APPENDIX G

ANALYTICAL DATA

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APPENDIX G
LABORATORY QUALIFIERS
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

QUALIFIER	DEFINITION
INORGANIC	
*	Duplicate analysis not within control limits
+	Method of standard additions (MSA) correlation coefficient less than 0.995.
A	Indicates that a TIC is suspected aldol-condensation product.
B	Applies when the analyte is found in the associated blank.
D	All the compounds identified in the analysis at the secondary dilution factor.
E	Result estimated due to interferences.
J	Indicates an estimated value.
M	Duplicate injection precision not met.
N	Sample spike recovery not within control limits
Q	No analytical result available or not required because total analyses < PQL.
R	QC indicates that the data are not usable. Re-sampling and re-analysis are necessary.
S	Result determined by method of standard additions (MSA)
U	Analyte analyzed for but not detected at or below the lowest concentration reported.
W	Post-digestion spike recovery out of control limits
X	Other specific flags and footnotes may be required to properly define the results.
ORGANIC	
A	Tentatively Identified Compounds (TIC) is suspected aldol-condensation product
B	Compound found in blank as well as sample.
C	Compound presence confirmed by GC/MS. (GC/MS flag).
D	Compounds identified in an analysis at a secondary dilution factor.
E	Result exceeds calibration range (GC/MS flag)
J	Indicates an estimated value.
N	Presumptive evidence of a compound. (GC/MS flag)
P	Difference between results from two GC columns unacceptable.
U	Compound analyzed for but not detected at or below the lowest concentration reported.
X	Other specific flags and footnotes may be required to properly define the results.
Y	MS/MSD recovery and/or RPD failed acceptance criteria.
Z	(Reserved by CLP for a laboratory-defined organic data qualifier.
RADS	
A	Analyzed but not detected at the analyte quantitation limit.
B	Method blank not statistically different from sample at 95% level of confidence.
D	Sample is statistically different from duplicate at 95% level of confidence.
J	Indicates an estimated value.
L	Expected and measured value for LCS is statistically different at 95% level of confidence.
M	Expected and measured value for MS is statistically different at 95% level of confidence.
R	QC indicates that data are not usable. Re-sampling and reanalysis are necessary for verification.

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LABORATORY QUALIFIERS
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

T	**Tracer recovery is < or equal to 30 % or > or equal to 105 %**
U	**Value reported is < the MDA and/or < 2 sigma TPE**
X	**Other specific flags and footnotes may be required to properly define the results**

APPENDIX G
VALIDATION QUALIFIERS
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

QUALIFIER	DEFINITION
U	The material was analyzed for, but was not detected. The associated numerical value is the quantitation limit.
J	Estimated value, either because QC criteria were not met or because the amount detected is below the documented quantitation limit.
UJ	Undetected but the number reported as the quantitation limit is an estimated value
NJ	Presumptively present at an estimated quantity
R	Rejected, so data are of "information only" quality and should be supplemented with additional data for decision making.
=	Data were validated; however no qualifier was added.
X	Data were not validated.

APPENDIX G

ANALYTICAL RESULTS - UNFILTERED GROUNDWATER[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID Sample Date	UFSB01W025 7/13/00	UFSB02W020 7/21/00	UFSB04W029 7/20/00	UFSB05W027 7/18/00	UFSB05W027D 7/18/00	UFSB06W018 7/21/00
Inorganics (mg/L)						
Aluminum	1200 N J	159 N X	92.7 N X	127 N =	168 N =	84.6 N X
Antimony	0.2 *NU R	0.2 NU X	0.2 NU X	0.2 NU UJ	0.2 NU UJ	0.2 NU X
Arsenic	0.05 NUWX UJ	0.005 BNW X	0.007 BNW X	0.006 NW J	0.007 NW J	0.012 BNW X
Barium	2.8 N J	0.826 N X	0.4 N X	0.772 N J	1.08 N J	0.458 N X
Beryllium	0.055 N J	0.007 X	0.005 U X	0.005 U U	0.006 =	0.005 U X
Cadmium	0.02 *NU UJ	0.02 U X	0.02 U X	0.02 U UJ	0.02 U U	0.02 U X
Calcium	164 N J	65.9 N X	145 N X	44.6 N J	55.7 N J	61.4 N X
Chromium	2.52 N J	0.242 X	0.206 X	0.148 =	0.217 =	0.139 X
Cobalt	NA	NA	NA	0.028	0.04	NA
Copper	0.397 N J	0.105 B X	0.045 B X	0.058 B =	0.105 B =	0.062 B X
Lead	0.967 N J	0.2 NU X	0.2 NU X	0.2 NU U	0.2 NU U	0.2 NU X
Mercury	0.0006 W =	0.0002 NU X	0.0002 NU X	0.0002 NU UJ	0.0002 N J	0.0002 NU X
Nickel	0.752 N =	0.081 X	0.114 X	0.086 =	0.127 =	0.063 X
Selenium	0.05 NUWX UJ	0.005 NUW X	0.005 NUW X	0.005 NUW UJ	0.005 NUW UJ	0.012 NW X
Silver	0.025 U U	0.025 U X	0.025 U X	0.025 U U	0.025 U U	0.025 U X
Thallium	0.2 ENU UJ	0.2 NU X	0.2 ENU X	0.2 NU UJ	0.2 NU UJ	0.2 NU X
Vanadium	3.67 N J	0.371 X	0.107 X	0.241 =	0.327 =	0.19 X
Zinc	1.4 N J	0.329 X	0.2 X	0.33 =	0.569 =	0.43 X
PCBs (µg/L)						
PCB-1016	0.23 U U	0.16 UX X	0.21 UX X	0.17 JU U	0.16 JU U	0.17 UX X
PCB-1221	0.23 U U	0.16 UX X	0.21 UX X	0.17 JU U	0.16 JU U	0.17 UX X
PCB-1232	0.2 U U	0.14 UX X	0.18 UX X	0.15 JU U	0.14 JU U	0.15 UX X
PCB-1242	0.21 U U	0.15 UX X	0.19 UX X	0.16 JU U	0.15 JU U	0.16 UX X
PCB-1248	0.21 U U	0.15 UX X	0.19 UX X	0.16 JU U	0.15 JU U	0.16 UX X
PCB-1254	0.17 U U	0.12 UX X	0.15 UX X	0.13 JU U	0.12 JU U	0.13 UX X
PCB-1260	0.23 U U	0.16 UX X	0.21 UX X	0.17 JU U	0.16 JU U	0.17 UX X
PCB-1268	0.11 U U	0.08 UX X	0.1 UX X	0.08 JU U	0.08 JU U	0.09 UX X
Polychlorinated biphenyl	0.23 UX U	0.17 UX X	0.21 UX X	0.17 JU U	0.16 JU U	0.17 UX X
Radionuclides (pCi/L)						
Activity of U-235	-17.3 U U	-32.6 U X	-22.3 U X	-13.8 U U	-15 U U	-17.7 U X
Alpha activity (pCi/ml)	1.26 =	0.03 DU X	0.06 DU X	0.04 U U	-0.01 U U	0.04 DU X
Americium-241	7.62 U U	31.2 U X	21.6 U X	-25.7 U U	29.7 U U	24 U X
Americium-243	49.8 U U	34.8 U X	-11.6 U X	-6.25 U U	34.1 U U	25.6 U X
Beta activity (pCi/ml)	1.14 =	0.07 X	0.03 U X	-0.01 U U	0.03 U U	0.03 U X
Cesium-134	-13.2 U R	-4.09 U X	6.29 U X	-61.6 U R	5.36 U R	-8.57 U X
Cesium-137	-0.901 U U	-6.75 U X	-17.6 U X	2.35 U U	12 U U	3.29 U X
Cobalt-60	-2.14 U U	-0.566 U X	-12.4 U X	22.9 U U	-4.69 U U	-10.7 U X
Mass of U-235 (g U-235/L)	-0.0000079 U U	-0.0000151 U X	-0.0000103 U X	-0.0000063 U U	-0.0000069 U U	-0.0000082 U X
Neptunium-237	4.54 U U	22.7 U X	31.7 U X	4.9 U U	-19.4 U U	-9.39 U X
Neptunium-239	-171 U U	-134 U X	-43.2 U X	6.82 U U	4.34 U U	34.9 U X
Plutonium-238	-0.007 U U	-0.372 U X	-0.137 U X	0.367 T UJ	-0.149 UT U	-0.263 U X
Plutonium-239/240	-0.0837 U U	-0.0514 U X	-0.253 U X	-0.13 UT U	0.0201 UT U	-0.241 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - UNFILTERED GROUNDWATER[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID Sample Date	UFSB01W025 7/13/00	UFSB02W020 7/21/00	UFSB04W029 7/20/00	UFSB05W027 7/18/00	UFSB05W027D 7/18/00	UFSB06W018 7/21/00
Potassium-40	150 U U	-20.1 U X	219 X	271 U U	-219 U U	636 X
Protactinium-234m	1730 U U	2490 U X	-82.1 U X	1190 U U	359 U U	1270 U X
Radium-226	135 =	398 U X	272 U X	169 U U	183 U U	205 X
Technetium-99	22.3 U UJ	6.94 U X	7.59 U X	19.9 U UJ	25.6 =	0 U X
Thorium-228	0.937 =	-0.543 U X	0.134 U X	0.211 =	0.517 =	-0.552 U X
Thorium-230	0.521 =	0.534 U X	0.977 X	0.119 =	0.0892 =	0.111 U X
Thorium-232	0.498 =	0.0498 U X	0.384 U X	0.135 =	0.151 =	-0.162 U X
Uranium	U X	U X	U X	U X	U X	U X
Uranium-234	U X	U X	U X	U X	U X	U X
Uranium-235 (wt%)	X	X	X	X	X	X
Uranium-238	U X	U X	U X	U X	U X	U X
Semivolatiles (µg/L)						
1,2,4-Trichlorobenzene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
1,2-Dichlorobenzene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
1,2-Diphenylhydrazine	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
1,3-Dichlorobenzene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
1,4-Dichlorobenzene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2,4,5-Trichlorophenol	5 JUXY R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2,4,6-Trichlorophenol	5 JUXY R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2,4-Dichlorophenol	5 JUX R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2,4-Dimethylphenol	5 JUX R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2,4-Dinitrophenol	5 JUX R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2,4-Dinitrotoluene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2,6-Dichlorophenol	5 JUX R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2,6-Dinitrotoluene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2-Chloronaphthalene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2-Chlorophenol	5 JUX R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2-Methyl-4,6-dinitrophenol	5 JUX R	5 JU X	5 U X	5 JU UJ	5 JU UJ	5 U X
2-Methylnaphthalene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2-Methylphenol	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 JU UJ	5 U X
2-Nitrobenzenamine	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
2-Nitrophenol	5 JUX R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
3,3'-Dichlorobenzidine	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
3-Nitrobenzenamine	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
4-Bromophenyl phenyl ether	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
4-Chloro-3-methylphenol	5 JUX R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
4-Chlorobenzenamine	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
4-Chlorophenyl phenyl ether	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 JU U	5 U X
4-Methylphenol	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 JU UJ	5 U X
4-Nitrobenzenamine	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
4-Nitrophenol	5 JUX R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Acenaphthene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Acenaphthylene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - UNFILTERED GROUNDWATER[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID Sample Date	UFSB01W025 7/13/00	UFSB02W020 7/21/00	UFSB04W029 7/20/00	UFSB05W027 7/18/00	UFSB05W027D 7/18/00	UFSB06W018 7/21/00
Anthracene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Benz(a)anthracene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Benzenemethanol	5 JUX J	5 JU X	5 UX X	5 J J	6 =	5 UX X
Benzo(a)pyrene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Benzo(b)fluoranthene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Benzo(ghi)perylene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Benzo(k)fluoranthene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Benzoic acid	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Bis(2-chloroethoxy)methane	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Bis(2-chloroethyl) ether	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Bis(2-chloroisopropyl) ether	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Bis(2-ethylhexyl)phthalate	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Butyl benzyl phthalate	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Carbazole	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Chrysene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 UX X
Di-n-butyl phthalate	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Di-n-octylphthalate	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Dibenz(a,h)anthracene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Dibenzofuran	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Diethyl phthalate	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Dimethyl phthalate	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Fluoranthene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 UX X
Fluorene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Hexachlorobenzene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Hexachlorobutadiene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Hexachlorocyclopentadiene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Hexachloroethane	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Indeno(1,2,3-cd)pyrene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Isophorone	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
N-Nitroso-di-n-propylamine	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
N-Nitrosodimethylamine	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
N-Nitrosodiphenylamine	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Naphthalene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Nitrobenzene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 JU UJ	5 U X
Pentachlorophenol	5 JUXY R	5 JU X	5 U X	5 JU UJ	5 U U	5 U X
Phenanthrene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 UX X
Phenol	5 JUX R	5 JU X	5 U X	5 JU UJ	5 UX J	5 U X
Pyrene	5 JUX UJ	5 JU X	5 U X	5 JU UJ	5 U U	5 UX X
Pyridine	5 JUX UJ	5 JU X	5 U X	5 JUY UJ	5 UY U	5 U X
Volatiles (µg/L)						
1,1,1-Trichloroethane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
1,1,2,2-Tetrachloroethane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
1,1,2-Trichloroethane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - UNFILTERED GROUNDWATER[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID Sample Date	UFSB01W025 7/13/00	UFSB02W020 7/21/00	UFSB04W029 7/20/00	UFSB05W027 7/18/00	UFSB05W027D 7/18/00	UFSB06W018 7/21/00
1,1-Dichloroethane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
1,1-Dichloroethene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
1,2-Dichloroethane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
1,2-Dichloropropane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
1,2-Dimethylbenzene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
2-Butanone	10 U U	10 U X	10 U X	10 U U	10 U U	10 U X
2-Hexanone	10 U U	10 U X	10 U X	10 U UJ	10 U UJ	10 U X
4-Methyl-2-pentanone	10 U U	10 U X	10 U X	10 U U	10 U U	10 U X
Acetone	10 U U	57 X	21 X	12 J	10 U R	10 U X
Benzene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Bromodichloromethane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Bromoform	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Bromomethane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Carbon disulfide	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Carbon tetrachloride	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Chlorobenzene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Chloroethane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Chloroform	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Chloromethane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
cis-1,2-Dichloroethene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
cis-1,3-Dichloropropene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Dibromochloromethane	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Dimethylbenzene	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X
Ethylbenzene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
m,p-Xylene	10 U U	10 U X	10 U X	10 U U	10 U U	10 U X
Methylene chloride	10 U U	10 JU X	10 JU X	10 JU UJ	10 JU UJ	10 JU X
Styrene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Tetrachloroethene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Toluene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
trans-1,2-Dichloroethene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
trans-1,3-Dichloropropene	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X
Trichloroethene	1 U U	1 U X	1 U X	1 U U	1 U U	1 U X
Vinyl acetate	5 U X	X X	X X	X U	X U	X X
Vinyl chloride	5 U U	5 U X	5 U X	5 U U	5 U U	5 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - UNFILTERED GROUNDWATER[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID Sample Date	UFSB07W018 7/19/00	UFSB08W075 7/19/00	UFSB09W020 7/18/00	UFSB10W015 7/20/00	UFSB11W020 7/10/00	UFSB12W020 7/10/00
Inorganics (mg/L)						
Aluminum	122 N X	906 N X	169 N X	314 N X	364 N X	1.32 N X
Antimony	0.2 NU X	0.2 ENU X	0.2 NU X	0.2 NU X	0.2 U X	0.2 U X
Arsenic	0.05 BNUWX X	0.005 BNUW X	0.005 NUW X	0.005 BNUW X	0.05 UX X	0.005 U X
Barium	0.391 N X	3.89 N X	1.06 N X	2.15 N X	2.17 X	0.164 X
Beryllium	0.005 U X	0.029 X	0.006 X	0.012 X	0.022 X	0.005 U X
Cadmium	0.02 U X	0.02 U X	0.02 U X	0.02 U X	0.02 U X	0.02 U X
Calcium	12.4 N X	118 N X	95.9 N X	82.6 N X	53.1 X	21.3 X
Chromium	0.122 X	1.24 X	0.202 X	0.583 X	0.435 X	0.025 U X
Cobalt	NA	NA	0.078	NA	NA	NA
Copper	0.044 B X	0.326 B X	NA	0.201 B X	0.144 B X	0.025 BU X
Lead	0.2 NU X	0.304 N X	0.2 NU X	0.235 N X	0.216 N X	0.2 NU X
Mercury	0.0002 NU X	0.0009 N X	0.0002 NU X	0.0005 N X	0.0011 X	0.0002 U X
Nickel	0.059 X	0.574 X	0.107 X	0.281 X	0.202 X	0.025 U X
Selenium	0.005 NUW X	0.005 NUW X	0.005 NUW X	0.005 NUW X	0.05 NUWX X	0.005 NUW X
Silver	0.025 U X	0.025 U X	0.025 U X	0.025 U X	0.025 BU X	0.025 BU X
Thallium	0.2 ENU X	0.2 NU X	0.2 NU X	0.2 NU X	0.2 EU X	0.2 U X
Vanadium	0.183 X	1.55 X	0.322 X	0.638 X	0.661 X	0.025 U X
Zinc	0.221 X	1.43 X	0.352 X	0.699 X	1.17 X	0.2 U X
PCBs (µg/L)						
PCB-1016	0.17 JU X	0.2 U X	0.2 JU X	0.17 UX X	0.16 JU X	0.17 JU X
PCB-1221	0.17 JU X	0.2 U X	0.2 JU X	0.17 UX X	0.16 JU X	0.17 JU X
PCB-1232	0.15 U X	0.18 U X	0.18 JU X	0.15 UX X	0.14 JU X	0.15 JU X
PCB-1242	0.16 JU X	0.19 U X	0.19 JU X	0.16 UX X	0.15 JU X	0.16 JU X
PCB-1248	0.16 JU X	0.19 U X	0.19 JU X	0.16 UX X	0.15 JU X	0.16 JU X
PCB-1254	0.13 JU X	0.15 U X	0.15 JU X	0.13 UX X	0.12 JU X	0.13 JU X
PCB-1260	0.17 JU X	0.2 U X	0.2 JU X	0.17 UX X	0.16 JU X	0.17 JU X
PCB-1268	0.09 JU X	0.1 U X	0.1 JU X	0.09 UX X	0.08 JU X	0.08 JU X
Polychlorinated biphenyl	0.17 JU X	0.2 UX X	0.2 JU X	0.17 UX X	0.16 JU X	0.17 JU X
Radionuclides (pCi/L)						
Activity of U-235	-29.1 U X	-18.7 U X	-20.5 U X	-33.2 U X	NA	NA
Alpha activity (pCi/ml)	0 U X	0.05 U X	0.07 X	0.06 DU X	NA	NA
Americium-241	-13.8 U X	16.7 U X	8.19 U X	-11 U X	NA	NA
Americium-243	52.4 U X	34.5 U X	64.7 U X	46.7 U X	NA	NA
Beta activity (pCi/ml)	0 U X	0.05 U X	0.06 U X	0.05 U X	NA	NA
Cesium-134	24.7 U X	-16.6 U X	25.9 U X	-0.93 U X	NA	NA
Cesium-137	-17.5 U X	3.66 U X	12 U X	-1.09 U X	NA	NA
Cobalt-60	-2.62 U X	-8.03 U X	-6.74 U X	-7.49 U X	NA	NA
Mass of U-235 (g U-235/L)	-0.0000135 U X	-0.0000086 U X	-0.0000094 U X	-0.0000154 U X	NA	NA
Neptunium-237	18.6 U X	-12.7 U X	15.6 U X	-8.19 U X	NA	NA
Neptunium-239	-46.6 U X	-64 U X	49.1 U X	-153 U X	NA	NA
Plutonium-238	-0.0173 UT X	-0.0606 UT X	-0.102 UT X	-0.755 U X	NA	NA
Plutonium-239/240	0.00986 UT X	-0.0597 UT X	0.0196 UT X	-0.191 U X	NA	NA

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - UNFILTERED GROUNDWATER[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID Sample Date	UFSB07W018 7/19/00	UFSB08W075 7/19/00	UFSB09W020 7/18/00	UFSB10W015 7/20/00	UFSB11W020 7/10/00	UFSB12W020 7/10/00
Potassium-40	-32.6 U X	592 X	1270 X	598 X	NA	NA
Protactinium-234m	1170 U X	-35.2 U X	1950 U X	2300 U X	NA	NA
Radium-226	294 X	267 X	199 X	351 U X	NA	NA
Technetium-99	21.9 U X	0 U X	0 U X	16.7 U X	NA	NA
Thorium-228	0.145 X	0.327 X	0.47 X	-0.709 U X	NA	NA
Thorium-230	0.0507 U X	0.0125 U X	0.0541 U X	-0.142 U X	NA	NA
Thorium-232	0.0631 U X	-0.0171 U X	0.0764 U X	-0.0601 U X	NA	NA
Uranium	U X	U X	U X	U X	NA	NA
Uranium-234	U X	U X	U X	U X	NA	NA
Uranium-235 (wt%)	X	X	X	X	NA	NA
Uranium-238	U X	U X	U X	U X	NA	NA
Semivolatiles (µg/L)						
1,2,4-Trichlorobenzene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
1,2-Dichlorobenzene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
1,2-Diphenylhydrazine	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
1,3-Dichlorobenzene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
1,4-Dichlorobenzene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2,4,5-Trichlorophenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2,4,6-Trichlorophenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2,4-Dichlorophenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2,4-Dimethylphenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2,4-Dinitrophenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2,4-Dinitrotoluene	5 U X	5 JU X	5 JU X	5 JU X	5 JUY X	5 UY X
2,6-Dichlorophenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2,6-Dinitrotoluene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2-Chloronaphthalene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2-Chlorophenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2-Methyl-4,6-dinitrophenol	5 JU X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2-Methylnaphthalene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2-Methylphenol	5 JU X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2-Nitrobenzenamine	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
2-Nitrophenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
3,3'-Dichlorobenzidine	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
3-Nitrobenzenamine	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
4-Bromophenyl phenyl ether	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
4-Chloro-3-methylphenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
4-Chlorobenzenamine	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
4-Chlorophenyl phenyl ether	5 JU X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
4-Methylphenol	5 JU X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
4-Nitrobenzenamine	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
4-Nitrophenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Acenaphthene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Acenaphthylene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - UNFILTERED GROUNDWATER[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID Sample Date	UFSB07W018 7/19/00	UFSB08W075 7/19/00	UFSB09W020 7/18/00	UFSB10W015 7/20/00	UFSB11W020 7/10/00	UFSB12W020 7/10/00
Anthracene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Benz(a)anthracene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Benzenemethanol	5 UX X	5 JU X	5 JUX X	5 JX X	5 JU X	5 U X
Benzo(a)pyrene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Benzo(b)fluoranthene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Benzo(ghi)perylene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Benzo(k)fluoranthene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Benzoic acid	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Bis(2-chloroethoxy)methane	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Bis(2-chloroethyl) ether	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Bis(2-chloroisopropyl) ether	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Bis(2-ethylhexyl)phthalate	5 UX X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Butyl benzyl phthalate	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Carbazole	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Chrysene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Di-n-butyl phthalate	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Di-n-octylphthalate	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Dibenz(a,h)anthracene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Dibenzofuran	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Diethyl phthalate	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Dimethyl phthalate	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Fluoranthene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Fluorene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Hexachlorobenzene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Hexachlorobutadiene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Hexachlorocyclopentadiene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Hexachloroethane	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Indeno(1,2,3-cd)pyrene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Isophorone	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
N-Nitroso-di-n-propylamine	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
N-Nitrosodimethylamine	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
N-Nitrosodiphenylamine	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Naphthalene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Nitrobenzene	5 JU X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Pentachlorophenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Phenanthrene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Phenol	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Pyrene	5 U X	5 JU X	5 JU X	5 JU X	5 JU X	5 U X
Pyridine	5 UY X	5 JUY X	5 JUY X	5 JU X	5 JU X	5 U X
Volatiles (µg/L)						
1,1,1-Trichloroethane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,1,2,2-Tetrachloroethane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,1,2-Trichloroethane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - UNFILTERED GROUNDWATER[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID Sample Date	UFSB07W018 7/19/00	UFSB08W075 7/19/00	UFSB09W020 7/18/00	UFSB10W015 7/20/00	UFSB11W020 7/10/00	UFSB12W020 7/10/00
1,1-Dichloroethane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,1-Dichloroethene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,2-Dichloroethane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,2-Dichloropropane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,2-Dimethylbenzene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
2-Butanone	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
2-Hexanone	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
4-Methyl-2-pentanone	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Acetone	10 U X	27 X	10 U X	24 X	22 X	10 U X
Benzene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Bromodichloromethane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Bromoform	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Bromomethane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Carbon disulfide	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Carbon tetrachloride	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Chlorobenzene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Chloroethane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Chloroform	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Chloromethane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
cis-1,2-Dichloroethene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
cis-1,3-Dichloropropene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Dibromochloromethane	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Dimethylbenzene	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X
Ethylbenzene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
m,p-Xylene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Methylene chloride	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Styrene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Tetrachloroethene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Toluene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
trans-1,2-Dichloroethene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
trans-1,3-Dichloropropene	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Trichloroethene	1 U X	1 U X	1 U X	1 U X	1 U X	1 U X
Vinyl acetate	X X	X X	X X	X X	5 U X	5 U X
Vinyl chloride	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS-FILTERED GROUNDWATER[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID Sample Date	UFSB01W025 7/13/00	UFSB02W020 7/21/00	UFSB04W029 7/20/00	UFSB05W027 7/18/00	UFSB05W027D 7/18/00	UFSB06W018 7/21/00	UFSB08W075 7/19/00	UFSB09W020 7/18/00	UFSB10W015 7/20/00	UFSB11W020 7/10/00	UFSB12W020 7/10/00
Inorganics (mg/L)											
Aluminum	0.937 B J	0.2 U X	1.42 X	0.2 U U	0.2 U U	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 BU X	0.2 BU X
Antimony	NA	X	X	X	X	X	X	X	X	NA	NA
Arsenic	NA	NA	0.005 U X	0.005 U U	0.005 U U	0.005 U X	NA	NA	NA	NA	NA
Barium	0.089 J	0.176 X	0.048 X	0.213 =	0.213 =	0.12 X	0.156 X	0.331 X	0.3 X	0.403 X	0.12 X
Beryllium	0.005 U UJ	0.005 U X	X	X	0.005 U U	X	0.005 U X	0.005 U X	0.005 U X	0.005 U X	NA
Cadmium	NA	X	X	X	X	X	X	X	X	NA	NA
Calcium	44.2 J	50.9 N X	22.8 N X	35.8 N =	36.6 N =	40.3 N X	35.3 N X	78.5 N X	50.3 N X	31.6 X	19.6 X
Chromium	0.025 BU R	0.025 U X	0.025 U X	0.025 U U	0.025 U U	0.025 U X	0.025 U X	0.025 U X	0.025 U X	0.025 BU X	NA
Copper	0.025 U UJ	0.025 BU X	0.025 BU X	0.025 BU U	0.025 BU U	0.025 BU X	0.025 BU X	0.025 BU X	0.025 BU X	0.025 U X	NA
Lead	0.2 U UJ	X	X	X	X	X	0.2 BU X	X	0.2 BU X	0.2 U X	NA
Mercury	0.0002 UW U	NA	NA	NA	0.0002 NU UJ	NA	0.0002 NU X	NA	0.0002 NU X	0.0002 U X	NA
Nickel	0.025 U UJ	0.025 U X	0.025 U X	0.025 U U	0.025 U U	0.025 U X	0.025 U X	0.025 U X	0.025 U X	0.025 U X	NA
Silver	NA	X	X	X	X	X	X	X	X	NA	NA
Thallium	NA	X	X	X	X	X	X	X	X	NA	NA
Vanadium	0.025 U R	0.025 U X	0.025 U X	0.025 U U	0.025 U U	0.025 U X	0.025 U X	0.025 U X	0.025 U X	0.025 U X	NA
Zinc	0.2 U UJ	0.2 U X	0.2 U X	0.2 U U	0.2 U U	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	NA
Radionuclides (pCi/L)											
Activity of U-235	0 U U	42.4 X	NA	0 U U	0 U U		0 U X	-8.36 U X	-12.9 U X	-15.6 U X	-13.7 U X
Alpha activity (pCi/ml)	0.01 U U	-0.01 DU X	NA	0.02 DU U	0.02 DU U	0 DU X	0.09 D X	0 U X	0.06 DU X	0.01 DU X	-0.04 DU X
Americium-241	-40 U U	16.9 U X	NA	0.785 U U	-5.64 U U	10.5 U X	56.9 X	-3.32 U X	-11.4 U X	-12.9 U X	17.8 U X
Americium-243	12.3 U U	5.98 U X	NA	3.55 U U	-7.33 U U	-12.8 U X	-1.19 U X	1.78 U X	-7.38 U X	34.7 U X	25.4 U X
Beta activity (pCi/ml)	0.05 U U	0.01 U X	NA	0.04 U U	0.01 U U	0.03 U X	0.07 X	0 U X	0.06 U X	0.31 X	0.07 X
Cesium-134	8.68 U R	6.96 U X	NA	4.78 U R	-8.81 U R	0.898 U X	0.997 U X	-0.496 U X	-18.5 U X	-6.99 U X	8.41 U X
Cesium-137	11.3 U U	-10.1 U X	NA	-5.95 U U	-3.57 U U	13.9 U X	-0.88 U X	4.03 U X	5.49 U X	-0.366 U X	-9.43 U X
Cobalt-60	5.45 U U	23.8 U X	NA	-5.72 U U	0.548 U U	-1.95 U X	-4.84 U X	-3.47 U X	0.533 U X	14.2 U X	-18.3 U X
Mass of U-235 (g U-235/L)	0 U U	0.0000196 X	NA	0 U U	0 U U	-0.0000042 U X	0 U X	-0.0000038 U X	-0.0000059 U X	-0.0000072 U X	-0.0000063 U X
Neptunium-237	7.05 U U	-36.5 U X	NA	21.5 U U	55.2 U U	-2.62 U X	5.16 U X	4.04 U X	26.4 U X	30.9 U X	-12.1 U X
Neptunium-239	7.57 U U	-14.5 U X	NA	66.2 U U	40.5 U U	20.9 U X	77.5 U X	8.52 U X	-37.8 U X	27.8 U X	-46.0 U X
Plutonium-238	0.888 J	0.132 U X	NA	0.109 UT U	0.0735 UT U	-0.378 U X	0.702 X	-0.275 UT X	0.0132 U X	0.0598 U X	-0.0644 U X
Plutonium-239/240	0.0668 U U	0.0312 U X	NA	-0.0999 UT U	-0.535 UT U	-0.173 U X	-0.271 U X	-0.0817 UT X	-0.172 U X	-0.0117 U X	-0.00707 U X
Potassium-40	-159 U U	-127 U X	NA	-64.5 U U	18.4 U U	-298 U X	-139 U X	-81.9 U X	94.2 U X	439 X	239 U X
Protactinium-234m	677 U U	-372 U X	NA	2200 U U	822 U U	1030 U X	426 U X	-1690 U X	1260 U X	169 U X	1840 U X
Radium-226	61.4 U U	94.6 U X	NA	56.2 U U	-5.24 U U	113 U X	48.7 U X	97 U X	158 U X	181 U X	179 X
Technetium-99	19.4 U UJ	11.6 U X	NA	23.8 =	24 =	17.5 U X	22.1 U X	3.72 U X	14.8 U X	0 U X	0 U X
Thorium-228	-0.0597 U U	-0.668 U X	NA	-0.0975 U U	-0.173 U U	-1.01 U X	-0.645 UT X	15.5 X	-0.914 UT X	0.675 X	0.115 U X
Thorium-230	0.0234 U U	-0.399 U X	NA	-0.399 U U	-1.37 U U	-0.217 U X	0.0553 UT X	0.0126 U X	-0.292 UT X	0.174 U X	0.0848 U X
Thorium-232	-0.0466 U U	-0.158 U X	NA	-0.182 U U	-0.227 U U	-0.141 U X	-0.291 UT X	-0.163 U X	-0.526 UT X	0.258 X	0.0752 U X
Uranium	U X	64 U X	NA	U X	U X	U X	U X	U X	U X	U X	U X
Uranium-234	U X	21.6 U X	NA	U X	U X	U X	U X	U X	U X	U X	U X
Uranium-235 (wt%)	X	X	NA	X	X	X	X	X	X	X	X
Uranium-238	U X	0 U X	NA	U X	U X	U X	U X	U X	U X	U X	U X

NA - No analysis perfomed
a. Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB01S001	UFSB02S001	UFSB03S001	UFSB04S001	UFSB05S001	UFSB06S001	UFSB06S001D	UFSB07S001	UFSB08S001	UFSB09S001	UFSB10S001
Sample Date	7/12/00	7/21/00	7/19/00	7/20/00	7/18/00	7/21/00	7/21/00	7/19/00	7/19/00	7/18/00	7/20/00
Sample Depth	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Inorganics (mg/kg)											
Aluminum	8760 *NW J	9540 *NW X	4170 *NW X	4760 *NW X	3860 *NW =	10200 *NW X	11300 *NW X	10300 *NW X	8390 *NW X	6420 *NW X	5750 *NW X
Antimony	20 *NU U	20 *NU X	20 *NU X	20 NU X	20 NU UJ	20 NU X	20 NU X	20 *NU X	20 *NU X	20 NU X	20 NU X
Arsenic	5 UW UJ	5 UW X	5 UW X	5 UW X	6.72 W =	5 UW X	5 UW X	5.11 W X	5 UW X	5 UW X	5 UW X
Barium	45.5 =	65.8 * X	30.1 * X	36.7 X	27.2 *N J	84.2 X	100 X	83.9 * X	80.8 * X	100 *N X	60.3 X
Beryllium	0.5 U U	0.5 U X	0.5 U X	0.5 U X	0.98 =	0.5 U X	0.5 U X	0.51 X	0.5 U X	0.53 X	0.69 X
Cadmium	2 U U	2 U X	2 U X	2 U X	2 U U	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	92200 *N =	53000 *NW X	218000 *NW X	196000 N X	5580 *N J	82700 N X	98800 N X	1580 *NW X	1350 *NW X	1610 *N X	5580 W X
Chromium	13.2 * =	11.6 X	2.5 U X	5.85 X	67.5 N J	8.14 X	10.3 X	12.4 X	10.7 X	17.1 N X	17.4 X
Copper	6.21 =	9.54 X	4.63 X	4.9 X	8.73 =	32.4 X	38.6 X	8 X	7.7 X	6.04 X	10 X
Lead	20 U U	23.8 N X	200 NU X	200 *NU X	20 U U	20 U X	20 U X	20.3 N X	20 NU X	20 U X	20 U X
Mercury	0.2 U U	0.2 U X	0.2 U X	0.2 U X	0.2 U U	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X
Nickel	9.31 =	11.6 X	7.12 X	8.86 X	83.7 =	10.4 X	12.4 X	10.4 X	7.78 X	11.5 X	12.1 X
Selenium	1 UW U	1 NUW X	1 NUW X	1 UW X	1 NUW U	1 UW X	1 UW X	1 NUW X	1 NUW X	1 NUW X	1 UW X
Silver	4 U U	4 U X	4.63 X	4.3 X	4 U U	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 U U	20 NU X	200 NU X	200 *NU X	20 NU U	20 U X	20 U X	20 NU X	20 NU X	20 NU X	20 NU X
Vanadium	19.8 *N J	19.6 X	10 X	13.1 X	63 W =	16.4 X	20.8 X	22.2 X	18.1 X	20.4 W X	24.6 X
Zinc	200 NU U	61.8 X	200 U X	200 U X	46.4 N J	67.7 X	64.8 X	37.9 X	34.2 X	34.3 N X	273 X
PCBs (mg/kg)											
PCB-1016	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)											
Activity of U-235	0.029 U UJ	0.776 X	0.0594 U X	0.0449 U X	0.0983 U U	0.031 U X	0.0602 U X	0.119 U X	0.0591 U X	0.028 U X	0.00247 U X
Alpha activity	1.02 U U	5.09 X	9.14 X	3.46 U X	3.04 =	7.34 X	5.14 U X	9.47 X	6.97 X	4.13 X	4.52 X
Americium-241	0.0227 U U	0.0688 U X	0.0343 U X	-0.00308 U X	0.0191 U U	-0.0338 U X	-0.143 U X	-0.00142 U X	-0.124 U X	-0.109 U X	-0.0591 U X
Americium-243	0.0744 U U	0.163 U X	0.0977 U X	0.0883 U X	0.113 U U	0.165 U X	0.173 U X	0.328 U X	0.334 U X	0.265 U X	0.182 U X
Beta activity	4.43 =	3.33 U X	4.89 X	5.08 X	3.16 =	3.8 U X	5.59 X	7.83 X	13.16 X	3.61 X	1.81 X
Cesium-134	0.019 U R	-0.0205 U X	-0.00971 U X	-0.0171 U X	0.00978 U R	0.00219 U X	-0.00853 U X	0.0000642 U X	-0.0196 U X	0.0157 U X	-0.00805 U X
Cesium-137	0.112 =	1.06 X	0.72 X	0.385 X	0.0775 =	0.192 X	0.187 X	0.438 X	0.418 X	0.014 U X	0.16 X
Cobalt-60	0.000332 U U	-0.022 U X	-0.0161 U X	-0.00547 U X	-0.0138 U U	0.012 U X	-0.0159 U X	-0.00218 U X	0.0251 U X	-0.0217 U X	0.0105 U X
Mass of U-235 (g U-235/g)	0.00000001 U U	0.00000035 X	0.00000002 X	0.00000002 X	0.00000004 U	0.00000001 U X	0.00000002 U X	0.00000005 U X	0.00000002 U X	0.00000001 U X	0 U X
Neptunium-237	0.00482 U U	-0.0179 U X	0.00193 U X	-0.0148 U X	-0.0155 U U	0.0546 U X	0.0267 U X	-0.00745 U X	0.017 U X	0.0275 U X	0.0242 U X
Neptunium-239	-0.164 U U	-0.216 U X	-0.0343 U X	0.0145 U X	-0.0324 U U	-0.183 U X	0.117 U X	0.0895 U X	0.723 U X	-0.152 U X	-0.0892 U X
Plutonium-238	-0.0316 U U	-0.0107 U X	-0.0442 U X	-0.00817 U X	-0.0749 U U	-0.0196 U X	-0.0229 U X	-0.0508 U X	-0.0522 U X	-0.00883 U X	0.0191 U X
Plutonium-239/240	0.0132 U U	0.0191 U X	0.012 U X	-0.00283 U X	-0.0114 U U	0.0109 U X	0.000367 U X	0.0111 U X	0.011 U X	-0.00558 U X	-0.00423 U X
Potassium-40	1.75 =	6.91 X	2.22 X	2.62 X	4.64 =	5.13 X	5.27 X	14 X	11.9 X	9.76 X	6.78 X
Protactinium-234m	-0.38 U U	16.6 X	4.7 U X	0.0723 U X	5.69 U U	3.92 U X	1.4 U X	2.56 U X	0.695 U X	6.21 U X	5.61 U X
Radium-226	0.448 U U	0.696 U X	0.244 U X	0.634 U X	0.662 U U	0.603 X	0.535 U X	0.858 X	1.02 U X	0.904 U X	0.836 U X
Technetium-99	0 U U	1.87 U X	1.52 U X	0.506 U X	0.194 U U	0 U X	4.1 X	2.85 U X	1.55 U X	2.42 BU X	0.0313 U X
Thorium-228	0.308 =	0.188 X	0.136 X	0.138 X	0.385 =	0.22 X	0.311 X	0.344 X	0.514 X	0.203 X	0.205 X
Thorium-230	0.49 =	0.486 X	0.537 X	0.605 X	0.352 =	0.44 X	0.43 X	0.345 X	0.443 X	0.149 X	0.23 X
Thorium-232	0.233 =	0.244 X	0.176 X	0.158 X	0.384 =	0.224 X	0.344 X	0.325 X	0.473 X	0.152 X	0.204 X
Uranium	U X	34 X	2.92 U X	1.85 U X	3.48 U U	U X	U X	U X	U X	U X	U X
Uranium-234	U X	15.1 X	1.05 U X	0.919 U X	2.33 U U	U X	U X	U X	U X	0.183 U X	U X
Uranium-235 (wt%)	X	0.66 X	0.51 X	0.78 X	1.43 =	X	X	X	X	X	X
Uranium-238	U X	18.2 X	1.81 U X	0.883 U X	1.05 U U	U X	U X	U X	U X	U X	U X

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB01S001	UFSB02S001	UFSB03S001	UFSB04S001	UFSB05S001	UFSB06S001	UFSB06S001D	UFSB07S001	UFSB08S001	UFSB09S001	UFSB10S001
Sample Date	7/12/00	7/21/00	7/19/00	7/20/00	7/18/00	7/21/00	7/21/00	7/19/00	7/19/00	7/18/00	7/20/00
Sample Depth	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Semivolatiles (µg/kg)											
1,2,4-Trichlorobenzene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
1,2-Dichlorobenzene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
1,2-Diphenylhydrazine	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
1,3-Dichlorobenzene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
1,4-Dichlorobenzene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2,4,5-Trichlorophenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2,4,6-Trichlorophenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2,4-Dichlorophenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2,4-Dimethylphenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2,4-Dinitrophenol	480 U U	470 U X	490 U X	480 JU X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2,4-Dinitrotoluene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2,6-Dichlorophenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2,6-Dinitrotoluene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2-Chloronaphthalene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2-Chlorophenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2-Methyl-4,6-dinitrophenol	480 U U	470 U X	490 U X	480 JU X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2-Methylnaphthalene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2-Methylphenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2-Nitrobenzenamine	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
2-Nitrophenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
3,3'-Dichlorobenzidine	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
3-Nitrobenzenamine	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
4-Bromophenyl phenyl ether	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
4-Chloro-3-methylphenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
4-Chlorobenzenamine	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
4-Chlorophenyl phenyl ether	480 U U	470 U X	490 U X	480 U X	480 U U	500 JU X	480 JU X	480 U X	480 U X	490 U X	500 U X
4-Methylphenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
4-Nitrobenzenamine	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
4-Nitrophenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Acenaphthene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Acenaphthylene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Anthracene	480 UX J	470 UX X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Benz(a)anthracene	980 =	2200 X	490 UX X	480 UX X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Benzenemethanol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Benzo(a)pyrene	950 =	2200 X	490 UX X	480 UX X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Benzo(b)fluoranthene	1100 =	2800 X	490 UX X	490 X	480 U U	500 U X	480 U X	480 U X	480 U X	480 UX X	500 UX X
Benzo(ghi)perylene	480 =	1200 X	490 U X	480 UX X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Benzo(k)fluoranthene	920 =	1800 X	490 UX X	480 UX X	480 U U	500 U X	480 U X	480 U X	480 U X	480 UX X	500 UX X
Benzoic acid	480 U U	470 JU X	490 U X	480 JU X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Bis(2-chloroethoxy)methane	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Bis(2-chloroethyl) ether	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Bis(2-chloroisopropyl) ether	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Bis(2-ethylhexyl)phthalate	480 U J	470 UX X	490 UX X	480 UX X	480 U U	500 UX X	480 UX X	480 UX X	480 UX X	480 UX X	500 UX X
Butyl benzyl phthalate	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Carbazole	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Chrysene	1200 =	2500 X	490 UX X	550 X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 UX X
Di-n-butyl phthalate	1300 B U	1700 B X	1100 B X	2600 B X	2100 B U	500 UX X	480 UX X	660 B X	1900 B X	490 UX X	500 UX X
Di-n-octylphthalate	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Dibenz(a,h)anthracene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Dibenzofuran	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Diethyl phthalate	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Dimethyl phthalate	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Fluoranthene	2300 =	4700 X	540 X	820 X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB01S001	UFSB02S001	UFSB03S001	UFSB04S001	UFSB05S001	UFSB06S001	UFSB06S001D	UFSB07S001	UFSB08S001	UFSB09S001	UFSB10S001
Sample Date	7/12/00	7/21/00	7/19/00	7/20/00	7/18/00	7/21/00	7/21/00	7/19/00	7/19/00	7/18/00	7/20/00
Sample Depth	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Fluorene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Hexachlorobenzene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Hexachlorobutadiene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Hexachlorocyclopentadiene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Hexachloroethane	480 U U	470 UY X	490 U X	480 UY X	480 UY U	500 U X	480 U X	480 U X	480 U X	490 UY X	500 U X
Indeno(1,2,3-cd)pyrene	570 =	1400 X	490 U X	480 UX X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Isophorone	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
N-Nitroso-di-n-propylamine	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
N-Nitrosodimethylamine	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
N-Nitrosodiphenylamine	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Naphthalene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Nitrobenzene	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Pentachlorophenol	480 UY U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Phenanthrene	1100 =	2200 X	490 UX X	480 UX X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Phenol	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Pyrene	1700 =	3400 X	490 UX X	760 X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 UX X
Pyridine	480 U U	470 U X	490 U X	480 U X	480 U U	500 U X	480 U X	480 U X	480 U X	490 U X	500 U X
Volatiles (µg/kg)											
1,1,1-Trichloroethane	10 JUX UJ	10 U X	10 JU X	10 U X	10 JUX U	10 U X	10 U X	10 JU X	10 JU X	10 U X	10 U X
1,1,2,2-Tetrachloroethane	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1,2-Trichloroethane	10 UX U	10 U X	10 U X	10 U X	10 JUX U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1-Dichloroethane	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1-Dichloroethene	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dichloroethane	10 UXY U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dichloropropane	10 UX U	10 U X	10 U X	10 U X	10 JUX U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dimethylbenzene	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
2-Butanone	10 JUXY R	10 UY X	10 UY X	10 UY X	10 JUX R	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X
2-Hexanone	10 JUX U	10 JU X	10 U X	10 U X	10 JUX UJ	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 U X
4-Methyl-2-pentanone	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Acetone	10 UX R	10 U X	10 U X	10 U X	10 JUX R	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Benzene	10 UX U	10 UY X	10 U X	10 UY X	10 JUX U	10 UY X	10 UY X	10 U X	10 U X	10 U X	10 UY X
Bromodichloromethane	10 JUX UJ	10 U X	10 U X	10 U X	10 JUX U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Bromoform	10 UX U	10 U X	10 U X	10 U X	10 JUX U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Bromomethane	10 JUX UJ	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 JU X	10 U X
Carbon disulfide	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Carbon tetrachloride	10 UXY U	10 UY X	10 JU X	10 UY X	10 JUX UJ	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X	10 UY X
Chlorobenzene	10 UX U	10 UY X	10 U X	10 UY X	10 JUX UJ	10 UY X	10 UY X	10 U X	10 U X	10 U X	10 UY X
Chloroethane	10 UX U	10 JU X	10 U X	10 JU X	10 JUX UJ	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 JU X
Chloroform	10 UX U	10 U X	10 U X	10 UY X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 UY X
Chloromethane	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
cis-1,2-Dichloroethene	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
cis-1,3-Dichloropropene	10 UX U	10 JU X	10 U X	10 JU X	10 JUX U	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 JU X
Dibromochloromethane	10 UX U	10 U X	10 U X	10 U X	10 JUX U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Dimethylbenzene	30 UX X	30 U X	30 U X	30 U X	30 JUX X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X
Ethylbenzene	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
m,p-Xylene	20 UX U	20 U X	20 U X	20 U X	20 JUX UJ	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Methylene chloride	10 UX U	10 JU X	10 U X	10 JU X	10 JUX UJ	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 JU X
Styrene	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Tetrachloroethene	10 UX U	10 UY X	10 JU X	10 UY X	10 JUX UJ	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X	10 UY X
Toluene	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
trans-1,2-Dichloroethene	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 JU X	10 U X
trans-1,3-Dichloropropene	10 UX U	10 U X	10 U X	10 U X	10 JUX U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Trichloroethene	10 UX U	10 U X	10 U X	10 UY X	10 JUX U	10 U X	10 U X	10 U X	10 U X	10 U X	10 UY X
Vinyl acetate	10 JUX UJ	10 JU X	10 U X	10 JU X	10 JUX UJ	10 JU X	10 JU X	10 U X	10 U X	10 JU X	10 JU X
Vinyl chloride	10 UX U	10 U X	10 U X	10 U X	10 JUX UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB11S001	UFSB12S001	UFSB13S001	UFSB14S001	UFSB16S001	UFSB17S001	UFSB18S001	UFSB19S001	UFSB19S001D	UFSB20S001
Sample Date	7/9/00	7/9/00	7/10/00	7/10/00	7/11/00	7/11/00	7/12/00	7/12/00	7/12/00	7/13/00
Sample Depth	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Inorganics (mg/kg)										
Aluminum	10600 *NW X	8570 *NW X	6910 *NW X	4470 *NW X	6320 NW X	7810 NW X	6780 NW X	5930 NW X	5580 NW X	12100 *NW X
Antimony	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 *NU X
Arsenic	5.19 B X	5 U X	5 U X	5 BU X	5 UW X	5 UW X	7.29 BW X	5 BUW X	5 BUW X	5.61 W X
Barium	74.9 * X	69.8 * X	41.3 * X	27.3 * X	83 X	77.5 X	110 X	58.2 X	57.7 X	90 X
Beryllium	0.5 U X	0.5 U X	0.5 U X	0.5 U X	0.5 U X	0.5 U X	0.58 X	0.5 U X	0.5 U X	0.58 X
Cadmium	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	8760 *NW X	102000 *NW X	65100 *NW X	71500 *NW X	1040 *N X	731 *N X	1420 *N X	696 *N X	800 *N X	12700 NW X
Chromium	13.6 X	14.7 X	33.9 X	5.73 X	8.9 * X	14.1 * X	11.9 * X	8.08 * X	13.4 * X	16.1 * X
Copper	9.18 X	8.33 X	5.9 X	3.42 X	7.4 X	7.66 X	9.07 X	6.19 X	6.72 X	10.7 X
Lead	20 U X	38.4 X	30.1 X	26.7 X	23.4 X	20 U X	27.8 X	20 U X	20 U X	20 U X
Mercury	0.2 UW X	0.2 UW X	0.2 UW X	0.2 UW X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X
Nickel	9.67 X	12.3 X	10.1 X	7.22 X	7.4 X	9.04 X	8.59 X	5.56 X	6.05 X	11.6 X
Selenium	1 UW X	1 UW X	1 BUW X	1 UW X	1 UW X	1 UW X	1 UW X	1 BUW X	1 BUW X	1 UW X
Silver	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Vanadium	26.9 X	19.4 X	18.5 X	16.9 X	16.4 *N X	22.1 *N X	26.2 *N X	16.9 *N X	26.6 *N X	34.9 *N X
Zinc	32.2 X	50.5 X	48.9 X	35.9 X	30.4 X	32.5 X	57.3 X	24.5 X	28.9 X	39.5 X
PCBs (mg/kg)										
PCB-1016	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)										
Activity of U-235	0.0596 U X	0.0471 U X	0.0438 U X	0.0455 U X	0.0428 U X	0.0343 U X	0.0703 U X	0.0614 U X	0.0384 U X	0.0649 U X
Alpha activity	5.23 X	5.82 X	6.29 U X	5.9 U X	7.93 X	5.93 X	8.1 X	6.33 X	7.2 X	3.93 X
Americium-241	0.0389 U X	0.0928 U X	0.0123 U X	-0.00353 U X	-0.0545 U X	0.172 U X	0.0571 U X	0.000185 U X	0.0552 U X	0.181 U X
Americium-243	0.187 U X	0.158 U X	0.117 U X	0.0955 U X	0.238 U X	0.292 U X	0.231 U X	0.29 U X	0.238 U X	0.238 U X
Beta activity	10.87 X	3.97 X	4.93 X	8.02 X	5.4 X	4.42 X	5.26 X	3.76 X	3.3 X	3.57 X
Cesium-134	0.0182 U X	-0.0138 U X	0.0156 U X	0.0142 U X	0.00575 U X	0.00601 U X	0.0218 U X	-0.012 U X	0.00651 U X	0.00801 U X
Cesium-137	0.0593 X	0.128 X	0.261 X	0.0851 X	0.207 X	0.0888 X	0.168 X	0.0856 X	0.112 U X	0.0738 U X
Cobalt-60	-0.00519 U X	-0.0126 U X	-0.00246 U X	0.00772 U X	0.0119 U X	0.00101 U X	-0.00287 U X	0.0213 U X	0.00065 U X	0.0214 U X
Mass of U-235 (g U-235/g)	0.00000002 X	0.00000002 X	0.00000002 X	0.00000002 X	0.00000001 U X	0.00000001 U X	0.00000003 U X	0.00000002 U X	0.00000001 U X	0.00000003 U X
Neptunium-237	0.0043 U X	-0.0122 U X	0.0375 U X	-0.00909 U X	0.0182 U X	-0.017 U X	0.0274 U X	-0.00682 U X	0.0188 U X	-0.0138 U X
Neptunium-239	0.0524 U X	-0.0144 U X	0.0562 U X	0.0598 U X	-0.034 U X	0.0394 U X	-0.816 U X	-0.118 U X	-0.0617 U X	-0.349 U X
Plutonium-238	-0.0873 U X	-0.0828 U X	0.00738 U X	-0.07 U X	-0.0805 U X	-0.0463 U X	-0.0154 U X	-0.0571 U X	-0.0322 U X	-0.0764 U X
Plutonium-239/240	-0.0167 U X	0.000935 U X	0.000532 U X	-0.0025 U X	0.00145 U X	-0.012 U X	0.0336 U X	0.0131 U X	-0.00414 U X	-0.02 U X
Potassium-40	10.7 X	5.2 X	5.13 X	1.52 X	11.9 X	11 X	10.8 X	9.64 X	10.6 X	8.46 X
Protactinium-234m	6.54 U X	-0.678 U X	3.22 U X	1.18 U X	4.95 U X	0.901 U X	2.55 U X	3.98 U X	-2.57 U X	4.69 U X
Radium-226	0.725 U X	0.544 U X	0.604 U X	0.584 U X	0.874 U X	0.931 U X	0.797 U X	0.744 U X	0.846 U X	0.831 U X
Technetium-99	-0.0887 U X	0.118 U X	0.249 U X	1.81 U X	0 U X	1.1 U X	0 U X	0 U X	0 U X	0 U X
Thorium-228	0.395 X	0.255 X	0.308 X	0.101 X	0.336 X	0.351 X	0.497 X	0.474 X	0.442 X	0.418 X
Thorium-230	0.413 X	0.391 X	0.379 X	0.453 X	0.39 X	0.349 X	0.364 X	0.331 X	0.432 X	0.393 X
Thorium-232	0.4 X	0.252 X	0.264 X	0.094 X	0.347 X	0.389 X	0.455 X	0.389 X	0.498 X	0.418 X
Uranium	3.04 U X	2.09 U X	2.68 U X	1.72 U X	U X	U X	U X	U X	U X	U X
Uranium-234	1.02 U X	0.905 U X	0.613 U X	0.999 U X	U X	U X	U X	U X	U X	U X
Uranium-235 (wt%)	0.47 X	0.64 X	0.34 JX X	1.03 JX X	X	X	X	X	X	X
Uranium-238	1.96 U X	1.14 U X	2.02 U X	0.679 U X	U X	U X	U X	U X	U X	U X

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB11S001	UFSB12S001	UFSB13S001	UFSB14S001	UFSB16S001	UFSB17S001	UFSB18S001	UFSB19S001	UFSB19S001D	UFSB20S001
Sample Date	7/9/00	7/9/00	7/10/00	7/10/00	7/11/00	7/11/00	7/12/00	7/12/00	7/12/00	7/13/00
Sample Depth	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Semivolatiles (µg/kg)										
1,2,4-Trichlorobenzene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
1,2-Dichlorobenzene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
1,2-Diphenylhydrazine	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
1,3-Dichlorobenzene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
1,4-Dichlorobenzene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2,4,5-Trichlorophenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2,4,6-Trichlorophenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2,4-Dichlorophenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2,4-Dimethylphenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2,4-Dinitrophenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2,4-Dinitrotoluene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2,6-Dichlorophenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2,6-Dinitrotoluene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2-Chloronaphthalene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2-Chlorophenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2-Methyl-4,6-dinitrophenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2-Methylnaphthalene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2-Methylphenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2-Nitrobenzenamine	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
2-Nitrophenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
3,3'-Dichlorobenzidine	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
3-Nitrobenzenamine	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
4-Bromophenyl phenyl ether	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
4-Chloro-3-methylphenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
4-Chlorobenzenamine	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
4-Chlorophenyl phenyl ether	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 JU X	470 JU X
4-Methylphenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
4-Nitrobenzenamine	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
4-Nitrophenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Acenaphthene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Acenaphthylene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Anthracene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Benz(a)anthracene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Benzenemethanol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Benzo(a)pyrene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Benzo(b)fluoranthene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Benzo(ghi)perylene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Benzo(k)fluoranthene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Benzoic acid	440 JU X	490 JU X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 JU X	470 JU X
Bis(2-chloroethoxy)methane	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Bis(2-chloroethyl) ether	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Bis(2-chloroisopropyl) ether	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Bis(2-ethylhexyl)phthalate	440 UX X	490 UX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	650 X	460 UX X	470 U X
Butyl benzyl phthalate	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Carbazole	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Chrysene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Di-n-butyl phthalate	1300 B X	490 UX X	34000 BDJX X	480 JUX X	950 BJX X	480 JUX X	1300 BJ X	1300 B X	1700 B X	1100 B X
Di-n-octylphthalate	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Dibenz(a,h)anthracene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Dibenzofuran	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Diethyl phthalate	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Dimethyl phthalate	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Fluoranthene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB11S001	UFSB12S001	UFSB13S001	UFSB14S001	UFSB16S001	UFSB17S001	UFSB18S001	UFSB19S001	UFSB19S001D	UFSB20S001
Sample Date	7/9/00	7/9/00	7/10/00	7/10/00	7/11/00	7/11/00	7/12/00	7/12/00	7/12/00	7/13/00
Sample Depth	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Fluorene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Hexachlorobenzene	440 UY X	490 UY X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Hexachlorobutadiene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Hexachlorocyclopentadiene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Hexachloroethane	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Indeno(1,2,3-cd)pyrene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Isophorone	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
N-Nitroso-di-n-propylamine	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
N-Nitrosodimethylamine	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
N-Nitrosodiphenylamine	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Naphthalene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Nitrobenzene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Pentachlorophenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 UY X	460 U X	470 U X
Phenanthrene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Phenol	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Pyrene	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Pyridine	440 U X	490 U X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X	460 U X	470 U X
Volatiles (µg/kg)										
1,1,1-Trichloroethane	10 JU X	10 JU X	10 U X	10 JUX X	10 UX X	10 U X	10 JU X	10 JU X	10 U X	10 JUX X
1,1,2,2-Tetrachloroethane	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
1,1,2-Trichloroethane	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
1,1-Dichloroethane	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
1,1-Dichloroethene	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
1,2-Dichloroethane	10 JU X	10 JU X	10 JU X	10 UX X	10 UX X	10 U X	10 JU X	10 JU X	10 U X	10 UXY X
1,2-Dichloropropane	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
1,2-Dimethylbenzene	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
2-Butanone	10 JUY X	10 JUY X	10 UY X	10 UXY X	10 UXY X	10 UY X	10 UY X	10 UY X	10 UY X	10 JUXY X
2-Hexanone	10 JU X	10 JU X	10 JU X	10 JUX X	10 UX X	10 U X	10 JU X	10 JU X	10 U X	10 JUX X
4-Methyl-2-pentanone	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Acetone	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Benzene	10 JU X	10 JU X	10 UY X	10 UXY X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Bromodichloromethane	10 JU X	10 JU X	10 JU X	10 JUX X	10 UX X	10 U X	10 JU X	10 JU X	10 U X	10 JUX X
Bromoform	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Bromomethane	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 JU X	10 JU X	10 U X	10 JUX X
Carbon disulfide	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Carbon tetrachloride	10 JU X	10 JU X	10 JU X	10 JUX X	10 UX X	10 U X	10 JUY X	10 JUY X	10 U X	10 UXY X
Chlorobenzene	10 JU X	10 JU X	10 UY X	10 UXY X	10 UXY X	10 UY X	10 U X	10 U X	10 UY X	10 UX X
Chloroethane	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Chloroform	10 JU X	10 JU X	10 UY X	10 UXY X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Chloromethane	10 JU X	10 JU X	10 JU X	10 JUX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
cis-1,2-Dichloroethene	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
cis-1,3-Dichloropropene	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Dibromochloromethane	10 JU X	10 JU X	10 JU X	10 JUX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Dimethylbenzene	30 JU X	30 JU X	30 U X	30 UX X	30 UX X	30 U X	30 U X	30 U X	30 U X	30 UX X
Ethylbenzene	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
m,p-Xylene	20 JU X	20 JU X	20 U X	20 UX X	20 UX X	20 U X	20 U X	20 U X	20 U X	20 UX X
Methylene chloride	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 JU X	10 JU X	10 U X	10 UX X
Styrene	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Tetrachloroethene	10 JU X	10 JU X	10 UY X	10 UXY X	10 UXY X	10 UY X	10 U X	10 U X	10 UY X	10 UX X
Toluene	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
trans-1,2-Dichloroethene	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
trans-1,3-Dichloropropene	10 JU X	10 JU X	10 JU X	10 JUX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Trichloroethene	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X
Vinyl acetate	10 JU X	10 JU X	10 JU X	10 JUX X	10 JUX X	10 JU X	10 JU X	10 JU X	10 JU X	10 JUX X
Vinyl chloride	10 JU X	10 JU X	10 U X	10 UX X	10 UX X	10 U X	10 U X	10 U X	10 U X	10 UX X

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB01S005	UFSB01S010	UFSB01S013	UFSB01S018	UFSB01S023	UFSB02S005	UFSB02S005D	UFSB02S010
Sample Date	7/12/00	7/12/00	7/12/00	7/13/00	7/13/00	7/21/00	7/21/00	7/21/00
Sample Depth	1' - 5'	5' - 10'	10' -13'	13' - 18'	18' - 23'	1' - 5'	1' - 5'	5' - 10'
Inorganics (mg/kg)								
Aluminum	11800 *NW J	9530 *NW J	10200 *NW J	5830 *NW J	7660 *NW J	14100 *NW X	12600 *NW X	10900 *NW X
Antimony	20 *NU U	20 *NU U	20 *NU U	20 *NU U	20 *NU U	20 *NU X	20 *NU X	20 *NU X
Arsenic	5 UW UJ	5.47 W J	5 UW UJ	5 UW UJ	5 UW UJ	5 UW X	5 UW X	5 UW X
Barium	49.4 =	116 =	63.7 =	24.5 =	20.3 =	45.7 * X	113 * X	189 * X
Beryllium	0.5 U U	0.5 U U	0.6 =	0.89 =	0.75 =	0.5 U X	0.66 X	1.13 X
Cadmium	2 U U	2 U U	2 U U	2 U U	2 U U	2 U X	2 U X	2 U X
Calcium	858 NW =	1960 NW =	1450 NW =	785 NW =	910 NW =	3960 *NW X	9550 *NW X	3120 *NW X
Chromium	12.5 * =	16.2 * =	15.2 * =	49.9 * =	45.5 * =	15.1 X	15.7 X	15.8 X
Copper	10.9 =	12.1 =	10.4 =	6.11 =	4.75 =	12.2 X	14.4 X	42.1 X
Lead	20 U U	20 U U	20 U U	20 U U	20 U U	20 NU X	25.9 N X	28.7 N X
Mercury	0.2 U U	0.2 U U	0.2 U U	0.2 U U	0.2 U U	0.2 U X	0.2 U X	0.2 U X
Nickel	8.92 =	15.3 =	10.7 =	6.11 =	8.39 =	7.97 X	12.2 X	50.5 X
Selenium	1 UW U	1 UW U	1 UW U	1 UW U	1 BUW U	1 NUW X	1 NUW X	1 NUW X
Silver	4 U U	4 U U	4 U U	4 U U	4 U U	4 U X	4 U X	4 U X
Thallium	20 U U	20 U U	20 U U	20 U U	20 U U	20 NU X	20 NU X	20 NU X
Vanadium	22.7 *N J	25.6 *N J	32.7 *N J	63.9 *N J	61 *N J	13.7 X	20.2 X	63.6 X
Zinc	34.7 =	48 =	24.9 =	20 U U	20 U U	45.5 X	51.2 X	123 X
PCBs (mg/kg)								
PCB-1016	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)								
Activity of U-235	0.0702 U UJ	0.0553 =	0.0141 U U	0.0594 U UJ	-0.0452 U U	0.0816 U X	0.0807 X	0.0779 U X
Alpha activity	8.07 =	7.59 =	6.81 =	4.87 =	2.8 =	8.16 X	3.48 X	8.65 X
Americium-241	-0.155 U U	0.0745 U U	0.0185 U U	-0.0703 U U	-0.0148 U U	0.00744 U X	0.085 U X	-0.0374 U X
Americium-243	0.178 U U	0.0805 U U	0.153 U U	0.152 U U	0.136 U U	0.303 U X	0.332 U X	0.244 U X
Beta activity	5.49 =	4.69 =	3.61 =	4.25 =	2.42 =	3.09 U X	1.45 X	4.4 X
Cesium-134	0.00555 U R	-0.00346 U R	0.00326 U R	-0.00997 U R	-0.00604 U R	0.0176 U X	-0.00217 U X	0.0232 U X
Cesium-137	0.0346 U U	-0.0196 U U	-0.00336 U U	-0.00536 U U	-0.0172 U U	-0.00877 U X	0.00745 U X	0.00159 U X
Cobalt-60	0.021 U U	-0.0216 U U	0.00593 U U	-0.0111 U U	0.024 U U	0.0168 U X	-0.0156 U X	-0.0269 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB01S005	UFSB01S010	UFSB01S013	UFSB01S018	UFSB01S023	UFSB02S005	UFSB02S005D	UFSB02S010
Sample Date	7/12/00	7/12/00	7/12/00	7/13/00	7/13/00	7/21/00	7/21/00	7/21/00
Sample Depth	1' - 5'	5' - 10'	10' -13'	13' - 18'	18' - 23'	1' - 5'	1' - 5'	5' - 10'
Mass of U-235 (g U-235/g)	0.00000003 U UJ	0.00000002 =	0 U =	0.00000002 =	0 U U	0.00000003 U X	0.00000003 X	0.00000003 X
Neptunium-237	-0.00393 U U	0.0189 U U	0.00996 U U	-0.00898 U U	-0.00653 U U	-0.00902 U X	-0.0165 U X	-0.000612 U X
Neptunium-239	0.138 U U	-0.184 U U	-0.149 U U	0.232 U U	-0.094 U U	0.0781 U X	-0.066 U X	0.0731 U X
Plutonium-238	-0.0323 U U	-0.0387 U U	-0.0218 U U	-0.0448 U U	-0.0219 U U	-0.0296 U X	-0.0195 U X	0.0108 U X
Plutonium-239/240	-0.00534 U U	0.0174 U U	-0.00201 U U	-0.0102 U U	-0.00974 U U	0.00728 U X	-0.00624 U X	-0.00289 U X
Potassium-40	9.82 =	9.78 =	8.06 =	3.62 U =	1.21 =	10.7 X	12.1 X	12 X
Protactinium-234m	2.82 U U	3.8 U U	2.13 U U	2.41 U U	3.31 U U	1.15 U X	1.2 U X	4.96 U X
Radium-226	0.709 U U	0.532 U U	0.587 U U	0.547 U U	0.409 =	0.855 X	0.884 U X	0.71 U X
Technetium-99	0 U U	0 U U	0 U U	0 U U	0 U U	3.9 X	3.58 X	0 U X
Thorium-228	0.533 =	0.504 =	0.539 =	0.465 =	0.166 =	0.316 X	0.145 X	0.404 X
Thorium-230	0.491 =	0.398 =	0.44 =	0.456 =	0.339 =	0.499 X	0.155 X	0.364 X
Thorium-232	0.493 =	0.469 =	0.487 =	0.384 =	0.227 =	0.394 X	0.165 X	0.385 X
Uranium	U X	0.0835 U U	U X	0.0897 U U	NA	U X	3.74 U X	3.3 U X
Uranium-234	U X	0.0282 U U	U X	0.0303 U U	U X	U X	1.5 U X	1.56 U X
Uranium-235 (wt%)	X	X	X	X	X	X	0.58 X	0.72 X
Uranium-238	U X	0 U U	U X	0 U U	U X	U X	2.16 U X	1.66 U X
Semivolatiles (µg/kg)								
1,2,4-Trichlorobenzene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
1,2-Dichlorobenzene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
1,2-Diphenylhydrazine	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
1,3-Dichlorobenzene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
1,4-Dichlorobenzene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2,4,5-Trichlorophenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2,4,6-Trichlorophenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2,4-Dichlorophenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2,4-Dimethylphenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2,4-Dinitrophenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2,4-Dinitrotoluene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2,6-Dichlorophenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2,6-Dinitrotoluene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2-Chloronaphthalene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2-Chlorophenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2-Methyl-4,6-dinitrophenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2-Methylnaphthalene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2-Methylphenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2-Nitrobenzenamine	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
2-Nitrophenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB01S005	UFSB01S010	UFSB01S013	UFSB01S018	UFSB01S023	UFSB02S005	UFSB02S005D	UFSB02S010
Sample Date	7/12/00	7/12/00	7/12/00	7/13/00	7/13/00	7/21/00	7/21/00	7/21/00
Sample Depth	1' - 5'	5' - 10'	10' -13'	13' - 18'	18' - 23'	1' - 5'	1' - 5'	5' - 10'
3,3'-Dichlorobenzidine	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
3-Nitrobenzenamine	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
4-Bromophenyl phenyl ether	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
4-Chloro-3-methylphenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
4-Chlorobenzenamine	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
4-Chlorophenyl phenyl ether	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
4-Methylphenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
4-Nitrobenzenamine	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
4-Nitrophenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Acenaphthene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Acenaphthylene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Anthracene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Benz(a)anthracene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Benzenemethanol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Benzo(a)pyrene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Benzo(b)fluoranthene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Benzo(ghi)perylene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Benzo(k)fluoranthene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Benzoic acid	490 U U	480 U U	460 U U	470 U U	460 U U	490 JU X	470 JU X	470 JU X
Bis(2-chloroethoxy)methane	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Bis(2-chloroethyl) ether	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Bis(2-chloroisopropyl) ether	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Bis(2-ethylhexyl)phthalate	490 U J	480 U U	460 U J	470 U J	460 U U	490 B X	470 UX X	470 UX X
Butyl benzyl phthalate	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Carbazole	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Chrysene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Di-n-butyl phthalate	1300 B U	1100 B U	1400 B U	1400 B U	1200 B U	1900 B X	470 U X	470 UX X
Di-n-octylphthalate	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Dibenz(a,h)anthracene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Dibenzofuran	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Diethyl phthalate	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Dimethyl phthalate	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Fluoranthene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Fluorene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Hexachlorobenzene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Hexachlorobutadiene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Hexachlorocyclopentadiene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB01S005	UFSB01S010	UFSB01S013	UFSB01S018	UFSB01S023	UFSB02S005	UFSB02S005D	UFSB02S010
Sample Date	7/12/00	7/12/00	7/12/00	7/13/00	7/13/00	7/21/00	7/21/00	7/21/00
Sample Depth	1' - 5'	5' - 10'	10' -13'	13' - 18'	18' - 23'	1' - 5'	1' - 5'	5' - 10'
Hexachloroethane	490 U U	480 U U	460 U U	470 U U	460 U U	490 UY X	470 UY X	470 UY X
Indeno(1,2,3-cd)pyrene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Isophorone	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
N-Nitroso-di-n-propylamine	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
N-Nitrosodimethylamine	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
N-Nitrosodiphenylamine	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Naphthalene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Nitrobenzene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Pentachlorophenol	490 UY U	480 UY U	460 UY U	470 UY U	460 UY U	490 U X	470 U X	470 U X
Phenanthrene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Phenol	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Pyrene	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 UX X	470 U X
Pyridine	490 U U	480 U U	460 U U	470 U U	460 U U	490 U X	470 U X	470 U X
Volatiles (µg/kg)								
1,1,1-Trichloroethane	10 U U	10 U U	10 U U	10 JU UJ	10 JU UJ	10 U X	10 U X	10 U X
1,1,2,2-Tetrachloroethane	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
1,1,2-Trichloroethane	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
1,1-Dichloroethane	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
1,1-Dichloroethene	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
1,2-Dichloroethane	10 UY UJ	10 JU UJ	10 U U	10 UY U	10 UY U	10 U X	10 U X	10 U X
1,2-Dichloropropane	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
1,2-Dimethylbenzene	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
2-Butanone	10 Y J	10 UY R	10 UY R	10 JUY R	10 JUY R	10 UY X	10 UY X	10 UY X
2-Hexanone	10 JU UJ	10 JU UJ	10 U U	10 JU U	10 JU U	10 JU X	10 JU X	10 JU X
4-Methyl-2-pentanone	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
Acetone	74 J	19 J	10 U R	10 U J	10 U R	10 U X	10 U X	10 U X
Benzene	10 UY U	10 UY U	10 U U	10 U U	10 U U	10 UY X	10 UY X	10 UY X
Bromodichloromethane	10 JU UJ	10 JU UJ	10 U U	10 JU UJ	10 JU UJ	10 U X	10 U X	10 U X
Bromoform	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
Bromomethane	10 U U	10 U U	10 U U	10 JU UJ	10 JU UJ	10 U X	10 U X	10 U X
Carbon disulfide	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
Carbon tetrachloride	10 JU UJ	10 JU UJ	10 U U	10 UY U	10 UY U	10 UY X	10 UY X	10 UY X
Chlorobenzene	10 UY U	10 UY U	10 UY U	10 U U	10 U U	10 UY X	10 UY X	10 UY X
Chloroethane	10 U U	10 U U	10 U U	10 U U	10 U U	10 JU X	10 JU X	10 JU X
Chloroform	10 UY U	10 UY U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
Chloromethane	10 JU UJ	10 JU UJ	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
cis-1,2-Dichloroethene	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB01S005	UFSB01S010	UFSB01S013	UFSB01S018	UFSB01S023	UFSB02S005	UFSB02S005D	UFSB02S010
Sample Date	7/12/00	7/12/00	7/12/00	7/13/00	7/13/00	7/21/00	7/21/00	7/21/00
Sample Depth	1' - 5'	5' - 10'	10' -13'	13' - 18'	18' - 23'	1' - 5'	1' - 5'	5' - 10'
cis-1,3-Dichloropropene	10 U U	10 U U	10 U U	10 U U	10 U U	10 JU X	10 JU X	10 JU X
Dibromochloromethane	10 JU UJ	10 JU UJ	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
Dimethylbenzene	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X
Ethylbenzene	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
m,p-Xylene	20 U U	20 U U	20 U U	20 U U	20 U U	20 U X	20 U X	20 U X
Methylene chloride	10 U U	10 U U	10 U U	10 U U	10 U U	10 JU X	10 JU X	10 JU X
Styrene	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
Tetrachloroethene	10 UY U	10 UY U	10 UY U	10 U U	10 U U	10 UY X	10 UY X	10 UY X
Toluene	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
trans-1,2-Dichloroethene	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
trans-1,3-Dichloropropene	10 JU UJ	10 JU UJ	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
Trichloroethene	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X
Vinyl acetate	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ	10 JU X	10 JU X	10 JU X
Vinyl chloride	10 U U	10 U U	10 U U	10 U U	10 U U	10 U X	10 U X	10 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB02S015	UFSB02S020	UFSB03S005	UFSB03S010	UFSB03S015	UFSB03S017	UFSB03S023	UFSB04S005
Sample Date	7/21/00	7/21/00	7/19/00	7/19/00	7/19/00	7/19/00	7/19/00	7/20/00
Sample Depth	10' - 15'	15' - 20'	1' - 5'	5' - 10'	10' - 15'	15' - 17'	17' - 23'	1' - 5'
Inorganics (mg/kg)								
Aluminum	7390 *NW X	4060 *NW X	7970 *NW X	8540 *NW X	8220 *NW X	13000 *NW X	6200 *NW X	5890 *NW X
Antimony	20 NU X	20 NU X	20 *NU X	20 *NU X	20 *NU X	20 *NU X	20 *NU X	20 NU X
Arsenic	5 UW X	5 UW X	5 UW X	5 UW X	5 UW X	6.91 W X	5 UW X	5 UW X
Barium	44.8 X	20.1 X	51.5 * X	106 * X	56.1 * X	69.5 * X	27.7 * X	34.7 X
Beryllium	0.5 U X	0.52 X	0.61 X	0.5 U X	0.5 U X	0.64 X	0.5 U X	0.5 U X
Cadmium	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	1340 X	395 X	30500 *NW X	2180 *NW X	1350 *NW X	1640 *NW X	971 *NW X	132000 N X
Chromium	12.2 X	55.3 X	32.5 X	12.8 X	12.1 X	15 X	27.3 X	9.1 X
Copper	7.39 X	2.56 X	7.45 X	10.2 X	5.07 X	4.46 X	4.16 X	4.07 X
Lead	20 U X	20 U X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	200 *NU X
Mercury	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X
Nickel	6.94 X	5 U X	17.7 X	12.9 X	6.29 X	8.52 X	7.01 X	8.46 X
Selenium	1 UW X	1 UW X	1 NUW X	1 NUW X	1 NUW X	1 NUW X	1 NUW X	1 UW X
Silver	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 U X	20 U X	20 NU X	20 ENU X	20 NU X	20 NU X	20 NU X	200 *NU X
Vanadium	18 X	60.5 X	27.6 X	20.6 X	15.3 X	27.9 X	18.3 X	13.7 X
Zinc	20 U X	20 U X	59.7 X	35.1 X	20 U X	20 U X	20 U X	200 U X
PCBs (mg/kg)								
PCB-1016	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)								
Activity of U-235	0.046 U X	-0.00111 U X	0.0372 U X	0.0374 U X	0.00193 U X	0.00922 U X	0.0473 U X	0.0418 U X
Alpha activity	5.61 X	5.11 X	2.09 X	5.35 X	6.7 X	4.5 X	3.72 X	6.52 U X
Americium-241	0.0538 U X	0.0962 U X	0.0205 U X	-0.0246 U X	-0.141 U X	-0.0172 U X	0.0199 U X	-0.0116 U X
Americium-243	0.179 U X	0.145 U X	0.164 U X	0.147 U X	0.118 U X	0.164 U X	0.143 U X	0.118 U X
Beta activity	2.49 X	2.92 X	2.03 X	2.94 X	3.58 X	1.93 X	1.98 X	3.81 U X
Cesium-134	0.00265 U X	0.00832 U X	-0.0153 U X	0.00655 U X	-0.00584 U X	-0.00179 U X	0.0167 U X	0.0139 U X
Cesium-137	-0.00783 U X	-0.006 U X	0.012 U X	-0.00767 U X	-0.0139 U X	-0.00886 U X	-0.0244 U X	-0.00805 U X
Cobalt-60	-0.00475 U X	-0.00191 U X	0.00673 U X	-0.0104 U X	-0.00421 U X	0.01113 U X	0.00542 U X	-0.00605 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB02S015	UFSB02S020	UFSB03S005	UFSB03S010	UFSB03S015	UFSB03S017	UFSB03S023	UFSB04S005
Sample Date	7/21/00	7/21/00	7/19/00	7/19/00	7/19/00	7/19/00	7/19/00	7/20/00
Sample Depth	10' - 15'	15' - 20'	1' - 5'	5' - 10'	10' - 15'	15' - 17'	17' - 23'	1' - 5'
Mass of U-235 (g U-235/g)	0.00000002 U X	0 U X	0.00000001 U X	0.00000001 U X	0 U X	0 U X	0.00000002 X	0.00000001 U X
Neptunium-237	0.0358 U X	-0.0189 U X	-0.0215 U X	-0.00352 U X	-0.0067 U X	0.0476 U X	0.0167 U X	-0.00181 U X
Neptunium-239	0.0378 U X	-0.158 U X	-0.0267 U X	0.0825 U X	-0.00062 U X	-0.0359 U X	-0.0304 U X	0.102 U X
Plutonium-238	-0.0273 U X	0.00294 U X	-0.012 U X	-0.0428 U X	-0.0755 U X	-0.0586 U X	-0.0606 U X	-0.0292 U X
Plutonium-239/240	-0.00128 U X	-0.00564 U X	-0.00785 U X	-0.00126 U X	-0.00749 U X	-0.014 U X	-0.00179 U X	0.00178 U X
Potassium-40	7.58 X	2.01 X	5.99 X	8.07 X	7.18 X	6.52 X	2.29 X	5.03 X
Protactinium-234m	1.89 U X	1.17 U X	1.4 U X	-1.64 U X	3.89 U X	-0.707 U X	-0.067 U X	3.76 U X
Radium-226	0.539 U X	0.761 U X	0.564 U X	0.605 U X	0.672 U X	0.632 U X	0.207 X	0.475 U X
Technetium-99	0.923 U X	2.51 U X	1.68 U X	0.395 U X	0.696 U X	2.32 U X	0.727 U X	1.49 U X
Thorium-228	0.35 X	0.232 X	0.257 X	0.486 X	0.334 X	0.359 X	0.227 X	0.195 X
Thorium-230	0.311 X	0.165 X	0.28 X	0.472 X	0.313 X	0.213 X	0.189 X	0.427 X
Thorium-232	0.397 X	0.251 X	0.258 X	0.557 X	0.379 X	0.353 X	0.255 X	0.219 X
Uranium	U X	U X	U X	U X	U X	U X	2.07 U X	U X
Uranium-234	U X	U X	U X	U X	U X	U X	0.92 U X	U X
Uranium-235 (wt%)	X	X	X	X	X	X	0.66 X	X
Uranium-238	U X	U X	U X	U X	U X	U X	1.1 U X	U X
Semivolatiles (µg/kg)								
1,2,4-Trichlorobenzene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
1,2-Dichlorobenzene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
1,2-Diphenylhydrazine	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
1,3-Dichlorobenzene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
1,4-Dichlorobenzene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2,4,5-Trichlorophenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2,4,6-Trichlorophenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2,4-Dichlorophenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2,4-Dimethylphenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2,4-Dinitrophenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 JU X
2,4-Dinitrotoluene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2,6-Dichlorophenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2,6-Dinitrotoluene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2-Chloronaphthalene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2-Chlorophenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2-Methyl-4,6-dinitrophenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 JU X
2-Methylnaphthalene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2-Methylphenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2-Nitrobenzenamine	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
2-Nitrophenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB02S015	UFSB02S020	UFSB03S005	UFSB03S010	UFSB03S015	UFSB03S017	UFSB03S023	UFSB04S005
Sample Date	7/21/00	7/21/00	7/19/00	7/19/00	7/19/00	7/19/00	7/19/00	7/20/00
Sample Depth	10' - 15'	15' - 20'	1' - 5'	5' - 10'	10' - 15'	15' - 17'	17' - 23'	1' - 5'
3,3'-Dichlorobenzidine	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
3-Nitrobenzenamine	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
4-Bromophenyl phenyl ether	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
4-Chloro-3-methylphenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
4-Chlorobenzenamine	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
4-Chlorophenyl phenyl ether	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
4-Methylphenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
4-Nitrobenzenamine	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
4-Nitrophenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Acenaphthene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Acenaphthylene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Anthracene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Benz(a)anthracene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Benzenemethanol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Benzo(a)pyrene	480 U X	470 U X	470 U X	470 JU X	470 U X	480 JU X	490 U X	490 U X
Benzo(b)fluoranthene	480 U X	470 U X	470 U X	470 JU X	470 U X	480 JU X	490 U X	490 U X
Benzo(ghi)perylene	480 U X	470 U X	470 U X	470 JU X	470 U X	480 JU X	490 U X	490 U X
Benzo(k)fluoranthene	480 U X	470 U X	470 U X	470 JU X	470 U X	480 JU X	490 U X	490 U X
Benzoic acid	480 JU X	470 JU X	470 U X	470 U X	470 U X	480 U X	490 U X	490 JU X
Bis(2-chloroethoxy)methane	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Bis(2-chloroethyl) ether	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Bis(2-chloroisopropyl) ether	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Bis(2-ethylhexyl)phthalate	480 UX X	470 UX X	2500 X	470 UX X	470 UX X	480 UX X	490 UX X	490 UX X
Butyl benzyl phthalate	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Carbazole	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Chrysene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Di-n-butyl phthalate	480 U X	1000 B X	610 B X	1300 B X	1100 B X	1300 B X	1100 B X	2500 B X
Di-n-octylphthalate	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Dibenz(a,h)anthracene	480 U X	470 U X	470 U X	470 JU X	470 U X	480 JU X	490 U X	490 U X
Dibenzofuran	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Diethyl phthalate	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Dimethyl phthalate	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Fluoranthene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Fluorene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Hexachlorobenzene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Hexachlorobutadiene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Hexachlorocyclopentadiene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SUBSURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB02S015	UFSB02S020	UFSB03S005	UFSB03S010	UFSB03S015	UFSB03S017	UFSB03S023	UFSB04S005
Sample Date	7/21/00	7/21/00	7/19/00	7/19/00	7/19/00	7/19/00	7/19/00	7/20/00
Sample Depth	10' - 15'	15' - 20'	1' - 5'	5' - 10'	10' - 15'	15' - 17'	17' - 23'	1' - 5'
Hexachloroethane	480 UY X	470 UY X	470 U X	470 U X	470 U X	480 U X	490 U X	490 UY X
Indeno(1,2,3-cd)pyrene	480 U X	470 U X	470 U X	470 JU X	470 U X	480 JU X	490 U X	490 U X
Isophorone	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
N-Nitroso-di-n-propylamine	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
N-Nitrosodimethylamine	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
N-Nitrosodiphenylamine	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Naphthalene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Nitrobenzene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Pentachlorophenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Phenanthrene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Phenol	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Pyrene	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Pyridine	480 U X	470 U X	470 U X	470 U X	470 U X	480 U X	490 U X	490 U X
Volatiles (µg/kg)								
1,1,1-Trichloroethane	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X
1,1,2,2-Tetrachloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1,2-Trichloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1-Dichloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1-Dichloroethene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dichloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dichloropropane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dimethylbenzene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
2-Butanone	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 UXY X
2-Hexanone	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
4-Methyl-2-pentanone	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Acetone	350 E X	410 E X	10 U X	10 U X	11 X	10 U X	10 U X	88 X
Benzene	10 UY X	10 JU X	10 U X	10 U X	10 U X	10 U X	10 U X	10 UY X
Bromodichloromethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Bromoform	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Bromomethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Carbon disulfide	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Carbon tetrachloride	10 UY X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 UY X
Chlorobenzene	10 UY X	10 UY X	10 U X	10 U X	10 U X	10 U X	10 U X	10 UY X
Chloroethane	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 U X	10 U X	10 JU X
Chloroform	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 UY X
Chloromethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
cis-1,2-Dichloroethene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB02S015	UFSB02S020	UFSB03S005	UFSB03S010	UFSB03S015	UFSB03S017	UFSB03S023	UFSB04S005
Sample Date	7/21/00	7/21/00	7/19/00	7/19/00	7/19/00	7/19/00	7/19/00	7/20/00
Sample Depth	10' - 15'	15' - 20'	1' - 5'	5' - 10'	10' - 15'	15' - 17'	17' - 23'	1' - 5'
cis-1,3-Dichloropropene	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 U X	10 U X	10 JU X
Dibromochloromethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Dimethylbenzene	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X
Ethylbenzene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
m,p-Xylene	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Methylene chloride	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 U X	10 U X	10 JU X
Styrene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Tetrachloroethene	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 UY X
Toluene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
trans-1,2-Dichloroethene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
trans-1,3-Dichloropropene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Trichloroethene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 UY X
Vinyl acetate	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 U X	10 U X	10 JU X
Vinyl chloride	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB04S009	UFSB04S013	UFSB04S017	UFSB04S023	UFSB04S027	UFSB05S005	UFSB05S010	UFSB05S013
Sample Date	7/20/00	7/20/00	7/20/00	7/20/00	7/20/00	7/18/00	7/18/00	7/18/00
Sample Depth	5' - 9'	9' -13'	13' - 17'	17' - 23'	23' - 27'	1' - 5'	5' - 10'	10' - 13'
Inorganics (mg/kg)								
Aluminum	11100 *NW X	6590 *NW X	7970 *NW X	6070 *NW X	4600 *NW X	7700 *NW =	11800 *NW =	6650 *NW =
Antimony	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU UJ	20 NU UJ	20 NU UJ
Arsenic	5 UW X	5 UW X	5 UW X	5 UW X	5 UW X	5.94 W =	5 UW U	5 UW U
Barium	83.5 X	73.4 X	90.3 X	38.8 X	14.6 X	50.4 *N J	208 *N J	54 *N J
Beryllium	0.5 U X	0.5 U X	0.5 U X	0.5 U X	0.5 U X	0.81 =	1.09 =	0.5 U U
Cadmium	2 U X	2 U X	2 U X	2 U X	2 U X	2 U U	2 U U	2 U U
Calcium	547 X	1090 X	1070 X	2160 X	453 X	1600 *N J	1720 *N J	1520 *N J
Chromium	12.8 X	14.7 X	11.6 X	12.6 X	9.46 X	83.7 N J	13.2 N J	10.5 N J
Copper	8.47 X	7.17 X	8.41 X	5.3 X	3.34 X	8.22 =	14.6 =	7.34 =
Lead	20 U X	20 U X	20 U X	20 U X	20 U X	20 U U	20 U U	20 U U
Mercury	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U U	0.2 U U	0.2 U U
Nickel	9.46 X	9.15 X	11 X	6.05 X	5 U X	9.78 =	21.6 =	7.6 =
Selenium	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 NUW U	1 NUW U	1 NUW U
Silver	4 U X	4 U X	4 U X	4 U X	4 U X	4 U U	4 U U	4 U U
Thallium	20 U X	20 U X	20 U X	20 U X	20 U X	20 NU U	20 NU U	20 NU U
Vanadium	17.5 X	22.8 X	31.1 X	20.9 X	22.1 X	53.8 W =	16.6 W =	15.2 W =
Zinc	36.2 X	20 U X	20 U X	20 U X	20 U X	20 NU UJ	59.4 N J	22.7 N J
PCBs (mg/kg)								
PCB-1016	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U U	0.1 U U
PCB-1221	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U U	0.1 U U
PCB-1232	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U U	0.1 U U
PCB-1242	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U U	0.1 U U
PCB-1248	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U U	0.1 U U
PCB-1254	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U U	0.1 U U
PCB-1260	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U U	0.1 U U
PCB-1268	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U U	0.1 U U
Polychlorinated biphenyl	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U U	0.1 U U	0.1 U U
Radionuclides (pCi/g)								
Activity of U-235	0.106 U X	0.0305 U X	0.0736 U X	0.0576 U X	0.88 X	0.0562 U U	0.0086 U U	0.0313 U U
Alpha activity	8.37 X	7.45 X	5.96 X	3.8 X	2.93 X	5.84 =	2.54 =	4.89 =
Americium-241	-0.00999 U X	-0.0423 U X	0.0552 U X	-0.027 U X	0.0263 U X	0.0108 U U	-0.00591 U U	0.0248 U U
Americium-243	0.233 U X	0.203 U X	0.177 U X	0.166 U X	0.122 U X	0.137 U U	0.221 U U	0.179 U U
Beta activity	2.85 X	3.81 X	2.62 X	1.21 X	0.59 U X	3.96 =	0.88 U U	3.1 =
Cesium-134	-0.00521 U X	0.0019 U X	0.00792 U X	-0.00648 U X	-0.0109 U X	0.00412 U R	-0.00631 U R	0.00691 U R
Cesium-137	-0.00659 U X	0.00445 U X	-0.00162 U X	-0.0136 U X	-0.000497 U X	0.00821 U U	-0.0137 U U	-0.00295 U U
Cobalt-60	-0.00675 U X	0.0192 U X	0.00503 U X	0.00134 U X	0.00223 U X	0.0258 U U	-0.0116 U U	0.0159 U U

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB04S009	UFSB04S013	UFSB04S017	UFSB04S023	UFSB04S027	UFSB05S005	UFSB05S010	UFSB05S013
Sample Date	7/20/00	7/20/00	7/20/00	7/20/00	7/20/00	7/18/00	7/18/00	7/18/00
Sample Depth	5' - 9'	9' -13'	13' - 17'	17' - 23'	23' - 27'	1' - 5'	5' - 10'	10' - 13'
Mass of U-235 (g U-235/g)	0.00000004 X	0.00000001 U X	0.00000003 X	0.00000002 U X	0.0000004 X	0.00000002 =	0 U U	0.00000001 U U
Neptunium-237	0.0231 U X	-0.0079 U X	-0.000193 U X	-0.0405 U X	-0.0148 U X	-0.00601 U U	-0.0013 U U	-0.0187 U U
Neptunium-239	-0.148 U X	0.358 U X	-0.211 U X	-0.137 U X	-0.0335 U X	0.0116 U U	-0.00965 U U	-5.88 U U
Plutonium-238	-0.00335 U X	-0.000305 U X	-0.0111 U X	-0.0119 U X	-0.0142 U X	-0.0751 U U	-0.0817 U U	-0.0868 U U
Plutonium-239/240	-0.00957 U X	-0.0136 U X	-0.00409 U X	-0.00816 U X	-0.00453 U X	-0.0163 U U	-0.00224 U U	-0.0042 U U
Potassium-40	10.5 X	8.92 X	6.31 X	1.87 X	1.1 X	2.93 =	9.99 =	8.36 =
Protactinium-234m	2.44 U X	2.56 U X	4.28 U X	4.71 U X	55.4 X	0.588 U U	4.45 U U	2.21 U U
Radium-226	0.744 U X	0.457 U X	0.207 U X	0.425 U X	0.435 U X	0.573 U U	0.758 U U	0.582 U U
Technetium-99	2.07 U X	3.56 X	2.46 U X	0.681 U X	0 U X	2.02 U U	0 U U	0 U U
Thorium-228	0.405 X	0.414 X	0.292 X	0.117 U X	0.13 X	0.217 =	0.276 =	0.439 =
Thorium-230	0.384 X	0.352 X	0.228 X	0.112 X	0.136 X	0.187 =	0.203 =	0.389 =
Thorium-232	0.397 X	0.404 X	0.253 X	0.0817 X	0.18 X	0.236 =	0.224 =	0.479 =
Uranium	3.98 U X	U X	2.89 U X	U X	45.9 X	2.45 U U	U X	U X
Uranium-234	2.35 U X	U X	1.57 U X	U X	14.7 X	1.1 U U	U X	U X
Uranium-235 (wt%)	1.06 X	X	0.91 X	X	0.45 X	0.67 =	X	X
Uranium-238	1.53 U X	U X	1.24 U X	U X	30.3 X	1.29 U U	U X	U X
Semivolatiles (µg/kg)								
1,2,4-Trichlorobenzene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
1,2-Dichlorobenzene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
1,2-Diphenylhydrazine	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
1,3-Dichlorobenzene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
1,4-Dichlorobenzene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2,4,5-Trichlorophenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2,4,6-Trichlorophenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2,4-Dichlorophenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2,4-Dimethylphenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2,4-Dinitrophenol	460 JU X	480 JU X	470 JU X	470 JU X	470 JU X	470 U U	490 U U	460 U U
2,4-Dinitrotoluene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2,6-Dichlorophenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2,6-Dinitrotoluene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2-Chloronaphthalene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2-Chlorophenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2-Methyl-4,6-dinitrophenol	460 JU X	480 JU X	470 JU X	470 JU X	470 JU X	470 U U	490 U U	460 U U
2-Methylnaphthalene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2-Methylphenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2-Nitrobenzenamine	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
2-Nitrophenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB04S009	UFSB04S013	UFSB04S017	UFSB04S023	UFSB04S027	UFSB05S005	UFSB05S010	UFSB05S013
Sample Date	7/20/00	7/20/00	7/20/00	7/20/00	7/20/00	7/18/00	7/18/00	7/18/00
Sample Depth	5' - 9'	9' -13'	13' - 17'	17' - 23'	23' - 27'	1' - 5'	5' - 10'	10' - 13'
3,3'-Dichlorobenzidine	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
3-Nitrobenzenamine	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
4-Bromophenyl phenyl ether	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
4-Chloro-3-methylphenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
4-Chlorobenzenamine	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
4-Chlorophenyl phenyl ether	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
4-Methylphenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
4-Nitrobenzenamine	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
4-Nitrophenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Acenaphthene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Acenaphthylene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Anthracene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Benz(a)anthracene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Benzenemethanol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Benzo(a)pyrene	460 U X	480 U X	470 U X	470 U X	470 U X	470 JU U	490 JU U	460 U U
Benzo(b)fluoranthene	460 U X	480 U X	470 U X	470 U X	470 U X	470 JU UJ	490 JU UJ	460 U U
Benzo(ghi)perylene	460 U X	480 U X	470 U X	470 U X	470 U X	470 JU U	490 JU U	460 U U
Benzo(k)fluoranthene	460 U X	480 U X	470 U X	470 U X	470 U X	470 JU U	490 JU U	460 U U
Benzoic acid	460 JU X	480 JU X	470 JU X	470 JUX X	470 JU X	470 U U	490 U U	460 U U
Bis(2-chloroethoxy)methane	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Bis(2-chloroethyl) ether	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Bis(2-chloroisopropyl) ether	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Bis(2-ethylhexyl)phthalate	460 UX X	480 UX X	470 UX X	470 UX X	470 U X	470 U U	490 U U	460 U U
Butyl benzyl phthalate	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Carbazole	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Chrysene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Di-n-butyl phthalate	2100 B X	480 U X	470 U X	3100 B X	470 U X	470 U U	22000 BE =	680 B U
Di-n-octylphthalate	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Dibenz(a,h)anthracene	460 U X	480 U X	470 U X	470 U X	470 U X	470 JU U	490 JU U	460 U U
Dibenzofuran	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Diethyl phthalate	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Dimethyl phthalate	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Fluoranthene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Fluorene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Hexachlorobenzene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Hexachlorobutadiene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Hexachlorocyclopentadiene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB04S009	UFSB04S013	UFSB04S017	UFSB04S023	UFSB04S027	UFSB05S005	UFSB05S010	UFSB05S013
Sample Date	7/20/00	7/20/00	7/20/00	7/20/00	7/20/00	7/18/00	7/18/00	7/18/00
Sample Depth	5' - 9'	9' -13'	13' - 17'	17' - 23'	23' - 27'	1' - 5'	5' - 10'	10' - 13'
Hexachloroethane	460 UY X	480 UY X	470 UY X	470 UY X	470 UY X	470 UY U	490 UY U	460 UY U
Indeno(1,2,3-cd)pyrene	460 U X	480 U X	470 U X	470 U X	470 U X	470 JU U	490 JU U	460 U U
Isophorone	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
N-Nitroso-di-n-propylamine	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
N-Nitrosodimethylamine	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
N-Nitrosodiphenylamine	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Naphthalene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Nitrobenzene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Pentachlorophenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Phenanthrene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Phenol	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Pyrene	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Pyridine	460 U X	480 U X	470 U X	470 U X	470 U X	470 U U	490 U U	460 U U
Volatiles (µg/kg)								
1,1,1-Trichloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
1,1,2,2-Tetrachloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
1,1,2-Trichloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
1,1-Dichloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
1,1-Dichloroethene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
1,2-Dichloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
1,2-Dichloropropane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
1,2-Dimethylbenzene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
2-Butanone	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 UY R	10 UY R	10 UY R
2-Hexanone	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
4-Methyl-2-pentanone	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
Acetone	10 U X	10 U X	10 U X	10 U X	10 U X	10 U R	50 J	10 U R
Benzene	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 U U	10 U U	10 U U
Bromodichloromethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
Bromoform	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
Bromomethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 JU UJ	10 JU UJ	10 JU UJ
Carbon disulfide	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
Carbon tetrachloride	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 JU UJ	10 JU UJ	10 JU UJ
Chlorobenzene	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 U U	10 U U	10 U U
Chloroethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U U	10 U U	10 U U
Chloroform	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 U U	10 U U	10 U U
Chloromethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
cis-1,2-Dichloroethene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB04S009	UFSB04S013	UFSB04S017	UFSB04S023	UFSB04S027	UFSB05S005	UFSB05S010	UFSB05S013
Sample Date	7/20/00	7/20/00	7/20/00	7/20/00	7/20/00	7/18/00	7/18/00	7/18/00
Sample Depth	5' - 9'	9' -13'	13' - 17'	17' - 23'	23' - 27'	1' - 5'	5' - 10'	10' - 13'
cis-1,3-Dichloropropene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U U	10 U U	10 U U
Dibromochloromethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
Dimethylbenzene	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X
Ethylbenzene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
m,p-Xylene	20 U X	20 U X	20 U X	20 U X	20 U X	20 U U	20 U U	20 U U
Methylene chloride	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U U	10 U U	10 U U
Styrene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
Tetrachloroethene	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 JU UJ	10 JU UJ	10 JU UJ
Toluene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
trans-1,2-Dichloroethene	10 U X	10 U X	10 U X	10 U X	10 U X	10 JU UJ	10 JU UJ	10 JU UJ
trans-1,3-Dichloropropene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U
Trichloroethene	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 U U	10 U U	10 U U
Vinyl acetate	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU UJ	10 JU UJ	10 JU UJ
Vinyl chloride	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U U	10 U U

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB05S017	UFSB05S023	UFSB06S005	UFSB06S007	UFSB06S013	UFSB07S005	UFSB07S010	UFSB07S015
Sample Date	7/18/00	7/18/00	7/21/00	7/21/00	7/21/00	7/19/00	7/19/00	7/19/00
Sample Depth	13' - 17'	17' - 23'	1' - 5'	5' - 7'	7' - 13'	1' - 5'	5' - 10'	10' - 15'
Inorganics (mg/kg)								
Aluminum	7270 *NW =	8360 *NW =	11800 *NW X	14600 *NW X	7100 *NW X	15500 *NW X	7950 *NW X	6720 *NW X
Antimony	20 NU UJ	20 NU UJ	20 NU X	20 NU X	20 NU X	20 *NU X	20 *NU X	20 *NU X
Arsenic	5 UW U	5 UW U	5 UW X	13.4 W X	5 UW X	5 UW X	5 UW X	5 UW X
Barium	65.8 *N J	19.9 *N J	116 X	156 X	62.2 X	129 * X	88.6 * X	39.8 * X
Beryllium	0.5 U U	0.5 U U	0.5 U X	0.92 X	0.5 U X	0.62 X	0.5 U X	0.5 U X
Cadmium	2 U U	2 U U	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	1390 *N J	1200 *N J	2310 X	1710 X	1300 X	570 *NW X	1420 *NW X	860 *NW X
Chromium	10.1 N J	8.61 N J	15 X	17.2 X	10.6 X	19.3 X	15.1 X	9.4 X
Copper	7.8 =	3.62 =	9.43 X	17 X	7.15 X	13.8 X	8.12 X	5.51 X
Lead	20 U U	20 U U	20 U X	20 U X	20 U X	20 NU X	20 NU X	20 NU X
Mercury	0.2 U U	0.2 U U	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X
Nickel	8.13 =	5 U U	13.6 X	21.1 X	6.98 X	18 X	13.2 X	8.17 X
Selenium	1 NUW U	1 NUW U	1 UW X	1 UW X	1 UW X	1 NUW X	1 NUW X	1 NUW X
Silver	4 U U	4 U U	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 NU U	20 NU U	20 U X	20 U X	20 U X	20 NU X	20 NU X	20 NU X
Vanadium	15.5 W =	11.7 W =	23.7 X	27.5 X	13.6 X	33 X	19.5 X	19.7 X
Zinc	25.6 N J	20 NU UJ	40 X	53.2 X	20 U X	53.7 X	29 X	20 U X
PCBs (mg/kg)								
PCB-1016	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U U	0.1 U U	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)								
Activity of U-235	0.0994 U U	0.0063 U U	0.0705 U X	0.101 X	0.0393 U X	-0.061 U X	0.0481 U X	0.0145 U X
Alpha activity	4.89 =	2.33 =	8.06 X	6.97 X	10.2 X	5.28 X	6.11 X	5.56 X
Americium-241	0.000565 U U	0.0204 U U	-0.00799 U X	-0.0455 U X	0.0547 U X	0.0958 U X	-0.0105 U X	-0.0235 U X
Americium-243	0.00127 U U	0.198 U U	0.167 U X	0.167 U X	0.157 U X	0.215 U X	0.249 U X	0.183 U X
Beta activity	2 =	1.41 =	4.52 X	3.63 X	3.08 X	7.46 X	2.28 X	5.7 X
Cesium-134	-0.00342 U R	-0.00707 U R	0.0123 U X	0.00622 U X	-0.00915 U X	-0.0364 U X	-0.00846 U X	0.00356 U X
Cesium-137	-0.017 U U	-0.0113 U U	-0.027 U X	-0.00105 U X	-0.0066 U X	0.00164 U X	-0.00298 U X	-0.00907 U X
Cobalt-60	-0.0187 U U	-0.00261 U U	-0.000552 U X	-0.0138 U X	-0.00504 U X	0.00181 U X	NA	0.0149 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB05S017	UFSB05S023	UFSB06S005	UFSB06S007	UFSB06S013	UFSB07S005	UFSB07S010	UFSB07S015
Sample Date	7/18/00	7/18/00	7/21/00	7/21/00	7/21/00	7/19/00	7/19/00	7/19/00
Sample Depth	13' - 17'	17' - 23'	1' - 5'	5' - 7'	7' - 13'	1' - 5'	5' - 10'	10' - 15'
Mass of U-235 (g U-235/g)	0.00000004 =	0 U U	0.00000003 X	0.00000004 X	0.00000001 U X	0 U X	0.00000002 U X	0 U X
Neptunium-237	-0.0294 U U	-0.0214 U U	-0.00347 U X	0.0193 U X	-0.0417 U X	-0.000572 U X	-0.0113 U X	-0.0149 U X
Neptunium-239	0.028 U U	0.0283 U U	-0.0796 U X	-0.315 U X	-0.203 U X	0.12 U X	-0.104 U X	-0.0663 U X
Plutonium-238	-0.128 U U	-0.077 U U	-0.0114 U X	0.00000502 U X	-0.0177 U X	-0.063 U X	-0.037 U X	-0.0557 U X
Plutonium-239/240	-0.0166 U U	-0.00468 U U	-0.00485 U X	0.00715 U X	-0.0062 U X	-0.0141 U X	-0.00467 U X	-0.000594 U X
Potassium-40	3.94 =	2.12 =	9.52 X	9.55 X	6.92 X	12.9 X	12.8 X	7.12 X
Protactinium-234m	5.53 U U	2.3 U U	1.63 U X	-1.25 U X	1.38 U X	5.78 U X	1.54 U X	1.62 U X
Radium-226	0.321 =	0.562 U U	0.601 U X	0.655 U X	0.0349 U X	0.688 U X	0.846 U X	0.684 U X
Technetium-99	0.818 U U	0.559 U U	2.8 U X	0.962 U X	1.8 U X	0.783 U X	1.03 U X	0.64 U X
Thorium-228	0.371 =	0.387 =	0.385 X	0.485 X	0.265 X	0.675 X	0.276 X	0.283 X
Thorium-230	0.213 =	0.258 =	0.439 X	0.549 X	0.227 X	0.409 X	0.303 X	0.219 X
Thorium-232	0.341 =	0.33 =	0.413 X	0.483 X	0.272 X	0.559 X	0.335 X	0.312 X
Uranium	3.15 U U	U X	2.71 U X	0.152 U X	U X	U X	U X	U X
Uranium-234	2.35 U U	U X	1.53 U X	0.0513 U X	U X	U X	U X	U X
Uranium-235 (wt%)	X	X	0.98 X	X	X	X	X	X
Uranium-238	0.7 U U	U X	1.11 U X	0 U X	U X	U X	U X	U X
Semivolatiles (µg/kg)								
1,2,4-Trichlorobenzene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
1,2-Dichlorobenzene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
1,2-Diphenylhydrazine	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
1,3-Dichlorobenzene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
1,4-Dichlorobenzene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2,4,5-Trichlorophenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2,4,6-Trichlorophenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2,4-Dichlorophenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2,4-Dimethylphenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2,4-Dinitrophenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2,4-Dinitrotoluene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2,6-Dichlorophenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2,6-Dinitrotoluene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2-Chloronaphthalene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2-Chlorophenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2-Methyl-4,6-dinitrophenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2-Methylnaphthalene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2-Methylphenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2-Nitrobenzenamine	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
2-Nitrophenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SUBSURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB05S017	UFSB05S023	UFSB06S005	UFSB06S007	UFSB06S013	UFSB07S005	UFSB07S010	UFSB07S015
Sample Date	7/18/00	7/18/00	7/21/00	7/21/00	7/21/00	7/19/00	7/19/00	7/19/00
Sample Depth	13' - 17'	17' - 23'	1' - 5'	5' - 7'	7' - 13'	1' - 5'	5' - 10'	10' - 15'
3,3'-Dichlorobenzidine	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
3-Nitrobenzenamine	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
4-Bromophenyl phenyl ether	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
4-Chloro-3-methylphenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
4-Chlorobenzenamine	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
4-Chlorophenyl phenyl ether	490 U U	470 U U	490 JU X	490 JU X	470 JU X	480 U X	490 U X	480 U X
4-Methylphenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
4-Nitrobenzenamine	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
4-Nitrophenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Acenaphthene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Acenaphthylene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Anthracene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Benz(a)anthracene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Benzenemethanol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Benzo(a)pyrene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Benzo(b)fluoranthene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Benzo(ghi)perylene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Benzo(k)fluoranthene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Benzoic acid	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Bis(2-chloroethoxy)methane	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Bis(2-chloroethyl) ether	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Bis(2-chloroisopropyl) ether	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Bis(2-ethylhexyl)phthalate	490 U U	470 U U	490 UX X	490 UX X	470 UX X	480 U X	490 U X	480 UX X
Butyl benzyl phthalate	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Carbazole	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Chrysene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Di-n-butyl phthalate	910 B U	810 B U	490 UX X	510 B X	470 UX X	480 UX X	580 B X	1100 B X
Di-n-octylphthalate	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Dibenz(a,h)anthracene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Dibenzofuran	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Diethyl phthalate	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Dimethyl phthalate	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Fluoranthene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Fluorene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Hexachlorobenzene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Hexachlorobutadiene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Hexachlorocyclopentadiene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SUBSURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB05S017	UFSB05S023	UFSB06S005	UFSB06S007	UFSB06S013	UFSB07S005	UFSB07S010	UFSB07S015
Sample Date	7/18/00	7/18/00	7/21/00	7/21/00	7/21/00	7/19/00	7/19/00	7/19/00
Sample Depth	13' - 17'	17' - 23'	1' - 5'	5' - 7'	7' - 13'	1' - 5'	5' - 10'	10' - 15'
Hexachloroethane	490 UY U	470 UY U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Indeno(1,2,3-cd)pyrene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Isophorone	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
N-Nitroso-di-n-propylamine	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
N-Nitrosodimethylamine	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
N-Nitrosodiphenylamine	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Naphthalene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Nitrobenzene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Pentachlorophenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Phenanthrene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Phenol	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Pyrene	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Pyridine	490 U U	470 U U	490 U X	490 U X	470 U X	480 U X	490 U X	480 U X
Volatiles (µg/kg)								
1,1,1-Trichloroethane	10 U U	10 U U	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X
1,1,2,2-Tetrachloroethane	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1,2-Trichloroethane	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1-Dichloroethane	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1-Dichloroethene	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dichloroethane	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dichloropropane	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dimethylbenzene	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
2-Butanone	10 UY R	10 UY R	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X
2-Hexanone	10 U U	10 U U	10 JU X	10 JU X	10 JU X	10 U X	10 U X	10 U X
4-Methyl-2-pentanone	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Acetone	70 J	10 U R	10 U X	19 X	10 U X	10 U X	10 U X	10 U X
Benzene	10 U U	10 U U	10 UY X	10 UY X	10 UY X	10 U X	10 U X	10 U X
Bromodichloromethane	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Bromoform	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Bromomethane	10 JU UJ	10 JU UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Carbon disulfide	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Carbon tetrachloride	10 JU UJ	10 JU UJ	10 UY X	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X
Chlorobenzene	10 U U	10 U U	10 UY X	10 UY X	10 UY X	10 U X	10 U X	10 U X
Chloroethane	10 U U	10 U U	10 JU X	10 JU X	10 JU X	10 U X	10 U X	10 U X
Chloroform	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Chloromethane	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
cis-1,2-Dichloroethene	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB05S017	UFSB05S023	UFSB06S005	UFSB06S007	UFSB06S013	UFSB07S005	UFSB07S010	UFSB07S015
Sample Date	7/18/00	7/18/00	7/21/00	7/21/00	7/21/00	7/19/00	7/19/00	7/19/00
Sample Depth	13' - 17'	17' - 23'	1' - 5'	5' - 7'	7' - 13'	1' - 5'	5' - 10'	10' - 15'
cis-1,3-Dichloropropene	10 U U	10 U U	10 JU X	10 JU X	10 JU X	10 U X	10 U X	10 U X
Dibromochloromethane	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Dimethylbenzene	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X
Ethylbenzene	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
m,p-Xylene	20 U U	20 U U	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Methylene chloride	10 U U	10 U U	10 JU X	10 JU X	10 JU X	10 U X	10 U X	10 U X
Styrene	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Tetrachloroethene	10 JU UJ	10 JU UJ	10 UY X	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X
Toluene	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
trans-1,2-Dichloroethene	10 JU UJ	10 JU UJ	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
trans-1,3-Dichloropropene	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Trichloroethene	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Vinyl acetate	10 JU UJ	10 JU UJ	10 JU X	10 JU X	10 JU X	10 U X	10 U X	10 U X
Vinyl chloride	10 U U	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB08S005	UFSB08S010	UFSB08S015	UFSB09S005	UFSB09S010	UFSB09S015	UFSB09S020	UFSB10S005
Sample Date	7/19/00	7/19/00	7/19/00	7/18/00	7/18/00	7/18/00	7/18/00	7/20/00
Sample Depth	1' - 5'	5' - 10'	10' - 15'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'
Inorganics (mg/kg)								
Aluminum	9680 *NW X	9490 *NW X	8300 *NW X	11600 *NW X	9590 *NW X	9170 *NW X	8320 *NW X	6610 *NW X
Antimony	20 *NU X	20 *NU X	20 *NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X
Arsenic	5 UW X	6.58 W X	5 UW X	5 UW X	5 UW X	5 UW X	5 UW X	5 UW X
Barium	103 * X	136 * X	50 * X	111 *N X	94 *N X	35.1 *N X	32.4 *N X	82.8 X
Beryllium	0.5 U X	0.85 X	0.5 U X	0.87 X	0.5 U X	0.5 U X	0.63 X	0.5 U X
Cadmium	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	1190 *NW X	1640 *NW X	1160 *NW X	1030 *N X	1420 *N X	789 *N X	902 *N X	956 W X
Chromium	12.1 X	15.8 X	13.8 X	3.57 N X	14.5 N X	21.2 N X	26.9 N X	8.34 X
Copper	9.49 X	13.3 X	6.5 X	13.9 X	10 X	5.48 X	5.25 X	6.65 X
Lead	20 NU X	20 NU X	20 NU X	20 U X	20 U X	20 U X	20 U X	20 U X
Mercury	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X
Nickel	9.2 X	19.9 X	7.03 X	12.1 X	11.3 X	8.45 X	6.02 X	6.56 X
Selenium	1 NUW X	1 NUW X	1 NUW X	1 NUW X	1 NUW X	1 NUW X	1 NUW X	1 UW X
Silver	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X
Vanadium	14.5 X	30.1 X	18.1 X	29.5 W X	21.2 W X	25.2 W X	35.6 W X	17.3 X
Zinc	34.7 X	42.9 X	20 X	32.2 N X	29.6 N X	20 NU X	20 NU X	26.3 X
PCBs (mg/kg)								
PCB-1016	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)								
Activity of U-235	0.0333 U X	0.0242 U X	0.0759 U X	-0.0836 U X	0.0289 U X	0.0447 U X	0.0881 U X	0.0698 U X
Alpha activity	9.27 X	7.23 X	5.67 X	7.25 X	5.38 X	5.38 X	6.66 X	8.81 X
Americium-241	-0.00795 U X	-0.0549 U X	-0.0232 U X	0.0642 U X	-0.0408 U X	-0.0162 U X	-0.0558 U X	-0.11 U X
Americium-243	0.279 U X	0.204 U X	0.193 U X	0.299 U X	0.238 U X	0.153 U X	0.105 U X	0.278 U X
Beta activity	15.78 X	21.09 X	31.42 X	4.2 X	5.58 X	3.58 X	2.77 X	4.09 X
Cesium-134	0.00645 U X	0.0151 U X	-0.0154 U X	-0.0384 U X	0.0148 U X	-0.00177 U X	-0.00853 U X	0.00637 U X
Cesium-137	0.0057 U X	-0.00645 U X	-0.0354 U X	-0.00978 U X	-0.0181 U X	0.00525 U X	0.00664 U X	-0.00507 U X
Cobalt-60	0.0112 U X	0.0196 U X	0.0177 U X	-0.0295 U X	0.00182 U X	0.016 U X	0.0155 U X	0.00625 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB08S005	UFSB08S010	UFSB08S015	UFSB09S005	UFSB09S010	UFSB09S015	UFSB09S020	UFSB10S005
Sample Date	7/19/00	7/19/00	7/19/00	7/18/00	7/18/00	7/18/00	7/18/00	7/20/00
Sample Depth	1' - 5'	5' - 10'	10' - 15'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'
Mass of U-235 (g U-235/g)	0.00000001 U X	0.00000001 U X	0.00000003 X	0 U X	0.00000001 U X	0.00000002 X	0.00000004 U X	0.00000003 U X
Neptunium-237	0.0149 U X	-0.0245 U X	0.0091 U X	-0.00606 U X	-0.00134 U X	0.0158 U X	0.0408 U X	0.0444 U X
Neptunium-239	0.135 U X	-0.0245 U X	-0.202 U X	0.222 U X	-0.0752 U X	-0.0205 U X	0.00846 U X	-0.443 U X
Plutonium-238	-0.0745 U X	-0.0577 U X	-0.0689 U X	-0.0693 U X	-0.0625 U X	0.0339 UT X	-0.00459 UT X	0.00887 U X
Plutonium-239/240	-0.0129 U X	-0.0135 U X	-0.00253 U X	-0.007 U X	-0.0139 U X	0.00895 UT X	-0.0163 UT X	0.00157 U X
Potassium-40	12 X	10.2 X	6.09 X	11.8 X	9.37 X	4.34 X	5.47 X	11 X
Protactinium-234m	2.41 U X	2.51 U X	2.8 U X	-2.7 U X	0.857 U X	-0.206 U X	0.591 U X	4.17 U X
Radium-226	0.758 U X	0.488 U X	0.645 U X	0.974 U X	0.693 U X	0.582 U X	0.712 U X	0.912 U X
Technetium-99	2.62 U X	1.2 U X	1.53 U X	0 U X	0.527 U X	1.47 BU X	0.989 BU X	4.33 X
Thorium-228	0.309 X	0.35 X	0.361 X	0.409 X	0.283 X	0.454 X	0.32 X	0.479 X
Thorium-230	0.106 X	0.342 X	0.279 X	0.389 X	0.184 X	0.269 X	0.17 X	0.413 X
Thorium-232	0.366 X	0.361 X	0.341 X	0.486 X	0.215 X	0.455 X	0.244 X	0.549 X
Uranium	U X	U X	2.84 U X	U X	U X	1.87 U X	U X	U X
Uranium-234	U X	U X	1.69 U X	U X	U X	0.903 U X	U X	U X
Uranium-235 (wt%)	X	X	1.08 X	X	X	0.75 X	X	X
Uranium-238	U X	U X	1.08 U X	U X	U X	0.926 U X	U X	U X
Semivolatiles (µg/kg)								
1,2,4-Trichlorobenzene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
1,2-Dichlorobenzene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
1,2-Diphenylhydrazine	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
1,3-Dichlorobenzene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
1,4-Dichlorobenzene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2,4,5-Trichlorophenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2,4,6-Trichlorophenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2,4-Dichlorophenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2,4-Dimethylphenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2,4-Dinitrophenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2,4-Dinitrotoluene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2,6-Dichlorophenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2,6-Dinitrotoluene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2-Chloronaphthalene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2-Chlorophenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2-Methyl-4,6-dinitrophenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2-Methylnaphthalene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2-Methylphenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2-Nitrobenzenamine	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
2-Nitrophenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SUBSURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB08S005	UFSB08S010	UFSB08S015	UFSB09S005	UFSB09S010	UFSB09S015	UFSB09S020	UFSB10S005
Sample Date	7/19/00	7/19/00	7/19/00	7/18/00	7/18/00	7/18/00	7/18/00	7/20/00
Sample Depth	1' - 5'	5' - 10'	10' - 15'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'
3,3'-Dichlorobenzidine	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
3-Nitrobenzenamine	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
4-Bromophenyl phenyl ether	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
4-Chloro-3-methylphenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
4-Chlorobenzenamine	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
4-Chlorophenyl phenyl ether	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
4-Methylphenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
4-Nitrobenzenamine	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
4-Nitrophenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Acenaphthene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Acenaphthylene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Anthracene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Benz(a)anthracene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Benzenemethanol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Benzo(a)pyrene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Benzo(b)fluoranthene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Benzo(ghi)perylene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Benzo(k)fluoranthene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Benzoic acid	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Bis(2-chloroethoxy)methane	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Bis(2-chloroethyl) ether	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Bis(2-chloroisopropyl) ether	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Bis(2-ethylhexyl)phthalate	480 UX X	330 UX X	300 UX X	480 UX X	490 UX X	490 UX X	480 UX X	470 UX X
Butyl benzyl phthalate	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Carbazole	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Chrysene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Di-n-butyl phthalate	1200 B X	1200 B X	1900 B X	630 B X	490 UX X	1900 B X	570 B X	1100 B X
Di-n-octylphthalate	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Dibenz(a,h)anthracene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Dibenzofuran	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Diethyl phthalate	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Dimethyl phthalate	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Fluoranthene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Fluorene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Hexachlorobenzene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Hexachlorobutadiene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Hexachlorocyclopentadiene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB08S005	UFSB08S010	UFSB08S015	UFSB09S005	UFSB09S010	UFSB09S015	UFSB09S020	UFSB10S005
Sample Date	7/19/00	7/19/00	7/19/00	7/18/00	7/18/00	7/18/00	7/18/00	7/20/00
Sample Depth	1' - 5'	5' - 10'	10' - 15'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'
Hexachloroethane	480 U X	480 U X	470 U X	480 UY X	490 UY X	490 UY X	480 UY X	470 U X
Indeno(1,2,3-cd)pyrene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Isophorone	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
N-Nitroso-di-n-propylamine	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
N-Nitrosodimethylamine	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
N-Nitrosodiphenylamine	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Naphthalene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Nitrobenzene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Pentachlorophenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Phenanthrene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Phenol	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Pyrene	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Pyridine	480 U X	480 U X	470 U X	480 U X	490 U X	490 U X	480 U X	470 U X
Volatiles (µg/kg)								
1,1,1-Trichloroethane	10 JU X	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1,2,2-Tetrachloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1,2-Trichloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1-Dichloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,1-Dichloroethene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dichloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dichloropropane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
1,2-Dimethylbenzene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
2-Butanone	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X	10 UY X
2-Hexanone	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
4-Methyl-2-pentanone	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Acetone	10 U X	10 U X	68 X	10 U X	10 U X	10 U X	10 U X	140 X
Benzene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 UY X
Bromodichloromethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Bromoform	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Bromomethane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X
Carbon disulfide	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Carbon tetrachloride	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 UY X
Chlorobenzene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 UY X
Chloroethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 JU X
Chloroform	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 UY X
Chloromethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
cis-1,2-Dichloroethene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB08S005	UFSB08S010	UFSB08S015	UFSB09S005	UFSB09S010	UFSB09S015	UFSB09S020	UFSB10S005
Sample Date	7/19/00	7/19/00	7/19/00	7/18/00	7/18/00	7/18/00	7/18/00	7/20/00
Sample Depth	1' - 5'	5' - 10'	10' - 15'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'
cis-1,3-Dichloropropene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 JU X
Dibromochloromethane	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Dimethylbenzene	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X	30 U X
Ethylbenzene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
m,p-Xylene	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Methylene chloride	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 JU X
Styrene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Tetrachloroethene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 UY X
Toluene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
trans-1,2-Dichloroethene	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X
trans-1,3-Dichloropropene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Trichloroethene	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 UY X
Vinyl acetate	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Vinyl chloride	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB10S005D	UFSB10S010	UFSB10S015	UFSB11S005	UFSB11S005D	UFSB11S010	UFSB11S015	UFSB11S020
Sample Date	7/20/00	7/20/00	7/20/00	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00
Sample Depth	1' - 5'	5' - 10'	10' - 15'	1' - 5'	1' - 5'	5' - 10'	10' - 15'	15' - 20'
Inorganics (mg/kg)								
Aluminum	8510 *NW X	7410 *NW X	7320 *NW X	9100 *NW X	6850 *NW X	11300 *NW X	10600 *NW X	7930 *NW X
Antimony	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X
Arsenic	5 UW X	5 UW X	5 UW X	8.86 B X	6.04 B X	5.64 B X	5 BU X	5 BU X
Barium	102 X	70 X	49.1 X	61.6 * X	50.3 * X	109 * X	107 * X	56.5 * X
Beryllium	0.5 X	0.5 U X	0.5 U X	0.5 U X	0.5 U X	0.655 X	0.5 U X	0.5 U X
Cadmium	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	1350 W X	1210 W X	1140 W X	1490 *NW X	1140 *NW X	1520 *NW X	1160 *NW X	944 *NW X
Chromium	10.4 X	11.7 X	11.6 X	11.9 X	10 X	16.7 X	17.2 X	10.6 X
Copper	6.91 X	6.52 X	4.99 X	7.53 X	6.12 X	13.7 X	5.4 X	4.63 X
Lead	20 U X	20 U X	20 U X	20 U X	20 U X	20.2 X	20 U X	20 U X
Mercury	0.2 U X	0.2 U X	0.2 U X	0.2 UW X	0.2 UW X	0.2 UW X	0.2 UW X	0.2 UW X
Nickel	7.96 X	7.37 X	7.05 X	7.34 X	6.38 X	20.4 X	9.31 X	7.21 X
Selenium	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X
Silver	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 NU X	20 NU X	20 NU X	20 U X	20 U X	20 U X	20 U X	20 U X
Vanadium	16.4 X	20.4 X	17.9 X	29 X	21.5 X	32.4 X	28.8 X	23.4 X
Zinc	27.9 X	20 U X	20 U X	33.7 X	26.9 X	54.3 X	26.7 X	20 U X
PCBs (mg/kg)								
PCB-1016	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U X	0.1 U X	0.1 U X	0.2 X	0.1 U X	0.1 X	0.1 U X	0.1 U X
PCB-1248	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U X	0.1 U X	0.1 U X	0.2 X	0.1 U X	0.1 X	0.1 U X	0.1 U X
Radionuclides (pCi/g)								
Activity of U-235	0.164 X	0.0458 U X	0.0286 U X	0.0893 U X	0.0374 U X	0.0425 U X	0.0905 X	0.0816 U X
Alpha activity	3.19 X	7.99 X	5.53 X	6.29 X	5.81 X	5.34 X	4.17 X	5.86 X
Americium-241	0.147 U X	0.0494 U X	0.108 U X	-0.0931 U X	-0.0169 U X	0.0427 U X	0.036 U X	-0.0303 U X
Americium-243	0.252 U X	0.212 U X	0.203 U X	0.303 U X	0.247 U X	0.169 U X	0.195 U X	0.208 U X
Beta activity	2.26 X	4.12 X	2.47 X	6.32 X	6.78 X	7.58 X	19.53 X	5.89 X
Cesium-134	-0.0255 U X	0.00857 U X	0.00519 U X	-0.0101 U X	0.00937 U X	-0.00755 U X	-0.0084 U X	-0.012 U X
Cesium-137	-0.0309 U X	-0.00559 U X	0.00546 U X	-0.00113 U X	-0.0122 U X	0.00401 U X	0.00766 U X	-0.0125 U X
Cobalt-60	-0.00931 U X	0.00283 U X	0.0049 U X	-0.0174 U X	-0.00556 U X	-0.0027 U X	0.0104 U X	-0.0264 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB10S005D	UFSB10S010	UFSB10S015	UFSB11S005	UFSB11S005D	UFSB11S010	UFSB11S015	UFSB11S020
Sample Date	7/20/00	7/20/00	7/20/00	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00
Sample Depth	1' - 5'	5' - 10'	10' - 15'	1' - 5'	1' - 5'	5' - 10'	10' - 15'	15' - 20'
Mass of U-235 (g U-235/g)	0.00000007 X	0.00000002 U X	0.00000001 U X	0.00000004 X	0.00000001 U X	0.00000001 U X	0.00000004 X	0.00000003 X
Neptunium-237	-0.0432 U X	-0.00818 U X	-0.00815 U X	0.044 U X	0.000737 U X	0.0762 U X	0.0141 U X	-0.0127 U X
Neptunium-239	-0.186 U X	0.148 U X	-0.572 U X	-0.102 U X	-0.26 U X	-0.0871 U X	-0.205 U X	-0.0808 U X
Plutonium-238	0.00161 U X	-0.0251 U X	0.0151 U X	-0.0933 U X	-0.0693 U X	-0.0939 U X	-0.0705 U X	-0.0777 U X
Plutonium-239/240	-0.00625 U X	0.00124 U X	0.000844 U X	-0.0157 U X	-0.00814 U X	-0.01 U X	-0.029 U X	-0.0137 U X
Potassium-40	12 X	10.1 X	7 X	11.1 X	9.39 X	12.8 X	6.81 X	3.9 U X
Protactinium-234m	2.6 U X	3.68 U X	0.00581 U X	-0.614 U X	0.243 U X	3.86 U X	4.25 U X	0.642 U X
Radium-226	0.814 U X	0.569 X	0.688 U X	0.899 U X	0.89 U X	0.752 U X	0.8 U X	0.669 X
Technetium-99	0.994 U X	0.624 U X	0.688 U X	-0.776 U X	0.244 U X	-0.236 U X	-0.0591 U X	-0.377 U X
Thorium-228	0.332 X	0.254 X	0.185 X	0.501 X	0.375 X	0.365 X	0.375 X	0.302 X
Thorium-230	0.426 X	0.27 X	0.147 X	0.384 X	0.369 X	0.349 X	0.26 X	0.294 X
Thorium-232	0.456 X	0.276 X	0.173 X	0.502 X	0.465 X	0.394 X	0.336 X	0.406 X
Uranium	6.72 U X	U X	U X	4.26 U X	U X	U X	0.137 U X	2.88 U X
Uranium-234	3.38 U X	U X	U X	1.62 U X	U X	U X	0.0461 U X	1.94 U X
Uranium-235 (wt%)	0.8 X	X	X	0.54 X	X	X	X	1.46 X
Uranium-238	3.17 U X	U X	U X	2.55 U X	U X	U X	0 U X	0.856 U X
Semivolatiles (µg/kg)								
1,2,4-Trichlorobenzene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
1,2-Dichlorobenzene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
1,2-Diphenylhydrazine	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
1,3-Dichlorobenzene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
1,4-Dichlorobenzene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2,4,5-Trichlorophenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2,4,6-Trichlorophenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2,4-Dichlorophenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2,4-Dimethylphenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2,4-Dinitrophenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2,4-Dinitrotoluene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2,6-Dichlorophenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2,6-Dinitrotoluene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2-Chloronaphthalene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2-Chlorophenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2-Methyl-4,6-dinitrophenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2-Methylnaphthalene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2-Methylphenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2-Nitrobenzenamine	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
2-Nitrophenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB10S005D	UFSB10S010	UFSB10S015	UFSB11S005	UFSB11S005D	UFSB11S010	UFSB11S015	UFSB11S020
Sample Date	7/20/00	7/20/00	7/20/00	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00
Sample Depth	1' - 5'	5' - 10'	10' - 15'	1' - 5'	1' - 5'	5' - 10'	10' - 15'	15' - 20'
3,3'-Dichlorobenzidine	470 U X	500 U X	490 U X	500 U X	490 JU X	430 JU X	500 U X	490 JU X
3-Nitrobenzenamine	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
4-Bromophenyl phenyl ether	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
4-Chloro-3-methylphenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
4-Chlorobenzenamine	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
4-Chlorophenyl phenyl ether	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
4-Methylphenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
4-Nitrobenzenamine	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
4-Nitrophenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Acenaphthene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Acenaphthylene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Anthracene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Benz(a)anthracene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Benzenemethanol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Benzo(a)pyrene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Benzo(b)fluoranthene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Benzo(ghi)perylene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Benzo(k)fluoranthene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Benzoic acid	470 U X	500 U X	490 U X	500 JU X	490 U X	430 U X	500 JU X	490 U X
Bis(2-chloroethoxy)methane	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Bis(2-chloroethyl) ether	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Bis(2-chloroisopropyl) ether	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Bis(2-ethylhexyl)phthalate	470 UX X	500 UX X	490 UX X	500 UX X	490 UX X	430 UX X	500 UX X	490 UX X
Butyl benzyl phthalate	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Carbazole	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Chrysene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Di-n-butyl phthalate	1300 B X	1500 B X	1500 B X	1200 B X	490 UX X	430 UX X	500 UX X	490 UX X
Di-n-octylphthalate	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Dibenz(a,h)anthracene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Dibenzofuran	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Diethyl phthalate	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Dimethyl phthalate	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Fluoranthene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Fluorene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Hexachlorobenzene	470 U X	500 U X	490 U X	500 UY X	490 UY X	430 UY X	500 UY X	490 UY X
Hexachlorobutadiene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Hexachlorocyclopentadiene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SUBSURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB10S005D	UFSB10S010	UFSB10S015	UFSB11S005	UFSB11S005D	UFSB11S010	UFSB11S015	UFSB11S020
Sample Date	7/20/00	7/20/00	7/20/00	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00
Sample Depth	1' - 5'	5' - 10'	10' - 15'	1' - 5'	1' - 5'	5' - 10'	10' - 15'	15' - 20'
Hexachloroethane	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Indeno(1,2,3-cd)pyrene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Isophorone	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
N-Nitroso-di-n-propylamine	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
N-Nitrosodimethylamine	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
N-Nitrosodiphenylamine	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Naphthalene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Nitrobenzene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Pentachlorophenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Phenanthrene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Phenol	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Pyrene	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Pyridine	470 U X	500 U X	490 U X	500 U X	490 U X	430 U X	500 U X	490 U X
Volatiles (µg/kg)								
1,1,1-Trichloroethane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
1,1,2,2-Tetrachloroethane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
1,1,2-Trichloroethane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
1,1-Dichloroethane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
1,1-Dichloroethene	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
1,2-Dichloroethane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
1,2-Dichloropropane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
1,2-Dimethylbenzene	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
2-Butanone	10 UY X	10 UY X	10 UY X	10 JUY X	10 JUY X	10 JUY X	10 JUY X	10 JUY X
2-Hexanone	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
4-Methyl-2-pentanone	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Acetone	220 E X	10 U X	10 U X	10 JU X	260 EJ X	10 JU X	10 JU X	20 J X
Benzene	10 UY X	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Bromodichloromethane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Bromoform	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Bromomethane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Carbon disulfide	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Carbon tetrachloride	10 UY X	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Chlorobenzene	10 UY X	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Chloroethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Chloroform	10 UY X	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Chloromethane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
cis-1,2-Dichloroethene	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB10S005D	UFSB10S010	UFSB10S015	UFSB11S005	UFSB11S005D	UFSB11S010	UFSB11S015	UFSB11S020
Sample Date	7/20/00	7/20/00	7/20/00	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00
Sample Depth	1' - 5'	5' - 10'	10' - 15'	1' - 5'	1' - 5'	5' - 10'	10' - 15'	15' - 20'
cis-1,3-Dichloropropene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Dibromochloromethane	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Dimethylbenzene	30 U X	30 U X	30 U X	30 JU X	30 JU X	30 JU X	30 JU X	30 JU X
Ethylbenzene	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
m,p-Xylene	20 U X	20 U X	20 U X	20 JU X	20 JU X	20 JU X	20 JU X	20 JU X
Methylene chloride	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Styrene	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Tetrachloroethene	10 UY X	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Toluene	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
trans-1,2-Dichloroethene	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
trans-1,3-Dichloropropene	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Trichloroethene	10 UY X	10 UY X	10 UY X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Vinyl acetate	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Vinyl chloride	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB11S025	UFSB11S027	UFSB12S005	UFSB12S010	UFSB12S015	UFSB12S020	UFSB13S005	UFSB13S010
Sample Date	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00	7/10/00	7/10/00
Sample Depth	20' - 25'	25' - 27'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'	5' - 10'
Inorganics (mg/kg)								
Aluminum	8540 *NW X	NA	10900 *NW X	9820 *NW X	10100 *NW X	6530 *NW X	11800 *NW X	12600 *NW X
Antimony	20 NU X	NA	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X
Arsenic	5 BU X	NA	6.05 X	5 BU X	5 BU X	5 BU X	8.22 X	5 U X
Barium	73.3 * X	NA	111 * X	103 * X	85.2 * X	162 * X	94.5 * X	1700 * X
Beryllium	0.555 X	NA	0.66 X	0.5 U X	0.5 U X	0.5 U X	0.5 U X	0.5 U X
Cadmium	2 U X	NA	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	1360 *NW X	NA	37800 *NW X	3970 *NW X	2800 *NW X	993 *NW X	2860 *NW X	4480 *NW X
Chromium	10.1 X	NA	24.5 X	17.3 X	13 X	16.3 X	17.9 X	18.6 X
Copper	5.09 X	NA	11.3 X	6.95 X	6.46 X	4.16 X	8.25 X	9.18 X
Lead	20 U X	NA	32.2 X	20 U X	20 U X	20 U X	20 U X	20 U X
Mercury	0.2 UW X	NA	0.2 UW X	0.2 UW X	0.2 UW X	0.2 UW X	0.2 UW X	0.2 UW X
Nickel	5.74 X	NA	18.7 X	12.1 X	7.3 X	5.6 X	10.3 X	19 X
Selenium	1 UW X	NA	1 UW X	1 UW X	1 UW X	1 UW X	1 BUW X	1 BUW X
Silver	4 U X	NA	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 U X	NA	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Vanadium	12 X	NA	24.9 X	21.4 X	23.3 X	19.6 X	27.3 X	30 X
Zinc	21 X	NA	53.7 X	33.5 X	29.8 X	20 U X	35.4 X	41.1 X
PCBs (mg/kg)								
PCB-1016	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 X	NA	0.1 U X	0.1 U X	0.3 X	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 X	NA	0.1 U X	0.1 U X	0.3 X	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)								
Activity of U-235	0.0972 U X	-0.0531 U X	0.0221 U X	0.0712 U X	0.0946 X	0.0316 U X	0.0759 U X	0.0572 U X
Alpha activity	5.65 X	6.62 X	5.47 X	6.08 X	4.71 X	5.09 X	7.58 X	5.26 X
Americium-241	0.187 U X	0.0265 U X	0.0132 U X	0.0609 U X	0.0412 U X	-0.00595 U X	0.066 U X	-0.0149 U X
Americium-243	0.198 U X	0.249 U X	0.192 U X	0.208 U X	0.188 U X	0.173 U X	0.225 U X	0.217 U X
Beta activity	3.82 X	3.22 X	10.03 X	12.85 X	4.52 X	4.06 X	6.44 X	3.82 X
Cesium-134	0.0278 U X	0.00654 U X	0.0122 U X	-0.00864 U X	0.0107 U X	-0.0101 U X	-0.00317 U X	-0.00779 U X
Cesium-137	-0.0115 U X	0.0159 U X	0.00646 U X	0.00693 U X	-0.0135 U X	-0.0259 U X	0.0651 X	0.0375 U X
Cobalt-60	-0.0149 U X	0.0233 U X	-0.00327 U X	0.00425 U X	0.0148 U X	0.00213 U X	-0.00442 U X	0.00367 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB11S025	UFSB11S027	UFSB12S005	UFSB12S010	UFSB12S015	UFSB12S020	UFSB13S005	UFSB13S010
Sample Date	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00	7/10/00	7/10/00
Sample Depth	20' - 25'	25' - 27'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'	5' - 10'
Mass of U-235 (g U-235/g)	0.00000004 X	0 U X	0.00000001 U X	0.00000003 U X	0.00000004 X	0.00000001 U X	0.00000003 X	0.00000002 U X
Neptunium-237	0.0169 U X	0.0648 U X	-0.00702 U X	0.0123 U X	0.0398 U X	-0.0048 U X	-0.0113 U X	0.0405 U X
Neptunium-239	-0.195 U X	0.0867 U X	-0.00518 U X	0.213 U X	0.0328 U X	-0.112 U X	-0.326 U X	-0.166 U X
Plutonium-238	-0.0676 U X	-0.066 U X	-0.0636 U X	-0.0541 U X	-0.0679 U X	-0.0675 U X	-0.0441 U X	-0.0283 U X
Plutonium-239/240	-0.021 U X	-0.0142 U X	-0.00994 U X	-0.0187 U X	-0.0088 U X	-0.0172 U X	-0.0172 U X	-0.00361 U X
Potassium-40	8.2 X	7.51 X	9.07 X	9.2 X	5.31 X	4.79 X	8.02 X	12.1 X
Protactinium-234m	3.89 U X	5.44 U X	-1.37 U X	1.89 U X	1.95 U X	0.558 U X	3.13 U X	-0.28 U X
Radium-226	0.821 U X	0.705 U X	0.708 U X	0.705 U X	0.631 U X	0.722 U X	0.824 U X	0.739 U X
Technetium-99	0.813 U X	0.724 U X	-0.0739 U X	0.148 U X	0.953 U X	0.584 U X	0.578 U X	0.38 U X
Thorium-228	0.458 X	0.249 X	0.379 X	0.366 X	0.295 X	0.216 X	0.391 X	0.449 X
Thorium-230	0.439 X	0.124 U X	0.426 X	0.369 X	0.198 X	0.102 U X	0.384 X	0.373 X
Thorium-232	0.43 X	0.208 X	0.413 X	0.433 X	0.311 X	0.128 X	0.376 X	0.447 X
Uranium	4.49 U X	U X	U X	2.56 U X	0.143 U X	U X	3.58 U X	U X
Uranium-234	1.81 U X	U X	U X	1.65 U X	0.0482 U X	U X	1.39 U X	U X
Uranium-235 (wt%)	0.58 X	X	X	1.31 X	X	X	0.55 X	X
Uranium-238	2.58 U X	U X	U X	0.831 U X	0 U X	U X	2.12 U X	U X
Semivolatiles (µg/kg)								
1,2,4-Trichlorobenzene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
1,2-Dichlorobenzene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
1,2-Diphenylhydrazine	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
1,3-Dichlorobenzene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
1,4-Dichlorobenzene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2,4,5-Trichlorophenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2,4,6-Trichlorophenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2,4-Dichlorophenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2,4-Dimethylphenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2,4-Dinitrophenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2,4-Dinitrotoluene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2,6-Dichlorophenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2,6-Dinitrotoluene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2-Chloronaphthalene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2-Chlorophenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2-Methyl-4,6-dinitrophenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2-Methylnaphthalene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2-Methylphenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2-Nitrobenzenamine	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
2-Nitrophenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB11S025	UFSB11S027	UFSB12S005	UFSB12S010	UFSB12S015	UFSB12S020	UFSB13S005	UFSB13S010
Sample Date	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00	7/10/00	7/10/00
Sample Depth	20' - 25'	25' - 27'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'	5' - 10'
3,3'-Dichlorobenzidine	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
3-Nitrobenzenamine	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
4-Bromophenyl phenyl ether	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
4-Chloro-3-methylphenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
4-Chlorobenzenamine	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
4-Chlorophenyl phenyl ether	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
4-Methylphenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
4-Nitrobenzenamine	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
4-Nitrophenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Acenaphthene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Acenaphthylene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Anthracene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Benz(a)anthracene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Benzenemethanol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Benzo(a)pyrene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Benzo(b)fluoranthene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Benzo(ghi)perylene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Benzo(k)fluoranthene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Benzoic acid	490 JU X	NA	460 JU X	470 JU X	490 JU X	460 JU X	470 JUX X	480 JUX X
Bis(2-chloroethoxy)methane	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Bis(2-chloroethyl) ether	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Bis(2-chloroisopropyl) ether	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Bis(2-ethylhexyl)phthalate	490 UX X	NA	460 UX X	470 JUX X	490 UX X	460 U X	470 JUX X	480 JUX X
Butyl benzyl phthalate	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Carbazole	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Chrysene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Di-n-butyl phthalate	490 UX X	NA	460 UX X	1100 BJ X	490 UX X	970 B X	470 JUX X	480 JUX X
Di-n-octylphthalate	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Dibenz(a,h)anthracene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Dibenzofuran	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Diethyl phthalate	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Dimethyl phthalate	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Fluoranthene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Fluorene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Hexachlorobenzene	490 UY X	NA	460 UY X	470 JUY X	490 UY X	460 UY X	470 JUX X	480 JUX X
Hexachlorobutadiene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Hexachlorocyclopentadiene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SUBSURFACE SOIL[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFSB11S025	UFSB11S027	UFSB12S005	UFSB12S010	UFSB12S015	UFSB12S020	UFSB13S005	UFSB13S010
Sample Date	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00	7/10/00	7/10/00
Sample Depth	20' - 25'	25' - 27'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'	5' - 10'
Hexachloroethane	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Indeno(1,2,3-cd)pyrene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Isophorone	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
N-Nitroso-di-n-propylamine	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
N-Nitrosodimethylamine	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
N-Nitrosodiphenylamine	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Naphthalene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Nitrobenzene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Pentachlorophenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Phenanthrene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Phenol	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Pyrene	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Pyridine	490 U X	NA	460 U X	470 JU X	490 U X	460 U X	470 JUX X	480 JUX X
Volatiles (µg/kg)								
1,1,1-Trichloroethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
1,1,2,2-Tetrachloroethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
1,1,2-Trichloroethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
1,1-Dichloroethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
1,1-Dichloroethene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
1,2-Dichloroethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JUX X
1,2-Dichloropropane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
1,2-Dimethylbenzene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
2-Butanone	10 JUY X	10 JUY X	10 JUY X	10 JUY X	10 JUY X	10 JUY X	10 UY X	10 UXY X
2-Hexanone	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JUX X
4-Methyl-2-pentanone	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
Acetone	24 J X	240 EJ X	22 J X	25 J X	11 J X	10 JU X	33 X	620 EX X
Benzene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 UY X	10 UXY X
Bromodichloromethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 JUX X
Bromoform	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
Bromomethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
Carbon disulfide	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
Carbon tetrachloride	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JUX X
Chlorobenzene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 UY X	10 UXY X
Chloroethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
Chloroform	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 UY X	10 UXY X
Chloromethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
cis-1,2-Dichloroethene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB11S025	UFSB11S027	UFSB12S005	UFSB12S010	UFSB12S015	UFSB12S020	UFSB13S005	UFSB13S010
Sample Date	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00	7/9/00	7/10/00	7/10/00
Sample Depth	20' - 25'	25' - 27'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'	5' - 10'
cis-1,3-Dichloropropene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
Dibromochloromethane	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JUX X
Dimethylbenzene	30 JU X	30 JU X	30 JU X	30 JU X	30 JU X	30 JU X	30 U X	30 UX X
Ethylbenzene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
m,p-Xylene	20 JU X	20 JU X	20 JU X	20 JU X	20 JU X	20 JU X	20 U X	20 UX X
Methylene chloride	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
Styrene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
Tetrachloroethene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 UY X	10 UXY X
Toluene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
trans-1,2-Dichloroethene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
trans-1,3-Dichloropropene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JUX X
Trichloroethene	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X
Vinyl acetate	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JUX X
Vinyl chloride	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 U X	10 UX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB13S015	UFSB13S020	UFSB14S005	UFSB14S010	UFSB14S015	UFSB14S018	UFSB16S005	UFSB16S010
Sample Date	7/10/00	7/10/00	7/10/00	7/10/00	7/10/00	7/10/00	7/11/00	7/11/00
Sample Depth	10' - 15'	15' - 20'	1' - 5'	5' - 10'	10' - 15'	15' - 18'	1' - 5'	5' - 10'
Inorganics (mg/kg)								
Aluminum	9180 *NW X	10100 *NW X	NA	10800 *NW X	13700 *NW X	6330 NW X	8960 NW X	7780 NW X
Antimony	20 NU X	20 NU X	NA	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X
Arsenic	5 U X	7.32 X	NA	5 BU X	5 UW X	10.1 BW X	5 UW X	5 UW X
Barium	71.6 * X	30.2 * X	NA	87.1 * X	1040 * X	20.1 X	84.8 X	92 X
Beryllium	0.5 U X	0.522 X	NA	0.5 U X	0.5 U X	0.577 X	0.5 U X	0.5 U X
Cadmium	2 U X	2 U X	NA	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	1160 *NW X	829 *NW X	NA	996 *NW X	1430 *NW X	439 *N X	713 *N X	1000 *N X
Chromium	14.3 X	40 X	NA	18.7 X	17.7 X	61.4 * X	12.5 * X	11.6 * X
Copper	6.16 X	4 X	NA	8.12 X	9.33 X	5.22 X	7.79 X	7.31 X
Lead	20 U X	20 U X	NA	20 U X	20 U X	20 U X	20 U X	20 U X
Mercury	0.2 UW X	0.2 UW X	NA	0.2 UW X	0.2 UW X	0.2 U X	0.2 U X	0.2 U X
Nickel	7.39 X	6.44 X	NA	9.88 X	11.1 X	5.32 X	7.99 X	9.68 X
Selenium	1 BUW X	1 UW X	NA	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X
Silver	4 U X	4 U X	NA	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 U X	20 U X	NA	20 U X	20 U X	20 U X	20 U X	20 U X
Vanadium	23.8 X	49.1 X	NA	20.8 X	25.6 X	63.8 *N X	17.8 *N X	16.2 *N X
Zinc	23.6 X	20 X	NA	35.8 X	28.3 X	20 U X	37.5 X	29.4 X
PCBs (mg/kg)								
PCB-1016	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)								
Activity of U-235	0.0746 U X	-0.0725 U X	0.0277 U X	0.0751 X	0.0684 U X	0.0854 U X	0.0921 U X	0.0724 U X
Alpha activity	4.43 X	4.52 X	1.56 X	5.02 X	5.4 X	3.13 X	8.11 X	6.33 X
Americium-241	-0.0285 U X	0.0116 U X	0.00535 U X	0.042 U X	-0.00814 U X	0.0324 U X	0.0288 U X	0.112 U X
Americium-243	0.202 U X	0.163 U X	0.136 U X	0.21 U X	0.223 U X	0.208 U X	0.223 U X	0.202 U X
Beta activity	3.63 X	2.91 X	2.84 X	5.7 X	2.69 X	3.03 X	4.79 X	3.7 X
Cesium-134	-0.0231 U X	-0.00702 U X	-0.0183 U X	0.0166 U X	0.00375 U X	-0.00623 U X	-0.007 U X	0.0418 U X
Cesium-137	-0.0111 U X	-0.0218 U X	0.00401 U X	-0.0132 U X	-0.0148 U X	-0.0219 U X	0.017 U X	-0.0271 U X
Cobalt-60	0.0269 U X	0.0213 U X	0.0114 U X	0.0114 U X	0.0218 U X	0.0148 U X	0.0286 U X	-0.00934 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB13S015	UFSB13S020	UFSB14S005	UFSB14S010	UFSB14S015	UFSB14S018	UFSB16S005	UFSB16S010
Sample Date	7/10/00	7/10/00	7/10/00	7/10/00	7/10/00	7/10/00	7/11/00	7/11/00
Sample Depth	10' - 15'	15' - 20'	1' - 5'	5' - 10'	10' - 15'	15' - 18'	1' - 5'	5' - 10'
Mass of U-235 (g U-235/g)	0.00000003 X	0 U X	0.00000001 U X	0.00000003 X	0.00000003 X	0.00000003 X	0.00000004 X	0.00000003 X
Neptunium-237	0.0227 U X	0.0256 U X	-0.00509 U X	-0.00497 U X	0.0106 U X	-0.0167 U X	-0.00222 U X	-0.0182 U X
Neptunium-239	-0.326 U X	-0.316 U X	-0.0395 U X	-0.419 U X	0.198 U X	0.193 U X	-0.176 U X	-0.28 U X
Plutonium-238	-0.0529 U X	-0.0645 U X	-0.0177 U X	-0.0349 U X	-0.0163 U X	-0.0703 U X	-0.0507 U X	-0.0623 U X
Plutonium-239/240	-0.00576 U X	-0.0066 U X	-0.0138 U X	-0.00548 U X	-0.0153 U X	-0.0123 U X	0.00418 U X	-0.0158 U X
Potassium-40	7.17 X	3.23 X	1.41 U X	11.1 X	7.23 X	3.25 X	11.1 X	9.97 X
Protactinium-234m	1.76 U X	2.93 U X	0.076 U X	3.87 U X	3.71 U X	2.38 U X	0.894 U X	-0.227 U X
Radium-226	0.754 U X	0.845 U X	0.53 U X	0.662 U X	0.646 U X	0.83 U X	0.994 U X	0.646 U X
Technetium-99	0 U X	0.453 U X	1.13 U X	0.249 U X	0.0877 U X	1.49 U X	0.366 U X	1.67 U X
Thorium-228	0.326 X	0.272 X	0.118 X	0.466 X	0.383 X	0.156 X	0.372 X	0.471 X
Thorium-230	0.319 X	0.151 X	0.32 X	0.387 X	0.467 X	0.0931 U X	0.328 X	0.418 X
Thorium-232	0.336 X	0.25 X	0.13 X	0.465 X	0.433 X	0.146 X	0.307 X	0.41 X
Uranium	3.05 U X	U X	U X	3.25 U X	2.89 U X	3.08 U X	3.44 U X	3.36 U X
Uranium-234	1.54 U X	U X	U X	1.48 U X	1.37 U X	1.98 U X	2.05 U X	1.34 U X
Uranium-235 (wt%)	0.8 JX X	X	X	0.68 JX X	0.72 X	1.29 X	1.09 X	0.57 X
Uranium-238	1.43 U X	U X	U X	1.7 U X	1.46 U X	1.01 U X	1.3 U X	1.95 U X
Semivolatiles (µg/kg)								
1,2,4-Trichlorobenzene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
1,2-Dichlorobenzene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
1,2-Diphenylhydrazine	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
1,3-Dichlorobenzene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
1,4-Dichlorobenzene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2,4,5-Trichlorophenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2,4,6-Trichlorophenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2,4-Dichlorophenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2,4-Dimethylphenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2,4-Dinitrophenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2,4-Dinitrotoluene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2,6-Dichlorophenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2,6-Dinitrotoluene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2-Chloronaphthalene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2-Chlorophenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2-Methyl-4,6-dinitrophenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2-Methylnaphthalene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2-Methylphenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2-Nitrobenzenamine	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
2-Nitrophenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB13S015	UFSB13S020	UFSB14S005	UFSB14S010	UFSB14S015	UFSB14S018	UFSB16S005	UFSB16S010
Sample Date	7/10/00	7/10/00	7/10/00	7/10/00	7/10/00	7/10/00	7/11/00	7/11/00
Sample Depth	10' - 15'	15' - 20'	1' - 5'	5' - 10'	10' - 15'	15' - 18'	1' - 5'	5' - 10'
3,3'-Dichlorobenzidine	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
3-Nitrobenzenamine	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
4-Bromophenyl phenyl ether	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
4-Chloro-3-methylphenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
4-Chlorobenzenamine	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
4-Chlorophenyl phenyl ether	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
4-Methylphenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
4-Nitrobenzenamine	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
4-Nitrophenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Acenaphthene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Acenaphthylene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Anthracene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Benz(a)anthracene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Benzenemethanol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Benzo(a)pyrene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Benzo(b)fluoranthene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Benzo(ghi)perylene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Benzo(k)fluoranthene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Benzoic acid	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Bis(2-chloroethoxy)methane	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Bis(2-chloroethyl) ether	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Bis(2-chloroisopropyl) ether	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Bis(2-ethylhexyl)phthalate	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Butyl benzyl phthalate	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Carbazole	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Chrysene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Di-n-butyl phthalate	640 BJX X	660 BJX X	NA	490 JUX X	500 BJX X	680 BJX X	7000 BJX X	1000 BJX X
Di-n-octylphthalate	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	300 JX X	480 JUX X	480 JUX X
Dibenz(a,h)anthracene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Dibenzofuran	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Diethyl phthalate	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Dimethyl phthalate	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Fluoranthene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Fluorene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Hexachlorobenzene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Hexachlorobutadiene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Hexachlorocyclopentadiene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB13S015	UFSB13S020	UFSB14S005	UFSB14S010	UFSB14S015	UFSB14S018	UFSB16S005	UFSB16S010
Sample Date	7/10/00	7/10/00	7/10/00	7/10/00	7/10/00	7/10/00	7/11/00	7/11/00
Sample Depth	10' - 15'	15' - 20'	1' - 5'	5' - 10'	10' - 15'	15' - 18'	1' - 5'	5' - 10'
Hexachloroethane	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Indeno(1,2,3-cd)pyrene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Isophorone	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
N-Nitroso-di-n-propylamine	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
N-Nitrosodimethylamine	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
N-Nitrosodiphenylamine	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Naphthalene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Nitrobenzene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Pentachlorophenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Phenanthrene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Phenol	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Pyrene	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Pyridine	490 JUX X	480 JUX X	NA	490 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X
Volatiles (µg/kg)								
1,1,1-Trichloroethane	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
1,1,2,2-Tetrachloroethane	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
1,1,2-Trichloroethane	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
1,1-Dichloroethane	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
1,1-Dichloroethene	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
1,2-Dichloroethane	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JU X	10 JU X	10 U X	10 UX X
1,2-Dichloropropane	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
1,2-Dimethylbenzene	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
2-Butanone	10 UXY X	10 UY X	10 UY X	10 UXY X	10 UY X	10 UY X	10 UY X	10 UXY X
2-Hexanone	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JU X	10 JU X	10 U X	10 UX X
4-Methyl-2-pentanone	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
Acetone	10 UX X	10 U X	10 U X	43 UX X	10 U X	350 E X	10 U X	10 UX X
Benzene	10 UXY X	10 UY X	10 UY X	10 UXY X	10 UY X	10 UY X	10 U X	10 UX X
Bromodichloromethane	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JU X	10 JU X	10 U X	10 UX X
Bromoform	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
Bromomethane	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
Carbon disulfide	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
Carbon tetrachloride	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JU X	10 JU X	10 U X	10 UX X
Chlorobenzene	10 UXY X	10 UY X	10 UY X	10 UXY X	10 UY X	10 UY X	10 UY X	10 UXY X
Chloroethane	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
Chloroform	10 UXY X	10 UY X	10 UY X	10 UXY X	10 UY X	10 UY X	10 U X	10 UX X
Chloromethane	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JU X	10 JU X	10 U X	10 UX X
cis-1,2-Dichloroethene	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB13S015	UFSB13S020	UFSB14S005	UFSB14S010	UFSB14S015	UFSB14S018	UFSB16S005	UFSB16S010
Sample Date	7/10/00	7/10/00	7/10/00	7/10/00	7/10/00	7/10/00	7/11/00	7/11/00
Sample Depth	10' - 15'	15' - 20'	1' - 5'	5' - 10'	10' - 15'	15' - 18'	1' - 5'	5' - 10'
cis-1,3-Dichloropropene	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
Dibromochloromethane	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JU X	10 JU X	10 U X	10 UX X
Dimethylbenzene	30 UX X	30 U X	30 U X	30 UX X	30 U X	30 U X	30 U X	30 UX X
Ethylbenzene	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
m,p-Xylene	20 UX X	20 U X	20 U X	20 UX X	20 U X	20 U X	20 U X	20 UX X
Methylene chloride	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
Styrene	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
Tetrachloroethene	10 UXY X	10 UY X	10 UY X	10 UXY X	10 UY X	10 UY X	10 UY X	10 UXY X
Toluene	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
trans-1,2-Dichloroethene	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
trans-1,3-Dichloropropene	10 UXY X	10 JU X	10 JU X	10 JUX X	10 JU X	10 JU X	10 U X	10 UX X
Trichloroethene	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X
Vinyl acetate	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JU X	10 JU X	10 JU X	10 JUX X
Vinyl chloride	10 UX X	10 U X	10 U X	10 UX X	10 U X	10 U X	10 U X	10 UX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB16S015	UFSB16S020	UFSB16S025	UFSB17S005	UFSB17S010	UFSB17S015	UFSB17S020	UFSB18S005
Sample Date	7/11/00	7/11/00	7/11/00	7/11/00	7/11/00	7/12/00	7/12/00	7/12/00
Sample Depth	10' - 15'	15' - 20'	20' - 25'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'
Inorganics (mg/kg)								
Aluminum	9510 NW X	4600 NW X	3940 NW X	10500 NW X	10600 NW X	5860 NW X	5090 NW X	11000 NW X
Antimony	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X	20 NU X
Arsenic	5 BUW X	5 UW X	5 UW X	5 BUW X	5 UW X	5 UW X	5 UW X	7.05 W X
Barium	35.5 X	32.5 X	19.7 X	73.9 X	93.9 X	41.5 X	49.7 X	69.5 X
Beryllium	0.5 U X	0.5 U X	0.5 U X	0.5 U X	0.62 X	0.5 U X	1.33 X	0.5 U X
Cadmium	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	830 *N X	577 *N X	652 *N X	611 *N X	1230 *N X	1110 *N X	463 *N X	720 *N X
Chromium	10 * X	18.3 * X	6.29 * X	12.3 * X	16.3 * X	8.6 * X	22.6 * X	14 X
Copper	4.29 X	4.02 X	2.81 X	8.76 X	10 X	5.28 X	5.5 X	8.71 X
Lead	20 U X	20 U X	20 U X	20 U X	21.7 X	20 U X	20 U X	20 U X
Mercury	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X
Nickel	6 X	5 U X	5 U X	9.39 X	13 X	5 U X	6.39 X	9.43 X
Selenium	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X
Silver	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Vanadium	12.3 *N X	17.9 *N X	9.61 *N X	18.7 *N X	31.7 *N X	8.7 *N X	41.7 *N X	23 *N X
Zinc	20 U X	20 U X	20 U X	34.8 X	31.3 X	20 U X	28.6 X	35.8 X
PCBs (mg/kg)								
PCB-1016	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)								
Activity of U-235	0.0328 U X	0.0295 U X	0.0424 U X	0.0658 U X	0.0554 X	0.0194 U X	0.0899 X	0.101 U X
Alpha activity	5.01 X	7.4 X	3.46 X	8.59 X	6.83 X	4.63 X	4.25 X	8.3 X
Americium-241	-0.0254 U X	-0.0369 U X	-0.0251 U X	-0.00793 U X	-0.0154 U X	-0.0484 U X	-0.0658 U X	-0.0219 U X
Americium-243	0.191 U X	0.131 U X	0.14 U X	0.2 U X	0.15 U X	0.144 U X	0.197 U X	0.198 U X
Beta activity	3.26 X	2.86 X	2.02 X	4.2 X	3.48 X	2.63 X	1.96 X	3.76 X
Cesium-134	-0.00275 U X	-0.00201 U X	-0.00299 U X	-0.0104 U X	-0.00247 U X	0.00111 U X	0.00197 U X	0.0124 U X
Cesium-137	-0.0116 U X	-0.00907 U X	-0.0164 U X	0.0119 U X	-0.0176 U X	-0.0243 U X	-0.0161 U X	0.00224 U X
Cobalt-60	0.0115 U X	0.00434 U X	-0.00806 U X	-0.00577 U X	-0.0126 U X	0.0156 U X	-0.0224 U X	0.00203 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB16S015	UFSB16S020	UFSB16S025	UFSB17S005	UFSB17S010	UFSB17S015	UFSB17S020	UFSB18S005
Sample Date	7/11/00	7/11/00	7/11/00	7/11/00	7/11/00	7/12/00	7/12/00	7/12/00
Sample Depth	10' - 15'	15' - 20'	20' - 25'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'
Mass of U-235 (g U-235/g)	0.00000001 U X	0.00000001 U X	0.00000001 U X	0.00000003 X	0.00000002 X	0 U X	0.00000004 X	0.00000004 X
Neptunium-237	-0.00464 U X	-0.00198 U X	0.0482 U X	0.00419 U X	0.00221 U X	0.013 U X	-0.0215 U X	-0.00371 U X
Neptunium-239	-0.0772 U X	-0.023 U X	-0.049 U X	-0.513 U X	-0.0229 U X	-0.123 U X	0.123 U X	-0.00866 U X
Plutonium-238	-0.029 U X	-0.0665 U X	-0.0533 U X	-0.0471 U X	-0.00576 U X	-0.0337 U X	-0.0378 U X	-0.0231 U X
Plutonium-239/240	-0.0106 U X	-0.0129 U X	-0.00843 U X	-0.00948 U X	-0.00749 U X	-0.0136 U X	-0.00664 U X	-0.00592 U X
Potassium-40	6.08 X	4.8 X	2.12 X	10.1 X	8.76 X	5.5 X	4.51 X	9.33 X
Protactinium-234m	2.23 U X	2.4 U X	0.189 U X	3.35 U X	2.63 U X	-0.142 U X	3.59 U X	2.44 U X
Radium-226	0.591 X	0.567 U X	0.651 U X	0.602 U X	0.486 X	0.461 U X	0.499 U X	0.609 U X
Technetium-99	0.351 U X	0.841 U X	0 U X	0 U X	0 U X	0 U X	0 U X	0 U X
Thorium-228	0.151 X	0.268 X	0.121 X	0.528 X	0.381 X	0.4 X	0.206 X	0.456 X
Thorium-230	0.105 U X	0.342 X	0.0872 U X	0.437 X	0.23 X	0.338 X	0.17 X	0.382 X
Thorium-232	0.203 X	0.226 X	0.202 X	0.596 X	0.359 X	0.395 X	0.238 X	0.444 X
Uranium	U X	U X	U X	3.34 U X	2.34 U X	U X	3.27 U X	3.83 U X
Uranium-234	U X	U X	U X	1.12 U X	1.11 U X	U X	2.06 U X	2.22 U X
Uranium-235 (wt%)	X	X	X	0.47 X	0.73 X	X	1.23 X	1.03 X
Uranium-238	U X	U X	U X	2.15 U X	1.18 U X	U X	1.12 U X	1.51 U X
Semivolatiles (µg/kg)								
1,2,4-Trichlorobenzene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
1,2-Dichlorobenzene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
1,2-Diphenylhydrazine	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
1,3-Dichlorobenzene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
1,4-Dichlorobenzene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2,4,5-Trichlorophenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2,4,6-Trichlorophenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2,4-Dichlorophenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2,4-Dimethylphenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2,4-Dinitrophenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 JU X
2,4-Dinitrotoluene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2,6-Dichlorophenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2,6-Dinitrotoluene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2-Chloronaphthalene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2-Chlorophenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2-Methyl-4,6-dinitrophenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JU X	470 U X
2-Methylnaphthalene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2-Methylphenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2-Nitrobenzenamine	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
2-Nitrophenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB16S015	UFSB16S020	UFSB16S025	UFSB17S005	UFSB17S010	UFSB17S015	UFSB17S020	UFSB18S005
Sample Date	7/11/00	7/11/00	7/11/00	7/11/00	7/11/00	7/12/00	7/12/00	7/12/00
Sample Depth	10' - 15'	15' - 20'	20' - 25'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'
3,3'-Dichlorobenzidine	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
3-Nitrobenzenamine	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
4-Bromophenyl phenyl ether	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
4-Chloro-3-methylphenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
4-Chlorobenzenamine	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
4-Chlorophenyl phenyl ether	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
4-Methylphenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
4-Nitrobenzenamine	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
4-Nitrophenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Acenaphthene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Acenaphthylene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Anthracene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Benz(a)anthracene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Benzenemethanol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Benzo(a)pyrene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Benzo(b)fluoranthene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Benzo(ghi)perylene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Benzo(k)fluoranthene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Benzoic acid	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Bis(2-chloroethoxy)methane	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Bis(2-chloroethyl) ether	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Bis(2-chloroisopropyl) ether	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Bis(2-ethylhexyl)phthalate	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Butyl benzyl phthalate	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Carbazole	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Chrysene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Di-n-butyl phthalate	460 JUX X	3400 BJX X	820 BJX X	700 BJX X	480 JUX X	480 JUX X	460 JUX X	730 B X
Di-n-octylphthalate	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Dibenz(a,h)anthracene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Dibenzofuran	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Diethyl phthalate	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Dimethyl phthalate	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Fluoranthene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Fluorene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Hexachlorobenzene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Hexachlorobutadiene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Hexachlorocyclopentadiene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB16S015	UFSB16S020	UFSB16S025	UFSB17S005	UFSB17S010	UFSB17S015	UFSB17S020	UFSB18S005
Sample Date	7/11/00	7/11/00	7/11/00	7/11/00	7/11/00	7/12/00	7/12/00	7/12/00
Sample Depth	10' - 15'	15' - 20'	20' - 25'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'
Hexachloroethane	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Indeno(1,2,3-cd)pyrene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Isophorone	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
N-Nitroso-di-n-propylamine	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
N-Nitrosodimethylamine	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
N-Nitrosodiphenylamine	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Naphthalene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Nitrobenzene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Pentachlorophenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Phenanthrene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Phenol	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Pyrene	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Pyridine	460 JUX X	470 JUX X	480 JUX X	480 JUX X	480 JUX X	480 JUX X	460 JUX X	470 U X
Volatiles (µg/kg)								
1,1,1-Trichloroethane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 JU X	10 JU X	10 JU X
1,1,2,2-Tetrachloroethane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
1,1,2-Trichloroethane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
1,1-Dichloroethane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
1,1-Dichloroethene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
1,2-Dichloroethane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 JU X	10 JU X	10 UY X
1,2-Dichloropropane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
1,2-Dimethylbenzene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
2-Butanone	10 UY X	10 UXY X	10 UY X	10 JUY X	10 UY X	10 UY X	10 UY X	10 UY X
2-Hexanone	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 JU X	10 JU X	10 JU X
4-Methyl-2-pentanone	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Acetone	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Benzene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Bromodichloromethane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 JU X	10 JU X	10 JU X
Bromoform	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Bromomethane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 JU X	10 JU X	10 JU X
Carbon disulfide	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Carbon tetrachloride	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 JUY X	10 JUY X	10 UY X
Chlorobenzene	10 UY X	10 UXY X	10 UY X	10 JUY X	10 UY X	10 U X	10 U X	10 U X
Chloroethane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Chloroform	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Chloromethane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
cis-1,2-Dichloroethene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB16S015	UFSB16S020	UFSB16S025	UFSB17S005	UFSB17S010	UFSB17S015	UFSB17S020	UFSB18S005
Sample Date	7/11/00	7/11/00	7/11/00	7/11/00	7/11/00	7/12/00	7/12/00	7/12/00
Sample Depth	10' - 15'	15' - 20'	20' - 25'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	1' - 5'
cis-1,3-Dichloropropene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Dibromochloromethane	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Dimethylbenzene	30 U X	30 UX X	30 U X	30 JU X	30 U X	30 U X	30 U X	30 U X
Ethylbenzene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
m,p-Xylene	20 U X	20 UX X	20 U X	20 JU X	20 U X	20 U X	20 U X	20 U X
Methylene chloride	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 JU X	10 JU X	10 U X
Styrene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Tetrachloroethene	10 UY X	10 UXY X	10 UY X	10 JUY X	10 UY X	10 U X	10 U X	10 U X
Toluene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
trans-1,2-Dichloroethene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
trans-1,3-Dichloropropene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Trichloroethene	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X
Vinyl acetate	10 JU X	10 JUX X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Vinyl chloride	10 U X	10 UX X	10 U X	10 JU X	10 U X	10 U X	10 U X	10 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB18S010	UFSB18S010D	UFSB18S015	UFSB18S017	UFSB19S005	UFSB19S010	UFSB19S015	UFSB19S020
Sample Date	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00
Sample Depth	5' - 10'	5' - 10'	10' - 15'	15' - 17'	1' - 5'	5' - 10'	10' - 15'	15' - 20'
Inorganics (mg/kg)								
Aluminum	7700 NW X	7890 NW X	7460 NW X	4630 NW X	14300 *NW X	9100 *NW X	7370 *NW X	9980 *NW X
Antimony	20 NU X	20 NU X	20 NU X	20 NU X	20 *NU X	20 *NU X	20 *NU X	20 *NU X
Arsenic	5 BUW X	5 UW X	5 BUW X	5 BUW X	5 UW X	5 UW X	5 UW X	5 UW X
Barium	95.1 X	90.2 X	58.1 X	24.8 X	142 X	95.7 X	50 X	19 X
Beryllium	0.5 U X	0.5 U X	0.5 U X	0.5 U X	0.58 X	0.5 U X	0.53 X	0.53 X
Cadmium	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	971 *N X	1130 *N X	1030 *N X	483 *N X	725 NW X	1170 NW X	785 NW X	544 NW X
Chromium	22.3 * X	12.1 * X	22 * X	22.7 * X	15 * X	15.7 * X	32.4 * X	29 * X
Copper	8.72 X	8.02 X	4.44 X	4.53 X	12.4 X	6.36 X	3.77 X	5.65 X
Lead	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Mercury	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X
Nickel	15.1 X	10.2 X	8.26 X	5 U X	15.2 X	9.64 X	8.23 X	7.85 X
Selenium	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X
Silver	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Vanadium	19.6 *N X	17.7 *N X	15.1 *N X	16.9 *N X	20.8 *N X	18.6 *N X	27.7 *N X	32.6 *N X
Zinc	38.6 X	33.7 X	20 U X	20 U X	49.8 X	26.7 X	20 U X	20.6 X
PCBs (mg/kg)								
PCB-1016	0.1 U X	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U X	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U X	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U X	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U X	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U X	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U X	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U X	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U X	0.1 U X	0.1 U X	NA	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)								
Activity of U-235	0.0423 U X	0.0347 U X	0.0587 U X	-0.057 U X	0.0961 X	0.00768 U X	-0.00486 U X	0.0153 U X
Alpha activity	7.15 X	5.78 X	5.28 X	8.72 X	7.95 X	8.6 X	5.26 X	3.24 X
Americium-241	-0.0348 U X	0.141 X	0.0385 U X	-0.0188 U X	-0.0679 U X	-0.00259 U X	-0.0278 U X	0.0943 U X
Americium-243	0.196 U X	0.211 U X	0.141 U X	0.24 U X	0.209 U X	0.166 U X	0.239 U X	0.179 U X
Beta activity	3.69 X	2.68 X	2.96 X	4.07 X	3.76 X	4.12 X	1.54 X	0.47 U X
Cesium-134	0.000972 U X	0.013 U X	0.00549 U X	0.0118 U X	0.00914 U X	0.0101 U X	-0.0114 U X	0.00428 U X
Cesium-137	-0.00544 U X	0.0000926 U X	0.00876 U X	0.0233 U X	0.00718 U X	0.0076 U X	-0.0118 U X	0.00926 U X
Cobalt-60	0.00924 U X	-0.00776 U X	-0.00437 U X	-0.0261 U X	0.0216 U X	-0.0131 U X	-0.00132 U X	-0.0202 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB18S010	UFSB18S010D	UFSB18S015	UFSB18S017	UFSB19S005	UFSB19S010	UFSB19S015	UFSB19S020
Sample Date	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00
Sample Depth	5' - 10'	5' - 10'	10' - 15'	15' - 17'	1' - 5'	5' - 10'	10' - 15'	15' - 20'
Mass of U-235 (g U-235/g)	0.00000001 U X	0.00000001 U X	0.00000002 X	0 U X	0.00000004 X	0 U X	0 U X	0 U X
Neptunium-237	-0.0181 U X	0.0303 U X	-0.0272 U X	0.00167 U X	-0.0223 U X	-0.0198 U X	0.0447 U X	-0.00208 U X
Neptunium-239	-0.195 U X	-0.384 U X	0.329 U X	0.276 U X	-0.765 U X	0.13 U X	-0.355 U X	0.367 U X
Plutonium-238	-0.0321 U X	-0.0475 U X	-0.00714 U X	-0.0232 U X	-0.0367 U X	-0.0187 U X	-0.0458 U X	-0.079 U X
Plutonium-239/240	-0.00822 U X	-0.0163 U X	-0.00728 U X	-0.00226 U X	-0.0043 U X	-0.00782 U X	-0.00427 U X	-0.00724 U X
Potassium-40	9.12 X	9.44 X	7.2 X	9.28 X	9.47 X	7.98 X	4.51 X	1.6 X
Protactinium-234m	2.61 U X	1.26 U X	1.48 U X	-1.59 U X	3.34 U X	4.26 U X	1.78 U X	-0.95 U X
Radium-226	0.573 U X	0.458 X	0.492 U X	0.655 U X	0.655 U X	0.474 X	0.692 U X	0.602 U X
Technetium-99	0 U X	0 U X	0 U X	0 U X	0 U X	0 U X	0 U X	1.22 U X
Thorium-228	0.399 X	0.343 X	0.248 X	0.382 X	0.507 X	0.468 X	0.432 X	0.304 X
Thorium-230	0.329 X	0.28 X	0.194 X	0.393 X	0.501 X	0.381 X	0.325 X	0.228 X
Thorium-232	0.368 X	0.369 X	0.256 X	0.453 X	0.465 X	0.404 X	0.4 X	0.198 X
Uranium	U X	U X	3.13 U X	U X	0.145 U X	U X	U X	U X
Uranium-234	U X	U X	0.958 U X	U X	0.049 U X	U X	U X	U X
Uranium-235 (wt%)	X	X	0.43 X	X	X	X	X	X
Uranium-238	U X	U X	2.11 U X	U X	0 U X	U X	U X	U X
Semivolatiles (µg/kg)								
1,2,4-Trichlorobenzene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
1,2-Dichlorobenzene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
1,2-Diphenylhydrazine	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
1,3-Dichlorobenzene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
1,4-Dichlorobenzene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2,4,5-Trichlorophenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2,4,6-Trichlorophenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2,4-Dichlorophenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2,4-Dimethylphenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2,4-Dinitrophenol	480 JU X	480 JU X	460 JU X	NA	430 U X	450 U X	490 U X	500 U X
2,4-Dinitrotoluene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2,6-Dichlorophenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2,6-Dinitrotoluene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2-Chloronaphthalene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2-Chlorophenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2-Methyl-4,6-dinitrophenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2-Methylnaphthalene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2-Methylphenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2-Nitrobenzenamine	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
2-Nitrophenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB18S010	UFSB18S010D	UFSB18S015	UFSB18S017	UFSB19S005	UFSB19S010	UFSB19S015	UFSB19S020
Sample Date	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00
Sample Depth	5' - 10'	5' - 10'	10' - 15'	15' - 17'	1' - 5'	5' - 10'	10' - 15'	15' - 20'
3,3'-Dichlorobenzidine	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
3-Nitrobenzenamine	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
4-Bromophenyl phenyl ether	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
4-Chloro-3-methylphenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
4-Chlorobenzenamine	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
4-Chlorophenyl phenyl ether	480 U X	480 U X	460 U X	NA	430 JU X	450 JU X	490 JU X	500 JU X
4-Methylphenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
4-Nitrobenzenamine	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
4-Nitrophenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Acenaphthene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Acenaphthylene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Anthracene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Benz(a)anthracene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Benzenemethanol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Benzo(a)pyrene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Benzo(b)fluoranthene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Benzo(ghi)perylene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Benzo(k)fluoranthene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Benzoic acid	480 U X	480 U X	460 U X	NA	430 JU X	450 JU X	490 JU X	500 JU X
Bis(2-chloroethoxy)methane	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Bis(2-chloroethyl) ether	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Bis(2-chloroisopropyl) ether	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Bis(2-ethylhexyl)phthalate	480 U X	480 U X	460 U X	NA	430 UX X	450 U X	490 UX X	500 UX X
Butyl benzyl phthalate	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Carbazole	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Chrysene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Di-n-butyl phthalate	680 B X	770 B X	670 B X	NA	2000 B X	1500 B X	2500 B X	2000 B X
Di-n-octylphthalate	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Dibenz(a,h)anthracene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Dibenzofuran	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Diethyl phthalate	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Dimethyl phthalate	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Fluoranthene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Fluorene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Hexachlorobenzene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Hexachlorobutadiene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Hexachlorocyclopentadiene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB18S010	UFSB18S010D	UFSB18S015	UFSB18S017	UFSB19S005	UFSB19S010	UFSB19S015	UFSB19S020
Sample Date	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00
Sample Depth	5' - 10'	5' - 10'	10' - 15'	15' - 17'	1' - 5'	5' - 10'	10' - 15'	15' - 20'
Hexachloroethane	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Indeno(1,2,3-cd)pyrene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Isophorone	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
N-Nitroso-di-n-propylamine	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
N-Nitrosodimethylamine	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
N-Nitrosodiphenylamine	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Naphthalene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Nitrobenzene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Pentachlorophenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Phenanthrene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Phenol	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Pyrene	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Pyridine	480 U X	480 U X	460 U X	NA	430 U X	450 U X	490 U X	500 U X
Volatiles (µg/kg)								
1,1,1-Trichloroethane	10 JUX X	10 JUX X	10 JUX X	10 JU X	10 JU X	10 JU X	10 JU X	10 UX X
1,1,2,2-Tetrachloroethane	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
1,1,2-Trichloroethane	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
1,1-Dichloroethane	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
1,1-Dichloroethene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
1,2-Dichloroethane	10 UXY X	10 JUX X	10 UXY X	10 JU X	10 UY X	10 JU X	10 JU X	10 JUX X
1,2-Dichloropropane	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
1,2-Dimethylbenzene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
2-Butanone	10 JUXY X	10 UXY X	10 JUXY X	10 UY X	10 JUY X	10 JUY X	10 UY X	10 UXY X
2-Hexanone	10 JUX X	10 JUX X	10 JUX X	10 JU X	10 JU X	10 JU X	10 JU X	10 JUX X
4-Methyl-2-pentanone	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
Acetone	10 UX X	10 UX X	10 UX X	10 U X	43 X	10 JU X	10 U X	10 UX X
Benzene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UXY X
Bromodichloromethane	10 JUX X	10 JUX X	10 JUX X	10 JU X	10 JU X	10 JU X	10 JU X	10 JUX X
Bromoform	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
Bromomethane	10 JUX X	10 JUX X	10 JUX X	10 JU X	10 JU X	10 JU X	10 JU X	10 UX X
Carbon disulfide	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
Carbon tetrachloride	10 UXY X	10 JUXY X	10 UXY X	10 JUY X	10 UY X	10 JU X	10 JUY X	10 JUX X
Chlorobenzene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JUY X	10 U X	10 UXY X
Chloroethane	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
Chloroform	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UXY X
Chloromethane	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 JUX X
cis-1,2-Dichloroethene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB18S010	UFSB18S010D	UFSB18S015	UFSB18S017	UFSB19S005	UFSB19S010	UFSB19S015	UFSB19S020
Sample Date	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00	7/12/00
Sample Depth	5' - 10'	5' - 10'	10' - 15'	15' - 17'	1' - 5'	5' - 10'	10' - 15'	15' - 20'
cis-1,3-Dichloropropene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
Dibromochloromethane	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 JUX X
Dimethylbenzene	30 UX X	30 UX X	30 UX X	30 U X	30 U X	30 JU X	30 U X	30 UX X
Ethylbenzene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
m,p-Xylene	20 UX X	20 UX X	20 UX X	20 U X	20 U X	20 JU X	20 U X	20 UX X
Methylene chloride	10 UX X	10 JUX X	10 UX X	10 JU X	10 U X	10 JU X	10 JU X	10 UX X
Styrene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
Tetrachloroethene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JUY X	10 U X	10 UXY X
Toluene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
trans-1,2-Dichloroethene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
trans-1,3-Dichloropropene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 JUX X
Trichloroethene	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X
Vinyl acetate	10 JUX X	10 JUX X	10 JUX X	10 JU X	10 JU X	10 JU X	10 JU X	10 JUX X
Vinyl chloride	10 UX X	10 UX X	10 UX X	10 U X	10 U X	10 JU X	10 U X	10 UX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB20S005	UFSB20S005D	UFSB20S010	UFSB20S015	UFSB20S020	UFSB20S025
Sample Date	7/13/00	7/13/00	7/13/00	7/13/00	7/13/00	7/13/00
Sample Depth	1' - 5'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	20' - 25'
Inorganics (mg/kg)						
Aluminum	8870 *NW X	9000 *NW X	10600 *NW X	10800 *NW X	8050 *NW X	6080 *NW X
Antimony	20 *NU X	20 *NU X	20 *NU X	20 *NU X	20 *NU X	20 *NU X
Arsenic	5.28 W X	5 UW X	5.3 W X	5 UW X	5 BUW X	5 BUW X
Barium	83 X	83.5 X	144 X	81.9 X	33.6 X	15.3 X
Beryllium	0.5 U X	0.5 U X	0.5 U X	0.5 U X	0.62 X	0.5 U X
Cadmium	2 U X	2 U X	2 U X	2 U X	2 U X	2 U X
Calcium	1260 NW X	1170 NW X	1360 NW X	1100 NW X	668 NW X	347 NW X
Chromium	12.9 * X	14.1 * X	14 * X	17.1 * X	55 * X	12.7 * X
Copper	8.11 X	8.18 X	13.4 X	6.95 X	5.49 X	4.49 X
Lead	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Mercury	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X	0.2 U X
Nickel	8.2 X	8.02 X	18.7 X	10.6 X	8.97 X	5 U X
Selenium	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X	1 UW X
Silver	4 U X	4 U X	4 U X	4 U X	4 U X	4 U X
Thallium	20 U X	20 U X	20 U X	20 U X	20 U X	20 U X
Vanadium	27 *N X	24.4 *N X	23.5 *N X	25.2 *N X	48.7 *N X	15.2 *N X
Zinc	34.2 X	32.8 X	60.5 X	24.2 X	20 U X	20 U X
PCBs (mg/kg)						
PCB-1016	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1221	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1232	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1242	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1248	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1254	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1260	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
PCB-1268	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Polychlorinated biphenyl	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X	0.1 U X
Radionuclides (pCi/g)						
Activity of U-235	0.0478 U X	0.0492 U X	0.0445 U X	0.0721 X	-0.0422 U X	0.0327 U X
Alpha activity	4.55 X	4.45 X	5.12 X	3.29 X	5.69 X	3.65 X
Americium-241	0.0319 U X	0.0321 U X	0.0178 U X	0.028 U X	0.0338 U X	0.0145 U X
Americium-243	0.287 U X	0.318 U X	0.147 U X	0.231 U X	0.155 U X	0.0998 U X
Beta activity	5.36 X	3.45 X	3.45 X	3.13 X	2.51 X	1.79 X
Cesium-134	-0.00476 U X	-0.0291 U X	0.00701 U X	-0.0331 U X	0.0186 U X	-0.00763 U X
Cesium-137	-0.00485 U X	-0.0368 U X	-0.00145 U X	0.0163 U X	-0.0409 U X	-0.00299 U X
Cobalt-60	0.00524 U X	0.00238 U X	-0.00568 U X	0.017 U X	0.0349 U X	0.00785 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB20S005	UFSB20S005D	UFSB20S010	UFSB20S015	UFSB20S020	UFSB20S025
Sample Date	7/13/00	7/13/00	7/13/00	7/13/00	7/13/00	7/13/00
Sample Depth	1' - 5'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	20' - 25'
Mass of U-235 (g U-235/g)	0.00000002 U X	0.00000002 U X	0.00000002 U X	0.00000003 X	0 U X	0.00000001 U X
Neptunium-237	0.019 U X	0.0372 U X	-0.00619 U X	0.0361 U X	0.00341 U X	-0.037 U X
Neptunium-239	-0.254 U X	-0.479 U X	-0.133 U X	0.418 U X	-0.0746 U X	0.175 U X
Plutonium-238	-0.0801 U X	-0.0578 U X	-0.0698 U X	-0.045 U X	-0.0524 U X	-0.0999 U X
Plutonium-239/240	-0.00974 U X	-0.0103 U X	-0.024 U X	-0.0199 U X	0.00521 U X	-0.00839 U X
Potassium-40	11.1 X	13.3 X	9.77 X	6.88 X	3.9 X	1.98 X
Protactinium-234m	1.46 U X	4.73 U X	0.292 U X	3.46 U X	1.52 U X	0.274 U X
Radium-226	0.799 U X	0.0094 U X	0.556 U X	0.658 U X	0.492 U X	0.347 U X
Technetium-99	1.22 U X	0 U X	0.381 U X	0 U X	0 U X	0 U X
Thorium-228	0.47 X	0.474 X	0.588 X	0.412 X	0.37 X	0.14 X
Thorium-230	0.366 X	0.328 X	0.415 X	0.313 X	0.299 X	0.173 X
Thorium-232	0.465 X	0.502 X	0.586 X	0.337 X	0.426 X	0.21 X
Uranium	U X	U X	U X	0.109 U X	U X	U X
Uranium-234	U X	U X	U X	0.0368 U X	U X	U X
Uranium-235 (wt%)	X	X	X	X	X	X
Uranium-238	U X	U X	U X	0 U X	U X	U X
Semivolatiles (µg/kg)						
1,2,4-Trichlorobenzene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
1,2-Dichlorobenzene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
1,2-Diphenylhydrazine	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
1,3-Dichlorobenzene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
1,4-Dichlorobenzene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2,4,5-Trichlorophenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2,4,6-Trichlorophenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2,4-Dichlorophenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2,4-Dimethylphenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2,4-Dinitrophenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2,4-Dinitrotoluene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2,6-Dichlorophenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2,6-Dinitrotoluene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2-Chloronaphthalene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2-Chlorophenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2-Methyl-4,6-dinitrophenol	500 U X	470 U X	460 JU X	500 JU X	480 JU X	470 JU X
2-Methylnaphthalene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2-Methylphenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2-Nitrobenzenamine	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
2-Nitrophenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB20S005	UFSB20S005D	UFSB20S010	UFSB20S015	UFSB20S020	UFSB20S025
Sample Date	7/13/00	7/13/00	7/13/00	7/13/00	7/13/00	7/13/00
Sample Depth	1' - 5'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	20' - 25'
3,3'-Dichlorobenzidine	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
3-Nitrobenzenamine	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
4-Bromophenyl phenyl ether	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
4-Chloro-3-methylphenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
4-Chlorobenzenamine	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
4-Chlorophenyl phenyl ether	500 JU X	470 JU X	460 JU X	500 JU X	480 JU X	470 JU X
4-Methylphenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
4-Nitrobenzenamine	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
4-Nitrophenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Acenaphthene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Acenaphthylene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Anthracene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Benz(a)anthracene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Benzenemethanol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Benzo(a)pyrene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Benzo(b)fluoranthene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Benzo(ghi)perylene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Benzo(k)fluoranthene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Benzoic acid	500 JU X	470 JU X	460 U X	500 U X	480 U X	470 U X
Bis(2-chloroethoxy)methane	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Bis(2-chloroethyl) ether	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Bis(2-chloroisopropyl) ether	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Bis(2-ethylhexyl)phthalate	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Butyl benzyl phthalate	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Carbazole	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Chrysene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Di-n-butyl phthalate	500 U X	470 U X	460 UX X	500 U X	480 U X	470 U X
Di-n-octylphthalate	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Dibenz(a,h)anthracene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Dibenzofuran	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Diethyl phthalate	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Dimethyl phthalate	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Fluoranthene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Fluorene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Hexachlorobenzene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Hexachlorobutadiene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Hexachlorocyclopentadiene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB20S005	UFSB20S005D	UFSB20S010	UFSB20S015	UFSB20S020	UFSB20S025
Sample Date	7/13/00	7/13/00	7/13/00	7/13/00	7/13/00	7/13/00
Sample Depth	1' - 5'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	20' - 25'
Hexachloroethane	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Indeno(1,2,3-cd)pyrene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Isophorone	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
N-Nitroso-di-n-propylamine	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
N-Nitrosodimethylamine	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
N-Nitrosodiphenylamine	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Naphthalene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Nitrobenzene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Pentachlorophenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Phenanthrene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Phenol	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Pyrene	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Pyridine	500 U X	470 U X	460 U X	500 U X	480 U X	470 U X
Volatiles (µg/kg)						
1,1,1-Trichloroethane	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JUX X	10 JUX X
1,1,2,2-Tetrachloroethane	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
1,1,2-Trichloroethane	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
1,1-Dichloroethane	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
1,1-Dichloroethene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
1,2-Dichloroethane	10 UXY X	10 UY X	10 UY X	10 UXY X	10 UXY X	10 UXY X
1,2-Dichloropropane	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
1,2-Dimethylbenzene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
2-Butanone	10 JUXY X	10 JUY X	10 JUY X	10 JUXY X	10 JUXY X	10 JUXY X
2-Hexanone	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JUX X	10 JUX X
4-Methyl-2-pentanone	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Acetone	860 EX X	890 E X	10 U X	60 X X	22 X X	10 UX X
Benzene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Bromodichloromethane	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JUX X	10 JUX X
Bromoform	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Bromomethane	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JUX X	10 JUX X
Carbon disulfide	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Carbon tetrachloride	10 UXY X	10 UY X	10 UY X	10 UXY X	10 UXY X	10 UXY X
Chlorobenzene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Chloroethane	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Chloroform	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Chloromethane	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
cis-1,2-Dichloroethene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SUBSURFACE SOIL[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH GASEOUS DIFFUSION PLANT

PADUCAH, KY

Sample ID	UFSB20S005	UFSB20S005D	UFSB20S010	UFSB20S015	UFSB20S020	UFSB20S025
Sample Date	7/13/00	7/13/00	7/13/00	7/13/00	7/13/00	7/13/00
Sample Depth	1' - 5'	1' - 5'	5' - 10'	10' - 15'	15' - 20'	20' - 25'
cis-1,3-Dichloropropene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Dibromochloromethane	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Dimethylbenzene	30 UX X	30 U X	30 U X	30 UX X	30 UX X	30 UX X
Ethylbenzene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
m,p-Xylene	20 UX X	20 U X	20 U X	20 UX X	20 UX X	20 UX X
Methylene chloride	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Styrene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Tetrachloroethene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Toluene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
trans-1,2-Dichloroethene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
trans-1,3-Dichloropropene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Trichloroethene	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X
Vinyl acetate	10 JUX X	10 JU X	10 JU X	10 JUX X	10 JUX X	10 JUX X
Vinyl chloride	10 UX X	10 U X	10 U X	10 UX X	10 UX X	10 UX X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SURFACE WATER[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID Sample Date	UFSW01W000 7/17/00	UFSW02W000 7/17/00	UFSW02W000D 7/17/00	UFSW03W000 7/17/00
Inorganics (mg/L)	**Results [a]**	**Results**	**Results**	**Results**
Aluminum	0.256 N =	0.315 N =	0.409 N =	0.2 NU U
Antimony	0.2 U U	0.2 U U	0.2 U U	0.2 U U
Arsenic	0.2 U U	0.2 U U	0.2 U U	0.2 U U
Barium	0.152 =	0.085 =	0.118 =	0.148 =
Beryllium	0.005 U U	0.005 U U	0.005 U U	0.005 U U
Cadmium	0.02 U U	0.026 =	0.028 =	0.021 =
Calcium	68.3 N =	67.4 N =	92.7 N =	144 N =
Chromium	0.025 U U	0.025 U U	0.025 U U	0.025 U U
Copper	0.025 U U	0.025 U U	0.025 U U	0.025 U U
Lead	0.2 BNU U	0.2 BNU U	0.2 BNU U	0.2 BNU U
Mercury	0.0002 NU U	0.0002 NU U	0.0002 NU U	0.0002 NU U
Nickel	0.025 U U	0.052 =	0.05 =	0.025 U U
Selenium	0.2 JNU U	0.2 JNU U	0.2 JNU U	0.2 JU U
Silver	0.025 U U	0.025 U U	0.025 U U	0.025 U U
Thallium	0.2 NU U	0.2 NU U	0.2 NU U	0.2 NU U
Vanadium	0.025 U U	0.025 U U	0.025 U U	0.025 U U
Zinc	0.2 NU U	0.2 NU U	0.2 NU U	0.2 NU U
PCBs (µg/L)				
PCB-1016	0.17 U U	0.17 U U	0.17 U U	0.2 U U
PCB-1221	0.17 U U	0.17 U U	0.17 U U	0.2 U U
PCB-1232	0.17 U U	0.17 U U	0.17 U U	0.17 U U
PCB-1242	0.17 U U	0.17 U U	0.17 U U	0.19 U U
PCB-1248	0.17 U U	0.17 U U	0.17 U U	0.19 U U
PCB-1254	0.17 U U	0.17 U U	0.17 U U	0.15 U U
PCB-1260	0.17 U U	0.17 U U	0.17 U U	0.2 U U
PCB-1268	0.17 U U	0.17 U U	0.17 U U	0.1 U U
Polychlorinated biphenyl	0.17 U U	0.17 U U	0.17 U U	0.2 UX U
Radionuclides (pCi/L)				
Activity of U-235	0 U U	-5.64 U U	0 U U	0 U U
Alpha activity (pCi/ml)	-0.02 U U	-0.01 U U	0 U U	-0.02 U U
Americium-241	18.4 U U	-2.41 U U	5.92 U U	-13.6 U U
Americium-243	1.5 U U	-1.45 U U	6.76 U U	-2.25 U U
Cesium-134	-2.58 U R	18.7 U R	-11.3 U R	5.96 U R
Cesium-137	-10.2 U U	-2.09 U U	-0.282 U U	3.3 U U
Cobalt-60	-7.3 U U	2.52 U U	1.65 U U	-0.722 U U
Mass of U-235 (gU-235/L)	0 U U	-0.0000026 U U	0 U	0 U U
Neptunium-237	-1.62 U U	-3.59 U U	5.54 U U	2.96 U U
Neptunium-239	-3.24 U U	-80.9 U U	-6.4 U U	-9.14 U U
Plutonium-238	-.0472 U U	-.0620 U U	0.135 U U	0.0363 UT U
Plutonium-239/240	-0.00589 U U	-.0218 U U	-.0194 U U	-0.104 UT U
Potassium-40	-316 U U	-116 U U	-15.5 U U	-231 U U
Protactinium-234m	2520 U U	1470 U U	924 U U	2890 U U
Radium-226	-3.91 U U	68.8 U U	210 U U	27.1 U U
Technetium-99	9.86 U U	38.1 =	28.9 =	29.5 =
Thorium-228	-.0558 U U	-.0960 U U	-.0231 U U	0.0542 U U
Thorium-230	-.0616 U U	-.0657 U U	-.0941 U U	-0.00941 U U
Thorium-232	-0.0309 U U	-.0221 U U	-.00491 U U	-0.00296 U U
Uranium	U X	U X	U X	U X
Uranium-234	U X	U X	U X	U X
Uranium-235 (wt%)	X	X	X	X
Uranium-238	U X	U X	U X	U X
Semivolatiles (µg/L)				
1,2,4-Trichlorobenzene	5 U U	5 U U	5 U U	5 U U
1,2-Dichlorobenzene	5 U U	5 U U	5 U U	5 U U

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and the validation qualifer respectively

APPENDIX G
ANALYTICAL RESULTS - SURFACE WATER[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID Sample Date	UFSW01W000 7/17/00	UFSW02W000 7/17/00	UFSW02W000D 7/17/00	UFSW03W000 7/17/00
1,2-Diphenylhydrazine	5 U U	5 U U	5 U U	5 U U
1,3-Dichlorobenzene	5 U U	5 U U	5 U U	5 U U
1,4-Dichlorobenzene	5 U U	5 U U	5 U U	5 U U
2,4,5-Trichlorophenol	5 U U	5 U U	5 U U	5 U U
2,4,6-Trichlorophenol	5 U U	5 U U	5 U U	5 U U
2,4-Dichlorophenol	5 U U	5 U U	5 U U	5 U U
2,4-Dimethylphenol	5 U U	5 U U	5 U U	5 U U
2,4-Dinitrophenol	5 U U	5 U U	5 U U	5 U U
2,4-Dinitrotoluene	5 U U	5 U U	5 U U	5 U U
2,6-Dichlorophenol	5 U U	5 U U	5 U U	5 U U
2,6-Dinitrotoluene	5 U U	5 U U	5 U U	5 U U
2-Chloronaphthalene	5 U U	5 U U	5 U U	5 U U
2-Chlorophenol	5 U U	5 U U	5 U U	5 U U
2-Methyl-4,6-dinitrophenol	5 JU UJ	5 JU UJ	5 JU UJ	5 JU UJ
2-Methylnaphthalene	5 U U	5 U U	5 U U	5 U U
2-Methylphenol	5 JU UJ	5 JU UJ	5 JU UJ	5 JU UJ
2-Nitrobenzenamine	5 U U	5 U U	5 U U	5 U U
2-Nitrophenol	5 U U	5 U U	5 U U	5 U U
3,3'-Dichlorobenzidine	5 U U	5 U U	5 U U	5 U U
3-Nitrobenzenamine	5 U U	5 U U	5 U U	5 U U
4-Bromophenyl phenyl ether	5 U U	5 U U	5 U U	5 U U
4-Chloro-3-methylphenol	5 U U	5 U U	5 U U	5 U U
4-Chlorobenzenamine	5 U U	5 U U	5 U U	5 U U
4-Chlorophenyl phenyl ether	5 JU UJ	5 JU UJ	5 JU UJ	5 JU UJ
4-Methylphenol	5 JU UJ	5 JU UJ	5 JU UJ	5 JU UJ
4-Nitrobenzenamine	5 U U	5 U U	5 U U	5 U U
4-Nitrophenol	5 U U	5 U U	5 U U	5 U U
Acenaphthene	5 U U	5 U U	5 U U	5 U U
Acenaphthylene	5 U U	5 U U	5 U U	5 U U
Anthracene	5 U U	5 U U	5 U U	5 U U
Benz(a)anthracene	5 U U	5 U U	5 U U	5 U U
Benzenemethanol	5 UX J	5 UX J	5 UX J	5 UX J
Benzo(a)pyrene	5 U U	5 U U	5 U U	5 U U
Benzo(b)fluoranthene	5 U U	5 U U	5 U U	5 U U
Benzo(ghi)perylene	5 U U	5 U U	5 U U	5 U U
Benzo(k)fluoranthene	5 U U	5 U U	5 U U	5 U U
Benzoic acid	5 JU UJ	5 JU UJ	5 JU UJ	5 JU UJ
Bis(2-chloroethoxy)methane	5 U U	5 U U	5 U U	5 U U
Bis(2-chloroethyl) ether	5 U U	5 U U	5 U U	5 U U
Bis(2-chloroisopropyl) ether	5 U U	5 U U	5 U U	5 U U
Bis(2-ethylhexyl)phthalate	5 U U	5 U U	5 U U	5 U U
Butyl benzyl phthalate	5 U U	5 U U	5 U U	5 U U
Carbazole	5 U U	5 U U	5 U U	5 U U
Chrysene	5 U U	5 U U	5 U U	5 U U
Di-n-butyl phthalate	5 U U	5 U U	5 U U	5 U U
Di-n-octylphthalate	5 U U	5 U U	5 U U	5 U U
Dibenz(a,h)anthracene	5 U U	5 U U	5 U U	5 U U
Dibenzofuran	5 U U	5 U U	5 U U	5 U U
Diethyl phthalate	5 U U	5 U U	5 U U	5 U U
Dimethyl phthalate	5 U U	5 U U	5 U U	5 U U
Fluoranthene	5 U U	5 U U	5 U U	5 U U
Fluorene	5 U U	5 U U	5 U U	5 U U
Hexachlorobenzene	5 U U	5 U U	5 U U	5 U U
Hexachlorobutadiene	5 U U	5 U U	5 U U	5 U U
Hexachlorocyclopentadiene	5 U U	5 U U	5 U U	5 U U

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and the validation qualifer respectively

APPENDIX G
ANALYTICAL RESULTS - SURFACE WATER[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH GASEOUS DIFFUSION PLANT
PADUCAH, KY

Sample ID Sample Date	UFSW01W000 7/17/00	UFSW02W000 7/17/00	UFSW02W000D 7/17/00	UFSW03W000 7/17/00
Hexachloroethane	5 U U	5 U U	5 U U	5 U U
Indeno(1,2,3-cd)pyrene	5 U U	5 U U	5 U U	5 U U
Isophorone	5 U U	5 U U	5 U U	5 U U
N-Nitroso-di-n-propylamine	5 U U	5 U U	5 U U	5 U U
N-Nitrosodimethylamine	5 U U	5 U U	5 U U	5 U U
N-Nitrosodiphenylamine	5 U U	5 U U	5 U U	5 U U
Naphthalene	5 U U	5 U U	5 U U	5 U U
Nitrobenzene	5 JU UJ	5 JU UJ	5 JU UJ	5 JU UJ
Pentachlorophenol	5 U U	5 U U	5 U U	5 U U
Phenanthrene	5 U U	5 U U	5 U U	5 U U
Phenol	5 U U	5 U U	5 U U	5 U U
Pyrene	5 U U	5 U U	5 U U	5 U U
Pyridine	5 UY U	5 UY U	5 UY U	5 UY U
Volatiles (µg/L)				
1,1,1-Trichloroethane	5 U U	5 U U	5 U U	5 U U
1,1,2,2-Tetrachloroethane	5 U U	5 U U	5 U U	5 U U
1,1,2-Trichloroethane	5 U U	5 U U	5 U U	5 U U
1,1-Dichloroethane	5 U U	5 U U	5 U U	5 U U
1,1-Dichloroethene	5 U U	5 U U	5 U U	5 U U
1,2-Dichloroethane	5 U U	5 U U	5 U U	5 U U
1,2-Dichloropropane	5 U U	5 U U	5 U U	5 U U
1,2-Dimethylbenzene	5 U U	5 U U	5 U U	5 U U
2-Butanone	10 U U	10 U U	10 U U	10 U U
2-Hexanone	10 U U	10 U U	10 U U	10 U U
4-Methyl-2-pentanone	10 U U	10 U U	10 U U	10 U U
Acetone	10 U U	10 U U	10 U U	10 U U
Benzene	5 U U	5 U U	5 U U	5 U U
Bromodichloromethane	5 U U	5 U U	5 U U	5 U U
Bromoform	5 U U	5 U U	5 U U	5 U U
Bromomethane	5 U U	5 U U	5 U U	5 U U
Carbon disulfide	5 U U	5 U U	5 U U	5 U U
Carbon tetrachloride	5 U U	5 U U	5 U U	5 U U
Chlorobenzene	5 U U	5 U U	5 U U	5 U U
Chloroethane	5 U U	5 U U	5 U U	5 U U
Chloroform	5 U U	5 U U	5 U U	5 U U
Chloromethane	5 U U	5 U U	5 U U	5 U U
cis-1,2-Dichloroethene	5 U U	5 U U	5 U U	5 U U
cis-1,3-Dichloropropene	5 U U	5 U U	5 U U	5 U U
Dibromochloromethane	5 U U	5 U U	5 U U	5 U U
Dimethylbenzene	15 U X	15 U X	15 U X	15 U X
Ethylbenzene	5 U U	5 U U	5 U U	5 U U
m,p-Xylene	10 U U	10 U U	10 U U	10 U U
Methylene chloride	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ
Styrene	5 U U	5 U U	5 U U	5 U U
Tetrachloroethene	5 U U	5 U U	5 U U	5 U U
Toluene	5 U U	5 U U	5 U U	5 U U
trans-1,2-Dichloroethene	5 U U	5 U U	5 U U	5 U U
trans-1,3-Dichloropropene	5 U U	5 U U	5 U U	5 U U
Trichloroethene	1 U U	1 U U	1 U U	1 U U
Vinyl acetate	X X	X X	X X	X X
Vinyl chloride	5 U U	5 U U	5 U U	5 U U

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and the validation qualifer respectively

APPENDIX G

ANALYTICAL RESULTS - SEDIMENT[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH DIFFUSION PLANT

PADUCAH, KY

Sample ID Sample Date	UFSS01S000 7/17/00	UFSS02S000 7/17/00	UFSS03S000 7/17/00	UFSS03S000D 7/17/00	UFSS04S000 7/17/00
Inorganics (mg/kg)					
Aluminum	9240 *NW =	4380 *NW =	4350 *NW =	3610 *NW =	10800 *NW =
Antimony	20 NU UJ	20 NU UJ	20 NU UJ	20 NU UJ	20 NU UJ
Arsenic	5 UW UJ	5 UW U	5 UW UJ	5 UW UJ	5 UW UJ
Barium	84.7 *N J	41.7 *N J	39.2 *N J	42.1 *N J	71.6 *N J
Beryllium	0.54 =	0.5 U U	0.5 U U	0.5 U U	0.5 U U
Cadmium	2 U U	2 U U	2 U U	2 U U	2 U U
Calcium	2040 *N J	2400 *N J	74400 *N J	66400 *N J	4380 *N J
Chromium	12.5 N J	8.26 N J	38.2 N J	78 N J	14.2 N J
Copper	10.6 =	6.47 =	10.2 =	11 =	12.6 =
Lead	21.2 =	20 U U	137 =	269 =	20 U U
Mercury	0.2 U U	0.2 U U	0.2 U U	0.2 U U	0.2 U U
Nickel	13.5 =	7.41 =	11 =	9.43 =	12.7 =
Selenium	1 NUW U	1 NUW U	1 NUW U	1 NUW U	1 NUW U
Silver	4 U U	4 U U	4 U U	4 U U	4 U U
Thallium	20 NU U	20 NU U	20 ENU U	20 ENU U	20 NU U
Vanadium	29.1 W =	11.6 W =	13.3 W =	9.24 W =	22.3 W =
Zinc	44.5 N J	134 N J	404 N J	514 N J	79.8 N J
PCBs (mg/kg)					
PCB-1016	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U
PCB-1221	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U
PCB-1232	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U
PCB-1242	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U
PCB-1248	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U
PCB-1254	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U
PCB-1260	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U
PCB-1268	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U
Polychlorinated biphenyl	0.1 U U	0.1 U U	0.1 U U	0.1 U U	0.1 U U
Radionuclides (pCi/g)					
Activity of U-235	0.0351 U U	0.0175 U U	0.0212 U U	-0.00282 U U	0.113 U UJ
Alpha activity	4.65 =	3.6 =	0.51 U U	1.25 U U	7.21 =
Americium-241	0.00543 U U	0.0025 U U	-0.00114 U U	0.0377 U U	-0.013 U U
Americium-243	0.119 U U	0.107 U U	0.0702 U U	0.0852 U U	0.205 U U
Beta activity	3.04 =	3.51 =	2.16 =	2.35 =	8.02 =
Cesium-134	-0.00289 U R	0.00375 U R	0.014 U R	-0.00328 U R	-0.00771 U R
Cesium-137	-0.0177 U U	0.0621 =	0.00832 U U	0.0356 =	0.42 =
Cobalt-60	-0.00681 U U	0.00458 U U	0.00881 U U	-0.0105 U U	0.000207 U U
Mass of U-235 (g U-235/g)	0.00000001 =	0 U U	0 U U	0 U U	0.00000005 =
Neptunium-237	-0.00525 U U	0.00681 U U	0.00808 U U	-0.000906 U U	0.0298 U U

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SEDIMENT[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID Sample Date	UFSS01S000 7/17/00	UFSS02S000 7/17/00	UFSS03S000 7/17/00	UFSS03S000D 7/17/00	UFSS04S000 7/17/00
Neptunium-239	0.0376 U U	-0.0403 U U	0.038 U U	-0.0827 U U	0.0478 U U
Plutonium-238	-0.0166 U U	-0.0761 U U	-0.0592 U U	-0.0502 U U	-0.0591 U U
Plutonium-239/240	-0.00591 U U	0.0107 U U	0.00444 U U	-0.000907 U U	0.00633 U U
Potassium-40	5.77 =	4.74 =	3.31 =	2.84 =	8.44 =
Protactinium-234m	1.39 U U	1.9 U U	-0.191 U U	0.942 U U	3.76 U U
Radium-226	0.499 U U	0.333 U U	0.316 U U	0.416 U U	0.546 U U
Technetium-99	0.469 U U	0.494 U U	0.81 U U	1.35 U U	0.64 U U
Thorium-228	0.248 =	0.161 =	0.081 =	0.0932 =	0.425 =
Thorium-230	0.236 =	0.149 =	0.285 =	0.263 =	0.395 =
Thorium-232	0.262 =	0.128 =	0.0654 =	0.0656 =	0.426 =
Uranium	1.75 U U	U X	U X	U X	4.97 U U
Uranium-234	0.609 U U	U X	U X	U X	2.19 U U
Uranium-235 (wt%)	0.49 =	X	X	X	0.65 =
Uranium-238	1.11 U U	U X	U X	U X	2.67 U U
Semivolatiles (µg/kg)					
1,2,4-Trichlorobenzene	470 U U	470 U U	460 U U	490 U U	490 U U
1,2-Dichlorobenzene	470 U U	470 U U	460 U U	490 U U	490 U U
1,2-Diphenylhydrazine	470 U U	470 U U	460 U U	490 U U	490 U U
1,3-Dichlorobenzene	470 U U	470 U U	460 U U	490 U U	490 U U
1,4-Dichlorobenzene	470 U U	470 U U	460 U U	490 U U	490 U U
2,4,5-Trichlorophenol	470 U U	470 U U	460 U U	490 U U	490 U U
2,4,6-Trichlorophenol	470 U U	470 U U	460 U U	490 U U	490 U U
2,4-Dichlorophenol	470 U U	470 U U	460 U U	490 U U	490 U U
2,4-Dimethylphenol	470 U U	470 U U	460 U U	490 U U	490 U U
2,4-Dinitrophenol	470 U U	470 U U	460 U U	490 U U	490 U U
2,4-Dinitrotoluene	470 U U	470 U U	460 U U	490 U U	490 U U
2,6-Dichlorophenol	470 U U	470 U U	460 U U	490 U U	490 U U
2,6-Dinitrotoluene	470 U U	470 U U	460 U U	490 U U	490 U U
2-Chloronaphthalene	470 U U	470 U U	460 U U	490 U U	490 U U
2-Chlorophenol	470 U U	470 U U	460 U U	490 U U	490 U U
2-Methyl-4,6-dinitrophenol	470 U U	470 U U	460 U U	490 U U	490 U U
2-Methylnaphthalene	470 U U	470 U U	460 U U	490 U U	490 U U
2-Methylphenol	470 U U	470 U U	460 U U	490 U U	490 U U
2-Nitrobenzenamine	470 U U	470 U U	460 U U	490 U U	490 U U
2-Nitrophenol	470 U U	470 U U	460 U U	490 U U	490 U U
3,3'-Dichlorobenzidine	470 U U	470 U U	460 U U	490 U U	490 U U
3-Nitrobenzenamine	470 U U	470 U U	460 U U	490 U U	490 U U
4-Bromophenyl phenyl ether	470 U U	470 U U	460 U U	490 U U	490 U U
4-Chloro-3-methylphenol	470 U U	470 U U	460 U U	490 U U	490 U U

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SEDIMENT[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID Sample Date	UFSS01S000 7/17/00	UFSS02S000 7/17/00	UFSS03S000 7/17/00	UFSS03S000D 7/17/00	UFSS04S000 7/17/00
4-Chlorobenzenamine	470 U U	470 U U	460 U U	490 U U	490 U U
4-Chlorophenyl phenyl ether	470 U U	470 U U	460 U U	490 U U	490 U U
4-Methylphenol	470 U U	470 U U	460 U U	490 U U	490 U U
4-Nitrobenzenamine	470 U U	470 U U	460 U U	490 U U	490 U U
4-Nitrophenol	470 U U	470 U U	460 U U	490 U U	490 U U
Acenaphthene	470 U U	470 U U	460 U U	490 U U	490 U U
Acenaphthylene	470 U U	470 U U	460 U U	490 U U	490 U U
Anthracene	470 U U	470 U U	460 U U	490 U U	490 U U
Benz(a)anthracene	470 U U	470 U U	460 U U	490 U U	490 U U
Benzenemethanol	470 U U	470 U U	460 U U	490 U U	490 U U
Benzo(a)pyrene	470 JU UJ	470 JU UJ	460 JU UJ	490 JUX J	490 U U
Benzo(b)fluoranthene	470 JU UJ	470 JU UJ	460 JU UJ	490 JUX J	490 U U
Benzo(ghi)perylene	470 JU UJ	470 JU UJ	460 JU UJ	490 JU UJ	490 U U
Benzo(k)fluoranthene	470 JU UJ	470 JU UJ	460 JU UJ	490 JUX J	490 U U
Benzoic acid	470 U U	470 U U	460 U U	490 U U	490 U U
Bis(2-chloroethoxy)methane	470 U U	470 U U	460 U U	490 U U	490 U U
Bis(2-chloroethyl) ether	470 U U	470 U U	460 U U	490 U U	490 U U
Bis(2-chloroisopropyl) ether	470 U U	470 U U	460 U U	490 U U	490 U U
Bis(2-ethylhexyl)phthalate	470 U U	470 U U	460 UX J	490 U J	490 U U
Butyl benzyl phthalate	470 U U	470 U U	460 U U	490 U U	490 U U
Carbazole	470 U U	470 U U	460 U U	490 U U	490 U U
Chrysene	470 U U	470 U U	460 U U	490 UX J	490 U U
Di-n-butyl phthalate	1700 B U	12000 BE =	2600 B U	680 B U	750 B U
Di-n-octylphthalate	470 U U	470 U U	460 U U	490 U U	490 U U
Dibenz(a,h)anthracene	470 JU UJ	470 JU UJ	460 JU UJ	490 JU UJ	490 U U
Dibenzofuran	470 U U	470 U U	460 U U	490 U U	490 U U
Diethyl phthalate	470 U U	470 U U	460 U U	490 U U	490 U U
Dimethyl phthalate	470 U U	470 U U	460 U U	490 U U	490 U U
Fluoranthene	470 U U	470 U U	460 U U	490 U U	490 U U
Fluorene	470 U U	470 U U	460 U U	490 U U	490 U U
Hexachlorobenzene	470 U U	470 U U	460 U U	490 U U	490 U U
Hexachlorobutadiene	470 U U	470 U U	460 U U	490 U U	490 U U
Hexachlorocyclopentadiene	470 U U	470 U U	460 U U	490 U U	490 U U
Hexachloroethane	470 UY U	470 UY U	460 UY U	490 UY U	490 UY U
Indeno(1,2,3-cd)pyrene	470 JU UJ	470 JU UJ	460 JU UJ	490 JU UJ	490 U U
Isophorone	470 U U	470 U U	460 U U	490 U U	490 U U
N-Nitroso-di-n-propylamine	470 U U	470 U U	460 U U	490 U U	490 U U
N-Nitrosodimethylamine	470 U U	470 U U	460 U U	490 U U	490 U U
N-Nitrosodiphenylamine	470 U U	470 U U	460 U U	490 U U	490 U U

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS - SEDIMENT[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID Sample Date	UFSS01S000 7/17/00	UFSS02S000 7/17/00	UFSS03S000 7/17/00	UFSS03S000D 7/17/00	UFSS04S000 7/17/00
Naphthalene	470 U U	470 U U	460 U U	490 U U	490 U U
Nitrobenzene	470 U U	470 U U	460 U U	490 U U	490 U U
Pentachlorophenol	470 U U	470 U U	460 U U	490 U U	490 U U
Phenanthrene	470 U U	470 U U	460 U U	490 U U	490 U U
Phenol	470 U U	470 U U	460 U U	490 U U	490 U U
Pyrene	470 U U	470 U U	460 UX J	490 UX J	490 U U
Pyridine	470 U U	470 U U	460 U U	490 U U	490 U U
Volatiles (µg/kg)					
1,1,1-Trichloroethane	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
1,1,2,2-Tetrachloroethane	10 U U	10 U U	10 U U	10 JU UJ	10 JU UJ
1,1,2-Trichloroethane	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
1,1-Dichloroethane	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
1,1-Dichloroethene	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
1,2-Dichloroethane	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
1,2-Dichloropropane	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
1,2-Dimethylbenzene	10 U U	10 U U	10 U U	10 JU UJ	10 JU UJ
2-Butanone	10 UY R	10 UY R	10 UY R	10 JUY R	10 JUY R
2-Hexanone	10 U UJ	10 U UJ	10 U UJ	10 JU UJ	10 JU UJ
4-Methyl-2-pentanone	10 U U	10 U U	10 U U	10 JU UJ	10 JU UJ
Acetone	10 U R	10 U R	10 U R	10 JU R	10 JU R
Benzene	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Bromodichloromethane	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Bromoform	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Bromomethane	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ
Carbon disulfide	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Carbon tetrachloride	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ
Chlorobenzene	10 U U	10 U U	10 U U	10 JU UJ	10 JU UJ
Chloroethane	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Chloroform	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Chloromethane	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
cis-1,2-Dichloroethene	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
cis-1,3-Dichloropropene	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Dibromochloromethane	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Dimethylbenzene	30 U X	30 U X	30 U X	30 JU X	30 JU X
Ethylbenzene	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
m,p-Xylene	20 U U	20 U U	20 U U	20 JU UJ	20 JU UJ
Methylene chloride	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Styrene	10 U U	10 U U	10 U U	10 JU UJ	10 JU UJ
Tetrachloroethene	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G

ANALYTICAL RESULTS - SEDIMENT[a]

DUF6 CONVERSION FACILITY SITE CHARACTERIZATION

PADUCAH DIFFUSION PLANT

PADUCAH, KY

Sample ID Sample Date	UFSS01S000 7/17/00	UFSS02S000 7/17/00	UFSS03S000 7/17/00	UFSS03S000D 7/17/00	UFSS04S000 7/17/00
Toluene	10 U U	10 U U	10 U U	10 JU UJ	10 JU UJ
trans-1,2-Dichloroethene	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ
trans-1,3-Dichloropropene	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Trichloroethene	10 U U	10 U U	10 U U	10 JU U	10 JU UJ
Vinyl acetate	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ	10 JU UJ
Vinyl chloride	10 U U	10 U U	10 U U	10 JU U	10 JU UJ

[a]Result field consists of lab result followed by the result qualifier and validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC001E	UFQC001F	UFQC001T	UFQC005E	UFQC005F	UFQC005T	UFQC007T	UFQC008E	UFQC008F	UFQC009E	UFQC009F
Sample Date	21-Jul-00	21-Jul-00	12-Jul-00	19-Jul-00	19-Jul-00	19-Jul-00	20-Jul-00	10-Jul-00	10-Jul-00	10-Jul-00	10-Jul-00
Associated Sample	UFSB00-02	UFSB00-02	UFSB00-01	UFSB00-07	UFSB00-07	UFSB00-03	UFSB00-04	UFSB00-13	UFSB00-13	UFSB00-14	UFSB00-14
Inorganics (mg/L)	**Results [a]**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**
Aluminum	0.2 NU X	0.2 NU X	NA	1.09 N X	0.2 NU X	NA	NA	0.2 NU X	0.2 NU X	0.2 NU X	0.2 NU X
Antimony	0.2 NU X	0.2 NU X	NA	0.2 NU X	0.2 NU X	NA	NA	0.2 U X	0.2 U X	0.2 U X	0.2 U X
Arsenic	0.005 BNUW X	0.011 BNW X	NA	0.005 NUW X	0.006 NW X	NA	NA	0.005 U X	0.005 U X	0.005 U X	0.005 U X
Barium	0.025 NU X	0.025 NU X	NA	0.025 NU X	0.025 NU X	NA	NA	0.025 U X	0.025 U X	0.025 U X	0.025 U X
Beryllium	0.005 U X	0.005 U X	NA	0.005 U X	0.005 U X	NA	NA	0.005 U X	0.005 U X	0.005 U X	0.005 U X
Cadmium	0.02 U X	0.02 U X	NA	0.02 U X	0.02 U X	NA	NA	0.02 U X	0.02 U X	0.02 U X	0.02 U X
Calcium	1 NU X	1 NU X	NA	1 NU X	1 NU X	NA	NA	1 U X	1 U X	1 U X	1 U X
Chromium	0.025 U X	0.025 U X	NA	0.025 U X	0.025 U X	NA	NA	0.025 U X	0.025 U X	0.025 U X	0.025 U X
Copper	0.025 BU X	0.025 BU X	NA	0.025 BU X	0.025 BU X	NA	NA	0.025 BU X	0.025 BU X	0.025 BU X	0.025 BU X
Lead	0.2 NU X	0.2 NU X	NA	0.2 NU X	0.2 NU X	NA	NA	0.2 NU X	0.2 NU X	0.2 NU X	0.2 NU X
Mercury	0.0002 NU X	0.0002 NU X	NA	0.0002 NU X	0.0002 NU X	NA	NA	0.0002 U X	0.0002 U X	0.0002 U X	0.0002 U X
Nickel	0.025 U X	0.025 U X	NA	0.025 U X	0.025 U X	NA	NA	0.025 U X	0.025 U X	0.025 U X	0.025 U X
Selenium	0.005 NUW X	0.005 NUW X	NA	0.005 NUW X	0.005 NUW X	NA	NA	0.005 NUW X	0.005 NUW X	0.005 NUW X	0.005 NUW X
Silver	0.025 U X	0.025 U X	NA	0.025 U X	0.025 U X	NA	NA	0.025 BU X	0.025 BU X	0.025 BU X	0.025 BU X
Thallium	0.2 NU X	0.2 NU X	NA	0.2 NU X	0.2 NU X	NA	NA	0.2 U X	0.2 U X	0.2 U X	0.2 U X
Vanadium	0.025 U X	0.025 U X	NA	0.025 U X	0.025 U X	NA	NA	0.025 U X	0.025 U X	0.025 U X	0.025 U X
Zinc	0.2 U X	0.2 U X	NA	0.2 U X	0.2 U X	NA	NA	0.2 U X	0.2 U X	0.2 U X	0.2 U X
PCBs (µg/L)											
PCB-1016	0.16 U X	0.17 UX X	NA	0.16 U X	0.17 U X	NA	NA	0.16 JU X	0.17 JU X	0.16 JU X	0.16 JU X
PCB-1221	0.16 U X	0.17 UX X	NA	0.16 U X	0.17 U X	NA	NA	0.16 JU X	0.17 JU X	0.16 JU X	0.16 JU X
PCB-1232	0.14 U X	0.15 UX X	NA	0.14 U X	0.15 U X	NA	NA	0.14 JU X	0.15 JU X	0.14 JU X	0.14 JU X
PCB-1242	0.15 U X	0.16 UX X	NA	0.15 U X	0.16 U X	NA	NA	0.15 JU X	0.16 JU X	0.15 JU X	0.15 JU X
PCB-1248	0.15 U X	0.16 UX X	NA	0.15 U X	0.16 U X	NA	NA	0.15 JU X	0.16 JU X	0.15 JU X	0.15 JU X
PCB-1254	0.12 U X	0.13 UX X	NA	0.12 U X	0.13 U X	NA	NA	0.12 JU X	0.13 JU X	0.12 JU X	0.12 JU X
PCB-1260	0.16 U X	0.17 UX X	NA	0.16 U X	0.17 U X	NA	NA	0.16 JU X	0.17 JU X	0.16 JU X	0.16 JU X
PCB-1268	0.08 U X	0.09 UX X	NA	0.08 U X	0.09 U X	NA	NA	0.08 JU X	0.08 JU X	0.08 JU X	0.08 JU X
Polychlorinated biphenyl	0.16 U X	0.17 UX X	NA	0.16 U X	0.17 UX X	NA	NA	0.16 JU X	0.17 JU X	0.16 JU X	0.16 JU X
Radionuclides (pCi/L)											
Activity of U-235	0 U X	0 U X	NA	0 U X	0 U X	NA	NA	0 U X	0 U X	0 U X	0 U X
Alpha activity (pCi/ml)	0.02 DU X	0.03 DU X	NA	0 U X	-0.01 U X	NA	NA	-0.04 DU X	0.02 DU X	-0.02 DU X	0.03 DU X
Americium-241	2.95 U X	-6.72 U X	NA	-13.7 U X	-37 U X	NA	NA	-12.9 U X	52 U X	-8.21 U X	-27.7 U X
Americium-243	-7.84 U X	-6.5 U X	NA	-1.67 U X	-1.84 U X	NA	NA	-3.98 U X	-14.2 U X	-4.35 U X	-12 U X
Beta activity (pCi/ml)	0 U X	0 U X	NA	-0.01 U X	0.02 U X	NA	NA	0.6 X	0.56 X	0.52 X	0.35 X
Cesium-134	-10 U X	2.83 U X	NA	-11 U X	-0.726 U X	NA	NA	-2.7 U X	-2.78 U X	4.61 U X	-13.6 U X
Cesium-137	-7.85 U X	1.88 U X	NA	3.55 U X	13 U X	NA	NA	6.14 U X	4.25 U X	-2.08 U X	24.9 U X
Cobalt-60	-16.4 U X	0.814 U X	NA	-1.57 U X	-1.38 U X	NA	NA	11 U X	1.37 U X	12.2 U X	-4.71 U X
Mass of U-235 (g U-235/L)	0 U X	0 U X	NA	0 U X	0 U X	NA	NA	0 U X	0 U X	0 U X	0 U X
Neptunium-237	-9.36 U X	-2.4 U X	NA	-15.6 U X	16.7 U X	NA	NA	15.2 U X	36.4 U X	6.65 U X	-4.98 U X
Neptunium-239	-32.2 U X	-29.3 U X	NA	23.5 U X	-21.6 U X	NA	NA	23.1 U X	12.3 U X	53.8 U X	-18.6 U X
Plutonium-238	-0.059 U X	0.254 U X	NA	0.238 T X	-0.0312 UT X	NA	NA	-0.113 U X	-0.0131 U X	-0.0192 U X	-0.0374 U X
Plutonium-239/240	-0.175 U X	-0.282 U X	NA	0.00476 UT X	-0.0159 UT X	NA	NA	-0.0272 U X	0.0239 U X	0.00475 U X	0.0255 U X
Potassium-40	-155 U X	-163 U X	NA	157 U X	-68 U X	NA	NA	-61.9 U X	-112 U X	39.3 U X	481 U X
Protactinium-234m	2210 U X	-190 U X	NA	1580 U X	-203 U X	NA	NA	155 U X	-1420 U X	472 U X	2300 U X
Radium-226	-13 U X	27 U X	NA	62.4 U X	13.6 U X	NA	NA	22.1 U X	-87.9 U X	40 U X	-36.2 U X
Technetium-99	5.81 U X	5.63 U X	NA	8.74 U X	0 U X	NA	NA	0 U X	11.4 U X	0 U X	4.21 U X
Thorium-228	-0.76 U X	-0.764 U X	NA	0.053 U X	0.0615 UT X	NA	NA	-0.00705 U X	-0.0344 U X	0.015 U X	-0.0427 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC001E	UFQC001F	UFQC001T	UFQC005E	UFQC005F	UFQC005T	UFQC007T	UFQC008E	UFQC008F	UFQC009E	UFQC009F
Sample Date	21-Jul-00	21-Jul-00	12-Jul-00	19-Jul-00	19-Jul-00	19-Jul-00	20-Jul-00	10-Jul-00	10-Jul-00	10-Jul-00	10-Jul-00
Associated Sample	UFSB00-02	UFSB00-02	UFSB00-01	UFSB00-07	UFSB00-07	UFSB00-03	UFSB00-04	UFSB00-13	UFSB00-13	UFSB00-14	UFSB00-14
Thorium-230	0.35 U X	-0.0675 U X	NA	-0.0382 U X	0.0422 UT X	NA	NA	-0.0228 U X	-0.0596 U X	-0.0336 U X	-0.053 U X
Thorium-232	0.12 U X	0.143 U X	NA	-0.00714 U X	0.00607 UT X	NA	NA	0.0297 U X	-0.0106 U X	-0.0158 U X	-0.0428 U X
Semivolatiles (µg/L)											
1,2,4-Trichlorobenzene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
1,2-Dichlorobenzene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
1,2-Diphenylhydrazine	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
1,3-Dichlorobenzene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
1,4-Dichlorobenzene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2,4,5-Trichlorophenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2,4,6-Trichlorophenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2,4-Dichlorophenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2,4-Dimethylphenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2,4-Dinitrophenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2,4-Dinitrotoluene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 UY X	10 UY X	5 UY X	5 UY X
2,6-Dichlorophenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2,6-Dinitrotoluene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2-Chloronaphthalene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2-Chlorophenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2-Methyl-4,6-dinitrophenol	10 JU X	5 U X	NA	5 JU X	5 JU X	NA	NA	5 U X	10 U X	5 U X	5 U X
2-Methylnaphthalene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2-Nitroaniline	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
2-Nitrophenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
3,3'-Dichlorobenzidine	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
3-Nitroaniline	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
4-Bromophenyl phenyl ether	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
4-Chloro-3-methylphenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
4-Chloroaniline	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
4-Chlorophenylphenyl ether	10 JU X	5 U X	NA	5 JU X	5 JU X	NA	NA	5 U X	10 U X	5 U X	5 U X
4-Nitroaniline	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
4-Nitrophenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Acenaphthene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Acenaphthylene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Anthracene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Benzo(a)anthracene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Benzo(a)pyrene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Benzo(b)fluoranthene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Benzo(ghi)perylene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Benzo(k)fluoranthene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Benzoic acid	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Benzyl Alcohol	10 JU X	5 UX X	NA	5 UX X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Benzylbutyphthalate	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Bis(2-chloroethoxy)methane	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Bis(2-chloroethyl) ether	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Bis(2-chloroisopropyl) ether	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Bis(2-ethylhexyl)phthalate	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Carbazole	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Chrysene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC001E	UFQC001F	UFQC001T	UFQC005E	UFQC005F	UFQC005T	UFQC007T	UFQC008E	UFQC008F	UFQC009E	UFQC009F
Sample Date	21-Jul-00	21-Jul-00	12-Jul-00	19-Jul-00	19-Jul-00	19-Jul-00	20-Jul-00	10-Jul-00	10-Jul-00	10-Jul-00	10-Jul-00
Associated Sample	UFSB00-02	UFSB00-02	UFSB00-01	UFSB00-07	UFSB00-07	UFSB00-03	UFSB00-04	UFSB00-13	UFSB00-13	UFSB00-14	UFSB00-14
Di-n-butylphthalate	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Di-n-octylphthlate	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Dibenz(a,h)anthracene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Dibenzofuran	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Diethylphthalate	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Dimethylphthalate	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Fluoranthene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Fluorene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Hexachlorobenzene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Hexachlorobutadiene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Hexachlorocyclopentadiene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Hexachloroethane	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Indeno(1,2,3-cd)pyrene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Isophorone	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
m,p-cresol	10 JU X	5 U X	NA	5 JU X	5 JU X	NA	NA	5 U X	10 U X	5 U X	5 U X
N-Nitroso-di-n-propylamine	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
N-Nitrosodimethylamine	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
N-Nitrosodiphenylamine	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Naphthalene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Nitrobenzene	10 JU X	5 U X	NA	5 JU X	5 JU X	NA	NA	5 U X	10 U X	5 U X	5 U X

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC001E	UFQC001F	UFQC001T	UFQC005E	UFQC005F	UFQC005T	UFQC007T	UFQC008E	UFQC008F	UFQC009E	UFQC009F
Sample Date	21-Jul-00	21-Jul-00	12-Jul-00	19-Jul-00	19-Jul-00	19-Jul-00	20-Jul-00	10-Jul-00	10-Jul-00	10-Jul-00	10-Jul-00
Associated Sample	UFSB00-02	UFSB00-02	UFSB00-01	UFSB00-07	UFSB00-07	UFSB00-03	UFSB00-04	UFSB00-13	UFSB00-13	UFSB00-14	UFSB00-14
o-Cresol	10 JU X	5 U X	NA	5 JU X	5 JU X	NA	NA	5 U X	10 U X	5 U X	5 U X
Pentachlorophenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Phenanthrene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Phenol	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Pyrene	10 JU X	5 U X	NA	5 U X	5 U X	NA	NA	5 U X	10 U X	5 U X	5 U X
Pyridine	10 JU X	5 U X	NA	5 UY X	5 UY X	NA	NA	5 U X	10 U X	5 U X	5 U X
Volatiles (µg/L)											
1,1,1-Trichloroethane	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,1,2,2-Tetrachloroethane	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,1,2-Trichloroethane	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,1-Dichloroethane	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,1-Dichloroethene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,2-Dichloroethane	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,2-Dichloropropane	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
1,2-Dimethylbenzene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
2-Butanone	10 U X	10 U X	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
2-Hexanone	10 U X	10 U X	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
4-Methyl-2-pentanone	10 U X	10 U X	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Acetone	10 U X	10 U X	10 U U	70 X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Benzene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Bromodichloromethane	5 UX X	5 UX X	5 =	5 UX X	5 X	5 X	6 X	5 UX X	5 U X	5 UX X	5 UX X
Bromoform	5 JU X	5 U X	5 JU UJ	5 U X	5 U X	5 JU X	5 JU X	5 U X	5 U X	5 U X	5 U X
Bromomethane	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Carbon disulfide	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Carbon tetrachloride	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Chlorobenzene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Chloroethane	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Chloroform	29 X	22 X	42 =	28 X	37 X	36 X	39 X	34 X	38 X	33 X	32 X
Chloromethane	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
cis-1,2-Dichloroethene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
cis-1,3-Dichloropropene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Dibromochloromethane	5 JU X	5 U X	5 JU UJ	5 U X	5 U X	5 JU X	5 JU X	5 U X	5 U X	5 U X	5 U X
Dimethylbenzene	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X
Ethylbenzene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
m,p-Xylene	10 U X	10 U X	10 U U	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X
Methylene chloride	10 U X	10 JU X	10 JU UJ	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Styrene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Tetrachloroethene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Toluene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
trans-1,2-Dichloroethene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
trans-1,3-Dichloropropene	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X
Trichloroethene	1 U X	1 U X	1 U U	1 U X	1 U X	1 U X	1 U X	1 U X	1 U X	1 U X	1 U X
Vinyl acetate	10 JU X	NA	10 JU UJ	NA	NA	10 JU X	10 JU X	5 U X	5 U X	5 U X	5 U X
Vinyl chloride	5 U X	5 U X	5 U U	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X	5 U X

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC009T	UFQC011E	UFQC011T	UFQC013T	UFQC014E	UFQC014F	UFQC014T	UFQC015T	UFQC017T	UFQC021T	UFQC022T
Sample Date	18-Jul-00	12-Jul-00	21-Jul-00	19-Jul-00	17-Jul-00	17-Jul-00	20-Jul-00	21-Jul-00	18-Jul-00	09-Jul-00	08-Jul-00
Associated Sample	UFSB00-05	UFSB00-17	UFSB00-06	UFSB00-07	UFSS00-01	UFSS00-01	UFSB00-07	UFSB00-08	UFSB00-09	UFSB00-11	UFSB00-12
Inorganics (mg/L)	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**
Aluminum	NA	0.2 NUX X	NA	NA	0.2 NU UJ	0.2 NU UJ	NA	NA	NA	NA	NA
Antimony	NA	0.2 *NU X	NA	NA	0.2 NU UJ	0.2 NU UJ	NA	NA	NA	NA	NA
Arsenic	NA	0.005 NUW X	NA	NA	0.005 NUW UJ	0.005 NUW UJ	NA	NA	NA	NA	NA
Barium	NA	0.025 NU X	NA	NA	0.025 NU UJ	0.025 NU UJ	NA	NA	NA	NA	NA
Beryllium	NA	0.005 NU X	NA	NA	0.005 U U	0.005 U U	NA	NA	NA	NA	NA
Cadmium	NA	0.02 *NU X	NA	NA	0.02 U U	0.02 U U	NA	NA	NA	NA	NA
Calcium	NA	1 NU X	NA	NA	1 NU UJ	1 NU UJ	NA	NA	NA	NA	NA
Chromium	NA	0.025 NU X	NA	NA	0.025 U U	0.025 U U	NA	NA	NA	NA	NA
Copper	NA	0.025 NU X	NA	NA	0.025 BU U	0.025 BU U	NA	NA	NA	NA	NA
Lead	NA	0.2 NU X	NA	NA	0.2 NU U	0.2 NU U	NA	NA	NA	NA	NA
Mercury	NA	0.0002 UW X	NA	NA	0.0002 NU U	0.0002 NU U	NA	NA	NA	NA	NA
Nickel	NA	0.025 NU X	NA	NA	0.025 U U	0.025 U U	NA	NA	NA	NA	NA
Selenium	NA	0.005 NUW X	NA	NA	0.005 NUW UJ	0.005 NUW UJ	NA	NA	NA	NA	NA
Silver	NA	0.025 U X	NA	NA	0.025 U U	0.025 U U	NA	NA	NA	NA	NA
Thallium	NA	0.2 NU X	NA	NA	0.2 NU UJ	0.2 NU UJ	NA	NA	NA	NA	NA
Vanadium	NA	0.025 NU X	NA	NA	0.025 U U	0.025 U U	NA	NA	NA	NA	NA
Zinc	NA	0.2 NU X	NA	NA	0.2 U U	0.2 U U	NA	NA	NA	NA	NA
PCBs (µg/L)											
PCB-1016	NA	0.16 JU X	NA	NA	0.16 U U	0.16 U U	NA	NA	NA	NA	NA
PCB-1221	NA	0.16 JU X	NA	NA	0.16 U U	0.16 U U	NA	NA	NA	NA	NA
PCB-1232	NA	0.14 JU X	NA	NA	0.14 U U	0.14 U U	NA	NA	NA	NA	NA
PCB-1242	NA	0.15 JU X	NA	NA	0.15 U U	0.15 U U	NA	NA	NA	NA	NA
PCB-1248	NA	0.15 JU X	NA	NA	0.15 U U	0.15 U U	NA	NA	NA	NA	NA
PCB-1254	NA	0.12 JU X	NA	NA	0.12 U U	0.12 U U	NA	NA	NA	NA	NA
PCB-1260	NA	0.16 JU X	NA	NA	0.16 U U	0.16 U U	NA	NA	NA	NA	NA
PCB-1268	NA	0.08 JU X	NA	NA	0.08 U U	0.08 U U	NA	NA	NA	NA	NA
Polychlorinated biphenyl	NA	0.16 JU X	NA	NA	0.16 U U	0.16 U U	NA	NA	NA	NA	NA
Radionuclides (pCi/L)											
Activity of U-235	NA	0 U X	NA	NA	0 U U	0 U U	NA	NA	NA	NA	NA
Alpha activity (pCi/ml)	NA	-0.02 U X	NA	NA	-0.01 U U	-0.02 U U	NA	NA	NA	NA	NA
Americium-241	NA	-14.1 U X	NA	NA	-13 U U	1730000000 U U	NA	NA	NA	NA	NA
Americium-243	NA	-3.96 U X	NA	NA	0.369 U U	1.82 U U	NA	NA	NA	NA	NA
Beta activity (pCi/ml)	NA	0.04 U X	NA	NA	0.02 U U	0 U U	NA	NA	NA	NA	NA
Cesium-134	NA	5.59 U X	NA	NA	-3.39 U R	0.426 U R	NA	NA	NA	NA	NA
Cesium-137	NA	-0.727 U X	NA	NA	-5.74 U U	2.38 U U	NA	NA	NA	NA	NA
Cobalt-60	NA	7.24 U X	NA	NA	1.48 U U	2.68 U U	NA	NA	NA	NA	NA
Mass of U-235 (g U-235/L)	NA	0 U X	NA	NA	0 U U	0 U U	NA	NA	NA	NA	NA
Neptunium-237	NA	9.37 U X	NA	NA	-9.55 U U	-12 U U	NA	NA	NA	NA	NA
Neptunium-239	NA	-28.6 U X	NA	NA	-33.9 U U	-125 U U	NA	NA	NA	NA	NA
Plutonium-238	NA	0.0405 U X	NA	NA	0.149 T U	-0.17 UT U	NA	NA	NA	NA	NA
Plutonium-239/240	NA	0.0113 U X	NA	NA	0.0572 UT U	-0.0829 UT U	NA	NA	NA	NA	NA
Potassium-40	NA	50.8 U X	NA	NA	-7.04 U U	78.5 U U	NA	NA	NA	NA	NA
Protactinium-234m	NA	-285 U X	NA	NA	207 U U	1840 U U	NA	NA	NA	NA	NA
Radium-226	NA	-17.7 U X	NA	NA	55.3 U U	-26.7 U U	NA	NA	NA	NA	NA
Technetium-99	NA	0 U X	NA	NA	28 =	26.3 =	NA	NA	NA	NA	NA
Thorium-228	NA	-0.0635 U X	NA	NA	0.0478 U U	0.0574 U U	NA	NA	NA	NA	NA

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC009T	UFQC011E	UFQC011T	UFQC013T	UFQC014E	UFQC014F	UFQC014T	UFQC015T	UFQC017T	UFQC021T	UFQC022T
Sample Date	18-Jul-00	12-Jul-00	21-Jul-00	19-Jul-00	17-Jul-00	17-Jul-00	20-Jul-00	21-Jul-00	18-Jul-00	09-Jul-00	08-Jul-00
Associated Sample	UFSB00-05	UFSB00-17	UFSB00-06	UFSB00-07	UFSS00-01	UFSS00-01	UFSB00-07	UFSB00-08	UFSB00-09	UFSB00-11	UFSB00-12
Thorium-230	NA	-0.0351 U X	NA	NA	-0.0846 U U	-0.0695 U U	NA	NA	NA	NA	NA
Thorium-232	NA	-0.0262 U X	NA	NA	-0.014 U U	-0.0458 U U	NA	NA	NA	NA	NA
Semivolatiles (µg/L)											
1,2,4-Trichlorobenzene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	10 JUXY X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	10 JUXY X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2,6-Dichlorophenol	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2-Chloronaphthalene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2-Chlorophenol	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	NA	10 JUX X	NA	NA	5 JU UJ	10 JU UJ	NA	NA	NA	NA	NA
2-Methylnaphthalene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2-Nitroaniline	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
2-Nitrophenol	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
3-Nitroaniline	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
4-Chloroaniline	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
4-Chlorophenylphenyl ether	NA	10 JUX X	NA	NA	5 JU U	10 JU U	NA	NA	NA	NA	NA
4-Nitroaniline	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
4-Nitrophenol	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Acenaphthene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Acenaphthylene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Anthracene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Benzoic acid	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	10 JUX X	NA	NA	5 UX J	10 U U	NA	NA	NA	NA	NA
Benzylbutyphthalate	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Bis(2-chloroethoxy)methane	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Bis(2-chloroethyl) ether	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Bis(2-chloroisopropyl) ether	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Carbazole	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Chrysene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC009T	UFQC011E	UFQC011T	UFQC013T	UFQC014E	UFQC014F	UFQC014T	UFQC015T	UFQC017T	UFQC021T	UFQC022T
Sample Date	18-Jul-00	12-Jul-00	21-Jul-00	19-Jul-00	17-Jul-00	17-Jul-00	20-Jul-00	21-Jul-00	18-Jul-00	09-Jul-00	08-Jul-00
Associated Sample	UFSB00-05	UFSB00-17	UFSB00-06	UFSB00-07	UFSS00-01	UFSS00-01	UFSB00-07	UFSB00-08	UFSB00-09	UFSB00-11	UFSB00-12
Di-n-butylphthalate	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Di-n-octylphthlate	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Dibenzofuran	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Diethylphthalate	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Dimethylphthalate	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Fluoranthene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Fluorene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Hexachloroethane	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Isophorone	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
m,p-cresol	NA	10 JUX X	NA	NA	5 JU UJ	10 JU UJ	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Naphthalene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Nitrobenzene	NA	10 JUX X	NA	NA	5 JU UJ	10 JU UJ	NA	NA	NA	NA	NA

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC009T	UFQC011E	UFQC011T	UFQC013T	UFQC014E	UFQC014F	UFQC014T	UFQC015T	UFQC017T	UFQC021T	UFQC022T
Sample Date	18-Jul-00	12-Jul-00	21-Jul-00	19-Jul-00	17-Jul-00	17-Jul-00	20-Jul-00	21-Jul-00	18-Jul-00	09-Jul-00	08-Jul-00
Associated Sample	UFSB00-05	UFSB00-17	UFSB00-06	UFSB00-07	UFSS00-01	UFSS00-01	UFSB00-07	UFSB00-08	UFSB00-09	UFSB00-11	UFSB00-12
o-Cresol	NA	10 JUX X	NA	NA	5 JU UJ	10 JU UJ	NA	NA	NA	NA	NA
Pentachlorophenol	NA	10 JUXY X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Phenanthrene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Phenol	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Pyrene	NA	10 JUX X	NA	NA	5 U U	10 U U	NA	NA	NA	NA	NA
Pyridine	NA	10 JUX X	NA	NA	5 UY U	10 UY U	NA	NA	NA	NA	NA
Volatiles (µg/L)											
1,1,1-Trichloroethane	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
1,1,2,2-Tetrachloroethane	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
1,1,2-Trichloroethane	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
1,1-Dichloroethane	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
1,1-Dichloroethene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
1,2-Dichloroethane	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
1,2-Dichloropropane	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
1,2-Dimethylbenzene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 U X
2-Butanone	10 U U	10 U X	10 U X	10 U X	10 U U	10 U U	10 U X	10 U X	10 U X	10 JUY X	10 JUY X
2-Hexanone	10 U U	10 U X	10 U X	10 U X	10 U U	10 U U	10 U X	10 U X	10 U X	10 JU X	10 JU X
4-Methyl-2-pentanone	10 U U	10 U X	10 U X	10 U X	10 U U	10 U U	10 U X	10 U X	10 U X	10 JU X	10 JU X
Acetone	10 U U	10 U X	10 U X	10 U X	10 U R	10 U R	10 U X	10 U X	10 U X	10 JU X	10 JU X
Benzene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
Bromodichloromethane	5 =	5 UX X	6 X	5 X	5 U J	5 =	5 X	5 X	5 X	10 JUX X	10 JUX X
Bromoform	5 JU U	5 U X	5 JU X	5 JU X	5 U U	5 U U	5 JU X	5 JU X	5 JU X	10 JU X	10 JU X
Bromomethane	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
Carbon disulfide	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
Carbon tetrachloride	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
Chlorobenzene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
Chloroethane	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
Chloroform	35 =	32 X	40 X	36 X	32 =	38 =	36 X	39 X	40 X	48 J X	46 J X
Chloromethane	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
cis-1,2-Dichloroethene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
cis-1,3-Dichloropropene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
Dibromochloromethane	5 JU U	5 U X	5 JU X	5 JU X	5 U U	5 U U	5 JU X	5 JU X	5 JU X	10 JU X	10 JU X
Dimethylbenzene	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X	30 JU X	30 JU X
Ethylbenzene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
m,p-Xylene	10 U U	10 U X	10 U X	10 U X	10 U U	10 U U	10 U X	10 U X	10 U X	20 JU X	20 JU X
Methylene chloride	10 JU UJ	10 JU X	10 JU X	10 JU X	10 JU UJ	10 JU UJ	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Styrene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
Tetrachloroethene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
Toluene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
trans-1,2-Dichloroethene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
trans-1,3-Dichloropropene	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X
Trichloroethene	1 U U	1 U X	1 U X	1 U X	1 U U	1 U U	1 U X	1 U X	1 U X	10 JU X	10 JU X
Vinyl acetate	10 JU UJ	5 U X	10 JU X	10 JU X	NA	NA	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X
Vinyl chloride	5 U U	5 U X	5 U X	5 U X	5 U U	5 U U	5 U X	5 U X	5 U X	10 JU X	10 JU X

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC023T	UFQC024T	UFQC026T	UFQC027T	UFQC028T	UFQC029T	UFQC030T	UFQC033T	UFREFW001	UFREFW002
Sample Date	10-Jul-00	10-Jul-00	11-Jul-00	11-Jul-00	12-Jul-00	12-Jul-00	13-Jul-00	17-Jul-00	11-Jul-00	17-Jul-00
Associated Sample	UFSB00-13	UFSB00-14	UFSB00-16	UFSB00-17	UFSB00-18	UFSB00-19	UFSB00-20	UFSS00-01	UFREF00-0	UFREF00-0
Inorganics (mg/L)	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**	**Results**
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (µg/L)										
PCB-1016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1221	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1248	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1268	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Radionuclides (pCi/L)										
Activity of U-235	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alpha activity (pCi/ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Americium-241	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Americium-243	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beta activity (pCi/ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cesium-134	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cesium-137	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt-60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mass of U-235 (g U-235/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Neptunium-237	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Neptunium-239	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Plutonium-238	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Plutonium-239/240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium-40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Protactinium-234m	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Radium-226	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Technetium-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thorium-228	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC023T	UFQC024T	UFQC026T	UFQC027T	UFQC028T	UFQC029T	UFQC030T	UFQC033T	UFREFW001	UFREFW002
Sample Date	10-Jul-00	10-Jul-00	11-Jul-00	11-Jul-00	12-Jul-00	12-Jul-00	13-Jul-00	17-Jul-00	11-Jul-00	17-Jul-00
Associated Sample	UFSB00-13	UFSB00-14	UFSB00-16	UFSB00-17	UFSB00-18	UFSB00-19	UFSB00-20	UFSS00-01	UFREF00-0	UFREF00-0
Thorium-230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thorium-232	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatiles (µg/L)										
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dichlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenylphenyl ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzoic acid	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzylbutyphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroethyl) ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroisopropyl) ether	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA - No analysis performed

[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC023T	UFQC024T	UFQC026T	UFQC027T	UFQC028T	UFQC029T	UFQC030T	UFQC033T	UFREFW001	UFREFW002
Sample Date	10-Jul-00	10-Jul-00	11-Jul-00	11-Jul-00	12-Jul-00	12-Jul-00	13-Jul-00	17-Jul-00	11-Jul-00	17-Jul-00
Associated Sample	UFSB00-13	UFSB00-14	UFSB00-16	UFSB00-17	UFSB00-18	UFSB00-19	UFSB00-20	UFSS00-01	UFREF00-0	UFREF00-0
Di-n-butylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octylphthlate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m,p-cresol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

APPENDIX G
ANALYTICAL RESULTS QC APPENDIX TABLE[a]
DUF6 CONVERSION FACILITY SITE CHARACTERIZATION
PADUCAH DIFFUSION PLANT
PADUCAH, KY

Sample ID	UFQC023T	UFQC024T	UFQC026T	UFQC027T	UFQC028T	UFQC029T	UFQC030T	UFQC033T	UFREFW001	UFREFW002
Sample Date	10-Jul-00	10-Jul-00	11-Jul-00	11-Jul-00	12-Jul-00	12-Jul-00	13-Jul-00	17-Jul-00	11-Jul-00	17-Jul-00
Associated Sample	UFSB00-13	UFSB00-14	UFSB00-16	UFSB00-17	UFSB00-18	UFSB00-19	UFSB00-20	UFSS00-01	UFREF00-0	UFREF00-0
o-Cresol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatiles (µg/L)										
1,1,1-Trichloroethane	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
1,1,2,2-Tetrachloroethane	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
1,1,2-Trichloroethane	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
1,1-Dichloroethane	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
1,1-Dichloroethene	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
1,2-Dichloroethane	10 JU X	10 JU X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
1,2-Dichloropropane	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
1,2-Dimethylbenzene	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
2-Butanone	10 UY X	10 UY X	10 UY X	10 UY X	10 U X	10 U X	10 U X	10 U U	10 U X	10 U X
2-Hexanone	10 JU X	10 JU X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U X	10 U X
4-Methyl-2-pentanone	10 U X	10 U X	NA	10 U X	10 U X	10 U X	10 U X	10 U U	10 U X	10 U X
Acetone	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U X	10 U U	10 U X	10 U X
Benzene	10 JU X	10 UY X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
Bromodichloromethane	10 UX X	10 JU X	10 UX X	10 UX X	5 X	5 X	5 X	5 J	5 U X	5 X
Bromoform	10 U X	10 U X	10 U X	10 U X	5 JU X	5 JU X	5 JU X	5 JU U	5 U X	5 U X
Bromomethane	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
Carbon disulfide	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
Carbon tetrachloride	10 U X	10 JU X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
Chlorobenzene	10 UY X	10 UY X	10 UY X	10 UY X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
Chloroethane	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
Chloroform	50 Y X	49 Y X	47 X	46 X	41 X	41 X	42 X	38 =	41 X	5 U X
Chloromethane	10 JU X	10 JU X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
cis-1,2-Dichloroethene	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
cis-1,3-Dichloropropene	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
Dibromochloromethane	10 JU X	10 JU X	10 U X	10 U X	5 JU X	5 JU X	5 JU X	5 JU J	5 U X	5 U X
Dimethylbenzene	30 U X	30 U X	30 U X	30 U X	15 U X	15 U X	15 U X	15 U X	15 U X	15 U X
Ethylbenzene	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
m,p-Xylene	20 U X	20 U X	20 U X	20 U X	10 U X	10 U X	10 U X	10 U U	10 U X	10 U X
Methylene chloride	10 U X	10 U X	10 U X	10 U X	10 JU X	10 JU X	10 JU X	10 JU UJ	10 JU X	10 JU X
Styrene	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
Tetrachloroethene	10 UY X	10 UY X	10 UY X	10 UY X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
Toluene	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
trans-1,2-Dichloroethene	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
trans-1,3-Dichloropropene	10 JU X	10 JU X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X
Trichloroethene	10 U X	10 U X	10 U X	10 U X	1 U X	1 U X	1 U X	1 U U	1 U X	1 U X
Vinyl acetate	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU X	10 JU UJ	5 U X	NA
Vinyl chloride	10 U X	10 U X	10 U X	10 U X	5 U X	5 U X	5 U X	5 U U	5 U X	5 U X

NA - No analysis performed
[a]Result field consists of lab result followed by the result qualifier and the validation qualifier respectively

SAMPLE NUMBER CROSS REFERENCE LIST

PROJECT NAME: BECHTEL JACOBS PADUCAH

PROJECT NUMBER: 783208.00210000

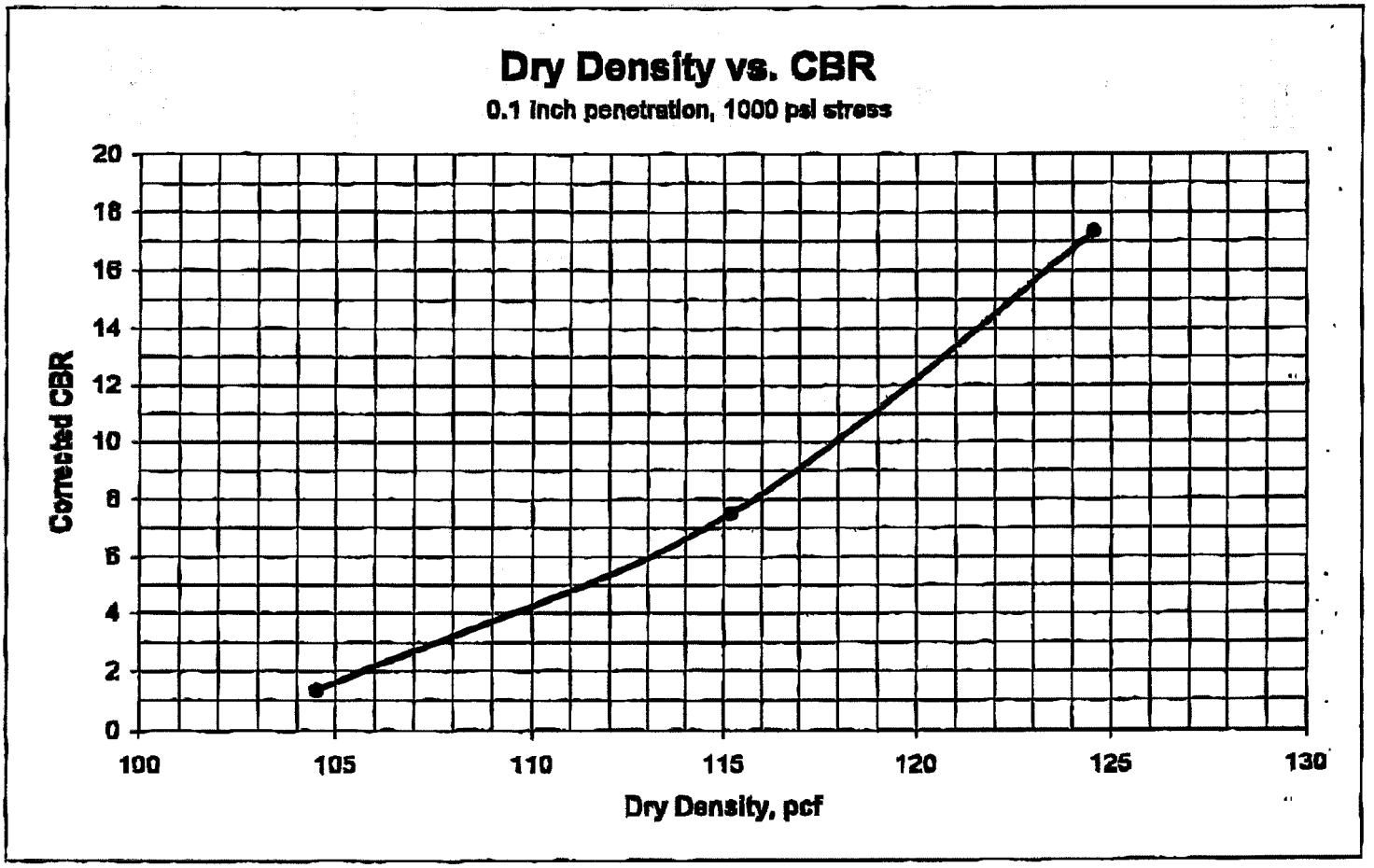
LAB SAMPLE NO.	CLIENT SAMPLE NO.	SAMPLE TYPE
ETDC 9061	UFSB03S003	BULK SOIL
ETDC9053	UFSB03S008	SHELBY TUBE
ETDC9055	UFSB03S023	SHELBY TUBE
ETDC9056	UFSB10S003	BULK SOIL
ETDC9057	UFSB10S009	BULK SOIL
ETDC9058	UFSB14S003	BULK SOIL
ETDC9059	UFSB14S009	BULK SOIL
ETDC9061	UFSB10S009	SHELBY TUBE
ETDC9063	UFSB14S009	SHELBY TUBE

CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT	Bechtel Jacobs Paducah	CLIENT SAMPLE NO.	ETDC-9051
PROJECT NO.	783208.00210000	IT LAB SAMPLE NO.	UFSB03S003

Prep method		ASTM D 698	
Condition of sample		Soaked 96-hrs	
Specimen conditions	10 blows	25 blows	56 blows
Dry density, presoak, pcf	104.5	115.2	124.5
% of proctor dry density	82.6%	91.1%	98.5%
Dry density, post-soak, pcf	112.9	124.6	134.5
Swell, % of original height	0.081%	0.081%	0.146%
Surcharge wt. applied, lbs.	5	5	5

MOISTURE CONTENT	
Initial moisture	7.8%
After compaction	8.2%
Top 1" after soaking	14.0%
Average after soaking	14.4%
CBR @ 90% proctor dens.	8.73
CBR @ 95% proctor dens.	12.73

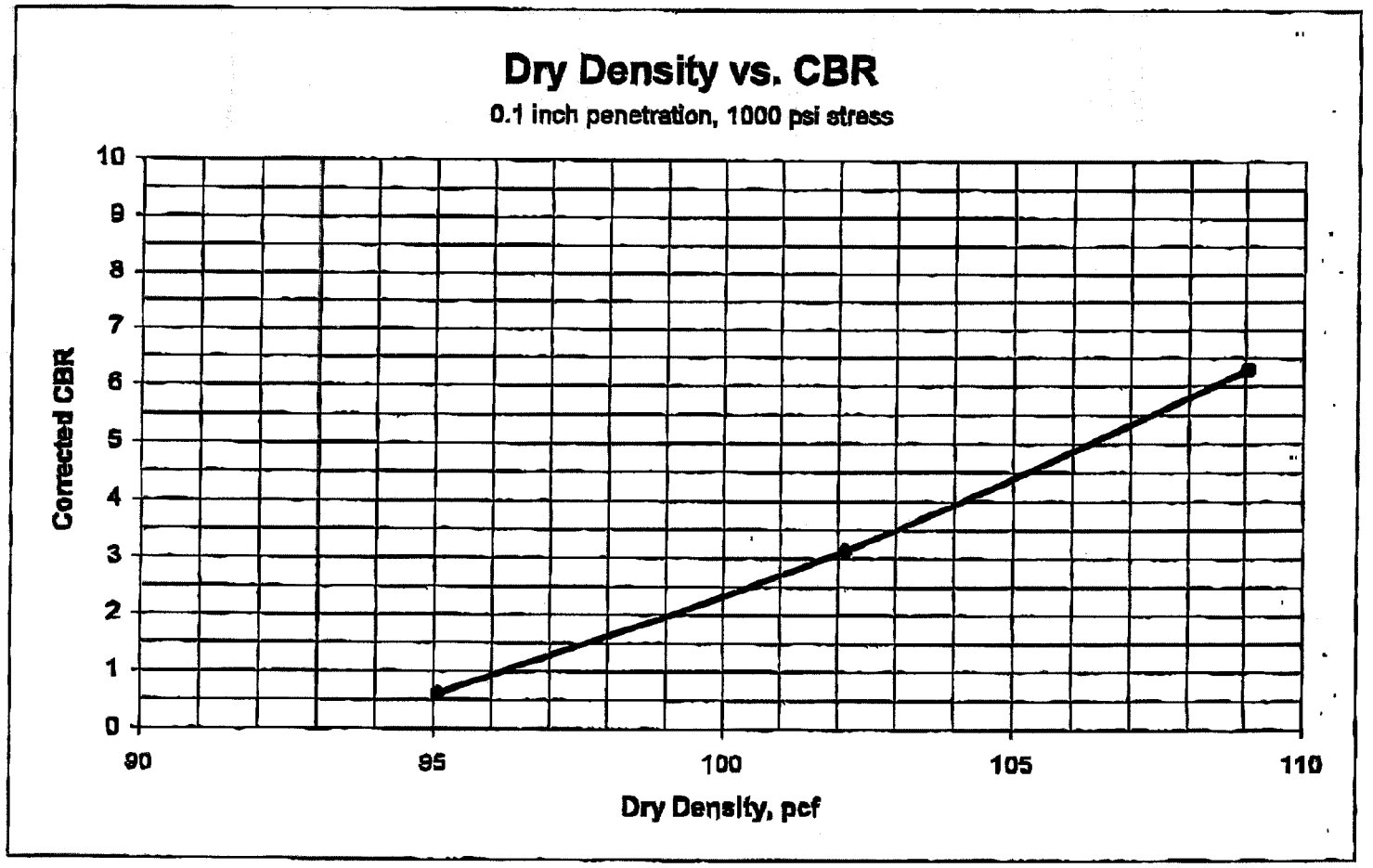


CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT	Bechtel Jacobs Paducah	CLIENT SAMPLE NO.	ETDC-9056
PROJECT NO.	783208.00210000	IT LAB SAMPLE NO.	UFSB10S003

Prep method	ASTM D 698		
Condition of sample	Soaked 96-hrs		
Specimen conditions	10 blows	25 blows	56 blows
Dry density, presoak, pcf	95.1	102.1	109.1
% of proctor dry density	87.1%	93.6%	100.0%
Dry density, post-soak, pcf	107.5	116.0	122.8
Swell, % of original height	1.224%	1.043%	0.908%
Surcharge wt. applied, lbs.	5	5	5

MOISTURE CONTENT	
Initial moisture	6.0%
After compaction	15.4%
Top 1" after soaking	24.0%
Average after soaking	23.5%
CBR @ 90% proctor dens.	1.72
CBR @ 95% proctor dens.	3.63

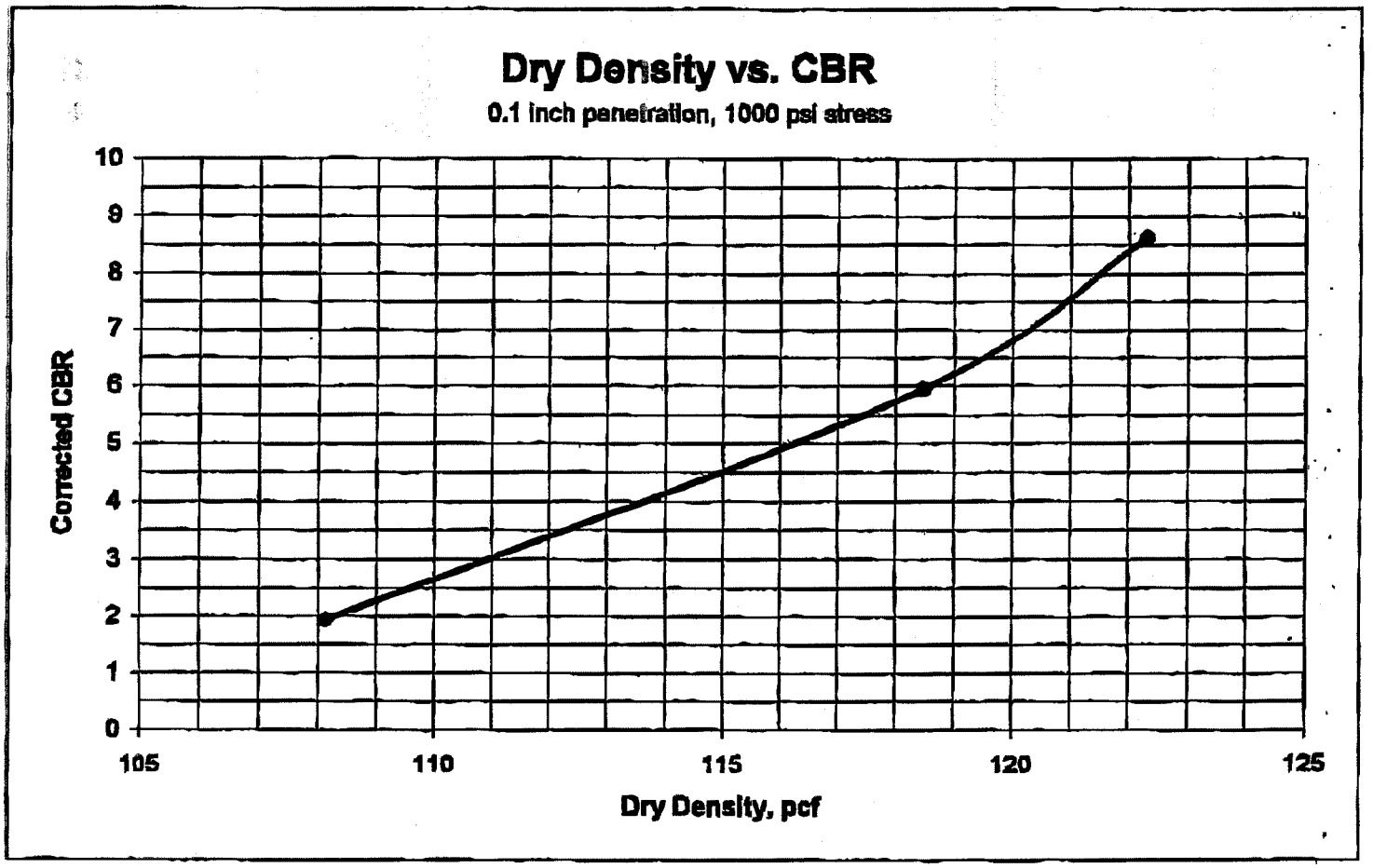


CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT	Bechtel Jacobs Paducah	CLIENT SAMPLE NO.	ETDC-9058
PROJECT NO.	783208.00210000	IT LAB SAMPLE NO.	UFSB14S003

Prep method		ASTM D 698	
Condition of sample		Soaked 96-hrs	
Specimen conditions	10 blows	25 blows	55 blows
Dry density, presoak, pcf	108.1	116.5	122.3
% of proctor dry density	89.5%	98.1%	101.2%
Dry density, post-soak, pcf	120.0	131.8	135.8
Swell, % of original height	0.089%	0.081%	0.107%
Surcharge wt. applied, lbs.	5	5	5

MOISTURE CONTENT	
Initial moisture	3.3%
After compaction	11.8%
Top 1" after soaking	16.1%
Average after soaking	15.2%
CBR @ 90% proctor dens.	2.17
CBR @ 95% proctor dens.	3.38



SPECIFIC GRAVITY
ASTM D 854

PROJECT NAME:
Bechtel Jacobs Paducah

PROJECT NUMBER:
783208.00210000

[illegible]	[illegible]	[illegible]
ETDC-9051	UFSB03S003	2.6968
ETDC-9052	UFSB03S006	2.6471
ETDC-9054	UFSB03S022	2.6597
ETDC-9056	UFSB10S003	2.6705
ETDC-9057	UFSB10S009	2.6986
ETDC-9058	UFSB14S003	2.6832
ETDC-9059	UFSB14S009	2.6599
ETDC-9060	UFSB10S007	2.6830
ETDC-9062	UFSB14S007	2.6577

PARTICLE-SIZE ANALYSIS
ASTM D 422

Project Name	Bechtel Jacobs Paducah	Client Sample No.	UFSB03S006
Project No.	783208.00210000	IT Lab Sample No.	ETDC-9052

Specific Gravity = 2.647

Moisture Content = 21.9%
dry sample basis

SIEVE ANALYSIS

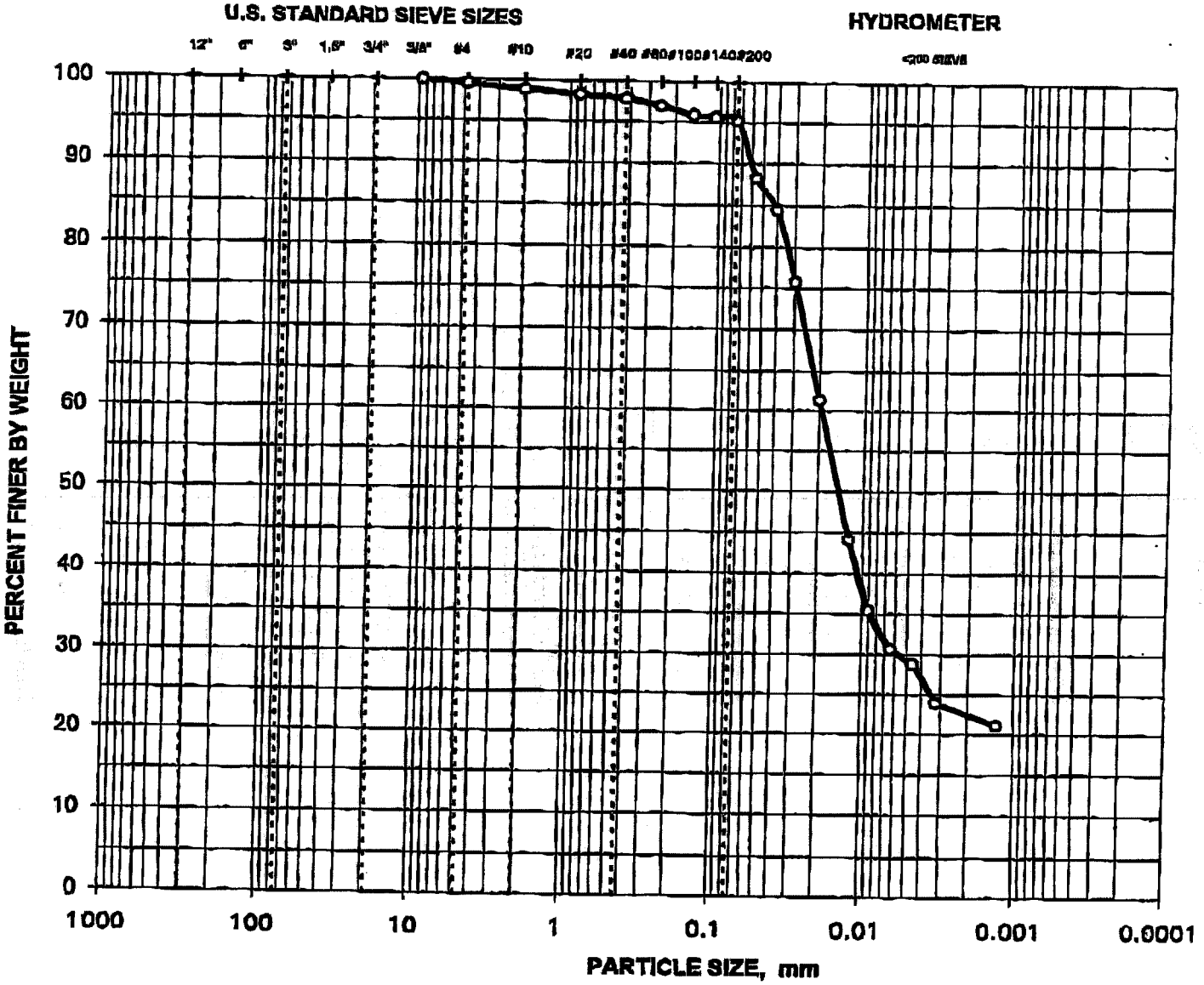
COARSE	Sieve No.	Diameter mm	Percent Finer
	3"	75.000	100.0%
	1.5"	37.500	100.0%
	0.75"	19.000	100.0%
	0.375"	9.500	100.0%
	#4	4.750	99.5%
	#10	2.000	98.9%

FINE	Sieve No.	Diameter mm	Percent Finer
	#20	0.850	98.3%
	#40	0.425	97.9%
	#60	0.250	97.0%
	#100	0.149	95.9%
	#140	0.106	95.6%
	#200	0.075	95.2%

HYDROMETER ANALYSIS

HYDROMETER	Diameter mm	Percent Finer
	0.05541	88.3%
	0.03993	84.4%
	0.02951	75.8%
	0.01994	61.4%
	0.01228	44.1%
	0.00898	35.5%
	0.00638	30.7%
	0.00454	28.8%
	0.00319	24.0%
	0.00129	21.1%

Bechtel Jacobs Paducah



CLIENT SAMPLE NO.: UFSB03S006

IT LAB SAMPLE NO.: ETDC-9052

BOULDERS	COBBLES	GRAVEL		SAND			SILT 2 - 75 microns CLAY <2 microns
		COARSE	FINE	COARSE	MEDIUM	FINE	

PARTICLE-SIZE ANALYSIS
ASTM D 422

Project Name	Bechtel Jacobs Paducah	Client Sample No.	UFSB03S022
Project No.	783208.00210000	IT Lab Sample No.	ETDC-9054
Specific Gravity =	2.660	Moisture Content = (dry sample basis)	11.8%

SIEVE ANALYSIS

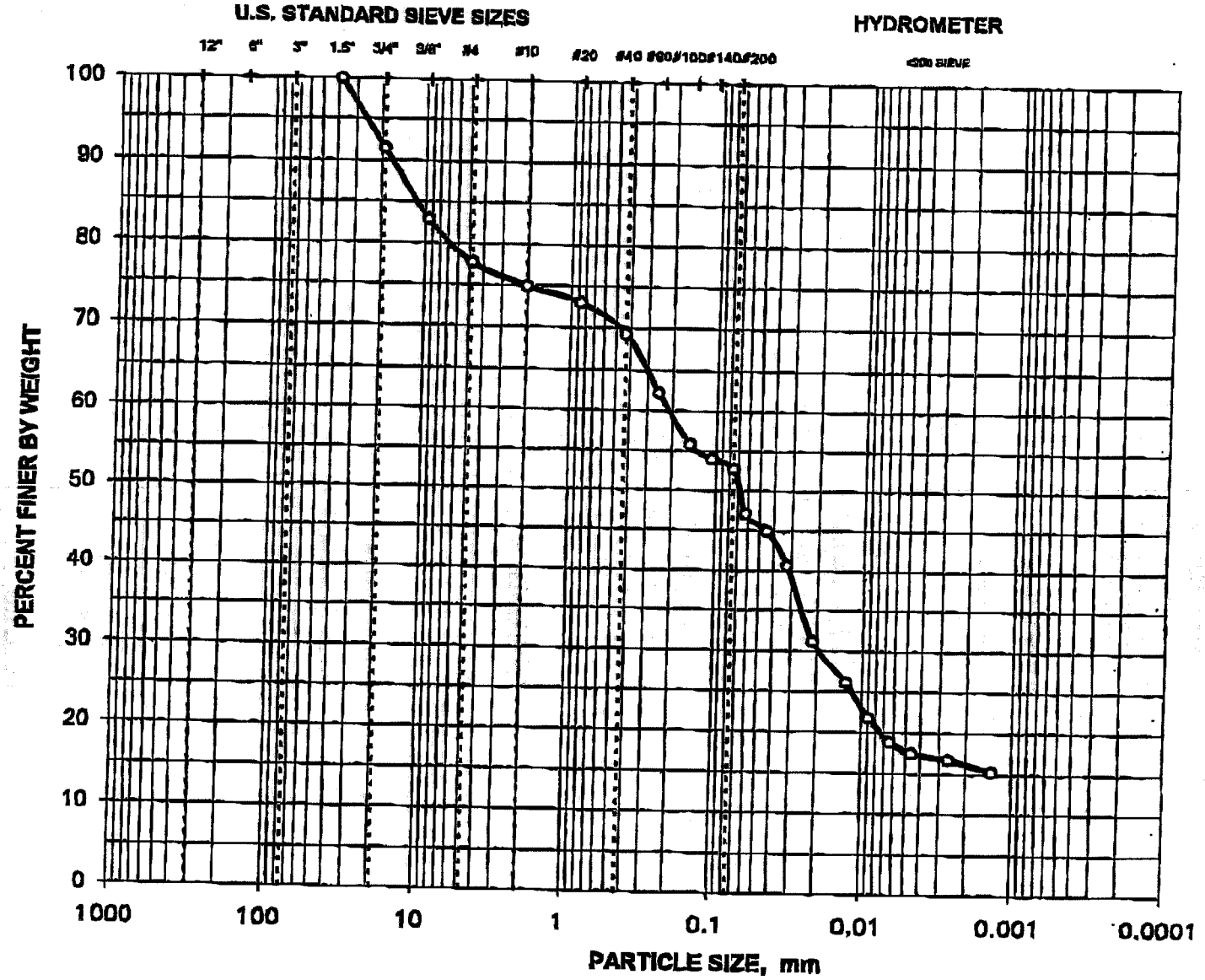
COARSE	Sieve No.	Diameter mm	Percent Finer
	3"	75.000	100.0%
	1.5"	37.500	100.0%
	0.75"	19.000	91.5%
	0.375"	9.500	82.9%
	#4	4.750	77.7%
	#10	2.000	74.9%

FINE	Sieve No.	Diameter mm	Percent Finer
	#20	0.850	73.0%
	#40	0.425	69.3%
	#60	0.250	62.2%
	#100	0.149	55.9%
	#140	0.106	54.0%
	#200	0.075	52.8%

HYDROMETER ANALYSIS

HYDROMETER	Diameter mm	Percent Finer
	0.06180	47.2%
	0.04414	45.0%
	0.03197	40.6%
	0.02123	31.2%
	0.01257	26.1%
	0.00895	21.8%
	0.00640	18.9%
	0.00454	17.4%
	0.00260	16.7%
	0.00134	15.2%

Bechtel Jacobs Paducah



CLIENT SAMPLE NO.: UFSB03S022

IT LAB SAMPLE NO.: ETDC-9054

BOULDERS	COBBLES	GRAVEL		SAND			
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT 2 - 75 microns CLAY <2 microns

PARTICLE-SIZE ANALYSIS
ASTM D 422

Project Name	Bechtel Jacobs Paducah	Client Sample No.	UFSB10S007
Project No.	783208.00210000	IT Lab Sample No.	ETDC-9060
Specific Gravity =	2.683	Moisture Content = (dry sample basis)	27.1%

SIEVE ANALYSIS

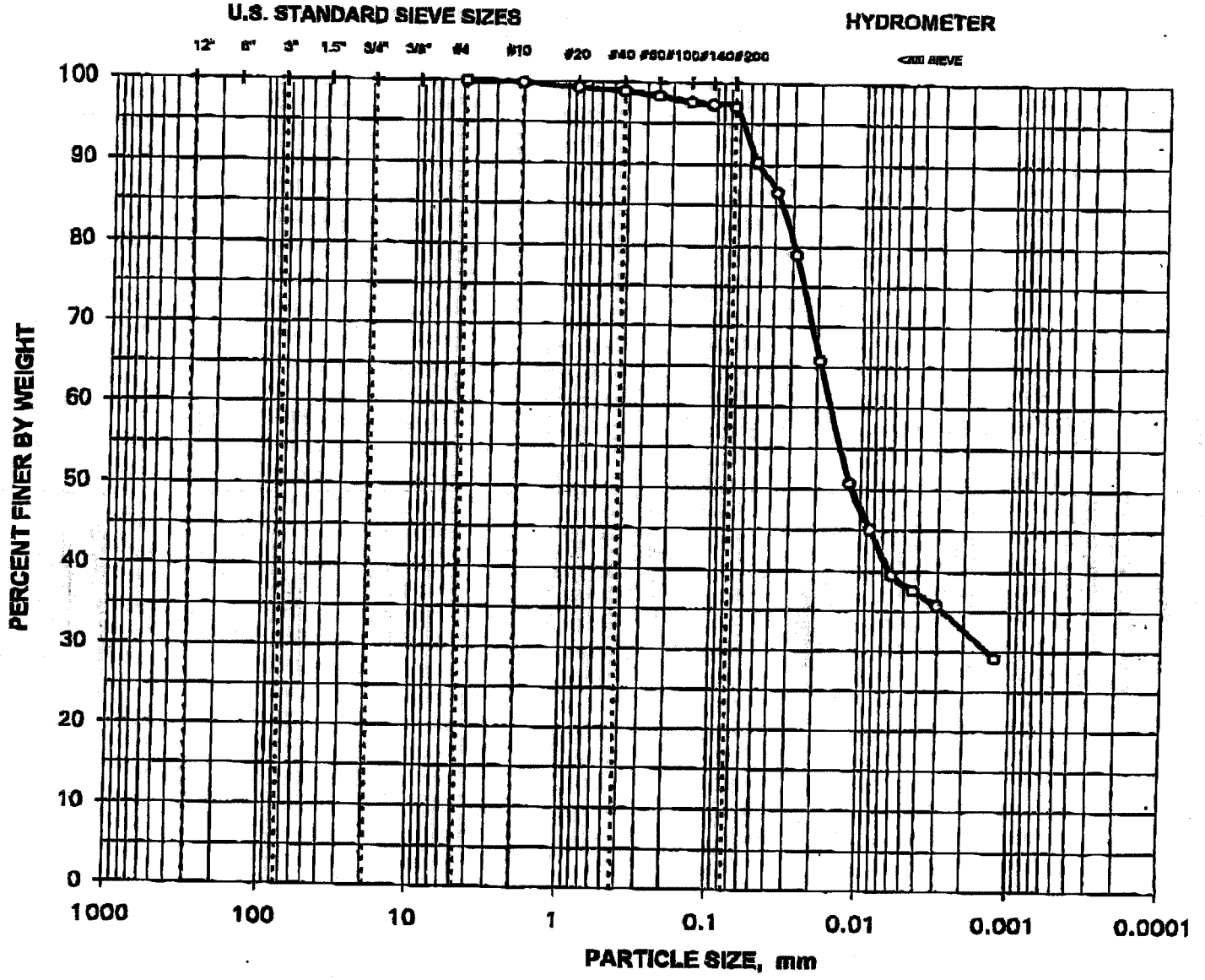
COARSE	Sieve No.	Diameter mm	Percent Finer
	3"	75.000	100.0%
	1.5"	37.500	100.0%
	0.75"	19.000	100.0%
	0.375"	9.500	100.0%
	#4	4.750	100.0%
	#10	2.000	99.8%

FINE	Sieve No.	Diameter mm	Percent Finer
	#20	0.850	99.4%
	#40	0.425	98.9%
	#60	0.250	98.4%
	#100	0.149	97.6%
	#140	0.106	97.3%
	#200	0.075	97.1%

HYDROMETER ANALYSIS

HYDROMETER	Diameter mm	Percent Finer
	0.05317	90.3%
	0.03860	86.5%
	0.02832	79.0%
	0.01915	65.8%
	0.01178	50.8%
	0.00852	45.1%
	0.00608	39.5%
	0.00432	37.6%
	0.00302	35.7%
	0.00124	29.2%

Bechtel Jacobs Paducah



CLIENT SAMPLE NO.: UFSB10S007

IT LAB SAMPLE NO.: ETDC-9060

BOULDERS	COBBLES	GRAVEL		SAND			SILT 2 - 75 microns CLAY <2 microns
		COARSE	FINE	COARSE	MEDIUM	FINE	

PARTICLE-SIZE ANALYSIS
ASTM D 422

Project Name	Bechtel Jacobs Paducah	Client Sample No.	UFSB14S007
Project No.	783208.00210000	IT Lab Sample No.	ETDC-9062
Specific Gravity =	2.658	Moisture Content = (dry sample basis)	25.7%

SIEVE ANALYSIS

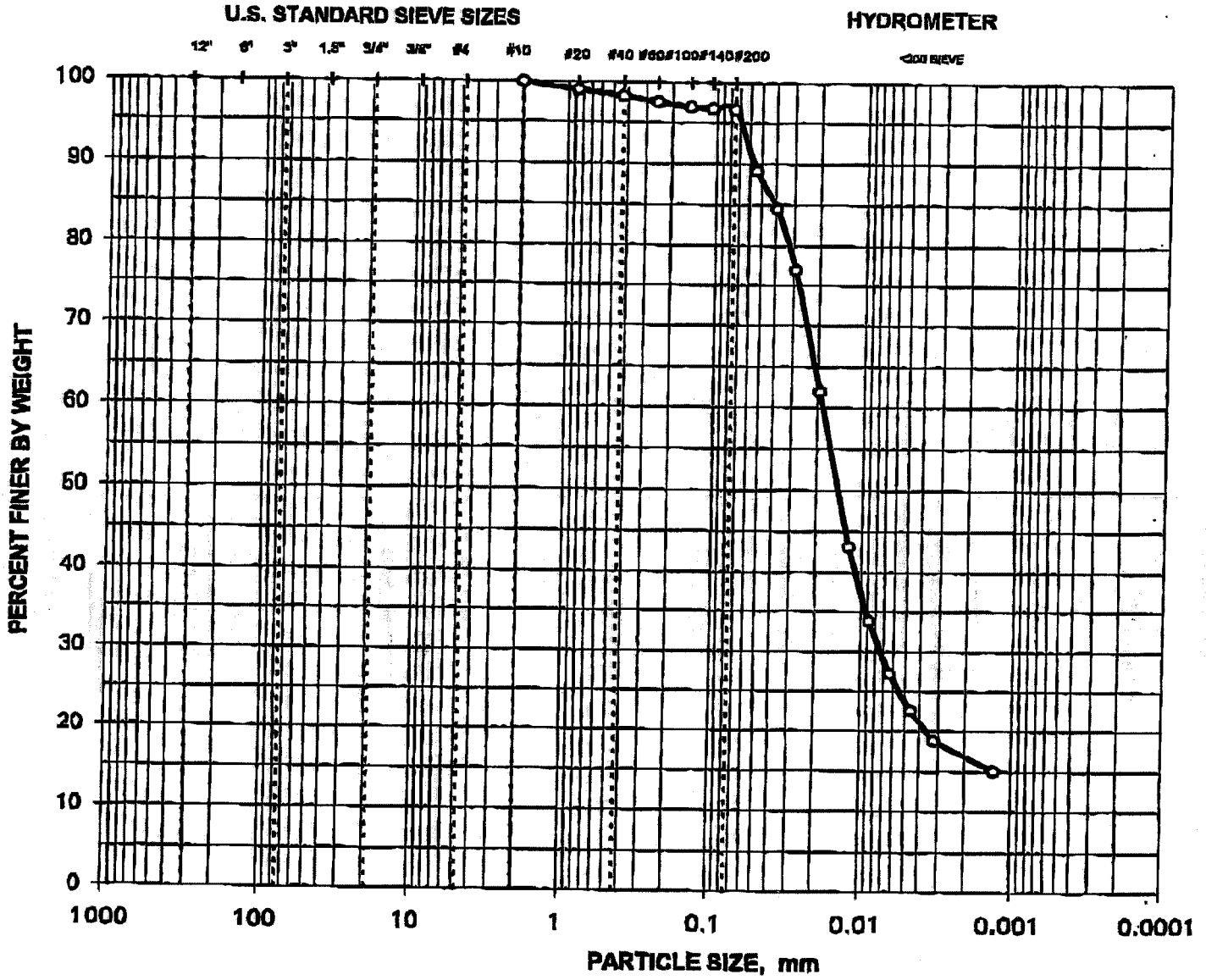
COARSE	Sieve No.	Diameter mm	Percent Finer
	3"	75.000	100.0%
	1.5"	37.500	100.0%
	0.75"	19.000	100.0%
	0.375"	9.500	100.0%
	#4	4.750	100.0%
	#10	2.000	100.0%

FINE	Sieve No.	Diameter mm	Percent Finer
	#20	0.850	99.0%
	#40	0.425	98.3%
	#60	0.250	97.5%
	#100	0.149	97.0%
	#140	0.106	96.8%
	#200	0.075	96.6%

HYDROMETER ANALYSIS

HYDROMETER	Diameter mm	Percent Finer
	0.05352	89.2%
	0.03884	84.5%
	0.02866	77.0%
	0.01945	61.9%
	0.01210	43.2%
	0.00878	33.8%
	0.00634	27.2%
	0.00454	22.5%
	0.00320	18.8%
	0.00129	15.0%

Bechtel Jacobs Paducah

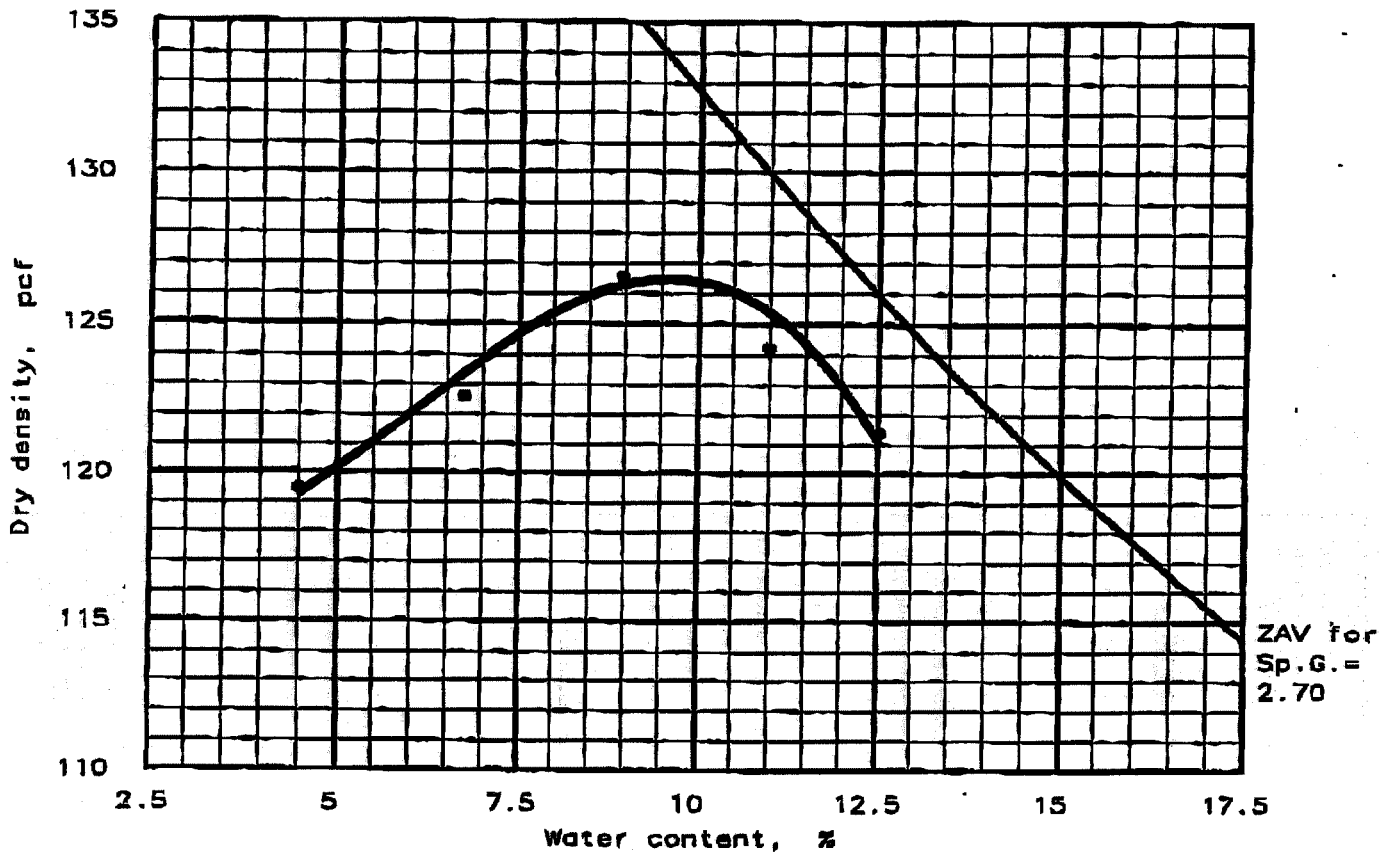


CLIENT SAMPLE NO.: UFSB14S007

IT LAB SAMPLE NO.: ETDC-9062

BOULDERS	COBBLES	GRAVEL		SAND			SILT 2 - 75 microns CLAY <2 microns
		COARSE	FINE	COARSE	MEDIUM	FINE	

Standard Proctor ASTM D 698

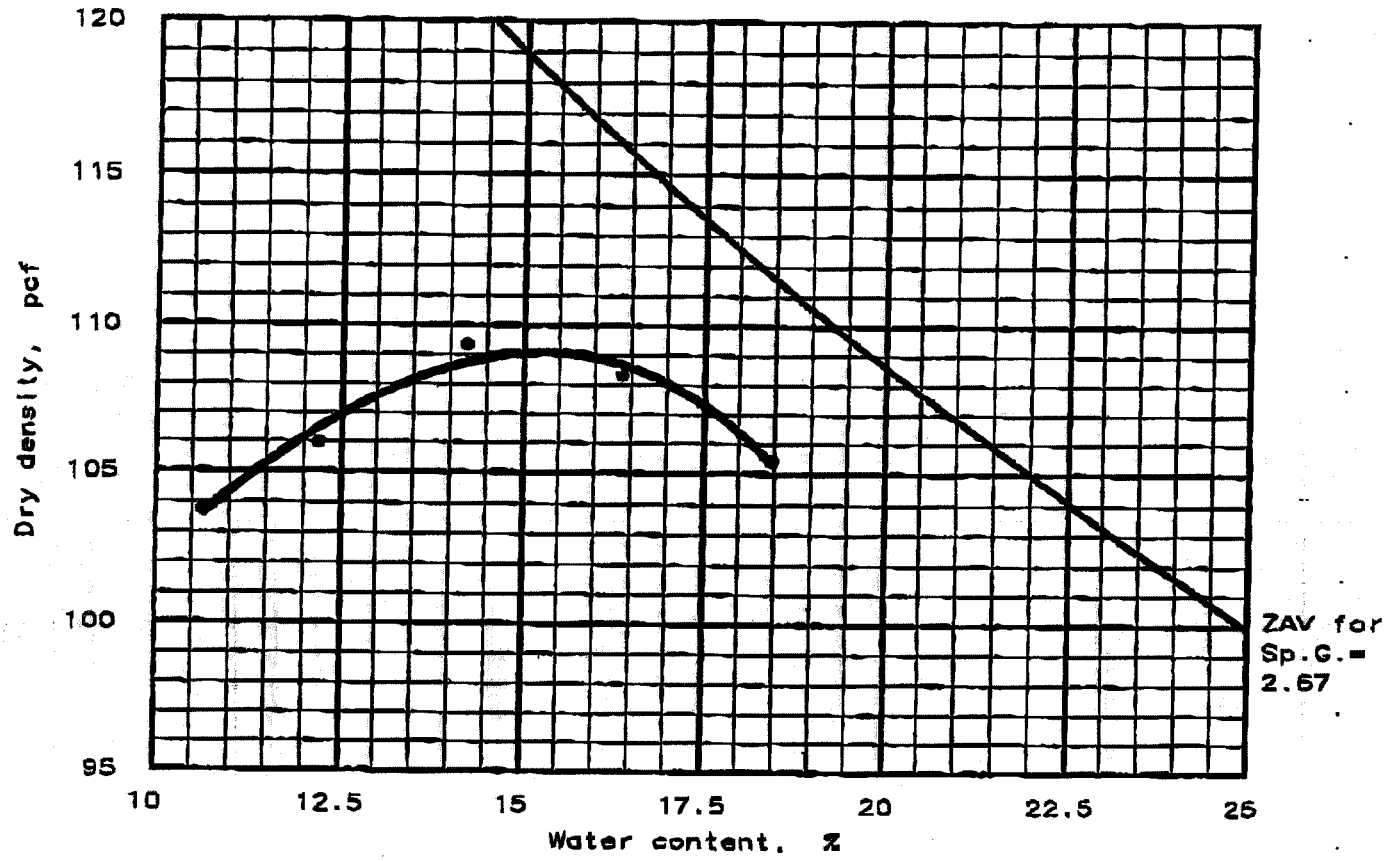


Test specification: ASTM D 698-91 Method B, Standard
Oversize correction applied to final results

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in	% < No.200
	USCS	AASHTO						
3			7.8 %	2.70			31.3 %	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 126.5 pcf Optimum moisture = 9.6 %	
ETDC Project Name: Bechtel Jacobs Paducah ETDC Project No.: 783208.00210000 ETDC Sample No.: ETDC-9051 Client Sample No.: UFS803S003	Remarks:
Standard Proctor ASTM D 698 **IT Corp. - GEOTECHNICAL LABORATORY**	

Standard Proctor ASTM D 698



Test specification: ASTM D 698-91 Method A, Standard
Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
3			6.0 %	2.67			13.3 %	

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 109.1 pcf Optimum moisture = 15.3 %	109.1 pcf 15.3 %	

ETDC Project Name: Bechtel Jacobs Paducah

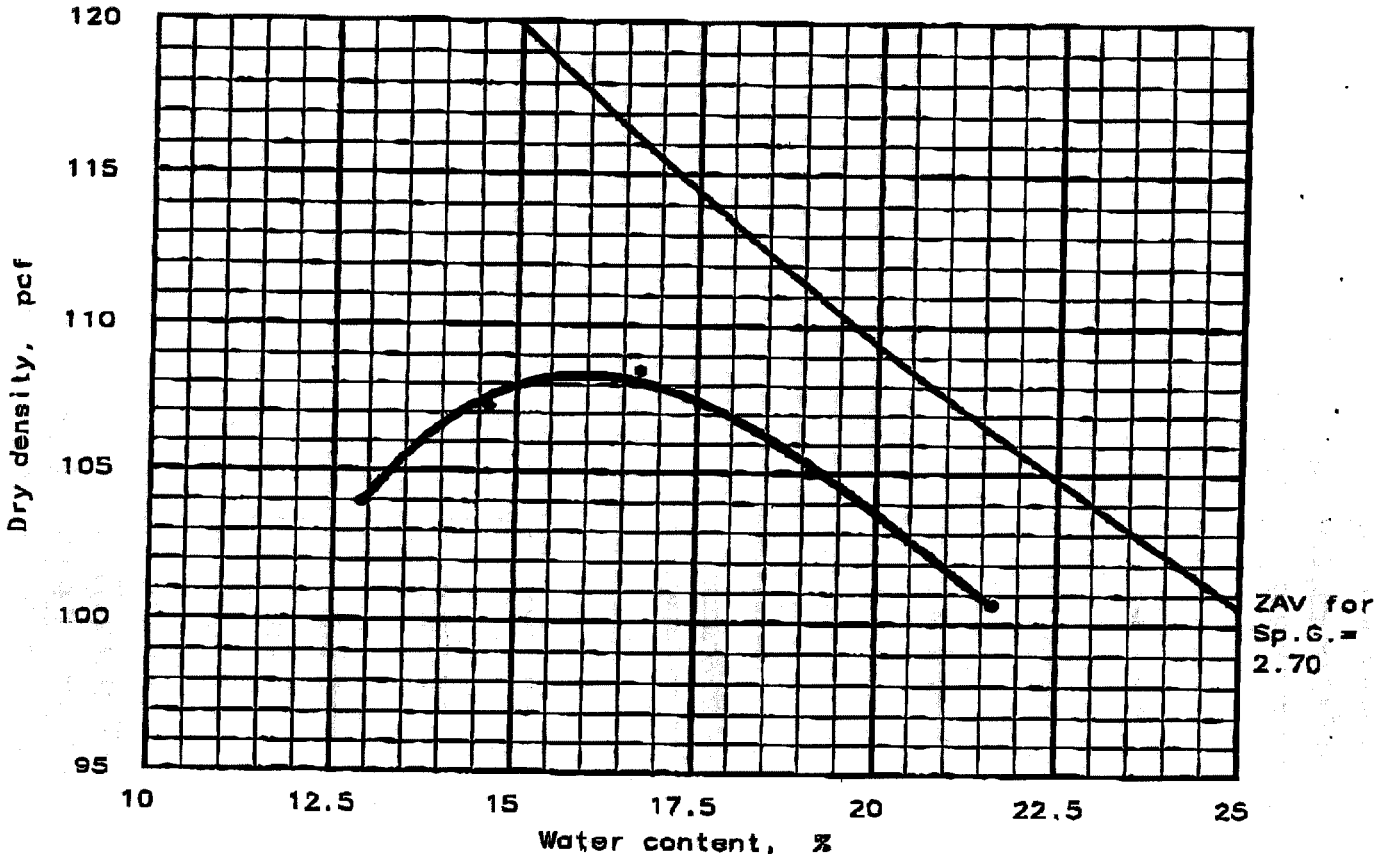
ETDC Project No.: 783208.00210000
ETDC Sample No.: ETDC-9056
Client Sample No.: UFSB10S003

Standard Proctor ASTM D 698

IT Corp. - GEOTECHNICAL LABORATORY

Remarks:

Standard Proctor ASTM D 698



Test specification: ASTM D 698-91 Method A, Standard
Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
9			26.7 %	2.70			0.04 %	

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 108.3 pcf Optimum moisture = 16.0 %	108.3 pcf 16.0 %	

ETDC Project Name: Bechtel Jacobs Paducah

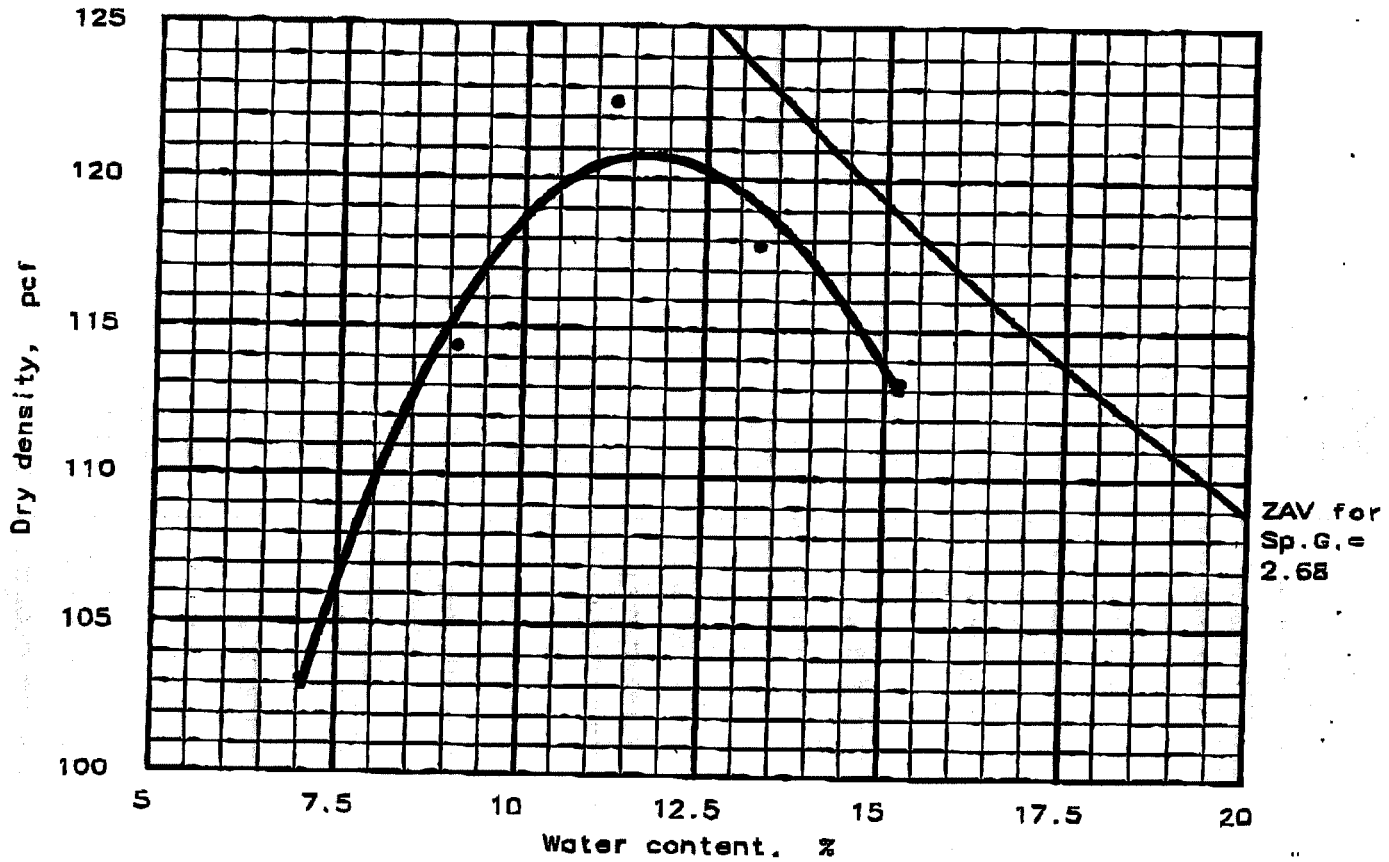
ETDC Project No.: 783208.00210000
ETDC Sample No.: ETDC-9057
Client Sample No.: UFS8105009

Remarks:

Standard Proctor ASTM D 698

IT Corp. - GEOTECHNICAL LABORATORY

Standard Proctor ASTM D 698

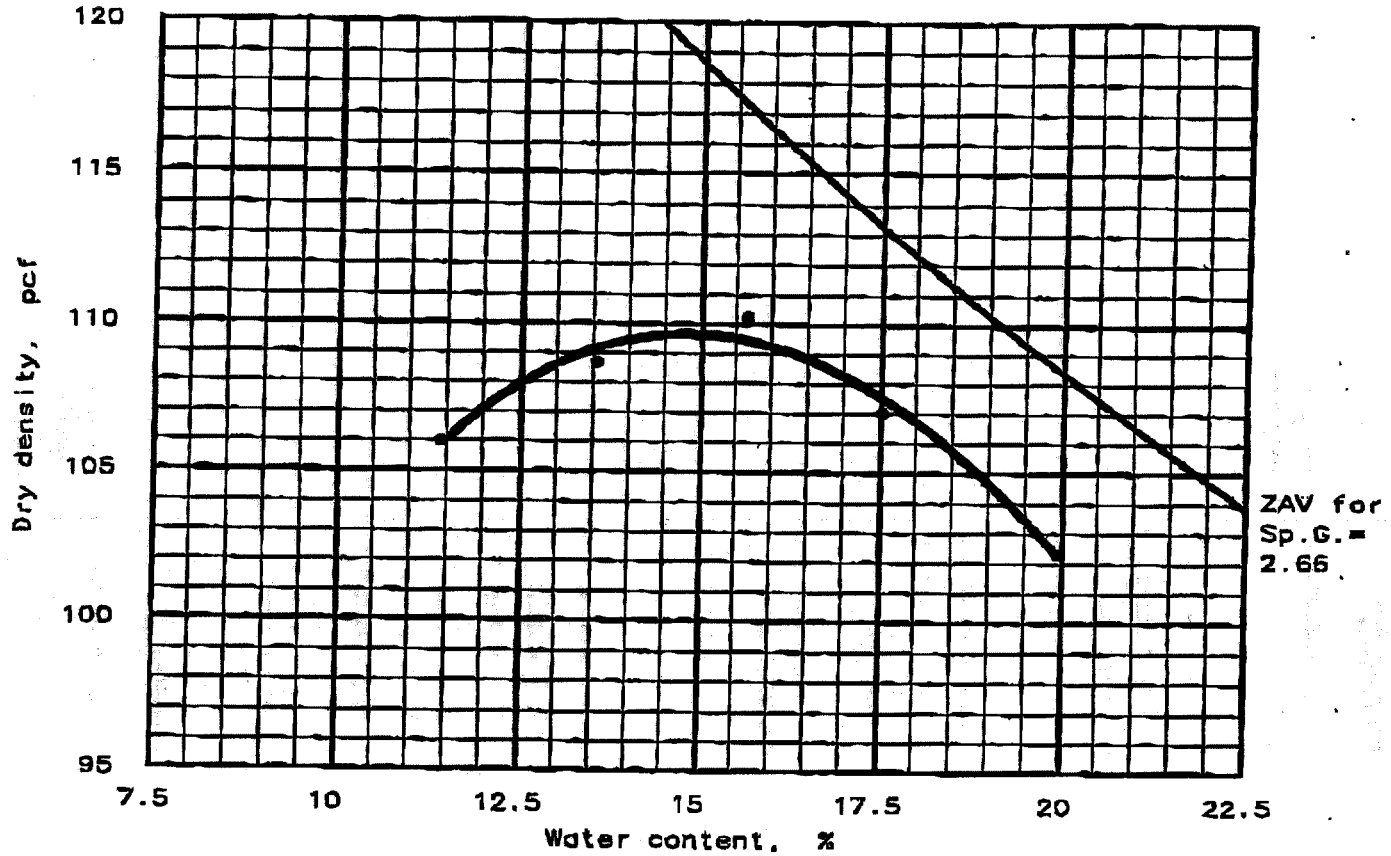


Test specification: ASTM D 698-91 Method B, Standard
Oversize correction applied to final results

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in	% < No.200
	USCS	AASHTO						
3			3.37 %	2.68			19.7 %	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 120.8 pcf Optimum moisture = 11.7 %	
ETDC Project Name: Bechtel Jacobs Paducah ETDC Project No.: 783208.00210000 ETDC Sample No.: ETDC-9058 Client Sample No.: UFS8145003	Remarks:
Standard Proctor ASTM D 698 **IT Corp. - GEOTECHNICAL LABORATORY**	

Standard Proctor ASTM D 698



Test specification: ASTM D 698-91 Method A, Standard
Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > No.4	% < No.200
	USCS	AASHTO						
9			0.30 %	2.66			2.54 %	-

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 109.7 pcf Optimum moisture = 14.8 %	109.7 pcf 14.8 %	

ETDC Project Name: Bechtel Jacobs Paducah

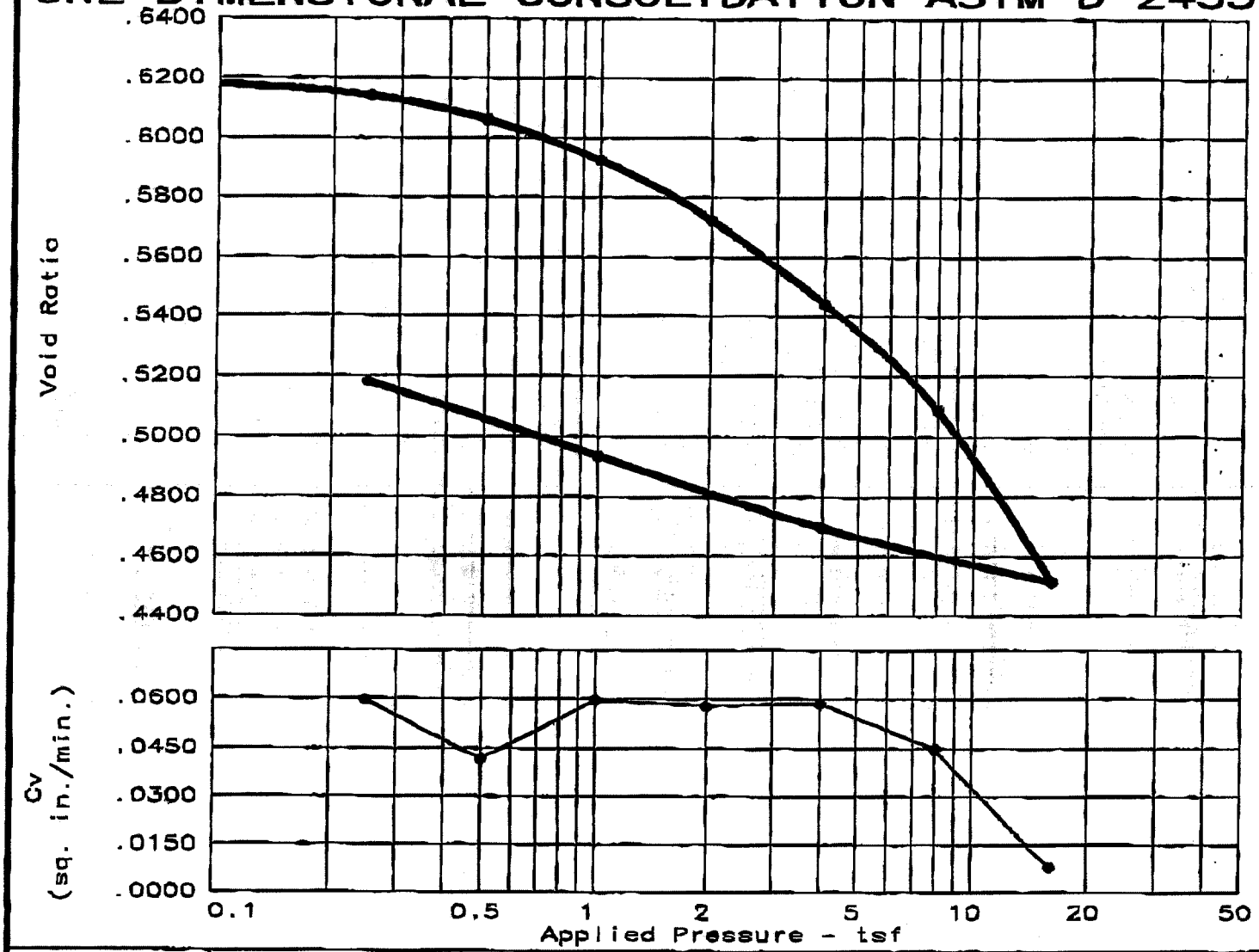
ETDC Project No.: 783208.00210000
ETDC Sample No.: ETDC-9059
Client Sample No.: UFS814S009

Remarks:

Standard Proctor ASTM D 698

IT Corp. - GEOTECHNICAL LABORATORY

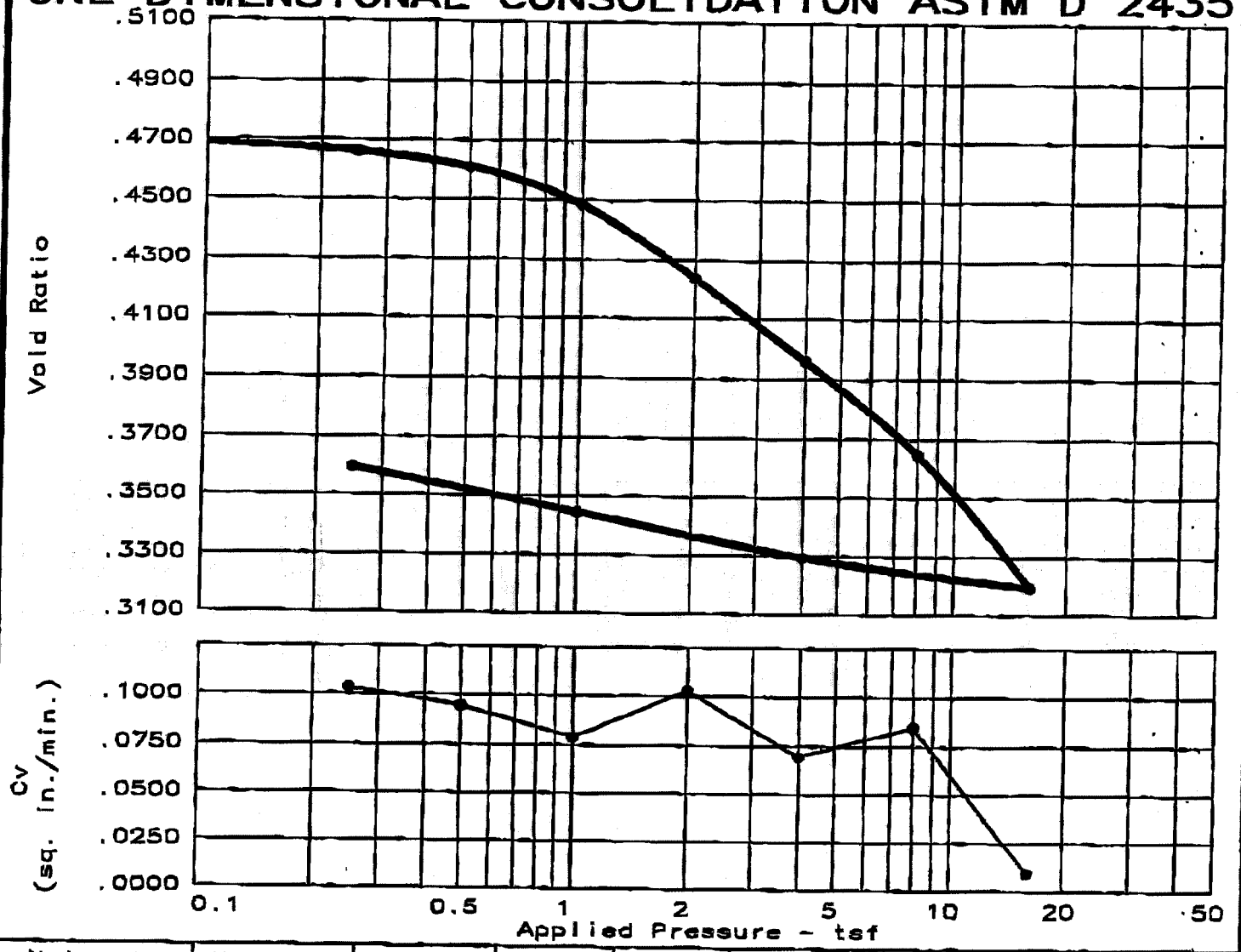
ONE-DIMENSIONAL CONSOLIDATION ASTM D 2435



Natural Saturation	Natural Moisture	Dry Density	LL	PI	Sp.Gr.	Precons. press.	C_c	e_o
96.8 %	22.6	101.8			2.65	8.00	0.19	0.6178

TEST RESULTS	MATERIAL DESCRIPTION
Compression Index = 0.19	
ETDC Project Name: Bechtel Jacobs Paducah ETDC Project No.: 783208.00210000 ETDC Sample No.: 9052 Client Sample No.: UFSB03S006	Remarks:
ONE-DIMENSIONAL CONSOLIDATION ASTM D 2435 IT Corp. - GEOTECHNICAL LABORATORY	

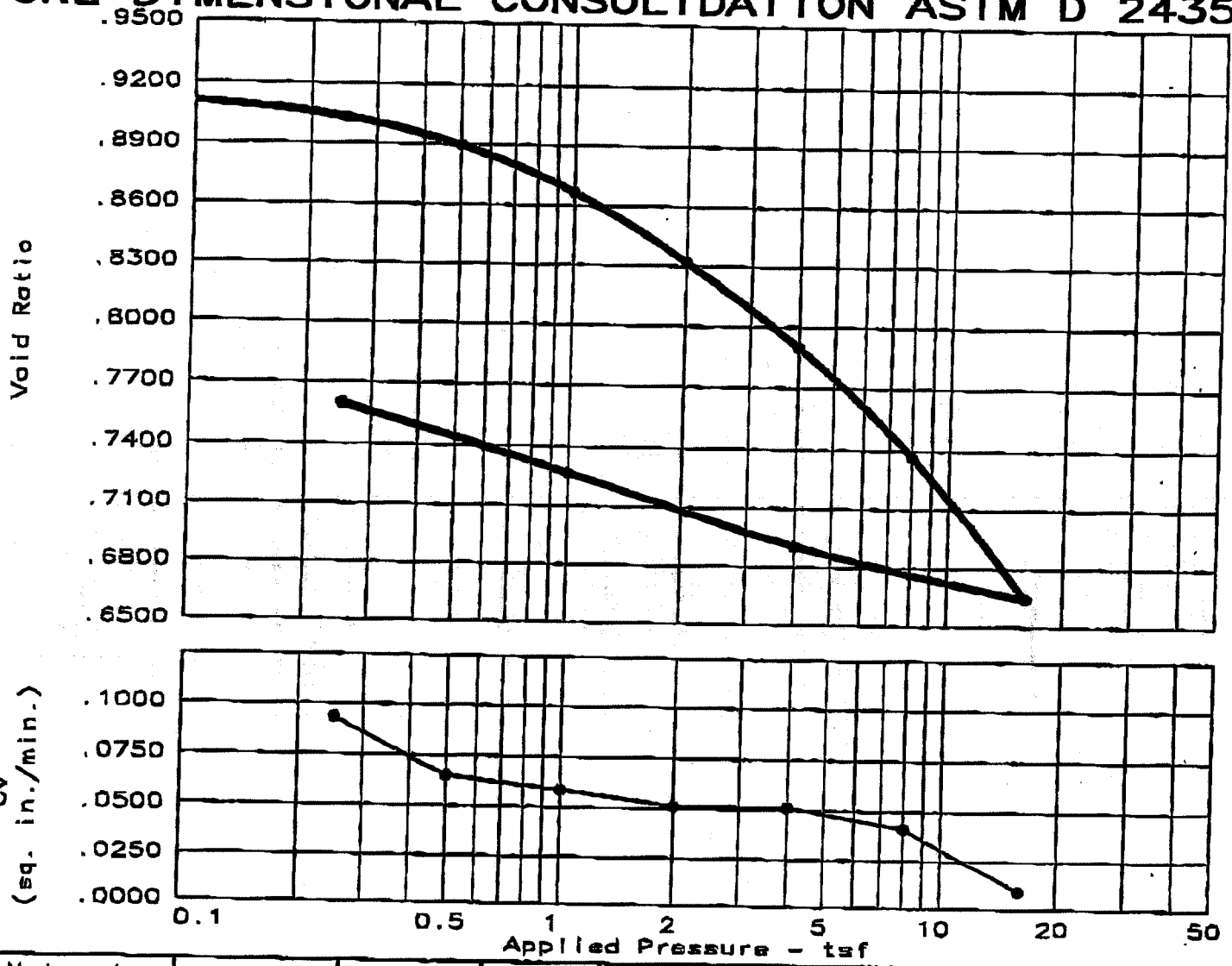
ONE-DIMENSIONAL CONSOLIDATION ASTM D 2435



Natural Saturation	Natural Moisture	Dry Density	LL	PI	Sp.Gr.	Precons. press.	C_c	e_o
87.0 %	15.3	114.1			2.66	8.00	0.15	0.4690

TEST RESULTS	MATERIAL DESCRIPTION
Compression Index = 0.15	
ETDC Project Name: Bechtel Jacobs Paducah ETDC Project No.: 783208.00210000 ETDC Sample No.: 9054 Client Sample No.: UFSB03S022	Remarks:
ONE-DIMENSIONAL CONSOLIDATION ASTM D 2435 IT Corp. - GEOTECHNICAL LABORATORY	

ONE-DIMENSIONAL CONSOLIDATION ASTM D 2435



Natural Saturation	Natural Moisture	Dry Density	LL	PI	Sp.Gr.	Precons. press.	C_c	e_o
105.5 %	36.3	86.6			2.65	7.33	0.24	0.9108

TEST RESULTS

Compression Index = 0.24

MATERIAL DESCRIPTION

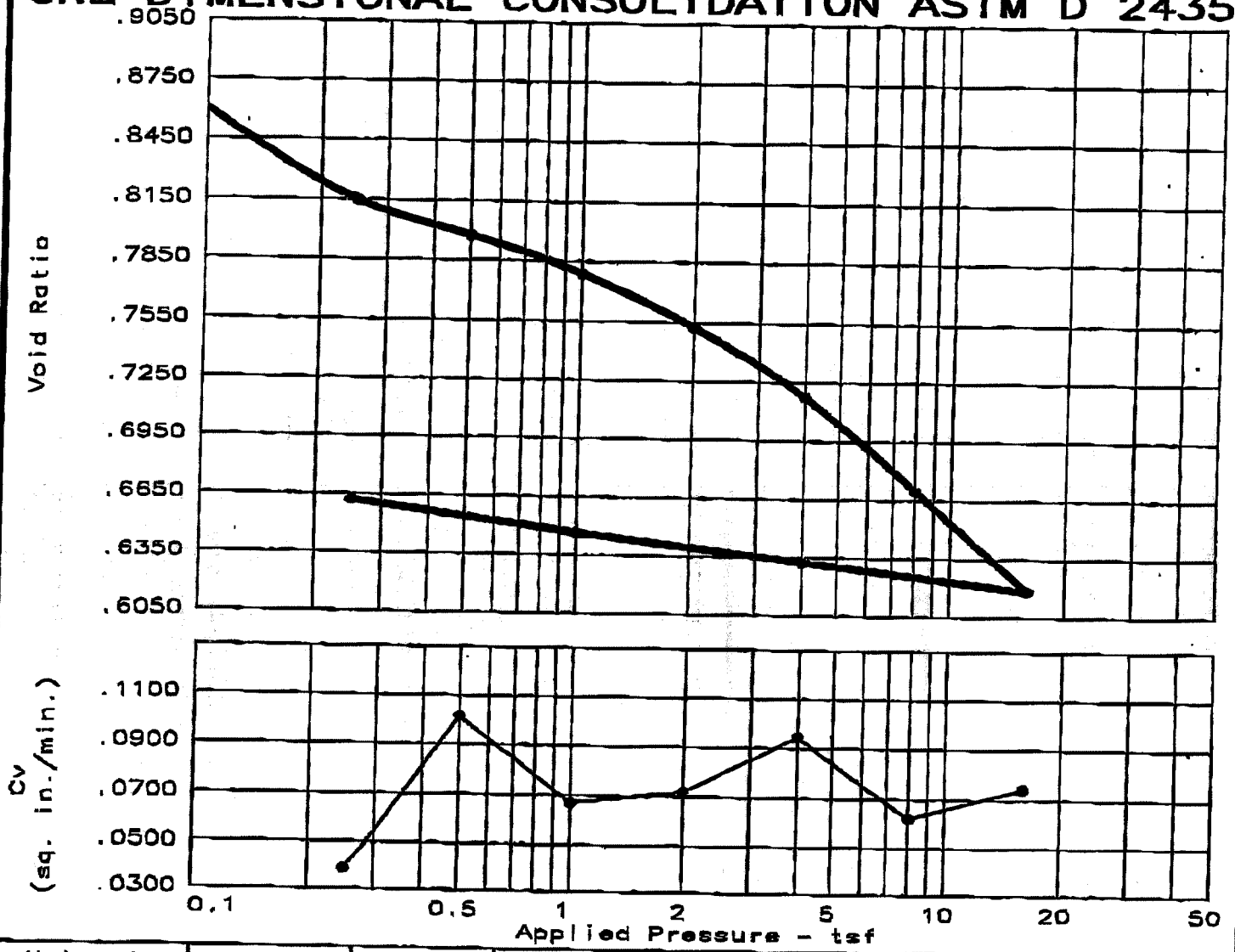
ETDC Project Name: Bechtel Jacobs Paducah
ETDC Project No.: 783208.00210000
ETDC Sample No.: 9060
Client Sample No.: UFSB10S007

Remarks:

ONE-DIMENSIONAL CONSOLIDATION ASTM D 2435

IT Corp. - GEOTECHNICAL LABORATORY

ONE-DIMENSIONAL CONSOLIDATION ASTM D 2435



Natural Saturation	Natural Moisture	Dry Density	LL	PI	Sp.Gr.	Precons. press.	C_c	e_o
86.1 %	27.9	91.1			2.66	1.79	0.17	0.8604

TEST RESULTS

Compression Index = 0.17

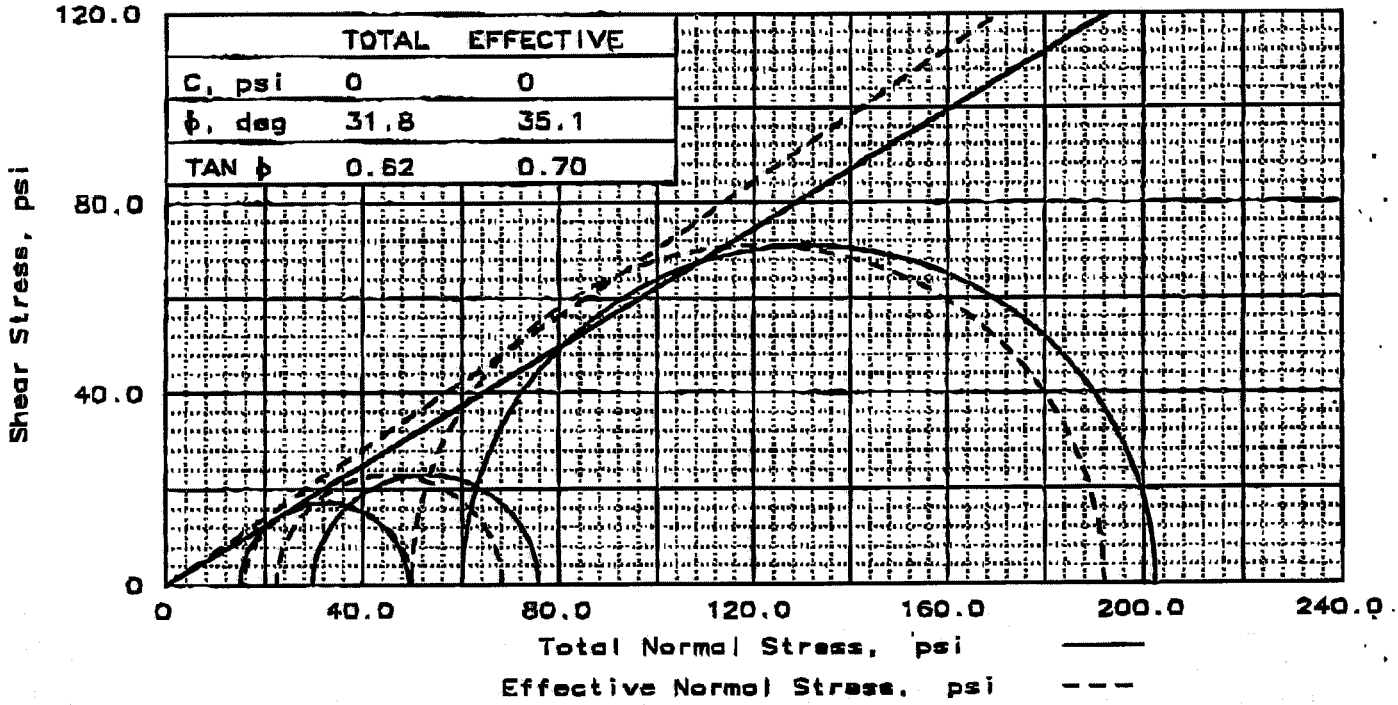
ETDC Project Name: Bechtel Jacobs Paducah
ETDC Project No.: 783208.00210000
ETDC Sample No.: 9062
Client Sample No.: UFSB14S007

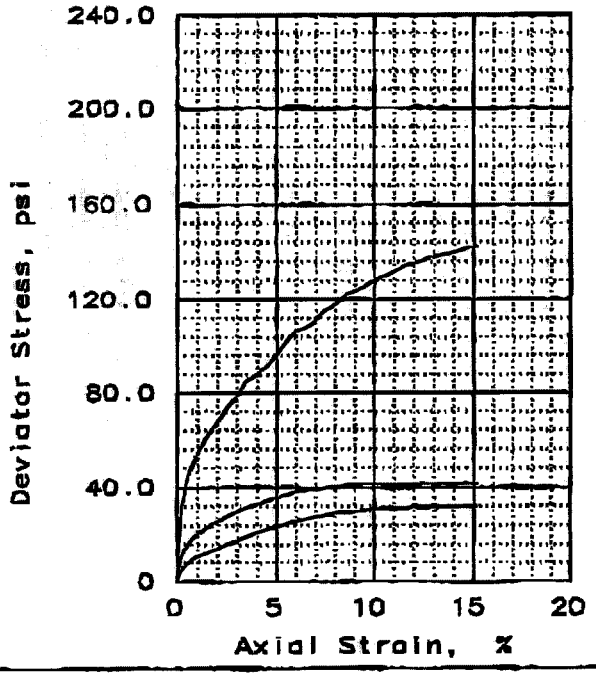
ONE-DIMENSIONAL CONSOLIDATION ASTM D 2435

IT Corp. - GEOTECHNICAL LABORATORY

MATERIAL DESCRIPTION

Remarks:





SAMPLE NO.		1	2	3
INITIAL	WATER CONTENT, %	22.6	22.6	22.6
	DRY DENSITY, pcf	103.3	103.3	106.0
	SATURATION, %	99.5	99.6	106.7
	VOID RATIO	0.602	0.601	0.561
	DIAMETER, in	2.04	2.03	2.01
	HEIGHT, in	4.30	4.12	3.95
AT TEST	WATER CONTENT, %	23.7	23.0	21.1
	DRY DENSITY, pcf	106.6	107.6	109.3
	SATURATION, %	113.8	113.5	109.0
	VOID RATIO	0.553	0.537	0.514
	DIAMETER, in	2.02	2.00	1.99
	HEIGHT, in	4.25	4.07	3.91
Strain rate, in/min		0.003	0.003	0.003
BACK PRESSURE, psi		25.0	25.0	25.0
CELL PRESSURE, psi		40.0	55.0	85.0
FAILURE STRESS, psi		34.3	45.8	142.4
PORE PRESSURE, psi		24.3	32.5	35.2
ULTIMATE STRESS, psi		34.3	45.8	142.4
PORE PRESSURE, psi		23.9	32.5	35.2
$\bar{\sigma}_1$ FAILURE, psi		50.0	68.3	192.2
$\bar{\sigma}_3$ FAILURE, psi		15.7	22.5	49.8

TYPE OF TEST:
CU with pore pressures
SAMPLE TYPE: Undisturbed
DESCRIPTION: Silt

LL= 34 PL= 24 PI= 10.0
SPECIFIC GRAVITY= 2.65
REMARKS:

CLIENT: Bechtel Jacobs

PROJECT: Bechtel Jacobs Paducah

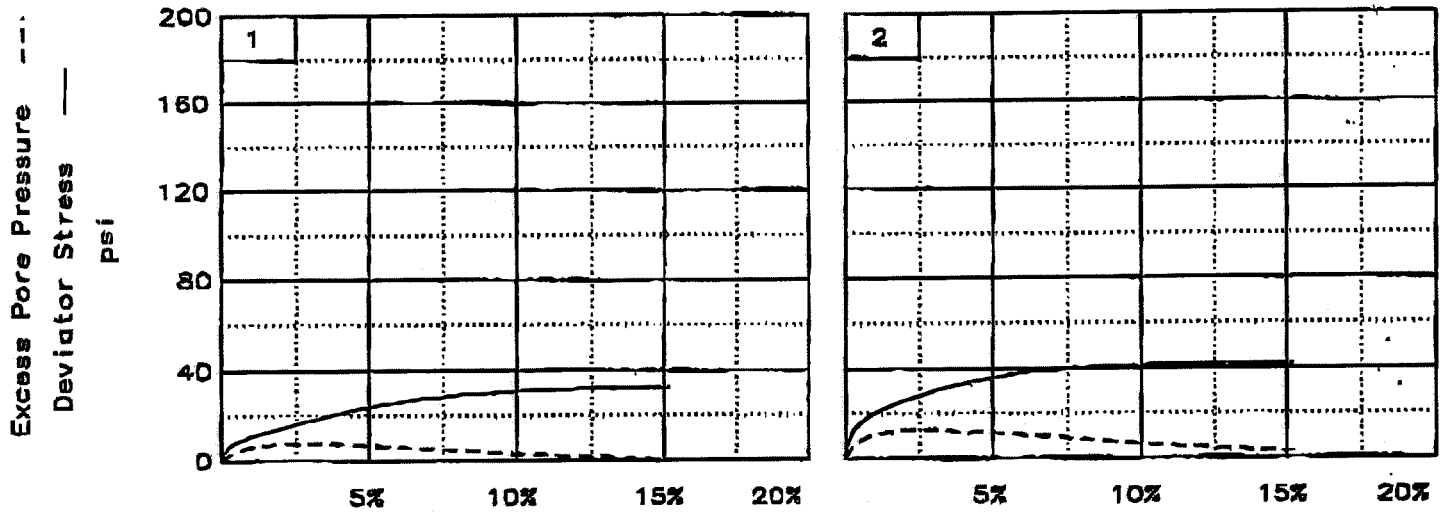
SAMPLE LOCATION: Lab sample no. ETDC-9052
Client sample no. UFSB03S006

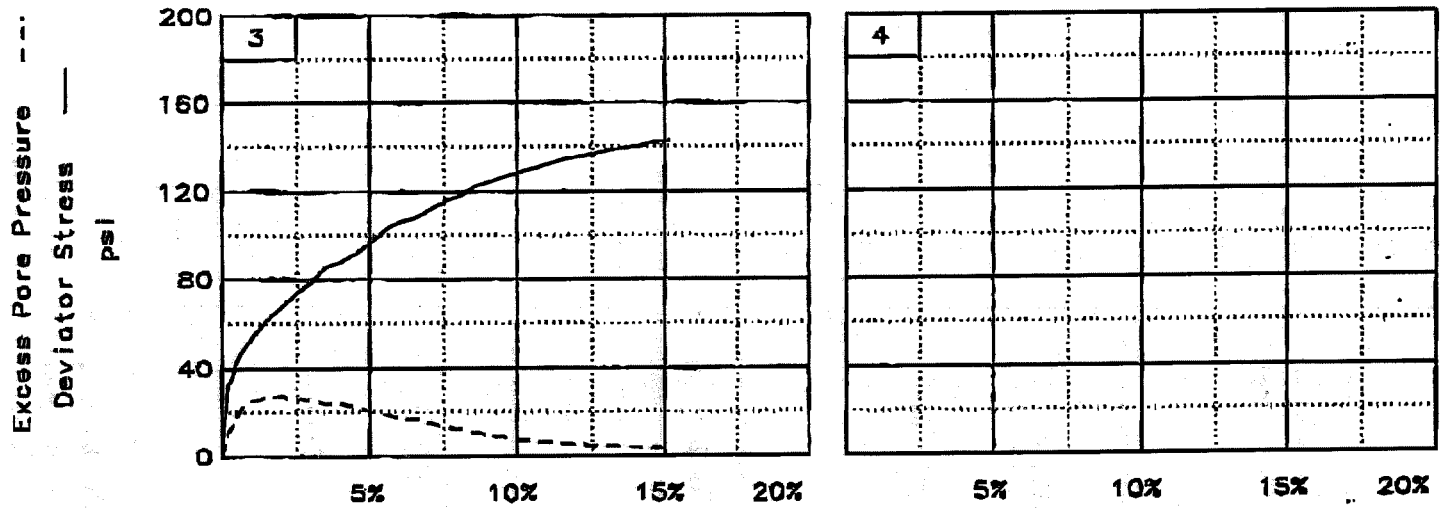
PROJ. NO.: 783208 DATE: 9/14/2000

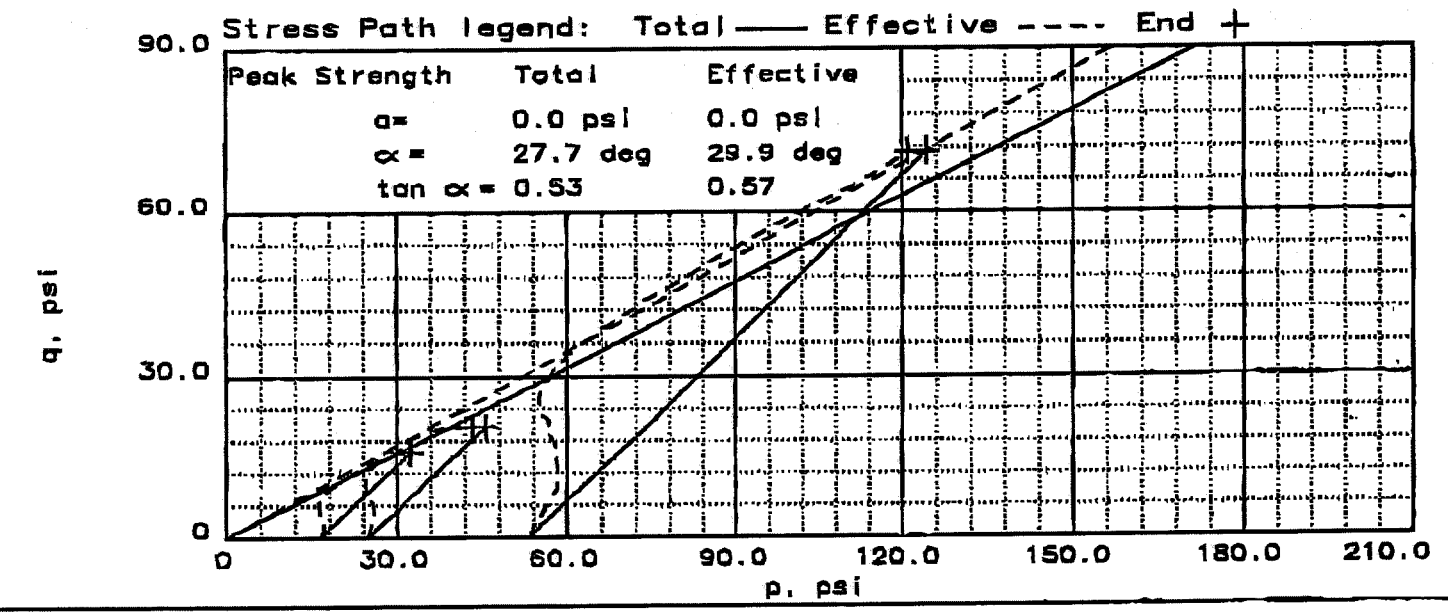
TRIAXIAL SHEAR TEST REPORT

IT CORPORATION GEOTECHNICAL LABORATORY

FIG. NO. 9052c





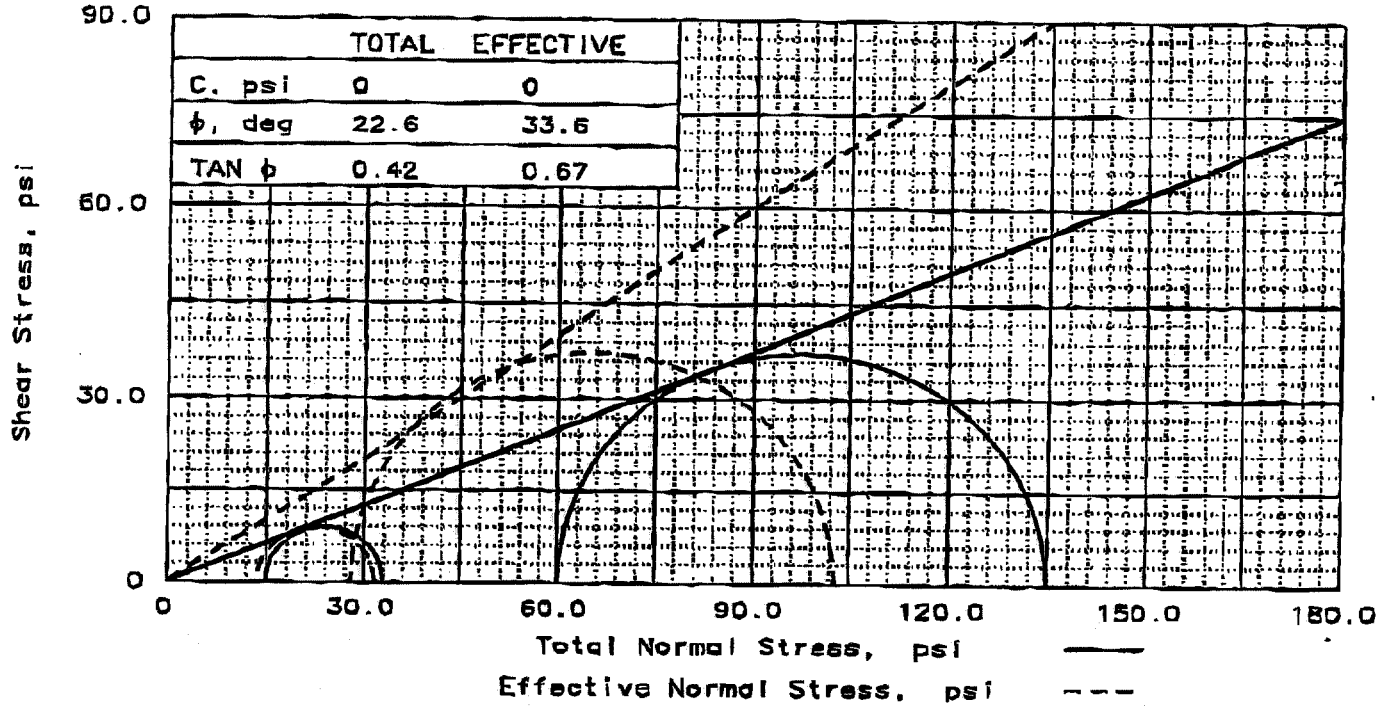


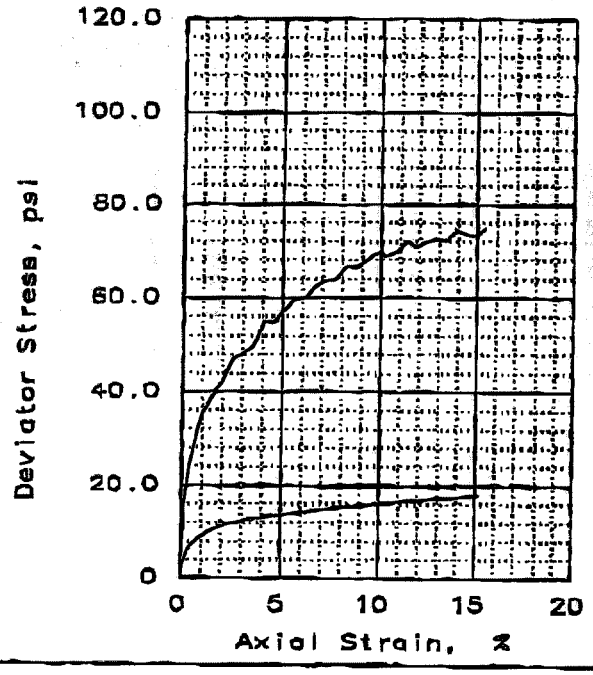
Client: Bechtel Jacobs

Project: Bechtel Jacobs Paducah

Location: Lab sample no. ETDC-9052 Client sample no. UFS803S006

File: 9052CU Project No.: 783208 Page 2/2 Fig. No. 9052c





SAMPLE NO.		1	2
INITIAL	WATER CONTENT, %	11.8	11.8
	DRY DENSITY, pcf	107.5	111.8
	SATURATION, %	57.7	64.9
	VOID RATIO	0.545	0.485
	DIAMETER, in	1.51	1.38
	HEIGHT, in	2.19	2.84
AT TEST	WATER CONTENT, %	24.9	16.6
	DRY DENSITY, pcf	111.2	122.7
	SATURATION, %	134.4	124.9
	VOID RATIO	0.493	0.353
	DIAMETER, in	1.49	1.33
	HEIGHT, in	2.17	2.76
Strain rate, in/min		0.003	0.003
BACK PRESSURE, psi		30.0	35.0
CELL PRESSURE, psi		45.0	95.0
FAILURE STRESS, psi		17.8	74.9
PORE PRESSURE, psi		31.3	67.1
ULTIMATE STRESS, psi		17.8	74.9
PORE PRESSURE, psi		31.3	67.1
$\bar{\sigma}_1$ FAILURE, psi		31.5	102.8
$\bar{\sigma}_3$ FAILURE, psi		13.7	27.9

TYPE OF TEST:
CU with pore pressures
SAMPLE TYPE: Undisturbed
DESCRIPTION: Sandy lean CLAY with gravel.
LL= 33 PL= 13 PI= 20.0
SPECIFIC GRAVITY= 2.66
REMARKS: 2-point test.
Insufficient sample for 3-pts

CLIENT: Bechtel Jacobs

PROJECT: Bechtel Jacobs Paducah

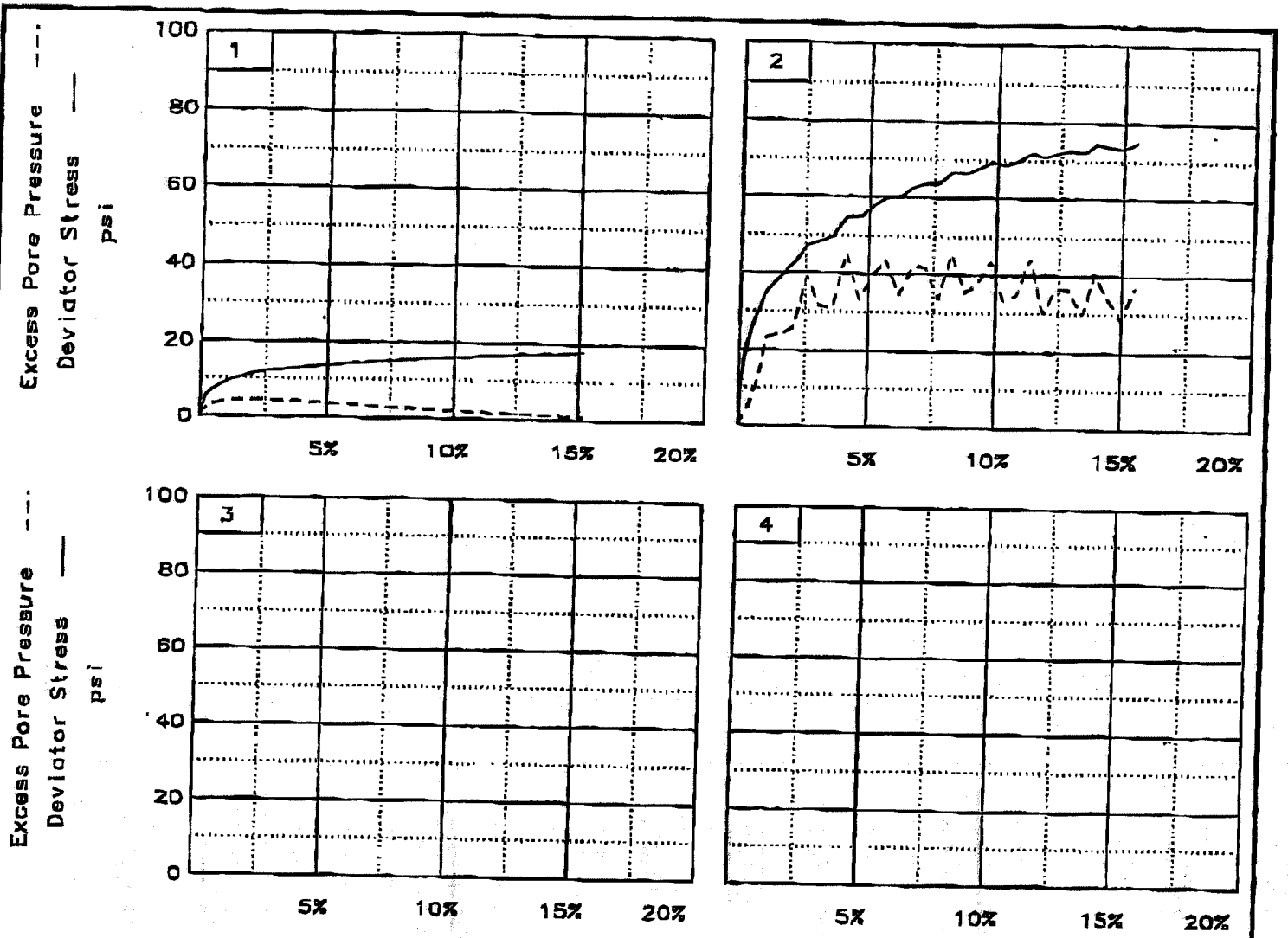
SAMPLE LOCATION: Lab sample no. ETDC-9054
Client sample no. UFSB03S022

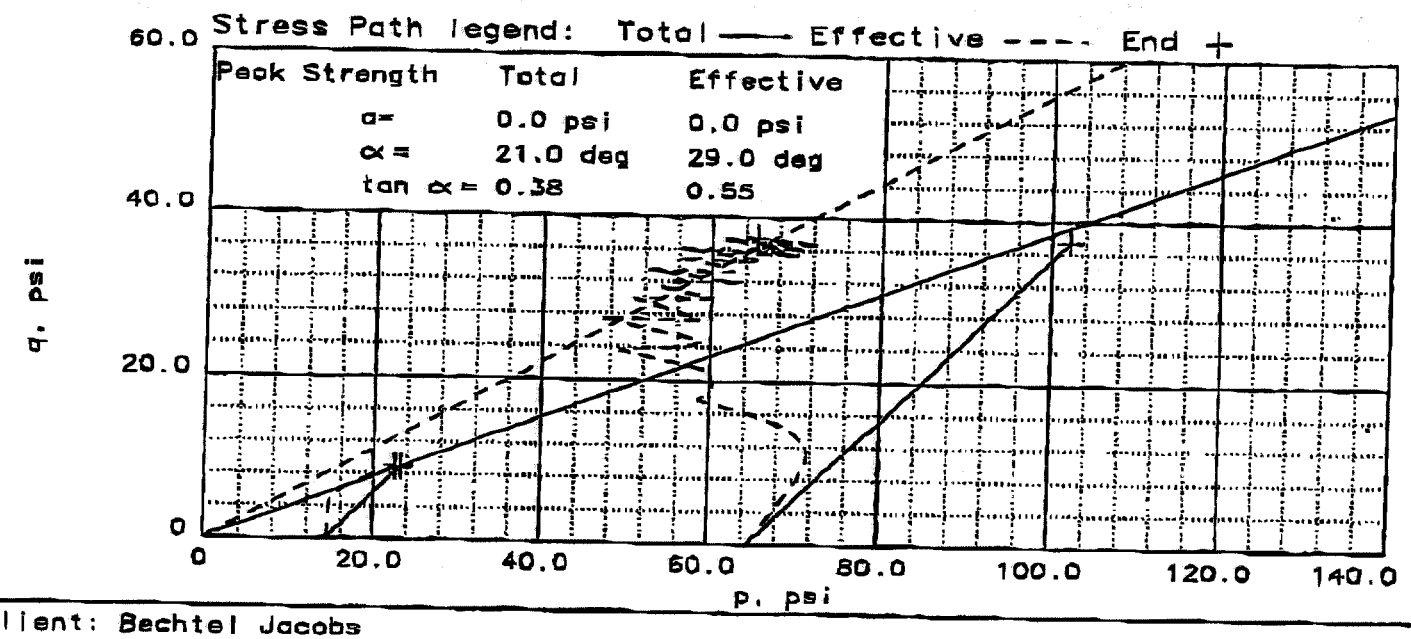
PROJ. NO.: 783208 DATE: 9/22/2000

TRIAXIAL SHEAR TEST REPORT

IT CORPORATION GEOTECHNICAL LABORATORY

FIG. NO. 9054C



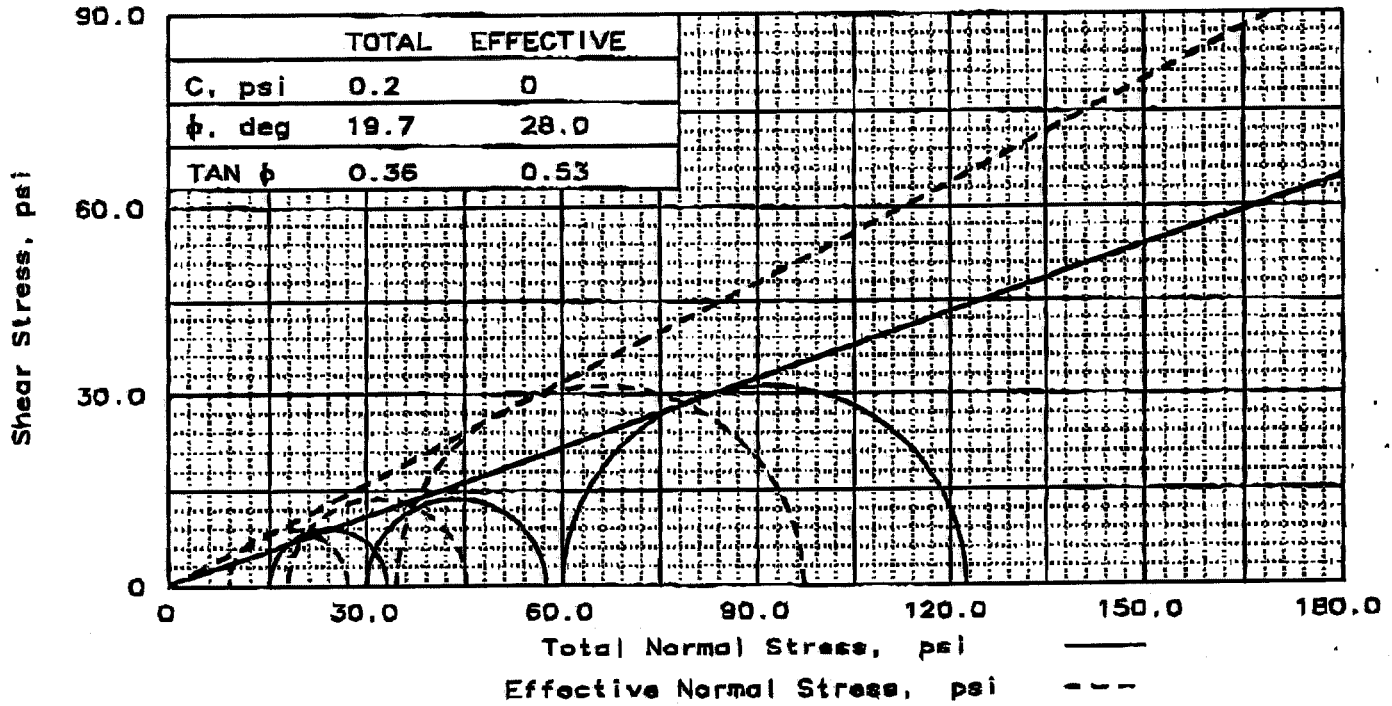


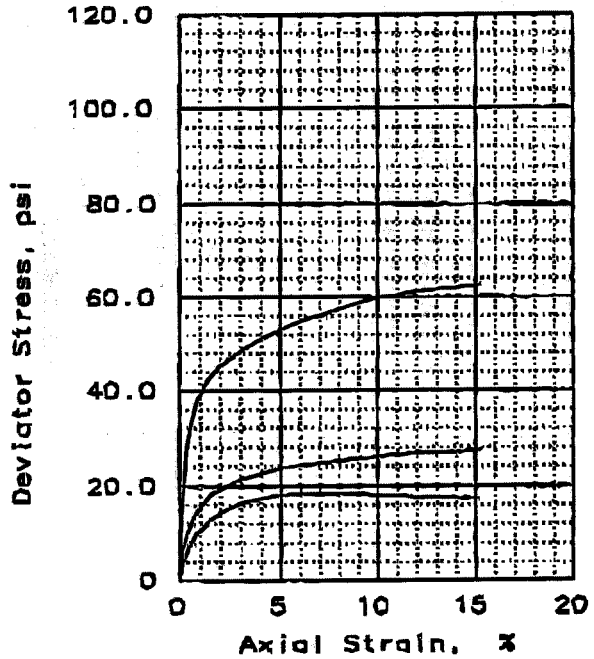
Client: Bechtel Jacobs

Project: Bechtel Jacobs Paducah

Location: Lab sample no. ETDC-9054 Client sample no. UFSB03S022

File: 9054CU Project No.: 783208 Page 2/2 Fig. No. 9054C





SAMPLE NO.		1	2	3
INITIAL	WATER CONTENT, %	28.6	28.6	28.6
	DRY DENSITY, pcf	94.8	96.9	97.4
	SATURATION, %	100.2	105.4	106.8
	VOID RATIO	0.765	0.727	0.718
	DIAMETER, in	2.02	2.02	2.00
	HEIGHT, in	4.12	4.16	4.22
AT TEST	WATER CONTENT, %	27.0	25.7	25.0
	DRY DENSITY, pcf	97.7	102.0	102.3
	SATURATION, %	101.3	107.4	105.2
	VOID RATIO	0.713	0.640	0.636
	DIAMETER, in	2.00	1.99	1.97
	HEIGHT, in	4.08	4.09	4.15
Strain rate, in/min		0.003	0.003	0.004
BACK PRESSURE, psi		25.0	25.0	25.0
CELL PRESSURE, psi		40.0	55.0	85.0
FAILURE STRESS, psi		18.2	27.4	62.5
PORE PRESSURE, psi		31.1	37.1	50.4
ULTIMATE STRESS, psi		17.4	27.4	62.5
PORE PRESSURE, psi		29.2	37.1	50.4
$\bar{\sigma}_1$ FAILURE, psi		27.1	45.3	97.1
$\bar{\sigma}_3$ FAILURE, psi		8.9	17.9	34.6

TYPE OF TEST:
CU with pore pressures
SAMPLE TYPE: Undisturbed
DESCRIPTION: Lean CLAY

LL= 43 PL= 16 PI= 27.0
SPECIFIC GRAVITY= 2.68
REMARKS:

CLIENT: Bechtel Jacobs

PROJECT: Bechtel Jacobs Paducah

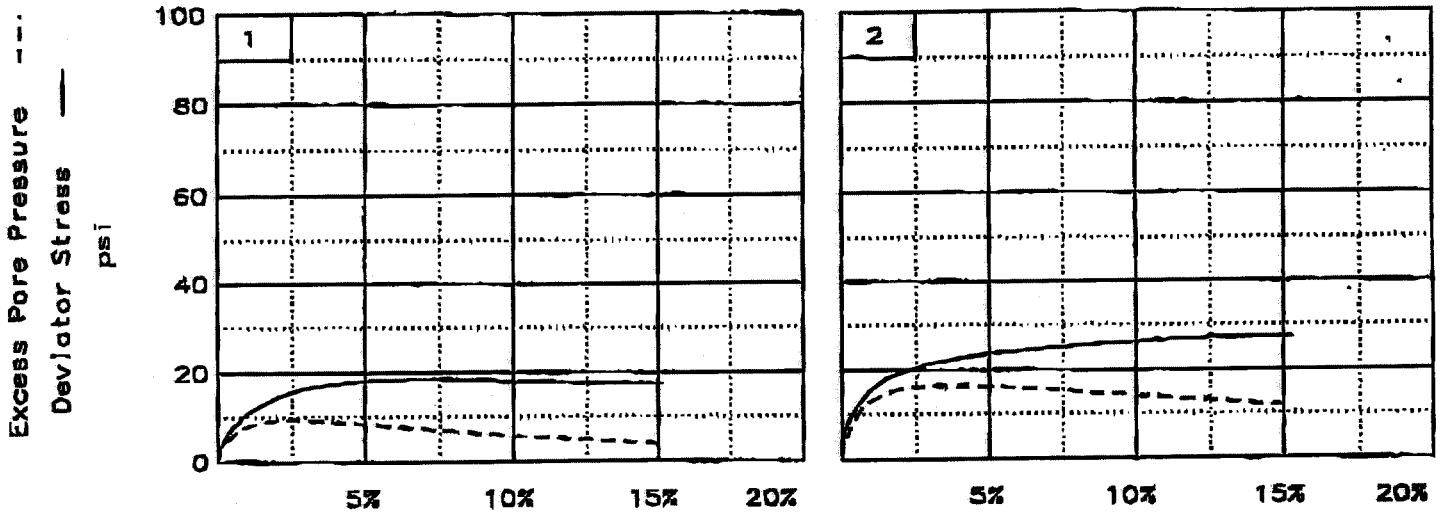
SAMPLE LOCATION: Lab sample no. ETDC-9060
Client sample no. UFSB10S007

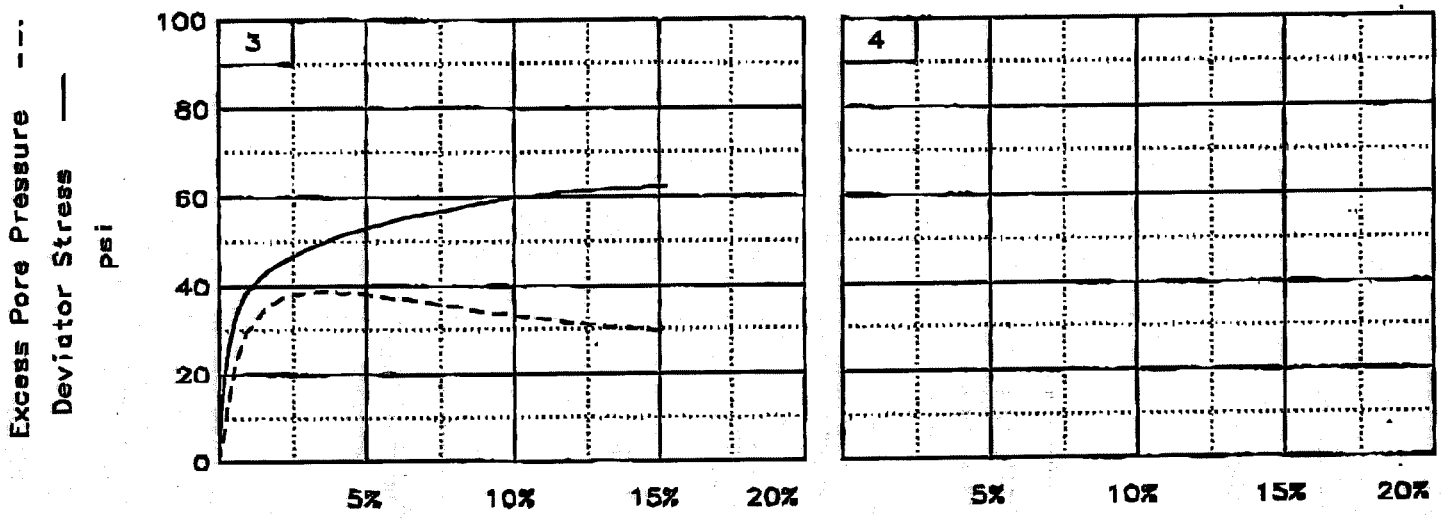
PROJ. NO.: 783208 DATE: 9/15/2000

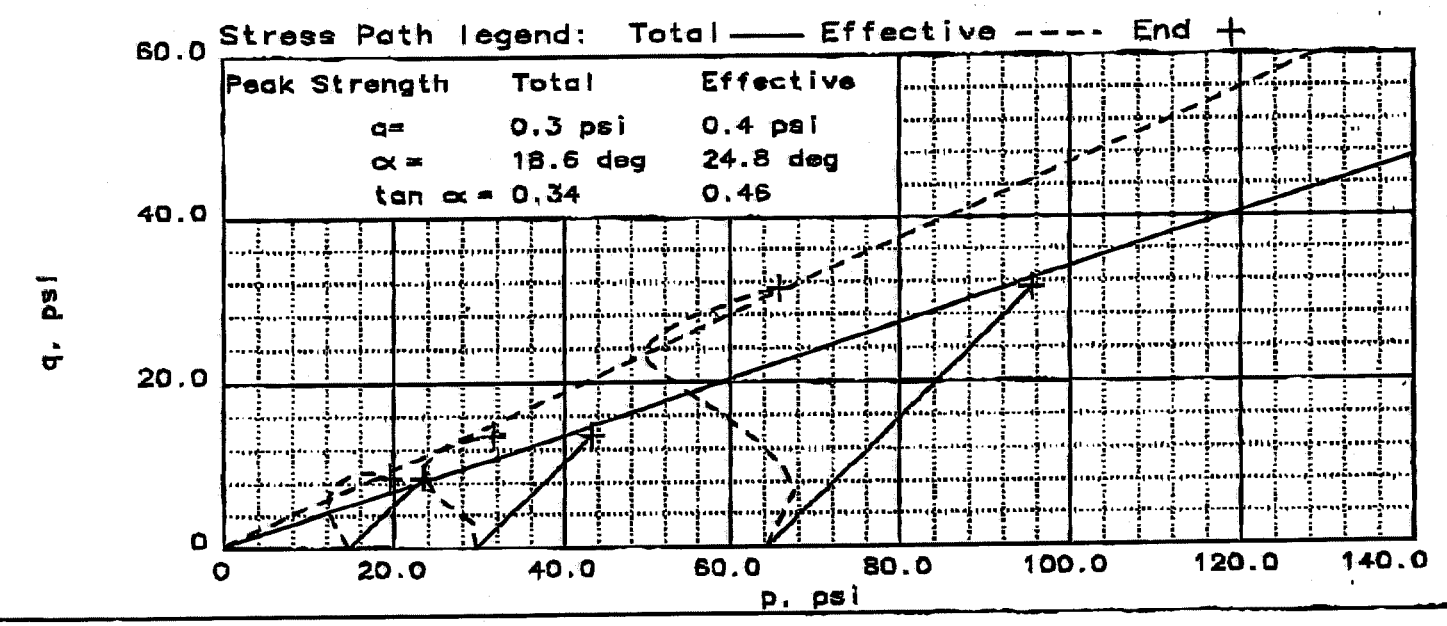
TRIAXIAL SHEAR TEST REPORT

IT CORPORATION GEOTECHNICAL LABORATORY

FIG. NO. 9060c





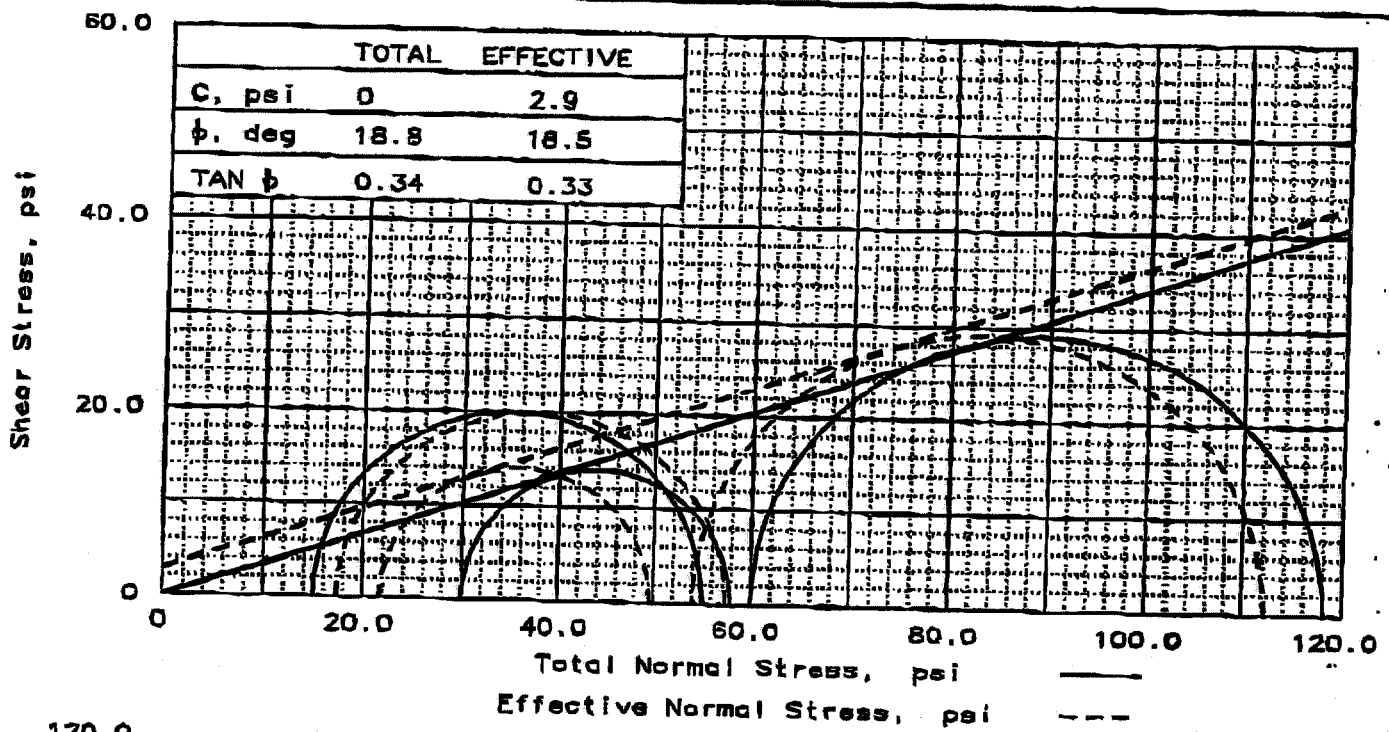


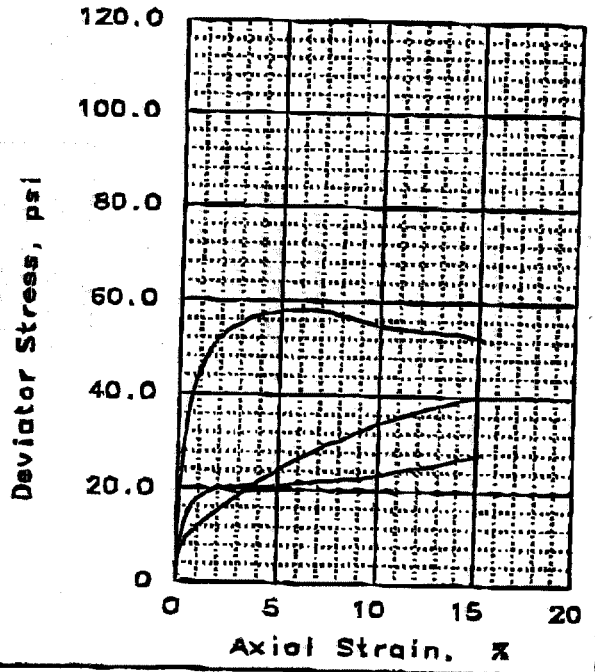
Client: Bechtel Jacobs

Project: Bechtel Jacobs Paducah

Location: Lab sample no. ETDC-9060 Client sample no. UFSB10S007

File: 9060CU Project No.: 783208 Page 2/2 Fig. No. 9060c





SAMPLE NO.		1	2	3
INITIAL	WATER CONTENT, %	27.5	27.5	27.5
	DRY DENSITY, pcf	98.7	96.5	97.1
	SATURATION, %	107.1	101.3	102.8
	VOID RATIO	0.683	0.721	0.710
	DIAMETER, in	2.83	2.87	2.86
	HEIGHT, in	5.74	5.59	5.62
AT TEST	WATER CONTENT, %	24.5	25.2	25.6
	DRY DENSITY, pcf	99.3	102.0	102.7
	SATURATION, %	97.2	106.7	110.1
	VOID RATIO	0.673	0.628	0.617
	DIAMETER, in	2.82	2.82	2.80
	HEIGHT, in	5.73	5.49	5.52
Strain rate, in/min		0.003	0.003	0.003
BACK PRESSURE, psi		25.0	25.0	25.0
CELL PRESSURE, psi		40.0	55.0	85.0
FAILURE STRESS, psi		40.1	28.0	58.1
PORE PRESSURE, psi		22.6	33.3	30.9
ULTIMATE STRESS, psi		40.1	28.0	52.3
PORE PRESSURE, psi		22.6	33.3	27.8
$\bar{\sigma}_1$ FAILURE, psi		57.5	49.7	112.2
$\bar{\sigma}_3$ FAILURE, psi		17.4	21.7	54.1

TYPE OF TEST:
CU with pore pressures
SAMPLE TYPE: Undisturbed
DESCRIPTION: Silty CLAY

LL= 28 PL= 21 PI= 7.0
SPECIFIC GRAVITY= 2.68
REMARKS: Results based on 30psi and 60 psi specimens.
15 psi specimen results

FIG. NO. 9063

CLIENT: Bechtel Jacobs

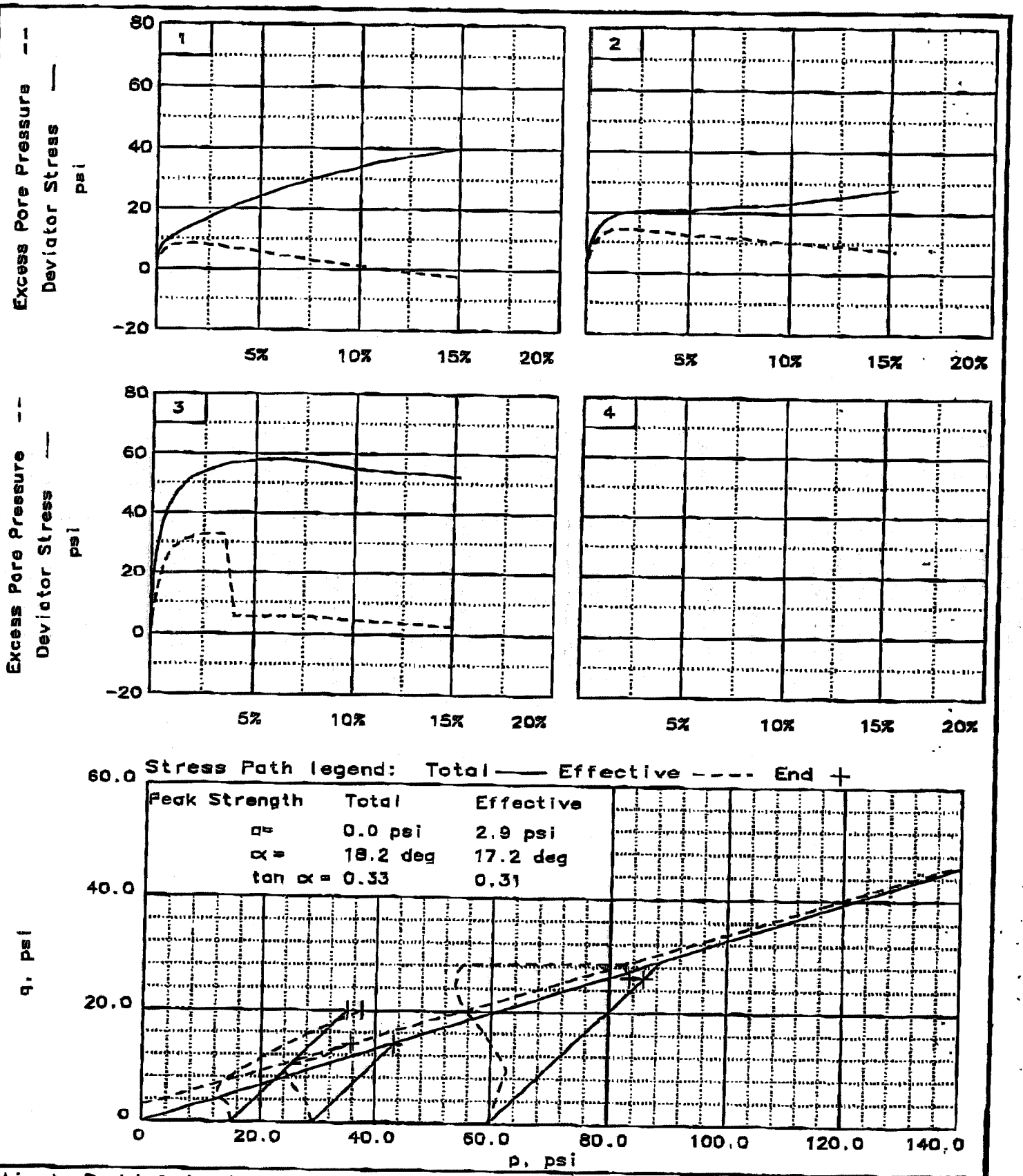
PROJECT: Bechtel Jacobs Paducah

SAMPLE LOCATION: Lab sample no. ETDC-9063
Client sample no. UFSB14S009

PROJ. NO.: 783208 DATE: 9/20/2000

TRIAXIAL SHEAR TEST REPORT

IT CORPORATION GEOTECHNICAL LABORATORY

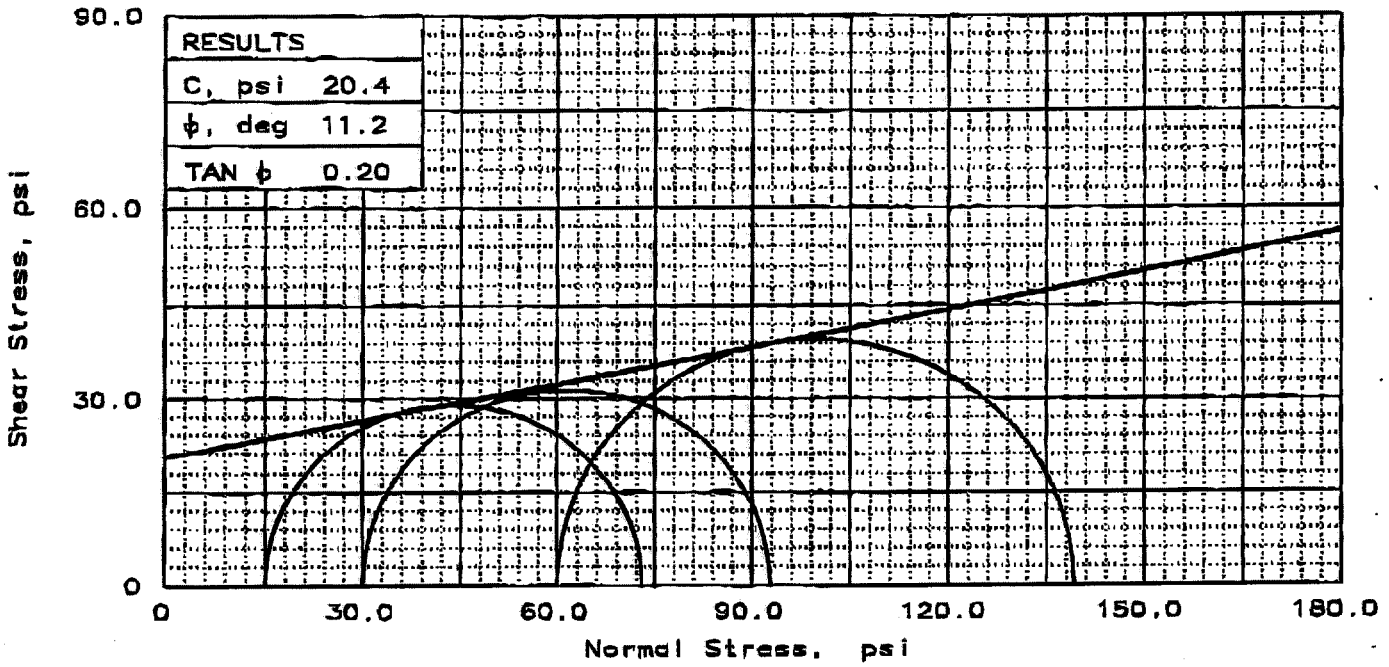


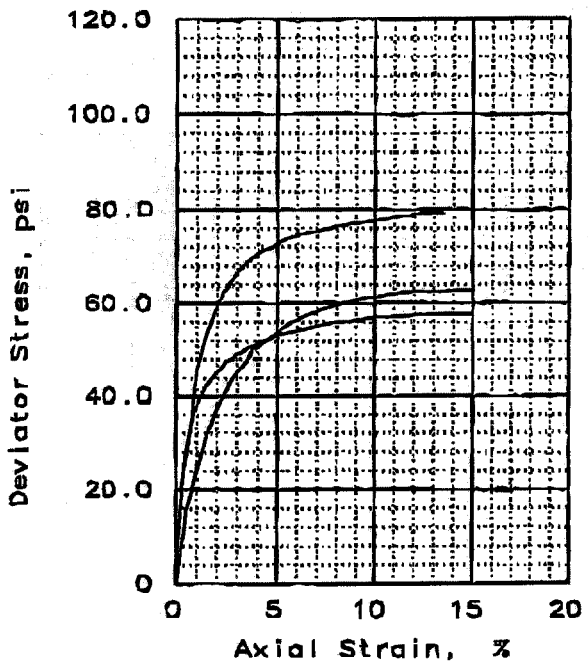
Client: Bechtel Jacobs

Project: Bechtel Jacobs Paducah

Location: Lab sample no. ETDC-9063 Client sample no. UFSB14S009

File: 9063CU Project No.: 783208 Page 2/2 Fig. No. 9063





SAMPLE NO.		1	2	3
INITIAL	WATER CONTENT, %	23.2	22.0	18.6
	DRY DENSITY, pcf	124.5	114.8	108.9
	SATURATION, %	177.2	127.0	91.4
	VOID RATIO	0.354	0.468	0.548
	DIAMETER, in	1.38	1.43	1.41
	HEIGHT, in	2.57	2.92	3.01
AT TEST	WATER CONTENT, %	23.2	22.0	18.6
	DRY DENSITY, pcf	124.5	114.8	108.9
	SATURATION, %	177.2	127.0	91.4
	VOID RATIO	0.354	0.468	0.548
	DIAMETER, in	1.38	1.43	1.41
	HEIGHT, in	2.57	2.92	3.01
Strain rate, in/min		0.015	0.016	0.015
BACK PRESSURE, psi		0.0	0.0	0.0
CELL PRESSURE, psi		15.0	30.0	60.0
FAILURE STRESS, psi		58.0	62.9	79.2
PORE PRESSURE, psi				
ULTIMATE STRESS, psi		58.0	62.9	79.2
PORE PRESSURE, psi				
σ_1 FAILURE, psi		73.0	92.9	139.2
σ_3 FAILURE, psi		15	30	60

TYPE OF TEST:
Unconsolidated undrained
SAMPLE TYPE: Undisturbed
DESCRIPTION: ML - SILT

LL= 35 PL= 24 PI= 11.0
SPECIFIC GRAVITY= 2.70
REMARKS:

CLIENT: Bechtel Jacobs

PROJECT: Bechtel Jacobs Paducah

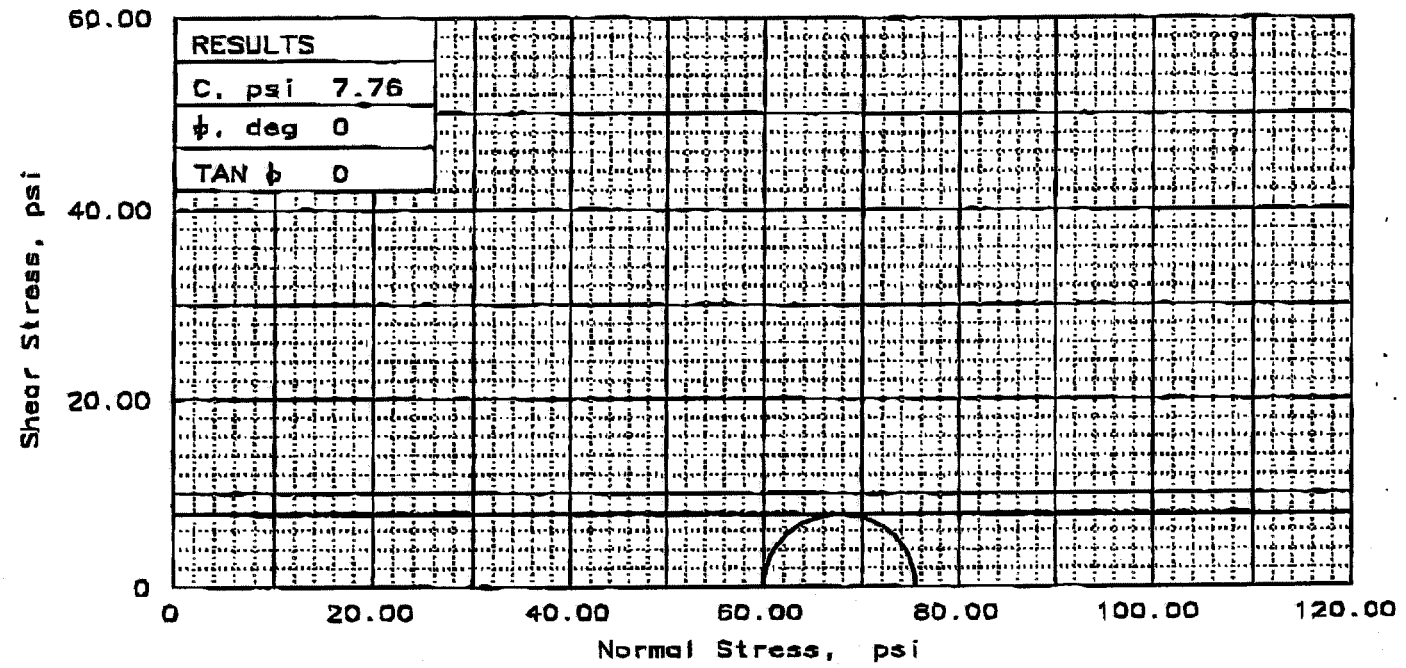
SAMPLE LOCATION: Lab sample no. ETDC-9052
Client sample no. UFSB03S006

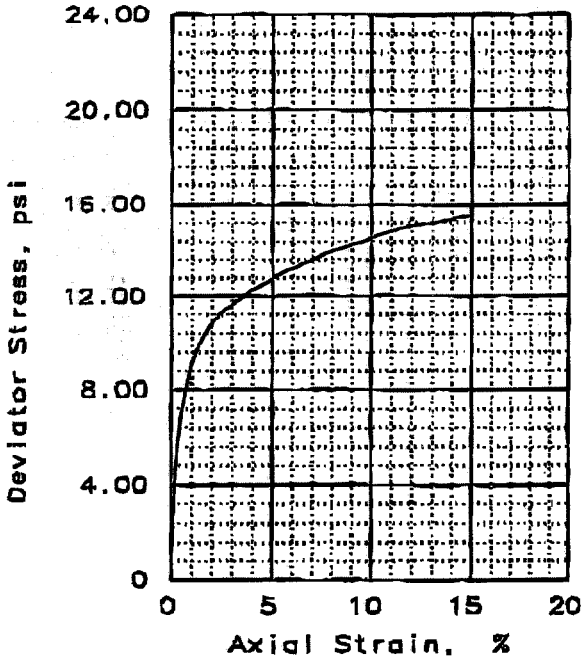
PROJ. NO.: 783208 DATE: 9/5/00

TRIAXIAL SHEAR TEST REPORT

IT CORPORATION GEOTECHNICAL LABORATORY

FIG. NO. 9052





SAMPLE NO.		1
INITIAL	WATER CONTENT, %	17.7
	DRY DENSITY, pcf	109.8
	SATURATION, %	92.6
	VOID RATIO	0.507
	DIAMETER, in	2.08
	HEIGHT, in	4.12
AT TEST	WATER CONTENT, %	17.7
	DRY DENSITY, pcf	109.8
	SATURATION, %	92.6
	VOID RATIO	0.507
	DIAMETER, in	2.08
	HEIGHT, in	4.12
Strain rate, in/min		0.015
BACK PRESSURE, psi		0.00
CELL PRESSURE, psi		60.00
FAILURE STRESS, psi		15.52
PORE PRESSURE, psi		
ULTIMATE STRESS, psi		15.52
PORE PRESSURE, psi		
σ_1 FAILURE, psi		75.52
σ_3 FAILURE, psi		60

TYPE OF TEST:
Unconsolidated undrained
SAMPLE TYPE: Undisturbed
DESCRIPTION: CL - Sandy lean CLAY with gravel
LL= 33 PL= 13 PI= 20.0
SPECIFIC GRAVITY= 2.65
REMARKS:

CLIENT: Bechtel Jacobs

PROJECT: Bechtel Jacobs Paducah

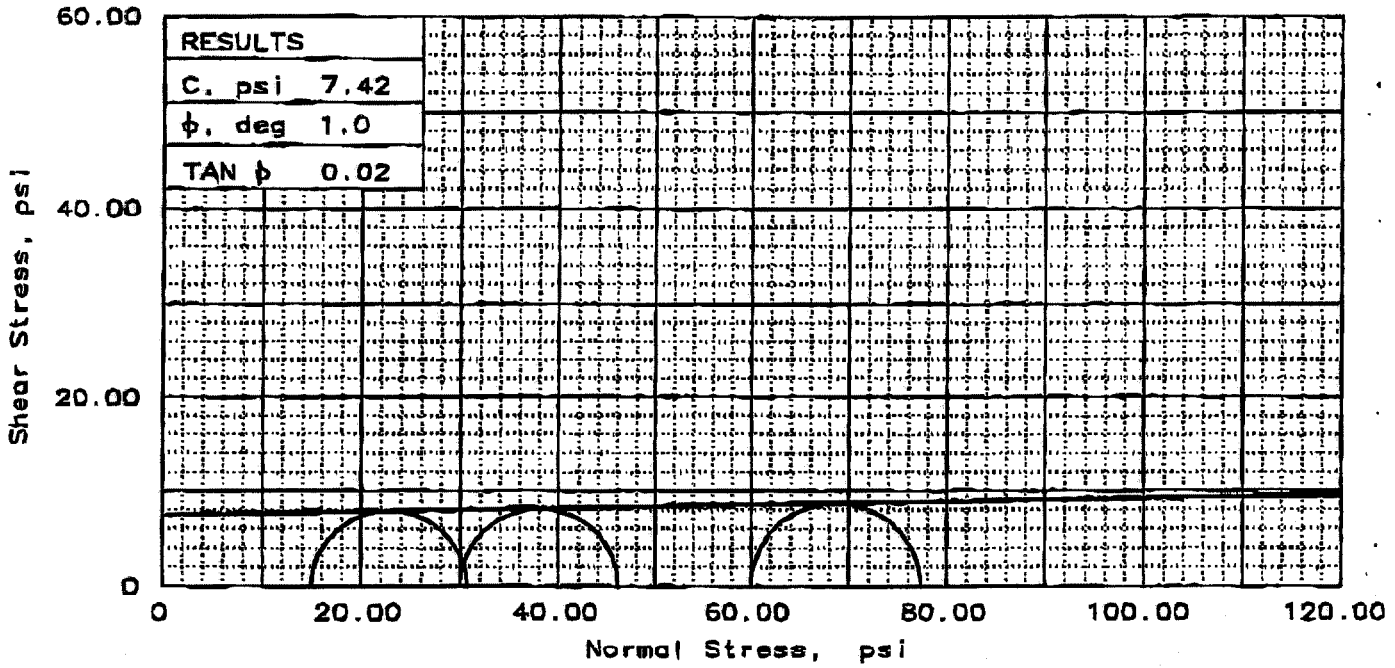
SAMPLE LOCATION: Lab sample no. ETDC-9054
Client sample no. UFSNB03S022

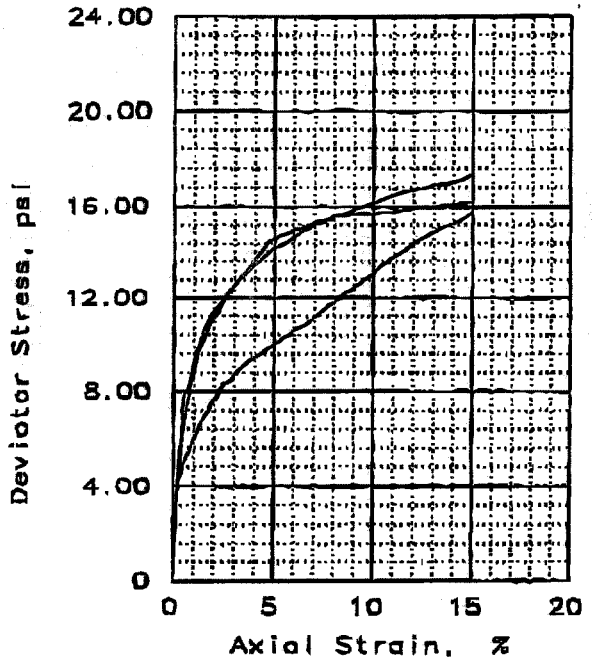
PROJ. NO.: 783208 DATE: 9/5/00

TRIAXIAL SHEAR TEST REPORT

IT CORPORATION GEOTECHNICAL LABORATORY

FIG. NO. 9054





SAMPLE NO.		1	2	3
INITIAL	WATER CONTENT, %	29.4	25.8	27.7
	DRY DENSITY, pcf	92.9	93.6	98.0
	SATURATION, %	98.4	87.9	105.0
	VOID RATIO	0.801	0.788	0.707
	DIAMETER, in	1.48	1.47	1.44
	HEIGHT, in	2.42	2.35	2.65
AT TEST	WATER CONTENT, %	29.4	25.8	27.7
	DRY DENSITY, pcf	92.9	93.6	98.0
	SATURATION, %	98.4	87.9	105.0
	VOID RATIO	0.801	0.788	0.707
	DIAMETER, in	1.48	1.47	1.44
	HEIGHT, in	2.42	2.35	2.65
Strain rate, in/min		0.015	0.012	0.015
BACK PRESSURE, psi		0.00	0.00	0.00
CELL PRESSURE, psi		15.00	30.00	60.00
FAILURE STRESS, psi		15.69	16.17	17.35
PORE PRESSURE, psi				
ULTIMATE STRESS, psi		15.69	16.17	17.35
PORE PRESSURE, psi				
σ_1 FAILURE, psi		30.69	46.17	77.35
σ_3 FAILURE, psi		15	30	60

TYPE OF TEST:
Unconsolidated undrained
SAMPLE TYPE: Undisturbed
DESCRIPTION: CL - Lean CLAY

LL= 43 PL= 16 PI= 27.0
SPECIFIC GRAVITY= 2.68
REMARKS:

CLIENT: Bechtel Jacobs

PROJECT: Bechtel Jacobs Paducah

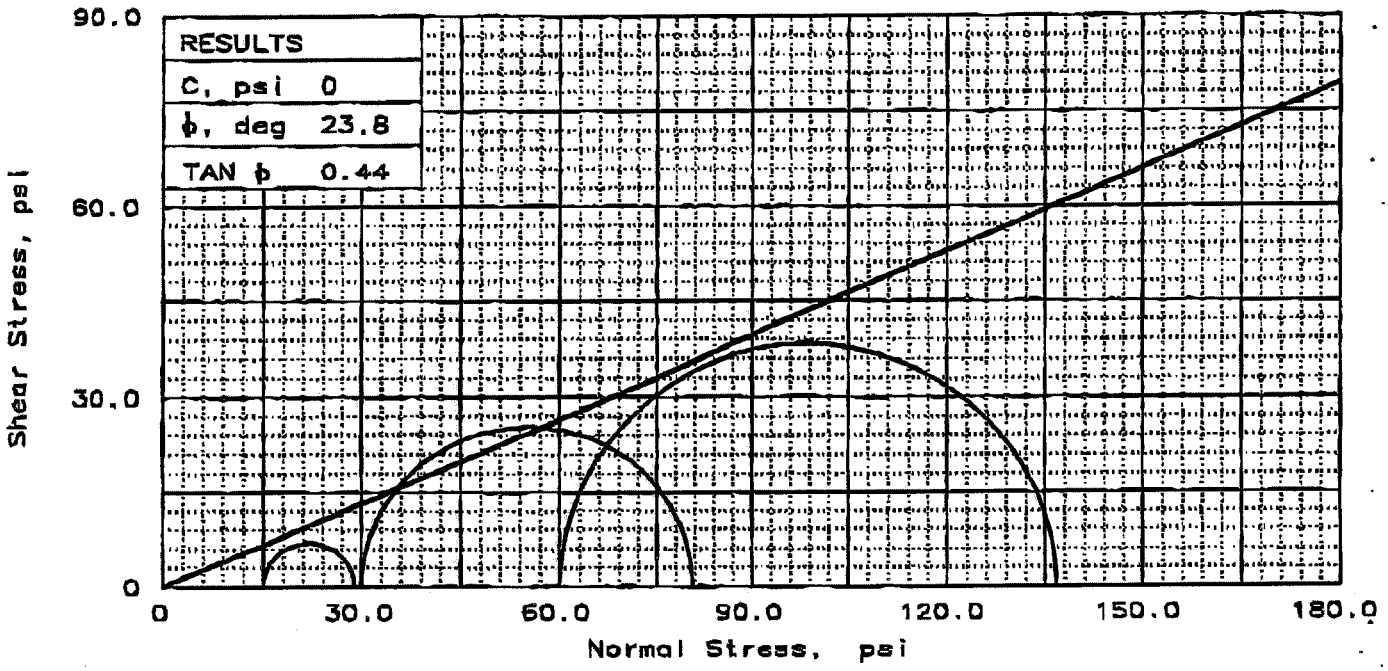
SAMPLE LOCATION: Lab sample no. ETDC-9060
Client sample no. UFSB10S007

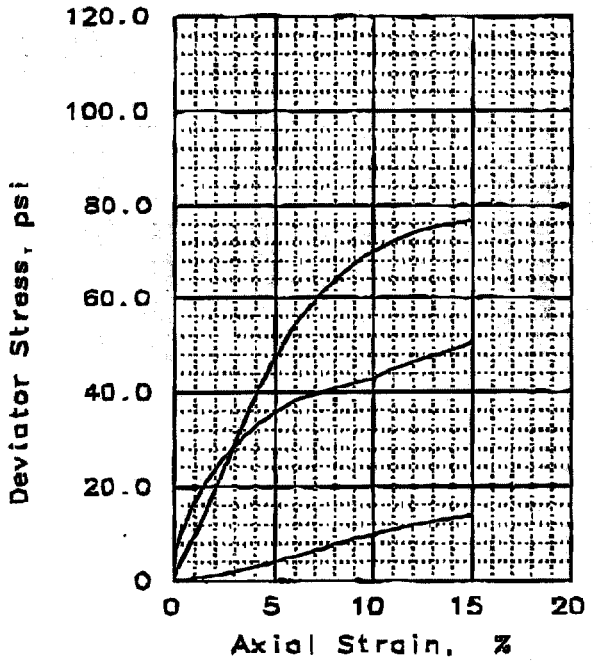
PROJ. NO.: 783208 DATE: 9/5/00

TRIAXIAL SHEAR TEST REPORT

IT CORPORATION GEOTECHNICAL LABORATORY

FIG. NO. 9060





SAMPLE NO.		1	2	3
INITIAL	WATER CONTENT, %	25.7	25.7	25.7
	DRY DENSITY, pcf	97.3	98.3	102.4
	SATURATION, %	96.9	99.3	110.1
	VOID RATIO	0.706	0.689	0.621
	DIAMETER, in	2.12	1.96	2.00
	HEIGHT, in	3.22	3.83	4.21
AT TEST	WATER CONTENT, %	25.7	24.1	23.3
	DRY DENSITY, pcf	97.3	98.3	102.4
	SATURATION, %	96.6	93.0	99.9
	VOID RATIO	0.706	0.689	0.621
	DIAMETER, in	2.12	1.96	2.00
	HEIGHT, in	3.22	3.83	4.21
Strain rate, in/min		0.032	0.032	0.032
BACK PRESSURE, psi		0.0	0.0	0.0
CELL PRESSURE, psi		15.0	60.0	30.0
FAILURE STRESS, psi		14.0	76.7	50.7
PORE PRESSURE, psi				
ULTIMATE STRESS, psi		14.0	76.7	50.7
PORE PRESSURE, psi				
σ_1 FAILURE, psi		29.0	136.7	80.7
σ_3 FAILURE, psi		15	60	30

TYPE OF TEST:
Unconsolidated undrained
SAMPLE TYPE: Undisturbed
DESCRIPTION: CL-ML Silty CLAY

LL= 28 PL= 21 PI= 7.0
SPECIFIC GRAVITY= 2.66
REMARKS:

CLIENT: Bechtel Jacobs

PROJECT: Bechtel Jacobs Paducah

SAMPLE LOCATION: Lab sample no. ETDC-9062
Client sample no. UFSB14S007

PROJ. NO.: 783208 DATE: 9/5/00

TRIAXIAL SHEAR TEST REPORT

IT CORPORATION GEOTECHNICAL LABORATORY

FIG. NO. 9062

ATTERBERG LIMITS
ASTM D 4318

PROJECT NAME:
Bechtel Jacobs Paducah

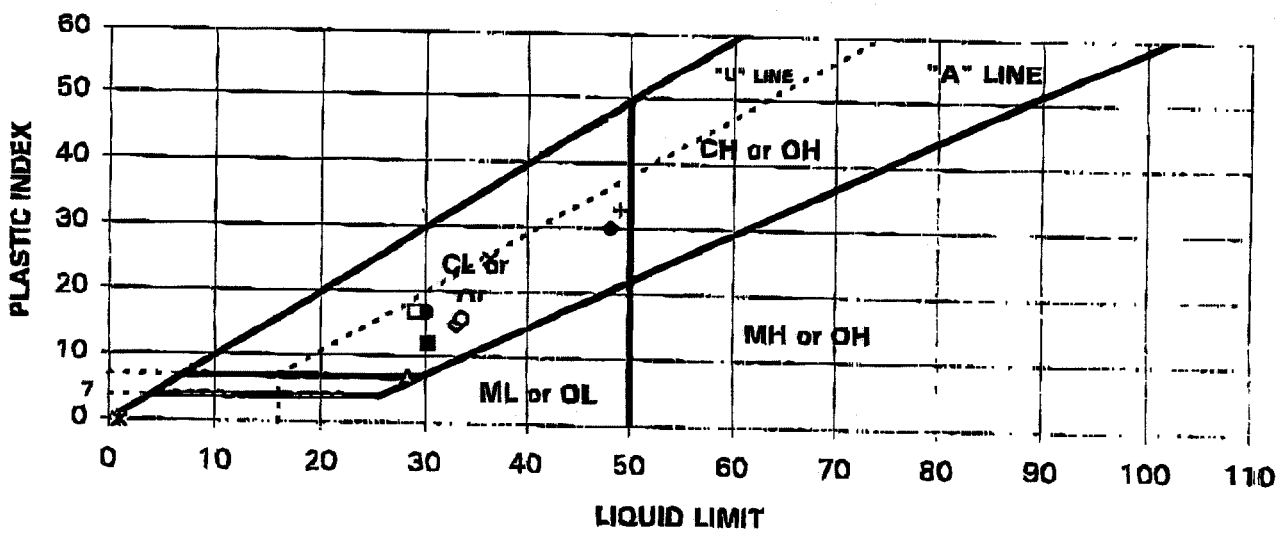
PROJECT NO.
783208.00210000

ATTERBERG LIMIT RESULTS

LAB SAMPLE NO	FIELD SAMPLE NO	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	USCS SYMBOL
ETDC 9051 ●	UFSB03S003	30	13	17	CL
ETDC 9053 ◆	UFSB03S008	48	18	30	CL
ETDC 9055 □	USFB03S023	29	12	17	CL
ETDC 9056 ◇	UFSB10S003	33	18	15	CL
ETDC 9057 +	UFSB10S009	49	16	33	CL
ETDC 9058 ○	UFSB14S003	34	18	16	CL
ETDC 9059 ■	UFSB14S009	30	18	12	CL
ETDC 9061 ✕	UFSB10S009	36	11	25	CL
ETDC 9063 △	UFSB14S009	28	21	7	CL-ML

*NP = Nonplastic

PLASTICITY CHART



ATTERBERG LIMITS
ASTM D 4318

PROJECT NAME:
Bechtel Jacobs Paducah

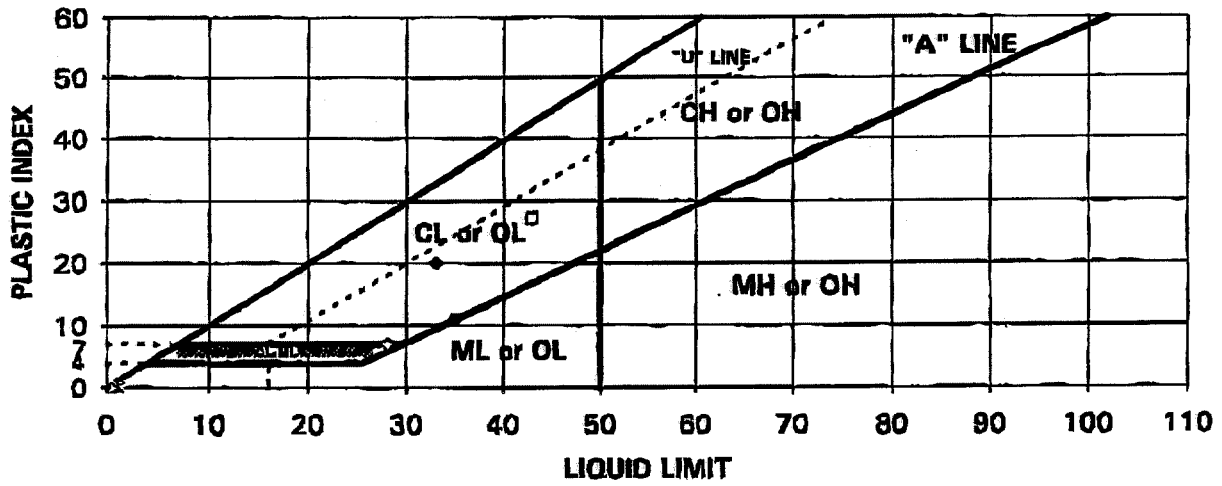
PROJECT NO.
783208.00210000

ATTERBERG LIMITS RESULTS

LAB SAMPLE NO.		FIELD SAMPLE NO.	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	USCS SYMBOL
ETDC-9052	◆	UFSB03S006	35	24	11	ML
ETDC-9054	◆	UFSB03S022	33	13	20	CL
ETDC-9060	□	UFSB10S007	43	16	27	CL
ETDC-9062	◊	UFSB14S007	28	21	7	CL-ML
	+					
	○					
	■					
	×					
	△					
	*					

*NP = Nonplastic

PLASTICITY CHART



SOIL CLASSIFICATION
ASTM D 2487

PROJECT NAME: Bechtel Jacobs Paducah **PROJECT NO:** 783208.00210000

	ETDC NUMBER:	CLIENT NUMBER:	GROUP SYMBOL:	CLASSIFICATION-GROUP NAME:
SAMPLE 1:	ETDC-9052	UFSB03S006	ML	SILT
SAMPLE 2:	ETDC-9054	UFSB03S022	CL	SANDY LEAN CLAY WITH GRAVEL
SAMPLE 3:	ETDC-9060	UFSB10S007	CL	LEAN CLAY
SAMPLE 4:	ETDC-9062	UFSB14S007	CL-ML	SILTY CLAY
SAMPLE 5:				
SAMPLE 6:				
SAMPLE 7:				
SAMPLE 8:				
SAMPLE 9:				
SAMPLE 10:				

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SOIL CLASSIFICATION
ASTM D 2487

PROJECT NAME: Bechtel Jacobs Paducah **PROJECT NO:** 783208.00210000

	SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4	SAMPLE 5
ETDC NUMBER:	ETDC-9052	ETDC-9054	ETDC-9080	ETDC-9082	
CLIENT NUMBER:	UFSB03S006	UFSB03S022	UFSB10S007	UFSB14S007	
(COARSE-GRAVELS, SANDS) % RETAINED ON # 200 SIEVE:	4.9	47.2	2.9	3.4	
(FINE-SILTS, CLAYS) % PASSING # 200 SIEVE:	95.2	52.8	97.1	96.6	
% GRAVEL:	0.5	22.3	0.0	0.0	
% SAND:	4.3	24.9	2.9	3.4	
D60 IN MM (DIAMETER AT 60% PASSING):	0.01932	0.21456	0.01629	0.01868	
D30 IN MM (DIAMETER AT 30% PASSING):	0.00571	0.01918	0.00146	0.00737	
D10 IN MM (DIAMETER AT 10% PASSING):	0.00061	0.00088	0.00042	0.00086	
Cc:	31.75	243.46	38.41	21.67	
Cu:	2.77	1.95	0.31	3.37	
LIQUID LIMIT:	36	33	43	28	
PLASTIC INDEX:	11	20	27	7	
ATTERBERG CLASSIFICATION*:	ML	CL	CL	CL-ML	

	SAMPLE 6	SAMPLE 7	SAMPLE 8	SAMPLE 9	SAMPLE 10
ETDC NUMBER:					
CLIENT NUMBER:					
(COARSE-GRAVELS, SANDS) % RETAINED ON # 200 SIEVE:					
(FINE-SILTS, CLAYS) % PASSING # 200 SIEVE:					
% GRAVEL:					
% SAND:					
D60 IN MM (DIAMETER AT 60% PASSING):					
D30 IN MM (DIAMETER AT 30% PASSING):					
D10 IN MM (DIAMETER AT 10% PASSING):					
Cc:					
Cu:					
LIQUID LIMIT:					
PLASTIC INDEX:					
ATTERBERG CLASSIFICATION*:					

*FINES< #40 SIEVE (0.425 mm)