. Analytical data for these wells are not included in risk calculations for off-site residences.

Table 2-3 (a,b,c): Key to Sample IDs for Ground Water Samples

IW*y-zzzz* represents ground water samples collected from on-site production wells in 1997. IW indicates production (industrial) well, y is the well location, and zzzz is the year. Duplicate samples were denoted with a "-DUP" following the Sample ID.

MW*xx-yy-zzzz* represents ground water samples collected from monitoring wells from 1989 to 1997. MW indicates monitoring well, xx is the well number, yy is the round of samples, and zzzz is the year. Filtered (dissolved) samples were denoted with an "F" following the sample round. Duplicate samples were denoted with a "-DUP" following the Sample ID. Confirmation samples collected by USEPA were denoted with an "-EPA" following the Sample ID.

M*xx-yy-zzz* represents ground water samples collected from monitoring wells located in the Griffith Municipal Landfill. M indicates monitoring well, xx is the well number, yy is the round of samples, and zzz is the year. Duplicate samples were denoted with a "-DUP" following the Sample ID. Confirmation samples collected by USEPA were denoted with an "-EPA" following the Sample ID.

PW*xx-yy-zzzz* represents ground water samples collected from private wells in 1990 and 1991 as part of the RI. PW indicates private well, xx is the well number, yy is the round of samples, and zzzz is the year. Duplicate samples were denoted with a "-DUP" following the Sample ID.

PW*X-yy-zzzz* represents ground water samples collected from private wells in 1997. PW indicates private well, X is the well location, yy is the round of samples, and zzzz is the year. Duplicate samples were denoted with a "-DUP" following the Sample ID. Confirmation samples collected by USEPA were denoted with an "-EPA" following the Sample ID.

Table 2-4: Surface Water Samples
ACS NPL Site, Griffith, IN

SAMPLES INCLUDED IN RISK CALCULATIONS (a)												SAMPLES NOT INCLUDED IN RISK CALCULATIONS			
Area 1			Area 2			Area 4A			Area 4B			Area 5			
Location	SampleID	Date	Location	SampleID	Date	Location	SampleID	Date	Location	SampleID	Date	Location	SampleID	Date	
SW-01	ACS-SW01-01	Jul-89	SW-05	ACS-SW05-01	Jul-89	SW-07A	ACS-SW07A-01	Jul-89	SW497	97ZB04S21	Apr-97	SW-08	ACS-SW08-01	Jul-89	(a)
SW-02	ACS-SW02-01	Jul-89				SW-09	APD-SW09-01	May-96				SW-14	APD-SW14-01	May-96	(a)
						SW-10	APD-SW10-01	May-96							
						SW-11	APD-SW11-01	May-96							
						SW-12	APD-SW12-01	May-96							
						SW-13	APD-SW13-01	May-96							
						SW-15	APD-SW15-01	May-96							
						SW-15	APD-SW15-91	May-96							
						SW-16	APD-SW16-01	May-96							
						SW-17	APD-SW17-01	May-96							
						SW-18	APD-SW18-01	May-96							
						SW-19	APD-SW19-01	May-96							
						SW-20	APD-SW20-01	May-96							
						SW-20	APD-SW20-91	May-96							
						Outfall	97ZB02S05	Dec-96							

Note:
Duplicate samples: denoted with "-91" in the Sample ID, and were averaged with the associated sample prior to data summary and risk calculations.
(a) Surface water samples from Area 5 were collected near several industrial properties and so were not included in risk calculations for residents.

Table 2-4: Key to Sample IDs for Surface Water Samples

ACS-SW*xx-yy* represents surface water samples collected in 1989 as part of the RI. ACS is the Site ID, SW indicates surface water sample, xx is the location and yy is the sample number.

APD-SW*xx-yy* represents surface water samples collected in May 1996 as part of the wetland investigation. APD indicates ACS Pre-Design Investigation, SW indicates surface water sample, xx is the location and yy is the sample number. Duplicate samples are denoted with a sample number of "-91".

97ZB02S05 and 97ZB04S21 are surface water samples collected by USEPA in 1996 and 1997, respectively. Identification assigned by USEPA.

Table 2-5 Summary of Constituents in Soil Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Depth	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
1	SURFACE (0-2')	VOC	1,1,2-Trichloroethane	79-00-5	14	1	1.3E-02	7.3E-02	1.6E-01	1.3E-02	SS103-AVG	Sep-97	Yes	1.3E-02
1	SURFACE (0-2')	VOC	1,2-Dichloroethene (total)	540-59-0	14	2	6.5E-03	7.3E-02	1.6E-01	1.2E-02	ACS-SS108	Sep-97	Yes	1.2E-02
1	SURFACE (0-2')	VOC	Carbon Disulfide	75-15-0	14	1	2.0E-03	7.2E-02	1.6E-01	2.0E-03	ACS-SS112	Sep-97	Yes	2.0E-03
1	SURFACE (0-2')	VOC	Chloroform	67-66-3	14	2	2.0E-03	7.2E-02	1.6E-01	3.0E-03	ACS-SS109	Sep-97	Yes	3.0E-03
1	SURFACE (0-2')	VOC	Tetrachloroethene	127-18-4	14	4	2.7E-02	1.5E-01	3.5E-01	1.6E+00	ACS-SS101	Sep-97	Yes	3.5E-01
1	SURFACE (0-2')	VOC	Toluene	108-88-3	14	2	3.3E-01	6.3E-02	1.3E-01	4.8E-01	ACS-SS101	Sep-97	Yes	1.3E-01
1	SURFACE (0-2')	VOC	Trichloroethene	79-01-6	14	4	2.0E-03	4.5E-02	9.5E-02	2.2E-01	ACS-SS101	Sep-97	Yes	9.5E-02
1	SURFACE (0-2')	VOC	Xylenes (total)	1330-20-7	14	2	6.5E-01	1.7E+00	4.6E+00	2.3E+01	ACS-SS101	Sep-97	Yes	4.6E+00
1	SURFACE (0-2')	SVOC	2-Methylnaphthalene	91-57-6	14	1	3.4E-01	2.7E-01	3.4E-01	3.4E-01	SS103-AVG	Sep-97	Yes	3.4E-01
1	SURFACE (0-2')	SVOC	3,3'-Dichlorobenzidine	91-94-1	14	1	2.1E-01	2.6E-01	3.3E-01	2.1E-01	ACS-SS101	Sep-97	Yes	2.1E-01
1	SURFACE (0-2')	SVOC	Acenaphthylene	208-96-8	14	1	5.7E-01	2.9E-01	3.7E-01	5.7E-01	SS103-AVG	Sep-97	Yes	3.7E-01
1	SURFACE (0-2')	SVOC	Anthracene	120-12-7	14	2	5.5E-02	2.4E-01	3.2E-01	8.9E-02	SS103-AVG	Sep-97	Yes	8.9E-02
1	SURFACE (0-2')	SVOC	Benzo(a)anthracene	56-55-3	14	2	4.4E-02	2.4E-01	3.2E-01	5.9E-02	ACS-SS107	Sep-97	Yes	5.9E-02
1	SURFACE (0-2')	SVOC	Benzo(a)pyrene	50-32-8	14	3	5.9E-02	2.3E-01	3.2E-01	8.3E-02	SS103-AVG	Sep-97	Yes	8.3E-02
1	SURFACE (0-2')	SVOC	Benzo(b)fluoranthene	205-99-2	14	3	8.2E-02	2.4E-01	3.2E-01	8.6E-02	ACS-SS109	Sep-97	Yes	8.6E-02
1	SURFACE (0-2')	SVOC	Benzo(k)fluoranthene	207-08-9	14	2	6.5E-02	2.4E-01	3.2E-01	7.3E-02	SS103-AVG	Sep-97	Yes	7.3E-02
1	SURFACE (0-2')	SVOC	Chrysene	218-01-9	14	3	5.9E-02	2.3E-01	3.2E-01	7.4E-02	ACS-SS109	Sep-97	Yes	7.4E-02
1	SURFACE (0-2')	SVOC	Di-n-butylphthalate	84-74-2	14	1	5.1E-02	2.5E-01	3.3E-01	5.1E-02	ACS-SA03-03	Aug-89	Yes	5.1E-02
1	SURFACE (0-2')	SVOC	Di-n-octylphthalate	117-84-0	14	2	4.9E-02	2.3E-01	3.1E-01	1.1E-01	ACS-SS101	Sep-97	Yes	1.1E-01
1	SURFACE (0-2')	SVOC	Fluoranthene	206-44-0	14	3	6.7E-02	2.4E-01	3.2E-01	9.8E-02	ACS-SS107	Sep-97	Yes	9.8E-02
1	SURFACE (0-2')	SVOC	Hexachlorobenzene	118-74-1	14	1	2.9E-02	2.5E-01	3.3E-01	2.9E-02	ACS-SS110	Sep-97	Yes	2.9E-02
1	SURFACE (0-2')	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	14	1	4.4E-02	2.5E-01	3.2E-01	4.4E-02	ACS-SS109	Sep-97	Yes	4.4E-02
1	SURFACE (0-2')	SVOC	Isophorone	78-59-1	14	4	3.7E-02	2.2E-01	3.0E-01	1.4E-01	ACS-SS101	Sep-97	Yes	1.4E-01
1	SURFACE (0-2')	SVOC	Phenanthrene	85-01-8	14	2	5.0E-02	2.4E-01	3.2E-01	6.1E-02	ACS-SS107	Sep-97	Yes	6.1E-02
1	SURFACE (0-2')	SVOC	Pyrene	129-00-0	14	3	9.5E-02	2.4E-01	3.2E-01	1.2E-01	SS103-AVG	Sep-97	Yes	1.2E-01
1	SURFACE (0-2')	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	14	14	7.0E-02	2.4E+00	1.2E+01	9.8E+00	ACS-SS112	Sep-97	Yes	9.8E+00
1	SURFACE (0-2')	P/PCB	Aroclor-1242	53469-21-9	14	4	3.9E-02	2.3E-01	4.0E-01	1.5E+00	SS103-AVG	Sep-97	Yes	4.0E-01
1	SURFACE (0-2')	P/PCB	Aroclor-1248	12672-29-6	14	1	2.2E+00	2.7E-01	5.3E-01	2.2E+00	ACS-SS102	Sep-97	Yes	5.3E-01
1	SURFACE (0-2')	P/PCB	Aroclor-1254	11097-69-1	14	11	8.0E-02	1.5E+00	2.4E+00	5.5E+00	ACS-SS101	Sep-97	Yes	2.4E+00
1	SURFACE (0-2')	P/PCB	Aroclor-1260	11096-82-5	14	2	2.1E-01	2.8E-01	5.0E-01	1.7E+00	SS103-AVG	Sep-97	Yes	5.0E-01
1	SURFACE (0-2')	P/PCB	Endrin ketone	53494-70-5	14	1	1.1E-02	4.1E-02	9.6E-02	1.1E-02	ACS-SS106	Sep-97	Yes	1.1E-02
1	SURFACE (0-2')	INORG	Aluminum	7429-90-5	14	14	3.6E+03	1.1E+04	1.7E+04	2.5E+04	ACS-SS109	Sep-97	No (d)	
1	SURFACE (0-2')	INORG	Antimony	7440-36-0	13	4	5.3E-01	4.3E-01	7.2E-01	1.8E+00	SS103-AVG	Sep-97	Yes	7.2E-01
1	SURFACE (0-2')	INORG	Arsenic	7440-38-2	14	14	1.5E+00	2.4E+00	2.8E+00	3.3E+00	ACS-SS113	Sep-97	Yes	2.8E+00
1	SURFACE (0-2')	INORG	Barium	7440-39-3	14	13	3.8E+01	1.2E+02	1.5E+02	2.4E+02	ACS-SS109	Sep-97	Yes	1.5E+02
1	SURFACE (0-2')	INORG	Beryllium	7440-41-7	14	14	7.0E-02	2.2E+00	3.1E+00	5.8E+00	ACS-SS109	Sep-97	Yes	3.1E+00
1	SURFACE (0-2')	INORG	Cadmium	7440-43-9	14	14	2.7E-01	1.1E+00	1.7E+00	5.2E+00	ACS-SS101	Sep-97	Yes	1.7E+00
1	SURFACE (0-2')	INORG	Calcium	7440-70-2	14	14	3.7E+02	6.0E+04	8.4E+04	1.7E+05	ACS-SS109	Sep-97	No (d)	
1	SURFACE (0-2')	INORG	Chromium (total)	7440-47-3	14	14	1.1E+01	2.4E+01	3.2E+01	7.1E+01	ACS-SS101	Sep-97	Yes	3.2E+01
1	SURFACE (0-2')	INORG	Cobalt	7440-48-4	14	13	1.3E+00	2.8E+00	3.6E+00	4.5E+00	ACS-SS101	Sep-97	Yes	3.6E+00
1	SURFACE (0-2')	INORG	Copper	7440-50-8	14	14	9.7E+00	2.1E+01	2.7E+01	5.5E+01	ACS-SS110	Sep-97	Yes	2.7E+01
1	SURFACE (0-2')	INORG	Cyanide (total)	57-12-5	14	8	4.3E-01	5.8E-01	7.8E-01	1.2E+00	ACS-SS107	Sep-97	Yes	7.8E-01
1	SURFACE (0-2')	INORG	Iron	7439-89-6	14	14	2.1E+03	6.3E+03	8.5E+03	1.5E+04	ACS-SS101	Sep-97	No (d)	
1	SURFACE (0-2')	INORG	Lead	7439-92-1	14	14	2.3E+01	8.4E+01	1.3E+02	3.6E+02	ACS-SS101	Sep-97	Yes	1.3E+02
1	SURFACE (0-2')	INORG	Magnesium	7439-95-4	14	14	5.6E+02	1.5E+04	2.1E+04	3.7E+04	ACS-SS109	Sep-97	No (d)	
1	SURFACE (0-2')	INORG	Manganese	7439-96-5	14	14	1.9E+01	8.9E+02	1.2E+03	2.5E+03	ACS-SS109	Sep-97	Yes	1.2E+03
1	SURFACE (0-2')	INORG	Mercury	7439-97-6	9	8	7.0E-02	6.2E-01	5.6E+00	3.9E+00	SS103-AVG	Sep-97	Yes	3.9E+00
1	SURFACE (0-2')	INORG	Nickel	7440-02-0	14	13	4.9E+00	6.7E+00	7.7E+00	1.2E+01	ACS-SS101	Sep-97	Yes	7.7E+00
1	SURFACE (0-2')	INORG	Potassium	7440-09-7	14	14	2.6E+02	1.4E+03	2.5E+03	3.7E+03	ACS-SS109	Sep-97	No (d)	
1	SURFACE (0-2')	INORG	Selenium	7782-49-2	14	2	4.2E-01	3.3E-01	4.3E-01	5.0E-01	ACS-SS101	Sep-97	Yes	4.3E-01
1	SURFACE (0-2')	INORG	Silver	7440-22-4	14	4	1.8E-01	2.1E-01	3.4E-01	2.9E-01	ACS-SS109	Sep-97	Yes	2.9E-01
1	SURFACE (0-2')	INORG	Sodium	7440-23-5	14	13	5.8E+01	5.0E+02	7.0E+02	1.3E+03	ACS-SS109	Sep-97	No (d)	
1	SURFACE (0-2')	INORG	Vanadium	7440-62-2	14	14	6.7E+00	1.0E+01	1.2E+01	1.8E+01	ACS-SS109	Sep-97	Yes	1.2E+01
1	SURFACE (0-2')	INORG	Zinc	7440-66-6	14	14	4.6E+01	8.1E+01	9.7E+01	1.8E+02	ACS-SS101	Sep-97	Yes	9.7E+01
1	SUBSURFACE (2-10')	VOC	1,1,1-Trichloroethane	71-55-6	63	37	2.0E-03	7.3E+02	1.5E+03	2.1E+04	ACS-TP07-03	Aug-89	Yes	1.5E+03
1	SUBSURFACE (2-10')	VOC	1,1,2,2-Tetrachloroethane	79-34-5	63	4	2.0E-03	2.4E+03	5.5E+03	3.9E+00	ACS-SB11-10	Aug-89	Yes	3.9E+00

Table 2-5 Summary of Constituents in Soil Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Depth	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
1	SUBSURFACE (2-10')	VOC	1,1,2-Trichloroethane	79-00-5	63	5	2.0E-03	8.2E+01	1.9E+02	8.1E+00	ACS-TP04-08	Aug-89	Yes	8.1E+00
1	SUBSURFACE (2-10')	VOC	1,1-Dichloroethane	75-34-3	49	8	2.0E-03	1.0E+02	2.4E+02	2.2E+01	ACS-SB16-06	Sep-89	Yes	2.2E+01
1	SUBSURFACE (2-10')	VOC	1,1-Dichloroethene	75-35-4	63	1	6.7E-01	8.2E+01	1.9E+02	6.7E-01	SB91-03-FT	Jun-93	No (e)	
1	SUBSURFACE (2-10')	VOC	1,2-Dichloroethane	107-06-2	63	5	1.0E-03	8.2E+01	1.9E+02	4.0E+01	ACS-SB17-06.5	Sep-89	Yes	4.0E+01
1	SUBSURFACE (2-10')	VOC	1,2-Dichloroethene (total)	540-59-0	47	23	2.0E-03	1.1E+02	2.6E+02	2.4E+02	ACS-SB110-SS4-07-09'	Jan-96	Yes	2.4E+02
1	SUBSURFACE (2-10')	VOC	1,2-Dichloropropane	78-87-5	63	7	1.0E-03	8.3E+01	1.9E+02	2.2E+01	ACS-TP03-09	Aug-89	Yes	2.2E+01
1	SUBSURFACE (2-10')	VOC	2-Butanone	78-93-3	63	18	1.5E-02	1.9E+02	4.0E+02	5 3E+02	ACS-TP03-09	Aug-89	Yes	4.0E+02
1	SUBSURFACE (2-10')	VOC	4-Methyl-2-pentanone	108-10-1	63	31	2.0E-03	2.1E+02	4.2E+02	1.5E+03	ACS-TP06-04	Aug-89	Yes	4.2E+02
1	SUBSURFACE (2-10')	VOC	Acetone	67-64-1	62	6	8.8E-02	1.9E+02	4.0E+02	6.5E+02	SB92-03-FT	Jun-93	Yes	4.0E+02
1	SUBSURFACE (2-10')	VOC	Benzene	71-43-2	62	35	1.0E-03	1.3E+02	3.2E+02	7.1E+03	ACS-TP02-03	Aug-89	Yes	3 2E+02
1	SUBSURFACE (2-10')	VOC	Carbon Tetrachloride	56-23-5	63	2	5.3E+02	1.4E+02	2.9E+02	3.6E+03	ACS-TP07-03	Aug-89	No (e)	
1	SUBSURFACE (2-10')	VOC	Chlorobenzene	108-90-7	62	6	2.0E-03	8.3E+01	1.9E+02	1.0E+01	SB91-05-FT	Jun-93	Yes	1.0E+01
1	SUBSURFACE (2-10')	VOC	Chloroethane	75-00-3	63	1	1.2E-02	1.5E+02	3.6E+02	1.2E-02	SB-089-AVG	Jun-93	No (e)	
1	SUBSURFACE (2-10')	VOC	Chloroform	67-66-3	63	20	1.0E-03	1.6E+02	2.9E+02	2.1E+03	ACS-TP03-09	Aug-89	Yes	2.9E+02
1	SUBSURFACE (2-10')	VOC	Ethyl Benzene	100-41-4	63	57	2.0E-03	3.8E+02	5.9E+02	6.7E+03	ACS-TP02-03	Aug-89	Yes	5.9E+02
1	SUBSURFACE (2-10')	VOC	Methylene Chloride	75-09-2	63	14	3.1E-02	1.8E+02	3.5E+02	5.7E+02	SB93-05-FT	Jun-93	Yes	3.5E+02
1	SUBSURFACE (2-10')	VOC	Styrene	100-42-5	63	7	1.0E-03	8.5E+01	1.9E+02	9.0E+01	ACS-TP07-03	Aug-89	Yes	9.0E+01
1	SUBSURFACE (2-10')	VOC	Tetrachloroethene	127-18-4	63	45	2.0E-03	4.4E+02	7.3E+02	8.3E+03	ACS-SB110-SS4-07-09'	Jan-96	Yes	7.3E+02
1	SUBSURFACE (2-10')	VOC	Toluene	108-88-3	49	42	4.0E-03	5.4E+03	1.2E+04	2.0E+05	ACS-TP02-03	Aug-89	Yes	1.2E+04
1	SUBSURFACE (2-10')	VOC	Trichloroethene	79-01-6	63	32	4.0E-03	2.0E+02	3.4E+02	2.8E+03	ACS-SB110-SS4-07-09'	Jan-96	Yes	3.4E+02
1	SUBSURFACE (2-10')	VOC	Xylenes (total)	1330-20-7	49	45	1.1E-02	1.8E+03	2.8E+03	2.5E+04	ACS-TP02-03	Aug-89	Yes	2.8E+03
1	SUBSURFACE (2-10')	VOC	cis-1,2-Dichloroethene	156-59-2	16	4	2.1E-02	8.1E+01	1.4E+06	1.2E+03	SB92-03-FT	Jun-93	Yes	1 2E+03
1	SUBSURFACE (2-10')	VOC	m,p-xylene	136777-61-2	14	13	1.9E-01	8.8E+02	1.6E+03	5.5E+03	SB92-03-FT	Jun-93	Yes	1.6E+03
1	SUBSURFACE (2-10')	VOC	ortho-xylene	95-47-6	14	13	1.2E-01	1.8E+02	3.3E+02	1.1E+03	SB92-03-FT	Jun-93	Yes	3.3E+02
1	SUBSURFACE (2-10')	SVOC	1,2,4-Trichlorobenzene	120-82-1	46	4	1.2E+00	4.9E+00	7.7E+00	4.3E+00	ACS-SB17-06.5	Sep-89	Yes	4.3E+00
1	SUBSURFACE (2-10')	SVOC	1,2-Dichlorobenzene	95-50-1	30	16	1.1E-01	1.0E+01	1.5E+01	5.3E+01	ACS-SB17-06.5	Sep-89	Yes	1.5E+01
1	SUBSURFACE (2-10')	SVOC	1,3-Dichlorobenzene	541-73-1	30	4	1.1E-01	6.8E+00	1.1E+01	8.8E-01	ACS-SB69-08	Jun-90	Yes	8.8E-01
1	SUBSURFACE (2-10')	SVOC	1,4-Dichlorobenzene	106-46-7	44	7	5.7E-01	5.0E+00	8.0E+00	5.2E+00	ACS-SB17-06.5	Sep-89	Yes	5.2E+00
1	SUBSURFACE (2-10')	SVOC	2,4,5-Trichlorophenol	95-95-4	32	1	2.7E-01	3.2E+01	5.2E+01	2.7E-01	ACS-SB11-10	Aug-89	No (e)	
1	SUBSURFACE (2-10')	SVOC	2,4-Dichlorophenol	120-83-2	32	3	8.9E-02	6.5E+00	1.1E+01	4.1E+00	ACS-SB17-06.5	Sep-89	Yes	4.1E+00
1	SUBSURFACE (2-10')	SVOC	2,4-Dimethylphenol	105-67-9	32	10	7.6E-02	6.8E+00	1.1E+01	1.2E+01	ACS-TP02-03	Aug-89	Yes	1.1E+01
1	SUBSURFACE (2-10')	SVOC	2-Chloronaphthalene	91-58-7	32	1	1.8E+00	6.8E+00	1.1E+01	1.8E+00	ACS-SB70-08	Jun-90	No (e)	
1	SUBSURFACE (2-10')	SVOC	2-Methylnaphthalene	91-57-6	32	23	1.5E-01	4.7E+01	7.2E+01	3.2E+02	ACS-SB70-08	Jun-90	Yes	7.2E+01
1	SUBSURFACE (2-10')	SVOC	2-Methylphenol	95-48-7	30	10	4.2E-02	6.9E+00	1.1E+01	1.5E+01	ACS-SB17-06.5	Sep-89	Yes	1.1E+01
1	SUBSURFACE (2-10')	SVOC	4-Bromophenyl-phenylether	101-55-3	32	1	2.2E+00	6.8E+00	1.1E+01	2.2E+00	ACS-SB20-07	May-90	No (e)	
1	SUBSURFACE (2-10')	SVOC	4-Methylphenol	106-44-5	32	13	5.9E-02	8.2E+00	1.3E+01	4.3E+01	ACS-SB17-06.5	Sep-89	Yes	1.3E+01
1	SUBSURFACE (2-10')	SVOC	Acenaphthene	83-32-9	32	10	6.0E-02	2.7E+01	4.7E+01	1.1E+01	ACS-TP02-03	Aug-89	Yes	1.1E+01
1	SUBSURFACE (2-10')	SVOC	Acenaphthylene	208-96-8	32	3	3.4E-01	6.5E+00	1.0E+01	5.5E+00	ACS-TP02-03	Aug-89	Yes	5.5E+00
1	SUBSURFACE (2-10')	SVOC	Anthracene	120-12-7	32	4	2.2E-02	6.5E+00	1.0E+01	1.1E+00	ACS-SB70-08	Jun-90	Yes	1.1E+00
1	SUBSURFACE (2-10')	SVOC	Benzo(a)anthracene	56-55-3	32	1	1.7E-01	6.8E+00	1.1E+01	1.7E-01	ACS-SB10-05	Aug-89	No (e)	
1	SUBSURFACE (2-10')	SVOC	Benzo(a)pyrene	50-32-8	46	1	1.8E-01	5.1E+00	7.9E+00	1.8E-01	SS01-AVG	Sep-96	No (e)	
1	SUBSURFACE (2-10')	SVOC	Benzo(b)fluoranthene	205-99-2	46	2	1.8E-01	5.0E+00	7.9E+00	3.9E-01	ACS-SB70-08	Jun-90	No (e)	
1	SUBSURFACE (2-10')	SVOC	Benzo(g,h,i)perylene	191-24-2	46	1	1.8E-01	5.1E+00	7.9E+00	1.8E-01	SS01-AVG	Sep-96	No (e)	
1	SUBSURFACE (2-10')	SVOC	Benzo(k)fluoranthene	207-08-9	46	2	1.8E-01	5.0E+00	7.9E+00	3.9E-01	ACS-SB70-08	Jun-90	No (e)	
1	SUBSURFACE (2-10')	SVOC	Benzoic Acid	65-85-0	29	4	4.9E-02	3.5E+01	5.6E+01	1.3E+01	ACS-SB73-05	Jun-90	Yes	1.3E+01
1	SUBSURFACE (2-10')	SVOC	Benzyl Alcohol	100-51-6	30	1	1.4E+00	6.9E+00	1.1E+01	1.4E+00	ACS-SB73-05	Jun-90	No (e)	
1	SUBSURFACE (2-10')	SVOC	Butylbenzylphthalate	85-68-7	32	21	1.9E-01	7.1E+01	1.3E+02	9.6E+02	ACS-TP06-04	Aug-89	Yes	1.3E+02
1	SUBSURFACE (2-10')	SVOC	Chrysene	218-01-9	46	2	8.4E-02	5.0E+00	7.9E+00	2.6E-01	ACS-SB70-08	Jun-90	No (e)	
1	SUBSURFACE (2-10')	SVOC	Di-n-butylphthalate	84-74-2	46	25	1.6E-01	5.4E+01	8.6E+01	6.9E+02	ACS-TP06-04	Aug-89	Yes	8.6E+01
1	SUBSURFACE (2-10')	SVOC	Di-n-octylphthalate	117-84-0	32	10	7.7E-02	6.1E+00	1.0E+01	2.4E+01	ACS-TP06-04	Aug-89	Yes	1.0E+01
1	SUBSURFACE (2-10')	SVOC	Dibenzofuran	132-64-9	32	3	4.5E-01	6.4E+00	1.0E+01	4.2E+00	ACS-TP02-03	Aug-89	Yes	4.2E+00
1	SUBSURFACE (2-10')	SVOC	Diethylphthalate	84-66-2	32	15	4.6E-02	9.7E+00	1.6E+01	1.0E+02	ACS-TP06-04	Aug-89	Yes	1 6E+01
1	SUBSURFACE (2-10')	SVOC	Dimethylphthalate	131-11-3	32	12	4.2E-02	3.0E+01	5.4E+01	3.2E+02	ACS-TP06-04	Aug-89	Yes	5 4E+01
1	SUBSURFACE (2-10')	SVOC	Fluoranthene	206-44-0	32	8	5.4E-02	6.1E+00	1.0E+01	3.8E+00	ACS-TP02-03	Aug-89	Yes	3 8E+00
1	SUBSURFACE (2-10')	SVOC	Fluorene	86-73-7	32	10	1.1E-01	6.5E+00	1.0E+01	1.4E+01	ACS-TP02-03	Aug-89	Yes	1 0E+01
1	SUBSURFACE (2-10')	SVOC	Hexachlorobenzene	118-74-1	46	2	5.2E-01	5.0E+00	7.9E+00	5.9E-01	SB90-03-FT	Jun-93	No (e)	

Table 2-5 Summary of Constituents in Soil Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Depth	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used In Calculations[c] (mg/kg)
1	SUBSURFACE (2-10')	SVOC	Hexachlorobutadiene	87-68-3	46	11	2.1E-01	4.4E+00	6.0E+00	2.2E+01	ACS-TP05-03	Aug-89	Yes	6.0E+00
1	SUBSURFACE (2-10')	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	46	1	1.8E-01	5.1E+00	7.9E+00	1.8E-01	SS01-AVG	Sep-96	No (e)	
1	SUBSURFACE (2-10')	SVOC	Isophorone	78-59-1	46	17	4.1E-02	1.1E+02	2.2E+02	2.6E+03	ACS-TP06-04	Aug-89	Yes	2.2E+02
1	SUBSURFACE (2-10')	SVOC	N-Nitrosodiphenylamine	86-30-6	46	1	1.3E+01	5.1E+00	7.9E+00	1.3E+01	ACS-SB17-06.5	Sep-89	No (e)	
1	SUBSURFACE (2-10')	SVOC	Naphthalene	91-20-3	46	37	3.7E-01	7.3E+01	1.2E+02	8.5E+02	SB91-05-FT	Jun-93	Yes	1.2E+02
1	SUBSURFACE (2-10')	SVOC	Pentachlorophenol	87-86-5	44	9	1.6E-01	1.4E+01	2.0E+01	6.1E+01	ACS-TP05-03	Aug-89	Yes	2.0E+01
1	SUBSURFACE (2-10')	SVOC	Phenanthrene	85-01-8	32	14	2.1E-02	5.2E+00	9.1E+00	2.0E+01	ACS-TP02-03	Aug-89	Yes	9.1E+00
1	SUBSURFACE (2-10')	SVOC	Phenol	108-95-2	32	18	5.3E-02	1.2E+01	2.1E+01	1.7E+02	ACS-TP06-04	Aug-89	Yes	2.1E+01
1	SUBSURFACE (2-10')	SVOC	Pyrene	129-00-0	32	7	7.9E-02	6.2E+00	1.0E+01	5.9E+00	ACS-TP02-03	Aug-89	Yes	5.9E+00
1	SUBSURFACE (2-10')	SVOC	bis(2-Chloroethyl) ether	111-44-4	46	9	9.9E-02	6.6E+00	1.0E+01	6.4E+01	ACS-SB17-06.5	Sep-89	Yes	1.0E+01
1	SUBSURFACE (2-10')	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	46	39	3.9E-02	2.1E+02	3.3E+02	2.6E+03	ACS-TP06-04	Aug-89	Yes	3.3E+02
1	SUBSURFACE (2-10')	P/PCB	4,4'-DDD	72-54-8	38	2	1.5E-02	2.4E+00	4.3E+00	3.6E+00	SS02	Sep-96	Yes	3.6E+00
1	SUBSURFACE (2-10')	P/PCB	4,4'-DDE	72-55-9	38	1	1.6E-02	2.3E+00	4.2E+00	1.6E-02	SS01-AVG	Sep-96	No (e)	
1	SUBSURFACE (2-10')	P/PCB	4,4'-DDT	50-29-3	37	3	5.0E-02	2.8E+00	4.8E+00	1.2E+01	ACS-SB17-06.5	Sep-89	Yes	4.8E+00
1	SUBSURFACE (2-10')	P/PCB	Aroclor-1242	53469-21-9	57	8	1.3E-01	1.8E+01	3.1E+01	4.0E+02	ACS-TP02-03	Aug-89	Yes	3.1E+01
1	SUBSURFACE (2-10')	P/PCB	Aroclor-1248	12672-29-6	57	13	5.3E-01	1.4E+01	2.1E+01	7.6E+01	ACS-SB20-07	May-90	Yes	2.1E+01
1	SUBSURFACE (2-10')	P/PCB	Aroclor-1254	11097-69-1	57	24	2.3E-01	2.2E+01	3.5E+01	1.0E+02	ACS-TP02-03	Aug-89	Yes	3.5E+01
1	SUBSURFACE (2-10')	P/PCB	Aroclor-1260	11096-82-5	57	5	3.3E-01	1.7E+01	3.0E+01	2.2E+01	ACS-SB70-08	Jun-90	Yes	2.2E+01
1	SUBSURFACE (2-10')	P/PCB	Dieldrin	60-57-1	38	2	1.0E-02	2.3E+00	4.2E+00	2.4E-01	SS02	Sep-96	Yes	2.4E-01
1	SUBSURFACE (2-10')	P/PCB	Endosulfan I	959-98-8	38	2	1.2E-02	1.2E+00	2.1E+00	1.2E+00	ACS-SB16-06	Sep-89	Yes	1.2E+00
1	SUBSURFACE (2-10')	P/PCB	Endrin	72-20-8	38	2	1.4E-02	2.3E+00	4.2E+00	1.6E+00	SS02	Sep-96	Yes	1.6E+00
1	SUBSURFACE (2-10')	P/PCB	gamma-BHC	58-89-9	37	1	1.1E+00	1.2E+00	2.2E+00	1.1E+00	ACS-SB17-06.5	Sep-89	No (e)	
1	SUBSURFACE (2-10')	P/PCB	gamma-Chlordane	5103-74-2	38	2	7.3E-03	1.1E+01	2.1E+01	1.2E+00	SS02	Sep-96	Yes	1.2E+00
1	SUBSURFACE (2-10')	INORG	Aluminum	7429-90-5	25	25	4.9E+02	3.4E+03	3.9E+03	5.7E+03	SS02	Sep-96	No (d)	
1	SUBSURFACE (2-10')	INORG	Antimony	7440-36-0	9	2	5.3E+00	6.9E+00	1.6E+01	4.7E+01	ACS-TP06-04	Aug-89	Yes	1.6E+01
1	SUBSURFACE (2-10')	INORG	Arsenic	7440-38-2	25	22	9.5E-01	2.9E+00	4.3E+00	2.1E+01	ACS-TP02-05	Aug-89	Yes	4.3E+00
1	SUBSURFACE (2-10')	INORG	Barium	7440-39-3	25	6	8.2E+01	1.2E+02	2.3E+02	1.6E+03	ACS-TP06-04	Aug-89	Yes	2.3E+02
1	SUBSURFACE (2-10')	INORG	Beryllium	7440-41-7	25	22	8.0E-02	1.7E-01	2.1E-01	4.4E-01	ACS-SB12-10	Aug-89	Yes	2.1E-01
1	SUBSURFACE (2-10')	INORG	Cadmium	7440-43-9	25	20	5.0E-02	6.6E+00	1.5E+01	1.2E+02	ACS-TP06-04	Aug-89	Yes	1.5E+01
1	SUBSURFACE (2-10')	INORG	Calcium	7440-70-2	25	24	1.8E+02	7.8E+03	1.1E+04	3.8E+04	ACS-SB09-10	Aug-89	No (d)	
1	SUBSURFACE (2-10')	INORG	Chromium (total)	7440-47-3	25	22	4.6E+00	9.4E+01	1.9E+02	1.4E+03	ACS-TP06-04	Aug-89	Yes	1.9E+02
1	SUBSURFACE (2-10')	INORG	Cobalt	7440-48-4	25	2	2.2E+01	7.9E+00	1.1E+01	4.2E+01	ACS-TP06-04	Aug-89	Yes	1.1E+01
1	SUBSURFACE (2-10')	INORG	Copper	7440-50-8	25	18	6.2E+00	3.9E+01	6.5E+01	3.6E+02	ACS-TP06-04	Aug-89	Yes	6.5E+01
1	SUBSURFACE (2-10')	INORG	Cyanide (total)	57-12-5	25	5	2.7E+00	4.8E+00	9.5E+00	7.1E+01	ACS-TP06-04	Aug-89	Yes	9.5E+00
1	SUBSURFACE (2-10')	INORG	Iron	7439-89-6	25	25	4.8E+02	4.8E+03	5.6E+03	1.0E+04	ACS-TP02-05	Aug-89	No (d)	
1	SUBSURFACE (2-10')	INORG	Lead	7439-92-1	25	25	2.9E+00	4.0E+02	8.4E+02	6.3E+03	ACS-TP06-04	Aug-89	Yes	8.4E+02
1	SUBSURFACE (2-10')	INORG	Magnesium	7439-95-4	25	24	1.0E+02	3.6E+03	8.5E+03	1.7E+04	ACS-SB09-10	Aug-89	No (d)	
1	SUBSURFACE (2-10')	INORG	Manganese	7439-96-5	25	25	4.3E+00	1.6E+02	3.6E+02	1.0E+03	ACS-TP03-09	Aug-89	Yes	3.6E+02
1	SUBSURFACE (2-10')	INORG	Mercury	7439-97-6	25	10	1.6E-01	1.2E+00	2.3E+00	1.2E+01	ACS-TP02-03	Aug-89	Yes	2.3E+00
1	SUBSURFACE (2-10')	INORG	Nickel	7440-02-0	25	6	1.0E+01	7.0E+00	8.6E+00	2.0E+01	ACS-TP06-04	Aug-89	Yes	8.6E+00
1	SUBSURFACE (2-10')	INORG	Potassium	7440-09-7	25	23	1.8E+02	4.1E+02	4.7E+02	7.6E+02	ACS-SB12-10	Aug-89	No (d)	
1	SUBSURFACE (2-10')	INORG	Selenium	7782-49-2	25	4	4.5E-01	4.2E-01	6.0E-01	2.8E+00	ACS-TP06-04	Aug-89	Yes	6.0E-01
1	SUBSURFACE (2-10')	INORG	Sodium	7440-23-5	25	2	5.0E+02	1.9E+02	2.7E+02	1.3E+03	ACS-TP06-04	Aug-89	No (d)	
1	SUBSURFACE (2-10')	INORG	Vanadium	7440-62-2	25	23	1.2E+00	9.3E+00	1.1E+01	2.1E+01	ACS-TP02-05	Aug-89	Yes	1.1E+01
1	SUBSURFACE (2-10')	INORG	Zinc	7440-66-6	25	25	5.3E+00	2.0E+02	3.6E+02	2.3E+03	ACS-TP06-04	Aug-89	Yes	3.6E+02
2	SUBSURFACE (2-10')	VOC	1,1,1-Trichloroethane	71-55-6	28	8	2.7E-02	8.2E+00	1.4E+01	6.5E+01	ACS-SB38-10	Jun-90	Yes	1.4E+01
2	SUBSURFACE (2-10')	VOC	1,1,2,2-Tetrachloroethane	79-34-5	28	2	1.3E-02	4.3E+00	6.8E+00	3.6E-02	SB82-04.5-FT	Jun-93	Yes	3.6E-02
2	SUBSURFACE (2-10')	VOC	1,1,2-Trichloroethane	79-00-5	28	1	6.6E+01	6.4E+00	1.1E+01	6.6E+01	ACS-SB39-10	Jun-90	No (e)	
2	SUBSURFACE (2-10')	VOC	1,1-Dichloroethane	75-34-3	15	3	3.6E-02	7.9E+00	1.2E+01	1.3E+01	ACS-SB39-10	Jun-90	Yes	1.2E+01
2	SUBSURFACE (2-10')	VOC	1,1-Dichloroethene	75-35-4	28	1	8.6E-03	4.3E+00	6.8E+00	8.6E-03	SB81-04-FT	Jun-93	No (e)	
2	SUBSURFACE (2-10')	VOC	1,2-Dichloroethane	107-06-2	28	3	1.1E-01	4.2E+00	6.6E+00	1.8E+01	ACS-SB28-08	May-90	Yes	6.6E+00
2	SUBSURFACE (2-10')	VOC	1,2-Dichloroethene (total)	540-59-0	8	3	5.0E-03	8.6E+00	1.7E+01	3.4E+01	ACS-SB28-08	May-90	Yes	1.7E+01
2	SUBSURFACE (2-10')	VOC	1,2-Dichloropropane	78-87-5	28	5	1.0E-03	4.2E+00	6.7E+00	2.7E+00	ACS-SB39-10	Jun-90	Yes	2.7E+00
2	SUBSURFACE (2-10')	VOC	2-Butanone	78-93-3	28	9	1.4E+00	2.2E+02	5.0E+02	4.5E+03	ACS-SB04-05	Aug-89	Yes	5.0E+02
2	SUBSURFACE (2-10')	VOC	2-Hexanone	591-78-6	15	2	1.6E+01	2.0E+01	3.2E+01	9.1E+01	SA04-S-IEA	Jul-97	Yes	3.2E+01
2	SUBSURFACE (2-10')	VOC	4-Methyl-2-pentanone	108-10-1	28	9	1.4E+00	4.9E+01	8.2E+01	3.6E+02	SA02-S-IEA	Jul-97	Yes	8.2E+01

Table 2-5 Summary of Constituents in Soil Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Depth	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
2	SUBSURFACE (2-10')	VOC	Acetone	67-64-1	28	6	1.7E+00	8.3E+01	1.6E+02	1.2E+03	SA04-S-IEA	Jul-97	Yes	1.6E+02
2	SUBSURFACE (2-10')	VOC	Benzene	71-43-2	28	13	1.0E-02	8.8E+00	1.5E+01	9.6E+01	ACS-SB39-10	Jun-90	Yes	1.5E+01
2	SUBSURFACE (2-10')	VOC	Chlorobenzene	108-90-7	28	1	2.5E+01	4.9E+00	7.8E+00	2.5E+01	ACS-SB39-10	Jun-90	No (e)	
2	SUBSURFACE (2-10')	VOC	Chloroform	67-66-3	28	8	7.0E-03	1.0E+01	1.9E+01	1.4E+02	ACS-SB39-10	Jun-90	Yes	1.9E+01
2	SUBSURFACE (2-10')	VOC	Ethyl Benzene	100-41-4	28	18	4.0E-03	9.4E+01	1.5E+02	6.8E+02	SA02-S-IEA	Jul-97	Yes	1.5E+02
2	SUBSURFACE (2-10')	VOC	Methylene Chloride	75-09-2	28	12	2.0E-02	9.4E+00	1.5E+01	6.8E+01	ACS-SB40-10	Jun-90	Yes	1.5E+01
2	SUBSURFACE (2-10')	VOC	Styrene	100-42-5	28	2	3.0E-02	6.0E+00	9.9E+00	5.2E+01	ACS-SB40-10	Jun-90	Yes	9.9E+00
2	SUBSURFACE (2-10')	VOC	Tetrachloroethene	127-18-4	28	13	2.2E-02	7.1E+01	1.3E+02	8.8E+02	SA04-S-IEA	Jul-97	Yes	1.3E+02
2	SUBSURFACE (2-10')	VOC	Toluene	108-88-3	15	15	5.2E-02	4.3E+02	6.7E+02	1.3E+03	ACS-SB39-10	Jun-90	Yes	6.7E+02
2	SUBSURFACE (2-10')	VOC	Trichloroethene	79-01-6	28	10	1.2E-02	3.1E+01	5.5E+01	3.5E+02	SA04-S-IEA	Jul-97	Yes	5.5E+01
2	SUBSURFACE (2-10')	VOC	Vinyl Chloride	75-01-4	28	3	9.3E-03	8.4E+00	1.3E+01	1.1E-01	SB82-06.5-FT	Jun-93	Yes	1.1E-01
2	SUBSURFACE (2-10')	VOC	Xylenes (total)	1330-20-7	15	15	3.0E-03	8.8E+02	1.4E+03	3.6E+03	SA02-S-IEA	Jul-97	Yes	1.4E+03
2	SUBSURFACE (2-10')	VOC	cis-1,2-Dichloroethene	156-59-2	20	5	1.8E-02	3.1E+00	5.8E+00	2.3E-01	SB82-06.5-FT	Jun-93	Yes	2.3E-01
2	SUBSURFACE (2-10')	VOC	m,p-xylene	136777-61-2	13	9	1.4E-02	4.1E-01	1.1E+00	4.9E+00	SB78-10-FT	Jun-93	Yes	1.1E+00
2	SUBSURFACE (2-10')	VOC	ortho-xylene	95-47-6	13	6	1.2E-02	2.0E-01	5.4E-01	2.5E+00	SB78-10-FT	Jun-93	Yes	5.4E-01
2	SUBSURFACE (2-10')	SVOC	1,2,4-Trichlorobenzene	120-82-1	26	4	1.8E+00	6.1E+00	9.1E+00	1.0E+01	ACS-SB38-10	Jun-90	Yes	9.1E+00
2	SUBSURFACE (2-10')	SVOC	1,2-Dichlorobenzene	95-50-1	13	5	5.3E+00	2.6E+01	5.4E+01	2.1E+02	SA04-S-IEA	Jul-97	Yes	5.4E+01
2	SUBSURFACE (2-10')	SVOC	1,4-Dichlorobenzene	106-46-7	26	2	3.6E-01	6.6E+00	9.7E+00	9.1E-01	ACS-SB38-10	Jun-90	Yes	9.1E-01
2	SUBSURFACE (2-10')	SVOC	2,4-Dimethylphenol	105-67-9	13	4	1.1E+01	2.1E+01	3.3E+01	8.8E+01	SA04-S-IEA	Jul-97	Yes	3.3E+01
2	SUBSURFACE (2-10')	SVOC	2,6-Dinitrotoluene	606-20-2	13	1	3.5E+00	3.4E+01	3.2E+02	3.5E+00	ACS-SB38-10	Jun-90	Yes	3.5E+00
2	SUBSURFACE (2-10')	SVOC	2-Methylnaphthalene	91-57-6	13	7	1.7E-01	8.0E+01	4.8E+03	5.2E+02	ACS-SB39-10	Jun-90	Yes	5.2E+02
2	SUBSURFACE (2-10')	SVOC	2-Methylphenol	95-48-7	13	5	6.7E+00	2.2E+01	3.8E+01	1.2E+02	SA04-S-IEA	Jul-97	Yes	3.8E+01
2	SUBSURFACE (2-10')	SVOC	4-Methylphenol	106-44-5	13	5	1.4E+01	3.0E+01	5.3E+01	1.8E+02	SA04-S-IEA	Jul-97	Yes	5.3E+01
2	SUBSURFACE (2-10')	SVOC	Acenaphthene	83-32-9	13	4	1.5E-01	2.8E+01	5.8E+02	1.5E+01	ACS-SB39-10	Jun-90	Yes	1.5E+01
2	SUBSURFACE (2-10')	SVOC	Anthracene	120-12-7	13	2	2.3E-01	1.2E+01	1.7E+01	1.3E+00	ACS-SB38-10	Jun-90	Yes	1.3E+00
2	SUBSURFACE (2-10')	SVOC	Benzo(a)anthracene	56-55-3	13	2	4.7E-01	1.2E+01	1.7E+01	2.7E+00	ACS-SB38-10	Jun-90	Yes	2.7E+00
2	SUBSURFACE (2-10')	SVOC	Benzo(a)pyrene	50-32-8	26	2	3.8E-01	6.6E+00	9.8E+00	1.5E+00	ACS-SB38-10	Jun-90	Yes	1.5E+00
2	SUBSURFACE (2-10')	SVOC	Benzo(b)fluoranthene	205-99-2	26	2	7.6E-01	6.8E+00	9.9E+00	5.3E+00	ACS-SB38-10	Jun-90	Yes	5.3E+00
2	SUBSURFACE (2-10')	SVOC	Benzo(g,h,i)perylene	191-24-2	26	2	2.3E-01	6.6E+00	9.8E+00	1.5E+00	ACS-SB38-10	Jun-90	Yes	1.5E+00
2	SUBSURFACE (2-10')	SVOC	Benzo(k)fluoranthene	207-08-9	26	2	7.6E-01	6.8E+00	9.9E+00	5.3E+00	ACS-SB38-10	Jun-90	Yes	5.3E+00
2	SUBSURFACE (2-10')	SVOC	Benzoic Acid	65-85-0	13	5	2.3E-01	8.0E+01	1.2E+02	2.4E+02	ACS-SB39-10	Jun-90	Yes	1.2E+02
2	SUBSURFACE (2-10')	SVOC	Benzyl Alcohol	100-51-6	13	2	1.5E+00	1.9E+01	2.7E+01	3.4E+01	ACS-SB39-10	Jun-90	Yes	2.7E+01
2	SUBSURFACE (2-10')	SVOC	Butylbenzylphthalate	85-68-7	13	5	1.6E-01	7.2E+01	5.1E+03	4.2E+02	ACS-SB39-10	Jun-90	Yes	4.2E+02
2	SUBSURFACE (2-10')	SVOC	Chrysene	218-01-9	26	3	4.0E-01	6.1E+00	9.2E+00	3.8E+00	ACS-SB39-10	Jun-90	Yes	3.8E+00
2	SUBSURFACE (2-10')	SVOC	Di-n-butylphthalate	84-74-2	26	9	1.1E-01	4.5E+01	7.5E+01	3.9E+02	ACS-SB39-10	Jun-90	Yes	7.5E+01
2	SUBSURFACE (2-10')	SVOC	Di-n-octylphthalate	117-84-0	13	4	3.7E+00	1.1E+01	1.7E+01	1.3E+01	ACS-SB38-10	Jun-90	Yes	1.3E+01
2	SUBSURFACE (2-10')	SVOC	Dibenzo(a,h)anthracene	53-70-3	26	1	7.0E-02	6.7E+00	9.8E+00	7.0E-02	ACS-SB42-05.5	Jun-90	No (e)	
2	SUBSURFACE (2-10')	SVOC	Dibenzofuran	132-64-9	13	3	1.7E-01	1.2E+01	1.7E+01	2.5E+00	ACS-SB38-10	Jun-90	Yes	2.5E+00
2	SUBSURFACE (2-10')	SVOC	Diethylphthalate	84-66-2	13	4	6.8E+00	1.6E+01	2.5E+01	6.4E+01	ACS-SB39-10	Jun-90	Yes	2.5E+01
2	SUBSURFACE (2-10')	SVOC	Dimethylphthalate	131-11-3	13	3	3.8E+00	3.6E+01	9.6E+02	2.6E+02	ACS-SB39-10	Jun-90	Yes	2.6E+02
2	SUBSURFACE (2-10')	SVOC	Fluoranthene	206-44-0	13	4	3.9E-01	1.1E+01	1.6E+01	4.1E+00	ACS-SB38-10	Jun-90	Yes	4.1E+00
2	SUBSURFACE (2-10')	SVOC	Fluorene	86-73-7	13	4	2.9E-01	1.2E+01	1.8E+01	1.8E+01	ACS-SB39-10	Jun-90	Yes	1.8E+01
2	SUBSURFACE (2-10')	SVOC	Hexachlorobenzene	118-74-1	26	1	9.3E-01	6.6E+00	9.8E+00	9.3E-01	ACS-SB38-10	Jun-90	No (e)	
2	SUBSURFACE (2-10')	SVOC	Hexachlorobutadiene	87-68-3	26	2	2.0E+01	8.9E+00	1.4E+01	6.0E+01	ACS-SB39-10	Jun-90	Yes	1.4E+01
2	SUBSURFACE (2-10')	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	26	2	4.2E-01	6.6E+00	9.8E+00	1.4E+00	ACS-SB38-10	Jun-90	Yes	1.4E+00
2	SUBSURFACE (2-10')	SVOC	Isophorone	78-59-1	26	6	1.2E+01	1.1E+02	2.3E+02	1.8E+03	ACS-SB39-10	Jun-90	Yes	2.3E+02
2	SUBSURFACE (2-10')	SVOC	N-Nitrosodiphenylamine	86-30-6	26	1	6.9E+00	6.3E+00	9.4E+00	6.9E+00	ACS-SB28-08	May-90	No (e)	
2	SUBSURFACE (2-10')	SVOC	Naphthalene	91-20-3	26	9	2.8E-01	6.0E+01	1.0E+02	4.9E+02	ACS-SB39-10	Jun-90	Yes	1.0E+02
2	SUBSURFACE (2-10')	SVOC	Pentachlorophenol	87-86-5	26	3	1.2E+00	3.1E+01	4.6E+01	6.3E+01	ACS-SB39-10	Jun-90	Yes	4.6E+01
2	SUBSURFACE (2-10')	SVOC	Phenanthrene	85-01-8	13	5	7.6E-01	1.2E+01	1.8E+01	2.1E+01	ACS-SB39-10	Jun-90	Yes	1.8E+01
2	SUBSURFACE (2-10')	SVOC	Phenol	108-95-2	13	5	1.2E+01	3.1E+01	5.5E+01	1.7E+02	SA04-S-IEA	Jul-97	Yes	5.5E+01
2	SUBSURFACE (2-10')	SVOC	Pyrene	129-00-0	13	3	7.1E-01	1.1E+01	1.7E+01	8.0E+00	ACS-SB38-10	Jun-90	Yes	8.0E+00
2	SUBSURFACE (2-10')	SVOC	bis(2-Chloroethyl) ether	111-44-4	26	3	1.9E+01	1.1E+01	1.9E+01	1.1E+02	ACS-SB39-10	Jun-90	Yes	1.9E+01
2	SUBSURFACE (2-10')	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	26	14	1.2E+00	1.8E+02	3.4E+02	2.3E+03	ACS-SB39-10	Jun-90	Yes	3.4E+02
2	SUBSURFACE (2-10')	P/PCB	4,4'-DDD	72-54-8	15	1	3.3E+00	9.6E-01	1.5E+00	3.3E+00	ACS-SB36-10	Jun-90	Yes	1.5E+00
2	SUBSURFACE (2-10')	P/PCB	4,4'-DDE	72-55-9	15	1	8.8E-01	8.0E-01	1.2E+00	8.8E-01	ACS-SB36-10	Jun-90	Yes	8.8E-01

Table 2-5 Summary of Constituents in Soil Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Depth	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
2	SUBSURFACE (2-10')	P/PCB	4,4'-DDT	50-29-3	15	1	1.7E+00	8.3E-01	1.2E+00	1.7E+00	ACS-SB38-10	Jun-90	Yes	1.2E+00
2	SUBSURFACE (2-10')	P/PCB	Aldrin	309-00-2	15	1	7.7E+00	7.9E-01	6.0E+00	7.7E+00	ACS-SB39-10	Jun-90	Yes	6.0E+00
2	SUBSURFACE (2-10')	P/PCB	Aroclor-1242	53469-21-9	28	1	8.7E+00	1.1E+01	2.6E+01	8.7E+00	ACS-SB40-10	Jun-90	No (e)	
2	SUBSURFACE (2-10')	P/PCB	Aroclor-1248	12672-29-6	28	4	9.4E+00	2.5E+01	5.0E+01	3.3E+02	SA04-S-IEA	Jul-97	Yes	5.0E+01
2	SUBSURFACE (2-10')	P/PCB	Aroclor-1254	11097-69-1	28	11	2.2E-02	2.4E+01	5.5E+01	3.6E+01	ACS-SB37-10	Jun-90	Yes	3.6E+01
2	SUBSURFACE (2-10')	P/PCB	Aroclor-1260	11096-82-5	28	13	3.6E-02	1.4E+02	3.5E+02	3.4E+03	SB78-07-FT	Jun-93	Yes	3.5E+02
2	SUBSURFACE (2-10')	P/PCB	alpha-BHC	319-84-6	15	1	3.3E-01	3.9E-01	5.9E-01	3.3E-01	ACS-SB36-10	Jun-90	Yes	3.3E-01
2	SUBSURFACE (2-10')	P/PCB	beta-BHC	319-85-7	15	1	8.0E-01	4.2E-01	6.3E-01	8.0E-01	ACS-SB36-10	Jun-90	Yes	6.3E-01
2	SUBSURFACE (2-10')	INORG	Aluminum	7429-90-5	12	12	1.4E+02	4.2E+03	5.3E+03	8.2E+03	D01-S-IEA	Jul-97	No (d)	
2	SUBSURFACE (2-10')	INORG	Antimony	7440-36-0	8	3	1.3E+01	2.8E+01	6.5E+01	1.6E+02	D01-S-IEA	Jul-97	Yes	6.5E+01
2	SUBSURFACE (2-10')	INORG	Arsenic	7440-38-2	12	11	2.3E+00	3.8E+00	4.9E+00	7.8E+00	D02-S-IEA	Jul-97	Yes	4.9E+00
2	SUBSURFACE (2-10')	INORG	Barium	7440-39-3	12	7	3.1E+01	5.1E+02	9.7E+02	2.7E+03	D01-S-IEA	Jul-97	Yes	9.7E+02
2	SUBSURFACE (2-10')	INORG	Beryllium	7440-41-7	12	4	1.0E-01	2.6E-01	3.1E-01	3.4E-01	ACS-SB42-05.5	Jun-90	Yes	3.1E-01
2	SUBSURFACE (2-10')	INORG	Cadmium	7440-43-9	11	11	3.0E-01	2.2E+01	8.7E+02	1.1E+02	D01-S-IEA	Jul-97	Yes	1.1E+02
2	SUBSURFACE (2-10')	INORG	Calcium	7440-70-2	12	11	4.1E+02	1.3E+04	2.1E+04	5.1E+04	ACS-SB42-05.5	Jun-90	No (d)	
2	SUBSURFACE (2-10')	INORG	Chromium (total)	7440-47-3	12	11	1.0E+01	2.8E+02	3.0E+04	1.5E+03	D01-S-IEA	Jul-97	Yes	1.5E+03
2	SUBSURFACE (2-10')	INORG	Cobalt	7440-48-4	12	3	5.6E+00	8.9E+00	1.4E+01	3.3E+01	D01-S-IEA	Jul-97	Yes	1.4E+01
2	SUBSURFACE (2-10')	INORG	Copper	7440-50-8	12	11	1.4E+01	3.7E+02	1.9E+04	1.3E+03	SA02-S-IEA	Jul-97	Yes	1.3E+03
2	SUBSURFACE (2-10')	INORG	Iron	7439-89-6	12	12	7.8E+02	9.2E+03	1.3E+04	1.9E+04	D01-S-IEA	Jul-97	No (d)	
2	SUBSURFACE (2-10')	INORG	Lead	7439-92-1	12	12	2.3E+00	1.7E+03	5.2E+05	1.0E+04	D01-S-IEA	Jul-97	Yes	1.0E+04
2	SUBSURFACE (2-10')	INORG	Magnesium	7439-95-4	12	11	3.9E+02	4.9E+03	8.0E+03	1.9E+04	ACS-SB42-05.5	Jun-90	No (d)	
2	SUBSURFACE (2-10')	INORG	Manganese	7439-96-5	12	12	1.3E+01	1.7E+02	2.4E+02	4.0E+02	D01-S-IEA	Jul-97	Yes	2.4E+02
2	SUBSURFACE (2-10')	INORG	Mercury	7439-97-6	12	8	1.6E-01	1.1E+00	1.4E+01	7.9E+00	SA02-S-IEA	Jul-97	Yes	7.9E+00
2	SUBSURFACE (2-10')	INORG	Nickel	7440-02-0	12	9	4.6E+00	1.7E+01	2.5E+01	5.3E+01	D01-S-IEA	Jul-97	Yes	2.5E+01
2	SUBSURFACE (2-10')	INORG	Potassium	7440-09-7	12	7	3.5E+01	5.7E+02	8.5E+02	1.6E+03	SA01-S-IEA-02	Jul-97	No (d)	
2	SUBSURFACE (2-10')	INORG	Selenium	7782-49-2	12	3	6.4E-01	1.4E+00	2.8E+00	8.3E+00	D01-S-IEA	Jul-97	Yes	2.8E+00
2	SUBSURFACE (2-10')	INORG	Silver	7440-22-4	12	2	3.8E+00	4.2E+00	9.8E+00	3.5E+01	D01-S-IEA	Jul-97	Yes	9.8E+00
2	SUBSURFACE (2-10')	INORG	Sodium	7440-23-5	12	2	7.4E+02	3.6E+02	5.3E+02	1.2E+03	D01-S-IEA	Jul-97	No (d)	
2	SUBSURFACE (2-10')	INORG	Thallium	7440-28-0	12	3	7.2E-01	6.4E-01	7.2E-01	1.0E+00	ACS-SB28-08	May-90	Yes	7.2E-01
2	SUBSURFACE (2-10')	INORG	Vanadium	7440-62-2	12	10	6.7E+00	7.8E+00	9.6E+00	1.2E+01	SA04-S-IEA	Jul-97	Yes	9.6E+00
2	SUBSURFACE (2-10')	INORG	Zinc	7440-66-6	12	12	7.8E+00	1.7E+03	3.3E+03	8.3E+03	D01-S-IEA	Jul-97	Yes	3.3E+03
3	SURFACE (0-2')	VOC	1,1,1-Trichloroethane	71-55-6	2	1	9.0E-03	6.1E-02	3.9E-01	9.0E-03	ACS-SA01-03	Jul-89	Yes	9.0E-03
3	SURFACE (0-2')	VOC	1,1-Dichloroethane	75-34-3	2	1	8.6E-02	9.9E-02	1.8E-01	8.6E-02	ACS-SA01-03	Jul-89	Yes	8.6E-02
3	SURFACE (0-2')	VOC	1,2-Dichloroethene (total)	540-59-0	2	2	2.1E-02	3.8E+00	2.8E+01	7.6E+00	ACS-SA02-03	Jul-89	Yes	7.6E+00
3	SURFACE (0-2')	VOC	1,2-Dichloropropane	78-87-5	2	1	1.9E-02	6.6E-02	3.6E-01	1.9E-02	ACS-SA01-03	Jul-89	Yes	1.9E-02
3	SURFACE (0-2')	VOC	Acetone	67-64-1	2	1	1.3E-01	1.8E-01	4.8E-01	1.3E-01	ACS-SA01-03	Jul-89	Yes	1.3E-01
3	SURFACE (0-2')	VOC	Benzene	71-43-2	2	2	3.2E-01	1.8E+00	1.1E+01	3.2E+00	ACS-SA02-03	Jul-89	Yes	3.2E+00
3	SURFACE (0-2')	VOC	Chlorobenzene	108-90-7	2	1	6.2E+00	3.1E+00	2.3E+01	6.2E+00	ACS-SA02-03	Jul-89	Yes	6.2E+00
3	SURFACE (0-2')	VOC	Chloroform	67-66-3	2	1	1.0E-02	6.1E-02	3.8E-01	1.0E-02	ACS-SA01-03	Jul-89	Yes	1.0E-02
3	SURFACE (0-2')	VOC	Ethyl Benzene	100-41-4	2	2	7.0E+00	7.4E+01	4.9E+02	1.4E+02	ACS-SA02-03	Jul-89	Yes	1.4E+02
3	SURFACE (0-2')	VOC	Methylene Chloride	75-09-2	2	1	2.0E-01	8.3E-01	4.8E+00	2.0E-01	ACS-SA01-03	Jul-89	Yes	2.0E-01
3	SURFACE (0-2')	VOC	Styrene	100-42-5	2	1	2.3E+01	1.2E+01	8.4E+01	2.3E+01	ACS-SA02-03	Jul-89	Yes	2.3E+01
3	SURFACE (0-2')	VOC	Tetrachloroethene	127-18-4	2	2	1.3E-01	1.3E+02	9.1E+02	2.5E+02	ACS-SA02-03	Jul-89	Yes	2.5E+02
3	SURFACE (0-2')	VOC	Toluene	108-88-3	2	2	2.9E+01	3.3E+02	2.3E+03	6.4E+02	ACS-SA02-03	Jul-89	Yes	6.4E+02
3	SURFACE (0-2')	VOC	Trichloroethene	79-01-6	2	2	1.1E-02	5.0E+01	3.7E+02	1.0E+02	ACS-SA02-03	Jul-89	Yes	1.0E+02
3	SURFACE (0-2')	VOC	Xylenes (total)	1330-20-7	2	2	4.4E+01	3.1E+02	2.0E+03	5.7E+02	ACS-SA02-03	Jul-89	Yes	5.7E+02
3	SURFACE (0-2')	SVOC	1,2-Dichlorobenzene	95-50-1	2	1	5.9E-01	4.6E-01	1.3E+00	5.9E-01	ACS-SA02-03	Jul-89	Yes	5.9E-01
3	SURFACE (0-2')	SVOC	2,4,5-Trichlorophenol	95-95-4	2	1	1.7E-01	4.9E+00	3.5E+01	1.7E-01	ACS-SA01-03	Jul-89	Yes	1.7E-01
3	SURFACE (0-2')	SVOC	2,4-Dimethylphenol	105-67-9	2	2	1.3E+00	3.1E+00	1.4E+01	4.9E+00	ACS-SA02-03	Jul-89	Yes	4.9E+00
3	SURFACE (0-2')	SVOC	2-Methylnaphthalene	91-57-6	2	2	5.5E+00	1.1E+01	4.8E+01	1.7E+01	ACS-SA02-03	Jul-89	Yes	1.7E+01
3	SURFACE (0-2')	SVOC	2-Methylphenol	95-48-7	2	1	4.7E+00	2.5E+00	1.6E+01	4.7E+00	ACS-SA02-03	Jul-89	Yes	4.7E+00
3	SURFACE (0-2')	SVOC	4-Methylphenol	106-44-5	2	1	4.6E+00	2.5E+00	1.6E+01	4.6E+00	ACS-SA02-03	Jul-89	Yes	4.6E+00
3	SURFACE (0-2')	SVOC	Acenaphthene	83-32-9	2	1	3.6E-01	5.0E+00	3.4E+01	3.6E-01	ACS-SA01-03	Jul-89	Yes	3.6E-01
3	SURFACE (0-2')	SVOC	Anthracene	120-12-7	2	1	6.6E-01	1.3E+00	5.5E+00	6.6E-01	ACS-SA01-03	Jul-89	Yes	6.6E-01
3	SURFACE (0-2')	SVOC	Benzo(a)anthracene	56-55-3	2	1	2.4E+00	2.2E+00	3.5E+00	2.4E+00	ACS-SA01-03	Jul-89	Yes	2.4E+00
3	SURFACE (0-2')	SVOC	Benzo(b)fluoranthene	205-99-2	2	1	4.3E-01	1.2E+00	6.1E+00	4.3E-01	ACS-SA01-03	Jul-89	Yes	4.3E-01

Table 2-5 Summary of Constituents in Soil Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Depth	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
3	SURFACE (0-2')	SVOC	Benzo(k)fluoranthene	207-08-9	2	1	4.3E-01	1.2E+00	6.1E+00	4.3E-01	ACS-SA01-03	Jul-89	Yes	4.3E-01
3	SURFACE (0-2')	SVOC	Butylbenzylphthalate	85-68-7	2	2	3.2E+00	1.0E+01	5.4E+01	1.7E+01	ACS-SA02-03	Jul-89	Yes	1.7E+01
3	SURFACE (0-2')	SVOC	Chrysene	218-01-9	2	1	1.3E+00	1.6E+00	3.8E+00	1.3E+00	ACS-SA01-03	Jul-89	Yes	1.3E+00
3	SURFACE (0-2')	SVOC	Di-n-butylphthalate	84-74-2	2	2	1.1E+01	1.3E+01	2.6E+01	1.5E+01	ACS-SA02-03	Jul-89	Yes	1.5E+01
3	SURFACE (0-2')	SVOC	Di-n-octylphthalate	117-84-0	2	1	1.3E+00	8.2E-01	3.9E+00	1.3E+00	ACS-SA02-03	Jul-89	Yes	1.3E+00
3	SURFACE (0-2')	SVOC	Dibenzofuran	132-64-9	2	1	4.3E-01	1.2E+00	6.1E+00	4.3E-01	ACS-SA01-03	Jul-89	Yes	4.3E-01
3	SURFACE (0-2')	SVOC	Diethylphthalate	84-66-2	2	1	1.5E-01	1.1E+00	6.8E+00	1.5E-01	ACS-SA01-03	Jul-89	Yes	1.5E-01
3	SURFACE (0-2')	SVOC	Dimethylphthalate	131-11-3	2	1	1.4E+00	8.7E-01	4.2E+00	1.4E+00	ACS-SA02-03	Jul-89	Yes	1.4E+00
3	SURFACE (0-2')	SVOC	Fluoranthene	206-44-0	2	1	3.4E+00	2.7E+00	7.2E+00	3.4E+00	ACS-SA01-03	Jul-89	Yes	3.4E+00
3	SURFACE (0-2')	SVOC	Fluorene	86-73-7	2	2	4.7E-01	5.4E-01	9.8E-01	6.1E-01	ACS-SA01-03	Jul-89	Yes	6.1E-01
3	SURFACE (0-2')	SVOC	Isophorone	78-59-1	2	2	8.4E+00	2.4E+01	1.2E+02	4.0E+01	ACS-SA02-03	Jul-89	Yes	4.0E+01
3	SURFACE (0-2')	SVOC	N-Nitrosodiphenylamine	86-30-6	2	1	4.3E+00	2.3E+00	1.5E+01	4.3E+00	ACS-SA02-03	Jul-89	Yes	4.3E+00
3	SURFACE (0-2')	SVOC	Naphthalene	91-20-3	2	2	9.9E+00	1.9E+01	7.6E+01	2.8E+01	ACS-SA02-03	Jul-89	Yes	2.8E+01
3	SURFACE (0-2')	SVOC	Pentachlorophenol	87-86-5	2	1	1.5E+00	5.6E+00	3.1E+01	1.5E+00	ACS-SA01-03	Jul-89	Yes	1.5E+00
3	SURFACE (0-2')	SVOC	Phenanthrene	85-01-8	2	2	4.5E-01	1.8E+00	1.0E+01	3.1E+00	ACS-SA01-03	Jul-89	Yes	3.1E+00
3	SURFACE (0-2')	SVOC	Phenol	108-95-2	2	2	7.0E-01	3.6E+00	2.2E+01	6.4E+00	ACS-SA02-03	Jul-89	Yes	6.4E+00
3	SURFACE (0-2')	SVOC	Pyrene	129-00-0	2	1	2.3E+00	2.1E+00	3.2E+00	2.3E+00	ACS-SA01-03	Jul-89	Yes	2.3E+00
3	SURFACE (0-2')	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	2	2	2.9E+02	3.6E+02	8.0E+02	4.3E+02	ACS-SA01-03	Jul-89	Yes	4.3E+02
3	SURFACE (0-2')	P/PCB	4,4'-DDD	72-54-8	14	3	2.5E-02	2.1E-01	3.3E-01	1.5E-01	ACS-SB46-01	Jun-90	Yes	1.5E-01
3	SURFACE (0-2')	P/PCB	Aroclor-1242	53469-21-9	14	3	1.5E+01	6.4E+00	1.2E+01	4.2E+01	ACS-SA01-03	Jul-89	Yes	1.2E+01
3	SURFACE (0-2')	P/PCB	Aroclor-1248	12672-29-6	14	3	5.1E+00	3.6E+00	7.0E+00	2.7E+01	ACS-SB48-01	Jun-90	Yes	7.0E+00
3	SURFACE (0-2')	P/PCB	Aroclor-1254	11097-69-1	14	5	2.0E+00	5.6E+00	9.2E+00	2.2E+01	ACS-SB48-01	Jun-90	Yes	9.2E+00
3	SURFACE (0-2')	P/PCB	Heptachlor	76-44-8	14	1	8.8E-02	1.1E-01	1.7E-01	8.8E-02	ACS-SB46-01	Jun-90	Yes	8 8E-02
3	SURFACE (0-2')	P/PCB	Heptachlor epoxide	1024-57-3	14	1	4.2E-02	1.1E-01	1.6E-01	4.2E-02	ACS-SB46-01	Jun-90	Yes	4.2E-02
3	SURFACE (0-2')	INORG	Aluminum	7429-90-5	2	2	4.7E+03	7.1E+03	2.2E+04	9.5E+03	ACS-SA01-03	Jul-89	No (d)	
3	SURFACE (0-2')	INORG	Antimony	7440-36-0	2	2	3.7E+01	5.2E+01	1.5E+02	6.8E+01	ACS-SA02-03	Jul-89	Yes	6.8E+01
3	SURFACE (0-2')	INORG	Arsenic	7440-38-2	2	2	4.4E+00	1.8E+01	1.0E+02	3.1E+01	ACS-SA02-03	Jul-89	Yes	3.1E+01
3	SURFACE (0-2')	INORG	Barium	7440-39-3	2	2	1.8E+03	2.1E+03	4.3E+03	2.5E+03	ACS-SA01-03	Jul-89	Yes	2.5E+03
3	SURFACE (0-2')	INORG	Beryllium	7440-41-7	2	2	1.6E-01	8.3E-01	5.1E+00	1.5E+00	ACS-SA01-03	Jul-89	Yes	1.5E+00
3	SURFACE (0-2')	INORG	Cadmium	7440-43-9	2	2	1.2E+02	1.4E+02	2.7E+02	1.6E+02	ACS-SA02-03	Jul-89	Yes	1.6E+02
3	SURFACE (0-2')	INORG	Calcium	7440-70-2	2	2	1.9E+04	8.8E+04	5.2E+05	1.6E+05	ACS-SA01-03	Jul-89	No (d)	
3	SURFACE (0-2')	INORG	Chromium (total)	7440-47-3	2	2	8.6E+02	1.1E+03	2.5E+03	1.3E+03	ACS-SA02-03	Jul-89	Yes	1.3E+03
3	SURFACE (0-2')	INORG	Cobalt	7440-48-4	2	2	4.2E+01	5.0E+01	9.6E+01	5.7E+01	ACS-SA01-03	Jul-89	Yes	5.7E+01
3	SURFACE (0-2')	INORG	Copper	7440-50-8	2	2	3.8E+02	7.8E+02	3.3E+03	1.2E+03	ACS-SA01-03	Jul-89	Yes	1.2E+03
3	SURFACE (0-2')	INORG	Cyanide (total)	57-12-5	2	2	2.0E+01	3.4E+01	1.2E+02	4.8E+01	ACS-SA02-03	Jul-89	Yes	4.8E+01
3	SURFACE (0-2')	INORG	Iron	7439-89-6	2	2	9.2E+03	1.1E+04	2.2E+04	1.3E+04	ACS-SA01-03	Jul-89	No (d)	
3	SURFACE (0-2')	INORG	Lead	7439-92-1	2	2	5.8E+03	8.3E+03	2.4E+04	1.1E+04	ACS-SA01-03	Jul-89	Yes	1.1E+04
3	SURFACE (0-2')	INORG	Magnesium	7439-95-4	2	2	2.3E+03	2.0E+04	1.3E+05	3.7E+04	ACS-SA01-03	Jul-89	No (d)	
3	SURFACE (0-2')	INORG	Manganese	7439-96-5	2	2	1.4E+02	8.4E+02	5.3E+03	1.5E+03	ACS-SA01-03	Jul-89	Yes	1.5E+03
3	SURFACE (0-2')	INORG	Mercury	7439-97-6	2	2	9.2E+00	9.4E+00	1.0E+01	9.5E+00	ACS-SA02-03	Jul-89	Yes	9.5E+00
3	SURFACE (0-2')	INORG	Nickel	7440-02-0	2	2	2.3E+01	3.8E+01	1.3E+02	5.3E+01	ACS-SA01-03	Jul-89	Yes	5.3E+01
3	SURFACE (0-2')	INORG	Potassium	7440-09-7	2	2	3.8E+02	9.0E+02	4.2E+03	1.4E+03	ACS-SA01-03	Jul-89	No (d)	
3	SURFACE (0-2')	INORG	Selenium	7782-49-2	2	2	8.8E+00	1.3E+01	4.0E+01	1.7E+01	ACS-SA01-03	Jul-89	Yes	1.7E+01
3	SURFACE (0-2')	INORG	Sodium	7440-23-5	2	2	4.6E+02	8.3E+02	3.1E+03	1.2E+03	ACS-SA01-03	Jul-89	No (d)	
3	SURFACE (0-2')	INORG	Vanadium	7440-62-2	2	2	1.2E+01	1.9E+01	6.4E+01	2.6E+01	ACS-SA02-03	Jul-89	Yes	2.6E+01
3	SURFACE (0-2')	INORG	Zinc	7440-66-6	2	2	3.6E+03	9.4E+03	4.6E+04	1.5E+04	ACS-SA02-03	Jul-89	Yes	1.5E+04
3	SUBSURFACE (2-10')	VOC	1,1,1-Trichloroethane	71-55-6	29	4	8.3E-02	2.7E+02	7.2E+02	7.6E+03	ACS-SB30-10	May-90	Yes	7.2E+02
3	SUBSURFACE (2-10')	VOC	1,1,2-Trichloroethane	79-00-5	29	1	6.3E-01	9.5E+01	2.4E+02	6.3E-01	ACS-SB29-08	May-90	No (e)	
3	SUBSURFACE (2-10')	VOC	1,1-Dichloroethane	75-34-3	24	5	5.0E-03	1.1E+02	2.9E+02	1.7E+00	ACS-SB29-08	May-90	Yes	1.7E+00
3	SUBSURFACE (2-10')	VOC	1,2-Dichloroethane	107-06-2	29	2	4.4E-02	9.5E+01	2.4E+02	8.1E-01	ACS-SB29-08	May-90	Yes	8.1E-01
3	SUBSURFACE (2-10')	VOC	1,2-Dichloroethene (total)	540-59-0	21	4	3.6E-01	1.3E+02	3.3E+02	2.6E+01	ACS-SB44-04.5	Jun-90	Yes	2.6E+01
3	SUBSURFACE (2-10')	VOC	1,2-Dichloropropane	78-87-5	29	2	3.5E-02	9.5E+01	2.4E+02	5 5E-01	ACS-SB29-08	May-90	Yes	5.5E-01
3	SUBSURFACE (2-10')	VOC	2-Butanone	78-93-3	29	7	5.0E-03	3.4E+03	9.2E+03	9.9E+04	ACS-SB30-10	May-90	Yes	9.2E+03
3	SUBSURFACE (2-10')	VOC	2-Hexanone	591-78-6	24	2	4.0E-03	2.3E+02	5.8E+02	3.9E-01	ACS-SB47-04.5	Jun-90	Yes	3 9E-01
3	SUBSURFACE (2-10')	VOC	4-Methyl-2-pentanone	108-10-1	29	9	2.0E-03	2.2E+03	5.7E+03	6.1E+04	ACS-SB30-10	May-90	Yes	5.7E+03
3	SUBSURFACE (2-10')	VOC	Acetone	67-64-1	29	6	7.9E-02	1.2E+03	3.2E+03	3.4E+04	ACS-SB30-10	May-90	Yes	3.2E+03

Table 2-5 Summary of Constituents in Soil Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Depth	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
3	SUBSURFACE (2-10')	VOC	Benzene	71-43-2	29	8	2.0E-03	6.3E+01	1.5E+02	1.5E+03	ACS-SB30-10	May-90	Yes	1.5E+02
3	SUBSURFACE (2-10')	VOC	Carbon Disulfide	75-15-0	24	1	3.0E-03	1.1E+02	2.9E+02	3.0E-03	ACS-SB47-04.5	Jun-90	No (e)	
3	SUBSURFACE (2-10')	VOC	Chlorobenzene	108-90-7	29	5	1.8E-02	4.5E+01	1.0E+02	1.0E+03	ACS-SB30-10	May-90	Yes	1.0E+02
3	SUBSURFACE (2-10')	VOC	Chloroethane	75-00-3	29	1	1.2E-02	1.9E+02	4.7E+02	1.2E-02	ACS-SB47-04.5	Jun-90	No (e)	
3	SUBSURFACE (2-10')	VOC	Chloroform	67-66-3	29	3	1.0E-03	9.5E+01	2.4E+02	3.0E-03	ACS-SB47-04.5	Jun-90	Yes	3.0E-03
3	SUBSURFACE (2-10')	VOC	Ethyl Benzene	100-41-4	29	22	2.0E-03	1.0E+03	2.4E+03	2.3E+04	ACS-SB30-10	May-90	Yes	2.4E+03
3	SUBSURFACE (2-10')	VOC	Methylene Chloride	75-09-2	29	4	2.3E-02	1.1E+02	2.9E+02	2.7E+00	SB84-05-FT	Jun-93	Yes	2.7E+00
3	SUBSURFACE (2-10')	VOC	Styrene	100-42-5	29	4	5.8E-02	1.1E+02	2.6E+02	3.1E+02	ACS-SB29-08	May-90	Yes	2.6E+02
3	SUBSURFACE (2-10')	VOC	Tetrachloroethene	127-18-4	29	14	2.0E-03	1.6E+03	4.3E+03	4.6E+04	ACS-SB30-10	May-90	Yes	4.3E+03
3	SUBSURFACE (2-10')	VOC	Toluene	108-88-3	24	20	1.0E-03	6.4E+03	1.6E+04	1.3E+05	ACS-SB30-10	May-90	Yes	1.6E+04
3	SUBSURFACE (2-10')	VOC	Trichloroethene	79-01-6	29	8	2.0E-02	6.7E+02	1.8E+03	1.9E+04	ACS-SB30-10	May-90	Yes	1.8E+03
3	SUBSURFACE (2-10')	VOC	Vinyl Chloride	75-01-4	29	1	1.2E-02	2.1E+02	4.9E+02	1.2E-02	SB87-07-FT	Jun-93	No (e)	
3	SUBSURFACE (2-10')	VOC	Xylenes (total)	1330-20-7	24	22	1.0E-02	5.7E+03	1.3E+04	1.0E+05	ACS-SB30-10	May-90	Yes	1.3E+04
3	SUBSURFACE (2-10')	VOC	cis-1,2-Dichloroethene	156-59-2	8	1	2.2E-02	9.6E+00	2.1E+01	2.2E-02	SB87-07-FT	Jun-93	Yes	2.2E-02
3	SUBSURFACE (2-10')	VOC	m,p-xylene	136777-61-2	5	2	1.2E+02	4.8E+01	1.1E+02	1.2E+02	SB84-05-FT	Jun-93	Yes	1.1E+02
3	SUBSURFACE (2-10')	VOC	ortho-xylene	95-47-6	5	4	1.0E-02	1.4E+01	4.2E+01	6.7E+01	SB84-05-FT	Jun-93	Yes	4.2E+01
3	SUBSURFACE (2-10')	SVOC	1,2-Dichlorobenzene	95-50-1	12	2	2.0E-01	7.2E+00	1.3E+01	2.6E-01	ACS-SB02-07	Aug-89	Yes	2.6E-01
3	SUBSURFACE (2-10')	SVOC	1,4-Dichlorobenzene	106-46-7	17	1	9.3E-02	5.4E+00	9.2E+00	9.3E-02	ACS-SB41-05.5	Jun-90	Yes	9.3E-02
3	SUBSURFACE (2-10')	SVOC	2,4-Dimethylphenol	105-67-9	12	4	3.9E-02	1.0E+01	1.9E+01	6.2E+01	ACS-SB30-10	May-90	Yes	1.9E+01
3	SUBSURFACE (2-10')	SVOC	2,4-Dinitrotoluene	121-14-2	17	1	8.4E-01	5.4E+00	9.2E+00	8.4E-01	ACS-SB02-07	Aug-89	Yes	8.4E-01
3	SUBSURFACE (2-10')	SVOC	2-Methylnaphthalene	91-57-6	12	8	2.9E-01	2.9E+01	6.0E+01	2.1E+02	ACS-SB30-10	May-90	Yes	6.0E+01
3	SUBSURFACE (2-10')	SVOC	2-Methylphenol	95-48-7	12	4	8.0E-02	6.7E+00	1.1E+01	2.1E+01	ACS-SB30-10	May-90	Yes	1.1E+01
3	SUBSURFACE (2-10')	SVOC	4-Methylphenol	106-44-5	12	7	4.1E-02	5.9E+00	1.0E+01	2.2E+01	ACS-SB30-10	May-90	Yes	1.0E+01
3	SUBSURFACE (2-10')	SVOC	4-Nitrophenol	100-02-7	12	1	6.6E-02	1.5E+01	2.7E+01	6.6E-02	ACS-TP01-06	Aug-89	Yes	6.6E-02
3	SUBSURFACE (2-10')	SVOC	Acenaphthene	83-32-9	12	2	4.3E-01	2.7E+01	5.2E+01	7.1E-01	ACS-SB02-07	Aug-89	Yes	7.1E-01
3	SUBSURFACE (2-10')	SVOC	Anthracene	120-12-7	12	2	8.9E-01	7.4E+00	1.3E+01	1.2E+00	ACS-SB41-05.5	Jun-90	Yes	1.2E+00
3	SUBSURFACE (2-10')	SVOC	Benzo(a)anthracene	56-55-3	12	3	8.5E-01	7.6E+00	1.3E+01	2.1E+00	ACS-SB02-07	Aug-89	Yes	2.1E+00
3	SUBSURFACE (2-10')	SVOC	Benzo(a)pyrene	50-32-8	17	3	6.1E-01	5.5E+00	9.3E+00	1.4E+00	ACS-SB41-05.5	Jun-90	Yes	1.4E+00
3	SUBSURFACE (2-10')	SVOC	Benzo(b)fluoranthene	205-99-2	17	3	2.2E+00	5.8E+00	9.5E+00	3.9E+00	ACS-SB01-03	Aug-89	Yes	3.9E+00
3	SUBSURFACE (2-10')	SVOC	Benzo(g,h,i)perylene	191-24-2	17	3	2.6E-01	5.4E+00	9.2E+00	1.1E+00	ACS-SB01-03	Aug-89	Yes	1.1E+00
3	SUBSURFACE (2-10')	SVOC	Benzo(k)fluoranthene	207-08-9	17	3	2.2E+00	5.8E+00	9.5E+00	3.9E+00	ACS-SB01-03	Aug-89	Yes	3.9E+00
3	SUBSURFACE (2-10')	SVOC	Benzoic Acid	65-85-0	12	5	7.9E-02	3.8E+01	1.5E+04	2.3E+02	ACS-SB30-10	May-90	Yes	2.3E+02
3	SUBSURFACE (2-10')	SVOC	Butylbenzylphthalate	85-68-7	12	6	3.5E+00	2.0E+01	3.4E+01	6.6E+01	ACS-SB30-10	May-90	Yes	3.4E+01
3	SUBSURFACE (2-10')	SVOC	Chrysene	218-01-9	17	3	1.3E+00	5.6E+00	9.3E+00	1.6E+00	ACS-SB41-05.5	Jun-90	Yes	1.6E+00
3	SUBSURFACE (2-10')	SVOC	Di-n-butylphthalate	84-74-2	17	13	3.9E-02	4.0E+01	6.7E+01	2.4E+02	ACS-SB30-10	May-90	Yes	6.7E+01
3	SUBSURFACE (2-10')	SVOC	Di-n-octylphthalate	117-84-0	12	6	4.5E-01	9.5E+00	1.6E+01	3.8E+01	ACS-SB01-03	Aug-89	Yes	1.6E+01
3	SUBSURFACE (2-10')	SVOC	Dibenzo(a,h)anthracene	53-70-3	17	2	1.9E-01	5.4E+00	9.2E+00	2.7E-01	ACS-SB01-03	Aug-89	Yes	2.7E-01
3	SUBSURFACE (2-10')	SVOC	Dibenzofuran	132-64-9	12	4	7.1E-02	7.3E+00	1.3E+01	6.4E-01	ACS-SB02-07	Aug-89	Yes	6.4E-01
3	SUBSURFACE (2-10')	SVOC	Diethylphthalate	84-66-2	12	3	1.3E+00	5.6E+00	1.0E+01	5.0E+00	ACS-TP01-03.5	Aug-89	Yes	5.0E+00
3	SUBSURFACE (2-10')	SVOC	Dimethylphthalate	131-11-3	12	2	6.5E+00	6.5E+00	1.0E+01	1.6E+01	ACS-SB30-10	May-90	Yes	1.0E+01
3	SUBSURFACE (2-10')	SVOC	Fluoranthene	206-44-0	12	4	4.0E-02	8.3E+00	1.3E+01	6.1E+00	ACS-SB41-05.5	Jun-90	Yes	6.1E+00
3	SUBSURFACE (2-10')	SVOC	Fluorene	86-73-7	12	4	9.2E-02	7.4E+00	1.3E+01	9.8E-01	ACS-SB41-05.5	Jun-90	Yes	9.8E-01
3	SUBSURFACE (2-10')	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	17	2	5.5E-01	5.4E+00	9.2E+00	8.2E-01	ACS-SB01-03	Aug-89	Yes	8.2E-01
3	SUBSURFACE (2-10')	SVOC	Isophorone	78-59-1	17	9	1.4E-01	2.4E+02	6.0E+02	3.6E+03	ACS-SB30-10	May-90	Yes	6.0E+02
3	SUBSURFACE (2-10')	SVOC	N-Nitrosodiphenylamine	86-30-6	17	2	1.8E-01	5.5E+00	9.3E+00	1.9E+00	ACS-SB01-03	Aug-89	Yes	1.9E+00
3	SUBSURFACE (2-10')	SVOC	Naphthalene	91-20-3	17	12	5.4E-02	5.8E+01	1.3E+02	6.8E+02	ACS-SB30-10	May-90	Yes	1.3E+02
3	SUBSURFACE (2-10')	SVOC	Pentachlorophenol	87-86-5	17	3	4.5E-02	2.7E+01	4.5E+01	1.6E+01	ACS-SB02-07	Aug-89	Yes	1.6E+01
3	SUBSURFACE (2-10')	SVOC	Phenanthrene	85-01-8	12	5	2.2E-01	7.0E+00	1.2E+01	6.4E+00	ACS-SB41-05.5	Jun-90	Yes	6.4E+00
3	SUBSURFACE (2-10')	SVOC	Phenol	108-95-2	12	8	5.8E-02	7.8E+01	2.1E+02	8.6E+02	ACS-SB30-10	May-90	Yes	2.1E+02
3	SUBSURFACE (2-10')	SVOC	Pyrene	129-00-0	12	4	7.1E-02	7.9E+00	1.3E+01	4.2E+00	ACS-SB02-07	Aug-89	Yes	4.2E+00
3	SUBSURFACE (2-10')	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	17	15	1.1E-01	6.4E+02	1.5E+03	8.9E+03	ACS-SB30-10	May-90	Yes	1.5E+03
3	SUBSURFACE (2-10')	P/PCB	Aroclor-1242	53469-21-9	29	5	3.2E+00	1.3E+01	2.9E+01	2.8E+02	ACS-TP01-03.5	Aug-89	Yes	2.9E+01
3	SUBSURFACE (2-10')	P/PCB	Aroclor-1248	12672-29-6	29	6	1.6E-01	8.0E+00	1.6E+01	1.3E+02	KP01-S-IEA	Jul-97	Yes	1.6E+01
3	SUBSURFACE (2-10')	P/PCB	Aroclor-1254	11097-69-1	29	9	1.0E+00	6.3E+00	9.5E+00	4.4E+01	ACS-SB30-10	May-90	Yes	9.5E+00
3	SUBSURFACE (2-10')	P/PCB	Aroclor-1260	11096-82-5	29	4	9.8E-01	3.9E+00	6.5E+00	3.6E+01	SP02-S-IEA	Jul-97	Yes	6.5E+00
3	SUBSURFACE (2-10')	INORG	Aluminum	7429-90-5	12	12	2.4E+03	6.5E+03	9.5E+03	1.8E+04	ACS-SB29-08	May-90	No (d)	

Table 2-5 Summary of Constituents in Soil Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Depth	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
3	SUBSURFACE (2-10')	INORG	Antimony	7440-36-0	8	6	9.0E+00	3.8E+01	2.5E+03	1.5E+02	ACS-SB30-10	May-90	Yes	1.5E+02
3	SUBSURFACE (2-10')	INORG	Arsenic	7440-38-2	12	12	1.5E+00	3.1E+00	3.7E+00	5.4E+00	ACS-SB29-08	May-90	Yes	3.7E+00
3	SUBSURFACE (2-10')	INORG	Barium	7440-39-3	12	8	6.7E+01	1.2E+03	2.4E+03	6.4E+03	ACS-SB30-10	May-90	Yes	2.4E+03
3	SUBSURFACE (2-10')	INORG	Beryllium	7440-41-7	12	9	6.0E-02	2.5E-01	3.9E-01	8.0E-01	ACS-SB29-08	May-90	Yes	3.9E-01
3	SUBSURFACE (2-10')	INORG	Cadmium	7440-43-9	12	12	9.0E-02	1.7E+02	4.2E+02	1.7E+03	ACS-SB30-10	May-90	Yes	4.2E+02
3	SUBSURFACE (2-10')	INORG	Calcium	7440-70-2	12	10	4.0E+02	1.6E+04	2.4E+04	4.8E+04	ACS-SB30-10	May-90	No (d)	
3	SUBSURFACE (2-10')	INORG	Chromium (total)	7440-47-3	12	12	4.8E+00	7.3E+02	1.4E+03	3.8E+03	ACS-SB30-10	May-90	Yes	1.4E+03
3	SUBSURFACE (2-10')	INORG	Cobalt	7440-48-4	12	7	8.4E+00	2.5E+01	4.7E+01	1.5E+02	ACS-TP01-03.5	Aug-89	Yes	4.7E+01
3	SUBSURFACE (2-10')	INORG	Copper	7440-50-8	12	9	7.7E+00	9.4E+02	2.0E+03	5.8E+03	ACS-SB30-10	May-90	Yes	2.0E+03
3	SUBSURFACE (2-10')	INORG	Cyanide (total)	57-12-5	9	4	4.6E+00	1.4E+01	2.8E+01	6.6E+01	ACS-TP01-03.5	Aug-89	Yes	2 8E+01
3	SUBSURFACE (2-10')	INORG	Iron	7439-89-6	12	12	2.0E+03	1.4E+04	3.1E+04	7.0E+04	ACS-TP01-03.5	Aug-89	No (d)	
3	SUBSURFACE (2-10')	INORG	Lead	7439-92-1	12	12	5.0E+00	3.5E+03	6.7E+03	1.7E+04	ACS-SB30-10	May-90	Yes	6.7E+03
3	SUBSURFACE (2-10')	INORG	Magnesium	7439-95-4	12	9	5.8E+02	5.7E+03	8.6E+03	1.5E+04	ACS-SB41-05.5	Jun-90	No (d)	
3	SUBSURFACE (2-10')	INORG	Manganese	7439-96-5	12	12	2.6E+01	2.4E+02	6.6E+02	7.3E+02	ACS-TP01-03.5	Aug-89	Yes	6.6E+02
3	SUBSURFACE (2-10')	INORG	Mercury	7439-97-6	12	9	7.0E-02	5.1E+00	1.0E+01	3.6E+01	ACS-SB30-10	May-90	Yes	1.0E+01
3	SUBSURFACE (2-10')	INORG	Nickel	7440-02-0	12	8	1.0E+01	2.7E+01	5.5E+01	2.0E+02	ACS-TP01-03.5	Aug-89	Yes	5.5E+01
3	SUBSURFACE (2-10')	INORG	Potassium	7440-09-7	12	10	2.1E+02	7.2E+02	1.2E+03	3.6E+03	ACS-SB29-08	May-90	No (d)	
3	SUBSURFACE (2-10')	INORG	Selenium	7782-49-2	12	7	1.4E+00	1.4E+01	3.8E+01	1.6E+02	ACS-SB30-10	May-90	Yes	3.8E+01
3	SUBSURFACE (2-10')	INORG	Silver	7440-22-4	12	5	2.5E+00	3.4E+01	8.1E+01	3.1E+02	ACS-SB30-10	May-90	Yes	8.1E+01
3	SUBSURFACE (2-10')	INORG	Sodium	7440-23-5	12	4	2.1E+02	6.9E+02	1.3E+03	3.9E+03	ACS-TP01-03.5	Aug-89	No (d)	
3	SUBSURFACE (2-10')	INORG	Thallium	7440-28-0	12	1	1.5E+00	6.5E-01	8.0E-01	1.5E+00	ACS-SB29-08	May-90	Yes	8 0E-01
3	SUBSURFACE (2-10')	INORG	Vanadium	7440-62-2	12	11	3.9E+00	1.2E+01	1.9E+01	4.8E+01	ACS-TP01-03.5	Aug-89	Yes	1.9E+01
3	SUBSURFACE (2-10')	INORG	Zinc	7440-66-6	12	12	9.4E+00	2.1E+03	1.3E+05	1.6E+04	ACS-TP01-03.5	Aug-89	Yes	1.6E+04
5	SURFACE (0-2')	VOC	Methylene Chloride	75-09-2	2	2	6.0E-03	6.5E-03	9.7E-03	7.0E-03	ACS-SS02-001	Sep-97	Yes	7.0E-03
5	SURFACE (0-2')	VOC	Toluene	108-88-3	2	1	2.0E-03	3.8E-03	1.5E-02	2.0E-03	ACS-SS02-001	Sep-97	Yes	2.0E-03
5	SURFACE (0-2')	SVOC	Benzo(a)anthracene	56-55-3	2	2	5.5E-02	7.2E-02	1.8E-01	8.9E-02	ACS-SS02-001	Sep-97	Yes	8.9E-02
5	SURFACE (0-2')	SVOC	Benzo(a)pyrene	50-32-8	2	2	5.7E-02	8.3E-02	2.5E-01	1.1E-01	ACS-SS02-001	Sep-97	Yes	1.1E-01
5	SURFACE (0-2')	SVOC	Benzo(b)fluoranthene	205-99-2	2	2	5.3E-02	8.2E-02	2.6E-01	1.1E-01	ACS-SS02-001	Sep-97	Yes	1.1E-01
5	SURFACE (0-2')	SVOC	Benzo(g,h,i)perylene	191-24-2	2	2	1.1E-01	1.7E-01	5.1E-01	2.2E-01	ACS-SS01-AVG	Sep-97	Yes	2.2E-01
5	SURFACE (0-2')	SVOC	Benzo(k)fluoranthene	207-08-9	2	2	5.5E-02	7.1E-02	1.7E-01	8.7E-02	ACS-SS02-001	Sep-97	Yes	8.7E-02
5	SURFACE (0-2')	SVOC	Butylbenzylphthalate	85-68-7	2	2	5.3E-02	5.5E-02	6.4E-02	5.6E-02	ACS-SS01-AVG	Sep-97	Yes	5.6E-02
5	SURFACE (0-2')	SVOC	Chrysene	218-01-9	2	2	6.6E-02	8.8E-02	2.3E-01	1.1E-01	ACS-SS02-001	Sep-97	Yes	1.1E-01
5	SURFACE (0-2')	SVOC	Di-n-butylphthalate	84-74-2	2	2	6.8E-02	9.4E-02	2.6E-01	1.2E-01	ACS-SS01-AVG	Sep-97	Yes	1.2E-01
5	SURFACE (0-2')	SVOC	Fluoranthene	206-44-0	2	2	1.1E-01	1.3E-01	2.6E-01	1.5E-01	ACS-SS02-001	Sep-97	Yes	1.5E-01
5	SURFACE (0-2')	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	2	2	4.9E-02	6.8E-02	1.9E-01	8.7E-02	ACS-SS02-001	Sep-97	Yes	8.7E-02
5	SURFACE (0-2')	SVOC	Phenanthrene	85-01-8	2	2	4.7E-02	5.5E-02	1.0E-01	6.2E-02	ACS-SS02-001	Sep-97	Yes	6.2E-02
5	SURFACE (0-2')	SVOC	Pyrene	129-00-0	2	2	1.1E-01	1.3E-01	3.1E-01	1.6E-01	ACS-SS02-001	Sep-97	Yes	1.6E-01
5	SURFACE (0-2')	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	2	1	6.3E-01	4.3E-01	1.7E+00	6.3E-01	ACS-SS01-AVG	Sep-97	Yes	6.3E-01
5	SURFACE (0-2')	P/PCB	4,4'-DDE	72-55-9	2	2	6.9E-03	8.9E-03	2.2E-02	1.1E-02	ACS-SS02-001	Sep-97	Yes	1.1E-02
5	SURFACE (0-2')	P/PCB	4,4'-DDT	50-29-3	2	2	9.2E-03	1.2E-02	2.7E-02	1.4E-02	ACS-SS02-001	Sep-97	Yes	1.4E-02
5	SURFACE (0-2')	P/PCB	Aroclor-1248	12672-29-6	2	1	1.4E-01	8.0E-02	4.6E-01	1.4E-01	ACS-SS02-001	Sep-97	Yes	1.4E-01
5	SURFACE (0-2')	P/PCB	Aroclor-1254	11097-69-1	2	2	2.6E-01	2.9E-01	4.9E-01	3.2E-01	ACS-SS02-001	Sep-97	Yes	3.2E-01
5	SURFACE (0-2')	P/PCB	Aroclor-1260	11096-82-5	2	2	1.8E-01	2.1E-01	3.6E-01	2.3E-01	ACS-SS02-001	Sep-97	Yes	2.3E-01
5	SURFACE (0-2')	P/PCB	Dieldrin	60-57-1	2	2	3.9E-03	4.4E-03	7.7E-03	5.0E-03	ACS-SS01-AVG	Sep-97	Yes	5.0E-03
5	SURFACE (0-2')	P/PCB	Endosulfan I	959-98-8	2	2	2.0E-03	2.8E-03	7.5E-03	3.5E-03	ACS-SS02-001	Sep-97	Yes	3.5E-03
5	SURFACE (0-2')	P/PCB	Endosulfan sulfate	1031-07-8	2	1	2.3E-03	2.1E-03	3.2E-03	2.3E-03	ACS-SS01-AVG	Sep-97	Yes	2.3E-03
5	SURFACE (0-2')	P/PCB	Endrin	72-20-8	2	2	4.8E-03	5.1E-03	7.5E-03	5.5E-03	ACS-SS02-001	Sep-97	Yes	5.5E-03
5	SURFACE (0-2')	P/PCB	Endrin aldehyde	7421-93-4	2	2	5.6E-03	6.2E-03	9.6E-03	6.7E-03	ACS-SS02-001	Sep-97	Yes	6.7E-03
5	SURFACE (0-2')	P/PCB	Endrin ketone	53494-70-5	2	2	5.7E-03	6.4E-03	1.0E-02	7.0E-03	ACS-SS02-001	Sep-97	Yes	7.0E-03
5	SURFACE (0-2')	P/PCB	Heptachlor	76-44-8	2	2	1.0E-03	1.2E-03	2.1E-03	1.3E-03	ACS-SS01-AVG	Sep-97	Yes	1 3E-03
5	SURFACE (0-2')	P/PCB	Heptachlor epoxide	1024-57-3	2	2	3.9E-03	4.2E-03	6.6E-03	4.6E-03	ACS-SS02-001	Sep-97	Yes	4 6E-03
5	SURFACE (0-2')	P/PCB	Methoxychlor	72-43-5	2	2	1.4E-02	1.6E-02	2.5E-02	1 7E-02	ACS-SS02-001	Sep-97	Yes	1.7E-02
5	SURFACE (0-2')	P/PCB	alpha-BHC	319-84-6	2	1	1.1E-03	1.0E-03	1.2E-03	1.1E-03	ACS-SS01-AVG	Sep-97	Yes	1.1E-03
5	SURFACE (0-2')	P/PCB	alpha-Chlordane	5103-71-9	2	2	5.0E-04	5.5E-03	3.7E-02	1.0E-02	ACS-SS01-AVG	Sep-97	Yes	1.0E-02
5	SURFACE (0-2')	P/PCB	gamma-BHC	58-89-9	2	1	5.0E-04	7.5E-04	2.3E-03	5.0E-04	ACS-SS01-AVG	Sep-97	Yes	5 0E-04
5	SURFACE (0-2')	P/PCB	gamma-Chlordane	5103-74-2	2	2	5.2E-03	6.9E-03	1.7E-02	8.5E-03	ACS-SS01-AVG	Sep-97	Yes	8.5E-03

Table 2-5 Summary of Constituents in Soil Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Depth	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used In Calculations[c] (mg/kg)
5	SURFACE (0-2')	INORG	Aluminum	7429-90-5	2	2	4.1E+03	5.1E+03	1.1E+04	6.1E+03	ACS-SS02-001	Sep-97	No (d)	
5	SURFACE (0-2')	INORG	Antimony	7440-36-0	2	1	1.5E+01	1.0E+01	4.0E+01	1.5E+01	ACS-SS02-001	Sep-97	Yes	1.5E+01
5	SURFACE (0-2')	INORG	Arsenic	7440-38-2	2	2	2.9E+00	3.2E+00	4.7E+00	3.4E+00	ACS-SS02-001	Sep-97	Yes	3.4E+00
5	SURFACE (0-2')	INORG	Barium	7440-39-3	2	2	5.3E+01	8.6E+01	2.9E+02	1.2E+02	ACS-SS02-001	Sep-97	Yes	1.2E+02
5	SURFACE (0-2')	INORG	Beryllium	7440-41-7	2	2	2.7E-01	3.8E-01	1.0E+00	4.8E-01	ACS-SS02-001	Sep-97	Yes	4.8E-01
5	SURFACE (0-2')	INORG	Cadmium	7440-43-9	2	2	1.4E+00	1.5E+00	1.8E+00	1.5E+00	ACS-SS02-001	Sep-97	Yes	1.5E+00
5	SURFACE (0-2')	INORG	Calcium	7440-70-2	2	2	2.3E+03	5.0E+03	2.2E+04	7.7E+03	ACS-SS02-001	Sep-97	No (d)	
5	SURFACE (0-2')	INORG	Chromium (total)	7440-47-3	2	2	1.8E+01	2.3E+01	5.3E+01	2.8E+01	ACS-SS01-AVG	Sep-97	Yes	2.8E+01
5	SURFACE (0-2')	INORG	Cobalt	7440-48-4	2	2	4.1E+00	4.8E+00	9.7E+00	5.6E+00	ACS-SS02-001	Sep-97	Yes	5.6E+00
5	SURFACE (0-2')	INORG	Copper	7440-50-8	2	2	1.7E+01	1.9E+01	2.6E+01	2.0E+01	ACS-SS02-001	Sep-97	Yes	2.0E+01
5	SURFACE (0-2')	INORG	Cyanide (total)	57-12-5	2	2	1.5E-02	7.3E-02	4.4E-01	1.3E-01	ACS-SS02-001	Sep-97	Yes	1.3E-01
5	SURFACE (0-2')	INORG	Iron	7439-89-6	2	2	6.4E+03	8.4E+03	2.1E+04	1.0E+04	ACS-SS02-001	Sep-97	No (d)	
5	SURFACE (0-2')	INORG	Lead	7439-92-1	2	2	4.7E+01	6.5E+01	1.8E+02	8.3E+01	ACS-SS02-001	Sep-97	Yes	8.3E+01
5	SURFACE (0-2')	INORG	Magnesium	7439-95-4	2	2	1.2E+03	1.9E+03	6.1E+03	2.6E+03	ACS-SS02-001	Sep-97	No (d)	
5	SURFACE (0-2')	INORG	Manganese	7439-96-5	2	2	3.5E+02	4.0E+02	6.7E+02	4.4E+02	ACS-SS02-001	Sep-97	Yes	4.4E+02
5	SURFACE (0-2')	INORG	Mercury	7439-97-6	2	1	7.0E-02	4.8E-02	1.9E-01	7.0E-02	ACS-SS02-001	Sep-97	Yes	7.0E-02
5	SURFACE (0-2')	INORG	Nickel	7440-02-0	2	2	7.3E+00	1.2E+01	4.3E+01	1.7E+01	ACS-SS01-AVG	Sep-97	Yes	1.7E+01
5	SURFACE (0-2')	INORG	Potassium	7440-09-7	2	2	6.1E+02	7.3E+02	1.5E+03	8.6E+02	ACS-SS02-001	Sep-97	No (d)	
5	SURFACE (0-2')	INORG	Selenium	7782-49-2	2	2	4.3E-01	5.0E-01	9.4E-01	5.7E-01	ACS-SS02-001	Sep-97	Yes	5.7E-01
5	SURFACE (0-2')	INORG	Silver	7440-22-4	2	1	1.1E+00	8.3E-01	2.6E+00	1.1E+00	ACS-SS01-AVG	Sep-97	Yes	1.1E+00
5	SURFACE (0-2')	INORG	Sodium	7440-23-5	2	2	2.1E+01	1.1E+02	6.4E+02	1.9E+02	ACS-SS02-001	Sep-97	No (d)	
5	SURFACE (0-2')	INORG	Vanadium	7440-62-2	2	2	9.1E+00	1.1E+01	2.0E+01	1.2E+01	ACS-SS02-001	Sep-97	Yes	1.2E+01
5	SURFACE (0-2')	INORG	Zinc	7440-66-6	2	2	6.9E+01	9.4E+01	2.5E+02	1.2E+02	ACS-SS02-001	Sep-97	Yes	1.2E+02

(a) The arithmetic mean was calculated for >1 valid sample.
(b) UCL = 95% Upper Confidence Limit on the arithmetic mean. The UCL was calculated for >1 valid sample.
(c) The UCL was used as the exposure point concentration unless it was greater than the maximum, in which case, the maximum detected concentration was used.
(d) Chemical was not retained for risk calculations because it is a major earth element and does not have a toxicity value. See text.
(e) Chemical was not retained for risk calculations because it was detected in less than 5% of the samples from this media/area/depth.

Table 2-6 Summary of Constituents in Sediment Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
1	VOC	Chloroform	67-66-3	2	2	2.0E-03	2.0E-03	2.0E-03	2.0E-03	ACS-SD-01-01	Jul-89	Yes	2.0E-03
1	VOC	Toluene	108-88-3	2	1	3.0E-03	2.8E-03	4.3E-03	3.0E-03	ACS-SD-02-01	Jul-89	Yes	3.0E-03
1	SVOC	Butylbenzylphthalate	85-68-7	2	1	1.6E-01	1.6E-01	1.8E-01	1.6E-01	ACS-SD-02-01	Jul-89	Yes	1.6E-01
1	SVOC	Di-n-butylphthalate	84-74-2	2	1	1.7E-01	1.7E-01	1.8E-01	1.7E-01	ACS-SD-02-01	Jul-89	Yes	1.7E-01
1	SVOC	Phenol	108-95-2	2	1	1.9E-01	1.8E-01	2.6E-01	1.9E-01	ACS-SD-02-01	Jul-89	Yes	1.9E-01
1	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	2	2	3.5E-01	6.7E+00	4.7E+01	1.3E+01	ACS-SD-02-01	Jul-89	Yes	1.3E+01
1	P/PCB	Aroclor-1248	12672-29-6	2	1	4.6E+00	2.3E+00	1.7E+01	4.6E+00	ACS-SD-02-01	Jul-89	Yes	4.6E+00
1	P/PCB	Aroclor-1254	11097-69-1	2	2	5.9E-01	8.8E+00	6.1E+01	1.7E+01	ACS-SD-02-01	Jul-89	Yes	1.7E+01
1	INORG	Aluminum	7429-90-5	2	2	1.9E+03	3.4E+03	1.3E+04	4.9E+03	ACS-SD-02-01	Jul-89	No (d)	
1	INORG	Arsenic	7440-38-2	2	2	1.4E+00	1.5E+00	1.8E+00	1.5E+00	ACS-SD-01-01	Jul-89	Yes	1.5E+00
1	INORG	Barium	7440-39-3	2	1	6.9E+01	4.7E+01	1.9E+02	6.9E+01	ACS-SD-02-01	Jul-89	Yes	6.9E+01
1	INORG	Beryllium	7440-41-7	2	2	1.7E-01	2.5E-01	7.2E-01	3.2E-01	ACS-SD-02-01	Jul-89	Yes	3.2E-01
1	INORG	Cadmium	7440-43-9	2	2	8.0E-02	6.9E-01	4.5E+00	1.3E+00	ACS-SD-02-01	Jul-89	Yes	1.3E+00
1	INORG	Calcium	7440-70-2	2	2	9.9E+03	1.0E+04	1.3E+04	1.1E+04	ACS-SD-02-01	Jul-89	No (d)	
1	INORG	Chromium (total)	7440-47-3	2	2	7.3E+00	1.4E+01	5.7E+01	2.1E+01	ACS-SD-02-01	Jul-89	Yes	2.1E+01
1	INORG	Copper	7440-50-8	2	2	6.3E+00	1.5E+01	7.2E+01	2.4E+01	ACS-SD-02-01	Jul-89	Yes	2.4E+01
1	INORG	Iron	7439-89-6	2	2	3.3E+03	4.0E+03	8.3E+03	4.7E+03	ACS-SD-02-01	Jul-89	No (d)	
1	INORG	Lead	7439-92-1	2	2	8.2E+00	1.4E+02	1.0E+03	2.8E+02	ACS-SD-02-01	Jul-89	Yes	2.8E+02
1	INORG	Magnesium	7439-95-4	2	2	2.7E+03	3.5E+03	8.9E+03	4.4E+03	ACS-SD-01-01	Jul-89	No (d)	
1	INORG	Manganese	7439-96-5	2	2	7.6E+01	1.5E+02	5.9E+02	2.2E+02	ACS-SD-02-01	Jul-89	Yes	2.2E+02
1	INORG	Mercury	7439-97-6	2	1	7.1E-01	3.7E-01	2.5E+00	7.1E-01	ACS-SD-02-01	Jul-89	Yes	7.1E-01
1	INORG	Potassium	7440-09-7	2	2	3.4E+02	3.7E+02	5.4E+02	4.0E+02	ACS-SD-02-01	Jul-89	No (d)	
1	INORG	Vanadium	7440-62-2	2	2	4.5E+00	5.4E+00	1.1E+01	6.2E+00	ACS-SD-02-01	Jul-89	Yes	6.2E+00
1	INORG	Zinc	7440-66-6	2	2	2.0E+01	6.7E+01	3.6E+02	1.1E+02	ACS-SD-02-01	Jul-89	Yes	1.1E+02
2	VOC	Benzene	71-43-2	2	1	1.4E+01	7.0E+00	5.1E+01	1.4E+01	ACS-SD-05-01	Jul-89	Yes	1.4E+01
2	VOC	Chloroform	67-66-3	2	1	3.0E-03	2.8E-03	4.3E-03	3.0E-03	ACS-SD-05-01	Jul-89	Yes	3.0E-03
2	VOC	Ethyl Benzene	100-41-4	2	1	1.3E-01	6.6E-02	4.7E-01	1.3E-01	ACS-SD-05-01	Jul-89	Yes	1.3E-01
2	VOC	Toluene	108-88-3	2	1	5.6E-02	2.9E-02	2.0E-01	5.6E-02	ACS-SD-05-01	Jul-89	Yes	5.6E-02
2	VOC	Xylenes (total)	1330-20-7	2	1	2.0E-01	1.0E-01	7.2E-01	2.0E-01	ACS-SD-05-01	Jul-89	Yes	2.0E-01
2	SVOC	2,4-Dimethylphenol	105-67-9	2	1	6.1E-01	3.9E-01	1.8E+00	6.1E-01	ACS-SD-05-01	Jul-89	Yes	6.1E-01
2	SVOC	2-Methylnaphthalene	91-57-6	2	1	1.6E-01	1.6E-01	1.8E-01	1.6E-01	ACS-SD-05-01	Jul-89	Yes	1.6E-01
2	SVOC	4-Chlorophenyl-phenyl ether	7005-72-3	2	1	7.5E-02	1.2E-01	4.0E-01	7.5E-02	ACS-SD-05-01	Jul-89	Yes	7.5E-02
2	SVOC	Anthracene	120-12-7	2	1	8.3E-02	1.2E-01	3.8E-01	8.3E-02	ACS-SD-05-01	Jul-89	Yes	8.3E-02
2	SVOC	Benzo(a)anthracene	56-55-3	2	2	7.8E-02	3.9E-01	2.4E+00	7.1E-01	ACS-SD-05-01	Jul-89	Yes	7.1E-01
2	SVOC	Benzo(a)pyrene	50-32-8	2	2	6.3E-02	3.8E-01	2.4E+00	6.9E-01	ACS-SD-05-01	Jul-89	Yes	6.9E-01
2	SVOC	Benzo(b)fluoranthene	205-99-2	2	2	1.6E-01	3.8E-01	1.8E+00	6.0E-01	ACS-SD-05-01	Jul-89	Yes	6.0E-01
2	SVOC	Benzo(g,h,i)perylene	191-24-2	2	1	4.6E-01	3.1E-01	1.2E+00	4.6E-01	ACS-SD-05-01	Jul-89	Yes	4.6E-01
2	SVOC	Benzo(k)fluoranthene	207-08-9	2	2	1.7E-01	4.3E-01	2.1E+00	6.9E-01	ACS-SD-05-01	Jul-89	Yes	6.9E-01
2	SVOC	Butylbenzylphthalate	85-68-7	2	1	1.7E-01	1.7E-01	1.8E-01	1.7E-01	ACS-SD-05-01	Jul-89	Yes	1.7E-01
2	SVOC	Chrysene	218-01-9	2	2	7.7E-02	3.8E-01	2.3E+00	6.9E-01	ACS-SD-05-01	Jul-89	Yes	6.9E-01
2	SVOC	Dibenzo(a,h)anthracene	53-70-3	2	1	1.6E-01	1.6E-01	1.8E-01	1.6E-01	ACS-SD-05-01	Jul-89	Yes	1.6E-01
2	SVOC	Fluoranthene	206-44-0	2	2	6.2E-02	5.3E-01	3.5E+00	1.0E+00	ACS-SD-05-01	Jul-89	Yes	1.0E+00
2	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	2	1	3.8E-01	2.7E-01	9.5E-01	3.8E-01	ACS-SD-05-01	Jul-89	Yes	3.8E-01
2	SVOC	Naphthalene	91-20-3	2	1	1.1E-01	1.4E-01	3.1E-01	1.1E-01	ACS-SD-05-01	Jul-89	Yes	1.1E-01
2	SVOC	Phenanthrene	85-01-8	2	1	4.4E-01	3.0E-01	1.2E+00	4.4E-01	ACS-SD-05-01	Jul-89	Yes	4.4E-01
2	SVOC	Pyrene	129-00-0	2	2	7.1E-02	5.9E-01	3.8E+00	1.1E+00	ACS-SD-05-01	Jul-89	Yes	1.1E+00
2	SVOC	bis(2-Chloroethyl) ether	111-44-4	2	1	5.6E-01	3.6E-01	1.6E+00	5.6E-01	ACS-SD-05-01	Jul-89	Yes	5.6E-01
2	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	2	1	4.4E+00	2.3E+00	1.5E+01	4.4E+00	ACS-SD-05-01	Jul-89	Yes	4.4E+00
2	INORG	Aluminum	7429-90-5	2	2	4.0E+03	4.4E+03	7.1E+03	4.9E+03	ACS-SD-05-01	Jul-89	No (d)	

Table 2-6 Summary of Constituents in Sediment Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used In Calculations[c] (mg/kg)
2	INORG	Arsenic	7440-38-2	2	2	5.7E+00	7.9E+00	2.2E+01	1.0E+01	ACS-SD-05-01	Jul-89	Yes	1.0E+01
2	INORG	Barium	7440-39-3	2	1	9.1E+01	6.4E+01	2.4E+02	9.1E+01	ACS-SD-05-01	Jul-89	Yes	9.1E+01
2	INORG	Beryllium	7440-41-7	2	2	2.2E-01	3.5E-01	1.1E+00	4.7E-01	ACS-SD-05-01	Jul-89	Yes	4.7E-01
2	INORG	Cadmium	7440-43-9	2	2	3.9E-01	1.3E+00	7.4E+00	2.3E+00	ACS-SD-05-01	Jul-89	Yes	2.3E+00
2	INORG	Calcium	7440-70-2	2	2	1.6E+03	3.7E+04	2.6E+05	7.3E+04	ACS-SD-05-01	Jul-89	No (d)	
2	INORG	Chromium (total)	7440-47-3	2	2	5.4E+00	1.7E+01	9.0E+01	2.9E+01	ACS-SD-05-01	Jul-89	Yes	2.9E+01
2	INORG	Copper	7440-50-8	2	1	3.7E+01	2.1E+01	1.3E+02	3.7E+01	ACS-SD-05-01	Jul-89	Yes	3.7E+01
2	INORG	Iron	7439-89-6	2	2	1.1E+04	1.3E+04	2.1E+04	1.4E+04	ACS-SD-05-01	Jul-89	No (d)	
2	INORG	Lead	7439-92-1	2	2	2.3E+01	8.8E+01	4.9E+02	1.5E+02	ACS-SD-05-01	Jul-89	Yes	1.5E+02
2	INORG	Magnesium	7439-95-4	2	2	6.5E+02	9.4E+03	6.5E+04	1.8E+04	ACS-SD-05-01	Jul-89	No (d)	
2	INORG	Manganese	7439-96-5	2	2	5.3E+01	2.1E+02	1.2E+03	3.7E+02	ACS-SD-05-01	Jul-89	Yes	3.7E+02
2	INORG	Mercury	7439-97-6	2	1	1.3E-01	1.1E-01	2.4E-01	1.3E-01	ACS-SD-05-01	Jul-89	Yes	1.3E-01
2	INORG	Nickel	7440-02-0	2	1	1.4E+01	1.1E+01	3.3E+01	1.4E+01	ACS-SD-05-01	Jul-89	Yes	1.4E+01
2	INORG	Potassium	7440-09-7	2	2	2.9E+02	7.3E+02	3.5E+03	1.2E+03	ACS-SD-05-01	Jul-89	No (d)	
2	INORG	Vanadium	7440-62-2	2	2	6.5E+00	1.0E+01	3.5E+01	1.4E+01	ACS-SD-05-01	Jul-89	Yes	1.4E+01
2	INORG	Zinc	7440-66-6	2	2	8.7E+01	1.0E+02	1.9E+02	1.2E+02	ACS-SD-05-01	Jul-89	Yes	1.2E+02
4A	VOC	1,1,1-Trichloroethane	71-55-6	32	1	3.0E-03	6.9E-02	1.7E-01	3.0E-03	ACS-SD-11-01	May-90	No (e)	
4A	VOC	1,2-Dichloroethene (total)	540-59-0	32	1	6.0E-03	6.9E-02	1.7E-01	6.0E-03	ACS-SD-10-01	May-90	No (e)	
4A	VOC	2-Butanone	78-93-3	32	9	5.0E-03	7.3E-02	1.7E-01	7.4E-02	APD-SD-33-01-RE	May-96	Yes	7.4E-02
4A	VOC	Acetone	67-64-1	32	19	1.2E-02	1.2E-01	2.2E-01	2.3E-01	APD-SD-33-01-RE	May-96	Yes	2.2E-01
4A	VOC	Benzene	71-43-2	32	3	2.3E-02	3.7E-01	9.5E-01	1.1E+01	APD-SD-38-01	May-96	Yes	9.5E-01
4A	VOC	Chloroethane	75-00-3	32	2	2.4E-02	7.1E-02	1.7E-01	4.0E-02	ACS-SD-10-01	May-90	Yes	4.0E-02
4A	VOC	Chloroform	67-66-3	32	2	2.0E-03	6.9E-02	1.7E-01	2.0E-03	ACS-SD-03-01	Jul-89	Yes	2.0E-03
4A	VOC	Methylene Chloride	75-09-2	32	2	6.0E-03	7.6E-02	1.8E-01	4.4E-02	ACS-SD-07A-01	Jul-89	Yes	4.4E-02
4A	VOC	Toluene	108-88-3	32	4	5.0E-03	7.3E-02	1.7E-01	1.1E-01	ACS-SD-04-01	Jul-89	Yes	1.1E-01
4A	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	26	5	5.4E-02	5.9E-01	9.0E-01	1.8E+00	ACS-SD-12-01	May-90	Yes	9.0E-01
4A	SVOC	2-Methylnaphthalene	91-57-6	26	3	5.5E-02	4.8E-01	7.6E-01	3.8E-01	ACS-SD-07A-01	Jul-89	Yes	3.8E-01
4A	SVOC	4-Methylphenol	106-44-5	26	2	1.0E-01	4.6E-01	7.4E-01	1.1E-01	APD-SD-35-01	May-96	Yes	1.1E-01
4A	SVOC	Acenaphthylene	208-96-8	26	2	1.1E-01	4.6E-01	7.5E-01	3.7E-01	SD22-AVG	May-96	Yes	3.7E-01
4A	SVOC	Anthracene	120-12-7	26	3	6.9E-02	4.6E-01	7.4E-01	2.7E-01	SD22-AVG	May-96	Yes	2.7E-01
4A	SVOC	Benzo(a)anthracene	56-55-3	26	9	7.1E-02	4.6E-01	7.5E-01	9.2E-01	SD22-AVG	May-96	Yes	7.5E-01
4A	SVOC	Benzo(a)pyrene	50-32-8	26	10	7.3E-02	4.7E-01	7.6E-01	1.2E+00	SD22-AVG	May-96	Yes	7.6E-01
4A	SVOC	Benzo(b)fluoranthene	205-99-2	26	13	7.3E-02	5.3E-01	8.3E-01	1.5E+00	ACS-SD-07A-01	Jul-89	Yes	8.3E-01
4A	SVOC	Benzo(g,h,i)perylene	191-24-2	26	5	1.2E-01	4.6E-01	7.4E-01	5.5E-01	ACS-SD-07A-01	Jul-89	Yes	5.5E-01
4A	SVOC	Benzo(k)fluoranthene	207-08-9	26	9	7.3E-02	5.3E-01	8.2E-01	1.5E+00	ACS-SD-07A-01	Jul-89	Yes	8.2E-01
4A	SVOC	Benzoic Acid	65-85-0	9	4	3.8E-01	7.5E-01	9.0E-01	1.2E+00	ACS-SD-07A-01	Jul-89	Yes	9.0E-01
4A	SVOC	Chrysene	218-01-9	26	12	6.4E-02	4.7E-01	7.6E-01	1.1E+00	SD22-AVG	May-96	Yes	7.6E-01
4A	SVOC	Di-n-butylphthalate	84-74-2	26	3	9.4E-02	4.7E-01	7.6E-01	1.0E+00	APD-SD-21-01	May-96	Yes	7.6E-01
4A	SVOC	Dibenzo(a,h)anthracene	53-70-3	26	2	2.0E-01	4.8E-01	7.6E-01	3.7E-01	SD22-AVG	May-96	Yes	3.7E-01
4A	SVOC	Dibenzofuran	132-64-9	26	1	2.3E-01	4.8E-01	7.6E-01	2.3E-01	ACS-SD-07A-01	Jul-89	No (e)	
4A	SVOC	Diethylphthalate	84-66-2	26	1	1.9E+00	5.3E-01	8.3E-01	1.9E+00	APD-SD-38-01	May-96	No (e)	
4A	SVOC	Fluoranthene	206-44-0	26	14	8.4E-02	4.6E-01	7.5E-01	8.2E-01	ACS-SD-07A-01	Jul-89	Yes	7.5E-01
4A	SVOC	Hexachlorobenzene	118-74-1	26	1	1.4E-01	4.7E-01	7.6E-01	1.4E-01	ACS-SD-16-01	Jul-90	No (e)	
4A	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	26	10	4.6E-02	4.1E-01	7.0E-01	5.6E-01	SD22-AVG	May-96	Yes	5.6E-01
4A	SVOC	Isophorone	78-59-1	26	1	4.2E-02	4.6E-01	7.5E-01	4.2E-02	APD-SD-26-01	May-96	No (e)	
4A	SVOC	Naphthalene	91-20-3	26	3	5.9E-02	4.8E-01	7.6E-01	4.2E-01	ACS-SD-07A-01	Jul-89	Yes	4.2E-01
4A	SVOC	Pentachlorophenol	87-86-5	26	1	2.3E-01	1.3E+00	1.9E+00	2.3E-01	ACS-SD-07B-01	Jul-89	No (e)	
4A	SVOC	Phenanthrene	85-01-8	26	9	6.6E-02	4.5E-01	7.4E-01	6.6E-01	ACS-SD-07A-01	Jul-89	Yes	6.6E-01
4A	SVOC	Phenol	108-95-2	26	1	5.8E-02	4.7E-01	7.5E-01	5.8E-02	ACS-SD-12-01	May-90	No (e)	

Table 2-6 Summary of Constituents in Sediment Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
4A	SVOC	Pyrene	129-00-0	26	12	6.3E-02	4.7E-01	7.5E-01	8.1E-01	SD22-AVG	May-96	Yes	7.5E-01
4A	SVOC	bis(2-Chloroethyl) ether	111-44-4	26	2	2.0E-01	4.7E-01	7.6E-01	4.3E-01	ACS-SD-10-01	May-90	Yes	4.3E-01
4A	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	26	13	1.0E-01	7.2E-01	1.1E+00	4.6E+00	APD-SD-33-01	May-96	Yes	1.1E+00
4A	P/PCB	Aroclor-1248	12672-29-6	107	75	1.8E-03	2.8E+00	4.7E+00	9.9E+01	APD-SD-T2 (C)	Nov-96	Yes	4.7E+00
4A	P/PCB	Aroclor-1254	11097-69-1	107	88	2.8E-03	5.9E+00	9.9E+00	2.0E+02	APD-SD-T2 (C)	Nov-96	Yes	9.9E+00
4A	P/PCB	Aroclor-1260	11096-82-5	107	75	6.9E-03	2.2E+00	3.5E+00	6.0E+01	APD-SD-T2 (C)	Nov-96	Yes	3.5E+00
4A	INORG	Aluminum	7429-90-5	9	9	2.5E+03	6.3E+03	7.7E+03	1.0E+04	ACS-SD-16-01	Jul-90	No (d)	
4A	INORG	Antimony	7440-36-0	4	1	2.8E+00	1.4E+00	2.5E+00	2.8E+00	ACS-SD-16-01	Jul-90	Yes	2.5E+00
4A	INORG	Arsenic	7440-38-2	28	23	1.1E+00	8.1E+00	1.2E+01	2.9E+01	APD-SD-21-01	May-96	Yes	1.2E+01
4A	INORG	Barium	7440-39-3	9	3	6.3E+01	4.7E+01	6.5E+01	8.0E+01	ACS-SD-16-01	Jul-90	Yes	6.5E+01
4A	INORG	Beryllium	7440-41-7	9	9	8.0E-02	4.6E-01	6.2E-01	1.0E+00	ACS-SD-04-01	Jul-89	Yes	6.2E-01
4A	INORG	Cadmium	7440-43-9	28	26	4.5E-01	3.3E+00	4.2E+00	1.1E+01	APD-SD-21-01	May-96	Yes	4.2E+00
4A	INORG	Calcium	7440-70-2	9	9	7.6E+02	9.4E+03	2.1E+04	5.8E+04	ACS-SD-07C-01	Jul-89	No (d)	
4A	INORG	Chromium (total)	7440-47-3	28	28	4.3E+00	3.6E+01	5.9E+01	2.9E+02	APD-SD-33-01	May-96	Yes	5.9E+01
4A	INORG	Copper	7440-50-8	28	26	3.7E+00	4.3E+01	7.4E+01	3.6E+02	ACS-SD-16-01	Jul-90	Yes	7.4E+01
4A	INORG	Iron	7439-89-6	10	10	9.5E+01	9.2E+03	1.3E+04	2.1E+04	ACS-SD-07A-01	Jul-89	No (d)	
4A	INORG	Lead	7439-92-1	27	27	3.6E+00	9.6E+01	2.2E+02	7.0E+02	ACS-SD-16-01	Jul-90	Yes	2.2E+02
4A	INORG	Magnesium	7439-95-4	9	7	4.4E+02	3.2E+03	7.7E+03	2.2E+04	ACS-SD-07C-01	Jul-89	No (d)	
4A	INORG	Manganese	7439-96-5	9	9	2.3E+01	1.4E+02	2.3E+02	4.0E+02	ACS-SD-07C-01	Jul-89	Yes	2.3E+02
4A	INORG	Mercury	7439-97-6	56	30	8.0E-02	7.7E-01	1.2E+00	8.9E+00	APD-SD-33-01	May-96	Yes	1.2E+00
4A	INORG	Nickel	7440-02-0	9	3	1.6E+01	1.2E+01	1.7E+01	2.7E+01	ACS-SD-07C-01	Jul-89	Yes	1.7E+01
4A	INORG	Potassium	7440-09-7	9	9	2.0E+02	4.5E+02	7.3E+02	1.6E+03	ACS-SD-07C-01	Jul-89	No (d)	
4A	INORG	Selenium	7782-49-2	9	3	8.7E-01	5.4E-01	7.7E-01	1.1E+00	ACS-SD-12-01	May-90	Yes	7.7E-01
4A	INORG	Thallium	7440-28-0	9	1	1.4E+00	7.7E-01	9.5E-01	1.4E+00	ACS-SD-16-01	Jul-90	Yes	9.5E-01
4A	INORG	Vanadium	7440-62-2	9	9	5.1E+00	2.5E+01	3.4E+01	4.8E+01	ACS-SD-04-01	Jul-89	Yes	3.4E+01
4A	INORG	Zinc	7440-66-6	28	28	6.4E+00	1.4E+02	1.8E+02	4.7E+02	APD-SD-26-01	May-96	Yes	1.8E+02
4B	VOC	1,2-Dichloroethene (total)	540-59-0	4	1	1.2E-02	1.0E-02	1.4E-02	1.2E-02	APD-SD-30-01	May-96	Yes	1.2E-02
4B	VOC	Acetone	67-64-1	4	2	1.4E-02	1.6E-02	2.9E-02	2.5E-02	APD-SD-30-01	May-96	Yes	2.5E-02
4B	SVOC	2-Methylnaphthalene	91-57-6	6	1	3.1E-02	3.3E-01	5.1E-01	3.1E-02	ACS-ST01-001	Sep-97	Yes	3.1E-02
4B	SVOC	Acenaphthylene	208-96-8	6	3	5.2E-02	2.3E-01	3.4E-01	2.8E-01	SD29-AVG	May-96	Yes	2.8E-01
4B	SVOC	Anthracene	120-12-7	6	3	6.8E-02	2.3E-01	3.4E-01	2.6E-01	SD29-AVG	May-96	Yes	2.6E-01
4B	SVOC	Benzo(a)anthracene	56-55-3	6	5	4.7E-02	2.0E-01	7.8E-01	3.6E-01	SD29-AVG	May-96	Yes	3.6E-01
4B	SVOC	Benzo(a)pyrene	50-32-8	6	5	6.9E-02	2.5E-01	3.6E-01	4.0E-01	SD29-AVG	May-96	Yes	3.6E-01
4B	SVOC	Benzo(b)fluoranthene	205-99-2	6	6	1.0E-01	2.6E-01	3.7E-01	4.4E-01	SD29-AVG	May-96	Yes	3.7E-01
4B	SVOC	Benzo(g,h,i)perylene	191-24-2	6	4	7.7E-02	2.6E-01	3.4E-01	3.0E-01	SD29-AVG	May-96	Yes	3.0E-01
4B	SVOC	Benzo(k)fluoranthene	207-08-9	6	4	5.8E-02	2.9E-01	3.9E-01	4.1E-01	SD29-AVG	May-96	Yes	3.9E-01
4B	SVOC	Carbazole	86-74-8	6	1	3.6E-02	3.3E-01	5.1E-01	3.6E-02	ACS-ST01-001	Sep-97	Yes	3.6E-02
4B	SVOC	Chrysene	218-01-9	6	6	7.9E-02	2.1E-01	3.1E-01	3.9E-01	SD29-AVG	May-96	Yes	3.1E-01
4B	SVOC	Di-n-butylphthalate	84-74-2	6	1	8.4E-02	3.3E-01	9.8E-01	8.4E-02	ACS-ST11-101	Sep-97	Yes	8.4E-02
4B	SVOC	Dibenzo(a,h)anthracene	53-70-3	6	3	6.3E-02	2.4E-01	3.5E-01	2.9E-01	SD29-AVG	May-96	Yes	2.9E-01
4B	SVOC	Fluoranthene	206-44-0	6	6	7.0E-02	2.3E-01	3.4E-01	4.0E-01	SD29-AVG	May-96	Yes	3.4E-01
4B	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	6	5	5.4E-02	2.0E-01	3.0E-01	3.4E-01	SD29-AVG	May-96	Yes	3.0E-01
4B	SVOC	Isophorone	78-59-1	6	1	4.2E-02	3.2E-01	5.0E-01	4.2E-02	ACS-ST11-101	Sep-97	Yes	4.2E-02
4B	SVOC	Naphthalene	91-20-3	6	1	2.5E-02	3.3E-01	5.1E-01	2.5E-02	ACS-ST01-001	Sep-97	Yes	2.5E-02
4B	SVOC	Phenanthrene	85-01-8	6	4	3.6E-02	1.6E-01	7.0E-01	1.5E-01	ACS-ST02-001	Sep-97	Yes	1.5E-01
4B	SVOC	Pyrene	129-00-0	6	6	1.0E-01	2.3E-01	3.4E-01	3.9E-01	SD29-AVG	May-96	Yes	3.4E-01
4B	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	6	4	4.9E-01	1.2E+00	7.1E+00	4.0E+00	ACS-ST11-101	Sep-97	Yes	4.0E+00
4B	P/PCB	4,4'-DDD	72-54-8	6	1	7.8E-02	3.3E-02	6.0E-02	7.8E-02	ACS-ST11-101	Sep-97	Yes	6.0E-02
4B	P/PCB	4,4'-DDE	72-55-9	6	1	2.9E-01	6.8E-02	2.0E+01	2.9E-01	ACS-ST11-101	Sep-97	Yes	2.9E-01

Table 2-6 Summary of Constituents in Sediment Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
4B	P/PCB	4,4'-DDT	50-29-3	6	1	2.4E-01	6.0E-02	1.3E+01	2.4E-01	ACS-ST11-101	Sep-97	Yes	2.4E-01
4B	P/PCB	Aroclor-1248	12672-29-6	6	3	7.4E-02	2.8E-01	9.4E-01	2.2E-01	APD-SD-28-01	May-96	Yes	2.2E-01
4B	P/PCB	Aroclor-1254	11097-69-1	6	4	4.2E-01	2.0E+00	4.7E+00	8.8E+00	ACS-ST11-101	Sep-97	Yes	4.7E+00
4B	P/PCB	Aroclor-1260	11096-82-5	6	3	3.9E-01	5.1E-01	9.9E-01	9.7E-01	APD-SD-28-01	May-96	Yes	9.7E-01
4B	P/PCB	Endosulfan I	959-98-8	6	1	3.9E-01	7.5E-02	2.0E-01	3.9E-01	ACS-ST11-101	Sep-97	Yes	2.0E-01
4B	P/PCB	Endosulfan sulfate	1031-07-8	6	1	6.0E-02	3.0E-02	5.3E-02	6.0E-02	ACS-ST11-101	Sep-97	Yes	5.3E-02
4B	P/PCB	Endrin	72-20-8	6	1	1.5E-01	4.5E-02	9.2E-02	1.5E-01	ACS-ST11-101	Sep-97	Yes	9.2E-02
4B	P/PCB	Heptachlor	76-44-8	6	1	6.2E-02	2.0E-02	4.0E-02	6.2E-02	ACS-ST11-101	Sep-97	Yes	4.0E-02
4B	P/PCB	Methoxychlor	72-43-5	6	1	2.9E-01	1.5E-01	2.6E-01	2.9E-01	ACS-ST11-101	Sep-97	Yes	2.6E-01
4B	P/PCB	alpha-Chlordane	5103-71-9	6	1	2.2E-01	4.7E-02	1.2E-01	2.2E-01	ACS-ST11-101	Sep-97	Yes	1.2E-01
4B	P/PCB	beta-BHC	319-85-7	6	1	2.6E-02	1.4E-02	2.5E-02	2.6E-02	ACS-ST11-101	Sep-97	Yes	2.5E-02
4B	P/PCB	gamma-BHC	58-89-9	6	1	2.9E-02	1.5E-02	2.6E-02	2.9E-02	ACS-ST11-101	Sep-97	Yes	2.6E-02
4B	P/PCB	gamma-Chlordane	5103-74-2	6	1	4.8E-02	1.8E-02	3.4E-02	4.8E-02	ACS-ST11-101	Sep-97	Yes	3.4E-02
4B	INORG	Arsenic	7440-38-2	3	3	3.3E+00	5.3E+00	2.9E+01	7.6E+00	APD-SD-28-01	May-96	Yes	7.6E+00
4B	INORG	Cadmium	7440-43-9	3	3	2.0E+00	3.6E+00	7.0E+00	5.9E+00	APD-SD-28-01	May-96	Yes	5.9E+00
4B	INORG	Chromium (total)	7440-47-3	3	3	9.9E+00	2.1E+01	6.3E+02	3.3E+01	APD-SD-28-01	May-96	Yes	3.3E+01
4B	INORG	Copper	7440-50-8	3	3	9.4E+00	2.3E+01	2.1E+03	3.7E+01	APD-SD-28-01	May-96	Yes	3.7E+01
4B	INORG	Lead	7439-92-1	3	3	4.8E+01	1.1E+02	2.0E+02	1.4E+02	APD-SD-28-01	May-96	Yes	1.4E+02
4B	INORG	Mercury	7439-97-6	3	3	1.1E-01	2.5E-01	2.8E+01	4.5E-01	APD-SD-28-01	May-96	Yes	4.5E-01
4B	INORG	Zinc	7440-66-6	3	3	7.9E+01	1.7E+02	1.2E+04	3.0E+02	APD-SD-28-01	May-96	Yes	3.0E+02
6	VOC	2-Butanone	78-93-3	3	1	1.1E-02	7.0E-03	1.3E-02	1.1E-02	ACS-SD-14-01	May-90	Yes	1.1E-02
6	VOC	Chloroform	67-66-3	3	1	8.0E-03	4.3E-03	9.7E-03	8.0E-03	ACS-SD-06-01	Jul-89	Yes	8.0E-03
6	SVOC	4-Methylphenol	106-44-5	10	2	2.6E-02	2.7E-01	3.5E-01	2.7E-01	ACS-SD-13-01	May-90	Yes	2.7E-01
6	SVOC	Acenaphthene	83-32-9	10	1	2.3E-01	4.4E-01	5.9E-01	2.3E-01	ACS-ST08-001	Sep-97	Yes	2.3E-01
6	SVOC	Acenaphthylene	208-96-8	10	1	3.8E-02	2.6E-01	3.4E-01	3.8E-02	ACS-ST05-001	Sep-97	Yes	3.8E-02
6	SVOC	Anthracene	120-12-7	10	3	5.3E-02	2.4E-01	4.2E-01	6.1E-01	ACS-ST08-001	Sep-97	Yes	4.2E-01
6	SVOC	Benzo(a)anthracene	56-55-3	10	7	4.8E-02	5.5E-01	1.1E+00	3.2E+00	ACS-ST08-001	Sep-97	Yes	1.1E+00
6	SVOC	Benzo(a)pyrene	50-32-8	10	7	2.6E-02	6.3E-01	4.0E+00	4.0E+00	ACS-ST08-001	Sep-97	Yes	4.0E+00
6	SVOC	Benzo(b)fluoranthene	205-99-2	10	8	2.7E-02	7.4E-01	5.9E+00	4.8E+00	ACS-ST08-001	Sep-97	Yes	4.8E+00
6	SVOC	Benzo(g,h,i)perylene	191-24-2	10	5	3.0E-02	5.3E-01	3.0E+00	3.2E+00	ACS-ST08-001	Sep-97	Yes	3.0E+00
6	SVOC	Benzo(k)fluoranthene	207-08-9	10	8	4.6E-02	5.8E-01	2.4E+00	3.2E+00	ACS-ST08-001	Sep-97	Yes	2.4E+00
6	SVOC	Benzoic Acid	65-85-0	3	2	2.0E-01	5.8E-01	1.1E+00	7.3E-01	ACS-SD-06-01	Jul-89	Yes	7.3E-01
6	SVOC	Carbazole	86-74-8	7	2	7.5E-02	2.8E-01	4.0E-01	6.0E-01	ACS-ST08-001	Sep-97	Yes	4.0E-01
6	SVOC	Chrysene	218-01-9	10	7	3.3E-02	6.8E-01	1.4E+00	4.4E+00	ACS-ST08-001	Sep-97	Yes	1.4E+00
6	SVOC	Di-n-butylphthalate	84-74-2	10	2	4.4E-02	2.1E-01	2.8E-01	6.6E-02	ACS-ST09-001	Sep-97	Yes	6.6E-02
6	SVOC	Dibenzo(a,h)anthracene	53-70-3	10	3	3.4E-02	2.8E-01	4.2E-01	9.3E-01	ACS-ST08-001	Sep-97	Yes	4.2E-01
6	SVOC	Dibenzofuran	132-64-9	10	1	1.1E-01	2.4E-01	3.2E-01	1.1E-01	ACS-ST08-001	Sep-97	Yes	1.1E-01
6	SVOC	Fluoranthene	206-44-0	10	7	3.7E-02	1.3E+00	2.9E+00	9.2E+00	ACS-ST08-001	Sep-97	Yes	2.9E+00
6	SVOC	Fluorene	86-73-7	10	1	2.3E-01	2.5E-01	3.1E-01	2.3E-01	ACS-ST08-001	Sep-97	Yes	2.3E-01
6	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	10	4	3.7E-02	4.7E-01	9.2E-01	2.6E+00	ACS-ST08-001	Sep-97	Yes	9.2E-01
6	SVOC	Naphthalene	91-20-3	10	1	2.6E-01	2.8E-01	3.5E-01	2.6E-01	ST04-AVG	Sep-97	Yes	2.6E-01
6	SVOC	Phenanthrene	85-01-8	10	7	3.1E-02	6.4E-01	1.5E+00	4.7E+00	ACS-ST08-001	Sep-97	Yes	1.5E+00
6	SVOC	Pyrene	129-00-0	10	7	3.6E-02	1.0E+00	2.2E+00	6.8E+00	ACS-ST08-001	Sep-97	Yes	2.2E+00
6	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	10	2	1.8E-01	3.4E-01	4.6E-01	8.2E-01	ACS-SD-14-01	May-90	Yes	4.6E-01
6	P/PCB	Heptachlor	76-44-8	10	1	2.5E-03	1.2E-02	1.7E-02	2.5E-03	ACS-ST08-001	Sep-97	Yes	2.5E-03
6	INORG	Aluminum	7429-90-5	3	3	6.7E+03	1.1E+04	6.3E+04	1.6E+04	ACS-SD-14-01	May-90	No (d)	
6	INORG	Antimony	7440-36-0	3	1	5.1E+00	2.7E+00	1.5E+03	5.1E+00	ACS-SD-06-01	Jul-89	Yes	5.1E+00
6	INORG	Arsenic	7440-38-2	3	3	5.9E+00	1.2E+01	2.7E+01	2.3E+01	ACS-SD-13-01	May-90	Yes	2.3E+01
6	INORG	Barium	7440-39-3	3	2	7.4E+01	8.5E+01	1.2E+02	1.1E+02	ACS-SD-14-01	May-90	Yes	1.1E+02

Table 2-6 Summary of Constituents in Sediment Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/kg)	Arithmetic Mean[a] (mg/kg)	UCL[b] (mg/kg)	Maximum Detected (mg/kg)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/kg)
6	INORG	Beryllium	7440-41-7	3	3	6.2E-01	6.8E-01	7.8E-01	7.2E-01	ACS-SD-06-01	Jul-89	Yes	7.2E-01
6	INORG	Cadmium	7440-43-9	3	3	7.4E-01	8.1E-01	9.5E-01	9.0E-01	ACS-SD-13-01	May-90	Yes	9.0E-01
6	INORG	Calcium	7440-70-2	3	3	7.6E+03	3.2E+04	6.7E+04	4.4E+04	ACS-SD-06-01	Jul-89	No (d)	
6	INORG	Chromium (total)	7440-47-3	3	3	1.3E+01	2.3E+01	3.9E+01	3.2E+01	ACS-SD-14-01	May-90	Yes	3.2E+01
6	INORG	Copper	7440-50-8	3	3	2.7E+01	3.3E+01	5.8E+01	4.2E+01	ACS-SD-14-01	May-90	Yes	4.2E+01
6	INORG	Iron	7439-89-6	3	3	1.9E+04	2.7E+04	6.1E+04	3.5E+04	ACS-SD-14-01	May-90	No (d)	
6	INORG	Lead	7439-92-1	3	3	5.9E+01	7.1E+01	9.9E+01	9.0E+01	ACS-SD-06-01	Jul-89	Yes	9.0E+01
6	INORG	Magnesium	7439-95-4	3	3	1.2E+03	1.2E+04	2.9E+04	2.0E+04	ACS-SD-14-01	May-90	No (d)	
6	INORG	Manganese	7439-96-5	3	3	1.1E+02	2.9E+02	5.6E+02	4.2E+02	ACS-SD-14-01	May-90	Yes	4.2E+02
6	INORG	Nickel	7440-02-0	3	2	3.1E+01	2.9E+01	5.1E+01	4.1E+01	ACS-SD-06-01	Jul-89	Yes	4.1E+01
6	INORG	Potassium	7440-09-7	3	3	5.5E+02	2.0E+03	4.0E+03	2.9E+03	ACS-SD-14-01	May-90	No (d)	
6	INORG	Vanadium	7440-62-2	3	3	2.7E+01	3.1E+01	4.0E+01	3.5E+01	ACS-SD-13-01	May-90	Yes	3.5E+01
6	INORG	Zinc	7440-66-6	3	3	1.7E+02	2.1E+02	3.9E+02	2.7E+02	ACS-SD-14-01	May-90	Yes	2.7E+02

(a) The arithmetic mean was calculated for >1 valid sample.
(b) UCL = 95% Upper Confidence Limit on the arithmetic mean. The UCL was calculated for >1 valid sample.
(c) The UCL was used as the exposure point concentration unless it was greater than the maximum, in which case, the maximum detected concentration was used.
(d) Chemical is not retained for risk calculations because it is a major earth element and does not have a toxicity value. See text.
(e) Chemical is not retained for risk calculations because it was detected in less than 5% of the samples from this media/area.

Table 2-7 Summary of Constituents in Ground Water Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Aquifer	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/L)	Arithmetic Mean[a] (mg/L)	UCL[b] (mg/L)	Maximum Detected (mg/L)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/L)	
1	UPPER	VOC	1,1-Dichloroethane	75-34-3	11	3	6.0E-03	9.7E-02	2.6E-01	2.6E-02	MW05-01-1994	Dec-94	Yes	2.6E-02	
1	UPPER	VOC	1,2-Dichloroethene (total)	540-59-0	11	2	3.0E-03	9.5E-02	2.6E-01	1.4E-02	MW05-01-1994	Dec-94	Yes	1.4E-02	
1	UPPER	VOC	4-Methyl-2-pentanone	108-10-1	11	1	6.0E-03	9.6E-02	2.6E-01	6.0E-03	MW05-01-1994	Dec-94	Yes	6.0E-03	
1	UPPER	VOC	Benzene	71-43-2	11	10	1.0E-03	1.2E+01	1.7E+06	1.0E+02	MW03-02-1990	May-90	Yes	1.0E+02	
1	UPPER	VOC	Chlorobenzene	108-90-7	11	4	2.0E-03	1.1E-01	2.7E-01	9.6E-02	MW05-01-1989	Aug-89	Yes	9.6E-02	
1	UPPER	VOC	Chloroethane	75-00-3	11	9	2.5E-02	3.6E-01	1.5E+01	1.9E+00	MW03-02-1990	May-90	Yes	1.9E+00	
1	UPPER	VOC	Chloromethane	74-87-3	11	1	6.8E-02	1.0E-01	2.6E-01	6.8E-02	MW03-02-1990	May-90	Yes	6.8E-02	
1	UPPER	VOC	Ethyl Benzene	100-41-4	11	5	3.0E-03	3.1E-01	5.5E-01	1.1E+00	MW05-02-1990	May-90	Yes	1.1E+00	(g)
1	UPPER	VOC	Methylene Chloride	75-09-2	11	1	1.0E-03	9.7E-02	2.6E-01	1.0E-03	MW02-02-1990	May-90	Yes	1.0E-03	
1	UPPER	VOC	Toluene	108-88-3	11	3	6.0E-03	3.0E-01	7.0E-01	2.3E+00	MW03-02-1990	May-90	Yes	2.3E+00	(g)
1	UPPER	VOC	Vinyl Chloride	75-01-4	11	1	1.6E-02	9.6E-02	2.6E-01	1.6E-02	MW05-01-1994	Dec-94	Yes	1.6E-02	
1	UPPER	VOC	Xylenes (total)	1330-20-7	11	5	8.3E-02	4.3E-01	9.2E-01	3.0E+00	MW03-02-1990	May-90	Yes	3.0E+00	(g)
1	UPPER	SVOC	1,2-Dichlorobenzene	95-50-1	11	5	1.5E-02	1.6E-02	2.4E-02	5.1E-02	MW03-01-1994	Dec-94	Yes	5.1E-02	(g)
1	UPPER	SVOC	1,3-Dichlorobenzene	541-73-1	11	2	2.0E-03	5.0E-03	6.1E-03	3.0E-03	MW05-02-1990	May-90	Yes	3.0E-03	
1	UPPER	SVOC	1,4-Dichlorobenzene	106-46-7	11	5	3.0E-03	5.8E-03	7.1E-03	1.0E-02	MW05-02-1990	May-90	Yes	1.0E-02	(g)
1	UPPER	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	11	4	3.4E-02	4.5E-02	9.3E-02	3.0E-01	MW03-01-1989	Aug-89	Yes	3.0E-01	(g)
1	UPPER	SVOC	2,4-Dimethylphenol	105-67-9	11	4	5.0E-03	1.5E-02	3.2E-02	1.1E-01	MW03-02-1990	May-90	Yes	1.1E-01	(g)
1	UPPER	SVOC	2-Methylnaphthalene	91-57-6	11	2	9.0E-03	7.8E-03	1.1E-02	2.7E-02	MW05-02-1990	May-90	Yes	2.7E-02	(g)
1	UPPER	SVOC	2-Methylphenol	95-48-7	11	1	1.3E-02	6.2E-03	7.7E-03	1.3E-02	MW03-01-1989	Aug-89	Yes	1.3E-02	(g)
1	UPPER	SVOC	4-Chloro-3-methylphenol	59-50-7	11	2	2.0E-03	5.1E-03	6.0E-03	9.0E-03	MW03-01-1994	Dec-94	Yes	9.0E-03	(g)
1	UPPER	SVOC	4-Methylphenol	106-44-5	11	3	2.0E-03	1.5E-02	2.9E-02	7.8E-02	MW03-02-1990	May-90	Yes	7.8E-02	(g)
1	UPPER	SVOC	Benzoic Acid	65-85-0	8	1	1.3E-02	2.4E-02	2.6E-02	1.3E-02	MW05-01-1989	Aug-89	Yes	1.3E-02	
1	UPPER	SVOC	Di-n-octylphthalate	117-84-0	11	1	2.1E-02	6.9E-03	9.6E-03	2.1E-02	MW05-01-1994	Dec-94	Yes	2.1E-02	(g)
1	UPPER	SVOC	Diethylphthalate	84-66-2	11	3	3.0E-03	5.3E-03	6.0E-03	9.0E-03	MW03-02-1990	May-90	Yes	9.0E-03	(g)
1	UPPER	SVOC	Naphthalene	91-20-3	11	5	2.0E-03	1.6E-02	3.0E-02	7.1E-02	MW05-01-1989	Aug-89	Yes	7.1E-02	(g)
1	UPPER	SVOC	Phenol	108-95-2	11	5	3.0E-03	2.9E-02	6.7E-02	2.4E-01	MW03-02-1990	May-90	Yes	2.4E-01	(g)
1	UPPER	SVOC	bis(2-Chloroethyl) ether	111-44-4	11	7	4.0E-03	4.1E-02	7.4E-02	1.6E-01	MW03-01-1989	Aug-89	Yes	1.6E-01	(g)
1	UPPER	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	11	3	2.0E-03	5.0E-03	6.1E-03	5.0E-03	MW03-01-1989	Aug-89	Yes	5.0E-03	
1	UPPER	P/PCB	Aroclor-1248	12672-29-6	11	2	1.4E-03	6.1E-04	1.0E-03	2.6E-03	MW04-01-1989	Aug-89	Yes	2.6E-03	(g)
1	UPPER	INORG	Aluminum	7429-90-5	8	2	2.5E-01	1.4E-01	1.9E-01	2.8E-01	MW02-01-1989	Aug-89	No (d)		
1	UPPER	INORG	Arsenic	7440-38-2	11	10	4.1E-03	2.2E-02	3.3E-02	5.7E-02	MW05-01-1994	Dec-94	Yes	5.7E-02	(g)
1	UPPER	INORG	Barium	7440-39-3	8	7	2.5E-01	3.8E-01	7.3E-01	7.9E-01	MW05-02-1990	May-90	Yes	7.9E-01	(g)
1	UPPER	INORG	Cadmium	7440-43-9	8	1	3.1E-03	5.1E-04	1.2E-03	3.1E-03	MW04-01-1989	Aug-89	Yes	3.1E-03	(g)
1	UPPER	INORG	Calcium	7440-70-2	8	8	1.7E+02	2.0E+02	2.1E+02	2.2E+02	MW05-02-1990	May-90	No (d)		
1	UPPER	INORG	Cyanide (total)	57-12-5	8	1	1.0E-02	5.6E-03	6.8E-03	1.0E-02	MW04-01-1989	Aug-89	Yes	1.0E-02	(g)
1	UPPER	INORG	Iron	7439-89-6	8	8	2.6E-01	2.0E+01	3.4E+01	5.1E+01	MW03-02-1990	May-90	No (d)		
1	UPPER	INORG	Magnesium	7439-95-4	8	5	1.8E+01	2.2E+01	2.7E+01	3.2E+01	MW04-01-1989	Aug-89	No (d)		
1	UPPER	INORG	Manganese	7439-96-5	11	11	4.7E-01	2.6E+00	3.4E+00	4.3E+00	MW04-01-1989	Aug-89	Yes	4.3E+00	(g)
1	UPPER	INORG	Nickel	7440-02-0	8	2	4.8E-02	2.8E-02	3.7E-02	5.3E-02	MW03-01-1989	Aug-89	Yes	5.3E-02	(g)
1	UPPER	INORG	Potassium	7440-09-7	8	8	4.9E+00	8.3E+00	1.1E+01	1.5E+01	MW03-01-1989	Aug-89	No (d)		
1	UPPER	INORG	Selenium	7782-49-2	8	1	6.2E-03	1.7E-03	2.9E-03	6.2E-03	MW04-01-1989	Aug-89	Yes	6.2E-03	(g)
1	UPPER	INORG	Sodium	7440-23-5	8	6	1.3E+01	1.4E+02	4.1E+03	4.4E+02	MW05-02-1990	May-90	No (d)		
1	UPPER	INORG	Thallium	7440-28-0	11	2	1.1E-03	1.9E-03	2.4E-03	3.6E-03	MW04-01-1994	Dec-94	Yes	3.6E-03	(g)
1	UPPER	INORG	Vanadium	7440-62-2	8	5	2.4E-03	6.7E-03	1.1E-02	2.0E-02	MW03-01-1989	Aug-89	Yes	2.0E-02	(g)
1	UPPER	INORG	Zinc	7440-66-6	8	7	1.1E-02	1.4E-01	2.7E-01	5.1E-01	MW04-01-1989	Aug-89	Yes	5.1E-01	(g)
4B	UPPER	VOC	1,1-Dichloroethane	75-34-3	32	3	3.0E-04	7.8E-02	1.3E-01	6.0E-03	MW04-02-1990	May-90	Yes	6.0E-03	
4B	UPPER	VOC	1,2-Dichloroethane	107-06-2	32	3	2.0E-04	7.8E-02	1.3E-01	2.0E-03	MW11-02-1990	Jul-90	Yes	2.0E-03	
4B	UPPER	VOC	1,2-Dichloroethene (total)	540-59-0	24	4	2.0E-03	9.4E-02	1.7E-01	4.0E-03	MW39-02-1997	Jun-97	Yes	4.0E-03	
4B	UPPER	VOC	Benzene	71-43-2	32	22	1.0E-03	5.9E+00	1.1E+01	1.0E+02	MW03-02-1990	May-90	Yes	1.0E+02	(g)
4B	UPPER	VOC	Bromodichloromethane	75-27-4	32	1	9.0E-04	7.8E-02	1.3E-01	9.0E-04	MW48-01-1997-EPA	Mar-97	No (e)		
4B	UPPER	VOC	Chloroethane	75-00-3	32	20	2.0E-03	3.1E-01	4.5E-01	1.9E+00	MW03-02-1990	May-90	Yes	1.9E+00	(g)
4B	UPPER	VOC	Chloroform	67-66-3	32	1	1.0E-03	7.9E-02	1.4E-01	1.0E-03	MW48-01-1997-EPA	Mar-97	No (e)		
4B	UPPER	VOC	Chloromethane	74-87-3	32	3	2.0E-04	7.8E-02	1.3E-01	6.8E-02	MW03-02-1990	May-90	Yes	6.8E-02	
4B	UPPER	VOC	Ethyl Benzene	100-41-4	32	2	6.9E-01	9.3E-02	1.5E-01	7.8E-01	MW03-02-1990	May-90	Yes	7.8E-01	(g)
4B	UPPER	VOC	Methylene Chloride	75-09-2	32	2	4.0E-02	8.9E-02	1.5E-01	7.0E-02	MW48-01-1996	Aug-96	Yes	7.0E-02	
4B	UPPER	VOC	Tetrachloroethene	127-18-4	29	1	1.0E-03	8.5E-02	1.5E-01	1.0E-03	MW11-02-1997	Jun-97	No (e)		
4B	UPPER	VOC	Toluene	108-88-3	32	2	2.0E-03	1.5E-01	2.8E-01	2.3E+00	MW03-02-1990	May-90	Yes	2.3E+00	(g)
4B	UPPER	VOC	Vinyl Chloride	75-01-4	32	2	7.0E-04	7.8E-02	1.3E-01	9.0E-04	MW39-01-1996	Aug-96	Yes	9.0E-04	

Table 2-7 Summary of Constituents in Ground Water Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Aquifer	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/L)	Arithmetic Mean[a] (mg/L)	UCL[b] (mg/L)	Maximum Detected (mg/L)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/L)
4B	UPPER	VOC	Xylenes (total)	1330-20-7	32	2	7.5E-01	1.9E-01	3.6E-01	3.0E+00	MW03-02-1990	May-90	Yes	3.0E+00 (g)
4B	UPPER	VOC	cis-1,2-Dichloroethene	156-59-2	8	2	1.0E-04	3.0E-02	6.4E-02	2.0E-04	MW11-04-1997	Dec-97	Yes	2.0E-04
4B	UPPER	VOC	trans-1,2-Dichloroethene	156-60-5	8	3	1.0E-03	3.0E-02	6.5E-02	4.0E-03	MW39-01-1996	Aug-96	Yes	4.0E-03
4B	UPPER	SVOC	1,2-Dichlorobenzene	95-50-1	33	2	2.3E-02	1.2E-02	1.8E-02	5.1E-02	MW03-01-1994	Dec-94	Yes	5.1E-02 (g)
4B	UPPER	SVOC	1,4-Dichlorobenzene	106-46-7	36	2	3.0E-03	9.2E-03	1.3E-02	3.0E-03	MW03-01-1989	Aug-89	Yes	3.0E-03
4B	UPPER	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	31	6	1.0E-02	1.7E-02	3.3E-02	3.0E-01	MW03-01-1989	Aug-89	Yes	3.0E-01 (g)
4B	UPPER	SVOC	2,4-Dimethylphenol	105-67-9	28	3	5.0E-03	9.8E-03	1.6E-02	1.1E-01	MW03-02-1990	May-90	Yes	1.1E-01 (g)
4B	UPPER	SVOC	2,6-Dinitrotoluene	606-20-2	31	1	9.0E-04	8.4E-03	1.1E-02	9.0E-04	MW48-01-1996	Aug-96	No (e)	
4B	UPPER	SVOC	2-Methylphenol	95-48-7	28	1	1.3E-02	6.4E-03	7.8E-03	1.3E-02	MW03-01-1989	Aug-89	No (e)	
4B	UPPER	SVOC	4-Chloro-3-methylphenol	59-50-7	28	1	9.0E-03	6.0E-03	7.4E-03	9.0E-03	MW03-01-1994	Dec-94	No (e)	
4B	UPPER	SVOC	4-Methylphenol	106-44-5	31	2	4.5E-02	9.6E-03	1.4E-02	7.8E-02	MW03-02-1990	May-90	Yes	7.8E-02 (g)
4B	UPPER	SVOC	Anthracene	120-12-7	28	1	1.1E-02	6.1E-03	7.5E-03	1.1E-02	MW49-03-1997-AVG	Sep-97	No (e)	
4B	UPPER	SVOC	Diethylphthalate	84-66-2	28	3	3.0E-03	6.0E-03	7.4E-03	9.0E-03	MW03-02-1990	May-90	Yes	9.0E-03 (g)
4B	UPPER	SVOC	Isophorone	78-59-1	31	5	1.0E-03	4.9E-03	5.6E-03	7.5E-03	MW49-02-1997-AVG	Jun-97	Yes	7.5E-03 (g)
4B	UPPER	SVOC	Naphthalene	91-20-3	31	2	2.0E-03	5.6E-03	6.9E-03	3.0E-03	MW03-02-1990	May-90	Yes	3.0E-03
4B	UPPER	SVOC	Phenol	108-95-2	31	18	3.0E-03	3.9E-02	5.7E-02	2.4E-01	MW03-02-1990	May-90	Yes	2.4E-01 (g)
4B	UPPER	SVOC	bis(2-Chloroethyl) ether	111-44-4	31	12	1.0E-03	1.9E-02	3.1E-02	1.6E-01	MW03-01-1989	Aug-89	Yes	1.6E-01 (g)
4B	UPPER	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	31	6	2.0E-03	6.3E-03	7.6E-03	1.6E-02	MW49-03-1997-AVG	Sep-97	Yes	1.6E-02 (g)
4B	UPPER	P/PCB	Aroclor-1248	12672-29-6	27	2	1.4E-03	4.9E-04	6.5E-04	2.6E-03	MW04-01-1989	Aug-89	Yes	2.6E-03 (g)
4B	UPPER	INORG	Aluminum	7429-90-5	27	16	5.9E-02	4.1E-01	5.7E-01	1.6E+00	MW11-04-1997	Dec-97	No (d)	
4B	UPPER	INORG	Antimony	7440-36-0	25	2	1.5E-03	1.4E-03	1.9E-03	2.0E-03	MW49-01-1997	Apr-97	Yes	2.0E-03 (g)
4B	UPPER	INORG	Arsenic	7440-38-2	30	17	1.8E-03	1.1E-02	1.6E-02	4.6E-02	MW03-01-1994	Dec-94	Yes	4.6E-02 (g)
4B	UPPER	INORG	Barium	7440-39-3	27	25	1.7E-02	1.3E-01	1.6E-01	5.2E-01	MW03-01-1989	Aug-89	Yes	5.2E-01 (g)
4B	UPPER	INORG	Beryllium	7440-41-7	30	2	1.1E-03	6.3E-04	8.4E-04	1.3E-03	MW48-01-1997-EPA	Mar-97	Yes	1.3E-03 (g)
4B	UPPER	INORG	Cadmium	7440-43-9	27	2	3.2E-04	4.7E-04	6.6E-04	3.1E-03	MW04-01-1989	Aug-89	Yes	3.1E-03 (g)
4B	UPPER	INORG	Calcium	7440-70-2	27	27	3.2E+01	1.0E+02	1.2E+02	2.2E+02	MW03-01-1989	Aug-89	No (d)	
4B	UPPER	INORG	Chromium (total)	7440-47-3	27	12	1.9E-03	3.7E-03	4.7E-03	1.1E-02	MW49-03-1997-AVG	Sep-97	Yes	1.1E-02 (g)
4B	UPPER	INORG	Cobalt	7440-48-4	27	13	1.2E-03	7.4E-03	1.1E-02	3.5E-03	MW48-03-1997	Sep-97	Yes	3.5E-03
4B	UPPER	INORG	Copper	7440-50-8	27	6	3.4E-03	6.6E-03	8.2E-03	2.2E-02	MW11-04-1997	Dec-97	Yes	2.2E-02 (g)
4B	UPPER	INORG	Cyanide (total)	57-12-5	24	1	1.0E-02	5.2E-03	5.5E-03	1.0E-02	MW04-01-1989	Aug-89	No (e)	
4B	UPPER	INORG	Iron	7439-89-6	27	27	5.2E-01	1.6E+01	2.0E+01	5.1E+01	MW03-02-1990	May-90	No (d)	
4B	UPPER	INORG	Lead	7439-92-1	27	8	1.2E-03	2.2E-03	2.8E-03	7.7E-03	MW48-03-1997	Sep-97	Yes	7.7E-03 (g)
4B	UPPER	INORG	Magnesium	7439-95-4	27	26	7.2E+00	1.6E+01	1.9E+01	3.2E+01	MW04-01-1989	Aug-89	No (d)	
4B	UPPER	INORG	Manganese	7439-96-5	30	30	1.3E-01	1.2E+00	1.6E+00	4.3E+00	MW04-01-1989	Aug-89	Yes	4.3E+00 (g)
4B	UPPER	INORG	Mercury	7439-97-6	27	1	3.0E-04	1.2E-04	1.4E-04	3.0E-04	MW48-01-1997-EPA	Mar-97	No (e)	
4B	UPPER	INORG	Nickel	7440-02-0	27	16	4.5E-03	4.0E-02	8.4E-02	7.1E-01	MW39-01-1996	Aug-96	Yes	7.1E-01 (g)
4B	UPPER	INORG	Potassium	7440-09-7	27	26	1.2E+00	5.2E+00	6.3E+00	1.5E+01	MW03-01-1989	Aug-89	No (d)	
4B	UPPER	INORG	Selenium	7782-49-2	27	1	6.2E-03	1.2E-03	1.5E-03	6.2E-03	MW04-01-1989	Aug-89	No (e)	
4B	UPPER	INORG	Sodium	7440-23-5	27	24	4.2E+00	5.5E+01	7.5E+01	2.5E+02	MW04-02-1990	May-90	No (d)	
4B	UPPER	INORG	Thallium	7440-28-0	30	4	1.0E-03	1.4E-03	1.6E-03	4.0E-03	MW48-01-1997	Mar-97	Yes	4.0E-03 (g)
4B	UPPER	INORG	Vanadium	7440-62-2	27	15	1.4E-03	4.6E-03	6.4E-03	2.0E-02	MW11-04-1997	Dec-97	Yes	2.0E-02 (g)
4B	UPPER	INORG	Zinc	7440-66-6	27	10	4.6E-03	5.0E-02	8.7E-02	5.1E-01	MW04-01-1989	Aug-89	Yes	5.1E-01 (g)
5A	UPPER	VOC	1,1-Dichloroethane	75-34-3	14	3	3.0E-03	2.5E-02	3.9E-02	2.1E-02	MW06-01-1996	Nov-96	Yes	2.1E-02
5A	UPPER	VOC	1,2-Dichloroethane	107-06-2	14	1	3.0E-03	2.6E-02	3.9E-02	3.0E-03	MW06-03-1997	Sep-97	Yes	3.0E-03
5A	UPPER	VOC	1,2-Dichloroethene (total)	540-59-0	10	4	2.0E-03	2.6E-02	4.4E-02	2.6E-02	MW06-01-1996	Nov-96	Yes	2.6E-02
5A	UPPER	VOC	4-Methyl-2-pentanone	108-10-1	14	1	2.0E-03	5.1E-02	9.0E-02	2.0E-03	MW06-01-1997-EPA-AVG	Mar-97	Yes	2.0E-03
5A	UPPER	VOC	Benzene	71-43-2	14	14	3.3E-02	8.4E-01	1.2E+00	3.0E+00	MW06-01-1994	Dec-94	Yes	3.0E+00
5A	UPPER	VOC	Chlorobenzene	108-90-7	14	6	1.0E-03	2.4E-02	3.7E-02	4.2E-02	MW45-02-1997	Jun-97	Yes	4.2E-02
5A	UPPER	VOC	Chloroethane	75-00-3	14	14	3.3E-02	2.3E-01	3.3E-01	7.2E-01	MW06-01-1996	Nov-96	Yes	7.2E-01
5A	UPPER	VOC	Ethyl Benzene	100-41-4	14	7	1.0E-02	8.6E-02	7.4E-01	7.7E-01	MW06-01-1994	Dec-94	Yes	7.7E-01
5A	UPPER	VOC	Methylene Chloride	75-09-2	14	2	2.0E-03	3.1E-02	5.0E-02	1.7E-02	MW06-01-1996	Nov-96	Yes	1.7E-02
5A	UPPER	VOC	Vinyl Chloride	75-01-4	14	2	3.0E-03	2.6E-02	3.9E-02	4.0E-03	MW06-03-1997	Sep-97	Yes	4.0E-03
5A	UPPER	VOC	Xylenes (total)	1330-20-7	14	11	1.8E-02	3.6E-01	1.0E+01	3.9E+00	MW06-01-1994	Dec-94	Yes	3.9E+00
5A	UPPER	VOC	cis-1,2-Dichloroethene	156-59-2	4	1	2.0E-03	2.3E-02	6.7E+03	2.0E-03	MW06-01-1997-EPA-AVG	Mar-97	Yes	2.0E-03
5A	UPPER	VOC	trans-1,2-Dichloroethene	156-60-5	4	1	3.0E-03	2.3E-02	5.4E-02	3.0E-03	MW06-01-1997-EPA-AVG	Mar-97	Yes	3.0E-03
5A	UPPER	SVOC	1,2-Dichlorobenzene	95-50-1	15	5	1.0E-03	6.7E-03	1.0E-02	5.0E-03	MW45-03-1997	Sep-97	Yes	5.0E-03
5A	UPPER	SVOC	1,4-Dichlorobenzene	106-46-7	16	2	3.0E-03	8.2E-03	1.2E-02	1.1E-02	MW45-01-1997-AVG	Apr-97	Yes	1.1E-02
5A	UPPER	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	14	3	6.0E-03	5.9E-03	7.0E-03	9.5E-03	MW45-01-1997-AVG	Apr-97	Yes	9.5E-03

Table 2-7 Summary of Constituents in Ground Water Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Aquifer	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/L)	Arithmetic Mean[a] (mg/L)	UCL[b] (mg/L)	Maximum Detected (mg/L)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/L)
5A	UPPER	SVOC	2,4-Dimethylphenol	105-67-9	11	3	3.0E-03	1.2E-02	2.0E-02	5.8E-02	MW06-01-1994	Dec-94	Yes	5.8E-02
5A	UPPER	SVOC	2-Methylnaphthalene	91-57-6	14	5	4.0E-03	5.1E-03	6.0E-03	7.0E-03	MW45-02-1997	Jun-97	Yes	7.0E-03
5A	UPPER	SVOC	Benzo(k)fluoranthene	207-08-9	12	1	3.0E-03	6.1E-03	7.7E-03	3.0E-03	MW06-01-1997-EPA-AVG	Mar-97	Yes	3.0E-03
5A	UPPER	SVOC	Benzoic Acid	65-85-0	3	2	9.0E-03	1.0E-02	1.2E-02	1.1E-02	MW06-01-1989	Aug-89	Yes	1.1E-02
5A	UPPER	SVOC	Chrysene	218-01-9	13	1	3.0E-03	6.0E-03	7.5E-03	3.0E-03	MW06-01-1997-EPA-AVG	Mar-97	Yes	3.0E-03
5A	UPPER	SVOC	Di-n-octylphthalate	117-84-0	13	2	3.0E-03	9.2E-03	1.5E-02	4.7E-02	MW06-01-1994	Dec-94	Yes	4.7E-02
5A	UPPER	SVOC	Diethylphthalate	84-66-2	13	2	1.0E-03	5.6E-03	7.3E-03	2.0E-03	MW06-01-1996	Nov-96	Yes	2.0E-03
5A	UPPER	SVOC	Isophorone	78-59-1	14	8	2.0E-03	1.1E-02	1.6E-02	3.5E-02	MW06-01-1989	Aug-89	Yes	3.5E-02
5A	UPPER	SVOC	Naphthalene	91-20-3	15	6	7.0E-03	4.0E-02	6.4E-02	1.4E-01	MW45-02-1997	Jun-97	Yes	1.4E-01
5A	UPPER	SVOC	Pentachlorophenol	87-86-5	12	1	3.0E-03	1.5E-02	1.9E-02	3.0E-03	MW06-02-1990	May-90	Yes	3.0E-03
5A	UPPER	SVOC	Phenol	108-95-2	14	12	3.0E-03	3.0E-02	4.1E-02	6.4E-02	MW06-01-1994	Dec-94	Yes	6.4E-02
5A	UPPER	SVOC	bis(2-Chloroethyl) ether	111-44-4	14	13	4.0E-03	2.3E-02	5.5E-02	7.4E-02	MW06-04-1997	Dec-97	Yes	7.4E-02
5A	UPPER	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	14	3	1.0E-02	8.0E-03	1.1E-02	2.9E-02	MW06-02-1990	May-90	Yes	2.9E-02
5A	UPPER	P/PCB	beta-BHC	319-85-7	12	1	5.0E-05	2.2E-05	2.9E-05	5.0E-05	MW06-01-1997	Apr-97	Yes	5.0E-05
5A	UPPER	P/PCB	gamma-Chlordane	5103-74-2	12	1	2.0E-05	5.7E-05	1.0E-04	2.0E-05	MW06-01-1997	Apr-97	Yes	2.0E-05
5A	UPPER	INORG	Aluminum	7429-90-5	13	8	1.1E-01	2.0E-01	3.5E-01	7.8E-01	MW45-01-1996	Aug-96	No (d)	
5A	UPPER	INORG	Antimony	7440-36-0	12	2	1.1E-03	1.2E-03	1.8E-03	2.1E-03	MW06-04-1997	Dec-97	Yes	2.1E-03
5A	UPPER	INORG	Arsenic	7440-38-2	14	14	6.0E-03	3.8E-02	7.6E-02	1.1E-01	MW06-04-1997	Dec-97	Yes	1.1E-01
5A	UPPER	INORG	Barium	7440-39-3	13	13	8.5E-02	2.0E-01	2.6E-01	3.8E-01	MW06-01-1989	Aug-89	Yes	3.8E-01
5A	UPPER	INORG	Cadmium	7440-43-9	13	2	2.5E-04	4.8E-04	5.8E-04	3.0E-04	MW06-02-1990	May-90	Yes	3.0E-04
5A	UPPER	INORG	Calcium	7440-70-2	13	13	8.9E+01	1.5E+02	1.7E+02	2.2E+02	MW06-01-1996	Nov-96	No (d)	
5A	UPPER	INORG	Chromium (total)	7440-47-3	13	9	3.4E-03	1.7E-02	2.5E-02	6.2E-02	MW06-04-1997	Dec-97	Yes	6.2E-02
5A	UPPER	INORG	Cobalt	7440-48-4	13	9	1.5E-03	6.7E-03	1.1E-02	4.2E-03	MW45-01-1997-AVG	Apr-97	Yes	4.2E-03
5A	UPPER	INORG	Copper	7440-50-8	13	7	5.2E-03	1.7E-02	2.7E-02	7.3E-02	MW45-01-1997-AVG	Apr-97	Yes	7.3E-02
5A	UPPER	INORG	Cyanide (total)	57-12-5	12	3	1.2E-02	7.4E-03	9.8E-03	1.7E-02	MW06-01-1997	Apr-97	Yes	1.7E-02
5A	UPPER	INORG	Iron	7439-89-6	13	13	1.2E+00	1.0E+01	1.4E+01	2.7E+01	MW06-04-1997	Dec-97	No (d)	
5A	UPPER	INORG	Lead	7439-92-1	13	11	1.1E-03	8.6E-03	1.4E-02	3.9E-02	MW45-01-1996	Aug-96	Yes	3.9E-02
5A	UPPER	INORG	Magnesium	7439-95-4	13	12	2.3E+01	3.0E+01	3.3E+01	3.8E+01	MW06-01-1996	Nov-96	No (d)	
5A	UPPER	INORG	Manganese	7439-96-5	14	14	3.5E-01	1.4E+00	2.0E+00	4.0E+00	MW06-02-1990	May-90	Yes	4.0E+00
5A	UPPER	INORG	Nickel	7440-02-0	13	10	6.2E-03	2.5E-02	4.9E-02	6.2E-02	MW06-04-1997	Dec-97	Yes	6.2E-02
5A	UPPER	INORG	Potassium	7440-09-7	13	12	5.4E+00	1.3E+01	1.9E+01	2.7E+01	MW06-01-1996	Nov-96	No (d)	
5A	UPPER	INORG	Selenium	7782-49-2	13	2	2.1E-03	1.2E-03	1.5E-03	2.6E-03	MW06-04-1997	Dec-97	Yes	2.6E-03
5A	UPPER	INORG	Sodium	7440-23-5	13	13	7.1E+01	1.8E+02	2.7E+02	6.1E+02	MW06-01-1997-EPA-AVG	Mar-97	No (d)	
5A	UPPER	INORG	Vanadium	7440-62-2	13	3	1.6E-03	3.7E-03	7.3E-03	2.6E-02	MW06-01-1989	Aug-89	Yes	2.6E-02
5A	UPPER	INORG	Zinc	7440-66-6	13	3	8.4E-03	8.0E-02	2.0E-01	8.9E-01	MW06-01-1989	Aug-89	Yes	8.9E-01
5B	UPPER	VOC	Benzene	71-43-2	6	6	3.5E+00	6.5E+00	8.6E+00	9.5E+00	MW48-03-1997	Sep-97	Yes	9.5E+00
5B	UPPER	VOC	Bromodichloromethane	75-27-4	6	1	9.0E-04	1.5E-01	2.5E-01	9.0E-04	MW48-01-1997-EPA	Mar-97	Yes	9.0E-04
5B	UPPER	VOC	Chloroethane	75-00-3	6	6	3.0E-01	6.7E-01	1.2E+00	1.0E+00	MW48-01-1996	Aug-96	Yes	1.0E+00
5B	UPPER	VOC	Chloroform	67-66-3	6	1	1.0E-03	1.5E-01	2.5E-01	1.0E-03	MW48-01-1997-EPA	Mar-97	Yes	1.0E-03
5B	UPPER	VOC	Chloromethane	74-87-3	6	1	3.8E-02	1.3E-01	2.4E-01	3.8E-02	MW48-04-1997	Dec-97	Yes	3.8E-02
5B	UPPER	VOC	Methylene Chloride	75-09-2	6	1	7.0E-02	1.8E-01	2.7E-01	7.0E-02	MW48-01-1996	Aug-96	Yes	7.0E-02
5B	UPPER	VOC	Toluene	108-88-3	6	1	2.0E-03	1.5E-01	2.5E-01	2.0E-03	MW48-01-1997-EPA	Mar-97	Yes	2.0E-03
5B	UPPER	VOC	trans-1,2-Dichloroethene	156-60-5	3	1	1.0E-03	4.4E-02	3.3E+23	1.0E-03	MW48-01-1997-EPA	Mar-97	Yes	1.0E-03
5B	UPPER	SVOC	2,6-Dinitrotoluene	606-20-2	6	1	9.0E-04	4.3E-03	1.8E-02	9.0E-04	MW48-01-1996	Aug-96	Yes	9.0E-04
5B	UPPER	SVOC	Isophorone	78-59-1	6	1	1.0E-03	4.3E-03	1.7E-02	1.0E-03	MW48-01-1997	Mar-97	Yes	1.0E-03
5B	UPPER	SVOC	Phenol	108-95-2	6	6	8.0E-03	6.6E-02	9.9E-02	1.1E-01	MW48-01-1996	Aug-96	Yes	1.1E-01
5B	UPPER	SVOC	bis(2-Chloroethyl) ether	111-44-4	6	3	1.0E-02	8.4E-03	2.5E-02	1.8E-02	MW48-02-1997	Jun-97	Yes	1.8E-02
5B	UPPER	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	6	1	4.0E-03	5.3E-03	7.3E-03	4.0E-03	MW48-01-1997-EPA	Mar-97	Yes	4.0E-03
5B	UPPER	INORG	Aluminum	7429-90-5	6	2	5.9E-02	1.1E-01	6.2E-01	3.3E-01	MW48-03-1997	Sep-97	No (d)	
5B	UPPER	INORG	Antimony	7440-36-0	6	1	1.5E-03	8.3E-04	1.2E-03	1.5E-03	MW48-01-1997	Mar-97	Yes	1.5E-03
5B	UPPER	INORG	Arsenic	7440-38-2	6	5	5.0E-03	7.6E-03	1.1E-02	1.3E-02	MW48-03-1997	Sep-97	Yes	1.3E-02
5B	UPPER	INORG	Barium	7440-39-3	6	6	5.8E-02	1.2E-01	1.5E-01	1.6E-01	MW48-01-1996	Aug-96	Yes	1.6E-01
5B	UPPER	INORG	Beryllium	7440-41-7	6	1	1.3E-03	5.7E-04	8.9E-04	1.3E-03	MW48-01-1997-EPA	Mar-97	Yes	1.3E-03
5B	UPPER	INORG	Calcium	7440-70-2	6	6	8.0E+01	1.2E+02	1.4E+02	1.4E+02	MW48-01-1996	Aug-96	No (d)	
5B	UPPER	INORG	Chromium (total)	7440-47-3	6	3	1.9E-03	3.9E-03	5.9E-03	7.8E-03	MW48-03-1997	Sep-97	Yes	7.8E-03
5B	UPPER	INORG	Cobalt	7440-48-4	6	3	2.6E-03	3.0E-03	4.2E-03	3.5E-03	MW48-03-1997	Sep-97	Yes	3.5E-03
5B	UPPER	INORG	Copper	7440-50-8	6	2	3.4E-03	4.9E-03	6.1E-02	1.3E-02	MW48-03-1997	Sep-97	Yes	1.3E-02
5B	UPPER	INORG	Iron	7439-89-6	6	6	1.3E+01	2.4E+01	2.8E+01	3.1E+01	MW48-01-1996	Aug-96	No (d)	

Table 2-7 Summary of Constituents in Ground Water Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Aquifer	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/L)	Arithmetic Mean[a] (mg/L)	UCL[b] (mg/L)	Maximum Detected (mg/L)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/L)
5B	UPPER	INORG	Lead	7439-92-1	6	1	7.7E-03	2.1E-03	4.4E-03	7.7E-03	MW48-03-1997	Sep-97	Yes	7.7E-03
5B	UPPER	INORG	Magnesium	7439-95-4	6	6	1.3E+01	1.7E+01	1.9E+01	2.0E+01	MW48-01-1996	Aug-96	No (d)	
5B	UPPER	INORG	Manganese	7439-96-5	6	6	3.9E-01	5.4E-01	6.6E-01	6.9E-01	MW48-01-1996	Aug-96	Yes	6.9E-01
5B	UPPER	INORG	Mercury	7439-97-6	6	1	3.0E-04	1.3E-04	2.0E-04	3.0E-04	MW48-01-1997-EPA	Mar-97	Yes	3.0E-04
5B	UPPER	INORG	Nickel	7440-02-0	6	3	6.6E-03	1.1E-02	1.7E-02	1.9E-02	MW48-03-1997	Sep-97	Yes	1.9E-02
5B	UPPER	INORG	Potassium	7440-09-7	6	5	3.8E+00	6.0E+00	7.5E+00	8.3E+00	MW48-03-1997	Sep-97	No (d)	
5B	UPPER	INORG	Sodium	7440-23-5	6	6	2.5E+01	4.2E+01	4.9E+01	5.2E+01	MW48-01-1996	Aug-96	No (d)	
5B	UPPER	INORG	Thallium	7440-28-0	6	2	1.1E-03	1.5E-03	2.5E-03	4.0E-03	MW48-01-1997	Mar-97	Yes	4.0E-03
5B	UPPER	INORG	Vanadium	7440-62-2	6	3	1.6E-03	3.1E-03	2.0E-02	2.4E-03	MW48-01-1997	Mar-97	Yes	2.4E-03
5B	UPPER	INORG	Zinc	7440-66-6	6	1	4.6E-03	1.2E-02	2.0E-02	4.6E-03	MW48-04-1997	Dec-97	Yes	4.6E-03
5PW	PRIVATE	VOC	1,2-Dichloroethane	107-06-2	36	1	1.0E-04	6.0E-04	6.6E-04	1.0E-04	PWJ-01-1997	Mar-97	Yes (f)	1.0E-04
5PW	PRIVATE	VOC	2-Butanone	78-93-3	22	2	3.0E-03	2.4E-03	2.6E-03	4.0E-03	PWRE-01-1997-AVG	Apr-97	Yes	4.0E-03
5PW	PRIVATE	VOC	Chloroform	67-66-3	36	2	1.0E-03	6.4E-04	7.0E-04	1.0E-03	PWC-01-1997-EPA	Mar-97	Yes	1.0E-03
5PW	PRIVATE	VOC	Chloromethane	74-87-3	30	1	3.0E-04	6.3E-04	7.0E-04	3.0E-04	PWL-01-1997	Apr-97	Yes (f)	3.0E-04
5PW	PRIVATE	VOC	Methylene Chloride	75-09-2	36	2	2.0E-04	7.3E-04	8.5E-04	2.0E-04	PWRC-02-1997	Oct-97	Yes	2.0E-04
5PW	PRIVATE	VOC	Toluene	108-88-3	36	1	3.0E-04	6.1E-04	6.7E-04	3.0E-04	PWI-01-1997-AVG	Mar-97	Yes (f)	3.0E-04
5PW	PRIVATE	VOC	Trichloroethene	79-01-6	36	2	2.0E-04	6.0E-04	6.6E-04	3.0E-04	PWK-01-1997	Mar-97	Yes	3.0E-04
5PW	PRIVATE	VOC	Vinyl Chloride	75-01-4	36	2	3.0E-04	6.1E-04	6.7E-04	6.0E-04	PWRE-01-1997-AVG	Apr-97	Yes	6.0E-04
5PW	PRIVATE	SVOC	1,4-Dichlorobenzene	106-46-7	44	1	3.0E-04	8.8E-04	1.0E-03	3.0E-04	PWN-01-1997	Mar-97	Yes (f)	3.0E-04
5PW	PRIVATE	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	34	4	1.0E-03	2.0E-03	2.2E-03	1.0E-03	PWA-01-1997-EPA	Mar-97	Yes	1.0E-03
5PW	PRIVATE	INORG	Aluminum	7429-90-5	34	1	1.0E-01	3.3E-02	4.4E-02	1.0E-01	PWK-02-1997	Oct-97	No (d)	
5PW	PRIVATE	INORG	Antimony	7440-36-0	34	2	1.4E-03	9.1E-04	1.1E-03	1.7E-03	PWX-01-1997	Apr-97	Yes	1.7E-03
5PW	PRIVATE	INORG	Arsenic	7440-38-2	34	2	2.8E-03	1.1E-03	1.3E-03	3.8E-03	PWS-01-1997	Mar-97	Yes	3.8E-03
5PW	PRIVATE	INORG	Barium	7440-39-3	34	34	2.7E-03	1.4E-01	1.6E-01	2.9E-01	PW04-01-1990	Jun-90	Yes	2.9E-01
5PW	PRIVATE	INORG	Cadmium	7440-43-9	34	2	4.0E-04	4.1E-04	4.7E-04	1.1E-03	PWD-01-1997	Apr-97	Yes	1.1E-03
5PW	PRIVATE	INORG	Calcium	7440-70-2	34	34	1.5E+00	9.3E+01	1.0E+02	1.2E+02	PWT-01-1997	Apr-97	No (d)	
5PW	PRIVATE	INORG	Chromium (total)	7440-47-3	34	1	6.7E-04	1.0E-03	1.4E-03	6.7E-04	PW04-01-1990	Jun-90	Yes (f)	6.7E-04
5PW	PRIVATE	INORG	Copper	7440-50-8	34	18	1.0E-03	2.2E-02	3.1E-02	1.6E-01	PWD-01-1997	Apr-97	Yes	1.6E-01
5PW	PRIVATE	INORG	Iron	7439-89-6	34	33	3.4E-02	2.3E+00	2.6E+00	4.5E+00	PW02-01-1990	Jun-90	No (d)	
5PW	PRIVATE	INORG	Lead	7439-92-1	34	12	1.1E-03	2.9E-03	4.2E-03	2.3E-02	PWD-01-1997	Apr-97	Yes	2.3E-02
5PW	PRIVATE	INORG	Magnesium	7439-95-4	34	34	9.2E-01	4.6E+01	5.1E+01	7.0E+01	PWX-01-1997	Apr-97	No (d)	
5PW	PRIVATE	INORG	Manganese	7439-96-5	34	31	1.7E-02	9.2E-02	1.5E-01	9.2E-01	PWK-01-1997	Mar-97	Yes	9.2E-01
5PW	PRIVATE	INORG	Nickel	7440-02-0	34	12	1.1E-03	5.9E-03	8.0E-03	5.0E-03	PWRW-01-1997	Apr-97	Yes	5.0E-03
5PW	PRIVATE	INORG	Potassium	7440-09-7	34	30	1.5E+00	3.0E+00	3.3E+00	5.3E+00	PWK-02-1997	Oct-97	No (d)	
5PW	PRIVATE	INORG	Selenium	7782-49-2	34	1	2.1E-03	1.1E-03	1.2E-03	2.1E-03	PWY-02-1997-AVG	Oct-97	Yes (f)	2.1E-03
5PW	PRIVATE	INORG	Sodium	7440-23-5	34	33	9.4E+00	4.0E+01	5.4E+01	1.9E+02	PWRE-02-1997	Oct-97	No (d)	
5PW	PRIVATE	INORG	Zinc	7440-66-6	34	15	2.8E-02	1.4E-01	2.3E-01	1.6E+00	PWD-01-1997	Apr-97	Yes	1.6E+00
ON-SITE	LOWER	VOC	1,1-Dichloroethane	75-34-3	117	1	6.0E-03	1.1E-02	1.4E-02	6.0E-03	IW1-1997-AVG	Nov-97	No (e)	
ON-SITE	LOWER	VOC	4-Methyl-2-pentanone	108-10-1	116	8	2.0E-03	1.5E-02	2.1E-02	9.0E-03	MW10-01-1995	Jan-95	Yes	9.0E-03
ON-SITE	LOWER	VOC	Acetone	67-64-1	103	9	5.0E-03	1.3E-02	1.6E-02	2.2E-02	MW52-01-1996	Dec-96	Yes	2.2E-02
ON-SITE	LOWER	VOC	Benzene	71-43-2	117	11	5.5E-04	2.0E-02	3.0E-02	3.1E-01	MW09-01-1996	Nov-96	Yes	3.1E-01
ON-SITE	LOWER	VOC	Bromodichloromethane	75-27-4	117	1	6.0E-04	1.1E-02	1.4E-02	6.0E-04	IW4-1997-AVG	Nov-97	No (e)	
ON-SITE	LOWER	VOC	Carbon Disulfide	75-15-0	117	4	1.0E-04	1.1E-02	1.4E-02	2.0E-04	MW34-04-1997	Dec-97	No (e)	
ON-SITE	LOWER	VOC	Chloroethane	75-00-3	117	18	1.0E-04	1.2E-01	1.8E-01	2.9E+00	MW09-01-1997	Apr-97	Yes	2.9E+00
ON-SITE	LOWER	VOC	Chloroform	67-66-3	117	4	6.0E-04	1.1E-02	1.4E-02	1.0E-03	MW30-01-1997	Mar-97	No (e)	
ON-SITE	LOWER	VOC	Chloromethane	74-87-3	117	3	1.0E-04	1.1E-02	1.4E-02	1.0E-03	MW-09-1997-EPA	Mar-97	No (e)	
ON-SITE	LOWER	VOC	Ethyl Benzene	100-41-4	116	6	1.0E-04	1.1E-02	1.4E-02	1.5E-03	IW1-1997-AVG	Nov-97	Yes	1.5E-03
ON-SITE	LOWER	VOC	Methylene Chloride	75-09-2	117	2	1.0E-03	1.2E-02	1.6E-02	1.3E-01	MW10C-02-1997-AVG	Jun-97	No (e)	
ON-SITE	LOWER	VOC	Tetrachloroethene	127-18-4	116	2	3.5E-04	1.1E-02	1.4E-02	8.5E-03	IW1-1997-AVG	Nov-97	No (e)	
ON-SITE	LOWER	VOC	Toluene	108-88-3	116	13	1.0E-04	1.1E-02	1.4E-02	3.0E-03	IW1-1997-AVG	Nov-97	Yes	3.0E-03
ON-SITE	LOWER	VOC	Trichloroethene	79-01-6	117	4	2.0E-04	1.1E-02	1.4E-02	5.5E-03	IW1-1997-AVG	Nov-97	No (e)	
ON-SITE	LOWER	VOC	Vinyl Chloride	75-01-4	117	3	1.0E-03	1.2E-02	1.5E-02	1.3E-01	MW10C-02-1997-AVG	Jun-97	No (e)	
ON-SITE	LOWER	VOC	Xylenes (total)	1330-20-7	116	8	1.5E-04	1.4E-02	2.0E-02	6.0E-03	IW1-1997-AVG	Nov-97	Yes	6.0E-03
ON-SITE	LOWER	VOC	cis-1,2-Dichloroethene	156-59-2	24	3	1.0E-04	6.2E-03	1.2E-02	3.9E-02	IW1-1997-AVG	Nov-97	Yes	3.9E-02
ON-SITE	LOWER	VOC	trans-1,2-Dichloroethene	156-60-5	24	3	4.5E-04	4.7E-03	9.6E-03	2.0E-03	M04D-01-1997-EPA	Mar-97	Yes	2.0E-03
ON-SITE	LOWER	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	105	1	6.5E-03	5.6E-03	6.3E-03	6.5E-03	MW51-01-1996-AVG	Nov-96	No (e)	
ON-SITE	LOWER	SVOC	2-Methylphenol	95-48-7	106	1	2.0E-03	5.5E-03	6.2E-03	2.0E-03	MW55-01-1997	Mar-97	No (e)	
ON-SITE	LOWER	SVOC	4-Chloro-3-methylphenol	59-50-7	106	1	4.0E-03	5.5E-03	6.2E-03	4.0E-03	MW55-01-1997	Mar-97	No (e)	

Table 2-7 Summary of Constituents in Ground Water Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Aquifer	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/L)	Arithmetic Mean[a] (mg/L)	UCL[b] (mg/L)	Maximum Detected (mg/L)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/L)
ON-SITE	LOWER	SVOC	4-Methylphenol	106-44-5	106	1	1.1E-02	5.5E-03	**6.3E-03**	1.1E-02	MW53-01-1997-AVG	Mar-97	No (e)	
ON-SITE	LOWER	SVOC	4-Nitrophenol	100-02-7	105	1	1.9E-02	1.4E-02	**1.6E-02**	1.9E-02	MW55-01-1997	Mar-97	No (e)	
ON-SITE	LOWER	SVOC	Anthracene	120-12-7	105	2	7.0E-04	5.4E-03	**6.2E-03**	9.0E-04	MW30-1996	Mar-96	No (e)	
ON-SITE	LOWER	SVOC	Benzo(k)fluoranthene	207-08-9	105	2	1.0E-03	5.5E-03	**6.2E-03**	1.0E-03	MW-09-1997-EPA	Mar-97	No (e)	
ON-SITE	LOWER	SVOC	Di-n-butylphthalate	84-74-2	105	3	7.0E-04	5.5E-03	**6.2E-03**	1.0E-03	MW51-01-1997-EPA	Mar-97	No (e)	
ON-SITE	LOWER	SVOC	Di-n-octylphthalate	117-84-0	105	2	1.0E-03	5.5E-03	**6.3E-03**	1.0E-02	MW21-01-1995-AVG	Jan-95	No (e)	
ON-SITE	LOWER	SVOC	Diethylphthalate	84-66-2	105	2	2.0E-03	5.5E-03	**6.2E-03**	2.9E-03	IW4-1997-AVG	Nov-97	No (e)	
ON-SITE	LOWER	SVOC	Isophorone	78-59-1	106	13	6.0E-04	5.0E-03	**5.8E-03**	5.0E-03	MW53-03-1997	Sep-97	Yes	5.0E-03
ON-SITE	LOWER	SVOC	N-Nitroso-di-n-propylamine	621-64-7	106	1	6.5E-03	5.5E-03	**6.2E-03**	6.5E-03	MW51-01-1996-AVG	Nov-96	No (e)	
ON-SITE	LOWER	SVOC	Phenol	108-95-2	105	63	2.0E-03	2.9E-02	**3.7E-02**	3.4E-01	MW34-03-1997	Sep-97	Yes	3.4E-01
ON-SITE	LOWER	SVOC	bis(2-Chloroethyl) ether	111-44-4	106	10	2.0E-03	7.0E-03	**8.4E-03**	4.4E-02	MW09-01-1996	Nov-96	Yes	4.4E-02
ON-SITE	LOWER	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	104	30	2.0E-03	1.0E-02	**1.3E-02**	9.3E-02	MW23-01-1997-EPA	Mar-97	Yes	9.3E-02
ON-SITE	LOWER	P/PCB	4,4'-DDD	72-54-8	93	1	2.0E-06	3.9E-05	**4.2E-05**	2.0E-06	IW6-1997	Nov-97	No (e)	
ON-SITE	LOWER	P/PCB	Aldrin	309-00-2	93	1	6.0E-06	2.0E-05	**2.1E-05**	6.0E-06	IW6-1997	Nov-97	No (e)	
ON-SITE	LOWER	P/PCB	Aroclor-1248	12672-29-6	106	1	1.9E-04	3.9E-04	**4.2E-04**	1.9E-04	IW6-1997	Nov-97	No (e)	
ON-SITE	LOWER	P/PCB	Endrin aldehyde	7421-93-4	87	1	1.1E-05	3.9E-05	**4.2E-05**	1.1E-05	MW53-04-1997	Dec-97	No (e)	
ON-SITE	LOWER	P/PCB	Heptachlor	76-44-8	93	1	8.0E-06	2.0E-05	**2.1E-05**	8.0E-06	MW32-04-1997	Dec-97	No (e)	
ON-SITE	LOWER	P/PCB	alpha-BHC	319-84-6	93	1	3.0E-05	2.0E-05	**2.1E-05**	3.0E-05	MW33-01-1997	Mar-97	No (e)	
ON-SITE	LOWER	INORG	Aluminum	7429-90-5	100	64	1.2E-01	2.2E+00	**3.0E+00**	3.9E+01	MW53-01-1996	Dec-96	No (d)	
ON-SITE	LOWER	INORG	Antimony	7440-36-0	100	7	1.3E-03	9.7E-04	**1.1E-03**	6.8E-03	MW52-01-1996	Dec-96	Yes	6.8E-03
ON-SITE	LOWER	INORG	Arsenic	7440-38-2	106	55	1.8E-03	7.0E-03	**9.5E-03**	1.3E-01	MW52-01-1997	Mar-97	Yes	1.3E-01
ON-SITE	LOWER	INORG	Barium	7440-39-3	100	98	2.7E-02	3.2E-01	**3.8E-01**	1.6E+00	MW53-02-1997	Jun-97	Yes	1.6E+00
ON-SITE	LOWER	INORG	Beryllium	7440-41-7	106	14	1.0E-03	7.7E-04	**8.9E-04**	6.2E-03	MW53-01-1996	Dec-96	Yes	6.2E-03
ON-SITE	LOWER	INORG	Cadmium	7440-43-9	100	7	3.0E-04	9.3E-04	**1.5E-03**	3.6E-02	IW6-1997	Nov-97	Yes	3.6E-02
ON-SITE	LOWER	INORG	Calcium	7440-70-2	100	100	9.5E-01	1.2E+02	**1.2E+02**	3.1E+02	MW33-01-1997	Mar-97	No (d)	
ON-SITE	LOWER	INORG	Chromium (total)	7440-47-3	100	81	1.3E-03	3.2E-02	**4.1E-02**	3.6E-01	MW10C-03-1997	Sep-97	Yes	3.6E-01
ON-SITE	LOWER	INORG	Cobalt	7440-48-4	100	76	1.0E-03	4.9E-03	**5.9E-03**	2.5E-02	MW53-01-1996	Dec-96	Yes	2.5E-02
ON-SITE	LOWER	INORG	Copper	7440-50-8	100	64	1.5E-03	2.0E-02	**2.5E-02**	1.1E-01	MW55-04-1997	Dec-97	Yes	1.1E-01
ON-SITE	LOWER	INORG	Cyanide (total)	57-12-5	93	1	1.0E-02	5.0E-03	**5.1E-03**	1.0E-02	MW08-04-1997-AVG	Dec-97	No (e)	
ON-SITE	LOWER	INORG	Iron	7439-89-6	100	98	1.5E-01	9.6E+00	**1.1E+01**	5.2E+01	MW24-02-1997	Jun-97	No (d)	
ON-SITE	LOWER	INORG	Lead	7439-92-1	100	66	1.0E-03	1.2E-02	**1.7E-02**	3.0E-01	IW6-1997	Nov-97	Yes	3.0E-01
ON-SITE	LOWER	INORG	Magnesium	7439-95-4	100	100	4.3E+00	4.5E+01	**4.8E+01**	1.2E+02	MW53-02-1997	Jun-97	No (d)	
ON-SITE	LOWER	INORG	Manganese	7439-96-5	106	106	1.0E-02	2.4E-01	**2.9E-01**	1.7E+00	MW24-01-1995	Jan-95	Yes	1.7E+00
ON-SITE	LOWER	INORG	Mercury	7439-97-6	100	3	2.4E-04	1.2E-04	**1.3E-04**	6.7E-04	MW09-01-1997	Apr-97	No (e)	
ON-SITE	LOWER	INORG	Nickel	7440-02-0	100	69	2.5E-03	2.9E-02	**3.5E-02**	2.6E-01	MW10C-03-1997	Sep-97	Yes	2.6E-01
ON-SITE	LOWER	INORG	Potassium	7440-09-7	100	89	9.6E-01	6.1E+00	**7.1E+00**	3.3E+01	MW53-02-1997	Jun-97	No (d)	
ON-SITE	LOWER	INORG	Selenium	7782-49-2	100	5	2.1E-03	1.2E-03	**1.3E-03**	3.2E-03	MW24-04-1997	Dec-97	No (e)	
ON-SITE	LOWER	INORG	Sodium	7440-23-5	100	99	1.0E+01	8.6E+01	**9.9E+01**	4.0E+02	MW53-02-1997	Jun-97	No (d)	
ON-SITE	LOWER	INORG	Thallium	7440-28-0	106	6	1.8E-03	1.2E-03	**1.3E-03**	4.1E-03	MW52-01-1996	Dec-96	Yes	4.1E-03
ON-SITE	LOWER	INORG	Vanadium	7440-62-2	100	57	1.0E-03	3.7E-03	**4.7E-03**	3.2E-02	MW53-01-1996	Dec-96	Yes	3.2E-02
ON-SITE	LOWER	INORG	Zinc	7440-66-6	100	32	1.0E-02	4.9E-01	**1.1E+00**	3.3E+01	IW6-1997	Nov-97	Yes	3.3E+01
5A	LOWER	VOC	2-Butanone	78-93-3	25	1	5.5E-03	4.9E-03	5.1E-03	5.5E-03	MW07-01-1995-AVG	Jan-95	No (e)	
5A	LOWER	VOC	Acetone	67-64-1	26	1	2.0E-02	5.8E-03	6.9E-03	2.0E-02	MW07-01-1997	Mar-97	No (e)	
5A	LOWER	VOC	Carbon Disulfide	75-15-0	30	1	4.0E-04	3.9E-03	4.5E-03	4.0E-04	MW22-04-1997	Dec-97	No (e)	
5A	LOWER	VOC	Chloroform	67-66-3	30	1	3.0E-03	3.9E-03	4.4E-03	3.0E-03	MW22-02-1997	Jul-97	No (e)	
5A	LOWER	VOC	Chloromethane	74-87-3	30	1	3.0E-04	4.2E-03	4.8E-03	3.0E-04	MW07-04-1997	Dec-97	No (e)	
5A	LOWER	VOC	Toluene	108-88-3	30	2	1.0E-03	3.7E-03	4.2E-03	1.0E-03	MW07-03-1997	Sep-97	Yes	1.0E-03
5A	LOWER	SVOC	Benzoic Acid	65-85-0	3	1	6.0E-03	1.9E-02	3.7E-02	6.0E-03	MW28-01-1997-EPA	Mar-97	Yes	6.0E-03
5A	LOWER	SVOC	Di-n-butylphthalate	84-74-2	27	1	1.0E-03	7.1E-03	9.5E-03	1.0E-03	MW28-01-1997-EPA	Mar-97	No (e)	
5A	LOWER	SVOC	Dimethylphthalate	131-11-3	27	1	9.0E-03	7.2E-03	9.6E-03	9.0E-03	MW50-01-1997-AVG	Mar-97	No (e)	
5A	LOWER	SVOC	Phenol	108-95-2	27	19	1.0E-03	6.6E-02	9.3E-02	3.3E-01	MW22-03-1997	Sep-97	Yes	3.3E-01
5A	LOWER	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	27	12	2.0E-03	1.1E-02	1.5E-02	5.6E-02	MW36-01-1997	Mar-97	Yes	5.6E-02
5A	LOWER	INORG	Aluminum	7429-90-5	25	18	6.1E-02	1.2E+00	1.8E+00	7.6E+00	MW50-01-1997-AVG	Mar-97	No (d)	
5A	LOWER	INORG	Arsenic	7440-38-2	27	7	1.2E-03	1.6E-03	1.9E-03	4.9E-03	MW28-03-1997	Sep-97	Yes	4.9E-03
5A	LOWER	INORG	Barium	7440-39-3	25	23	9.5E-02	2.2E-01	2.7E-01	6.3E-01	MW22-03-1997	Sep-97	Yes	6.3E-01
5A	LOWER	INORG	Beryllium	7440-41-7	27	2	1.1E-03	6.6E-04	8.5E-04	1.1E-03	MW28-03-1997	Sep-97	Yes	1.1E-03
5A	LOWER	INORG	Cadmium	7440-43-9	25	1	1.1E-03	4.8E-04	5.4E-04	1.1E-03	MW07-04-1997	Dec-97	No (e)	
5A	LOWER	INORG	Calcium	7440-70-2	25	25	4.9E+01	1.1E+02	1.3E+02	2.5E+02	MW22-03-1997	Sep-97	No (d)	

Table 2-7 Summary of Constituents in Ground Water Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	Aquifer	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/L)	Arithmetic Mean[a] (mg/L)	UCL[b] (mg/L)	Maximum Detected (mg/L)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/L)
5A	LOWER	INORG	Chromium (total)	7440-47-3	25	19	5.4E-03	2.7E-02	3.9E-02	1.1E-01	MW28-01-1997	Mar-97	Yes	1.1E-01
5A	LOWER	INORG	Cobalt	7440-48-4	25	17	1.0E-03	3.9E-03	6.1E-03	6.7E-03	MW50-01-1997-AVG	Mar-97	Yes	6.7E-03
5A	LOWER	INORG	Copper	7440-50-8	25	20	3.8E-03	2.3E-02	3.2E-02	1.3E-01	MW22-03-1997	Sep-97	Yes	1.3E-01
5A	LOWER	INORG	Iron	7439-89-6	25	25	7.4E-02	3.7E+00	4.8E+00	1.3E+01	MW50-01-1997-AVG	Mar-97	No (d)	
5A	LOWER	INORG	Lead	7439-92-1	25	18	1.6E-03	4.5E-03	5.6E-03	1.2E-02	MW28-01-1997	Mar-97	Yes	1.2E-02
5A	LOWER	INORG	Magnesium	7439-95-4	25	25	5.6E+00	3.9E+01	4.5E+01	8.6E+01	MW50-01-1997-AVG	Mar-97	No (d)	
5A	LOWER	INORG	Manganese	7439-96-5	27	27	1.5E-02	1.1E-01	1.3E-01	2.6E-01	MW50-01-1997-AVG	Mar-97	Yes	2.6E-01
5A	LOWER	INORG	Nickel	7440-02-0	25	20	6.5E-03	2.2E-02	2.9E-02	7.4E-02	MW28-01-1997	Mar-97	Yes	7.4E-02
5A	LOWER	INORG	Potassium	7440-09-7	25	24	8.9E-01	1.1E+01	1.8E+01	9.3E+01	MW22-01-1996	Nov-96	No (d)	
5A	LOWER	INORG	Selenium	7782-49-2	25	2	2.5E-03	1.1E-03	1.3E-03	3.0E-03	MW22-04-1997	Dec-97	Yes	3.0E-03
5A	LOWER	INORG	Sodium	7440-23-5	25	25	1.2E+01	1.1E+02	1.6E+02	3.6E+02	MW50-01-1997-AVG	Mar-97	No (d)	
5A	LOWER	INORG	Thallium	7440-28-0	27	2	2.1E-03	1.3E-03	1.5E-03	3.6E-03	MW22-04-1997	Dec-97	Yes	3.6E-03
5A	LOWER	INORG	Vanadium	7440-62-2	25	13	1.1E-03	2.3E-03	3.3E-03	1.3E-02	MW50-01-1997-AVG	Mar-97	Yes	1.3E-02
5A	LOWER	INORG	Zinc	7440-66-6	25	8	1.3E-02	1.8E-02	2.2E-02	4.2E-02	MW50-01-1997-AVG	Mar-97	Yes	4.2E-02

(a) The arithmetic mean was calculated for >1 valid sample.
(b) UCL = 95% Upper Confidence Limit on the arithmetic mean. The UCL was calculated for >1 valid sample.
(c) The maximum detected concentration was used as the exposure point concentration for ingestion, dermal contact, and indoor inhalation exposure scenarios.
(d) Chemical was not retained for risk calculations because it is a major earth element and does not have a toxicity value. See text.
(e) Chemical was not retained for risk calculations because it was detected in less than 5% of the samples from this media/area/depth.
(f) Although this chemical was detected in less than 5% of the private well samples, it was retained for risk calculations to identify the private well with the highest estimated risk.
(g) In order to estimate outdoor air concentrations from vapor emissions from ground water, the UCL was used as the exposure point concentration unless it was greater than the maximum, in which case, the maximum detected concentration was used.

Table 2-8 Summary of Constituents in Surface Water Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/L)	Arithmetic Mean[a] (mg/L)	UCL[b] (mg/L)	Maximum Detected (mg/L)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/L)
1	VOC	1,1-Dichloroethane	75-34-3	2	1	2.0E-03	2.3E-03	3.8E-03	2.0E-03	ACS-SW01-01	Jul-89	Yes	2.0E-03
1	VOC	1,2-Dichloroethene (total)	540-59-0	2	1	1.0E-03	1.8E-03	6.5E-03	1.0E-03	ACS-SW01-01	Jul-89	Yes	1.0E-03
1	VOC	2-Butanone	78-93-3	2	1	3.3E-02	1.9E-02	1.1E-01	3.3E-02	ACS-SW02-01	Jul-89	Yes	3.3E-02
1	VOC	Acetone	67-64-1	2	1	5.0E-03	5.0E-03	5.0E-03	5.0E-03	ACS-SW02-01	Jul-89	Yes	5.0E-03
1	P/PCB	Aroclor-1248	12672-29-6	2	2	5.0E-04	6.7E-04	1.7E-03	8.4E-04	ACS-SW02-01	Jul-89	Yes	8.4E-04
1	INORG	Aluminum	7429-90-5	2	1	9.6E-01	5.3E-01	3.2E+00	9.6E-01	ACS-SW02-01	Jul-89	No (d)	
1	INORG	Cadmium	7440-43-9	2	1	7.2E-04	4.1E-04	2.4E-03	7.2E-04	ACS-SW02-01	Jul-89	Yes	7.2E-04
1	INORG	Calcium	7440-70-2	2	2	1.3E+01	4.5E+01	2.5E+02	7.8E+01	ACS-SW01-01	Jul-89	No (d)	
1	INORG	Chromium (total)	7440-47-3	2	2	7.8E-03	8.1E-03	9.6E-03	8.3E-03	ACS-SW02-01	Jul-89	Yes	8.3E-03
1	INORG	Copper	7440-50-8	2	1	2.2E-02	1.6E-02	5.4E-02	2.2E-02	ACS-SW02-01	Jul-89	Yes	2.2E-02
1	INORG	Iron	7439-89-6	2	2	2.7E-01	5.6E-01	2.4E+00	8.5E-01	ACS-SW02-01	Jul-89	No (d)	
1	INORG	Lead	7439-92-1	2	2	6.3E-03	1.5E-02	7.0E-02	2.4E-02	ACS-SW02-01	Jul-89	Yes	2.4E-02
1	INORG	Magnesium	7439-95-4	2	2	1.1E+00	1.8E+01	1.2E+02	3.5E+01	ACS-SW01-01	Jul-89	No (d)	
1	INORG	Manganese	7439-96-5	2	2	2.4E-02	3.8E-02	1.3E-01	5.2E-02	ACS-SW01-01	Jul-89	Yes	5.2E-02
1	INORG	Potassium	7440-09-7	2	2	6.5E-01	3.4E+00	2.1E+01	6.1E+00	ACS-SW01-01	Jul-89	No (d)	
1	INORG	Sodium	7440-23-5	2	1	8.2E+01	4.1E+01	3.0E+02	8.2E+01	ACS-SW01-01	Jul-89	No (d)	
1	INORG	Zinc	7440-66-6	2	2	5.4E-02	5.8E-02	8.0E-02	6.1E-02	ACS-SW02-01	Jul-89	Yes	6.1E-02
2	VOC	1,1-Dichloroethane	75-34-3	1	1	1.0E-03			1.0E-03	ACS-SW05-01	Jul-89	Yes	1.0E-03
2	VOC	1,2-Dichloroethene (total)	540-59-0	1	1	3.0E-03			3.0E-03	ACS-SW05-01	Jul-89	Yes	3.0E-03
2	VOC	2-Butanone	78-93-3	1	1	1.4E-01			1.4E-01	ACS-SW05-01	Jul-89	Yes	1.4E-01
2	VOC	4-Methyl-2-pentanone	108-10-1	1	1	4.9E-02			4.9E-02	ACS-SW05-01	Jul-89	Yes	4.9E-02
2	VOC	Acetone	67-64-1	1	1	3.8E-01			3.8E-01	ACS-SW05-01	Jul-89	Yes	3.8E-01
2	VOC	Benzene	71-43-2	1	1	4.6E-01			4.6E-01	ACS-SW05-01	Jul-89	Yes	4.6E-01
2	VOC	Chloroethane	75-00-3	1	1	3.0E-02			3.0E-02	ACS-SW05-01	Jul-89	Yes	3.0E-02
2	VOC	Ethyl Benzene	100-41-4	1	1	6.0E-03			6.0E-03	ACS-SW05-01	Jul-89	Yes	6.0E-03
2	VOC	Toluene	108-88-3	1	1	7.0E-03			7.0E-03	ACS-SW05-01	Jul-89	Yes	7.0E-03
2	VOC	Xylenes (total)	1330-20-7	1	1	3.5E-02			3.5E-02	ACS-SW05-01	Jul-89	Yes	3.5E-02
2	SVOC	2,4-Dimethylphenol	105-67-9	1	1	1.2E-02			1.2E-02	ACS-SW05-01	Jul-89	Yes	1.2E-02
2	SVOC	2-Methylphenol	95-48-7	1	1	5.0E-03			5.0E-03	ACS-SW05-01	Jul-89	Yes	5.0E-03
2	SVOC	4-Chloro-3-methylphenol	59-50-7	1	1	2.0E-03			2.0E-03	ACS-SW05-01	Jul-89	Yes	2.0E-03
2	SVOC	4-Methylphenol	106-44-5	1	1	9.0E-03			9.0E-03	ACS-SW05-01	Jul-89	Yes	9.0E-03
2	SVOC	Isophorone	78-59-1	1	1	5.0E-03			5.0E-03	ACS-SW05-01	Jul-89	Yes	5.0E-03
2	SVOC	Phenol	108-95-2	1	1	2.3E-02			2.3E-02	ACS-SW05-01	Jul-89	Yes	2.3E-02
2	SVOC	bis(2-Chloroethyl) ether	111-44-4	1	1	7.7E-02			7.7E-02	ACS-SW05-01	Jul-89	Yes	7.7E-02
2	INORG	Aluminum	7429-90-5	1	1	4.7E-01			4.7E-01	ACS-SW05-01	Jul-89	No (d)	
2	INORG	Arsenic	7440-38-2	1	1	4.5E-02			4.5E-02	ACS-SW05-01	Jul-89	Yes	4.5E-02
2	INORG	Barium	7440-39-3	1	1	3.3E-01			3.3E-01	ACS-SW05-01	Jul-89	Yes	3.3E-01
2	INORG	Beryllium	7440-41-7	1	1	2.8E-04			2.8E-04	ACS-SW05-01	Jul-89	Yes	2.8E-04
2	INORG	Calcium	7440-70-2	1	1	3.3E+02			3.3E+02	ACS-SW05-01	Jul-89	No (d)	
2	INORG	Chromium (total)	7440-47-3	1	1	2.8E-02			2.8E-02	ACS-SW05-01	Jul-89	Yes	2.8E-02
2	INORG	Iron	7439-89-6	1	1	1.4E+01			1.4E+01	ACS-SW05-01	Jul-89	No (d)	
2	INORG	Lead	7439-92-1	1	1	4.2E-03			4.2E-03	ACS-SW05-01	Jul-89	Yes	4.2E-03
2	INORG	Magnesium	7439-95-4	1	1	6.2E+01			6.2E+01	ACS-SW05-01	Jul-89	No (d)	
2	INORG	Manganese	7439-96-5	1	1	9.9E-01			9.9E-01	ACS-SW05-01	Jul-89	Yes	9.9E-01
2	INORG	Nickel	7440-02-0	1	1	8.0E-02			8.0E-02	ACS-SW05-01	Jul-89	Yes	8.0E-02
2	INORG	Potassium	7440-09-7	1	1	3.0E+01			3.0E+01	ACS-SW05-01	Jul-89	No (d)	
2	INORG	Sodium	7440-23-5	1	1	7.7E+01			7.7E+01	ACS-SW05-01	Jul-89	No (d)	
2	INORG	Zinc	7440-66-6	1	1	5.3E-02			5.3E-02	ACS-SW05-01	Jul-89	Yes	5.3E-02
4A	VOC	2-Butanone	78-93-3	13	1	7.0E-04	8.1E-03	1.4E-02	7.0E-04	97ZB02S05	Dec-96	Yes	7.0E-04
4A	VOC	Acetone	67-64-1	13	5	7.0E-03	1.0E-02	1.6E-02	1.3E-02	APD-SW16-01	May-96	Yes	1.3E-02

Table 2-8 Summary of Constituents In Surface Water Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/L)	Arithmetic Mean[a] (mg/L)	UCL[b] (mg/L)	Maximum Detected (mg/L)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/L)
4A	VOC	Benzene	71-43-2	13	3	5.4E-02	1.6E-01	4.0E-01	1.8E+00	APD-SW09-01	May-96	Yes	4.0E-01
4A	VOC	Chloroethane	75-00-3	13	6	2.0E-03	4.8E-02	1.1E-01	4.4E-01	APD-SW09-01	May-96	Yes	1.1E-01
4A	SVOC	2,2'-oxybis(1-Chloropropane)	108-60-1	13	7	5.0E-03	9.9E-03	1.4E-02	2.9E-02	ACS-SW07A-01	Jul-89	Yes	1.4E-02
4A	SVOC	4-Methylphenol	106-44-5	13	1	1.0E-03	4.5E-03	5.1E-03	1.0E-03	APD-SW18-01	May-96	Yes	1.0E-03
4A	SVOC	Isophorone	78-59-1	13	1	2.0E-03	4.6E-03	5.1E-03	2.0E-03	APD-SW09-01	May-96	Yes	2.0E-03
4A	SVOC	bis(2-Chloroethyl) ether	111-44-4	13	7	2.0E-03	4.8E-03	5.5E-03	8.0E-03	APD-SW09-01	May-96	Yes	5.5E-03
4A	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	13	5	3.0E-03	4.9E-03	5.5E-03	8.0E-03	APD-SW13-01	May-96	Yes	5.5E-03
4A	INORG	Aluminum	7429-90-5	2	1	3.2E-01	2.1E-01	9.0E-01	3.2E-01	97ZB02S05	Dec-96	No (d)	
4A	INORG	Arsenic	7440-38-2	2	1	2.3E-03	2.2E-03	3.1E-03	2.3E-03	ACS-SW07A-01	Jul-89	Yes	2.3E-03
4A	INORG	Barium	7440-39-3	2	1	1.2E-01	1.1E-01	1.7E-01	1.2E-01	97ZB02S05	Dec-96	Yes	1.2E-01
4A	INORG	Cadmium	7440-43-9	13	3	5.0E-03	5.0E-03	9.0E-03	3.2E-02	APD-SW09-01	May-96	Yes	9.0E-03
4A	INORG	Calcium	7440-70-2	2	2	1.3E+02	1.3E+02	1.3E+02	1.3E+02	ACS-SW07A-01	Jul-89	No (d)	
4A	INORG	Cyanide (total)	57-12-5	13	1	5.6E-03	3.0E-03	3.6E-03	5.6E-03	APD-SW09-01	May-96	Yes	3.6E-03
4A	INORG	Iron	7439-89-6	13	13	1.1E+00	2.3E+01	5.3E+01	2.2E+02	APD-SW09-01	May-96	No (d)	
4A	INORG	Lead	7439-92-1	13	4	4.6E-03	3.3E-02	6.4E-02	1.8E-01	APD-SW18-01	May-96	Yes	6.4E-02
4A	INORG	Magnesium	7439-95-4	2	1	3.6E+01	2.4E+01	9.6E+01	3.6E+01	97ZB02S05	Dec-96	No (d)	
4A	INORG	Manganese	7439-96-5	2	2	4.3E-01	6.9E-01	2.3E+00	9.4E-01	ACS-SW07A-01	Jul-89	Yes	9 4E-01
4A	INORG	Mercury	7439-97-6	13	1	2.8E-04	1.1E-04	1.4E-04	2.8E-04	APD-SW18-01	May-96	Yes	1.4E-04
4A	INORG	Potassium	7440-09-7	2	1	2.1E+01	1.1E+01	7.2E+01	2.1E+01	97ZB02S05	Dec-96	No (d)	
4A	INORG	Sodium	7440-23-5	2	1	3.6E+01	2.5E+01	9.2E+01	3.6E+01	97ZB02S05	Dec-96	No (d)	
4A	INORG	Zinc	7440-66-6	13	4	1.8E-01	1.2E-01	2.0E-01	4.6E-01	APD-SW09-01	May-96	Yes	2.0E-01
4B	VOC	1,1,1-Trichloroethane	71-55-6	1	1	1.6E-01			1.6E-01	97ZB04S21	Apr-97	Yes	1.6E-01
4B	VOC	1,1,2,2-Tetrachloroethane	79-34-5	1	1	1.0E-03			1.0E-03	97ZB04S21	Apr-97	Yes	1.0E-03
4B	VOC	1,1,2-Trichloroethane	79-00-5	1	1	3.0E-03			3.0E-03	97ZB04S21	Apr-97	Yes	3.0E-03
4B	VOC	1,1-Dichloroethane	75-34-3	1	1	2.4E-01			2.4E-01	97ZB04S21	Apr-97	Yes	2.4E-01
4B	VOC	1,2,4-Trimethylbenzene	95-63-6	1	1	3.2E-02			3.2E-02	97ZB04S21	Apr-97	Yes	3.2E-02
4B	VOC	1,2-Dichloroethane	107-06-2	1	1	6.0E-03			6.0E-03	97ZB04S21	Apr-97	Yes	6.0E-03
4B	VOC	1,3,5-Trimethylbenzene	108-67-8	1	1	1.1E-02			1.1E-02	97ZB04S21	Apr-97	Yes	1.1E-02
4B	VOC	Benzene	71-43-2	1	1	1.1E-01			1.1E-01	97ZB04S21	Apr-97	Yes	1.1E-01
4B	VOC	Chlorobenzene	108-90-7	1	1	1.0E-03			1.0E-03	97ZB04S21	Apr-97	Yes	1 0E-03
4B	VOC	Chloroethane	75-00-3	1	1	2.7E-02			2.7E-02	97ZB04S21	Apr-97	Yes	2.7E-02
4B	VOC	Chloroform	67-66-3	1	1	7.0E-03			7.0E-03	97ZB04S21	Apr-97	Yes	7.0E-03
4B	VOC	Ethyl Benzene	100-41-4	1	1	5.0E-03			5.0E-03	97ZB04S21	Apr-97	Yes	5.0E-03
4B	VOC	Tetrachloroethene	127-18-4	1	1	1.0E-03			1.0E-03	97ZB04S21	Apr-97	Yes	1.0E-03
4B	VOC	Toluene	108-88-3	1	1	4.5E-02			4.5E-02	97ZB04S21	Apr-97	Yes	4.5E-02
4B	VOC	Trichloroethene	79-01-6	1	1	3.0E-03			3.0E-03	97ZB04S21	Apr-97	Yes	3.0E-03
4B	VOC	Vinyl Chloride	75-01-4	1	1	1.4E-01			1.4E-01	97ZB04S21	Apr-97	Yes	1.4E-01
4B	VOC	cis-1,2-Dichloroethene	156-59-2	1	1	1.9E-01			1.9E-01	97ZB04S21	Apr-97	Yes	1.9E-01
4B	VOC	m,p-xylene	36777-61-2	1	1	1.6E-02			1.6E-02	97ZB04S21	Apr-97	Yes	1.6E-02
4B	VOC	ortho-xylene	95-47-6	1	1	2.9E-02			2.9E-02	97ZB04S21	Apr-97	Yes	2.9E-02
4B	VOC	p-Cymene	99-87-6	1	1	1.0E-03			1.0E-03	97ZB04S21	Apr-97	Yes	1.0E-03
4B	VOC	trans-1,2-Dichloroethene	156-60-5	1	1	3.0E-03			3.0E-03	97ZB04S21	Apr-97	Yes	3.0E-03
4B	SVOC	1,2-Dichlorobenzene	95-50-1	1	1	7.0E-03			7.0E-03	97ZB04S21	Apr-97	Yes	7.0E-03
4B	SVOC	1,3-Dichlorobenzene	541-73-1	1	1	1.0E-03			1.0E-03	97ZB04S21	Apr-97	Yes	1.0E-03
4B	SVOC	1,4-Dichlorobenzene	106-46-7	1	1	1.0E-03			1.0E-03	97ZB04S21	Apr-97	Yes	1.0E-03
4B	SVOC	Naphthalene	91-20-3	1	1	8.0E-03			8 0E-03	97ZB04S21	Apr-97	Yes	8 0E-03
5	VOC	Toluene	108-88-3	2	1	8.0E-03	6.5E-03	1.6E-02	8.0E-03	ACS-SW08-01	Jul-89	Yes	8 0E-03
5	SVOC	4-Methylphenol	106-44-5	2	1	5.9E-01	3.0E-01	2.1E+00	5.9E-01	ACS-SW08-01	Jul-89	Yes	5 9E-01
5	SVOC	Benzoic Acid	65-85-0	1	1	8.5E-02			8.5E-02	ACS-SW08-01	Jul-89	Yes	8.5E-02
5	SVOC	Phenol	108-95-2	2	1	4.5E-02	2.5E-02	1.5E-01	4.5E-02	ACS-SW08-01	Jul-89	Yes	4.5E-02

Table 2-8 Summary of Constituents in Surface Water Evaluated in Risk Assessment
ACS NPL Site, Griffith, IN

Area	TAL/TCL Group	Constituent	CASRN	Number of Valid Results	Number of Detections	Minimum Detected (mg/L)	Arithmetic Mean[a] (mg/L)	UCL[b] (mg/L)	Maximum Detected (mg/L)	Sample ID for Maximum	Date for Max.	Retained for Calculation?	Conc Used in Calculations[c] (mg/L)
5	INORG	Aluminum	7429-90-5	1	1	7.6E-01			7.6E-01	ACS-SW08-01	Jul-89	No (d)	
5	INORG	Cadmium	7440-43-9	2	1	3.7E-04	1.4E-03	8.2E-03	3.7E-04	ACS-SW08-01	Jul-89	Yes	3.7E-04
5	INORG	Calcium	7440-70-2	1	1	1.5E+01			1.5E+01	ACS-SW08-01	Jul-89	No (d)	
5	INORG	Chromium (total)	7440-47-3	1	1	5.0E-03			5.0E-03	ACS-SW08-01	Jul-89	Yes	5.0E-03
5	INORG	Iron	7439-89-6	2	2	5.3E+00	1.1E+01	4.5E+01	1.6E+01	APD-SW14-01	May-96	No (d)	
5	INORG	Lead	7439-92-1	2	2	1.1E-02	1.4E-02	2.9E-02	1.6E-02	ACS-SW08-01	Jul-89	Yes	1.6E-02
5	INORG	Magnesium	7439-95-4	1	1	4.3E+00			4.3E+00	ACS-SW08-01	Jul-89	No (d)	
5	INORG	Manganese	7439-96-5	1	1	1.9E+00			1.9E+00	ACS-SW08-01	Jul-89	Yes	1.9E+00
5	INORG	Nickel	7440-02-0	1	1	5.5E-02			5.5E-02	ACS-SW08-01	Jul-89	Yes	5.5E-02
5	INORG	Potassium	7440-09-7	1	1	1.7E+01			1.7E+01	ACS-SW08-01	Jul-89	No (d)	
5	INORG	Selenium	7782-49-2	1	1	2.1E-03			2.1E-03	ACS-SW08-01	Jul-89	Yes	2.1E-03
5	INORG	Sodium	7440-23-5	1	1	4.2E+00			4.2E+00	ACS-SW08-01	Jul-89	No (d)	
5	INORG	Zinc	7440-66-6	2	2	7.1E-02	8.0E-02	1.3E-01	8.8E-02	ACS-SW08-01	Jul-89	Yes	8.8E-02

(a) The arithmetic mean was calculated for >1 valid sample.
(b) UCL = 95% Upper Confidence Limit on the arithmetic mean. The UCL was calculated for >1 valid sample.
(c) The UCL was used as the exposure point concentration unless it was greater than the maximum, in which case, the maximum detected concentration was used.
(d) Chemical was not retained for risk calculations because it is a major earth element and essential nutrient or typical component in normal diet. See text.

Table 9: Key to Assignment of Ground Water Sample IDs

LOCATION	OLD SAMPLE ID (1997 Draft BRA)	NEW SAMPLE ID	QAQCTYPE	SAMPLEDATE	NEW SAMPLEDATE
IW1	ACS-GW-IW1	IW1-1997	BASE SAMPLE	11/4/97	Nov-97
IW1	ACS-GW-IW901	IW1-1997-DUP	FIELD DUPLICATE	11/4/97	Nov-97
IW2	ACS-GW-IW2	IW2-1997	BASE SAMPLE	11/3/97	Nov-97
IW3	ACS-GW-IW3	IW3-1997	BASE SAMPLE	11/3/97	Nov-97
IW4	ACS-GW-IW4	IW4-1997	BASE SAMPLE	11/4/97	Nov-97
IW4	ACS-GW-IW4D	IW4-1997-DUP	DUPLICATE	11/5/97	Nov-97
IW6	ACS-GW-IW6	IW6-1997	BASE SAMPLE	11/5/97	Nov-97
M-1S	ACS-GWM01S-03	M01S-03-1997	BASE SAMPLE	9/23/97	Sep-97
M-1S	ACS-GWMW01S-01	M01S-01-1997	BASE SAMPLE	3/26/97	Mar-97
M-1S	ACS-GWMW1S-02	M01S-02-1997	BASE SAMPLE	6/26/97	Jun-97
M-1S	ACS-GWMW1S-04	M01S-04-1997	BASE SAMPLE	12/10/97	Dec-97
M-2S	ACS-GWMW2S-02	M02S-02-1997	BASE SAMPLE	6/26/97	Jun-97
M-3S	97ZB04S09	M03S-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
M-3S	ACS-GWM03S-03	M03S-03-1997	BASE SAMPLE	9/23/97	Sep-97
M-3S	ACS-GWM03S-93	M03S-03-1997-DUP	FIELD DUPLICATE	9/23/97	Sep-97
M-3S	ACS-GWMW03S-01	M03S-01-1997	BASE SAMPLE	3/26/97	Mar-97
M-3S	ACS-GWMW03S-01	M03S-01-1997	BASE SAMPLE	3/27/97	Mar-97
M-3S	ACS-GWMW03S-91	M03S-01-1997-DUP	FIELD DUPLICATE	3/26/97	Mar-97
M-3S	ACS-GWMW03S-91	M03S-01-1997-DUP	FIELD DUPLICATE	3/27/97	Mar-97
M-3S	ACS-GWMW3S-02	M03S-02-1997	BASE SAMPLE	6/26/97	Jun-97
M-3S	ACS-GWMW3S-04	M03S-04-1997	BASE SAMPLE	12/10/97	Dec-97
M-3S	ACS-GWMW3S-94	M03S-04-1997-DUP	FIELD DUPLICATE	12/10/97	Dec-97
M-4D	97ZB04S06	M04D-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
M-4D	ACS-GWM04D-01	M04D-01-1997	BASE SAMPLE	3/26/97	Mar-97
M-4D	ACS-GWM04D-01	M04D-01-1997	BASE SAMPLE	3/27/97	Mar-97
M-4D	ACS-GWM04D-03	M04D-03-1997	BASE SAMPLE	9/23/97	Sep-97
M-4D	ACS-GWMW04D-01	M04D-01-1995	BASE SAMPLE	1/26/95	Jan-95
M-4D	ACS-GWMW4D-02	M04D-02-1997	BASE SAMPLE	6/26/97	Jun-97
M-4D	ACS-GWMW4D-04	M04D-04-1997	BASE SAMPLE	12/10/97	Dec-97
M-4S	97ZB04S10	M04S-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
M-4S	ACS-GWM04S-03	M04S-03-1997	BASE SAMPLE	9/23/97	Sep-97
M-4S	ACS-GWM4S-01	M04S-01-1997	BASE SAMPLE	3/27/97	Mar-97
M-4S	ACS-GWMW04S-01	M04S-01-1995	BASE SAMPLE	1/26/95	Jan-95
M-4S	ACS-GWMW4S-02	M04S-02-1997	BASE SAMPLE	6/26/97	Jun-97
M-4S	ACS-GWMW4S-04	M04S-04-1997	BASE SAMPLE	12/10/97	Dec-97
MW-01	ACS-GWMW01-01	MW01-01-1989	BASE SAMPLE	8/1/89	Aug-89
MW-02	ACS-GWMW02-01	MW02-01-1989	BASE SAMPLE	8/2/89	Aug-89
MW-02	ACS-GWMW02-02	MW02-02-1990	BASE SAMPLE	5/21/90	May-90
MW-03	ACS-GWMW03-01	MW03-01-1989	BASE SAMPLE	8/2/89	Aug-89
MW-03	ACS-GWMW03-01	MW03-01-1994	BASE SAMPLE	12/30/94	Dec-94
MW-03	ACS-GWMW03-01F	MW03-01F-1994	BASE SAMPLE	12/30/94	Dec-94
MW-03	ACS-GWMW03-02	MW03-02-1990	BASE SAMPLE	5/21/90	May-90
MW-04	ACS-GWMW04-01-19890803	MW04-01-1989	BASE SAMPLE	8/3/89	Aug-89
MW-04	ACS-GWMW04-01-19941230	MW04-01-1994	BASE SAMPLE	12/30/94	Dec-94
MW-04	ACS-GWMW04-02	MW04-02-1990	BASE SAMPLE	5/21/90	May-90
MW-05	ACS-GWMW05-01-19890803	MW05-01-1989	BASE SAMPLE	8/3/89	Aug-89
MW-05	ACS-GWMW05-01-19941230	MW05-01-1994	BASE SAMPLE	12/30/94	Dec-94
MW-05	ACS-GWMW05-01F	MW05-01F-1994	BASE SAMPLE	12/30/94	Dec-94
MW-05	ACS-GWMW05-02	MW05-02-1990	BASE SAMPLE	5/21/90	May-90
MW-06	97ZB04D14	MW06-01-1997-EPA-DUP	DUPLICATE	3/28/97	Mar-97
MW-06	97ZB04S14	MW06-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
MW-06	ACS-GWMW06-01	MW06-01-1997	BASE SAMPLE	4/3/97	Apr-97
MW-06	ACS-GWMW06-01-19890801	MW06-01-1989	BASE SAMPLE	8/1/89	Aug-89
MW-06	ACS-GWMW06-01-19941230	MW06-01-1994	BASE SAMPLE	12/30/94	Dec-94
MW-06	ACS-GWMW06-01F	MW06-01F-1994	BASE SAMPLE	12/30/94	Dec-94
MW-06	ACS-GWMW06-02	MW06-02-1990	BASE SAMPLE	5/21/90	May-90
MW-06	ACS-GWMW06-03	MW06-03-1997	BASE SAMPLE	9/23/97	Sep-97

Table 9: Key to Assignment of Ground Water Sample IDs

LOCATION	OLD SAMPLE ID (1997 Draft BRA)	NEW SAMPLE ID	QAQCTYPE	SAMPLEDATE	NEW SAMPLEDATE
MW-06	ACS-GWMW06-04	MW06-04-1997	BASE SAMPLE	12/10/97	Dec-97
MW-06	ACS-GWMW6-02	MW06-02-1997	BASE SAMPLE	7/1/97	Jul-97
MW-06	GWMW06-01	MW06-01-1996	BASE SAMPLE	11/7/96	Nov-96
MW-06	GWMW06-01F	MW06-01F-1996	BASE SAMPLE	11/7/96	Nov-96
MW-07	ACS-GWMW07-01	MW07-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-07	ACS-GWMW07-01-19900515	MW07-01-1990	BASE SAMPLE	5/15/90	May-90
MW-07	ACS-GWMW07-01-19950103	MW07-01-1995	BASE SAMPLE	1/3/95	Jan-95
MW-07	ACS-GWMW07-01F	MW07-01F-1995	BASE SAMPLE	1/3/95	Jan-95
MW-07	ACS-GWMW07-02	MW07-02-1990	BASE SAMPLE	7/10/90	Jul-90
MW-07	ACS-GWMW07-02	MW07-02-1997	BASE SAMPLE	6/24/97	Jun-97
MW-07	ACS-GWMW07-03	MW07-03-1991	BASE SAMPLE	1/16/91	Jan-91
MW-07	ACS-GWMW07-03	MW07-03-1997	BASE SAMPLE	9/24/97	Sep-97
MW-07	ACS-GWMW07-04	MW07-04-1997	BASE SAMPLE	12/12/97	Dec-97
MW-07	ACS-GWMW07-91	MW07-01-1995-DUP	FIELD DUPLICATE	1/3/95	Jan-95
MW-07	ACS-GWMW07-91F	MW07-01F-1995-DUP	DUPLICATE	1/3/95	Jan-95
MW-07	ACS-GWMW07-93	MW07-03-1991-DUP	FIELD DUPLICATE	1/16/91	Jan-91
MW-07	GWMW07-01	MW07-01-1996	BASE SAMPLE	11/5/96	Nov-96
MW-08	ACS-GWMW08-01	MW08-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-08	ACS-GWMW08-01-19900515	MW08-01-1990	BASE SAMPLE	5/15/90	May-90
MW-08	ACS-GWMW08-01-19941230	MW08-01-1994	BASE SAMPLE	12/30/94	Dec-94
MW-08	ACS-GWMW08-01F	MW08-01F-1994	BASE SAMPLE	12/30/94	Dec-94
MW-08	ACS-GWMW08-02	MW08-02-1990	BASE SAMPLE	7/10/90	Jul-90
MW-08	ACS-GWMW08-02	MW08-02-1997	BASE SAMPLE	6/24/97	Jun-97
MW-08	ACS-GWMW08-03	MW08-03-1991	BASE SAMPLE	1/16/91	Jan-91
MW-08	ACS-GWMW08-03	MW08-03-1997	BASE SAMPLE	9/24/97	Sep-97
MW-08	ACS-GWMW08-04	MW08-04-1997	BASE SAMPLE	12/12/97	Dec-97
MW-08	ACS-GWMW08-94	MW08-04-1997-DUP	FIELD DUPLICATE	12/12/97	Dec-97
MW-08	GWMW08-01	MW08-01-1996	BASE SAMPLE	11/5/96	Nov-96
MW-08	GWMW08-01F	MW08-01F-1996	BASE SAMPLE	11/5/96	Nov-96
MW-09	97ZB04S11	MW-09-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
MW-09	ACS-GWMW09-01	MW09-01-1997	BASE SAMPLE	4/2/97	Apr-97
MW-09	ACS-GWMW09-01-19900515	MW09-01-1990	BASE SAMPLE	5/15/90	May-90
MW-09	ACS-GWMW09-01-19950104	MW09-01-1995	BASE SAMPLE	1/4/95	Jan-95
MW-09	ACS-GWMW09-01F	MW09-01F-1995	BASE SAMPLE	1/4/95	Jan-95
MW-09	ACS-GWMW09-02	MW09-02-1990	BASE SAMPLE	7/10/90	Jul-90
MW-09	ACS-GWMW09-02	MW09-02-1997	BASE SAMPLE	6/30/97	Jun-97
MW-09	ACS-GWMW09-03	MW09-03-1991	BASE SAMPLE	1/16/91	Jan-91
MW-09	ACS-GWMW09-03	MW09-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-09	ACS-GWMW09-92	MW09-02-1997-DUP	FIELD DUPLICATE	6/30/97	Jun-97
MW-09	GWMW09-01	MW09-01-1996	BASE SAMPLE	11/6/96	Nov-96
MW-09	GWMW09-01F	MW09-01F-1996	BASE SAMPLE	11/6/96	Nov-96
MW-10	ACS-GWMW10-01-19900515	MW10-01-1990	BASE SAMPLE	5/15/90	May-90
MW-10	ACS-GWMW10-01-19950104	MW10-01-1995	BASE SAMPLE	1/4/95	Jan-95
MW-10	ACS-GWMW10-01F	MW10-01F-1995	BASE SAMPLE	1/4/95	Jan-95
MW-10	ACS-GWMW10-02	MW10-02-1990	BASE SAMPLE	7/10/90	Jul-90
MW-10	ACS-GWMW10-03	MW10-03-1991	BASE SAMPLE	1/16/91	Jan-91
MW-10C	97ZB04S04	MW10C-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
MW-10C	ACS-GWMW10C-01	MW10C-01-1990	BASE SAMPLE	7/25/90	Jul-90
MW-10C	ACS-GWMW10C-01	MW10C-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-10C	ACS-GWMW10C-01	MW10C-01-1997	BASE SAMPLE	3/27/97	Mar-97
MW-10C	ACS-GWMW10C-02	MW10C-02-1997	BASE SAMPLE	6/26/97	Jun-97
MW-10C	ACS-GWMW10C-03	MW10C-03-1991	BASE SAMPLE	1/16/91	Jan-91
MW-10C	ACS-GWMW10C-03	MW10C-03-1997	BASE SAMPLE	9/24/97	Sep-97
MW-10C	ACS-GWMW10C-92	MW10C-02-1997-DUP	FIELD DUPLICATE	6/26/97	Jun-97
MW-10C	GWMW10C-01	MW10C-01-1996	BASE SAMPLE	11/6/96	Nov-96
MW-10C	GWMW10C-01F	MW10C-01F-1996	BASE SAMPLE	11/6/96	Nov-96
MW-11	ACS-GWMW11-01	MW11-01-1997	BASE SAMPLE	3/25/97	Mar-97

Table 9: Key to Assignment of Ground Water Sample IDs

LOCATION	OLD SAMPLE ID (1997 Draft BRA)	NEW SAMPLE ID	QAQCTYPE	SAMPLEDATE	NEW SAMPLEDATE
MW-11	ACS-GWMW11-01-19900516	MW11-01-1990	BASE SAMPLE	5/16/90	May-90
MW-11	ACS-GWMW11-01-19950103	MW11-01-1995	BASE SAMPLE	1/3/95	Jan-95
MW-11	ACS-GWMW11-01F	MW11-01F-1995	BASE SAMPLE	1/3/95	Jan-95
MW-11	ACS-GWMW11-02	MW11-02-1990	BASE SAMPLE	7/11/90	Jul-90
MW-11	ACS-GWMW11-02	MW11-02-1997	BASE SAMPLE	6/24/97	Jun-97
MW-11	ACS-GWMW11-03	MW11-03-1991	BASE SAMPLE	1/16/91	Jan-91
MW-11	ACS-GWMW11-03	MW11-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-11	ACS-GWMW11-04	MW11-04-1991	BASE SAMPLE	8/22/91	Aug-91
MW-11	ACS-GWMW11-04	MW11-04-1997	BASE SAMPLE	12/15/97	Dec-97
MW-11	GWMW11-01	MW11-01-1996	BASE SAMPLE	11/5/96	Nov-96
MW-11	GWMW11-01F	MW11-01F-1996	BASE SAMPLE	11/5/96	Nov-96
MW-11	GWMW11-01RE	MW11-01RE-1996	BASE SAMPLE	11/5/96	Nov-96
MW-12	ACS-GWMW12-01	MW12-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-12	ACS-GWMW12-01-19900516	MW12-01-1990	BASE SAMPLE	5/16/90	May-90
MW-12	ACS-GWMW12-01-19950103	MW12-01-1995	BASE SAMPLE	1/3/95	Jan-95
MW-12	ACS-GWMW12-01F	MW12-01F-1995	BASE SAMPLE	1/3/95	Jan-95
MW-12	ACS-GWMW12-02	MW12-02-1990	BASE SAMPLE	7/11/90	Jul-90
MW-12	ACS-GWMW12-02	MW12-02-1997	BASE SAMPLE	6/24/97	Jun-97
MW-12	ACS-GWMW12-03	MW12-03-1991	BASE SAMPLE	1/17/91	Jan-91
MW-12	ACS-GWMW12-03	MW12-03-1997	BASE SAMPLE	10/1/97	Oct-97
MW-12	ACS-GWMW12-04	MW12-04-1991	BASE SAMPLE	8/22/91	Aug-91
MW-12	ACS-GWMW12-04	MW12-04-1997	BASE SAMPLE	12/16/97	Dec-97
MW-12	GWMW12-01	MW12-01-1996	BASE SAMPLE	11/5/96	Nov-96
MW-12	GWMW12-01F	MW12-01F-1996	BASE SAMPLE	11/5/96	Nov-96
MW-12	GWMW12-91	MW12-01-1996-DUP	FIELD DUPLICATE	11/5/96	Nov-96
MW-12	GWMW12-91F	MW12-01F-1996-DUP	DUPLICATE	11/5/96	Nov-96
MW-13	ACS-GWMW13-01	MW13-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-13	ACS-GWMW13-01	MW13-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-13	ACS-GWMW13-01-19900516	MW13-01-1990	BASE SAMPLE	5/16/90	May-90
MW-13	ACS-GWMW13-01-19950104	MW13-01-1995	BASE SAMPLE	1/4/95	Jan-95
MW-13	ACS-GWMW13-01F	MW13-01F-1995	BASE SAMPLE	1/4/95	Jan-95
MW-13	ACS-GWMW13-02	MW13-02-1990	BASE SAMPLE	7/11/90	Jul-90
MW-13	ACS-GWMW13-02	MW13-02-1997	BASE SAMPLE	6/27/97	Jun-97
MW-13	ACS-GWMW13-03	MW13-03-1991	BASE SAMPLE	1/17/91	Jan-91
MW-13	ACS-GWMW13-03	MW13-03-1997	BASE SAMPLE	10/1/97	Oct-97
MW-13	ACS-GWMW13-04	MW13-04-1991	BASE SAMPLE	8/22/91	Aug-91
MW-13	ACS-GWMW13-04	MW13-04-1997	BASE SAMPLE	12/17/97	Dec-97
MW-13	GWMW13-01	MW13-01-1996	BASE SAMPLE	11/7/96	Nov-96
MW-13	GWMW13-01F	MW13-01F-1996	BASE SAMPLE	11/7/96	Nov-96
MW-14	97ZB04S08	MW14-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
MW-14	ACS-GWMW14-01	MW14-01-1997	BASE SAMPLE	3/27/97	Mar-97
MW-14	ACS-GWMW14-01-19900517	MW14-01-1990	BASE SAMPLE	5/17/90	May-90
MW-14	ACS-GWMW14-01-19950104	MW14-01-1995	BASE SAMPLE	1/4/95	Jan-95
MW-14	ACS-GWMW14-01F	MW14-01F-1995	BASE SAMPLE	1/4/95	Jan-95
MW-14	ACS-GWMW14-02	MW14-02-1990	BASE SAMPLE	7/11/90	Jul-90
MW-14	ACS-GWMW14-02	MW14-02-1997	BASE SAMPLE	6/30/97	Jun-97
MW-14	ACS-GWMW14-03	MW14-03-1991	BASE SAMPLE	1/17/91	Jan-91
MW-14	ACS-GWMW14-03	MW14-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-14	ACS-GWMW14-04	MW14-04-1991	BASE SAMPLE	8/22/91	Aug-91
MW-14	GWMW14-01	MW14-01-1996	BASE SAMPLE	11/6/96	Nov-96
MW-14	GWMW14-01F	MW14-01F-1996	BASE SAMPLE	11/6/96	Nov-96
MW-15	97ZB04S05	MW15-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
MW-15	ACS-GWMW15-01	MW15-01-1997	BASE SAMPLE	4/3/97	Apr-97
MW-15	ACS-GWMW15-01-19900517	MW15-01-1990	BASE SAMPLE	5/17/90	May-90
MW-15	ACS-GWMW15-01-19950105	MW15-01-1995	BASE SAMPLE	1/5/95	Jan-95
MW-15	ACS-GWMW15-01F	MW15-01F-1995	BASE SAMPLE	1/5/95	Jan-95
MW-15	ACS-GWMW15-02	MW15-02-1990	BASE SAMPLE	7/11/90	Jul-90

Table 9: Key to Assignment of Ground Water Sample IDs					
LOCATION	OLD SAMPLE ID (1997 Draft BRA)	NEW SAMPLE ID	QAQCTYPE	SAMPLEDATE	NEW SAMPLEDATE
MW-15	ACS-GWMW15-02	MW15-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-15	ACS-GWMW15-03	MW15-03-1991	BASE SAMPLE	1/17/91	Jan-91
MW-15	ACS-GWMW15-03	MW15-03-1997	BASE SAMPLE	9/23/97	Sep-97
MW-15	ACS-GWMW15-04	MW15-04-1991	BASE SAMPLE	8/22/91	Aug-91
MW-15	ACS-GWMW15-04	MW15-04-1997	BASE SAMPLE	12/9/97	Dec-97
MW-15	ACS-GWMW15-94	MW15-04-1991-DUP	FIELD DUPLICATE	8/22/91	Aug-91
MW-15	GWMW15-01	MW15-01-1996	BASE SAMPLE	11/7/96	Nov-96
MW-15	GWMW15-01F	MW15-01F-1996	BASE SAMPLE	11/7/96	Nov-96
MW-16	ACS-GWMW16-01-19900517	MW16-01-1990	BASE SAMPLE	5/17/90	May-90
MW-16	ACS-GWMW16-01-19950104	MW16-01-1995	BASE SAMPLE	1/4/95	Jan-95
MW-16	ACS-GWMW16-01F	MW16-01F-1995	BASE SAMPLE	1/4/95	Jan-95
MW-16	ACS-GWMW16-02	MW16-02-1990	BASE SAMPLE	7/11/90	Jul-90
MW-17	ACS-GWMW17-01-19900516	MW17-01-1990	BASE SAMPLE	5/16/90	May-90
MW-17	ACS-GWMW17-01-19941230	MW17-01-1994	BASE SAMPLE	12/30/94	Dec-94
MW-17	ACS-GWMW17-01F	MW17-01F-1994	BASE SAMPLE	12/30/94	Dec-94
MW-17	ACS-GWMW17-02	MW17-02-1990	BASE SAMPLE	7/12/90	Jul-90
MW-18	ACS-GWMW18-01	MW18-01-1994	BASE SAMPLE	12/30/94	Dec-94
MW-18	ACS-GWMW18-01	MW18-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-18	ACS-GWMW18-01	MW18-01-1997	BASE SAMPLE	3/27/97	Mar-97
MW-18	ACS-GWMW18-01F	MW18-01F-1994	BASE SAMPLE	12/30/94	Dec-94
MW-18	ACS-GWMW18-02	MW18-02-1990	BASE SAMPLE	7/12/90	Jul-90
MW-18	ACS-GWMW18-02	MW18-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-18	ACS-GWMW18-03	MW18-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-18	ACS-GWMW18-03	MW18-03-1997	BASE SAMPLE	9/30/97	Sep-97
MW-18	ACS-GWMW18-04	MW18-04-1997	BASE SAMPLE	12/11/97	Dec-97
MW-18	GWMW18-01	MW18-01-1996	BASE SAMPLE	11/5/96	Nov-96
MW-18	GWMW18-01F	MW18-01F-1996	BASE SAMPLE	11/5/96	Nov-96
MW-19	ACS-GWMW19-01	MW19-01-1997	BASE SAMPLE	3/27/97	Mar-97
MW-19	ACS-GWMW19-01-19910117	MW19-01-1991	BASE SAMPLE	1/17/91	Jan-91
MW-19	ACS-GWMW19-01-19941230	MW19-01-1994	BASE SAMPLE	12/30/94	Dec-94
MW-19	ACS-GWMW19-01F	MW19-01F-1994	BASE SAMPLE	12/30/94	Dec-94
MW-19	ACS-GWMW19-02	MW19-02-1991	BASE SAMPLE	8/22/91	Aug-91
MW-19	ACS-GWMW19-02	MW19-02-1997	BASE SAMPLE	6/30/97	Jun-97
MW-19	ACS-GWMW19-03	MW19-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-19	ACS-GWMW19-03	MW19-03-1997	BASE SAMPLE	9/30/97	Sep-97
MW-19	ACS-GWMW19-04	MW19-04-1997	BASE SAMPLE	12/16/97	Dec-97
MW-19	ACS-GWMW19-91	MW19-01-1991-DUP	FIELD DUPLICATE	1/17/91	Jan-91
MW-19	GWMW19-01	MW19-01-1996	BASE SAMPLE	11/5/96	Nov-96
MW-19	GWMW19-01F	MW19-01F-1996	BASE SAMPLE	11/5/96	Nov-96
MW-20	ACS-GWMW20-01-19910117	MW20-01-1991	BASE SAMPLE	1/17/91	Jan-91
MW-20	ACS-GWMW20-01-19941230	MW20-01-1994	BASE SAMPLE	12/30/94	Dec-94
MW-20	ACS-GWMW20-01F	MW20-01F-1994	BASE SAMPLE	12/30/94	Dec-94
MW-20	ACS-GWMW20-02	MW20-02-1997	BASE SAMPLE	8/22/91	Aug-91
MW-21	ACS-GWMW21-01	MW21-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-21	ACS-GWMW21-01-19910117	MW21-01-1991	BASE SAMPLE	1/17/91	Jan-91
MW-21	ACS-GWMW21-01-19950104	MW21-01-1995	BASE SAMPLE	1/4/95	Jan-95
MW-21	ACS-GWMW21-01F	MW21-01F-1995	BASE SAMPLE	1/4/95	Jan-95
MW-21	ACS-GWMW21-02	MW21-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-21	ACS-GWMW21-03	MW21-03-1997	BASE SAMPLE	10/1/97	Oct-97
MW-21	ACS-GWMW21-91	MW21-01-1995-DUP	FIELD DUPLICATE	1/4/95	Jan-95
MW-21	ACS-GWMW21-91F	MW21-01F-1995-DUP	DUPLICATE	1/4/95	Jan-95
MW-21	GWMW21-01	MW21-01-1996	BASE SAMPLE	11/5/96	Nov-96
MW-22	ACS-GWMW22-01	MW22-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-22	ACS-GWMW22-01	MW22-01-1997	BASE SAMPLE	3/27/97	Mar-97
MW-22	ACS-GWMW22-01-19910118	MW22-01-1991	BASE SAMPLE	1/18/91	Jan-91
MW-22	ACS-GWMW22-01-19941230	MW22-01-1994	BASE SAMPLE	12/30/94	Dec-94
MW-22	ACS-GWMW22-01F	MW22-01F-1994	BASE SAMPLE	12/30/94	Dec-94

Table 9: Key to Assignment of Ground Water Sample IDs

LOCATION	OLD SAMPLE ID (1997 Draft BRA)	NEW SAMPLE ID	QAQCTYPE	SAMPLEDATE	NEW SAMPLEDATE
MW-22	ACS-GWMW22-02	MW22-02-1997	BASE SAMPLE	7/1/97	Jul-97
MW-22	ACS-GWMW22-03	MW22-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-22	ACS-GWMW22-04	MW22-04-1997	BASE SAMPLE	12/16/97	Dec-97
MW-22	ACS-GWMW22-91	MW22-01-1994-DUP	FIELD DUPLICATE	12/30/94	Dec-94
MW-22	ACS-GWMW22-91F	MW22-01F-1994-DUP	DUPLICATE	12/30/94	Dec-94
MW-22	GWMW22-01	MW22-01-1996	BASE SAMPLE	11/5/96	Nov-96
MW-22	GWMW22-01F	MW22-01F-1996	BASE SAMPLE	11/5/96	Nov-96
MW-23	97ZB04S13	MW23-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
MW-23	ACS-GWMW23-01	MW23-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-23	ACS-GWMW23-01	MW23-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-23	ACS-GWMW23-01-19910118	MW23-01-1991	BASE SAMPLE	1/18/91	Jan-91
MW-23	ACS-GWMW23-01-19950105	MW23-01-1995	BASE SAMPLE	1/5/95	Jan-95
MW-23	ACS-GWMW23-01F	MW23-01F-1995	BASE SAMPLE	1/5/95	Jan-95
MW-23	ACS-GWMW23-02	MW23-02-1997	BASE SAMPLE	6/24/97	Jun-97
MW-23	ACS-GWMW23-03	MW23-03-1997	BASE SAMPLE	9/25/97	Sep-97
MW-23	ACS-GWMW23-04	MW23-04-1997	BASE SAMPLE	12/15/97	Dec-97
MW-23	ACS-GWMW23-92	MW23-02-1997-DUP	FIELD DUPLICATE	6/24/97	Jun-97
MW-23	GWMW23-01	MW23-01-1996	BASE SAMPLE	11/6/96	Nov-96
MW-23	GWMW23-01F	MW23-01F-1996	BASE SAMPLE	11/6/96	Nov-96
MW-24	ACS-GWMW24-01	MW24-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-24	ACS-GWMW24-01-19910118	MW24-01-1991	BASE SAMPLE	1/18/91	Jan-91
MW-24	ACS-GWMW24-01-19950104	MW24-01-1995	BASE SAMPLE	1/4/95	Jan-95
MW-24	ACS-GWMW24-01F	MW24-01F-1995	BASE SAMPLE	1/4/95	Jan-95
MW-24	ACS-GWMW24-02	MW24-02-1997	BASE SAMPLE	6/24/97	Jun-97
MW-24	ACS-GWMW24-03	MW24-03-1997	BASE SAMPLE	9/25/97	Sep-97
MW-24	ACS-GWMW24-04	MW24-04-1997	BASE SAMPLE	12/17/97	Dec-97
MW-24	GWMW24-01	MW24-01-1996	BASE SAMPLE	11/6/96	Nov-96
MW-24	GWMW24-01F	MW24-01F-1996	BASE SAMPLE	11/6/96	Nov-96
MW-28	97ZB04S01	MW28-01-1997-EPA	BASE SAMPLE	3/25/97	Mar-97
MW-28	ACS-GWMW28-01	MW28-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-28	ACS-GWMW28-02	MW28-02-1997	BASE SAMPLE	6/24/97	Jun-97
MW-28	ACS-GWMW28-03	MW28-03-1997	BASE SAMPLE	9/23/97	Sep-97
MW-28	ACS-GWMW28-04	MW28-04-1997	BASE SAMPLE	12/9/97	Dec-97
MW-28	APD-GW-MW28	MW28-1996	BASE SAMPLE	3/12/96	Mar-96
MW-28	MW28	MW28-1996	BASE SAMPLE	3/12/96	Mar-96
MW-28	MW28	MW28F-1996	BASE SAMPLE	3/12/96	Mar-96
MW-29	ACS-GWMW29-01	MW29-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-29	ACS-GWMW29-01	MW29-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-29	ACS-GWMW29-02	MW29-02-1997	BASE SAMPLE	6/30/97	Jun-97
MW-29	ACS-GWMW29-03	MW29-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-29	APD-GW-MW29	MW29-1996	BASE SAMPLE	3/13/96	Mar-96
MW-29	MW29	MW29-1996	BASE SAMPLE	3/13/96	Mar-96
MW-29	MW29	MW29F-1996	BASE SAMPLE	3/13/96	Mar-96
MW-30	ACS-GWMW30-01	MW30-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-30	ACS-GWMW30-02	MW30-02-1997	BASE SAMPLE	6/26/97	Jun-97
MW-30	ACS-GWMW30-03	MW30-03-1997	BASE SAMPLE	10/1/97	Oct-97
MW-30	ACS-GWMW30-04	MW30-04-1997	BASE SAMPLE	12/17/97	Dec-97
MW-30	APD-GW-MW30	MW30-1996	BASE SAMPLE	3/13/96	Mar-96
MW-30	MW30	MW30-1996	BASE SAMPLE	3/13/96	Mar-96
MW-30	MW30	MW30F-1996	BASE SAMPLE	3/13/96	Mar-96
MW-31	ACS-GWMW31-01	MW31-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-31	ACS-GWMW31-02	MW31-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-31	ACS-GWMW31-03	MW31-03-1997	BASE SAMPLE	9/24/97	Sep-97
MW-31	ACS-GWMW31-04	MW31-04-1997	BASE SAMPLE	12/12/97	Dec-97
MW-31	APD-GW-MW31	MW31-1996	BASE SAMPLE	3/14/96	Mar-96
MW-31	MW31	MW31-1996	BASE SAMPLE	3/14/96	Mar-96
MW-31	MW31	MW31F-1996	BASE SAMPLE	3/14/96	Mar-96

Table 9: Key to Assignment of Ground Water Sample IDs

LOCATION	OLD SAMPLE ID (1997 Draft BRA)	NEW SAMPLE ID	QAQCTYPE	SAMPLEDATE	NEW SAMPLEDATE
MW-32	ACS-GWMW32-01	MW32-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-32	ACS-GWMW32-01	MW32-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-32	ACS-GWMW32-02	MW32-02-1997	BASE SAMPLE	6/24/97	Jun-97
MW-32	ACS-GWMW32-03	MW32-03-1997	BASE SAMPLE	9/24/97	Sep-97
MW-32	ACS-GWMW32-04	MW32-04-1997	BASE SAMPLE	12/12/97	Dec-97
MW-32	APD-GW-MW32	MW32-1996	BASE SAMPLE	3/14/96	Mar-96
MW-32	APD-GW-MW32 DUP	MW32-1996-DUP	FIELD DUPLICATE	3/14/96	Mar-96
MW-32	MW32	MW32-1996	BASE SAMPLE	3/14/96	Mar-96
MW-32	MW32	MW32F-1996	BASE SAMPLE	3/14/96	Mar-96
MW-33	ACS-GWMW33-01	MW33-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-33	ACS-GWMW33-02	MW33-02-1997	BASE SAMPLE	6/26/97	Jun-97
MW-33	ACS-GWMW33-03	MW33-03-1997	BASE SAMPLE	10/1/97	Oct-97
MW-33	ACS-GWMW33-04	MW33-04-1997	BASE SAMPLE	12/17/97	Dec-97
MW-33	APD-GW-MW33	MW33-1996	BASE SAMPLE	3/13/96	Mar-96
MW-33	MW33	MW33-1996	BASE SAMPLE	3/13/96	Mar-96
MW-33	MW33	MW33F-1996	BASE SAMPLE	3/13/96	Mar-96
MW-34	ACS-GWMW34-01	MW34-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-34	ACS-GWMW34-02	MW34-02-1997	BASE SAMPLE	6/30/97	Jun-97
MW-34	ACS-GWMW34-03	MW34-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-34	ACS-GWMW34-04	MW34-04-1997	BASE SAMPLE	12/18/97	Dec-97
MW-34	APD-GW-MW34	MW34-1996	BASE SAMPLE	3/13/96	Mar-96
MW-34	MW34	MW34-1996	BASE SAMPLE	3/13/96	Mar-96
MW-34	MW34	MW34F-1996	BASE SAMPLE	3/13/96	Mar-96
MW-35	APD-GW-MW35	MW35-1996	BASE SAMPLE	3/13/96	Mar-96
MW-35	MW35	MW35-1996	BASE SAMPLE	3/13/96	Mar-96
MW-35	MW35	MW35F-1996	BASE SAMPLE	3/13/96	Mar-96
MW-36	ACS-GWMW36-01	MW36-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-36	ACS-GWMW36-01	MW36-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-36	ACS-GWMW36-02	MW36-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-36	ACS-GWMW36-03	MW36-03-1997	BASE SAMPLE	9/24/97	Sep-97
MW-36	ACS-GWMW36-04	MW36-04-1997	BASE SAMPLE	12/12/97	Dec-97
MW-36	APD-GW-MW36	MW36-1996	BASE SAMPLE	3/12/96	Mar-96
MW-36	MW36	MW36-1996	BASE SAMPLE	3/12/96	Mar-96
MW-36	MW36	MW36F-1996	BASE SAMPLE	3/12/96	Mar-96
MW-37	ACS-GWMW37-01	MW37-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-37	ACS-GWMW37-02	MW37-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-37	ACS-GWMW37-03	MW37-03-1997	BASE SAMPLE	9/26/97	Sep-97
MW-37	ACS-GWMW37-04	MW37-04-1997	BASE SAMPLE	12/16/97	Dec-97
MW-37	ACS-GWMW37-93	MW37-03-1997-DUP	FIELD DUPLICATE	9/26/97	Sep-97
MW-37	APD-GWMW37-01-19960806	MW37-01-1996	BASE SAMPLE	8/6/96	Aug-96
MW-37	APD-GWMW37-01-19960807	MW37-01-1996	BASE SAMPLE	8/7/96	Aug-96
MW-37	MW37	MW37-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-37	MW37	MW37-01F-1996	BASE SAMPLE	8/6/96	Aug-96
MW-38	ACS-GWMW38-01	MW38-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-38	ACS-GWMW38-01	MW38-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-38	ACS-GWMW38-02	MW38-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-38	ACS-GWMW38-03	MW38-03-1997	BASE SAMPLE	9/25/97	Sep-97
MW-38	ACS-GWMW38-04	MW38-04-1997	BASE SAMPLE	12/11/97	Dec-97
MW-38	APD-GWMW38-01	MW38-01-1996	BASE SAMPLE	8/7/96	Aug-96
MW-38	MW38	MW38-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-38	MW38	MW38-01F-1996	BASE SAMPLE	8/7/96	Aug-96
MW-39	ACS-GWMW39-01	MW39-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-39	ACS-GWMW39-02	MW39-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-39	ACS-GWMW39-03	MW39-03-1997	BASE SAMPLE	9/25/97	Sep-97
MW-39	ACS-GWMW39-04	MW39-04-1997	BASE SAMPLE	12/11/97	Dec-97
MW-39	APD-GWMW39-01	MW39-01-1996	BASE SAMPLE	8/6/96	Aug-96
MW-39	MW39	MW39-01-1996	BASE SAMPLE	8/1/96	Aug-96

Table 9: Key to Assignment of Ground Water Sample IDs

LOCATION	OLD SAMPLE ID (1997 Draft BRA)	NEW SAMPLE ID	QAQCTYPE	SAMPLEDATE	NEW SAMPLEDATE
MW-39	MW39	MW39-01F-1996	BASE SAMPLE	8/6/96	Aug-96
MW-40	97ZB04S12	MW40-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
MW-40	ACS-GWMW40-01	MW40-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-40	ACS-GWMW40-01	MW40-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-40	ACS-GWMW40-02	MW40-02-1997	BASE SAMPLE	6/26/97	Jun-97
MW-40	ACS-GWMW40-03	MW40-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-40	ACS-GWMW40-04	MW40-04-1997	BASE SAMPLE	12/11/97	Dec-97
MW-40	ACS-GWMW40-93	MW40-03-1997-DUP	FIELD DUPLICATE	9/29/97	Sep-97
MW-40	ACS-GWMW40-94	MW40-04-1997-DUP	FIELD DUPLICATE	12/11/97	Dec-97
MW-40	APD-GWMW40-01	MW40-01-1996	BASE SAMPLE	8/7/96	Aug-96
MW-40	MW40	MW40-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-40	MW40	MW40-01F-1996	BASE SAMPLE	8/1/96	Aug-96
MW-41	ACS-GWMW41-01	MW41-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-41	ACS-GWMW41-01	MW41-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-41	ACS-GWMW41-02	MW41-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-41	ACS-GWMW41-03	MW41-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-41	ACS-GWMW41-03	MW41-03-1997	BASE SAMPLE	9/30/97	Sep-97
MW-41	ACS-GWMW41-04	MW41-04-1997	BASE SAMPLE	12/11/97	Dec-97
MW-41	ACS-GWMW41-92	MW41-02-1997-DUP	FIELD DUPLICATE	6/25/97	Jun-97
MW-41	APD-GWMW41-01	MW41-01-1996	BASE SAMPLE	8/7/96	Aug-96
MW-41	MW41	MW41-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-41	MW41	MW41-01F-1996	BASE SAMPLE	8/1/96	Aug-96
MW-42	97ZB04S03	MW42-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
MW-42	ACS-GWMW42-01	MW42-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-42	ACS-GWMW42-01	MW42-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-42	ACS-GWMW42-02	MW42-02-1997	BASE SAMPLE	6/26/97	Jun-97
MW-42	ACS-GWMW42-03	MW42-03-1997	BASE SAMPLE	9/26/97	Sep-97
MW-42	ACS-GWMW42-04	MW42-04-1997	BASE SAMPLE	12/15/97	Dec-97
MW-42	ACS-GWMW42-92	MW42-02-1997-DUP	FIELD DUPLICATE	6/26/97	Jun-97
MW-42	APD-GWMW42-01	MW42-01-1996	BASE SAMPLE	8/7/96	Aug-96
MW-42	MW42	MW42-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-42	MW42	MW42-01F-1996	BASE SAMPLE	8/1/96	Aug-96
MW-43	ACS-GWMW43-01	MW43-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-43	ACS-GWMW43-02	MW43-02-1997	BASE SAMPLE	6/26/97	Jun-97
MW-43	ACS-GWMW43-03	MW43-03-1997	BASE SAMPLE	9/26/97	Sep-97
MW-43	ACS-GWMW43-04	MW43-04-1997	BASE SAMPLE	12/15/97	Dec-97
MW-43	APD-GWMW43-01	MW43-01-1996	BASE SAMPLE	8/8/96	Aug-96
MW-43	MW43	MW43-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-43	MW43	MW43-01F-1996	BASE SAMPLE	8/1/96	Aug-96
MW-44	ACS-GWMW44-01	MW44-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-44	ACS-GWMW44-02	MW44-02-1997	BASE SAMPLE	6/26/97	Jun-97
MW-44	ACS-GWMW44-03	MW44-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-44	ACS-GWMW44-04	MW44-04-1997	BASE SAMPLE	12/16/97	Dec-97
MW-44	ACS-GWMW44-91	MW44-01-1997-DUP	FIELD DUPLICATE	3/26/97	Mar-97
MW-44	APD-GWMW44-01	MW44-01-1996	BASE SAMPLE	8/8/96	Aug-96
MW-44	MW44	MW44-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-44	MW44	MW44-01F-1996	BASE SAMPLE	8/1/96	Aug-96
MW-45	ACS-GWMW45-01	MW45-01-1997	BASE SAMPLE	4/2/97	Apr-97
MW-45	ACS-GWMW45-02	MW45-02-1997	BASE SAMPLE	6/26/97	Jun-97
MW-45	ACS-GWMW45-03	MW45-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-45	ACS-GWMW45-03	MW45-03-1997	BASE SAMPLE	9/30/97	Sep-97
MW-45	ACS-GWMW45-04	MW45-04-1997	BASE SAMPLE	12/11/97	Dec-97
MW-45	ACS-GWMW45-91	MW45-01-1997-DUP	FIELD DUPLICATE	4/2/97	Apr-97
MW-45	APD-GWMW45-01	MW45-01-1996	BASE SAMPLE	8/8/96	Aug-96
MW-45	MW45	MW45-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-45	MW45	MW45-01F-1996	BASE SAMPLE	8/1/96	Aug-96
MW-46	ACS-GWMW46-01	MW46-01-1997	BASE SAMPLE	3/25/97	Mar-97

Table 9: Key to Assignment of Ground Water Sample IDs

LOCATION	OLD SAMPLE ID (1997 Draft BRA)	NEW SAMPLE ID	QAQCTYPE	SAMPLEDATE	NEW SAMPLEDATE
MW-46	ACS-GWMW46-02	MW46-02-1997	BASE SAMPLE	6/24/97	Jun-97
MW-46	ACS-GWMW46-03	MW46-03-1997	BASE SAMPLE	9/25/97	Sep-97
MW-46	ACS-GWMW46-04	MW46-04-1997	BASE SAMPLE	12/15/97	Dec-97
MW-46	APD-GWMW46-01	MW46-01-1996	BASE SAMPLE	8/5/96	Aug-96
MW-46	MW46	MW46-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-46	MW46	MW46-01F-1996	BASE SAMPLE	8/1/96	Aug-96
MW-47	ACS-GWMW47-01	MW47-01-1997	BASE SAMPLE	3/27/97	Mar-97
MW-47	ACS-GWMW47-02	MW47-02-1997	BASE SAMPLE	6/26/97	Jun-97
MW-47	ACS-GWMW47-04	MW47-04-1997	BASE SAMPLE	12/16/97	Dec-97
MW-47	ACS-GWMW47-94	MW47-04-1997-DUP	FIELD DUPLICATE	12/16/97	Dec-97
MW-47	APD-GWMW47-01	MW47-01-1996	BASE SAMPLE	8/7/96	Aug-96
MW-47	APD-GWMW47-91	MW47-01-1996-DUP	FIELD DUPLICATE	8/7/96	Aug-96
MW-47	MW47	MW47-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-47	MW47	MW47-01F-1996	BASE SAMPLE	8/1/96	Aug-96
MW-47	MW47	MW47-01F-1996-DUP	BASE SAMPLE	8/1/96	Aug-96
MW-47	MW47-DUP	MW47-01-1996-DUP	FIELD DUPLICATE	8/1/96	Aug-96
MW-48	97ZB04S07	MW48-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
MW-48	ACS-GWMW48-01	MW48-01-1997	BASE SAMPLE	3/27/97	Mar-97
MW-48	ACS-GWMW48-02	MW48-02-1997	BASE SAMPLE	6/26/97	Jun-97
MW-48	ACS-GWMW48-03	MW48-03-1997	BASE SAMPLE	9/29/97	Sep-97
MW-48	ACS-GWMW48-03	MW48-03-1997	BASE SAMPLE	9/30/97	Sep-97
MW-48	ACS-GWMW48-04	MW48-04-1997	BASE SAMPLE	12/16/97	Dec-97
MW-48	APD-GWMW48-01	MW48-01-1996	BASE SAMPLE	8/6/96	Aug-96
MW-48	MW48	MW48-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-48	MW48	MW48-01F-1996	BASE SAMPLE	8/1/96	Aug-96
MW-49	ACS-GWMW49-01	MW49-01-1997	BASE SAMPLE	4/3/97	Apr-97
MW-49	ACS-GWMW49-02	MW49-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-49	ACS-GWMW49-03	MW49-03-1997	BASE SAMPLE	9/24/97	Sep-97
MW-49	ACS-GWMW49-04	MW49-04-1997	BASE SAMPLE	12/10/97	Dec-97
MW-49	ACS-GWMW49-92	MW49-02-1997-DUP	FIELD DUPLICATE	6/25/97	Jun-97
MW-49	ACS-GWMW49-93	MW49-03-1997-DUP	FIELD DUPLICATE	9/24/97	Sep-97
MW-49	APD-GWMW49-01	MW49-01-1996	BASE SAMPLE	8/6/96	Aug-96
MW-49	APD-GWMW49-91	MW49-01-1996-DUP	FIELD DUPLICATE	8/6/96	Aug-96
MW-49	MW49	MW49-01-1996	BASE SAMPLE	8/1/96	Aug-96
MW-49	MW49	MW49-01F-1996	BASE SAMPLE	8/1/96	Aug-96
MW-49	MW49	MW49-01F-1996-DUP	BASE SAMPLE	8/1/96	Aug-96
MW-49	MW49-DUP	MW49-01-1996-DUP	FIELD DUPLICATE	8/1/96	Aug-96
MW-50	ACS-GWMW50-01	MW50-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-50	ACS-GWMW50-01	MW50-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-50	ACS-GWMW50-02	MW50-02-1997	BASE SAMPLE	6/24/97	Jun-97
MW-50	ACS-GWMW50-91	MW50-01-1997-DUP	FIELD DUPLICATE	3/25/97	Mar-97
MW-50	ACS-GWMW50-91	MW50-01-1997-DUP	FIELD DUPLICATE	3/26/97	Mar-97
MW-50	GWMW50-01	MW50-01-1996	BASE SAMPLE	11/6/96	Nov-96
MW-50	GWMW50-01F	MW50-01F-1996	BASE SAMPLE	11/6/96	Nov-96
MW-51	97ZB04S02	MW51-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
MW-51	ACS-GWMW51-01	MW51-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-51	ACS-GWMW51-01	MW51-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-51	ACS-GWMW51-02	MW51-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-51	ACS-GWMW51-03	MW51-03-1997	BASE SAMPLE	10/1/97	Oct-97
MW-51	ACS-GWMW51-04	MW51-04-1997	BASE SAMPLE	12/17/97	Dec-97
MW-51	GWMW51-01	MW51-01-1996	BASE SAMPLE	11/6/96	Nov-96
MW-51	GWMW51-01F	MW51-01F-1996	BASE SAMPLE	11/6/96	Nov-96
MW-51	GWMW51-91	MW51-01-1996-DUP	FIELD DUPLICATE	11/6/96	Nov-96
MW-51	GWMW51-91F	MW51-01F-1996-DUP	DUPLICATE	11/6/96	Nov-96
MW-52	ACS-GWMW52-01	MW52-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-52	ACS-GWMW52-01	MW52-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-52	ACS-GWMW52-02	MW52-02-1997	BASE SAMPLE	6/25/97	Jun-97

Table 9: Key to Assignment of Ground Water Sample IDs

LOCATION	OLD SAMPLE ID (1997 Draft BRA)	NEW SAMPLE ID	QAQCTYPE	SAMPLEDATE	NEW SAMPLEDATE
MW-52	ACS-GWMW52-03	MW52-03-1997	BASE SAMPLE	9/25/97	Sep-97
MW-52	ACS-GWMW52-04	MW52-04-1997	BASE SAMPLE	12/17/97	Dec-97
MW-52	GWMW52-01	MW52-01-1996	BASE SAMPLE	12/26/96	Dec-96
MW-52	GWMW52-01	MW52-01F-1996	BASE SAMPLE	12/26/96	Dec-96
MW-53	ACS-GWMW53-01	MW53-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-53	ACS-GWMW53-01	MW53-01-1997	BASE SAMPLE	3/26/97	Mar-97
MW-53	ACS-GWMW53-02	MW53-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-53	ACS-GWMW53-03	MW53-03-1997	BASE SAMPLE	9/25/97	Sep-97
MW-53	ACS-GWMW53-04	MW53-04-1997	BASE SAMPLE	12/17/97	Dec-97
MW-53	ACS-GWMW53-91	MW53-01-1997-DUP	FIELD DUPLICATE	3/25/97	Mar-97
MW-53	ACS-GWMW53-91	MW53-01-1997-DUP	FIELD DUPLICATE	3/26/97	Mar-97
MW-53	GWMW53-01	MW53-01-1996	BASE SAMPLE	12/26/96	Dec-96
MW-53	GWMW53-01	MW53-01F-1996	BASE SAMPLE	12/26/96	Dec-96
MW-54	ACS-GWMW54-01	MW54-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-54	ACS-GWMW54-02	MW54-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-54	ACS-GWMW54-03	MW54-03-1997	BASE SAMPLE	9/24/97	Sep-97
MW-54	ACS-GWMW54-04	MW54-04-1997	BASE SAMPLE	12/10/97	Dec-97
MW-54	GWMW54-01	MW54-01-1996	BASE SAMPLE	12/26/96	Dec-96
MW-54	GWMW54-01	MW54-01F-1996	BASE SAMPLE	12/26/96	Dec-96
MW-55	ACS-GWMW55-01	MW55-01-1997	BASE SAMPLE	3/25/97	Mar-97
MW-55	ACS-GWMW55-02	MW55-02-1997	BASE SAMPLE	6/25/97	Jun-97
MW-55	ACS-GWMW55-03	MW55-03-1997	BASE SAMPLE	9/24/97	Sep-97
MW-55	ACS-GWMW55-04	MW55-04-1997	BASE SAMPLE	12/10/97	Dec-97
MW-55	GWMW55-01	MW55-01-1996	BASE SAMPLE	12/26/96	Dec-96
MW-55	GWMW55-01	MW55-01F-1996	BASE SAMPLE	12/26/96	Dec-96
MW-55	GWMW55-01	MW55-01F-1996-DUP	BASE SAMPLE	12/26/96	Dec-96
MW-55	GWMW55-91	MW55-01-1996-DUP	FIELD DUPLICATE	12/26/96	Dec-96
PW-01	ACS-PW01-01	PW01-01-1990	BASE SAMPLE	6/13/90	Jun-90
PW-02	ACS-PW02-01	PW02-01-1990	BASE SAMPLE	6/13/90	Jun-90
PW-03	ACS-PW03-01	PW03-01-1990	BASE SAMPLE	6/13/90	Jun-90
PW-04	ACS-PW04-01	PW04-01-1990	BASE SAMPLE	6/13/90	Jun-90
PW-05	ACS-PW05-01	PW05-01-1990	BASE SAMPLE	6/14/90	Jun-90
PW-06	ACS-PW06-01	PW06-01-1990	BASE SAMPLE	6/14/90	Jun-90
PW-07	ACS-PW07-01	PW07-01-1990	BASE SAMPLE	6/14/90	Jun-90
PW-08	ACS-PW08-01	PW08-01-1990	BASE SAMPLE	6/14/90	Jun-90
PW-09	ACS-PW09-01	PW09-01-1991	BASE SAMPLE	1/17/91	Jan-91
PW-10	ACS-PW10-01	PW10-01-1991	BASE SAMPLE	1/17/91	Jan-91
PW-10	ACS-PW10-91	PW10-01-1991-DUP	FIELD DUPLICATE	1/17/91	Jan-91
PW-A	97ZB04S18	PWA-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
PW-A	ACS-PWA-01	PWA-01-1997	BASE SAMPLE	3/31/97	Mar-97
PW-A	ACS-PWA-01	PWA-01-1997	BASE SAMPLE	4/1/97	Apr-97
PW-B	97ZB04S17	PWB-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
PW-B	ACS-PWB-01	PWB-01-1997	BASE SAMPLE	3/31/97	Mar-97
PW-C	97ZB04S16	PWC-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
PW-C	ACS-PWC-01	PWC-01-1997	BASE SAMPLE	3/31/97	Mar-97
PW-D	ACS-PWD-01	PWD-01-1997	BASE SAMPLE	4/1/97	Apr-97
PW-D	ACS-PWD-02	PWD-02-1997	BASE SAMPLE	10/2/97	Oct-97
PW-I	97ZB04S15	PWI-01-1997-EPA	BASE SAMPLE	3/28/97	Mar-97
PW-I	ACS-PWI-01	PWI-01-1997	BASE SAMPLE	3/31/97	Mar-97
PW-I	ACS-PWI-91	PWI-01-1997-DUP	FIELD DUPLICATE	3/31/97	Mar-97
PW-J	ACS-PWJ-01	PWJ-01-1997	BASE SAMPLE	3/31/97	Mar-97
PW-K	ACS-PWK-01	PWK-01-1997	BASE SAMPLE	3/31/97	Mar-97
PW-K	ACS-PWK-02	PWK-02-1997	BASE SAMPLE	10/2/97	Oct-97
PW-L	ACS-PWL-01	PWL-01-1997	BASE SAMPLE	4/1/97	Apr-97
PW-N	ACS-PWN-01	PWN-01-1997	BASE SAMPLE	3/31/97	Mar-97
PW-RC	ACS-PWRC-01	PWRC-01-1997	BASE SAMPLE	4/2/97	Apr-97
PW-RC	ACS-PWRC-02	PWRC-02-1997	BASE SAMPLE	10/2/97	Oct-97

Table 9: Key to Assignment of Ground Water Sample IDs

LOCATION	OLD SAMPLE ID (1997 Draft BRA)	NEW SAMPLE ID	QAQCTYPE	SAMPLEDATE	NEW SAMPLEDATE
PW-RE	ACS-PWRE-01	PWRE-01-1997	BASE SAMPLE	4/1/97	Apr-97
PW-RE	ACS-PWRE-02	PWRE-02-1997	BASE SAMPLE	10/2/97	Oct-97
PW-RE	ACS-PWRE-91	PWRE-01-1997-DUP	FIELD DUPLICATE	4/1/97	Apr-97
PW-RW	ACS-PWRW-01	PWRW-01-1997	BASE SAMPLE	4/1/97	Apr-97
PW-S	ACS-PWS-01	PWS-01-1997	BASE SAMPLE	3/31/97	Mar-97
PW-T	ACS-PWT-01	PWT-01-1997	BASE SAMPLE	3/31/97	Mar-97
PW-T	ACS-PWT-01	PWT-01-1997	BASE SAMPLE	4/1/97	Apr-97
PW-U	ACS-PWU-01	PWU-01-1997	BASE SAMPLE	4/1/97	Apr-97
PW-V	ACS-PWV-01	PWV-01-1997	BASE SAMPLE	4/1/97	Apr-97
PW-W	ACS-PWW-01	PWW-01-1997	BASE SAMPLE	4/1/97	Apr-97
PW-X	ACS-PWX-01	PWX-01-1997	BASE SAMPLE	4/1/97	Apr-97
PW-Y	ACS-PWY-02	PWY-02-1997	BASE SAMPLE	10/2/97	Oct-97
PW-Y	ACS-PWY-92	PWY-02-1997-DUP	FIELD DUPLICATE	10/2/97	Oct-97
PW-Z	ACS-PWZ-02	PWZ-02-1997	BASE SAMPLE	10/2/97	Oct-97

Table 10: Calculated Body Surface Areas for the ACS NPL Site Revised Baseline Risk Assessment		
Total Body Surface Area of Male Children in Square Meters (EFH, Table 6-6: EPA 1997)		
	Percentile	
Age (yr)	**50**	**95**
2<3	0.603	0.682
3<4	0.664	0.764
4<5	0.731	0.845
5<6	0.793	0.918
6<7	0.866	1.06
9<10	1.07	1.29
10<11	1.18	1.48
11<12	1.23	1.6
12<13	1.34	1.76
13<14	1.47	1.81
14<15	1.61	1.91
15<16	1.7	2.02
16<17	1.76	2.16
17<18	1.8	2.09
Total Body Surface Area of Female Children in Square Meters (EFH, Table 6-7: EPA 1997)		
	Percentile	
Age (yr)	**50**	**95**
2<3	0.579	0.653
3<4	0.649	0.737
4<5	0.706	0.82
5<6	0.779	0.932
6<7	0.843	1.03
9<10	1.06	1.41
10<11	1.17	1.43
11<12	1.3	1.62
12<13	1.4	1.7
13<14	1.48	1.86
14<15	1.55	1.88
15<16	1.57	1.83
16<17	1.6	1.91
17<18	1.63	1.94
Calculated Surface Areas (SA) for Boys and Girls, Ages 1-6		
Average total SA (m^2)	0.7213	0.8441
Average total SA (cm^2)	**7,200 (a)**	**8,400 (a)**
25% of average total SA (cm^2)	**1,800 (b)**	**2,100 (b)**
Calculated Surface Areas (SA) for Boys and Girls, Ages 9-18		
Average total SA (m^2)	1.44	1.761
Average total SA (cm^2)	14,400	17,600
25% of average total SA (cm^2)	**3,600 (c)**	**4,400 (c)**

(a) Used for bathing and swimming exposures
(b) Used for soil/sediment exposures
(c) Used for soil/sediment and surface water exposures
Note: These defaults for children are derived as specified in USEPA guidance (Dermal Exposure Assessment, Jan. 1992, page 8-10).