Pinson Valley PA
Ref. 8

CERCLA: BROWNFIELD SITE INSPECTION

MUNICIPAL COMPLEX SITE

TARRANT, JEFFERSON COUNTY ALABAMA

ADEM ID NO.: 426-9285

Alabama Department of Environmental Management
Land Division – Environmental Assessment Section
Program Support Unit

Prepared By:
Linda C. Olding, ESI

Reviewed By:
Edwin Johnston, Project Coordinator

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Date:	August 1, 2005
Prepared by:	Linda C. Olding Environmental Assessment Section Land Division
Site:	Municipal Complex Site Lots 2500, 2508, 2509, 2515, 2518, 2519, 2528, 2529 Commerce Way Tarrant, Jefferson County, AL 35217
Site Reference No.:	426-9285

1. INTRODUCTION

Under authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), the Superfund Amendments and Reauthorization Act of 1986 (SARA), and a cooperative agreement between the U. S. Environmental Protection Agency and the Alabama Department of Environmental Management (ADEM), a CERCLA Targeted Brownfield Site Inspection (BF-SI) was conducted at the Municipal Complex Site (MCS) in Tarrant, Alabama. The purpose of this investigation was to collect information concerning conditions at the site sufficient to assess the threat posed to human health and the environment, and to determine the need for additional investigation under CERCLA/SARA or other action in order to facilitate the redevelopment or reuse of the property. The scope of the investigation included a review of available file information, a comprehensive target survey, on site reconnaissance, and the collection of environmental media samples from environmental exposure pathways associated with the site.

2. SITE DESCRIPTION

2.1 Location

The Municipal Complex Site is located in Tarrant, Jefferson County, Alabama off of Valley Parkway (Highway 79). The geographic coordinates of the site are 33° 35' 17" North Latitude and 86° 46' 23" West Longitude. To reach the site, take Highway 59/20 east from Birmingham, AL, approximately 3 miles to exit 128. Go north on Highway 79 approximately 2.8 miles and turn left on Commerce Circle. Go approximately 0.1 mile and turn right on Commerce Way. Commerce Way dead ends at the site.

The climate of Jefferson County consists of long hot summers due to moist, tropical air from the Gulf of Mexico that persistently covers the area. Winters are cool and fairly

short. The average temperature in the summer and winter is 78°F and 46°F, respectively. The average yearly rainfall is 53 inches. (Reference 3)

2.2 Site Description

The total area of the site is approximately 16 acres. The site is composed of nine lots of various sizes and addresses. The addresses include 790 Elizabeth Avenue, 2500, 2508, 2509, 2515, 2518, 2519, 2528, and 2529 Commerce Way (Figure 1). The site slopes approximately two degrees to the north towards Five Mile Creek. Five Mile Creek comprises the entire 15-mile surface water pathway. A deep ditch, running from south to north, bisects lots 790, 2500, and 2509 and flows into Five Mile Creek. No stressed vegetation was observed from suspected releases during the site visit. (Reference 1)

2.3 Operational History and Waste Characteristics

The history of the site before 1913 is unknown. In 1913, the National Cast Iron and Pipe Company acquired the site and adjacent lands from an unknown owner and constructed a cast and ductile iron foundry for the manufacture of pipe and fittings for the waterworks industry. In 1938, James B. Clow and Sons Incorporated bought the business from the National Cast Iron and Pipe Company. In 1961, James B. Clow and Sons changed its name to the Clow Corporation. When Clow Corporation owned the site, a sizable portion of lot 2528 was occupied by a settling pond and a sizable portion of lot 2529 was occupied by a landfill used to control foundry wastes. In 1984, the Clow Corporation was sold to McWane Steel Corporation. In 1986, McWane Corporation donated the site to the city of Tarrant. The city subsequently subdivided the property into lots. Since 1986, J&L Transportation has occupied lot 2518 and parks trailers on lot 2528. Also since 1986, the Tarrant City Electric and Street Departments have occupied lots 2529 and 2519, respectively. The rest of the lots are awaiting commercial redevelopment.

3. GROUNDWATER PATHWAY

3.1 Hydrogeologic Setting

Geologic units that crop out in this part of Jefferson County are Cambrian in age. The structures in the area are a series of anticlines and synclines that form northeast-southwest-trending ridges and valleys.

The site is located on approximately 5-10 feet of residuum soils, which overlies the Ketona Dolomite. The Ketona Dolomite generally consists of very light gray to medium dark-gray dolomite. Bed thickness ranges from medium to thick bedded, but thick-bedded dolomite is dominant. The lower part of the Ketona is dominantly fine to medium crystalline, whereas the upper part of the Ketona is medium to very coarse crystalline dolomite. The lower part includes beds of light to medium-gray and dark-gray dolomite, thin intervals of dark-gray to black thin-bedded argillaceous dolomite, and

interbedded black shale. Irregular vugs, filled with crystalline calcite and dolomite, are common throughout this unit. The Ketona appears to be as much as 600 feet thick in this area. No fossils have been recovered from the Ketona Dolomite. The area around the site is susceptible to the formation of sinkholes. Sinkholes are depressions in the land surface, generally in limestone regions, caused by a collapse of rock materials. Sinkholes may provide a direct link to an aquifer, which could allow immediate contamination of that aquifer.

The major groundwater aquifer in the area is the Valley and Ridge Aquifer. This aquifer is capable of producing as much as 1600 gallons of water per minute. The aquifer is estimated to be up to 2500 feet thick in this area. The Copper Ridge Dolomite and other dolomites which are included in this aquifer, are similar in their water bearing characteristics. All have an elaborate system of closely spaced and interconnected solution channels. Weathering results in a cherty soil that is porous and allows rapid infiltration of rainfall.

The source of recharge to the aquifers in the area is through rainfall. Average annual rainfall in the area is about 53 inches per year. A large part of this rainfall is lost either by direct runoff to streams immediately after a rain storm or by evapotranspiration to the atmosphere. A relatively small part of the total rainfall infiltrates to the water table to recharge the aquifers. Estimated depth to groundwater is 25 feet. (Reference 3)

3.2 Groundwater Targets

There are no public drinking water wells within four miles of this site. The Birmingham Water Board provides one hundred percent of the drinking water from surface water sources greater than 15 miles from the site. There is a possibility of some private wells being located within 4 miles of the site, however no private wells were observed. (Reference 3, 4)

3.3 Groundwater Sample Locations

ADEM personnel advanced seven borings (Figure 2) to refusal on the subject property utilizing a Geoprobe® Advance 66DT rig with direct push technology and equipped with hollow stem augers. Five of the seven borings encountered groundwater at the depths of refusal (between 12-17 feet). The groundwater samples which were collected from the Municipal Complex Site (GW-01-MCS, GW-04-MCS, GW-05-MCS, GW-06-MCS, and GW-07-MCS) by ADEM personnel were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and selected total metals (arsenic, cadmium, chromium, lead, and mercury). Groundwater did not infiltrate into the two remaining soil borings within a 24 hour period; therefore no samples could be collected from these locations.

3.4 Analytical Results

Analytical results indicate that metals, VOCs, and SVOCs are present in the groundwater encountered at the site. Metals detected include arsenic (As), cadmium (Cd), chromium (Cr), lead (Pb), and mercury (Hg). VOCs and SVOCs detected include acetone and naphthalene, respectively. The constituents cadmium, chromium, lead, and naphthalene are present in the groundwater at concentrations above their Region 9 Preliminary Remediation Goals (PRG) for tap water and the ADEM Admininistrative Code, Division 7 Drinking Water Standards (DWS). However it is important to note that the tap water PRG and ADEM drinking water standards are used for comparison purposes only, as the groundwater source for these samples is not used as a source of drinking water. Arsenic was also detected in the groundwater above the Region 9 PRG for tap water. However, because arsenic is a naturally occurring element in the earth's crust, the results are also compared to the systemic toxicity for residential soil at 20 parts per million (ppm) based on the noncancer endpoint, which is a stringent standard since this is an industrial site. The industrial PRG for arsenic as a carcinogen is 270 ppm. In either case, arsenic concentrations are well below the PRGs for soil. (Reference 5, 6, 7, 13)

Table 1
CERCLA: Brownfields Site Inspection
Municipal Complex Site (426-9285)
Tarrant City, Jefferson County Alabama
Groundwater Sample Results

	As (ppm)	**Cd (ppm)**	**Cr (ppm)**	**Pb (ppm)**	**Naphthalene (ppb)**
*ADEM DWS**	-	-	-	*0.015*	-
Region 9 PRG (residential soil)	*20*	-	-	-	-
Region 9 PRG (tap water)	*$4.5e^{-5}$*	*0.018*	*0.11*	-	*6.2*
GW-01-MCS	0.299	0.089	1.553	12.180	<MDL
GW-04-MCS	0.448	0.629	1.349	27.920	<MDL
GW-06-MCS	0.500	0.231	5.307	25.470	<MDL
GW-07-MCS	1.690	0.070	3.60	7.260	23.6

*ADEM Admin. Code, Division 7 Drinking Water Standard
<MDL = less than method detection limit
ppm = parts per million
ppb = parts per billion
(Reference 5, 7, 14)

3.5 Groundwater Conclusion

Based on the sample analyses, a release of hazardous substances has been observed, and groundwater has been impacted. However, no public drinking water wells are located within a four mile radius of the site, and all drinking water is provided by the Birmingham Water Board from surface water sources that are greater than fifteen miles from the site along the surface water pathway.

4. SURFACE WATER PATHWAY

4.1 Hydrologic Setting

The site is located in the Valley and Ridge physiographic province, the Alabama Valley and Ridge physiographic section, and the Birmingham-Big Canoe Valley physiographic district. The mean elevation at the site is 540 feet above mean sea level (MSL).

Surface water drainage from the site appears to be to the north towards Five Mile Creek. A deep ditch running from south to north bisects lots 790, 2500, and 2509 and flows into Five Mile Creek. Five Mile Creek flows west and empties into the Mulberry Fork of the Warrior River approximately 35 miles from the site. Surface water sampling was conducted along the 15-mile surface water pathway as a part of the Site Inspection (Figure 3). According to *ADEM Administrative Code R. 335-6-11-.02,* Five Mile Creek has a use classification of Fish and Wildlife. It has a seven-day, two-year low flow rate (7Q2) of 8 cubic feet per second (cfs). The site is located within the 10-100 year flood zone. (Reference 8, 9, 10)

4.2 Surface Water Targets

No known surface water intakes are located within 15 downstream miles of the site. The nearest fishery is Five Mile Creek which is approximately 200 yards north of the site. No wetlands were identified along the 15-mile surface water pathway. Table 2 lists the five endangered species which may be present along the downstream surface water pathway. (Reference 2, 11)

Table 2
CERCLA: Brownfields Site Inspection
Municipal Complex Site (426-9285)
Tarrant City, Jefferson County Alabama
Aquatic Endangered Species

Common Name	*Listing*	*Distribution in Alabama*
Triangular Mussel	Endangered	Known in Jefferson Co.
Upland Combshell Mussel	Endangered	Known in Jefferson Co.
Cahaba Shiner	Endangered	Known in Jefferson Co.
Watercress Darter	Endangered	Known in Jefferson Co.
Plicate Rocksnail	Endangered	Known in Jefferson Co.

(Reference 11)

4.3 Surface Water and Sediment Sampling Locations

Surface water and sediment sampling was conducted along the 15-mile surface water pathway associated with the Municipal Complex Site. Sample locations were selected based on the velocity and the time of travel of Five Mile Creek (Figure 3). Two samples were collected upstream from the site to determine if contaminants are coming from an upstream source. The remaining sample locations were located downstream from the subject property. All surface water samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and selected total metals including lead (Pb), arsenic (As), mercury (Hg), and chromium (Cr). Additionally, SW-06-FMC and SW-07-FMC were analyzed for cadmium (Cd). Samples were also analyzed for cyanide and fecal coliform. All of the sediment samples were analyzed for SVOCs, cyanide, and selected total metals (lead, arsenic, mercury, and chromium). Additionally, SD-06-FMC and SD-07-FMC were analyzed for cadmium. In addition to the previously mentioned analyses, surface water and sediment samples for SW-01-FMC and SW-05-FMC were also analyzed for polychlorinated bi-phenyls (PCBs), pesticides, and herbicides. (Reference 2)

4.4 Analytical Results

No volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated bi-phenyls (PCBs), pesticides, or herbicides were found in any of the surface water samples. Lead was detected in surface water sample SW-06-FMC at a concentration of 2.863 parts per billion (ppb). This exceeds the chronic value of 1.32 ppb of the *Region 4 Waste Management Division Freshwater Surface Water Screening Values*, however it is below the acute value of 33.78 ppb (Reference 6). No other constituents were detected above screening values in the surface water.

Sediment samples were collected beginning downstream (SD-01-FMC) and working upstream (SD-07-FMC). Arsenic, cyanide, PCBs, and SVOCs were detected above screening values in the sediment samples.

Arsenic concentrations exceed the *Region 4 Waste Management Division Freshwater Sediment Screening Value* of 7.24 ppm in samples SD-02-FMC through SD-04-FMC (Table 3). Analytical results show concentrations of 9.504 ppm in sample SD-02-FMC, 11.160 ppm in sample SD-03-FMC, and 12.998 ppm in sample SD-04-FMC. No other metal concentrations were detected above the screening values. Cyanide was detected at concentrations of 33.4 ppm in sample SD-01-FMC and at 20.2 ppm in sample SD-05-FMC; however no screening value for Cyanide is listed.

Table 3
CERCLA: Brownfields Site Inspection
Municipal Complex Site (426-9285)
Tarrant City, Jefferson County Alabama
Metals Sediment Sample Results

Sample #	Arsenic (ppm)
Region 4 WMD Freshwater Sediment Screening Value	*7.24*
SD-02-FMC	9.504
SD-03-FMC	11.160
SD-04-FMC	12.998

ppm = parts per million
(Reference 5, 6)

Polychlorinated bi-phenyls (PCB) were detected in samples SD-01-FMC at 35 parts per billion (ppb) and SD-05-FMC at 43 ppb. The sediment screening value listed in the *Region 4 Waste Management Division (WMD) Freshwater Sediment Screening Values* for total PCBs is 33 ppb. There were no detectable concentrations of pesticides or herbicides in either sample.

Semi-Volatile Organic Compounds (SVOCs) were detected in sediment samples collected from locations SD-01-FMC, SD-02-FMC, SD-03-FMC, and SD-05-FMC in concentrations above those listed in the *Region 4 WMD Freshwater Sediment Screening Values.* Table 4 summarizes the SVOC analytical results for the sediment samples. This table lists only contaminants that were detected above screening values. The SVOCs that

were detected in the sediment are placed into a general category of hazardous substances called Polycyclic Aromatic Hydrocarbons (PAHs). "PAHs are released to the environment through natural and synthetic sources with emissions largely to the atmosphere. Natural sources include emissions from volcanoes and forest fires. Synthetic sources provide a much greater release volume than natural sources; the largest single source is the burning of wood in homes. Automobile and truck emissions are also major sources of PAHs." (Reference 5, 6)

Table 4
CERCLA: Brownfields Site Inspection
Municipal Complex Site (426-9285)
Tarrant City, Jefferson County Alabama
SVOC Sediment Sample Results

Sample #	Fluoranthene (ppm)	Pyrene (ppm)	Benzo[a] Pyrene (ppm)	Benzo[a] Anthracene (ppm)	Chrysene (ppm)
Region 4 WMD Freshwater Sediment Screening Value	*0.330*	*0.330*	*0.330*	*0.330*	*0.330*
SD-01-FMC	1.26	1.15	-	-	-
SD-02-FMC	1.54	1.51	1.12	1.22	1.23
SD-03-FMC	1.65	1.50	1.07	1.25	1.39
SD-05-FMC	1.70	1.52	-	1.05	1.12

ppm = parts per million
(Reference 5, 6)

4.5 Surface Water and Sediment Conclusion

Surface water and sediment samples were collected along a 27 mile segment of Five Mile Creek and transferred to ADEM laboratories in Birmingham and Montgomery for selected analyses. One surface water sample had lead concentrations below the acute value of 33.78 ppb listed in the *Region 4 Waste Management Division Freshwater Surface Water Screening Values,* but above the chronic value of 1.32 ppb.

Three sediment samples exceed the *Region 4 Waste Management Division Freshwater Sediment Screening Value* for arsenic. Two samples had levels of polychlorinated bi-phenyls (PCBs) above the screening value. Additionally, four samples had concentrations of Polycyclic Aromatic Hydrocarbons (PAHs) above screening values.

5. SOIL EXPOSURE AND AIR PATHWAY

5.1 Site Conditions

Soils at the Municipal Complex Site are classified as Sullivan-Ketona complex with a slope of 0-2 degrees. The soils in this unit formed in residuum of dolomitic limestone. The composition of the soils is comprised of silty clay loam, clay loam, silty clay, and clay. Part of the site is land filled with foundry sands and capped with off-site cherty clay. Permeability at the site ranges from very slow to moderately rapid. The site is considered to be on karst topography and the possibility of sinkholes does exist. No stressed vegetation was observed from suspected releases. The perimeter of the site is unfenced except for a fence at the entrance of the site on Commerce Way. The site is predominately covered with grasses and gravel. (Reference 1)

5.2 Soil and Air Targets

Approximately 50 employees work at the site. The nearest residence is approximately 200 feet south of the site. The nearest school is approximately 4,224 feet southwest of the site. The total population within a 4-mile radius of the site is 62,324.

The population information given below was obtained from a map house-count utilizing the ArcView software program. According to Alabama 2000 census records, the average persons per household has been estimated to be 2.42 for the City of Tarrant (Reference 15). The total population within the target area has been broken down into sub-populations that live within each specified distance radius from the site (Reference 2).

Table 5
CERCLA: Brownfields Site Inspection
Municipal Complex Site (426-9285)
Tarrant City, Jefferson County Alabama
Demographic Data

DISTANCE FROM SITE	*POPULATION*
0 to ¼ mile	321
1/4 to ½ mile	740
1/2 to 1 mile	2,947
1 to 2 miles	8,318
2 to 3 miles	15,866
3 to 4 miles	34,132
TOTAL POPULATION	62,324

(Reference 2)

No wetlands were identified on the USGS Topographic Map (7 Minute Quadrangle 1:24,000) within a four mile radius of the site. There are nine endangered species known to inhabit Jefferson County. Table 6 lists the terrestrial endangered species that may be present within a four mile radius of the site. (Reference 2, 11)

Table 6
CERCLA: Brownfields Site Inspection
Municipal Complex Site (426-9285)
Tarrant City, Jefferson County Alabama
Terrestrial Endangered Species

Common Name	*Listing*	*Distribution in Alabama*
American Peregrine Falcon	Endangered	Known in Jefferson Co.
Red-Cockaded Woodpecker	Endangered	Known in Jefferson Co.
Bald Eagle	Endangered	Known in Jefferson Co.
Wood Stork	Endangered	Known in Jefferson Co.

(Reference 11)

5.3 Soil Sample Locations

Surficial soil screening samples were selected based on a systematic grid. The soil was analyzed for total metal concentrations with a portable X-ray Fluorescence Analyzer (XRF). The XRF dual source unit (cadmium 109 (Cd-109) and americium 241 (Am-241)) is a field screening radioactive source unit that screens for 25 elements. Cd-109 screens for molybdenum (Mo), zirconium (Zr), strontium (Sr), rubidium (Rb), lead (Pb), selenium (Se), arsenic (As), mercury (Hg), zinc (Zn), copper (Cu), nickel (Ni), cobalt (Co), Iron (Fe), Manganese (Mn), and Chromium (Cr). Am-241 screens for Europium (Eu), lawrencium (La), barium (Ba), cesium (Cs), tellurium (Te), antimony (Sb), tin (Sn), cadmium (Cd), silver (Ag), and palladium (Pd). XRF readings were taken at 43 locations (Figure 2). Four locations were chosen for analysis using both sources (Cd 109/Am 241). Confirmatory soil samples were taken at four locations (~10%) and are identified by the number that corresponds to the XRF location. Confirmatory soil samples are identified as MCS-GS-01, MCS-GS-02, MCS-GS-03, and MCS-GS-04.

Subsurface soil samples were selected based on a systematic grid. The soil was analyzed for selected metals (arsenic, cadmium, chromium, lead, and mercury), VOCs, SVOCs, and PCBs. Twenty-four (24) composite samples were collected during the BF-SI.

5.4 Soil Analytical Results

Sample results taken at the Municipal Complex Site during the BF-SI sampling events indicate that contaminants are present in the soil. Sample results indicate that lead (Pb) exceeds the Region 9 PRG of 800 ppm in samples B-1 (0-4ft) at 1016.6 ppm and B-4 (8-

12ft) at 937.3 ppm (Table 7). All of the detected concentrations were compared to industrial soil limits.

No volatile organic compounds (VOCs), pesticides, or polychlorinated biphenyls (PCBs) were detected in the soil samples. Semi-volatile organic compounds (SVOCs) were detected in soil boring 3 (B-3) and boring 4 (B-4). Of the SVOCs detected above the detection limit, the following compounds exceed the Region 9 PRGs for industrial soil: benzo[a]anthracene, benzo[b]fluoranthene, benzo[a]pyrene, and indeno [1,2,3-cd] pyrene (Table 7). The PRG for benzo[a]anthracene, benzo[b]fluoranthene, and indeno[1,2,3-cd] pyrene is 2.1 ppm. These constituents exceed the PRG in samples B-3 (0-4 ft; 4-8 ft; 8-12 ft; 12-13 ft). The limit for benzo[a]pyrene is 0.21 ppm, which was exceeded in samples B-3 (0-4 ft; 4-8 ft; 8-12 ft; 12-13 ft) and B-4 (8-12 ft).

Table 7
CERCLA: Brownfields Site Inspection
Municipal Complex Site (426-9285)
Tarrant City, Jefferson County Alabama
Subsurface Soil Sample Results

Boring #	Interval	Pb (ppm)	Benzo[a]anthracene Benzo[b]fluoranthene Indeno[1,2,3-cd]pyrene (ppm)	Benzo[a]pyrene (ppm)
Region 9 PRG (industrial)		*800*	*2.1*	*0.21*
B-1	0-4 ft	1016.6	-	-
B-3	0-4 ft 4-8 ft 8-12 ft 12-13 ft	-	5.36 (indeno[1,2,3cd]pyrene) 5.21 (benzo[b]fluoranthene) 2.54 (benzo[b]fluoranthene) 11.0 (benzo[a]anthracene)	7.56 2.39 1.37 7.15
B-4	8-12 ft	937.3	-	1.65

ppm = parts per million
(Reference 5, 14)

XRF data indicate that the surficial soil in sample MCS-GS-01 contains levels of lead (Pb) and mercury (Hg) above screening values. Lead was detected at 1214.0 ppm, which exceeds the Region 9 PRG of 800 ppm. Mercury is present at 405.0 ppm, which exceeds the Region 9 PRG of 310 ppm. All of the detected concentrations were compared to industrial soil limits. (Reference 5, 12, 14)

5.5 Air Monitoring

Portable air monitors for volatile organic compounds were carried on site during the sampling activities. No formal air monitoring was conducted or determined to be necessary as a part of this Site Inspection.

5.6 Soil Exposure and Air Pathway Conclusion

Both surficial (XRF screening survey) and subsurface (soil borings) sample results indicate that soils on-site have been impacted. Lead, mercury, and SVOCs have been detected above the Region 9 PRG industrial limits.

6. SUMMARY AND CONCLUSIONS

Environmental sampling of each media indicates the presence of constituents above applicable screening values. Historic use of this property affirms that many of the contaminants, including SVOCs and PCBs, may be attributable to the Municipal Complex Site. Arsenic was also detected, but is likely to be naturally occurring as past operational activities did not involve arsenic. Additional sampling may be warranted depending on future land use.

7. REFERENCES

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FIGURES

Figure 1

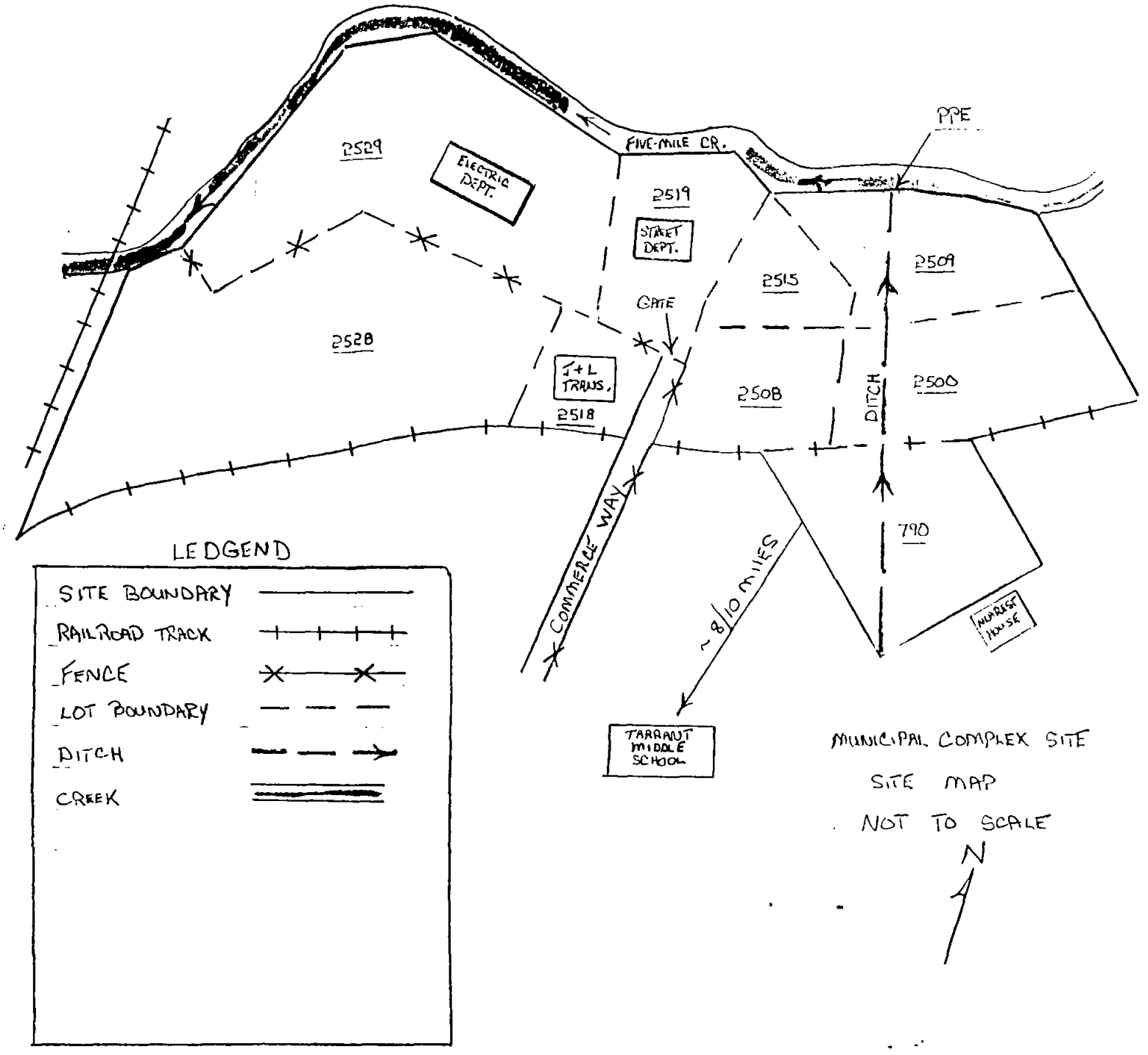
PPE
FIVE-MILE CR.
2529
ELECTRIC DEPT.
2519
STREET DEPT.
2515
2509
GATE
2528
J+L TRANS.
2518
2508
DITCH
2500
COMMERCE WAY
790
~8/10 MILES
NURSE HOUSE
TARRANT MIDDLE SCHOOL
LEDGEND
SITE BOUNDARY
RAILROAD TRACK
FENCE
LOT BOUNDARY
DITCH
CREEK
MUNICIPAL COMPLEX SITE
SITE MAP
NOT TO SCALE
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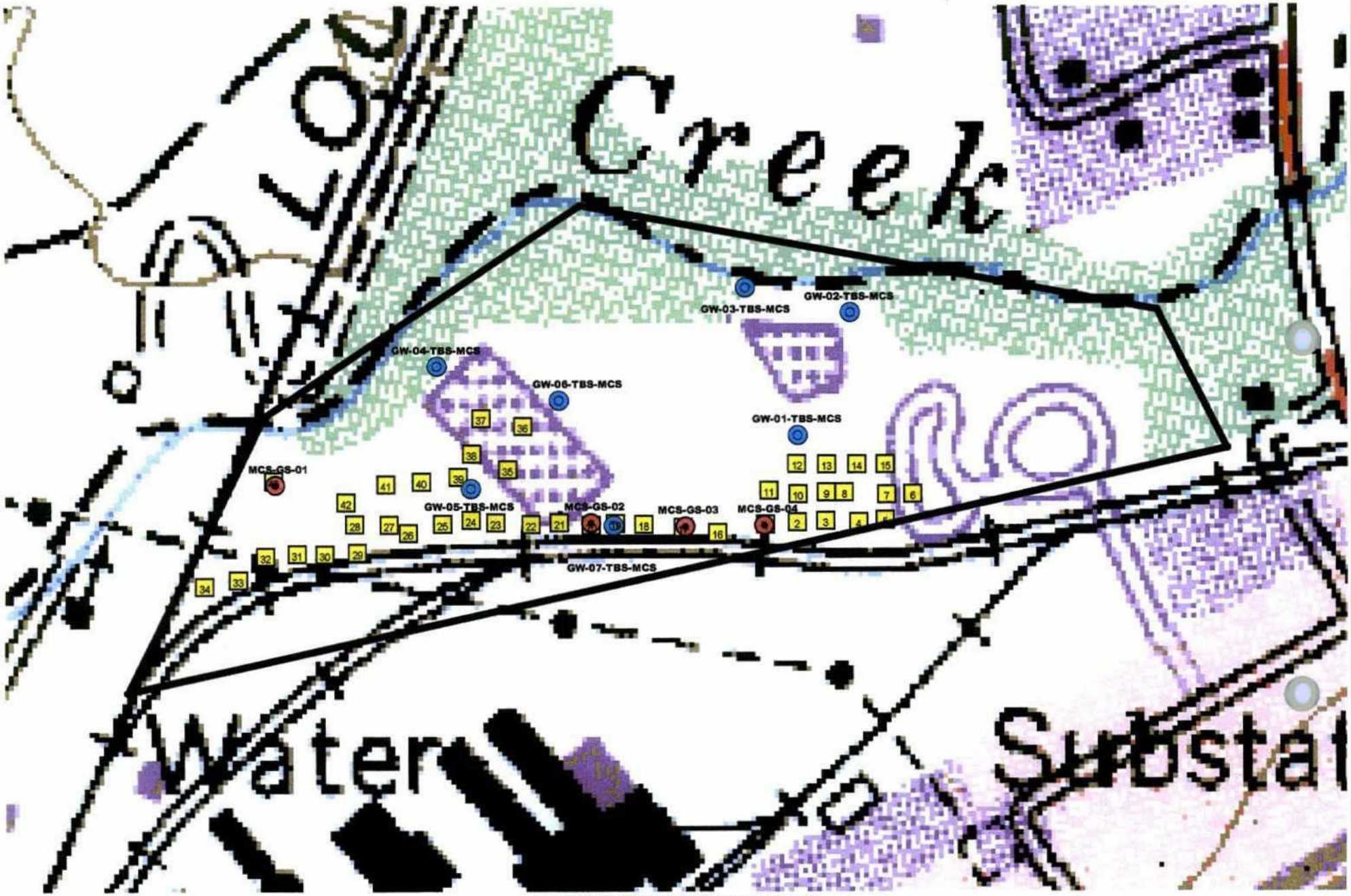
Figure 2

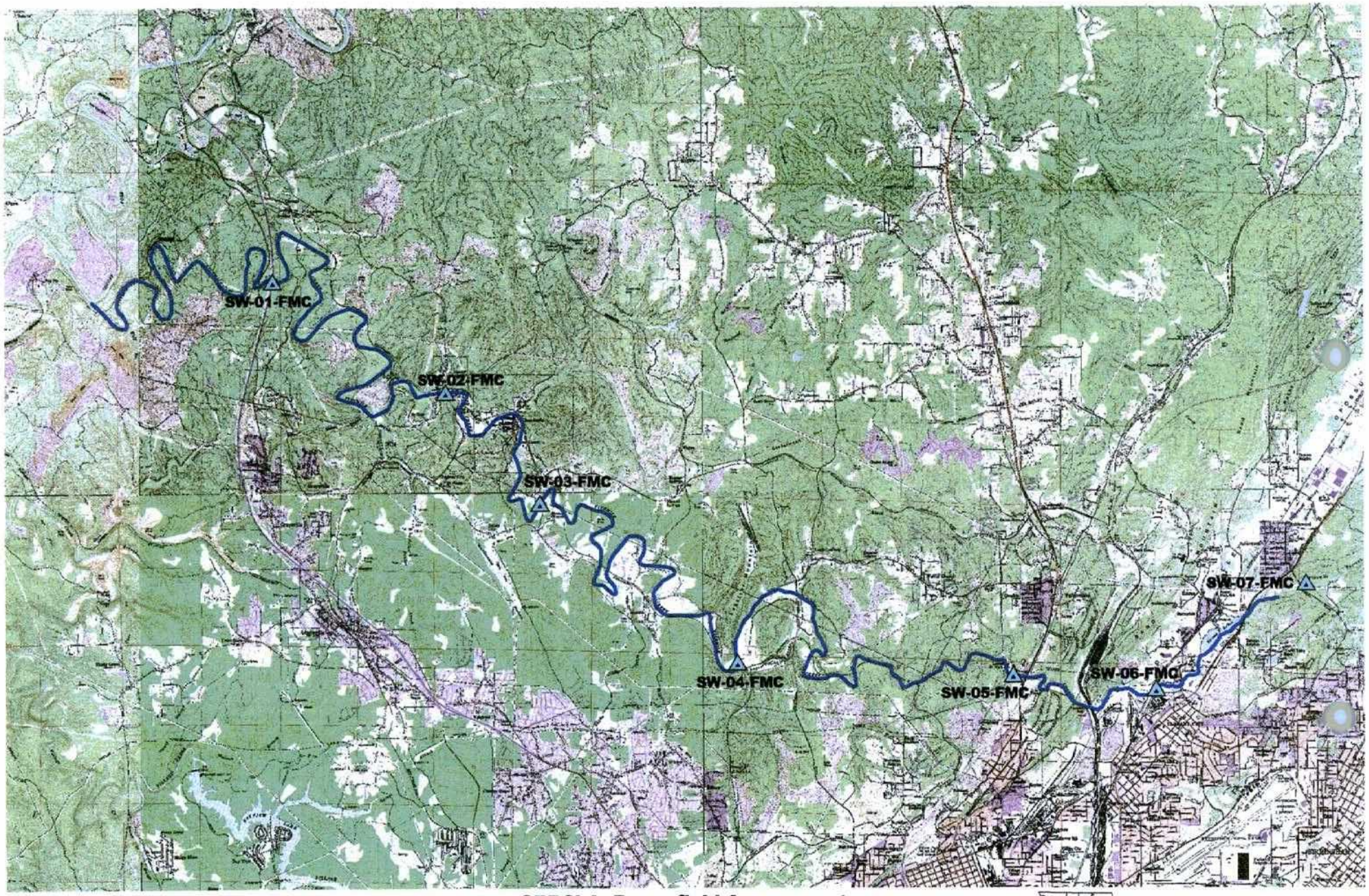


Municipal Complex (425-9285)
Groundwater Sample
Soil Sample
XRF srceen

CERCLA: Brownfield Assessment
Sampling Map
Municipal Complex Site (426-9285)
Tarrant City, Jefferson County Alabama

200 0 200 400 Feet

Figure 3



Surface Water and Sediment Sample

Surface Water Pathway (Fivemile Creek)

CERCLA: Brownfield Assessment

Tarrant City Brownfield Sites

Tarrent City, Jefferson County Alabama

Sampling Map

2 0 2 4 Miles

Sample ID	WQR#	pH	Cond S/m	Turb NTU	D.O. g/L	Temp C	Depth	Sal %	TDS g/L	st	ORP mV	Date	Time	Longitude	Latitude	GPS ID
SW-01-FMC	52	7.4	49	70	8.9	22.24	0	0	0.32	0	45	6/10/2003	8:53	-86.970573002	33.664224904	SW-01-FMC
SW-02-FMC	53	7.4	50	78	9.3	22.53	0	0	0.32	0	59	6/10/2003	10:18	-86.931819348	33.643622563	SW-02-FMC
SW-03-FMC	54	6.8	0.09	29	9.4	24.36	1	0	0.4	0	74	6/10/2003	11:24	-86.910971614	33.623053133	SW-03-FMC
SW-04-FMC	55	7.1	55	-4	9.1	26.54	0	0	0.35	0	82	6/10/2003	15:05	-86.867390112	33.593479844	SW-04-FMC
SW-05-FMC	56	7.4	49	16	8.5	26.65	1	0	0.32	0	55	6/10/2003	16:08	-86.806639569	33.591082568	SW-05-FMC
SW-06-FMC	57	7	29	190	8.8	22.07	1	0	0.19	0	54	6/11/2003	10:13	-86.775210429	33.588417577	SW-06-FMC
SW-07-FMC	58	7	29	100	7	22.44	0	0	0.19	0	71	6/11/2003	11:28	-86.741879542	33.607913799	SW-07-FMC

REFERENCES

Reference 1

ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

POST OFFICE BOX 301463 36130-1463 • 1400 COLISEUM BLVD 36110-2059
MONTGOMERY, ALABAMA
WWW.ADEM.STATE.AL.US
(334) 271-7700

ONIS "TREY" GLENN, III, P.E.
DIRECTOR

BOB RILEY
GOVERNOR

Facsimiles: (334)
Administration: 271-7950
General Counsel: 394-4332
Communication: 394-4383
Air: 279-3044
Land: 279-3050
Water: 279-3051
Groundwater: 270-5631
Field Operations: 272-8131
Laboratory: 277-6718
Mining: 394-4326

July 14, 2003

MEMORANDUM

TO: Edwin Johnston, Chief
Program Support Unit
Environmental Assessment Section
Land Division

FROM: Nick Wolf
Program Support Unit
Environmental Assessment Section
Land Division

RE: Tarrant City Municipal Complex Site
Project # 426-9285

On July 10, 2003, Ken Prestridge and I conducted an X-ray Fluorescence (XRF) screening at the Tarrant City Municipal Complex in Tarrant, AL. Mr. Prestridge and I arrived at the site at 9:50 am. Upon arrival at the site we performed a site reconnaissance, performed the XRF set up, and performed the required standard readings. Once the set up was complete, Mr. Prestridge and I started gathering XRF readings and plotting the sample points using the GPS unit.

The first area screened was to the south and east of Tarrant Public Works Building (2515 Commerce Blvd). It appeared by the consistency of the soil, various piles of dirt in this area, and the elevation of the site compared to the surrounding parcels, that the soil in this area may be fill material. Fifteen points were screened with a total of sixteen sample readings taken (15 samples with the Cd source and one sample with the Am source). A chart is included that details observations at the time of the screening.

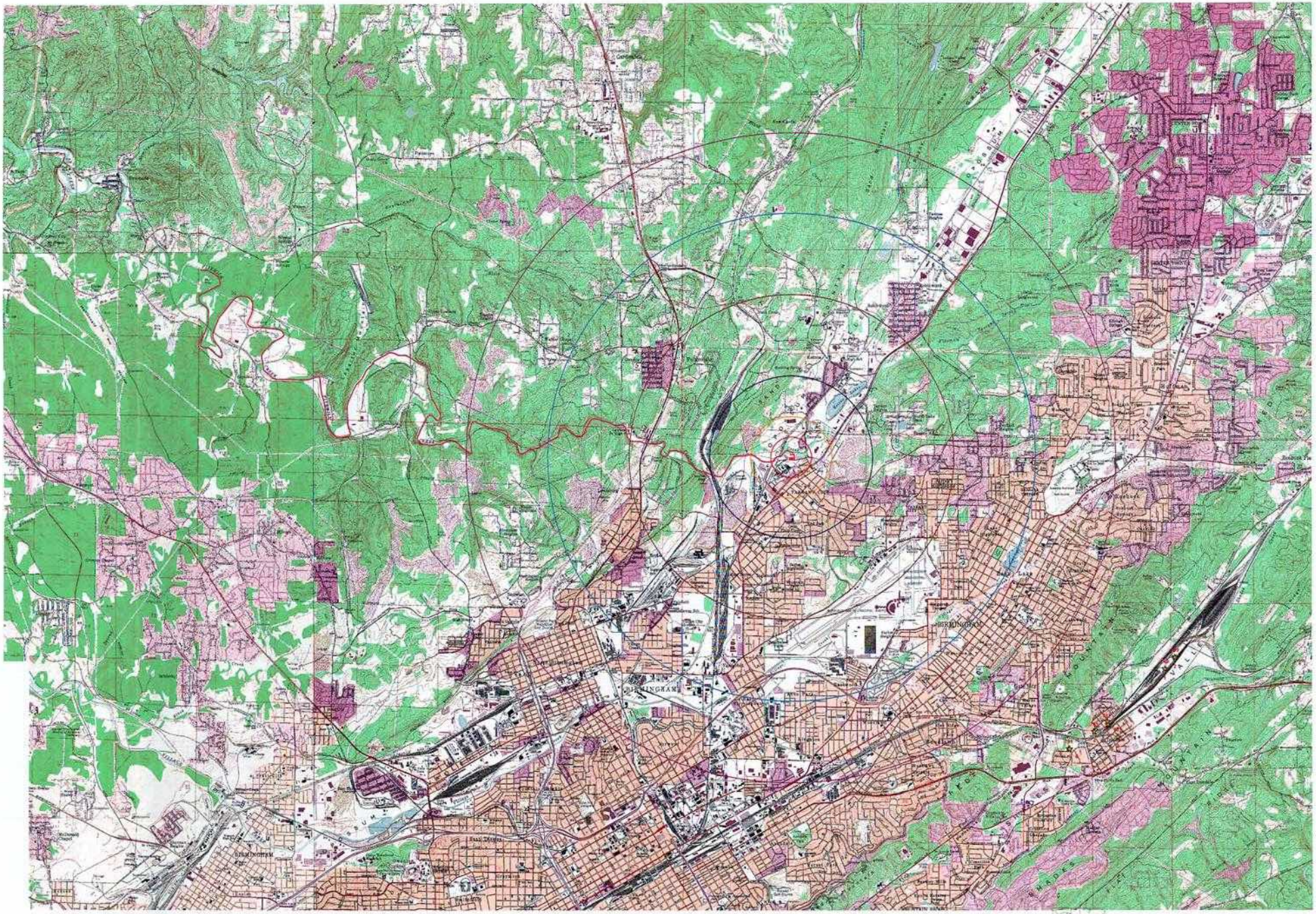
Following the soil screening of the first area, Mr. Prestridge and I conducted a GPS survey of areas of the site that were covered with buildings, black top, and gravel fill. This information will be superimposed on the original GPS map of the site in order to provide necessary information as why certain areas were not screened with the XRF. These areas were designated as "improved areas".

Once the improved areas data points were gathered and stored in the GPS unit, ADEM personnel began soil screening at the next portion of the site which has an address of 2538 Commerce Blvd. Many of the soil screenings had to be offset from the grid points

due to gravel, black top, or the railroad spur. In the areas that were screened, the soils appeared to be mixed with foundry sand. Twenty eight locations were screened with a total of 31 readings collected. Once the soil screening was complete the XRF was used to screen the reference blanks a final time. A chart is included that details observations at the time of the screening.

Following the surficial soil screening, four grab samples were collected. The sites of the grab samples were also collected and stored in the GPS unit. The grab samples were stored on ice and transported to the Birmingham Field Office for analysis.

Reference 2



Municipal Conmplex Site (MCS)

Distance From Site
1/4 Mile
1/2 Mile
1 Mile
2 Miles
3 Miles
4 Miles
Public Wells
Water Intakes
18 Mile SWPW

RingRadius	Pop2000	Total Households
1320.0000	320	133
2640.0000	1240	437
5280.0000	6000	1443
10560.0000	12335	4928
15840.0000	28190	10781
21120.0000	82326	23693

Lat	Lon	Name
33.5461	-86.7739	MCS

2000 0 2000 4000 6000 10000 12000 Feet

QuadsDesk

Adamsville
Birmingham North
Bonnaside
Gardendale
Irondale
Pinson

N
W E
S

Reference 3

ADEM

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

POST OFFICE BOX 301463 36130-1463 • 1400 COLISEUM BLVD. 36110-2059
MONTGOMERY, ALABAMA
WWW.ADEM.STATE.AL.US
(334) 271-7700

JAMES W. WARR
DIRECTOR

DON SIEGELMAN
GOVERNOR

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Water: 279-3051
Groundwater 270-5631
Field Operations 272-8131
Laboratory: 277 6718
Mining: 394-4326
Education/Outreach 394-4383

August 9, 2002

MEMORANDUM

TO: Stephen A. Cobb, Chief
Hazardous Waste Branch
Land Division

FROM: Joseph L. Gibson, Hydrogeologist J. L. G
Groundwater Branch
Water Division

RE: Brownfield Assessment - Groundwater
Municipal Complex Site
Tarrant, Jefferson County, Alabama

A Brownfield Assessment - Groundwater Report Form has been completed for the Municipal Complex Site in Tarrant, Jefferson County, Alabama. The report form evaluates the hydrogeological setting and potential groundwater targets at the site.

The following groundwater report was prepared through a search of literature and information available to the Groundwater Branch. The author has not conducted a site reconnaissance and the findings in this report have not been field verified.

cc: John Glaze, Site Assessment Unit

Brownfield Assessment - Groundwater
Municipal Complex Site
Tarrant, Jefferson County, Alabama
8/8/02

The following groundwater report was prepared through a search of literature and information available to the Groundwater Branch. The author has not conducted a site reconnaissance and the findings in this report have not been field verified.

LOCATION

Township:	17 South
Range:	2 West
Section:	5
Quadrangle Map:	Birmingham North, Alabama
Latitude:	33° 35' 17"
Longitude:	86° 46' 23"

TOPOGRAPHY AND SURFACE WATER

Physiographic Province:	Valley & Ridge
Physiographic Section:	Alabama Valley & Ridge
Physiographic District:	Birmingham-Big Canoe Valley
Surface Elevation at Site:	540 MSL

Distance to PPE from Site: Onsite

Receiving Streams:

Name:	Fivemile Creek
Length:	15 Miles
Classification:	Agriculture & Industry, and Fish & Wildlife
Flow (7 Day Average):	5.4 cfs

Drinking Water Intakes Along 15-Mile Surface Water Pathway: 0

Water System:	N/A
Distance from PPE:	N/A
Population Served:	N/A
Number of Sources:	0
Intakes:	0
Wells:	0

SOILS

SCS Classification: Urban Land
Composition: Areas covered by industrial, commercial, or residential property. The original soil has been altered by cutting and filling, shaping and grading, excavating, blasting, compacting, or covering with concrete or asphalt.
Slope: Nearly level
Permeability: N/A

GEOLOGY

Geologic Formation: Conasauga Formation
Composition: Limestone and shale
Thickness: 1,100 – 1,900 feet
Age: Cambrian
Underlying Formation: Rome Formation
Karst: Yes

HYDROGEOLOGY

Aquifer: Valley & Ridge aquifer system
Composition: Limestone and shale
Thickness: 1,100 – 1,900 feet
Underlying Aquifer: Confining layer (Rome Formation)
Interconnected Aquifers: No
Karst: Yes

Estimated Depth to Groundwater: < 25 feet

Public Wells within Four Miles: 0

Public Water Supply Wells Located Within Four Miles of the Site							
Distance (miles)	System	Well ID / SEID	Distance From Site (miles)	Depth (ft)	Direction from Site	Status	Population Served
0.0 – 1.0	-	-	-	-	-	-	-
1.0 – 2.0	-	-	-	-	-	-	-
2.0 – 3.0	-	-	-	-	-	-	-
3.0 – 4.0	-	-	-	-	-	-	-

Wellhead Protection Area: None
At the Site: No
Within Four Mile: No

Private Wells: Not expected due to urban nature of the site.

Drinking Water Systems within Four Miles:

System Name:	None
% Groundwater:	0
% Surface Water:	0
% Purchased Water:	0
Population Served:	0
Number of Sources for System:	0
Intakes:	0
Wells:	0

CLIMATE

Average Temperature:	62.2 °F
Summer:	78.8 °F
Winter:	45 °F
Gross Precipitation:	53 inches
Net Precipitation:	6 inches

SELECTED REFERENCES

Hunter, Jonathan A., and Moser, P. H., 1990, Ground-Water Availability in Jefferson County, Alabama: To Accompany Special Map 224: Geological Survey of Alabama.

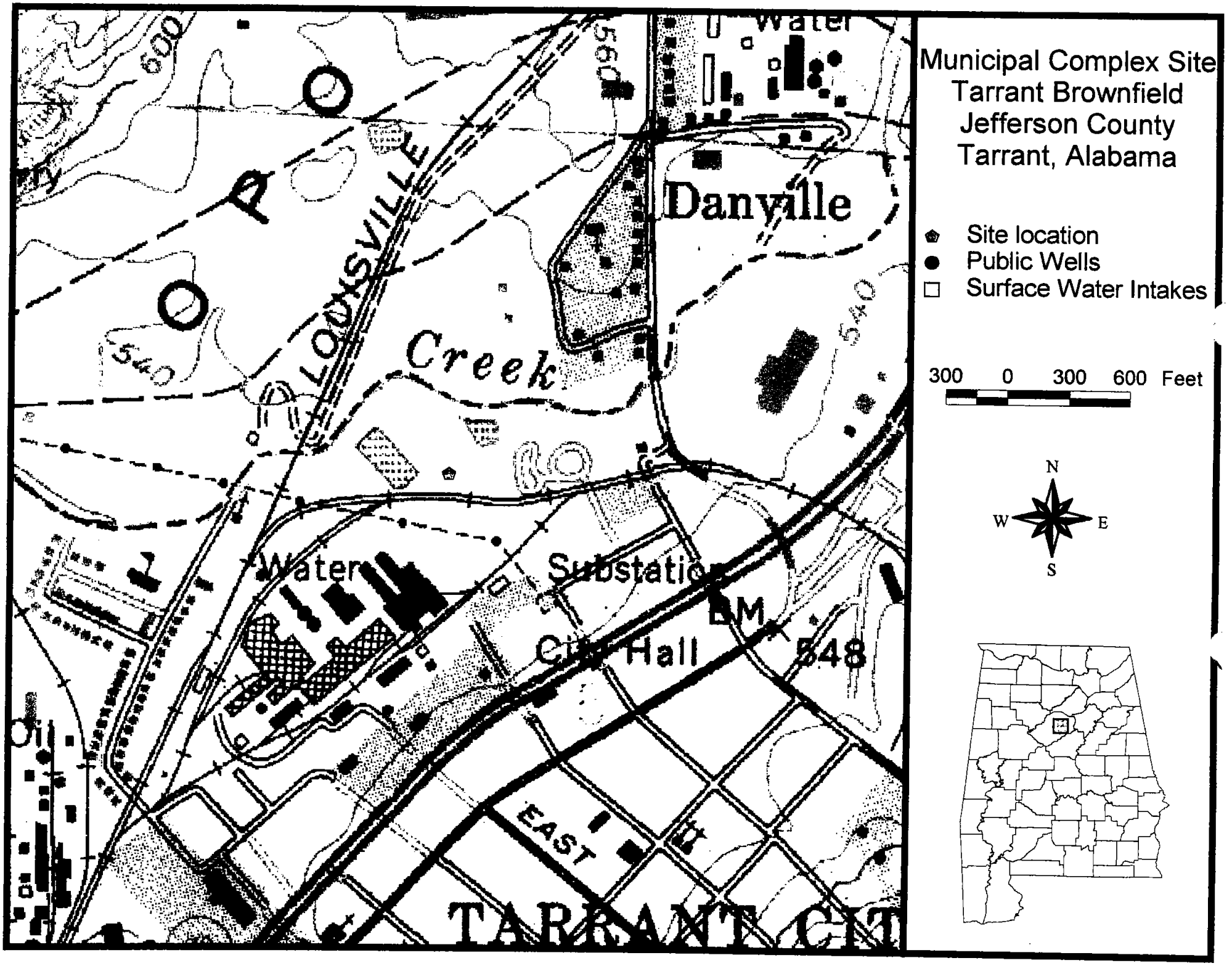
Moore, James D., 1992, Aquifers in Alabama, Geological Survey of Alabama, Special Map 231.

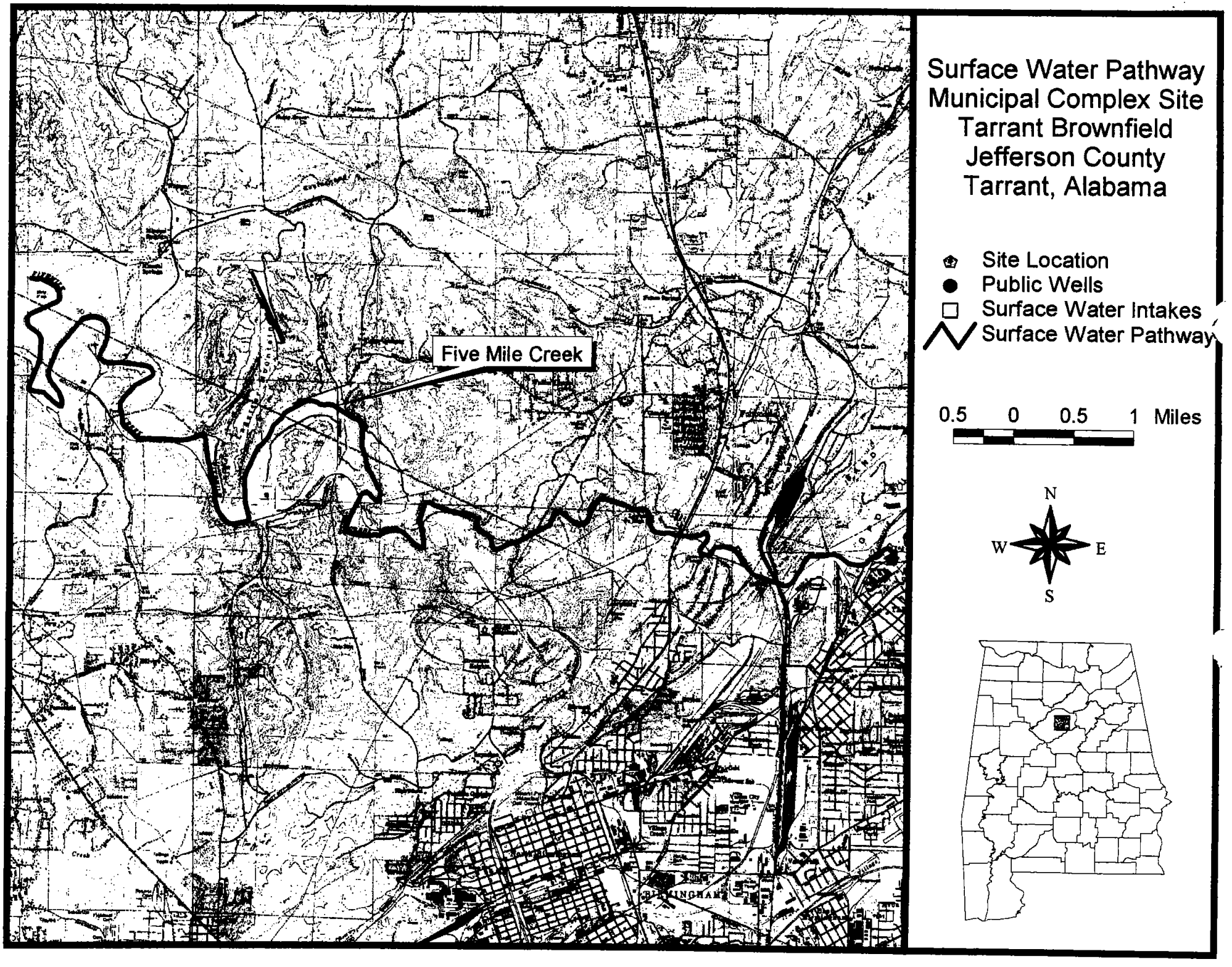
Osborne, W. E., Szabo, M. W., Neathery, T. L., and Copeland, C. W. Jr., 1988, Geologic Map of Alabama, Geological Survey of Alabama, Special Map 220 Northeast Sheet.

Planert, Michael, and Pritchett, J. L. Jr., 1989, Geohydrology and Susceptibility of Major Aquifers to Surface Contamination in Alabama; Area 4, United States Geological Survey, Water Resources Investigation Report 88-4133.

Sapp, Daniel C., and Emplaincourt, J., 1975, Physiographic Regions of Alabama, Geological Survey of Alabama, Map 168.

Spivey, Lawson D. Jr., 1982, Soil Survey of Jefferson County, Alabama; United States Department of Agriculture, Soil Conservation Service.


Municipal Complex Site
Tarrant Brownfield
Jefferson County
Tarrant, Alabama
Site location
Public Wells
Surface Water Intakes
300 0 300 600 Feet
N
W
E
S
Danville
Creek
LOUISVILLE
Water
Substation
City Hall
BM
548
EAST
TARRANT CIT
540
560
600

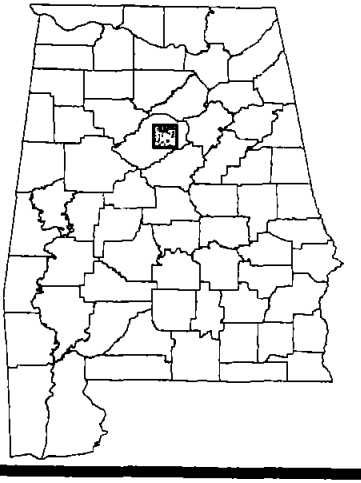

Surface Water Pathway
Municipal Complex Site
Tarrant Brownfield
Jefferson County
Tarrant, Alabama
Site Location
Public Wells
Surface Water Intakes
Surface Water Pathway
0.5 0 0.5 1 Miles
N
W
E
S
Five Mile Creek
BIRMINGHAM

Geologic Map
Municipal Complex Site
Tarrant Brownfield
Jefferson County
Tarrant, Alabama

Site Location
Public Wells
Surface Water Intakes
Roads
Railroads
Geologic Formation
Bangor Limestone
Chattanooga Shale
Chepultepec and Copper Ridge Dolomites undifferentiated
Conasauga Formation
Hartselle Sandstone
Ketona Dolomite
Parkwood Formation
Pottsville Formation (lower part)
Pride Mountain Formation
Tuscumbia Limestone and Fort Payne Chert undifferentiated

0.1 0 0.1 0.2 Miles

N
W E
S



Reference 4

WORKSTATION S0023704698:jg

12:06:51 pm Friday August 2, 2002

```
*****************************************************************************
****          1         2         3         4         5         6         7
**** 1234567890123456789012345678901234567890123456789012345678901234567890123
*****************************************************************************
*  *
* 1*  Display PWS SUMMARY
* 2*
* 3*  PWS ID: AL 0000738 PWS TYPE: C (C,N,P) SAMPLING PLAN: Y (Y,N)
* 4*  ACTIVITY FLAG:  A (A or I)    SYSTEM BEGIN-YY:  75     SYSTEM BEGIN-MM:
* 5*  DEACT-YY:     00       DEACT-MM:   00       POPULATION SERVED:  585,000
* 6*  PCT SURFACE: 100  PCT GROUND:  000  PCT PUR SURFACE: 000  PCT PUR GROUN
* 7*  SYSTEM NAME:          BIRMINGHAM WATER BOARD
* 8*  RESPONSIBLE PERSON:  MR. JOEL RHALY, PLANT MANAGER
* 9*  ADDRESS (ST/BOX):    P O BOX C 110
*10*  CITY: BIRMINGHAM                                STATE: AL  ZIP: 35283
* 1*  PRIMARY PHONE:   205 251 3261     EMERGENCY PHONE:    205
* 2*  SERVICE CONNECTIONS:  195,000          OWNER TYPE:    4    AC PIPE:
* 3*  REGULATING ENTITY: S (F=Federal S=State B=Both N=Neither)  CROSS CONNEC
* 4*  SEASON BEGIN-MM: 00 SEASON BEGIN-DD: 00 SEASON END-MM: 00  SEASON END-D
* 5*  REQUIRED COMPLIANCE SAMPLES: 0210   REQUIRED RAW SAMPLES: 0004
* 6*  LAB ID:    30010    LAB NAME: Birmingham Water Works Laboratory
* 7*  TURBIDITY MONITORING REQUIRED: Y (Y OR N)   USER: CED  DATE: 01/09/02
* 8*  FLOURIDE MONITORING REQUIRED:  Y (Y OR N)   TIME:  14:42:04.08
* 9*
*20*                                10) ADDRESS DATA    / ON SITE VISIT    15
* 1*                    6) Add      11) STATE DISCRETIO / VIOLATION DATA
* 2*  3) Down                       12) SOURCE ENTITY I / ENFORCEMENT DAT  16
* 3*  4) Prev / First                13) GEOGRAPHIC AREA / PROJECTS
* 4*  5) Next / Last    9) Modify   14) SERVICE AREAS   / TOTALS
*  *
*****************************************************************************
****          1         2         3         4         5         6         7
**** 1234567890123456789012345678901234567890123456789012345678901234567890123
*****************************************************************************
```

Reference 5

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... GW-01-TBF/MCS

Sample Matrix: WATER

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05506

Collection Date: 6/10/03

Collection Time: 10:00:00 AM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	299	ug/L	10.0	7/10/03	7440-38-2	*EPA206.2*
Cadmium, Total	.089	mg/L	0.003	7/10/03	7440-43-9	*EPA200.7*
Chromium, Total	1.553	mg/L	0.015	7/10/03	7440-47-3	*EPA200.7*
Lead, Total	12180	ug/L	2.00	7/10/03	7439-92-1	*EPA239.2*
Mercury, Total	< MDL	ug/L	0.3	7/14/03	7439-97-6	*EPA245.2*

ADEM M NTGOMERY LABOR. ΓORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF
Source... GW - 01 - TBF/MCS
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: GWATER
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35052
Collection Date: 6/10/2003
Collection Time: 10:00:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Volatiles in Liquids *Analysis Performed by....* *RLH*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/16/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/16/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/16/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/16/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/16/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/16/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/16/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/16/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/16/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/16/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/16/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/16/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/16/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/16/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/16/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/16/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/16/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/16/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/16/2003	79-46-9	SW8260B

Volatiles in Liqu. Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	6/16/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/16/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/16/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	6/16/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/16/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/16/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/16/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/16/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/16/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/16/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/16/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/16/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/16/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/16/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/16/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/16/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/16/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/16/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/16/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	6/16/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/16/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/16/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/16/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/16/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/16/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/16/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/16/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/16/2003	74-88-4	SW3260B
Isopropylbenzene	< MDL	ug/L	5.0	6/16/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/16/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/16/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/16/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/16/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/16/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/16/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/16/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/16/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/16/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/16/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/16/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/16/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/16/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/16/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/16/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/16/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/16/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/16/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/16/2003	79-01-6	SW8260B

Volatiles in Liqu.

Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Trichlorofluoromethane	< MDL	ug/L	5.0	6/16/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/16/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	25.0	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	25.0	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	25.0	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	25.0	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	25.0	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	25.0	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	25.0	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	25.0	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	25.0	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	25.0	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	25.0	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	25.0	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	25.0	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	25.0	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	25.0	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	25.0	6/25/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	25.0	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	25.0	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	25.0	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	25.0	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	25.0	6/25/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	25.0	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	25.0	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	25.0	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	25.0	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	25.0	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	25.0	6/25/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	25.0	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	25.0	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	25.0	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	25.0	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	25.0	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	25.0	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	25.0	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	25.0	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	25.0	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	25.0	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	25.0	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	25.0	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	25.0	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	25.0	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	25.0	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	25.0	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	25.0	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	25.0	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	25.0	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	25.0	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	25.0	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	25.0	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	25.0	6/25/2003	98-95-3	SW8270C

Semi-Volatiles in Li[illegible]ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
n-Nitroso-di-n-propylamine	< MDL	ug/L	25.0	6/25/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	25.0	6/25/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	25.0	6/25/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	25.0	6/25/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	25.0	6/25/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	25.0	6/25/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD PROJECT:MUNICI
Location... GW-04-TBF/MCS
Sample Matrix: WATER
Sample Collector: JMT-Thomas, Matt
Sample Received by: D. T.

Lab Sample ID: BB05507
Collection Date: 6/10/03
Collection Time: 11:30:00 AM
Submittal Date: 6/11/03
Submittal Time: 4:55:00 PM
Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	629	ug/L	10.0	7/10/03	7440-38-2	*EPA206.2*
Cadmium, Total	.448	mg/L	0.003	7/10/03	7440-43-9	*EPA200.7*
Chromium, Total	1.349	mg/L	0.015	7/10/03	7440-47-3	*EPA200.7*
Lead, Total	27920	ug/L	2.00	7/10/03	7439-92-1	*EPA239.2*
Mercury, Total	< MDL	ug/L	0.3	7/14/03	7439-97-6	*EPA245.2*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF

Source... GW - 04 - TBF/MCS

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: GWATER

Sample Collector: TEE-Estes, Teresa

Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35053**

Collection Date: 6/10/2003

Collection Time: 11:30:00 AM

Submittal Date: 6/11/2003

Submittal Time: 3:45:00 PM

Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Volatiles in Liquids

Analysis Performed by.... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/16/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/16/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/16/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/16/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/16/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/16/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/16/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/16/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/16/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/16/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/16/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/16/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/16/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/16/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/16/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/16/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/16/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/16/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/16/2003	79-46-9	SW8260B

Volatiles in Liqu. Analysis Performed by. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	6/16/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/16/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/16/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	6/16/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/16/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/16/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/16/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/16/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/16/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/16/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/16/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/16/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/16/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/16/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/16/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/16/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/16/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/16/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/16/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	6/16/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/16/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/16/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/16/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/16/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/16/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/16/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/16/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/16/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	6/16/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/16/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/16/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/16/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/16/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/16/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/16/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/16/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/16/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/16/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/16/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/16/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/16/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/16/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/16/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/16/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/16/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/16/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/16/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/16/2003	79-01-6	SW8260B

Volatiles in Liqu.

Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Trichlorofluoromethane	< MDL	ug/L	5.0	6/16/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/16/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	100	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	100	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	100	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	100	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	100	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	100	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	100	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	100	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	100	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	100	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	100	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	100	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	100	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	100	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	100	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	100	6/25/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	100	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	100	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	100	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	100	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	100	6/25/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	100	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	100	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	100	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	100	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	100	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	100	6/25/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	100	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	100	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	100	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	100	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	100	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	100	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	100	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	100	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	100	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	100	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	100	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	100	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	100	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	100	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	100	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	100	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	100	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	100	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	100	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	100	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	100	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	100	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	100	6/25/2003	98-95-3	SW8270C

Semi-Volatiles in Li ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
n-Nitroso-di-n-propylamine	< MDL	ug/L	100	6/25/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	100	6/25/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	100	6/25/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	100	6/25/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	100	6/25/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	100	6/25/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF

Source... GW - 05 - TBF/MCS

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: GWATER

Sample Collector: JMT-Thomas, Matt

Sample Received by: V. E. PATRICK

Lab Sample ID: AA35119

Collection Date: 6/11/2003

Collection Time: 2:10:00 PM

Submittal Date: 6/12/2003

Submittal Time: 4:15:00 PM

Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Liquids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	50.0	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	50.0	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	50.0	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	50.0	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	50.0	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	50.0	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	50.0	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	50.0	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	50.0	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	50.0	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	50.0	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	50.0	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	50.0	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	50.0	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	50.0	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	50.0	6/25/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	50.0	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	50.0	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	50.0	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	50.0	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	50.0	6/25/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	50.0	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	50.0	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	50.0	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	50.0	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	50.0	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	50.0	6/25/2003	205-99-2	SW8270C

Semi-Volatiles in Liq .ds Analysis Performed by... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/L	50.0	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	50.0	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	50.0	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	50.0	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	50.0	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	50.0	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	50.0	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	50.0	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	50.0	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	50.0	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	50.0	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	50.0	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	50.0	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	50.0	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	50.0	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	50.0	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	50.0	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	50.0	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	50.0	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	50.0	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	50.0	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	50.0	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	50.0	6/25/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/L	50.0	6/25/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	50.0	6/25/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	50.0	6/25/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	50.0	6/25/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	50.0	6/25/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	50.0	6/25/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 8/14/03 *Fund Code:* 426 *Date of the Original Report...* 8/14/03

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD P: MUNICIPAL CO

Location... GW-06-TBF/MCS

Sample Matrix: WATER

Sample Collector: JMT-Thomas, Matt

Sample Received by: C. SNOW

Lab Sample ID: BB05538

Collection Date: 6/12/03

Collection Time: 10:20:00 AM

Submittal Date: 6/12/03

Submittal Time: 2:04:00 PM

Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	500	ug/L	10.0	7/10/03	7440-38-2	*EPA200.7*
Cadmium, Total	.231	mg/L	0.003	7/10/03	7440-43-9	*EPA200.7*
Chromium, Total	5.307	mg/L	0.015	7/10/03	7440-47-3	*EPA200.7*
Lead, Total	25470	ug/L	2.00	7/10/03	7439-92-1	*EPA200.7*
Mercury, Total	.318	ug/L	0.3	7/14/03	7439-97-6	*EPA245.2*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF

Source... GW - 06 - TBF/MCS

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: GWATER

Sample Collector: JMT-Thomas, Matt

Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35120**

Collection Date: 6/12/2003

Collection Time: 10:20:00 AM

Submittal Date: 6/12/2003

Submittal Time: 4:15:00 PM

Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Volatiles in Liquids *Analysis Performed by....* *RLH*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/16/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/16/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/16/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/16/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/16/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/16/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/16/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/16/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/16/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/16/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/16/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/16/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/16/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/16/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/16/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/16/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/16/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/16/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/16/2003	79-46-9	SW8260B

Volatiles in Liqu. Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	6/16/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/16/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/16/2003	108-10-1	SW8260B
Acetone	469.7	ug/L	10.0	6/16/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/16/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/16/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/16/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/16/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/16/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/16/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/16/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/16/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/16/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/16/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/16/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/16/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/16/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/16/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/16/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	6/16/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/16/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/16/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/16/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/16/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/16/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/16/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/16/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/16/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	6/16/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/16/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/16/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/16/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/16/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/16/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/16/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/16/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/16/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/16/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/16/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/16/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/16/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/16/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/16/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/16/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/16/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/16/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/16/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/16/2003	79-01-6	SW8260B

Volatiles in Liqu.

Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Trichlorofluoromethane	< MDL	ug/L	5.0	6/16/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/16/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	5.0	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	5.0	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	5.0	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	5.0	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	5.0	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	5.0	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	5.0	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	5.0	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	5.0	6/25/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	5.0	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	5.0	6/25/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	5.0	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	5.0	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	5.0	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	5.0	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	5.0	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	5.0	6/25/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	5.0	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	5.0	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	5.0	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	5.0	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	5.0	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	5.0	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	5.0	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	5.0	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	5.0	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	5.0	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	5.0	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	5.0	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	5.0	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	5.0	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	5.0	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	5.0	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	5.0	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	5.0	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	5.0	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	5.0	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	5.0	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	5.0	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	5.0	6/25/2003	98-95-3	SW8270C

Semi-Volatiles in Liquids Analysis Performed by... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
n-Nitroso-di-n-propylamine	< MDL	ug/L	5.0	6/25/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	5.0	6/25/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	5.0	6/25/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	5.0	6/25/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	5.0	6/25/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	5.0	6/25/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 8/14/03 *Fund Code:* 426 *Date of the Original Report...* 8/14/03

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD P: MUNICIPAL CO
Location... GW-07-TBF/MCS
Sample Matrix: WATER
Sample Collector: JMT-Thomas, Matt
Sample Received by: C. SNOW

Lab Sample ID: BB05539
Collection Date: 6/12/03
Collection Time: 11:10:00 AM
Submittal Date: 6/12/03
Submittal Time: 2:04:00 PM
Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	1690	ug/L	10.0	7/10/03	7440-38-2	*EPA200.7*
Cadmium, Total	.07	mg/L	0.003	7/10/03	7440-43-9	*EPA200.7*
Chromium, Total	3.60	mg/L	0.015	7/10/03	7440-47-3	*EPA200.7*
Lead, Total	7260	ug/L	2.00	7/10/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/L	0.3	7/10/03	7439-97-6	*EPA245.2*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF

Source... GW - 07 - TBF/MCS

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: GWATER

Sample Collector: JMT-Thomas, Matt

Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35121**

Collection Date: 6/12/2003

Collection Time: 11:10:00 AM

Submittal Date: 6/12/2003

Submittal Time: 4:15:00 PM

Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Volatiles in Liquids *Analysis Performed by....* *RLH*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/24/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/24/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/24/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/24/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/24/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/24/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/24/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/24/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/24/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/24/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/24/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/24/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/24/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/24/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/24/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/24/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/24/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/24/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/24/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/24/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/24/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/24/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/24/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/24/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/24/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/24/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/24/2003	79-46-9	SW8260B

Volatiles in Liqu.. Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	6/24/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/24/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/24/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	6/24/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/24/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/24/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/24/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/24/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/24/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/24/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/24/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/24/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/24/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/24/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/24/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/24/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/24/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/24/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/24/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/24/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/24/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	6/24/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/24/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/24/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/24/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/24/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/24/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/24/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/24/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/24/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	6/24/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/24/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/24/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/24/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/24/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/24/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/24/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/24/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/24/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/24/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/24/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/24/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/24/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/24/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/24/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/24/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/24/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/24/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/24/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/24/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/24/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/24/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/24/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/24/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/24/2003	79-01-6	SW8260B

Volatiles in Liqu.

Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Trichlorofluoromethane	< MDL	ug/L	5.0	6/24/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/24/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	10.0	6/28/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	10.0	6/28/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	10.0	6/28/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	10.0	6/28/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	10.0	6/28/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	10.0	6/28/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	10.0	6/28/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	10.0	6/28/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	10.0	6/28/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	10.0	6/28/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	10.0	6/28/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	10.0	6/28/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	10.0	6/28/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	10.0	6/28/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	10.0	6/28/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	10.0	6/28/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	10.0	6/28/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	10.0	6/28/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	10.0	6/28/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	10.0	6/28/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	10.0	6/28/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	10.0	6/28/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	10.0	6/28/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	10.0	6/28/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	10.0	6/28/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	10.0	6/28/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	10.0	6/28/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	10.0	6/28/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	10.0	6/28/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	10.0	6/28/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	10.0	6/28/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	10.0	6/28/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	10.0	6/28/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	10.0	6/28/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	10.0	6/28/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	10.0	6/28/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	10.0	6/28/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	10.0	6/28/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	10.0	6/28/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	10.0	6/28/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	10.0	6/28/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	10.0	6/28/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	10.0	6/28/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	10.0	6/28/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	10.0	6/28/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	10.0	6/28/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	10.0	6/28/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	10.0	6/28/2003	78-59-1	SW8270C
Naphthalene	23.6	ug/L	10.0	6/28/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	10.0	6/28/2003	98-95-3	SW8270C

Semi-Volatiles in Li ids Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
n-Nitroso-di-n-propylamine	< MDL	ug/L	10.0	6/28/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	10.0	6/28/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	10.0	6/28/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	10.0	6/28/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	10.0	6/28/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	10.0	6/28/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLFE

Source... FIVE MILE CREEK

Location... SW-01-FMC

Sample Matrix: SWATER

Sample Collector: DIXIE BEATTY

Sample Received by: C. TOWNSEND

Lab Sample ID: BB05472

Collection Date: 6/10/03

Collection Time: 8:55:00 AM

Submittal Date: 6/10/03

Submittal Time: 12:25:00 PM

Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.

A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend

Quality Assurance Manager

JUL 2003

Miscellaneous Inorganics

Analysis Performed by.... CS

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Hardness by Titration	184	mg/L	1.0	6/11/03	E-11778	SM2340B

Fecal Coliform Analysis

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Coliform, Fecal	730	Colonies	1.0	6/10/03	ADEM-006	ADEMVOL8

Trace Metals

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Arsenic, Total	25	ug/L	10.0	7/10/03	7440-38-2	EPA206.2
Chromium, Total	< MDL	mg/L	0.015	7/10/03	7440-47-3	EPA200.7
Lead, Total	< MDL	ug/L	2.00	7/10/03	7439-92-1	EPA239.2
Mercury, Total	< MDL	ug/L	0.3	7/14/03	7439-97-6	EPA245.2

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Cyanides, Total	< MDL	mg/L	0.004	6/17/03	57-12-5	EPA335.2

ADEM M ONTGOMERY LABOR TORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF

Source... SW - 01 - FMC

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: SWATER

Sample Collector: TEE-Estes, Teresa

Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35045**

Collection Date: 6/10/2003

Collection Time: 8:55:00 AM

Submittal Date: 6/11/2003

Submittal Time: 3:45:00 PM

Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

JUL 2003

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Analysis Performed by.... BLR

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Chlordane	< MDL	ug/L	0.04	6/18/2003	57-74-9	SW8081A
2,4,5-T	< MDL	ug/L	0.08	7/1/2003	93-76-5	SW8151
2,4-D	< MDL	ug/L	0.2	7/1/2003	94-75-7	SW8151
Silvex	< MDL	ug/L	0.075	7/1/2003	93-72-1	SW8151
4,4'-DDD	< MDL	ug/L	0.05	6/18/2003	72-54-8	SW8081A
4,4'-DDE	< MDL	ug/L	0.058	6/18/2003	72-55-9	SW8081A
4,4'-DDT	< MDL	ug/L	0.08	6/18/2003	50-29-3	SW8081A
Aldrin	< MDL	ug/L	0.034	6/18/2003	309-00-2	SW8081A
alpha-BHC	< MDL	ug/L	0.034	6/18/2003	319-84-6	SW8081A
beta-BHC	< MDL	ug/L	0.035	6/18/2003	319-85-7	SW8081A
delta-BHC	< MDL	ug/L	0.024	6/18/2003	319-86-8	SW8081A
Dieldrin	< MDL	ug/L	0.044	6/18/2003	60-57-1	SW8081A
Endosulfan I	< MDL	ug/L	0.03	6/18/2003	959-98-8	SW8081A
Endosulfan II	< MDL	ug/L	0.04	6/18/2003	33213-65-9	SW8081A
Endosulfan Sulfate	< MDL	ug/L	0.035	6/18/2003	1031-07-8	SW8081A
Endrin	< MDL	ug/L	0.039	6/18/2003	72-20-8	SW8081A
Endrin Aldehyde	< MDL	ug/L	0.05	6/18/2003	7421-93-4	SW8081A
Endrin Ketone	< MDL	ug/L	0.050	6/18/2003	53494-70-5	SW8081A
Heptachlor	< MDL	ug/L	0.04	6/18/2003	76-44-8	SW8081A
Heptachlor Epoxide	< MDL	ug/L	0.032	6/18/2003	1024-57-3	SW8081A
Lindane	< MDL	ug/L	0.025	6/18/2003	58-89-9	SW8081A
Methoxychlor	< MDL	ug/L	0.086	6/18/2003	72-43-5	SW8081A
Arochlor 1016	< MDL	ug/L	0.40	6/18/2003	12674-11-2	SW8082
Arochlor 1221	< MDL	ug/L	0.40	6/18/2003	11104-28-2	SW8082
Arochlor 1232	< MDL	ug/L	0.40	6/18/2003	11141-16-5	SW8082
Arochlor 1242	< MDL	ug/L	0.40	6/18/2003	53469-21-9	SW8082
Arochlor 1248	< MDL	ug/L	0.40	6/18/2003	12672-29-6	SW8082

Analysis Performed by. BLR

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Arochlor 1254	< MDL	ug/L	0.40	6/18/2003	11097-69-1	SW8082
Arochlor 1260	< MDL	ug/L	0.40	6/18/2003	11096-82-5	SW8082
PCB's, Total	< MDL	ug/L	0.40	6/18/2003	1336-36-3	SW8082
Toxaphene in Liquids	< MDL	ug/L	0.4	6/18/2003	8001-35-2	SW8081A

Volatiles in Liquids

Analysis Performed by.... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/13/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/13/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/13/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/13/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/13/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/13/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/13/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/13/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/13/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/13/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/13/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/13/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/13/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/13/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/13/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/13/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/13/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/13/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/13/2003	79-46-9	SW8260B
4-Chlorotoluene	< MDL	ug/L	5.0	6/13/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/13/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/13/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	6/13/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/13/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/13/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/13/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/13/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/13/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/13/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/13/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/13/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/13/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/13/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/13/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/13/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/13/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/13/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/13/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	10061-01-5	SW8260B

Volatiles in Liqu

Analysis Performed by: RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Dibromochloromethane	< MDL	ug/L	5.0	6/13/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/13/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/13/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/13/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/13/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/13/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/13/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/13/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/13/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	6/13/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/13/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/13/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/13/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/13/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/13/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/13/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/13/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/13/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/13/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/13/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/13/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/13/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/13/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/13/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/13/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/13/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/13/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/13/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/13/2003	79-01-6	SW8260B
Trichlorofluoromethane	< MDL	ug/L	5.0	6/13/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/13/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	5.0	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	5.0	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	5.0	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	5.0	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	5.0	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	5.0	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	5.0	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	5.0	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	5.0	6/25/2003	534-52-1	SW8270C

Semi-Volatiles in Li ds Analysis Performed by... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Bromophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	5.0	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	5.0	6/25/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	5.0	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	5.0	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	5.0	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	5.0	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	5.0	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	5.0	6/25/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	5.0	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	5.0	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	5.0	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	5.0	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	5.0	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	5.0	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	5.0	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	5.0	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	5.0	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	5.0	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	5.0	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	5.0	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	5.0	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	5.0	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	5.0	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	5.0	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	5.0	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	5.0	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	5.0	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	5.0	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	5.0	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	5.0	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	5.0	6/25/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/L	5.0	6/25/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	5.0	6/25/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	5.0	6/25/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	5.0	6/25/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	5.0	6/25/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	5.0	6/25/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLFE
Source... FIVE MILE CREEK
Location... SW-02-FMC
Sample Matrix: SWATER
Sample Collector: DIXIE BEATTY
Sample Received by: C. TOWNSEND

Lab Sample ID: BB05473
Collection Date: 6/10/03
Collection Time: 10:15:00 AM
Submittal Date: 6/10/03
Submittal Time: 12:25:00 PM
Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Miscellaneous Inorganics

Analysis Performed by.... CS

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Hardness by Titration	186	mg/L	1.0	6/11/03	E-11778	SM2340B

Fecal Coliform Analysis

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Coliform, Fecal	360	Colonies	1.0	6/10/03	ADEM-006	ADEMVOL8

Trace Metals

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Arsenic, Total	24	ug/L	10.0	7/10/03	7440-38-2	EPA206.2
Chromium, Total	< MDL	mg/L	0.015	7/10/03	7440-47-3	EPA200.7
Lead, Total	< MDL	ug/L	2.00	7/10/03	7439-92-1	EPA239.2
Mercury, Total	< MDL	ug/L	0.3	7/14/03	7439-97-6	EPA245.2

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Cyanides, Total	< MDL	mg/L	0.004	6/17/03	57-12-5	EPA335.2

ADEM M NTGOMERY LABOR TORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF

Source... SW - 02 - FMC

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: SWATER

Sample Collector: TEE-Estes, Teresa

Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35046**

Collection Date: 6/10/2003

Collection Time: 10:15:00 AM

Submittal Date: 6/11/2003

Submittal Time: 3:45:00 PM

Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Volatiles in Liquids *Analysis Performed by....* *RLH*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/13/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/13/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/13/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/13/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/13/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/13/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/13/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/13/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/13/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/13/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/13/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/13/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/13/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/13/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/13/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/13/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/13/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/13/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/13/2003	79-46-9	SW8260B

Volatiles in Liqui. Analysis Performed by... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	6/13/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/13/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/13/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	6/13/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/13/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/13/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/13/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/13/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/13/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/13/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/13/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/13/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/13/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/13/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/13/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/13/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/13/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/13/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/13/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	6/13/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/13/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/13/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/13/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/13/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/13/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/13/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/13/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/13/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	6/13/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/13/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/13/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/13/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/13/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/13/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/13/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/13/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/13/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/13/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/13/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/13/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/13/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/13/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/13/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/13/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/13/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/13/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/13/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/13/2003	79-01-6	SW8260B

Volatiles in Liqui.

Analysis Performed by... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Trichlorofluoromethane	< MDL	ug/L	5.0	6/13/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/13/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	5.0	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	5.0	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	5.0	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	5.0	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	5.0	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	5.0	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	5.0	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	5.0	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	5.0	6/25/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	5.0	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	5.0	6/25/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	5.0	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	5.0	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	5.0	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	5.0	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	5.0	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	5.0	6/25/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	5.0	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	5.0	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	5.0	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	5.0	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	5.0	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	5.0	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	5.0	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	5.0	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	5.0	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	5.0	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	5.0	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	5.0	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	5.0	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	5.0	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	5.0	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	5.0	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	5.0	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	5.0	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	5.0	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	5.0	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	5.0	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	5.0	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	5.0	6/25/2003	98-95-3	SW8270C

Semi-Volatiles in Liq ds Analysis Performed by... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
n-Nitroso-di-n-propylamine	< MDL	ug/L	5.0	6/25/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	5.0	6/25/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	5.0	6/25/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	5.0	6/25/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	5.0	6/25/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	5.0	6/25/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLFE
Source... FIVE MILE CREEK
Location... SW-03-FMC
Sample Matrix: SWATER
Sample Collector: DIXIE BEATTY
Sample Received by: C. TOWNSEND

Lab Sample ID: BB05474
Collection Date: 6/10/03
Collection Time: 11:15:00 AM
Submittal Date: 6/10/03
Submittal Time: 12:25:00 PM
Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Miscellaneous Inorganics

Analysis Performed by.... CS

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Hardness by Titration	188	mg/L	1.0	6/11/03	E-11778	SM2340B

Fecal Coliform Analysis

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Coliform, Fecal	152	Colonies	1.0	6/10/03	ADEM-006	ADEMVOL8

Trace Metals

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Arsenic, Total	27	ug/L	10.0	7/10/03	7440-38-2	EPA206.2
Chromium, Total	< MDL	mg/L	0.015	7/10/03	7440-47-3	EPA200.7
Lead, Total	< MDL	ug/L	2.00	7/10/03	7439-92-1	EPA239.2
Mercury, Total	< MDL	ug/L	0.3	7/14/03	7439-97-6	EPA245.2

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Cyanides, Total	< MDL	mg/L	0.004	6/17/03	57-12-5	EPA335.2

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF

Source... SW - 03 - FMC

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: SWATER

Sample Collector: TEE-Estes, Teresa

Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35047**

Collection Date: 6/10/2003

Collection Time: 11:15:00 AM

Submittal Date: 6/11/2003

Submittal Time: 3:45:00 PM

Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Volatiles in Liquids *Analysis Performed by....* *RLH*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/13/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/13/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/13/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/13/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/13/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/13/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/13/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/13/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/13/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/13/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/13/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/13/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/13/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/13/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/13/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/13/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/13/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/13/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/13/2003	79-46-9	SW8260B

Volatiles in Liqui

Analysis Performed by... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	6/13/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/13/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/13/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	6/13/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/13/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/13/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/13/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/13/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/13/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/13/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/13/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/13/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/13/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/13/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/13/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/13/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/13/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/13/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/13/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	6/13/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/13/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/13/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/13/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/13/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/13/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/13/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/13/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/13/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	6/13/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/13/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/13/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/13/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/13/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/13/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/13/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/13/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/13/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/13/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/13/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/13/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/13/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/13/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/13/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/13/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/13/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/13/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/13/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/13/2003	79-01-6	SW8260B

Volatiles in Liqu

Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Trichlorofluoromethane	< MDL	ug/L	5.0	6/13/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/13/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	5.0	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	5.0	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	5.0	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	5.0	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	5.0	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	5.0	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	5.0	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	5.0	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	5.0	6/25/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	5.0	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	5.0	6/25/2003	33-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	5.0	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	5.0	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	5.0	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	5.0	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	5.0	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	5.0	6/25/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	5.0	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	5.0	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	5.0	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	5.0	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	5.0	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	5.0	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	5.0	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	5.0	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	5.0	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	5.0	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	5.0	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	5.0	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	5.0	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	5.0	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	5.0	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	5.0	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	5.0	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	5.0	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	5.0	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	5.0	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	5.0	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	5.0	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	5.0	6/25/2003	98-95-3	SW8270C

Semi-Volatiles in Liquids *Analysis Performed by..* *WEE*

Parameter	*Result*	*Units*	*MDL*	*Date of Analysis*	*CAS #*	*Method Reference*
n-Nitroso-di-n-propylamine	< MDL	ug/L	5.0	*6/25/2003*	621-64-7	*SW8270C*
n-Nitrosodiphenylamine	< MDL	ug/L	5.0	*6/25/2003*	86-30-6	*SW8270C*
Pentachlorophenol	< MDL	ug/L	5.0	*6/25/2003*	87-86-5	*SW8270C*
Phenanthrene	< MDL	ug/L	5.0	*6/25/2003*	85-01-8	*SW8270C*
Phenol	< MDL	ug/L	5.0	*6/25/2003*	108-95-2	*SW8270C*
Pyrene	< MDL	ug/L	5.0	*6/25/2003*	129-00-0	*SW8270C*

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLFE
Source... FIVE MILE CREEK
Location... SW-04-FMC
Sample Matrix: SWATER
Sample Collector: DIXIE BEATTY
Sample Received by: C. TOWNSEND

Lab Sample ID: BB05478
Collection Date: 6/10/03
Collection Time: 2:30:00 PM
Submittal Date: 6/10/03
Submittal Time: 4:50:00 PM
Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Miscellaneous Inorganics

Analysis Performed by.... CS

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Hardness by Titration	192	mg/L	1.0	6/11/03	E-11778	SM2340B

Fecal Coliform Analysis

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Coliform, Fecal	60	Colonies	1.0	6/10/03	ADEM-006	ADEMVOL8

Trace Metals

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Arsenic, Total	29	ug/L	10.0	7/10/03	7440-38-2	EPA206.2
Chromium, Total	< MDL	mg/L	0.015	7/10/03	7440-47-3	EPA200.7
Lead, Total	< MDL	ug/L	2.00	7/10/03	7439-92-1	EPA239.2
Mercury, Total	< MDL	ug/L	0.3	7/14/03	7439-97-6	EPA245.2

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Cyanides, Total	< MDL	mg/L	0.004	6/17/03	57-12-5	EPA335.2

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF

Source... SW - 04 - FMC

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: SWATER

Sample Collector: TEE-Estes, Teresa

Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35048**

Collection Date: 6/10/2003

Collection Time: 2:20:00 PM

Submittal Date: 6/11/2003

Submittal Time: 3:45:00 PM

Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Volatiles in Liquids *Analysis Performed by....* *RLH*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/13/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/13/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/13/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/13/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/13/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/13/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/13/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/13/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/13/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/13/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/13/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/13/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/13/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/13/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/13/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/13/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/13/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/13/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/13/2003	79-46-9	SW8260B

Volatiles in Liquids — Analysis Performed by.... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	6/13/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/13/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/13/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	6/13/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/13/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/13/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/13/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/13/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/13/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/13/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/13/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/13/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/13/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/13/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/13/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/13/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/13/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/13/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/13/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	6/13/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/13/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/13/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/13/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/13/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/13/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/13/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/13/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/13/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	6/13/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/13/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/13/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/13/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/13/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/13/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/13/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/13/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/13/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/13/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/13/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/13/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/13/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/13/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/13/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/13/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/13/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/13/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/13/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/13/2003	79-01-6	SW8260B

Volatiles in Liqu

Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Trichlorofluoromethane	< MDL	ug/L	5.0	6/13/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/13/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	5.0	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	5.0	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	5.0	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	5.0	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	5.0	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	5.0	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	5.0	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	5.0	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	5.0	6/25/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	5.0	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	5.0	6/25/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	5.0	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	5.0	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	5.0	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	5.0	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	5.0	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	5.0	6/25/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	5.0	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	5.0	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	5.0	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	5.0	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	5.0	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	5.0	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	5.0	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	5.0	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	5.0	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	5.0	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	5.0	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	5.0	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	5.0	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	5.0	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	5.0	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	5.0	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	5.0	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	5.0	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	5.0	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	5.0	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	5.0	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	5.0	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	5.0	6/25/2003	98-95-3	SW8270C

Semi-Volatiles in Li ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
n-Nitroso-di-n-propylamine	< MDL	ug/L	5.0	6/25/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	5.0	6/25/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	5.0	6/25/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	5.0	6/25/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	5.0	6/25/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	5.0	6/25/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLFE

Source... FIVE MILE CREEK

Location... SW-05-FMC

Sample Matrix: SWATER

Sample Collector: DIXIE BEATTY

Sample Received by: C. TOWNSEND

Lab Sample ID: BB05479

Collection Date: 6/10/03

Collection Time: 4:05:00 PM

Submittal Date: 6/10/03

Submittal Time: 4:50:00 PM

Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Miscellaneous Inorganics

Analysis Performed by.... CS

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Hardness by Titration	200	mg/L	1.0	6/11/03	E-11778	SM2340B

Fecal Coliform Analysis

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Coliform, Fecal	40	Colonies	1.0	6/10/03	ADEM-006	ADEMVOL8

Trace Metals

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Arsenic, Total	39	ug/L	10.0	7/10/03	7440-38-2	EPA206.2
Chromium, Total	< MDL	mg/L	0.015	7/10/03	7440-47-3	EPA200.7
Lead, Total	< MDL	ug/L	2.00	7/10/03	7439-92-1	EPA239.2
Mercury, Total	< MDL	ug/L	0.3	7/14/03	7439-97-6	EPA245.2

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Cyanides, Total	.004	mg/L	0.004	6/17/03	57-12-5	EPA335.2

ADEM M NTGOMERY LABOR. ORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF

Source... SW - 05 - FMC

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: SWATER

Sample Collector: TEE-Estes, Teresa

Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35049**

Collection Date: 6/10/2003

Collection Time: 4:05:00 PM

Submittal Date: 6/11/2003

Submittal Time: 3:45:00 PM

Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Analysis Performed by.... BLR

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Chlordane	< MDL	ug/L	0.04	6/18/2003	57-74-9	SW8081A
2,4,5-T	< MDL	ug/L	0.08	7/1/2003	93-76-5	SW8151
2,4-D	< MDL	ug/L	0.2	7/1/2003	94-75-7	SW8151
Silvex	< MDL	ug/L	0.075	7/1/2003	93-72-1	SW8151
4,4'-DDD	< MDL	ug/L	0.05	6/18/2003	72-54-8	SW8081A
4,4'-DDE	< MDL	ug/L	0.058	6/18/2003	72-55-9	SW8081A
4,4'-DDT	< MDL	ug/L	0.08	6/18/2003	50-29-3	SW8081A
Aldrin	< MDL	ug/L	0.034	6/18/2003	309-00-2	SW8081A
alpha-BHC	< MDL	ug/L	0.034	6/18/2003	319-84-6	SW8081A
beta-BHC	< MDL	ug/L	0.035	6/18/2003	319-85-7	SW8081A
delta-BHC	< MDL	ug/L	0.024	6/18/2003	319-86-8	SW8081A
Dieldrin	< MDL	ug/L	0.044	6/18/2003	60-57-1	SW8081A
Endosulfan I	< MDL	ug/L	0.03	6/18/2003	959-98-8	SW8081A
Endosulfan II	< MDL	ug/L	0.04	6/18/2003	33213-65-9	SW8081A
Endosulfan Sulfate	< MDL	ug/L	0.035	6/18/2003	1031-07-8	SW8081A
Endrin	< MDL	ug/L	0.039	6/18/2003	72-20-8	SW8081A
Endrin Aldehyde	< MDL	ug/L	0.05	6/18/2003	7421-93-4	SW8081A
Endrin Ketone	< MDL	ug/L	0.050	6/18/2003	53494-70-5	SW8081A
Heptachlor	< MDL	ug/L	0.04	6/18/2003	76-44-8	SW8081A
Heptachlor Epoxide	< MDL	ug/L	0.032	6/18/2003	1024-57-3	SW8081A
Lindane	< MDL	ug/L	0.025	6/18/2003	58-89-9	SW8081A
Methoxychlor	< MDL	ug/L	0.086	6/18/2003	72-43-5	SW8081A
Arochlor 1016	< MDL	ug/L	0.40	6/18/2003	12674-11-2	SW8082
Arochlor 1221	< MDL	ug/L	0.40	6/18/2003	11104-28-2	SW8082
Arochlor 1232	< MDL	ug/L	0.40	6/18/2003	11141-16-5	SW8082
Arochlor 1242	< MDL	ug/L	0.40	6/18/2003	53469-21-9	SW8082
Arochlor 1248	< MDL	ug/L	0.40	6/18/2003	12672-29-6	SW8082

Analysis Performed by.. *BLR*

Parameter	*Result*	*Units*	*MDL*	*Date of Analysis*	*CAS #*	*Method Reference*
Arochlor 1254	< MDL	ug/L	0.40	6/18/2003	11097-69-1	SW8082
Arochlor 1260	< MDL	ug/L	0.40	6/18/2003	11096-82-5	SW8082
PCB's, Total	< MDL	ug/L	0.40	6/18/2003	1336-36-3	SW8082
Toxaphene in Liquids	< MDL	ug/L	0.4	6/18/2003	8001-35-2	SW8081A

Volatiles in Liquids

Analysis Performed by.... *RLH*

Parameter	*Result*	*Units*	*MDL*	*Date of Analysis*	*CAS #*	*Method Reference*
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/16/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/16/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/16/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/16/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/16/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/16/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/16/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/16/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/16/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/16/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/16/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/16/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/16/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/16/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/16/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/16/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/16/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/16/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/16/2003	79-46-9	SW8260B
4-Chlorotoluene	< MDL	ug/L	5.0	6/16/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/16/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/16/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	6/16/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/16/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/16/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/16/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/16/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/16/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/16/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/16/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/16/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/16/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/16/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/16/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/16/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/16/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/16/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/16/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	10061-01-5	SW8260B

Volatiles in Liqu

Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Dibromochloromethane	< MDL	ug/L	5.0	6/16/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/16/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/16/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/16/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/16/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/16/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/16/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/16/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/16/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	6/16/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/16/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/16/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/16/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/16/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/16/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/16/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/16/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/16/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/16/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/16/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/16/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/16/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/16/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/16/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/16/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/16/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/16/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/16/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/16/2003	79-01-6	SW8260B
Trichlorofluoromethane	< MDL	ug/L	5.0	6/16/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/16/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	5.0	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	5.0	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	5.0	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	5.0	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	5.0	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	5.0	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	5.0	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	5.0	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	5.0	6/25/2003	534-52-1	SW8270C

Semi-Volatiles in Li[illegible]ds Analysis Performed by... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Bromophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	5.0	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	5.0	6/25/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	5.0	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	5.0	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	5.0	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	5.0	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	5.0	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	5.0	6/25/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	5.0	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	5.0	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	5.0	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	5.0	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	5.0	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	5.0	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	5.0	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	5.0	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	5.0	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	5.0	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	5.0	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	5.0	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	5.0	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	5.0	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	5.0	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	5.0	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	5.0	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	5.0	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	5.0	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	5.0	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	5.0	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	5.0	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	5.0	6/25/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/L	5.0	6/25/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	5.0	6/25/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	5.0	6/25/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	5.0	6/25/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	5.0	6/25/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	5.0	6/25/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... FIVE MILE CREEK
Location... SW-06-FMC
Sample Matrix: SWATER
Sample Collector: DIXIE BEATTY
Sample Received by: C. TOWNSEND

Lab Sample ID: BB05485
Collection Date: 6/11/03
Collection Time: 11:10:00 AM
Submittal Date: 6/11/03
Submittal Time: 12:40:00 PM
Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

JUL 2003
RECEIVED

Miscellaneous Inorganics

Analysis Performed by.... CS

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Hardness by Titration	136	mg/L	1.0	6/11/03	E-11778	SM2340B

Fecal Coliform Analysis

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Coliform, Fecal	>620	Colonies	1.0	6/11/03	ADEM-006	ADEMVOL8

Trace Metals

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Arsenic, Total	22	ug/L	10.0	7/10/03	7440-38-2	EPA206.2
Cadmium, Total	< MDL	mg/L	0.003	7/10/03	7440-43-9	EPA200.7
Chromium, Total	< MDL	mg/L	0.015	7/10/03	7440-47-3	EPA200.7
Lead, Total	2.863	ug/L	2.00	7/10/03	7439-92-1	EPA239.2
Mercury, Total	< MDL	ug/L	0.3	7/14/03	7439-97-6	EPA245.2

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Cyanides, Total	.004	mg/L	0.004	6/17/03	57-12-5	EPA335.2

ADEM MC NTGOMERY LABORA ORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF

Source... SW - 06 - FMC

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: SWATER

Sample Collector: TEE-Estes, Teresa

Sample Received by: V. E. PATRICK

Lab Sample ID: AA35050

Collection Date: 6/11/2003

Collection Time: 10:00:00 AM

Submittal Date: 6/11/2003

Submittal Time: 3:45:00 PM

Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Volatiles in Liquids *Analysis Performed by....* *RLH*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/16/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/16/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/16/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/16/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/16/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/16/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/16/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/16/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/16/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/16/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/16/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/16/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/16/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/16/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/16/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/16/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/16/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/16/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/16/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/16/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/16/2003	79-46-9	SW8260B

Volatiles in Liquid — Analysis Performed by.... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	6/16/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/16/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/16/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	6/16/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/16/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/16/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/16/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/16/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/16/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/16/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/16/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/16/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/16/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/16/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/16/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/16/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/16/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/16/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/16/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	6/16/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/16/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/16/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/16/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/16/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/16/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/16/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/16/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/16/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	6/16/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/16/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/16/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/16/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/16/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/16/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/16/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/16/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/16/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/16/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/16/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/16/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/16/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/16/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/16/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/16/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/16/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/16/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/16/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/16/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/16/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/16/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/16/2003	79-01-6	SW8260B

Volatiles in Liquid

Analysis Performed by.... RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Trichlorofluoromethane	< MDL	ug/L	5.0	6/16/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/16/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	5.0	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	5.0	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	5.0	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	5.0	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	5.0	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	5.0	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	5.0	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	5.0	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	5.0	6/25/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	5.0	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	5.0	6/25/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	5.0	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	5.0	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	5.0	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	5.0	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	5.0	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	5.0	6/25/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	5.0	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	5.0	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	5.0	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	5.0	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	5.0	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	5.0	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	5.0	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	5.0	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	5.0	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	5.0	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	5.0	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	5.0	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	5.0	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	5.0	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	5.0	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	5.0	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	5.0	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	5.0	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	5.0	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	5.0	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	5.0	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	5.0	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	5.0	6/25/2003	98-95-3	SW8270C

Semi-Volatiles in Liq s Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
n-Nitroso-di-n-propylamine	< MDL	ug/L	5.0	6/25/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	5.0	6/25/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	5.0	6/25/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	5.0	6/25/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	5.0	6/25/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	5.0	6/25/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... FIVE MILE CREEK
Location... SW-07-FMC
Sample Matrix: SWATER
Sample Collector: DIXIE BEATTY
Sample Received by: C. TOWNSEND

Lab Sample ID: BB05486
Collection Date: 6/11/03
Collection Time: 11:10:00 AM
Submittal Date: 6/11/03
Submittal Time: 12:40:00 PM
Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Miscellaneous Inorganics

Analysis Performed by.... CS

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Hardness by Titration	140	mg/L	1.0	6/11/03	E-11778	SM2340B

Analysis Performed by.... CS

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Cyanides, Total	< MDL	mg/L	0.004	7/10/03	57-12-5	EPA335.2

Fecal Coliform Analysis

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Coliform, Fecal	1360	Colonies	1.0	6/11/03	ADEM-006	ADEMVOL8

Trace Metals

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Arsenic, Total	22	ug/L	10.0	7/10/03	7440-38-2	EPA206.2
Cadmium, Total	< MDL	mg/L	0.003	7/10/03	7440-43-9	EPA200.7
Chromium, Total	< MDL	mg/L	0.015	7/10/03	7440-47-3	EPA200.7
Lead, Total	< MDL	ug/L	2.00	7/10/03	7439-92-1	EPA239.2
Mercury, Total	< MDL	ug/L	0.3	7/14/03	7439-97-6	EPA245.2

ADEM M NTGOMERY LABOR. TORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/1/2003 *Fund Code:* 426 *Date of the Original Report...* 7/1/2003

Send Report... NICK WOLF
Source... SW - 07 - FMC
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SWATER
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35051**
Collection Date: 6/11/2003
Collection Time: 11:10:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/1/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Volatiles in Liquids *Analysis Performed by....* RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,1,1,2-Tetrachloroethane	< MDL	ug/L	5.0	6/13/2003	630-20-6	SW8260B
1,1,1-Trichloroethane	< MDL	ug/L	5.0	6/13/2003	71-55-6	SW8260B
1,1,2,2-Tetrachloroethane	< MDL	ug/L	5.0	6/13/2003	79-34-5	SW8260B
1,1,2-Trichloroethane	< MDL	ug/L	5.0	6/13/2003	79-00-5	SW8260B
1,1-Dichloroethane	< MDL	ug/L	5.0	6/13/2003	75-34-3	SW8260B
1,1-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	75-35-4	SW8260B
1,1-Dichloropropanone	< MDL	ug/L	5.0	6/13/2003	513-88-2	SW8260B
1,1-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	563-58-6	SW8260B
1,2,3-Trichlorobenzene	< MDL	ug/L	5.0	6/13/2003	87-61-6	SW8260B
1,2,3-Trichloropropane	< MDL	ug/L	5.0	6/13/2003	96-18-4	SW8260B
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/13/2003	120-82-1	SW8260B
1,2,4-Trimethylbenzene	< MDL	ug/L	5.0	6/13/2003	95-63-6	SW8260B
1,2-Dibromo-3-Chloropropane	< MDL	ug/L	5.0	6/13/2003	96-12-8	SW8260B
1,2-Dibromoethane (EDB)	< MDL	ug/L	5.0	6/13/2003	106-93-4	SW8260B
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	95-50-1	SW8260B
1,2-Dichloroethane	< MDL	ug/L	5.0	6/13/2003	107-06-2	SW8260B
1,2-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	78-87-5	SW8260B
1,3,5-Trimethylbenzene	< MDL	ug/L	5.0	6/13/2003	108-67-8	SW8260B
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	541-73-1	SW8260B
1,3-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	142-28-9	SW8260B
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/13/2003	106-46-7	SW8260B
1-Chlorobutane	< MDL	ug/L	5.0	6/13/2003	109-69-3	SW8260B
2,2-Dichloropropane	< MDL	ug/L	5.0	6/13/2003	590-20-7	SW8260B
2-Butanone	< MDL	ug/L	5.0	6/13/2003	78-93-3	SW8260B
2-Chlorotoluene	< MDL	ug/L	5.0	6/13/2003	95-49-8	SW8260B
2-Hexanone	< MDL	ug/L	5.0	6/13/2003	591-78-6	SW8260B
2-Nitropropane	< MDL	ug/L	5.0	6/13/2003	79-46-9	SW8260B

Volatiles in Liqui

Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
4-Chlorotoluene	< MDL	ug/L	5.0	6/13/2003	106-43-4	SW8260B
4-Isopropyltoluene	< MDL	ug/L	5.0	6/13/2003	99-87-6	SW8260B
4-Methyl-2-pentanone (MIBK)	< MDL	ug/L	5.0	6/13/2003	108-10-1	SW8260B
Acetone	< MDL	ug/L	10.0	6/13/2003	67-64-1	SW8260B
Acrylonitrile	< MDL	ug/L	5.0	6/13/2003	107-13-1	SW8260B
Ally Chloride	< MDL	ug/L	5.0	6/13/2003	107-05-1	SW8260B
Benzene	< MDL	ug/L	5.0	6/13/2003	71-43-2	SW8260B
Bromobenzene	< MDL	ug/L	5.0	6/13/2003	108-86-1	SW8260B
Bromochloromethane	< MDL	ug/L	5.0	6/13/2003	74-97-5	SW8260B
Bromodichloromethane	< MDL	ug/L	5.0	6/13/2003	75-27-4	SW8260B
Bromoform	< MDL	ug/L	5.0	6/13/2003	75-25-2	SW8260B
Bromomethane	< MDL	ug/L	5.0	6/13/2003	74-83-9	SW8260B
Carbon Disulfide	< MDL	ug/L	5.0	6/13/2003	75-15-0	SW8260B
Carbon Tetrachloride	< MDL	ug/L	5.0	6/13/2003	56-23-5	SW8260B
Chloroacetonitrile	< MDL	ug/L	5.0	6/13/2003	107-14-2	SW8260B
Chlorobenzene	< MDL	ug/L	5.0	6/13/2003	108-90-7	SW8260B
Chloroethane	< MDL	ug/L	5.0	6/13/2003	75-00-3	SW8260B
Chloroform	< MDL	ug/L	5.0	6/13/2003	67-66-3	SW8260B
Chloromethane	< MDL	ug/L	5.0	6/13/2003	74-87-3	SW8260B
cis-1,2-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	156-59-2	SW8260B
cis-1,3-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	10061-01-5	SW8260B
Dibromochloromethane	< MDL	ug/L	5.0	6/13/2003	124-48-1	SW8260B
Dibromomethane	< MDL	ug/L	5.0	6/13/2003	74-95-3	SW8260B
Dichlorodifluoromethane	< MDL	ug/L	5.0	6/13/2003	75-71-8	SW8260B
Diethyl Ether	< MDL	ug/L	5.0	6/13/2003	60-29-7	SW8260B
Ethyl Methacrylate	< MDL	ug/L	5.0	6/13/2003	97-63-2	SW8260B
Ethylbenzene	< MDL	ug/L	5.0	6/13/2003	100-41-4	SW8260B
Hexachlorobutadiene	< MDL	ug/L	5.0	6/13/2003	87-68-3	SW8260B
Hexachloroethane	< MDL	ug/L	5.0	6/13/2003	67-72-1	SW8260B
Iodomethane	< MDL	ug/L	5.0	6/13/2003	74-88-4	SW8260B
Isopropylbenzene	< MDL	ug/L	5.0	6/13/2003	98-82-8	SW8260B
meta-Xylene	< MDL	ug/L	5.0	6/13/2003	108-38-3	SW8260B
Methacrylonitrile	< MDL	ug/L	5.0	6/13/2003	126-98-7	SW8260B
Methyl t-Butyl Ether	< MDL	ug/L	5.0	6/13/2003	1634-04-4	SW8260B
Methylacrylate	< MDL	ug/L	5.0	6/13/2003	96-33-3	SW8260B
Methylene Chloride	< MDL	ug/L	5.0	6/13/2003	75-09-2	SW8260B
Methylmethacrylate	< MDL	ug/L	5.0	6/13/2003	80-62-6	SW8260B
Naphthalene	< MDL	ug/L	5.0	6/13/2003	91-20-3	SW8260B
n-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	104-51-8	SW8260B
Nitrobenzene	< MDL	ug/L	5.0	6/13/2003	98-95-3	SW8260B
n-Propylbenzene	< MDL	ug/L	5.0	6/13/2003	103-65-1	SW8260B
ortho-Xylene	< MDL	ug/L	5.0	6/13/2003	95-47-6	SW8260B
para-Xylene	< MDL	ug/L	5.0	6/13/2003	106-42-3	SW8260B
Pentachloroethane	< MDL	ug/L	5.0	6/13/2003	76-01-7	SW8260B
Propionitrile	< MDL	ug/L	5.0	6/13/2003	107-12-0	SW8260B
sec-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	135-98-8	SW8260B
Styrene	< MDL	ug/L	5.0	6/13/2003	100-42-5	SW8260B
tert-Butylbenzene	< MDL	ug/L	5.0	6/13/2003	98-06-6	SW8260B
Tetrachloroethylene	< MDL	ug/L	5.0	6/13/2003	127-18-4	SW8260B
Tetrahydrofuran	< MDL	ug/L	5.0	6/13/2003	109-99-9	SW8260B
Toluene	< MDL	ug/L	5.0	6/13/2003	108-88-3	SW8260B
trans-1,2-Dichloroethene	< MDL	ug/L	5.0	6/13/2003	156-60-5	SW8260B
trans-1,3-Dichloropropene	< MDL	ug/L	5.0	6/13/2003	10061-02-6	SW8260B
trans-1,4-Dichloro-2-butene	< MDL	ug/L	5.0	6/13/2003	110-57-6	SW8260B
Trichloroethene	< MDL	ug/L	5.0	6/13/2003	79-01-6	SW8260B

Volatiles in Liqui

Analysis Performed by.. RLH

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Trichlorofluoromethane	< MDL	ug/L	5.0	6/13/2003	75-69-4	SW8260B
Vinyl Chloride	< MDL	ug/L	5.0	6/13/2003	75-01-4	SW8260B

Semi-Volatiles in Liquids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/L	5.0	6/25/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	95-50-1	SW8270C
1,2-Diphenylhydrazine	< MDL	ug/L	5.0	6/25/2003	122-66-7	SW8270C
1,3-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/L	5.0	6/25/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/L	5.0	6/25/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/L	5.0	6/25/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/L	5.0	6/25/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/L	5.0	6/25/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/L	5.0	6/25/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/L	5.0	6/25/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/L	5.0	6/25/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/L	5.0	6/25/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/L	5.0	6/25/2003	534-52-1	SW8270C
4-Bromophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/L	5.0	6/25/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/L	5.0	6/25/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/L	5.0	6/25/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/L	5.0	6/25/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/L	5.0	6/25/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/L	5.0	6/25/2003	120-12-7	SW8270C
Benzidine	< MDL	ug/L	5.0	6/25/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/L	5.0	6/25/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/L	5.0	6/25/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/L	5.0	6/25/2003	205-99-2	SW8270C
Benzo[g,h,i]perylene	< MDL	ug/L	5.0	6/25/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/L	5.0	6/25/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/L	5.0	6/25/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/L	5.0	6/25/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/L	5.0	6/25/2003	108-60-1	SW8270C
bis(2-Ethylhexyl)phthalate	< MDL	ug/L	5.0	6/25/2003	117-81-7	SW8270C
Butylbenzylphthalate	< MDL	ug/L	5.0	6/25/2003	85-68-7	SW8270C
Chrysene	< MDL	ug/L	5.0	6/25/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/L	5.0	6/25/2003	53-70-3	SW8270C
Diethylphthalate	< MDL	ug/L	5.0	6/25/2003	84-66-2	SW8270C
Dimethylphthalate	< MDL	ug/L	5.0	6/25/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/L	5.0	6/25/2003	84-74-2	SW8270C
Di-n-octylphthalate	< MDL	ug/L	5.0	6/25/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/L	5.0	6/25/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/L	5.0	6/25/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/L	5.0	6/25/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/L	5.0	6/25/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/L	5.0	6/25/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/L	5.0	6/25/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/L	5.0	6/25/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/L	5.0	6/25/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/L	5.0	6/25/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/L	5.0	6/25/2003	98-95-3	SW8270C

Semi-Volatiles in Liquids Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
n-Nitroso-di-n-propylamine	< MDL	ug/L	5.0	6/25/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/L	5.0	6/25/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/L	5.0	6/25/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/L	5.0	6/25/2003	85-01-8	SW8270C
Phenol	< MDL	ug/L	5.0	6/25/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/L	5.0	6/25/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLFE

Source... FIVE MILE CREEK

Location... SD ~~SW~~-01-FMC

Sample Matrix: SEDIMENT

Sample Collector: DIXIE BEATTY

Sample Received by: C. TOWNSEND

Lab Sample ID: BB05475

Collection Date: 6/10/03

Collection Time: 8:55:00 AM

Submittal Date: 6/10/03

Submittal Time: 12:25:00 PM

Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	5.554	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Chromium, Total	9.768	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	7.392	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/30/2003 *Fund Code:* 426 *Date of the Original Report...* 7/30/2003

Send Report... NICK WOLF
Source... SD - 01 - FMC
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SEDIMENT
Sample Collector: JMT-Thomas, Matt
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35117
Collection Date: 6/11/2003
Collection Time: 2:50:00 PM
Submittal Date: 6/12/2003
Submittal Time: 4:15:00 PM
Date Analysis Validated... 7/30/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Analysis Performed by.... BLR

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Chlordane, Total	< MDL	ug/g	0.001	6/27/2003	57-74-9	SW8081A
2,4,5-T	< MDL	ug/g	0.08	7/1/2003	93-76-5	SW8151
2,4-D	< MDL	ug/g	0.2	7/1/2003	94-75-7	SW8151
Silvex	< MDL	ug/g	0.075	7/1/2003	93-72-1	SW8151
4,4'-DDD	< MDL	ug/g	0.004	7/7/2003	72-54-8	SW8081A
4,4'-DDE	< MDL	ug/g	0.003	7/7/2003	72-55-9	SW8081A
4,4'-DDT	< MDL	ug/g	0.004	7/7/2003	50-29-3	SW8081A
Aldrin	< MDL	ug/g	0.002	7/7/2003	309-00-2	SW8081A
alpha-BHC	< MDL	ug/g	0.002	7/7/2003	319-84-6	SW8081A
beta-BHC	< MDL	ug/g	0.003	7/7/2003	319-85-7	SW8081A
delta-BHC	< MDL	ug/g	0.001	7/7/2003	319-86-8	SW8081A
Dieldrin	< MDL	ug/g	0.005	7/7/2003	60-57-1	SW8081A
Endosulfan I	< MDL	ug/g	0.002	7/7/2003	959-98-8	SW8081A
Endosulfan II	< MDL	ug/g	0.002	7/7/2003	33213-65-9	SW8081A
Endosulfan Sulfate	< MDL	ug/g	0.004	7/7/2003	1031-07-8	SW8081A
Endrin	< MDL	ug/g	0.004	7/7/2003	72-20-8	SW8081A
Endrin Aldehyde	< MDL	ug/g	0.002	7/7/2003	7421-93-4	SW8081A
Endrin Ketone	< MDL	ug/g	0.002	7/7/2003	53494-70-5	SW8081A
Heptachlor	< MDL	ug/g	0.002	7/7/2003	76-44-8	SW8081A
Heptachlor Epoxide	< MDL	ug/g	0.002	7/7/2003	1024-57-3	SW8081A
Lindane	< MDL	ug/g	0.002	7/7/2003	58-89-9	SW8081A
Methoxychlor	< MDL	ug/g	0.006	7/7/2003	72-43-5	SW8081A
Arochlor 1016	< MDL	ug/g	0.05	6/27/2003	12674-11-2	SW8082
Arochlor 1221	< MDL	ug/g	0.05	6/27/2003	11104-28-2	SW8082
Arochlor 1232	< MDL	ug/g	0.05	6/27/2003	11141-16-5	SW8082
Arochlor 1242	< MDL	ug/g	0.05	6/27/2003	53469-21-9	SW8082
Arochlor 1248	< MDL	ug/g	0.05	6/27/2003	12672-29-6	SW8082

Analysis Performed by.... BLR

Parameter	*Result*	*Units*	*MDL*	*Date of Analysis*	*CAS #*	*Method Reference*
Arochlor 1254	**< MDL**	**ug/g**	**0.05**	*6/27/2003*	**11097-69-1**	*SW8082*
Arochlor 1260	**trace (0.035)**	**ug/g**	**0.05**	*6/27/2003*	**11096-82-5**	*SW8082*
PCB's, Total	**trace**	**ug/g**	**0.05**	*6/27/2003*	**1336-36-3**	*SW8082*
Toxaphene in Solids	**< MDL**	**ug/g**	**0.05**	*6/27/2003*	**8001-35-2**	*SW8081A*

Analysis Performed by.... PPR

Parameter	*Result*	*Units*	*MDL*	*Date of Analysis*	*CAS #*	*Method Reference*
Cyanides, Total	**33.4**	**ug/g**	**2.0**	*7/30/2003*	**57-12-5**	*EPA335.2*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... SD - 01 - FMC
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SEDIMENT
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35054
Collection Date: 6/10/2003
Collection Time: 8:55:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

JUL 2003

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	1.26	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	1.15	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLFE

Source... FIVE MILE CREEK

Location... SD ~~SW~~-02-FMC

Sample Matrix: SEDIMENT

Sample Collector: DIXIE BEATTY

Sample Received by: C. TOWNSEND

Lab Sample ID: BB05476

Collection Date: 6/10/03

Collection Time: 10:15:00 AM

Submittal Date: 6/10/03

Submittal Time: 12:25:00 PM

Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	9.504	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Chromium, Total	12.000	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	21.696	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... SD - 02 - FMC
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SEDIMENT
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35055
Collection Date: 6/10/2003
Collection Time: 10:15:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	1.22	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	1.12	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	1.91	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Sc . ds Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	1.23	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	1.54	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	1.51	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLFE

Source... FIVE MILE CREEK

Location... SD ~~SW~~-03-FMC

Sample Matrix: SEDIMENT

Sample Collector: DIXIE BEATTY

Sample Received by: C. TOWNSEND

Lab Sample ID: BB05477

Collection Date: 6/10/03

Collection Time: 11:15:00 AM

Submittal Date: 6/10/03

Submittal Time: 12:25:00 PM

Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Arsenic, Total	11.160	ug/g	10.0	7/8/03	7440-38-2	EPA200.7
Chromium, Total	27.993	ug/g	1.5	7/8/03	7440-47-3	EPA200.7
Lead, Total	12.741	ug/g	10.0	7/8/03	7439-92-1	EPA200.7
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	EPA245.5

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... SD - 03 - FMC
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SEDIMENT
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35056
Collection Date: 6/10/2003
Collection Time: 11:15:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	1.25	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	1.07	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	1.75	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	1.39	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	1.65	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	1.50	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLFE
Source... FIVE MILE CREEK
Location... SD ~~SW~~-04-FMC
Sample Matrix: SEDIMENT
Sample Collector: DIXIE BEATTY
Sample Received by: C. TOWNSEND

Lab Sample ID: BB05480
Collection Date: 6/10/03
Collection Time: 2:30:00 PM
Submittal Date: 6/10/03
Submittal Time: 4:50:00 PM
Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	12.998	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Chromium, Total	38.703	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	19.012	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL.	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... SD - 04 - FMC
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SEDIMENT
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35057**
Collection Date: 6/10/2003
Collection Time: 2:20:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLFE

Source... FIVE MILE CREEK

Location... SD ~~SW~~-05FMC

Sample Matrix: SEDIMENT

Sample Collector: DIXIE BEATTY

Sample Received by: C. TOWNSEND

Lab Sample ID: BB05481

Collection Date: 6/10/03

Collection Time: 4:05:00 PM

Submittal Date: 6/10/03

Submittal Time: 4:50:00 PM

Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals

Analysis Performed by.... CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	4.7	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Chromium, Total	11.468	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	12.596	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/30/2003 *Fund Code:* 426 *Date of the Original Report...* 7/30/2003

Send Report... NICK WOLF
Source... SD - 05 - FMC
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SEDIMENT
Sample Collector: JMT-Thomas, Matt
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35118
Collection Date: 6/12/2003
Collection Time: 8:30:00 AM
Submittal Date: 6/12/2003
Submittal Time: 4:15:00 PM
Date Analysis Validated... 7/30/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Analysis Performed by.... BLR

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Chlordane, Total	< MDL	ug/g	0.001	6/27/2003	57-74-9	SW8081A
2,4,5-T	< MDL	ug/g	0.08	7/1/2003	93-76-5	SW8151
2,4-D	< MDL	ug/g	0.2	7/1/2003	94-75-7	SW8151
Silvex	< MDL	ug/g	0.075	7/1/2003	93-72-1	SW8151
4,4'-DDD	< MDL	ug/g	0.004	7/7/2003	72-54-8	SW8081A
4,4'-DDE	< MDL	ug/g	0.003	7/7/2003	72-55-9	SW8081A
4,4'-DDT	< MDL	ug/g	0.004	7/7/2003	50-29-3	SW8081A
Aldrin	< MDL	ug/g	0.002	7/7/2003	309-00-2	SW8081A
alpha-BHC	< MDL	ug/g	0.002	7/7/2003	319-84-6	SW8081A
beta-BHC	< MDL	ug/g	0.003	7/7/2003	319-85-7	SW8081A
delta-BHC	< MDL	ug/g	0.001	7/7/2003	319-86-8	SW8081A
Dieldrin	< MDL	ug/g	0.005	7/7/2003	60-57-1	SW8081A
Endosulfan I	< MDL	ug/g	0.002	7/7/2003	959-98-8	SW8081A
Endosulfan II	< MDL	ug/g	0.002	7/7/2003	33213-65-9	SW8081A
Endosulfan Sulfate	< MDL	ug/g	0.004	7/7/2003	1031-07-8	SW8081A
Endrin	< MDL	ug/g	0.004	7/7/2003	72-20-8	SW8081A
Endrin Aldehyde	< MDL	ug/g	0.002	7/7/2003	7421-93-4	SW8081A
Endrin Ketone	< MDL	ug/g	0.002	7/7/2003	53494-70-5	SW8081A
Heptachlor	< MDL	ug/g	0.002	7/7/2003	76-44-8	SW8081A
Heptachlor Epoxide	< MDL	ug/g	0.002	7/7/2003	1024-57-3	SW8081A
Lindane	< MDL	ug/g	0.002	7/7/2003	58-89-9	SW8081A
Methoxychlor	< MDL	ug/g	0.006	7/7/2003	72-43-5	SW8081A
Arochlor 1016	< MDL	ug/g	0.05	6/27/2003	12674-11-2	SW8082
Arochlor 1221	< MDL	ug/g	0.05	6/27/2003	11104-28-2	SW8082
Arochlor 1232	< MDL	ug/g	0.05	6/27/2003	11141-16-5	SW8082
Arochlor 1242	< MDL	ug/g	0.05	6/27/2003	53469-21-9	SW8082
Arochlor 1248	< MDL	ug/g	0.05	6/27/2003	12672-29-6	SW8082

Analysis Performed by.... *BLR*

Parameter	*Result*	*Units*	*MDL*	*Date of Analysis*	*CAS #*	*Method Reference*
Arochlor 1254	**< MDL**	**ug/g**	**0.05**	*6/27/2003*	**11097-69-1**	*SW8082*
Arochlor 1260	**trace (0.043)**	**ug/g**	**0.05**	*6/27/2003*	**11096-82-5**	*SW8082*
PCB's, Total	**trace**	**ug/g**	**0.05**	*6/27/2003*	**1336-36-3**	*SW8082*
Toxaphene in Solids	**< MDL**	**ug/g**	**0.05**	*6/27/2003*	**8001-35-2**	*SW8081A*

Analysis Performed by.... *PPR*

Parameter	*Result*	*Units*	*MDL*	*Date of Analysis*	*CAS #*	*Method Reference*
Cyanides, Total	**20.2**	**ug/g**	**2.0**	*7/30/2003*	**57-12-5**	*EPA335.2*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... SD - 05 - FMC
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SEDIMENT
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35058
Collection Date: 6/10/2003
Collection Time: 4:05:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	1.05	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	1.47	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Solids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	1.12	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	1.70	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	1.52	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... FIVE MILE CREEK
Location... SD ~~SW~~-06-FMC
Sample Matrix: ~~SOIL~~ (sediment)
Sample Collector: DIXIE BEATTY
Sample Received by: C. TOWNSEND

Lab Sample ID: BB05487
Collection Date: 6/11/03
Collection Time: 11:10:00 AM
Submittal Date: 6/11/03
Submittal Time: 12:40:00 PM
Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	< MDL	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	12.6	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	24.900	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... SD - 06 - FMC
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SEDIMENT
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35059**
Collection Date: 6/11/2003
Collection Time: 10:00:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by...* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/24/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... FIVE MILE CREEK
Location... SD ~~SW~~-07-FMC
Sample Matrix: ~~SOIL~~ (SEDIMENT)
Sample Collector: DIXIE BEATTY
Sample Received by: C. TOWNSEND

Lab Sample ID: BB05488
Collection Date: 6/11/03
Collection Time: 11:10:00 AM
Submittal Date: 6/11/03
Submittal Time: 12:40:00 PM
Date Analysis Validated... 7/24/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	< MDL	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	14.356	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	< MDL	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... SD - 07 - FMC
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SEDIMENT
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35060**
Collection Date: 6/11/2003
Collection Time: 11:10:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in S. .ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM : RMINGHAM LABOR. TORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 8/15/03 *Fund Code:* 426 *Date of the Original Report...* 8/14/03

Send Report... NICK WOLF
Source... MCS
Location... MCS-GS-01
Sample Matrix: SOIL
Sample Collector: NICK WOLF
Sample Received by: C. SNOW

Lab Sample ID: BB05733
Collection Date: 7/10/03
Collection Time: 2:05:00 PM
Submittal Date: 7/10/03
Submittal Time: 3:14:00 PM
Date Analysis Validated... 8/15/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Arsenic, Total	15.9	ug/g	10.0	8/13/03	7440-38-2	EPA200.7
Barium, Total	139.4	ug/g	1.5	8/13/03	7440-39-3	EPA200.7
Cadmium, Total	43.0	ug/g	1.0	8/13/03	7440-43-9	EPA200.7
Chromium, Total	55.6	ug/g	1.5	8/13/03	7440-47-3	EPA200.7
Lead, Total	1214	ug/g	10.0	8/13/03	7439-92-1	EPA200.7
Mercury, Total	405.0	ug/g	0.10	8/7/03	7439-97-6	EPA245.5
Selenium, Total	< MDL	ug/g	10.0	8/13/03	7782-49-2	EPA200.7
Silver, Total	< MDL	ug/g	1.5	8/13/03	7440-22-4	EPA200.7

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LAND DIVISION

ADEM : RMINGHAM LABOR. TORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 8/15/03 *Fund Code:* 426 *Date of the Original Report...* 8/14/03

Send Report... NICK WOLF
Source... MCS
Location... MCS-GS-02
Sample Matrix: SOIL
Sample Collector: NICK WOLF
Sample Received by: C. SNOW

Lab Sample ID: BB05734
Collection Date: 7/10/03
Collection Time: 2:25:00 PM
Submittal Date: 7/10/03
Submittal Time: 3:14:00 PM
Date Analysis Validated... 8/15/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals

Analysis Performed by.... CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	14.2	ug/g	10.0	8/13/03	7440-38-2	*EPA200.7*
Barium, Total	437.7	ug/g	1.5	8/13/03	7440-39-3	*EPA200.7*
Cadmium, Total	7.2	ug/g	1.0	8/13/03	7440-43-9	*EPA200.7*
Chromium, Total	234.4	ug/g	1.5	8/13/03	7440-47-3	*EPA200.7*
Lead, Total	704.3	ug/g	10.0	8/13/03	7439-92-1	*EPA200.7*
Mercury, Total	290.0	ug/g	0.10	8/7/03	7439-97-6	*EPA245.5*
Selenium, Total	< MDL	ug/g	10.0	8/13/03	7782-49-2	*EPA200.7*
Silver, Total	< MDL	ug/g	1.5	8/13/03	7440-22-4	*EPA200.7*

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 8/15/03 *Fund Code:* 426 *Date of the Original Report...* 8/14/03

Send Report... NICK WOLF
Source... MCS
Location... MCS-GS-03
Sample Matrix: SOIL
Sample Collector: NICK WOLF
Sample Received by: C. SNOW

Lab Sample ID: BB05735
Collection Date: 7/10/03
Collection Time: 2:36:00 PM
Submittal Date: 7/10/03
Submittal Time: 3:14:00 PM
Date Analysis Validated... 8/15/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	14.6	ug/g	10.0	8/13/03	7440-38-2	*EPA200.7*
Barium, Total	254.6	ug/g	1.5	8/13/03	7440-39-3	*EPA200.7*
Cadmium, Total	1.6	ug/g	1.0	8/13/03	7440-43-9	*EPA200.7*
Chromium, Total	106.8	ug/g	1.5	8/13/03	7440-47-3	*EPA200.7*
Lead, Total	126.5	ug/g	10.0	8/13/03	7439-92-1	*EPA200.7*
Mercury, Total	310.0	ug/g	0.10	8/7/03	7439-97-6	*EPA245.5*
Selenium, Total	< MDL	ug/g	10.0	8/13/03	7782-49-2	*EPA200.7*
Silver, Total	< MDL	ug/g	1.5	8/13/03	7440-22-4	*EPA200.7*

ADEM . .RMINGHAM LABOR. .TORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 8/15/03 *Fund Code:* 426 *Date of the Original Report...* 8/14/03

Send Report... NICK WOLF
Source... MCS
Location... MCS-GS-04
Sample Matrix: SOIL
Sample Collector: NICK WOLF
Sample Received by: C. SNOW

Lab Sample ID: BB05736
Collection Date: 7/10/03
Collection Time: 2:41:00 PM
Submittal Date: 7/10/03
Submittal Time: 3:14:00 PM
Date Analysis Validated... 8/15/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	12.8	ug/g	10.0	8/13/03	7440-38-2	*EPA200.7*
Barium, Total	77.3	ug/g	1.5	8/13/03	7440-39-3	*EPA200.7*
Cadmium, Total	1.0	ug/g	1.0	8/13/03	7440-43-9	*EPA200.7*
Chromium, Total	29.5	ug/g	1.5	8/13/03	7440-47-3	*EPA200.7*
Lead, Total	83.8	ug/g	10.0	8/13/03	7439-92-1	*EPA200.7*
Mercury, Total	155.75	ug/g	0.10	8/7/03	7439-97-6	*EPA245.5*
Selenium, Total	< MDL	ug/g	10.0	8/13/03	7782-49-2	*EPA200.7*
Silver, Total	< MDL	ug/g	1.5	8/13/03	7440-22-4	*EPA200.7*

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD PROJECT:MUNICI
Location... B-1 (0-4')
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: D. T.

Lab Sample ID: BB05508
Collection Date: 6/9/03
Collection Time: 4:30:00 PM
Submittal Date: 6/11/03
Submittal Time: 4:55:00 PM
Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	7.68	ug/g	10.0	7/8/03	7440-38-2	EPA200.7
Cadmium, Total	18.72	ug/g	1.0	7/8/03	7440-43-9	EPA200.7
Chromium, Total	63.456	ug/g	1.5	7/8/03	7440-47-3	EPA200.7
Lead, Total	1016.6	ug/g	10.0	7/8/03	7439-92-1	EPA200.7
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	EPA245.5

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD PROJECT:MUNICI
Location... B-1 (4-8')
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: D. T.

Lab Sample ID: BB05509
Collection Date: 6/9/03
Collection Time: 5:30:00 PM
Submittal Date: 6/11/03
Submittal Time: 4:55:00 PM
Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	4.136	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	24.288	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	91.432	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD PROJECT:MUNICI
Location... B-1 (8-12')
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: D. T.

Lab Sample ID: BB05510
Collection Date: 6/9/03
Collection Time: 5:38:00 PM
Submittal Date: 6/11/03
Submittal Time: 4:55:00 PM
Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	7.2	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	1.7	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	105.7	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	197.0	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD PROJECT:MUNICI
Location... B-1 (12-16')
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: D. T.

Lab Sample ID: BB05511
Collection Date: 6/9/03
Collection Time: 5:55:00 PM
Submittal Date: 6/11/03
Submittal Time: 4:55:00 PM
Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	6.2	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	54.5	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	54.5	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-1 (16-17')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05512

Collection Date: 6/9/03

Collection Time: 6:10:00 PM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	11.6	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	40.16	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	19.2	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... B - 1 0-4
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35061**
Collection Date: 6/9/2003
Collection Time: 4:30:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	1.04	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	1.84	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	1.20	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	1.50	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	1.62	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... B - 1 4-8
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35062
Collection Date: 6/9/2003
Collection Time: 5:30:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids — *Analysis Performed by....* WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	1.91	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	36-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	2.02	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... B - 1 8-12
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35063
Collection Date: 6/9/2003
Collection Time: 5:38:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	1.18	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	1.29	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	1.25	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... B - 1 12-16
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35064
Collection Date: 6/9/2003
Collection Time: 5:55:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	1.00	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	1.38	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... B - 1 16-17
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35065
Collection Date: 6/9/2003
Collection Time: 6:10:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-2 (0-4')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05513

Collection Date: 6/10/03

Collection Time: 11:10:00 AM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals

Analysis Performed by.... CT

Parameter	Result	Units	MDL	Date	CAS #	Method Reference
Arsenic, Total	17.9	ug/g	10.0	7/8/03	7440-38-2	EPA200.7
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	EPA200.7
Chromium, Total	16.7	ug/g	1.5	7/8/03	7440-47-3	EPA200.7
Lead, Total	33.3	ug/g	10.0	7/8/03	7439-92-1	EPA200.7
Mercury, Total	.738	ug/g	0.10	7/17/03	7439-97-6	EPA245.5

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-2 (4-8')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05514

Collection Date: 6/10/00

Collection Time: 11:20:00 AM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by:...* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	11.97	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	15.39	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	12.92	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-2 (8-12')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05515

Collection Date: 6/10/03

Collection Time: 11:30:00 AM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	11.5	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	27.6	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	115.1	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	.207	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD PROJECT:MUNICI
Location... B-2 (12-14.5')
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: D. T.

Lab Sample ID: BB05516
Collection Date: 6/10/03
Collection Time: 11:40:00 AM
Submittal Date: 6/11/03
Submittal Time: 4:55:00 PM
Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	13.5	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	7.0	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	49.1	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	333.1	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... B - 2 0-4
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35066
Collection Date: 6/10/2003
Collection Time: 11:10:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/26/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/26/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/26/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/26/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/26/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/26/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/26/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/26/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/26/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/26/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/26/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/26/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/26/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/26/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/26/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/26/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/26/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/26/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/26/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/26/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	6/26/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	6/26/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	6/26/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/26/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/26/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/26/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/26/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/26/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/26/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/26/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/26/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	6/26/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/26/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/26/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/26/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/26/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	6/26/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/26/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/26/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/26/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/26/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/26/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/26/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/26/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/26/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/26/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/26/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/26/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/26/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/26/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/26/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	6/26/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... B - 2 4-8
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35067
Collection Date: 6/10/2003
Collection Time: 11:20:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in Solids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... B - 2 8-12
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35068**
Collection Date: 6/10/2003
Collection Time: 11:30:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in Solids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/3/2003 *Fund Code:* 426 *Date of the Original Report...* 7/3/2003

Send Report... NICK WOLF
Source... B - 2 12-14.5
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35069
Collection Date: 6/10/2003
Collection Time: 11:40:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/2/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	1.37	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in Solids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	1.12	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	1.38	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	1.78	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD PROJECT:MUNICI
Location... B-3 (0-4')
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: D. T.

Lab Sample ID: BB05517
Collection Date: 6/10/03
Collection Time: 3:45:00 PM
Submittal Date: 6/11/03
Submittal Time: 4:55:00 PM
Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	6.3	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	7.2	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	62.4	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	550.3	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-3 (4-8')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05518

Collection Date: 6/10/03

Collection Time: 3:50:00 PM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	5.856	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	6.528	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	88.416	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	453.7	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD PROJECT:MUNICI
Location... B-3 (8-12')
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: D. T.

Lab Sample ID: BB05519
Collection Date: 6/10/03
Collection Time: 4:05:00 PM
Submittal Date: 6/11/03
Submittal Time: 4:55:00 PM
Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	5.022	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	5.394	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	45.849	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	464.9	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-3 (12-13')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05520

Collection Date: 6/10/03

Collection Time: 4:25:00 PM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	5.04	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	3.51	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	176.8	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	400.9	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF
Source... B - 3 0-4
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35070**
Collection Date: 6/10/2003
Collection Time: 3:45:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/3/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	7.56	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	1.48	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in Solids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	5.93	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	1.10	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	1.76	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	5.36	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	1.21	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	1.32	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF
Source... B - 3 4-8
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35071
Collection Date: 6/10/2003
Collection Time: 3:50:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/3/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	2.39	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	5.21	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in Solids

Analysis Performed by.... *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	1.72	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	7.90	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	2.81	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	6.17	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF
Source... B - 3 8-12
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35072**
Collection Date: 6/10/2003
Collection Time: 4:05:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/3/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	1.37	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	2.54	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in Solids

Analysis Performed by.... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	4.80	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	3.44	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	3.85	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF

Source... B - 3 12-13

Location... TARRANT BROWNFIELD PROJECT

Sample Matrix: SOIL

Sample Collector: TEE-Estes, Teresa

Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35073**

Collection Date: 6/10/2003

Collection Time: 4:25:00 PM

Submittal Date: 6/11/2003

Submittal Time: 3:45:00 PM

Date Analysis Validated... 7/3/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	5.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	5.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	5.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	5.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	5.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	5.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	5.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	5.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	5.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	5.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	5.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	5.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	5.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	5.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	5.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	5.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	5.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	5.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	5.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	5.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	5.00	7/1/2003	208-96-8	SW8270C
Anthracene	7.45	ug/g	5.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	5.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	5.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	11.0	ug/g	5.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	7.15	ug/g	5.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	5.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in Solids — Analysis Performed by... WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	5.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	5.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	5.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	5.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	5.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	5.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	5.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	5.00	7/1/2003	86-74-8	SW8270C
Chrysene	10.1	ug/g	5.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	5.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	5.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	5.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	5.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	5.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	28.6	ug/g	5.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	5.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	5.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	5.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	5.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	5.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	5.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	5.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	5.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	5.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	5.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	5.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	5.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	23.1	ug/g	5.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	5.00	7/1/2003	108-95-2	SW8270C
Pyrene	23.1	ug/g	5.00	7/1/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-4 (0-4')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05521

Collection Date: 6/11/03

Collection Time: 9:33:00 AM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	38.7	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	5.1	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	103.1	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	326.7	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-4 (8-12')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05522

Collection Date: 6/11/03

Collection Time: 9:43:00 AM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	16.83	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	26.11	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	58.78	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	937.3	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	.183	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-4 (12-16')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05523

Collection Date: 6/11/03

Collection Time: 9:50:00 AM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	7.14	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	11.9	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	46.07	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM M NTGOMERY LABOR TORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF
Source... B - 4 0-4
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35074
Collection Date: 6/11/2003
Collection Time: 9:33:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/3/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

7 JUL 2003 RECEIVED LAND DIVISION

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	*Result*	*Units*	*MDL*	*Date of Analysis*	*CAS #*	*Method Reference*
1,2,4-Trichlorobenzene	< MDL	ug/g	5.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	5.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	5.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	5.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	5.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	5.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	5.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	5.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	5.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	5.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	5.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	5.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	5.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	5.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	5.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	5.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	5.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	5.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	5.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	5.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	5.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	5.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	5.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	5.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	5.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	5.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	6.05	ug/g	5.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in S ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	5.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	0.33	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	5.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	5.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	5.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	5.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	5.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	5.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	5.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	5.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	5.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	5.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	5.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	5.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	5.45	ug/g	5.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	5.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	5.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	5.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	5.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	5.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	5.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	5.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	5.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	5.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	5.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	5.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	5.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	5.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	5.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	5.00	7/1/2003	129-00-0	SW8270C

ADEM M NTGOMERY LABOR. ΓORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF
Source... B - 4 8-12
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35075
Collection Date: 6/11/2003
Collection Time: 9:43:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/3/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	6/27/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	6/27/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	6/27/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	6/27/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	6/27/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	6/27/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	6/27/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	6/27/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	6/27/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	6/27/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	6/27/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	6/27/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	6/27/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	6/27/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	6/27/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	6/27/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	6/27/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	6/27/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	6/27/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	6/27/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	6/27/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	6/27/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	6/27/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	6/27/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	6/27/2003	56-55-3	SW8270C
Benzo[a]pyrene	1.65	ug/g	1.00	6/27/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	6/27/2003	205-99-2	SW8270C

Semi-Volatiles in S ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	6/27/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	6/27/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	6/27/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	6/27/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	6/27/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	6/27/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	6/27/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	6/27/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	6/27/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	6/27/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	6/27/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	6/27/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	6/27/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	6/27/2003	117-84-0	SW8270C
Fluoranthene	3.03	ug/g	1.00	6/27/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	6/27/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	6/27/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	6/27/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	6/27/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	6/27/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	6/27/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	6/27/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	6/27/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	6/27/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	6/27/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	6/27/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	6/27/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	6/27/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	6/27/2003	108-95-2	SW8270C
Pyrene	2.32	ug/g	1.00	6/27/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF
Source... B - 4 12-16
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35076
Collection Date: 6/11/2003
Collection Time: 9:50:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/3/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichiorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in S ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-5 (0-4')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05524

Collection Date: 6/11/03

Collection Time: 11:05:00 AM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by:...* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	13.3	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	1.7	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	70.5	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	115.6	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-5 (4-8')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05525

Collection Date: 6/11/03

Collection Time: 11:15:00 AM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals

Analysis Performed by.... CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	9.3	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	1.5	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	104.6	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	159.3	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD PROJECT:MUNICI
Location... B-5 (8-12')
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: D. T.

Lab Sample ID: BB05526
Collection Date: 6/11/03
Collection Time: 12:08:00 PM
Submittal Date: 6/11/03
Submittal Time: 4:55:00 PM
Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	13.12	ug/g	10.0	7/8/03	7440-38-2	EPA200.7
Cadmium, Total	2.542	ug/g	1.0	7/8/03	7440-43-9	EPA200.7
Chromium, Total	94.39	ug/g	1.5	7/8/03	7440-47-3	EPA200.7
Lead, Total	330.4	ug/g	10.0	7/8/03	7439-92-1	EPA200.7
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	EPA245.5

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF
Source... B - 5 0-4
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35077
Collection Date: 6/11/2003
Collection Time: 11:05:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/3/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in S ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

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Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF
Source... B - 5 4-8
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35078**
Collection Date: 6/11/2003
Collection Time: 11:15:00 AM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/3/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	1.08	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in S ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	1.20	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	1.81	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	1.38	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

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Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF
Source... B - 5 8-12
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: TEE-Estes, Teresa
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35079**
Collection Date: 6/11/2003
Collection Time: 12:08:00 PM
Submittal Date: 6/11/2003
Submittal Time: 3:45:00 PM
Date Analysis Validated... 7/3/2003 *by* WBB

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A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in S .ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD PROJECT:MUNICI
Location... B-6 (0-4')
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: D. T.

Lab Sample ID: BB05527
Collection Date: 6/11/03
Collection Time: 1:33:00 PM
Submittal Date: 6/11/03
Submittal Time: 4:55:00 PM
Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	9.476	ug/g	10.0	7/8/03	7440-38-2	EPA200.7
Cadmium, Total	21.5	ug/g	1.0	7/8/03	7440-43-9	EPA200.7
Chromium, Total	63.0	ug/g	1.5	7/8/03	7440-47-3	EPA200.7
Lead, Total	597.1	ug/g	10.0	7/8/03	7439-92-1	EPA200.7
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	EPA245.5

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-6 (4-8')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05528

Collection Date: 6/11/03

Collection Time: 1:43:00 PM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	4.463	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	85.5	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	43.2	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM BIRMINGHAM LABORATORY

Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4

(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 7/23/03 *Fund Code:* 426 *Date of the Original Report...* 1/1/81

Send Report... NICK WOLF

Source... TARRANT BROWNFIELD PROJECT:MUNICI

Location... B-6 (8-12')

Sample Matrix: SOIL

Sample Collector: JMT-Thomas, Matt

Sample Received by: D. T.

Lab Sample ID: BB05529

Collection Date: 6/11/03

Collection Time: 1:53:00 PM

Submittal Date: 6/11/03

Submittal Time: 4:55:00 PM

Date Analysis Validated... 1/1/81 *by*

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	4.2	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	< MDL	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	32.4	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	7.9	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

ADEM M. ONTGOMERY LABOR. TORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/8/2003 *Fund Code:* 426 *Date of the Original Report...* 7/8/2003

Send Report... NICK WOLF
Source... B - 6 0-4
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35122
Collection Date: 6/11/2003
Collection Time: 1:33:00 PM
Submittal Date: 6/12/2003
Submittal Time: 4:15:00 PM
Date Analysis Validated... 7/8/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/8/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/8/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/8/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/8/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/8/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/8/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/8/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/8/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/8/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/8/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/8/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/8/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/8/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/8/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/8/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/8/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/8/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/8/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/8/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/8/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/8/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/8/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/8/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/8/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/8/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/8/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/8/2003	205-99-2	SW8270C

Semi-Volatiles in S ds — Analysis Performed by: WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/8/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/8/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/8/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/8/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/8/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/8/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/8/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/8/2003	86-74-8	SW8270C
Chrysene	1.00	ug/g	1.00	7/8/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/8/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/8/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/8/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/8/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/8/2003	117-84-0	SW8270C
Fluoranthene	1.91	ug/g	1.00	7/8/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/8/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/8/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/8/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/8/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/8/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/8/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/8/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/8/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/8/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/8/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/8/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/8/2003	87-86-5	SW8270C
Phenanthrene	1.03	ug/g	1.00	7/8/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/8/2003	108-95-2	SW8270C
Pyrene	1.51	ug/g	1.00	7/8/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/8/2003 *Fund Code:* 426 *Date of the Original Report...* 7/8/2003

Send Report... NICK WOLF
Source... B - 6 4-8
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35123
Collection Date: 6/11/2003
Collection Time: 1:43:00 PM
Submittal Date: 6/12/2003
Submittal Time: 4:15:00 PM
Date Analysis Validated... 7/8/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	5.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	5.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	5.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	5.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	5.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	5.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	5.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	5.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	5.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	5.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	5.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	5.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	5.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	5.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	5.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	5.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	5.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	5.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	5.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	5.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	5.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	5.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	5.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	5.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	5.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	5.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	5.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in S ds Analysis Performed by.. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	5.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	5.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	5.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	5.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	5.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	5.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	5.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	5.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	5.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	5.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	5.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	5.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	5.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	5.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	5.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	5.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	5.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	5.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	5.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	5.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	5.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	5.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	5.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	5.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	5.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	5.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	5.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	5.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	5.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	5.00	7/1/2003	129-00-0	SW8270C

ADEM MONTGOMERY LABORATORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/7/2003 *Fund Code:* 426 *Date of the Original Report...* 7/7/2003

Send Report... NICK WOLF
Source... B - 6 8-12
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: V. E. PATRICK

Lab Sample ID: AA35124
Collection Date: 6/11/2003
Collection Time: 1:53:00 PM
Submittal Date: 6/12/2003
Submittal Time: 4:15:00 PM
Date Analysis Validated... 7/3/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in S ds Analysis Performed by: WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM BIRMINGHAM LABORATORY
Analysis Report

Birmingham, 110 Vulcan Road, Birmingham, Alabama 35209-4
(205) -942-6168 (205)-941-1603 [Fax]

Date of This Report... 8/14/03 *Fund Code:* 426 *Date of the Original Report...* 8/14/03

Send Report... NICK WOLF
Source... TARRANT BROWNFIELD P: MUNICIPAL CO
Location... B-7 (0-4')
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: C. SNOW

Lab Sample ID: BB05536
Collection Date: 6/12/03
Collection Time: 9:17:00 AM
Submittal Date: 6/12/03
Submittal Time: 2:04:00 PM
Date Analysis Validated... 8/14/03 *by* CT

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Clinton Townsend
Quality Assurance Manager

Trace Metals — *Analysis Performed by....* CT

Parameter	*Result*	*Units*	*MDL*	*Date*	*CAS #*	*Method Reference*
Arsenic, Total	16.1	ug/g	10.0	7/8/03	7440-38-2	*EPA200.7*
Cadmium, Total	1.41	ug/g	1.0	7/8/03	7440-43-9	*EPA200.7*
Chromium, Total	91.8	ug/g	1.5	7/8/03	7440-47-3	*EPA200.7*
Lead, Total	18.1	ug/g	10.0	7/8/03	7439-92-1	*EPA200.7*
Mercury, Total	< MDL	ug/g	0.10	7/17/03	7439-97-6	*EPA245.5*

AUG 2003
RECEIVED
LAB

ADEM M NTGOMERY LABOR. TORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/8/2003 *Fund Code:* 426 *Date of the Original Report...* 7/8/2003

Send Report... NICK WOLF
Source... B - 7 0-4
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35115**
Collection Date: 6/12/2003
Collection Time: 9:17:00 AM
Submittal Date: 6/12/2003
Submittal Time: 4:15:00 PM
Date Analysis Validated... 7/8/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

AUG 2003

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in S ds Analysis Performed by. WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
bis(2-Chloroethyl)ether	< MDL	ug/g	1.00	7/1/2003	111-44-4	SW8270C
bis(2-chloroisopropyl)ether	< MDL	ug/g	1.00	7/1/2003	108-60-1	SW8270C
bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	7/1/2003	129-00-0	SW8270C

ADEM M NTGOMERY LABOR. ΓORY

1890-A Cong. Wm. Dickinson Dr., Montgomery, AL 36109

(334)-260-2770[phone] (334)-277-6718 [Fax]

Analysis Report

Date of This Report... 7/8/2003 *Fund Code:* 426 *Date of the Original Report...* 7/8/2003

Send Report... NICK WOLF
Source... B - 7 8-12
Location... TARRANT BROWNFIELD PROJECT
Sample Matrix: SOIL
Sample Collector: JMT-Thomas, Matt
Sample Received by: V. E. PATRICK

Lab Sample ID: **AA35116**
Collection Date: 6/12/2003
Collection Time: 9:33:00 AM
Submittal Date: 6/12/2003
Submittal Time: 4:15:00 PM
Date Analysis Validated... 7/8/2003 *by* WBB

The results on the attached report are from the sample that was received and is referenced above. The sample was analyzed using standard EPA testing procedures and quality analysis protocol. Instrument calibration and quality control are within acceptable limits of precision and accuracy.
A close review by our Quality Assurance Program certifies that all prescribed test hold times were met and our strict quality assurance standards were observed.

Submitted by: Bill Brackin
Quality Assurance Manager

ADEM's Central Laboratory has met all Requirements for Certification by EPA Region Four to Analyze Samples for all of the Parameters Required Under the Safe Drinking Water Act.

Semi-Volatiles in Solids *Analysis Performed by....* *WEE*

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
1,2,4-Trichlorobenzene	< MDL	ug/g	1.00	7/1/2003	120-82-1	SW8270C
1,2-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	95-50-1	SW8270C
1,3-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	541-73-1	SW8270C
1,4-Dichlorobenzene	< MDL	ug/g	1.00	7/1/2003	106-46-7	SW8270C
2,4,6-Trichlorophenol	< MDL	ug/g	1.00	7/1/2003	88-06-2	SW8270C
2,4-Dichlorophenol	< MDL	ug/g	1.00	7/1/2003	120-83-2	SW8270C
2,4-Dimethylphenol	< MDL	ug/g	1.00	7/1/2003	105-67-9	SW8270C
2,4-Dinitrophenol	< MDL	ug/g	1.00	7/1/2003	51-28-5	SW8270C
2,4-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	121-14-2	SW8270C
2,6-Dinitrotoluene	< MDL	ug/g	1.00	7/1/2003	606-20-2	SW8270C
2-Chloronaphthalene	< MDL	ug/g	1.00	7/1/2003	91-58-7	SW8270C
2-Chlorophenol	< MDL	ug/g	1.00	7/1/2003	95-57-8	SW8270C
2-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	88-75-5	SW8270C
3,3'-Dichlorobenzidine	< MDL	ug/g	1.00	7/1/2003	91-94-1	SW8270C
4,6-Dinitro-2-methylphenol	< MDL	ug/g	1.00	7/1/2003	534-52-1	SW8270C
4-Bromophenyl-phenylether	< MDL	ug/g	1.00	7/1/2003	101-55-3	SW8270C
4-Chloro-3-methylphenol	< MDL	ug/g	1.00	7/1/2003	59-50-7	SW8270C
4-Chlorophenyl phenylether	< MDL	ug/g	1.00	7/1/2003	7005-72-3	SW8270C
4-Nitrophenol	< MDL	ug/g	1.00	7/1/2003	100-02-7	SW8270C
Acenaphthene	< MDL	ug/g	1.00	7/1/2003	83-32-9	SW8270C
Acenaphthylene	< MDL	ug/g	1.00	7/1/2003	208-96-8	SW8270C
Anthracene	< MDL	ug/g	1.00	7/1/2003	120-12-7	SW8270C
Azobenzene	< MDL	ug/g	1.00	7/1/2003	103-33-3	SW8270C
Benzidine	< MDL	ug/g	1.00	7/1/2003	92-87-5	SW8270C
Benzo[a]anthracene	< MDL	ug/g	1.00	7/1/2003	56-55-3	SW8270C
Benzo[a]pyrene	< MDL	ug/g	1.00	7/1/2003	50-32-8	SW8270C
Benzo[b]fluoranthene	< MDL	ug/g	1.00	7/1/2003	205-99-2	SW8270C

Semi-Volatiles in S ds Analysis Performed by: WEE

Parameter	Result	Units	MDL	Date of Analysis	CAS #	Method Reference
Benzo[g,h,i]perylene	< MDL	ug/g	1.00	7/1/2003	191-24-2	SW8270C
Benzo[k]fluoranthene	< MDL	ug/g	1.00	7/1/2003	207-08-9	SW8270C
bis(2-Chloroethoxy)methane	< MDL	ug/g	1.00	7/1/2003	111-91-1	SW8270C
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bis(2-Ethylhexyl) phthalate	< MDL	ug/g	1.00	7/1/2003	117-81-7	SW8270C
Butylbenzyl phthalate	< MDL	ug/g	1.00	7/1/2003	85-68-7	SW8270C
Carbazole	< MDL	ug/g	1.00	7/1/2003	86-74-8	SW8270C
Chrysene	< MDL	ug/g	1.00	7/1/2003	218-01-9	SW8270C
Dibenz[a,h]anthracene	< MDL	ug/g	1.00	7/1/2003	53-70-3	SW8270C
Diethyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-66-2	SW8270C
Dimethyl phthalate	< MDL	ug/g	1.00	7/1/2003	131-11-3	SW8270C
Di-n-butyl phthalate	< MDL	ug/g	1.00	7/1/2003	84-74-2	SW8270C
Di-n-octyl phthalate	< MDL	ug/g	1.00	7/1/2003	117-84-0	SW8270C
Fluoranthene	< MDL	ug/g	1.00	7/1/2003	206-44-0	SW8270C
Fluorene	< MDL	ug/g	1.00	7/1/2003	86-73-7	SW8270C
Hexachlorobenzene	< MDL	ug/g	1.00	7/1/2003	118-74-1	SW8270C
Hexachlorobutadiene	< MDL	ug/g	1.00	7/1/2003	87-68-3	SW8270C
Hexachlorocyclopentadiene	< MDL	ug/g	1.00	7/1/2003	77-47-4	SW8270C
Hexachloroethane	< MDL	ug/g	1.00	7/1/2003	67-72-1	SW8270C
Indeno[1,2,3-cd]pyrene	< MDL	ug/g	1.00	7/1/2003	193-39-5	SW8270C
Isophorone	< MDL	ug/g	1.00	7/1/2003	78-59-1	SW8270C
Naphthalene	< MDL	ug/g	1.00	7/1/2003	91-20-3	SW8270C
Nitrobenzene	< MDL	ug/g	1.00	7/1/2003	98-95-3	SW8270C
n-Nitroso-di-n-propylamine	< MDL	ug/g	1.00	7/1/2003	621-64-7	SW8270C
n-Nitrosodiphenylamine	< MDL	ug/g	1.00	7/1/2003	86-30-6	SW8270C
Pentachlorophenol	< MDL	ug/g	1.00	7/1/2003	87-86-5	SW8270C
Phenanthrene	< MDL	ug/g	1.00	7/1/2003	85-01-8	SW8270C
Phenol	< MDL	ug/g	1.00	7/1/2003	108-95-2	SW8270C
Pyrene	< MDL	ug/g	1.00	7/1/2003	129-00-0	SW8270C

Reference 6

Region 4 Waste Management Division

Sediment Screening Values for Hazardous Waste Sites

Metals (ppm)			
Chemical Analyte	**Effects Value**	**CLP PQL[1]**	**Screening Value**
Antimony	2[2]	12	12
Arsenic	7.24[3]	2	7.24
Cadmium	0.676[3]	1	1
Chromium	52.3[3]	2	52.3
Copper	18.7[3]	5	18.7
Lead	30.2[3]	0.6	30.2
Mercury	0.13[3]	0.02	0.13
Nickel	15.9[4]	8	15.9
Silver	0.733[3]	2	2
Zinc	124[3]	4	124

1. Contract Laboratory Program Practical Quantification Limit
2. Long, Edward R., and Lee G. Morgan. 1991. The Potential for Biological Effects of Sediment-Sorbed Contaminants Tested in the National Status and Trends Program. NOAA Technical Memorandum NOS OMA 52
3. MacDonald, D.D. 1994. Approach to the Assessment of Sediment Quality in Florida Coastal Waters. Florida Department of Environmental Protection.
4. Long, Edward R., Donald D. MacDonald, Sherri L. Smith, and Fred D. Calder. 1995. Incidence of Adverse Biological Effects within Ranges of Chemical Concentrations in Marine and Estuarine Sediments. Environmental Management 19(1):81-97.
5. USEPA. 1993. Interim Report on Data and Methods for Assessment of 2,3,7,8 - Tetrachlorodibenzo-p-dioxin Risks to Aquatic Life and Associated Wildlife. EPA/600/R-93/055.

Organics (ppb)

Chemical Analyte	Effects Value	CLP PQL[1]	Screening Value
p,p'- DDD	1.22[3]	3.3	3.3
DDD	2[2]	3.3	3.3
p,p'- DDE	2.07[3]	3.3	3.3
DDE	2[2]	3.3	3.3
p,p'- DDT	1.19[3]	3.3	3.3
DDT	1[2]	3.3	3.3
Total DDT	1.58[4]	3.3	3.3
Chlordane	0.5[2]	1.7	1.7
Dieldrin	0.02[2]	3.3	3.3
Endrin	0.02[2]	3.3	3.3
Lindane(gamma- BHC)	0.32[3]	3.3	3.3
Total PCBs	21.6[3]	33(67for Aroclor1221)	33(67for Aroclor1221)
Bis(2-ethylhexyl)phthalate	182[3]	3.6	182
Acenaphthene	6.71[3]	330	330
Acenaphthylene	5.87[3]	330	330
Anthracene	46.9[3]	330	330
Fluorene	21.2[3]	330	330
2- Methyl Naphthalene	20.23	330	330
Naphthalene	34.6[3]	330	330
Phenanthrene	86.7[3]	330	330
Low Molecular Weight PAHs	312[3]	330	330
Benzo(a)anthracene	74.8[3]	330	330
Benzo(a)pyrene	88.8[3]	330	330
Chrysene	108[3]	330	330
Dibenzo(a,h)anthracene	6.22[3]	330	330
Fluoranthene	113[3]	330	330
Pyrene	153[3]	330	330
High Molecular Weight PAHs	655[3]	330	655
Total PAHs	1684[3]	330	1684
Dioxin (ng/kg)			2.5

Reference 7

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION - WATER SUPPLY PROGRAM

CHAPTER 335-7-2
PRIMARY DRINKING WATER STANDARDS

TABLE OF CONTENTS

335-7-2-.03 Inorganic Chemical Standards and Monitoring Requirements.

(1) The following are maximum contaminant levels for inorganic chemicals in drinking water:

Contaminant	MCL in mg/L
Antimony	0.006
Arsenic	0.01
Asbestos	7 Million Fibers*/Liter
Barium	2.0
Beryllium	0.004
Cadmium	0.005
Chromium	0.1
Cyanide	0.2
Fluoride	4.0
Lead	0.015
Mercury	0.002
Nickel	0.1
Nitrate (as N)	10
Nitrite (as N)	1
Total Nitrate/Nitrite	10
Selenium	0.05
Sulfate	500
Thallium	0.002

*Longer than 10 micrometers

Reference 8

7-DAY LOW FLOWS AND FLOW DURATION OF ALABAMA STREAMS THROUGH 1973

GEOLOGICAL SURVEY OF ALABAMA BULLETIN 113

Table 2.—*7-day low flows at gaging stations*—Continued

Station no.	Stream and locality	Drainage area (sq mi)	Period of record (climatic years)	7-day average flow of period, in cfs, and year of occurrence	Estimated 10-year 7-day low flow in cfs and cfsm	Estimated 2-year 7-day low flow in cfs and cfsm	Location of gaging station
02452500	Sipsey Fork near Sipsey, Ala	994	1930-37	23.7 (1931)	23 .023	45 045	In NE¼ sec. 33, T. 13 S., R. 5 W., at former Drummonds Ferry, 200 ft downstream from Lieth Creek, and 3½ miles northeast of Sipsey, Walker County
02453000	Blackwater Creek near Manchester, Ala.	188	1940-71	1.7 (1964)	3.8 .020	9.8 052	In SE¼ sec. 15, T. 13 S., R. 7 W., at County Highway Bridge, 2 miles east of Manchester, Walker County.
02453500	Mulberry Fork near Cordova, Ala	1,927	1902-12	28 (1904)	37 019	87 .045	In NW¼ sec. 9, T. 15 S., R. 6 W., at St Louis-San Francisco Railway Bridge, just downstream from Cane Creek, and 1 mile east of Cordova, Walker County
02454000	Lost Creek near Oakman, Ala	130	1953-66	0.0 (1953)	0.0	0.5 .005	In SE¼ sec. 3, T. 15 S., R. 8 W., at State Highway 69, quarter of a mile upstream from Wolf Branch, and 4 miles northeast of Oakman, Walker County
02454200	Wolf Creek near Oakman, Ala.	89.1	1961-69	0.0 (1962) (1963) (1965)	0.0	0.1 001	In NW¼ sec. 9, T. 16 S., R. 8 W., at State Highway 69, 3 miles south of Oakman, Walker County, and 9 miles upstream from Indian Creek.
02454420	Cove Spring near Walnut Grove, Ala		1970-73	1.5 (1972)	—	—	In SW¼SW¼NE¼ sec. 6, T. 11 S., R. 4 E., tributary to Little Cove Creek, 3.9 mi northeast of Walnut Grove, Etowah County
02454500	Locust Fork below Snead Ala	147	1954-57	3.0 (1954) (1955)	3.2 022	6.6 045	In SE¼ sec. 25, T. 10 S., R. 2 E., at State Highway 75, half a mile downstream from Mud Creek, and 2¼ miles northwest of Snead, Blount County
02455000	Locust Fork near Cleveland, Ala	309	1938-73	2.8 (1954)	5.1 017	11 036	In NE¼ sec. 6, T. 12 S., R. 1 E., at U.S. Highway 231, 2 miles north of Cleveland, Blount County, and 2½ miles downstream from Graves Creek.
02455500	Locust Fork at Trafford, Ala	625	1932-69	10.8 (1954)	15[1] 024	27[1] 043	In SW¼ sec. 9, T. 14 S., R. 2 W., at County Highway Bridge, three-quarters of a mile northwest of Trafford, Jefferson County, and 2¾ miles upstream from Gurley Creek.
02456000	Turkey Creek at Morris, Ala	81.5	1945-73	9.2 (1956)	10 123	12 147	In SW¼ sec. 12, T. 15 S., R. 3 W., at former U.S. Highway 31, at Morris, Jefferson County, and 4 miles upstream from mouth.
02456500	Locust Fork at Sayre Ala	887	1930-32 1943-73	19.9 (1931)	27[1] .030	48[1] .054	In NW¼ sec. 29, T. 15 S., R. 4 W., at County Highway Bridge at Sayre, Jefferson County, and 1½ miles downstream from Camp Creek.
02457000	Fivemile Creek at Ketona, Ala	22.8	1955-58	5.4 (1954)	—[20]	8 .351	In NW¼ sec. 33, T. 16 S., R. 2 W., quarter of a mile downstream from State Highway 79, at Ketona, Jefferson County, and 0.6 mi downstream from Barton Branch.
02460500	Village Creek near Adamsville, Ala	84.1	1955-58	0.0 (1954-56)	—[21]	—[21]	In E½ sec. 36, T. 16 S., R. 5 W., at County Highway Bridge, quarter of a mile upstream from Canoe Creek, and 3.5 miles west of Adamsville,

Reference 9

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Water Division - Water Quality Program

Chapter 335-6-11
Water Use Classifications
For Interstate and Intrastate Waters

Table of Contents

335-6-11-.01 The Use Classification System
335-6-11-.02 Use Classifications

335-6-11-.01 The Use Classification System

(1) Use classifications utilized by the State of Alabama are as follows:

Public Water Supply	PWS
Swimming and Other Whole Body Water-Contact Sports	S
Shellfish Harvesting	SH
Fish and Wildlife	F&W
Agricultural and Industrial Water Supply	A&I
Industrial Operations	IO
Navigation	N
Outstanding Alabama Water	OAW

(2) Use classifications apply water quality criteria adopted for particular uses based on existing utilization, uses reasonably expected in the future, and those uses not now possible because of correctable pollution but which could be made if the effects of pollution were controlled or eliminated. Of necessity, the assignment of use classifications must take into consideration the physical capability of waters to meet certain uses.

(3) Those use classifications presently included in the standards are reviewed informally by the Department's staff as the need arises, and the entire standards package, to include the use classifications, receives a formal review at least once each three years. Efforts currently underway through local 201 planning projects will provide additional technical data on certain streams in the State, information on treatment alternatives, and applicability of various management techniques, which, when available, will hopefully lead to new decisions regarding use classifications. Of particular interest are those segments which are currently classified for any usage which has an associated degree of quality

Stream	From	To	Classification
Valley Creek	Head of backwater above Bankhead Lock and Dam	County road crossing 1 1/2 miles NE of Johns	A&I
Valley Creek	County road crossing 1 1/2 miles NE of Johns	Opossum Creek	IO
Valley Creek	Opossum Creek	Its source	A&I
Opossum Creek	Valley Creek	Its source	IO
Village Creek	Locust Fork	Bayview Lake	F&W
Village Creek	Bayview Lake	Its source	A&I
Five Mile Creek	Locust Fork	Newfound Creek	F&W
Five Mile Creek	Newfound Creek	Ketona	A&I
Five Mile Creek	Ketona	Its source	F&W
Turkey Creek	Locust Fork	Its source	F&W
Cunningham Branch	Turkey Creek	Its source	F&W
Self Creek	Locust Fork	Town of Bradford's water supply intake	F&W
Self Creek	Town of Bradford's water supply intake	Its source	PWS
Gurley Creek	Self Creek	Its source	F&W
Little Warrior River	Locust Fork	Junction of Blackburn Fork and Calvert Prong	F&W
Calvert Prong	Little Warrior River	City of Oneonta's water supply intake	F&W
Calvert Prong	City of Oneonta's water supply intake	Its source	PWS
Blackburn Fork	Little Warrior River	Inland Lake Dam	F&W

Reference 10

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

JEFFERSON COUNTY, ALABAMA AND INCORPORATED AREAS

PANEL 309 OF 660

(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS

COMMUNITY	NUMBER	PANEL	SUFFIX

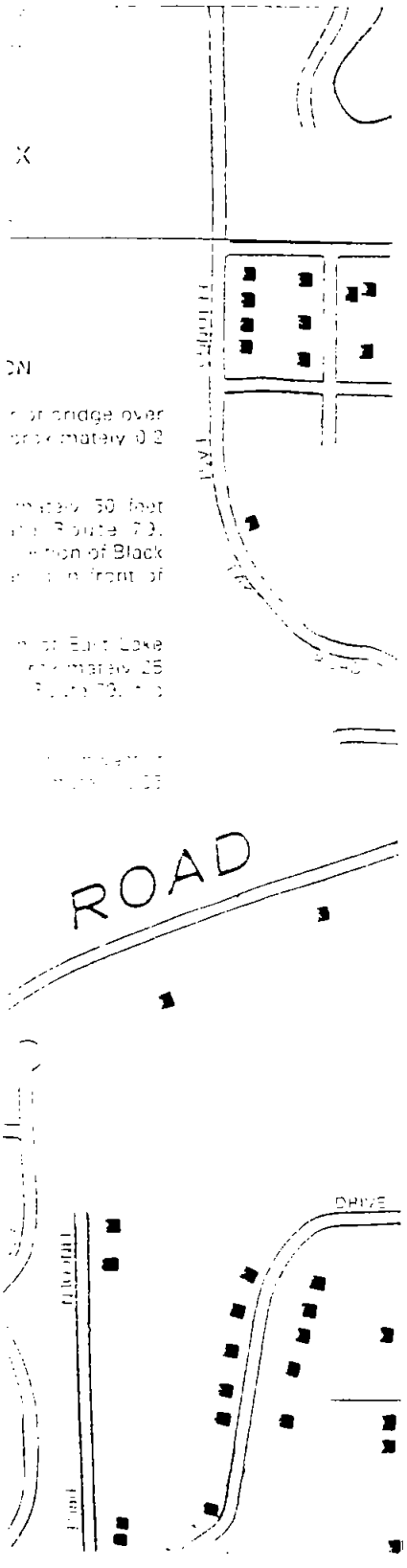
Notice To User: The MAP NUMBER shown below should be used when placing map orders; the COMMUNITY NUMBER shown above should be used on insurance applications for the subject community.

MAP NUMBER
01073C0309 E

EFFECTIVE DATE:
JANUARY 20, 1999

Federal Emergency Management Agency

F



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A — No Base Flood Elevations determined.

ZONE AE — Base Flood Elevations determined.

ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE A99 — To be protected from 100-year flood by Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V — Coastal flood with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE — Coastal flood with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X — Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 500-year flood plain.

ZONE D — Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS*

*Coastal barrier areas are normally located within or adjacent to Special Flood Hazard Areas.

Floodplain Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones

513 — Base Flood Elevation Line; Elevation in Feet*

D — D — Cross Section Line

(EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone*

RM7X — Elevation Reference Mark

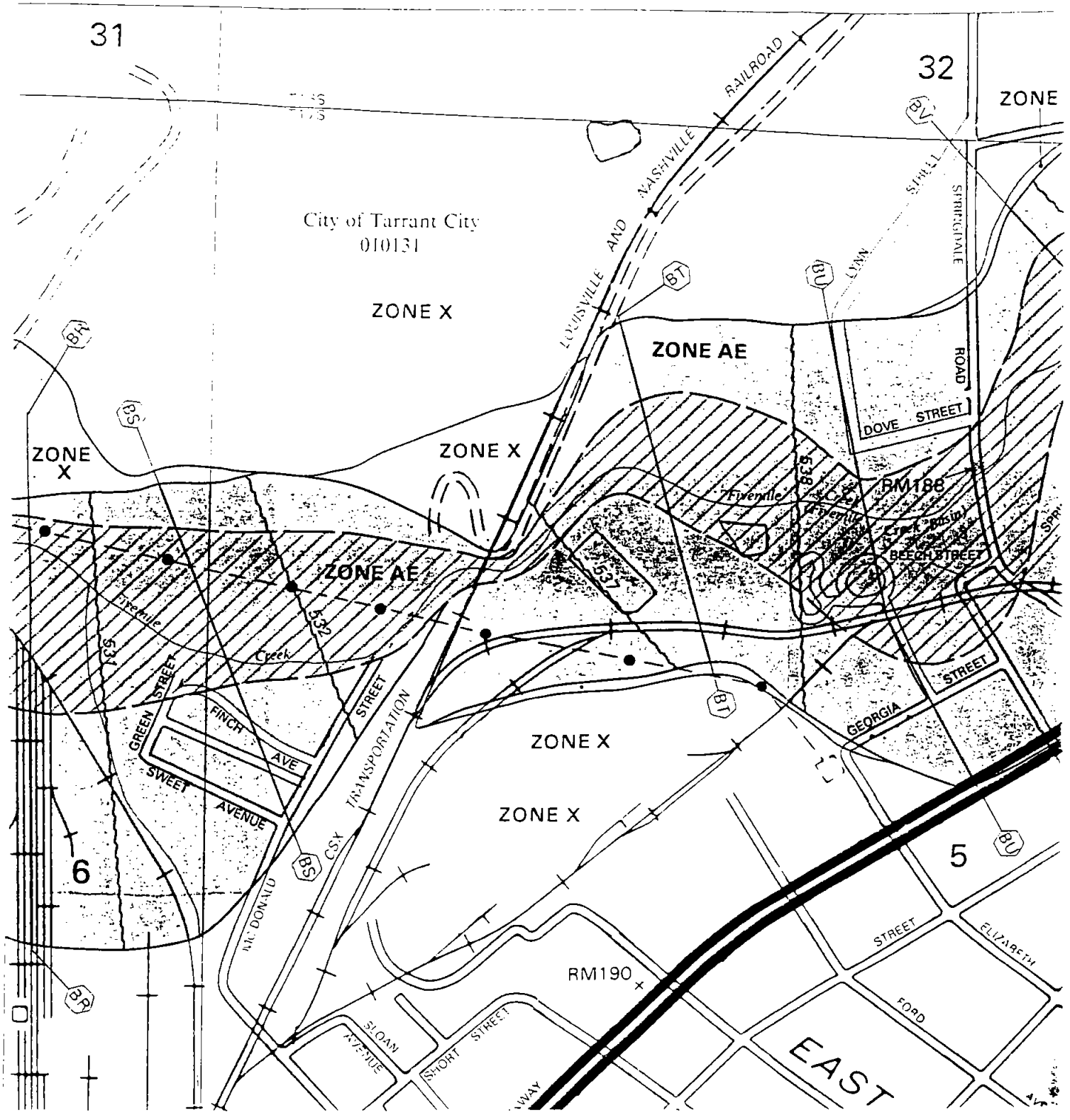
•M1.5 — River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas. The community map repository should be consulted for possible updated flood hazard information prior to use of this map for property purchase or construction purposes.

A B


31
32
City of Tarrant City
010131
ZONE X
ZONE AE
ZONE X
ZONE X
ZONE AE
ZONE X
ZONE X
ZONE X
ZONE
LOUISVILLE AND NASHVILLE RAILROAD
LYNN STREET
SPRINGDALE ROAD
DOVE STREET
RM188
BEECH STREET
GEORGIA STREET
Fivemile Creek
537
532
531
GREEN STREET
FINCH AVE
SWEET AVENUE
TRANSPORTATION STREET
CSX
MC DONALD
RM190
SLOAN AVENUE
SHORT STREET
STREET
ELIZABETH
FORD
EAST
6
5

Reference 11

U.S. Fish & Wildlife Service

Daphne Ecological Services Field Office

Daphne, Alabama

Home
Email Daphne ES
News Releases
FAQ
Activity Highlights
Fact Sheets
Endangered Species
Section 7 Consultation
Outreach & Education
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ALABAMA'S FEDERALLY LISTED SPECIES

[redacted]

BY COUNTY

Updated - April 19, 2005

We are continually updating this list and, therefore, it may be incomplete and is provided strictly for informational purposes. This list does not constitute any form of Section 7 consultation. We recommend that this office (Daphne, AL Field Office - USFWS) be contacted for more current, site specific information prior to project activities. To be certain of occurrence, surveys should be conducted by qualified biologists to determine if a Federally protected species occurs within a project area.

Key to codes on list:

E - Endangered
T - Threatened
CH - Critical Habitat has been designated
PE - Proposed to be listed as Endangered
PT - Proposed to be listed as Threatened
PCH - Proposed Critical Habitat
C - Candidate Species
(P) - Possible Occurrence

Autauga

E - Wood stork *Mycteria Americana*

E - Anthony's riversnail *Athearnia anthonyi*
E - Shiny pigtoe pearly mussel *Fusconaia cor (edgariana)*
E - Pink mucket pearly mussel *Lampsilis abrupta*
E - Alabama lamp pearly mussel *Lampsilis virescens*
E - Pale lilliput pearly mussel *Toxolasma cylindrellus*
E - Fine-rayed pigtoe mussel *Fusconaia cuneolus*
E - Hine's emerald dragonfly *Somatochlora hineana* (P)
E - Green pitcher plant *Sarracenia oreophila*
T - American hart's-tongue fern *Phyllitis scolopendrium var.americana*
T - Eggert's sunflower *Helianthus eggertii* (P)
T - Price's potato-bean *Apios priceana*
C - Slabside pearlymussel *Lexingtonia dolabelloides*
C - White fringeless orchid *Platanthera integrilabia*

Jefferson

T - Flattened musk turtle *Sternotherus depressus*
E - Watercress darter *Etheostoma nuchale*
E - Cahaba shiner *Notropis cahabae*
T - Goldline darter *Percina aurolineata*
C - Rush darter *Etheostoma phytophilum*
PE - Vermilion darter *Etheostoma chermocki*
E - Upland combshell mussel *Epioblasma metastriata*
T - Fine-lined pocketbook mussel *Lampsilis altilis*
E - Triangular kidneyshell mussel *Ptychobranchus greenii*
T - Orange-nacre mucket mussel *Lampsilis perovalis*
E - Plicate rocksnail *Leptoxis plicata*
E - Leafy prairie clover *Dalea foliosa*
C - Black Warrior waterdog *Necturus alabamensis*

Lamar

E - Southern combshell mussel *Epioblasma penita*
E - Southern clubshell mussel *Pleurobema decisum*
E - Ovate clubshell mussel *Pleurobema perovatum*
T - Orange-nacre mucket mussel *Lampsilis perovalis*
T - Alabama moccasinshell mussel *Medionidus acutissimus*

Lauderdale

E - Gray bat *Myotis grisescens*
E - Indiana bat *Myotis sodalis* (P)
T - Bald eagle *Haliaeetus leucocephalus*
TCH - Slackwater darter *Etheostoma boschungi*
ECH - Alabama cavefish *Speoplatyrhinus poulsoni*

Threatened and Endangered Species System (TESS)

Listings by State and Territory as of 09/21/2005

Alabama

Notes:
- *Displays one record per species or population.*
- *The range of a listed population does not extend beyond the states in which that population is defined.*
- *This list includes non-nesting sea turtles and whales in State/Territory coastal waters.*
- *Includes species or populations under the sole jurisdiction of the National Marine Fisheries Service.*

Go to the Threatened and Endangered Wildlife and Plants Page
Go to the TESS Home Page

Back to Table of Contents

- *Click on the highlighted scientific names below to view a Species Profile for each listing.*

Alabama -- 113 listings

Animals -- 96

StatusListing

E Acornshell, southern (*Epioblasma othcaloogensis*)
T (S/A) Alligator, American (*Alligator mississippiensis*)
E Bat, gray (*Myotis grisescens*)
E Bat, Indiana (*Myotis sodalis*)
XN Bean, Cumberland (pearlymussel) AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Villosa trabalis*)
XN Blossom, tubercled (pearlymussel) AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Epioblasma torulosa torulosa*)
E Blossom, turgid (pearlymussel) Entire Range; Except where listed as Experimental Populations (*Epioblasma turgidula*)
XN Blossom, turgid (pearlymussel) AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Epioblasma turgidula*)
E Blossom, yellow (pearlymussel) Entire Range; Except where listed as Experimental Populations (*Epioblasma florentina florentina*)
XN Blossom, yellow (pearlymussel) AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Epioblasma florentina florentina*)
E Campeloma, slender (*Campeloma decampi*)
E Catspaw (=purple cat's paw pearlymussel) Entire Range; Except where listed as Experimental Populations (*Epioblasma obliquata obliquata*)
XN Catspaw (=purple cat's paw pearlymussel) AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Epioblasma obliquata obliquata*)
E Cavefish, Alabama (*Speoplatyrhinus poulsoni*)
T Chub, spotfin Entire (*Cyprinella monacha*)
XN Clubshell AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Pleurobema clava*)
E Clubshell, ovate (*Pleurobema perovatum*)
E Clubshell, southern (*Pleurobema decisum*)
E Combshell, Cumberlandian Entire Range; Except where listed as Experimental Populations (*Epioblasma brevidens*)
XN Combshell, Cumberlandian AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Epioblasma brevidens*)
E Combshell, southern (*Epioblasma penita*)
E Combshell, upland (*Epioblasma metastriata*)
T Darter, goldline (*Percina aurolineata*)
T Darter, slackwater (*Etheostoma boschungi*)
T Darter, snail (*Percina tanasi*)
E Darter, vermilion (*Etheostoma chermocki*)
E Darter, watercress (*Etheostoma nuchale*)
T Eagle, bald lower 48 States (*Haliaeetus leucocephalus*)
T Elimia, lacy (snail) (*Elimia crenatella*)
E Fanshell (*Cyprogenia stegaria*)
T Heelsplitter, Alabama (=inflated) (*Potamilus inflatus*)
E Kidneyshell, triangular (*Ptychobranchus greenii*)
E Lampmussel, Alabama Entire Range; Except where listed as Experimental Populations (*Lampsilis virescens*)
XN Lampmussel, Alabama AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Lampsilis*

virescens)
E Lilliput, pale (pearlymussel) (*Toxolasma cylindrellus*)
E Lioplax, cylindrical (snail) (*Lioplax cyclostomaformis*)
XN Mapleleaf, winged (mussel) AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Quadrula fragosa*)
T Moccasinshell, Alabama (*Medionidus acutissimus*)
E Monkeyface, Cumberland (pearlymussel) Entire Range; Except where listed as Experimental Populations (*Quadrula intermedia*)
XN Monkeyface, Cumberland (pearlymussel) AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Quadrula intermedia*)
E Mouse, Alabama beach (*Peromyscus polionotus ammobates*)
E Mouse, Perdido Key beach (*Peromyscus polionotus trissyllepsis*)
T Mucket, orangenacre (*Lampsilis perovalis*)
E Mucket, pink (pearlymussel) (*Lampsilis abrupta*)
E Mussel, oyster Entire Range; Except where listed as Experimental Populations (*Epioblasma capsaeformis*)
XN Mussel, oyster AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Epioblasma capsaeformis*)
XN Pearlymussel, birdwing AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert, and Lauderdale Counties, AL (*Conradilla caelata*)
E Pearlymussel, cracking Entire Range; Except where listed as Experimental Populations (*Hemistena lata*)
XN Pearlymussel, cracking AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Hemistena lata*)
XN Pearlymussel, dromedary AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Dromus dromas*)
E Pebblesnail, flat (*Lepyrium showalteri*)
E Pigtoe, dark (*Pleurobema furvum*)
E Pigtoe, finerayed Entire Range; Except where listed as Experimental Populations (*Fusconaia cuneolus*)
XN Pigtoe, finerayed AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Fusconaia cuneolus*)
E Pigtoe, flat (*Pleurobema marshalli*)
E Pigtoe, heavy (*Pleurobema taitianum*)
E Pigtoe, rough (*Pleurobema plenum*)
E Pigtoe, shiny Entire Range; Except where listed as Experimental Populations (*Fusconaia cor*)
XN Pigtoe, shiny AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Fusconaia cor*)
E Pigtoe, southern (*Pleurobema georgianum*)
E Pimpleback, orangefoot (pearlymussel) (*Plethobasus cooperianus*)
T Plover, piping except Great Lakes watershed (*Charadrius melodus*)
T Pocketbook, finelined (*Lampsilis altilis*)
E Pocketbook, shinyrayed (*Lampsilis subangulata*)
E Ring pink (mussel) (*Obovaria retusa*)
E Riversnail, Anthony's Entire Range; Except where listed as Experimental Populations (*Athearnia anthonyi*)
XN Riversnail, Anthony's AL; Free-Flowing Reach of the Tennessee River below the Wilson Dam, Colbert and Lauderdale Counties, AL (*Athearnia anthonyi*)
T Rocksnail, painted (*Leptoxis taeniata*)
E Rocksnail, plicate (*Leptoxis plicata*)
T Rocksnail, round (*Leptoxis ampla*)
T Salamander, Red Hills (*Phaeognathus hubrichti*)
T Sculpin, pygmy (*Cottus paulus (=pygmaeus)*)
T Sea turtle, green except where endangered (*Chelonia mydas*)
E Sea turtle, hawksbill (*Eretmochelys imbricata*)
E Sea turtle, Kemp's ridley (*Lepidochelys kempii*)
E Sea turtle, leatherback (*Dermochelys coriacea*)
T Sea turtle, loggerhead (*Caretta caretta*)
T Shiner, blue (*Cyprinella caerulea*)
E Shiner, Cahaba (*Notropis cahabae*)
E Shiner, palezone (*Notropis albizonatus*)
E Shrimp, Alabama cave (*Palaemonias alabamae*)
T Slabshell, Chipola (*Elliptio chipolaensis*)
E Snail, armored (*Pyrgulopsis (=Marstonia) pachyta*)
E Snail, tulotoma (*Tulotoma magnifica*)
T Snake, eastern indigo (*Drymarchon corais couperi*)
E Stirrupshell (*Quadrula stapes*)
E Stork, wood AL, FL, GA, SC (*Mycteria americana*)
E Sturgeon, Alabama (*Scaphirhynchus suttkusi*)
T Sturgeon, gulf (*Acipenser oxyrinchus desotoi*)
T Tortoise, gopher W of of Mobile/Tombigbee Rs. (*Gopherus polyphemus*)
E Turtle, Alabama red-belly (*Pseudemys alabamensis*)
T Turtle, flattened musk species range clarified (*Sternotherus depressus*)
E Wartyback, white (pearlymussel) (*Plethobasus cicatricosus*)
E Whale, finback (*Balaenoptera physalus*)
E Whale, humpback (*Megaptera novaeangliae*)
E Woodpecker, red-cockaded (*Picoides borealis*)

Plants -- 17

StatusListing
T Amphianthus, little (*Amphianthus pusillus*)
T Potato-bean, Price's (*Apios priceana*)
T Fern, American hart's-tongue (*Asplenium scolopendrium* var. *americanum*)
E Leather flower, Morefield's (*Clematis morefieldii*)
E Leather flower, Alabama (*Clematis socialis*)
E Prairie-clover, leafy (*Dalea foliosa*)

T	Bladderpod, lyrate (*Lesquerella lyrata*)
T	Button, Mohr's Barbara (*Marshallia mohrii*)
E	Harperella (*Ptilimnium nodosum*)
T	Water-plantain, Kral's (*Sagittana secundifolia*)
E	Pitcher-plant, green (*Sarracenia oreophila*)
E	Pitcher-plant, Alabama canebrake (*Sarracenia rubra alabamensis*)
E	Chaffseed, American (*Schwalbea americana*)
E	Pinkroot, gentian (*Spigelia gentianoides*)
T	Fern, Alabama streak-sorus (*Thelypteris pilosa* var. *alabamensis*)
E	Trillium, relict (*Trillium reliquum*)
E	Grass, Tennessee yellow-eyed (*Xyris tennesseensis*)

Endangered Species Act Status Codes

E -- Endangered
T -- Threatened
EmE -- Emergency Listing, Endangered
EmT -- Emergency Listing Threatened
EXPE, XE -- Experimental Population, Essential
EXPN, XN -- Experimental Population, Non-Essential
SAE, E(S/A) -- Similarity of Appearance to an Endangered Taxon
SAT, T(S/A) -- Similarity of Appearance to a Threatened Taxon
PE -- Proposed Endangered
PT -- Proposed Threatened
PEXPE, PXE -- Proposed Experimental Population, Essential
PEXPN, PXN -- Proposed Experimental Population, Non-Essential
PSAE, PE(S/A) -- Proposed Similarity of Appearance to an Endangered Taxon
PSAT, PT(S/A) -- Proposed Similarity of Appearance to a Threatened Taxon
C -- Candidate Taxon, Ready for Proposal
D3A -- Delisted Taxon, Evidently Extinct
D3B -- Delisted Taxon, Invalid Name in Current Scientific Opinion
D3C -- Delisted Taxon, Recovered
DA -- Delisted Taxon, Amendment of the Act
DM -- Delisted Taxon, Recovered, Being Monitored First Five Years
DO -- Delisted Taxon, Original Commercial Data Erroneous
DP -- Delisted Taxon, Discovered Previously Unknown Additional Populations and/or Habitat
DR -- Delisted Taxon, Taxonomic Revision (Improved Understanding)
AD -- Proposed Delisting
AE -- Proposed Reclassification to Endangered
AT -- Proposed Reclassification to Threatened

Close Window

Reference 12

#XL700-U1114L0304											
BULK											
Header:											
SITE	**TARRANT**	**CITY**	**Municipal Complex**								
No	XLNo	Ssec	Date/Time	Mo	Mo Error	Zr	Zr Error	Sr	Sr Error	Rb	Rb Error
blank std	30	25.3	7/10/2003 10:27	<LOD	9.9	<LOD	7.65	22.1	6.2	<LOD	9
low std	31	22.2	7/10/2003 10:29	<LOD	15.45	101.8	14	194.2	17.1	107.2	20.5
med std	32	22.1	7/10/2003 10:30	<LOD	16.95	196.1	17.7	213	18.6	121	22.2
high std	33	22.1	7/10/2003 10:31	28	13.1	88.5	17.2	321.8	27	177.4	30.9
RCRA std	34	19	7/10/2003 10:32	NA		NA		NA		NA	
RCRA std	35	21.2	7/10/2003 10:32	NA		NA		NA		NA	
MCS SS-1	36	21	7/10/2003 10:38	<LOD	19.8	120.8	16.6	43.2	11.8	30.4	14.9
MCS SS-2	37	21.1	7/10/2003 10:42	<LOD	16.35	49.2	11.7	<LOD	11.85	<LOD	15.6
MCS SS-3	38	21.3	7/10/2003 10:45	<LOD	12.3	52.6	9.3	<LOD	8.55	<LOD	10.65
MCS SS-4	39	21.5	7/10/2003 10:47	23.6	13.1	200.4	17.7	19.9	8.7	42.7	14.4
MCS SS-5	40	21.5	7/10/2003 10:49	<LOD	13.8	60.1	10.8	13.2	7.4	<LOD	14.1
MCS SS-6	41	21	7/10/2003 10:52	<LOD	43.65	45.4	29.3	78.7	32.2	<LOD	47.7
MCS SS-7	42	20.9	7/10/2003 10:55	<LOD	17.55	108.6	14.9	26.7	9.8	29.1	13.5
MCS SS-8	43	20.4	7/10/2003 10:57	<LOD	11.1	<LOD	8.1	<LOD	8.55	<LOD	10.5
error	44	0.8	7/10/2003 10:59	<LOD	86.55	<LOD	78	<LOD	55.95	<LOD	76.8
MCS SS-9	45	20.8	7/10/2003 10:59	<LOD	17.25	71.6	13.5	<LOD	12.6	<LOD	18
MCS SS-10	46	21.4	7/10/2003 11:01	<LOD	12	<LOD	9.6	<LOD	8.7	<LOD	10.05
MCS SS-10A	47	20.9	7/10/2003 11:03	NA		NA		NA		NA	
MCS SS-11	48	21.3	7/10/2003 11:08	<LOD	21.9	142	19	39.2	12.6	45.1	18.2
MCS SS-12	49	21.1	7/10/2003 11:10	<LOD	22.95	284.8	24.6	41.1	12.5	29.2	15.7
MCS SS-13	50	20.8	7/10/2003 11:12	<LOD	20.85	217	20.1	75.5	13.7	26.6	14.3
MCS SS-14	51	21.4	7/10/2003 11:14	<LOD	11.7	<LOD	9.75	<LOD	8.1	<LOD	9.75
MCS SS-15	52	20.9	7/10/2003 11:15	<LOD	19.65	162.2	17.4	23.6	9.7	42.9	15.6
MCS SS-16	53	21.1	7/10/2003 12:20	<LOD	22.2	221	21.8	57.8	13.5	29.3	15.7
MCS SS-17	54	21.3	7/10/2003 12:22	<LOD	26.55	155.9	23	61.7	17	47.8	22.2
MCS SS-18	55	21.9	7/10/2003 12:24	<LOD	25.2	129.5	20.9	146.6	21.8	59	23.5
MCS SS-18A	56	20.8	7/10/2003 12:25	NA		NA		NA		NA	
MCS SS-19	57	20.9	7/10/2003 12:27	<LOD	19.35	103.8	17.2	112.1	17.4	25.6	16.3
MCS SS-20	58	21.2	7/10/2003 12:30	<LOD	26.25	117.5	22.6	136.8	23.7	40.6	23.4
MCS SS-20A	59	21	7/10/2003 12:31	NA		NA		NA		NA	
MCS SS-21	60	21	7/10/2003 12:33	<LOD	24.6	113.7	20	122.7	20.4	<LOD	28.65
MCS SS-22	61	21.4	7/10/2003 12:35	<LOD	18.15	105.5	16.4	92.5	15.7	41.9	17.5
MCS SS-23	62	20.9	7/10/2003 12:37	<LOD	21.15	115.5	17.2	41.2	12.6	30.2	15.9

MCS SS-24	63	21.1	7/10/2003 12:39	<LOD	21.45	72	16.2	52.9	14.5	39.3	18.6
MCS SS-25	64	20.8	7/10/2003 12:41	<LOD	18.3	62.3	13.7	68.3	13.6	28.7	14.9
MCS SS-26	65	21	7/10/2003 12:43	<LOD	19.95	88.8	16.3	64.4	14.6	28.4	16.2
MCS SS-27	66	21.3	7/10/2003 12:44	<LOD	33.6	78.9	24	32.3	19.8	<LOD	30.3
MCS SS-28	67	20.9	7/10/2003 12:46	<LOD	16.8	47.9	12.3	48.6	11.8	<LOD	16.35
MCS SS-29	68	21.4	7/10/2003 12:49	<LOD	15.3	80.4	12.7	63.1	11.6	21.6	12
MCS SS-30	69	20.9	7/10/2003 12:51	<LOD	24.3	160.4	21	50.7	14.6	<LOD	19.2
MCS SS-31	70	21.2	7/10/2003 12:52	27.9	17.1	37.9	15.5	42.9	15.2	<LOD	22.95
MCS SS-32	71	21.4	7/10/2003 12:55	<LOD	19.8	297.8	20.9	36.5	10.2	<LOD	16.05
MCS SS-33	72	21.1	7/10/2003 12:58	<LOD	27.9	389.6	30.2	75.6	16	27.9	16.8
MCS SS-34	73	21.1	7/10/2003 13:00	<LOD	76.2	4979.2	170	44	16.7	<LOD	24.45
MCS SS-35	74	21.5	7/10/2003 13:44	<LOD	18.75	115.7	15.6	51	12.3	44.5	16.5
MCS SS-35A	75	21.5	7/10/2003 13:46	<LOD	18.75	115.7	15.6	51	12.3	44.5	16.5
MCS SS-35A	76	21.5	7/10/2003 13:46	NA		NA		NA		NA	
MCS SS-36	77	20.7	7/10/2003 13:48	<LOD	19.8	127.8	17.5	48.1	12.9	22.6	14.7
MCS SS-37	78	22.7	7/10/2003 13:49	<LOD	21.3	94.7	16.7	49	13.6	<LOD	18
MCS SS-38	79	20.9	7/10/2003 13:51	<LOD	20.25	93.7	16.2	28.8	12	<LOD	21.3
error	80	18.7	7/10/2003 13:52	<LOD	23.25	89.4	18.8	34.2	14.5	60.4	23.4
error	81	0.8	7/10/2003 13:53	<LOD	75.3	<LOD	99.45	<LOD	67.2	<LOD	92.25
MCS SS-39	82	21.1	7/10/2003 13:53	<LOD	22.35	80.8	17	44.2	14.3	32.3	18
MCS SS-40	83	21	7/10/2003 13:55	<LOD	22.2	206.6	21.3	46.6	12.9	28.8	15.7
MCS SS-41	84	21	7/10/2003 13:57	<LOD	21.3	148.9	20.1	42.7	13.9	28.4	17.1
MCS SS-42	85	21.4	7/10/2003 13:58	<LOD	15.9	59.1	12.5	40.2	11	<LOD	14.85
MCS SS-43	86	21.2	7/10/2003 14:00	<LOD	17.25	32.3	12.3	55	13.7	<LOD	21.75
blank std	87	21.3	7/10/2003 14:12	<LOD	10.05	<LOD	9.3	25.4	7	<LOD	10.05
low std	88	21.1	7/10/2003 14:13	<LOD	15.3	99.3	14.1	193.1	17.4	120.9	21.8
med std	89	20.9	7/10/2003 14:13	<LOD	18.15	220	19.1	228.4	19.7	150.9	24.9
high std	90	21.3	7/10/2003 14:14	19.3	12.7	79.2	17.1	326	27.5	184.4	31.9
RCRA std	91	21.4	7/10/2003 14:15	NA		NA		NA		NA	

Pb	Pb Error	Se	Se Error	As	As Error	Hg	Hg Error	Zn	Zn Error	Cu	Cu Error	Ni	Ni Error
<LOD	16.65	<LOD	9.6	<LOD	15.45	<LOD	10.05	<LOD	40.95	<LOD	77.4	<LOD	129.15
<LOD	29.55	<LOD	13.5	<LOD	24.15	<LOD	16.5	90.2	49.1	<LOD	120.3	<LOD	270
1120	79.8	<LOD	17.55	<LOD	93.3	<LOD	26.1	281	67.3	<LOD	144	<LOD	240
5488	220	<LOD	33.75	614	150	<LOD	63.45	6809.6	320	3068.8	340	<LOD	420
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
90.8	32	<LOD	16.05	<LOD	38.85	<LOD	20.55	362.6	86.6	<LOD	180	<LOD	300
<LOD	31.35	<LOD	14.25	<LOD	30.6	<LOD	17.1	<LOD	81.3	<LOD	123.9	<LOD	240
52.2	19.2	<LOD	10.65	<LOD	23.85	<LOD	12.15	<LOD	52.65	<LOD	90.45	<LOD	165
44.3	23.4	<LOD	15.3	<LOD	31.05	<LOD	16.35	<LOD	79.8	<LOD	134.7	<LOD	255
33.9	19.7	<LOD	12.75	<LOD	26.85	<LOD	16.2	100.7	50.5	<LOD	124.2	<LOD	210
153.1	87.8	<LOD	44.1	<LOD	110.55	<LOD	57.3	<LOD	270	<LOD	525	<LOD	1005
100.6	31.2	<LOD	16.8	<LOD	42.6	<LOD	20.25	352.4	79.3	<LOD	150	<LOD	255
<LOD	21.3	<LOD	11.85	<LOD	18.9	<LOD	13.95	<LOD	50.55	<LOD	88.35	<LOD	147.9
<LOD	195	<LOD	95.4	<LOD	133.05	<LOD	82.2	<LOD	420	<LOD	795	<LOD	1650
72.9	29.8	<LOD	17.1	<LOD	38.55	<LOD	21.75	<LOD	84.75	<LOD	165	<LOD	345
<LOD	21	<LOD	11.4	<LOD	19.95	<LOD	15	<LOD	52.05	<LOD	91.65	<LOD	180
NA		NA		NA		NA		NA		NA		NA	
44.5	29.6	<LOD	20.4	<LOD	41.85	<LOD	24	148.6	79.6	<LOD	195	<LOD	345
95.5	35	<LOD	19.2	<LOD	42.3	<LOD	20.85	<LOD	104.55	<LOD	165	<LOD	330
164.7	38.7	<LOD	19.2	<LOD	48.3	<LOD	20.4	251.8	73.7	<LOD	150	<LOD	300
<LOD	19.8	<LOD	11.25	<LOD	18.6	<LOD	12.9	93.9	42.6	<LOD	102.6	<LOD	165
<LOD	36.6	<LOD	17.55	<LOD	33.9	<LOD	19.05	<LOD	84	<LOD	145.35	<LOD	285
75.9	32	<LOD	17.25	<LOD	41.1	<LOD	24.75	247.6	81.8	<LOD	180	<LOD	300
186.5	53	<LOD	22.8	<LOD	63.9	<LOD	30.45	284.4	110	<LOD	240	<LOD	480
436.4	70.5	<LOD	21.6	<LOD	84.3	<LOD	35.1	1880	200	<LOD	285	<LOD	435
NA		NA		NA		NA		NA		NA		NA	
374	58.7	<LOD	19.2	<LOD	70.5	<LOD	27.45	716.4	120	<LOD	210	<LOD	375
627.6	93.1	<LOD	28.35	<LOD	111.15	<LOD	35.7	1828.8	220	<LOD	345	<LOD	555
NA		NA		NA		NA		NA		NA		NA	
433.6	71.1	<LOD	25.65	<LOD	87.15	<LOD	33.3	1089.6	160	<LOD	270	<LOD	480
532.8	66.4	<LOD	19.65	<LOD	77.55	<LOD	26.4	1640	160	<LOD	240	<LOD	375
251	49.6	<LOD	17.85	<LOD	57.3	<LOD	23.7	811.6	120	<LOD	210	<LOD	375

182.6	47.4	<LOD	21.3	<LOD	61.35	<LOD	27.75	1080	150	<LOD	255	<LOD	405
294.6	50	<LOD	19.35	<LOD	61.35	<LOD	25.5	1480	150	<LOD	225	<LOD	345
389.8	60.8	<LOD	17.85	<LOD	70.35	<LOD	30.3	2680	210	<LOD	300	<LOD	390
542.8	110	<LOD	37.2	<LOD	124.2	<LOD	50.4	3337.6	370	<LOD	510	<LOD	750
256	45.4	<LOD	16.5	<LOD	52.8	<LOD	22.95	1560	150	<LOD	210	<LOD	300
313.6	44.7	<LOD	14.1	<LOD	52.5	<LOD	22.35	1899.2	140	<LOD	195	<LOD	270
324.8	60.4	<LOD	21.6	<LOD	69	<LOD	32.25	1889.6	190	<LOD	285	<LOD	465
122	46.5	<LOD	25.2	<LOD	56.55	<LOD	30.3	597.6	130	<LOD	255	<LOD	495
322	46.2	<LOD	15.75	<LOD	53.55	<LOD	24	2188.8	160	<LOD	210	<LOD	270
297.2	56.1	<LOD	19.5	<LOD	64.05	<LOD	22.2	1249.6	150	<LOD	240	<LOD	390
171.1	49.3	<LOD	21	<LOD	61.05	<LOD	32.7	253.2	110	<LOD	240	<LOD	435
564.8	64.7	<LOD	19.35	<LOD	75.75	<LOD	30.3	3268.8	210	390	200	<LOD	360
564.8	64.7	<LOD	19.35	<LOD	75.75	<LOD	30.3	3268.8	210	390	200	<LOD	360
NA		NA		NA		NA		NA		NA		NA	
300.4	52.7	<LOD	18.9	<LOD	65.4	<LOD	28.05	2059.2	180	<LOD	270	<LOD	390
207	47.4	<LOD	19.5	<LOD	58.35	<LOD	26.85	1009.6	140	<LOD	225	<LOD	390
436.4	64.3	<LOD	21.15	<LOD	78.45	<LOD	31.8	2969.6	220	<LOD	315	<LOD	420
397.8	71.1	<LOD	18	<LOD	84.9	<LOD	31.35	2468.8	240	<LOD	375	718.8	380
<LOD	360	<LOD	116.55	<LOD	315	<LOD	225	2188.8	960	<LOD	1274.4	<LOD	2250
376.6	65.2	<LOD	22.35	<LOD	80.4	<LOD	32.55	2600	230	<LOD	360	1369.6	390
136.6	39.5	<LOD	20.25	<LOD	53.1	<LOD	26.25	839.2	120	<LOD	210	<LOD	360
433.6	67.8	<LOD	24.45	<LOD	80.1	<LOD	34.65	2840	230	<LOD	315	<LOD	435
343.6	50.2	<LOD	16.05	<LOD	60	<LOD	23.85	2228.8	170	<LOD	240	<LOD	330
1040	92.2	<LOD	22.05	<LOD	108.3	<LOD	37.35	7635.2	360	<LOD	390	<LOD	390
<LOD	17.1	<LOD	9.9	<LOD	15.15	<LOD	11.4	<LOD	48.9	<LOD	86.55	<LOD	146.4
<LOD	26.1	<LOD	11.7	<LOD	25.05	<LOD	14.55	<LOD	72.75	<LOD	125.25	<LOD	255
1049.6	79	<LOD	16.35	126.2	63.2	<LOD	28.05	309.6	70.1	<LOD	141	<LOD	270
5328	220	<LOD	34.2	771.6	160	<LOD	65.85	6764.8	320	2800	330	<LOD	435
NA		NA		NA		NA		NA		NA		NA	

Co	Co Error	Fe	Fe Error	Mn	Mn Error	Cr	Cr Error	Eu	Eu Error	La	La Error	Ba	Ba Error
<LOD	63.3	205.6	110	<LOD	180	<LOD	149.55	NA		NA		NA	
<LOD	510	25689.6	1100	<LOD	1005	<LOD	420	NA		NA		NA	
<LOD	465	20800	969.6	<LOD	930	<LOD	405	NA		NA		NA	
<LOD	645	32281.6	1400	9664	1200	<LOD	855	NA		NA		NA	
NA		NA		NA		NA		<LOD	180	<LOD	45	739.2	110
NA		NA		NA		NA		<LOD	147.75	45.1	29.7	618.4	89.2
<LOD	420	10598.4	800	<LOD	825	<LOD	405	NA		NA		NA	
<LOD	285	5638.4	550	<LOD	615	<LOD	330	NA		NA		NA	
<LOD	143.25	1580	240	<LOD	285	<LOD	210	NA		NA		NA	
<LOD	375	11097.6	730	<LOD	750	<LOD	360	NA		NA		NA	
<LOD	255	7424	550	<LOD	540	<LOD	270	NA		NA		NA	
<LOD	1020	14592	2099.2	<LOD	2250	<LOD	1155	NA		NA		NA	
<LOD	360	8934.4	690	<LOD	705	<LOD	345	NA		NA		NA	
<LOD	131.7	1569.6	240	<LOD	300	<LOD	210	NA		NA		NA	
<LOD	2700	19200	5497.6	<LOD	4948.8	<LOD	1800	NA		NA		NA	
<LOD	525	18291.2	1100	<LOD	1020	<LOD	480	NA		NA		NA	
<LOD	150	1160	230	<LOD	285	<LOD	210	NA		NA		NA	
NA		NA		NA		NA		<LOD	165	<LOD	23.1	<LOD	32.7
<LOD	435	9779.2	840	<LOD	900	<LOD	420	NA		NA		NA	
<LOD	405	8147.2	740	<LOD	810	<LOD	420	NA		NA		NA	
<LOD	525	17792	1000	<LOD	1005	<LOD	405	NA		NA		NA	
<LOD	150	2148.8	280	<LOD	330	<LOD	210	NA		NA		NA	
<LOD	495	16499.2	969.6	<LOD	945	<LOD	435	NA		NA		NA	
<LOD	465	13388.8	940	<LOD	930	<LOD	450	NA		NA		NA	
<LOD	720	23897.6	1600	<LOD	1500	<LOD	645	NA		NA		NA	
<LOD	885	39680	2000	2099.2	1200	<LOD	780	NA		NA		NA	
NA		NA		NA		NA		<LOD	195	<LOD	40.5	371.6	90.1
<LOD	660	28800	1500	3417.6	1100	<LOD	705	NA		NA		NA	
<LOD	975	40089.6	2299.2	2929.6	1400	<LOD	885	NA		NA		NA	
NA		NA		NA		NA		<LOD	195	<LOD	54.9	290.8	79.4
<LOD	945	45491.2	2200	5520	1500	<LOD	1020	NA		NA		NA	
<LOD	720	36787.2	1600	3388.8	1100	<LOD	720	NA		NA		NA	
<LOD	750	34585.6	1699.2	<LOD	1500	<LOD	600	NA		NA		NA	

<LOD	720	29081.6	1600	<LOD	1500	<LOD	645	NA		NA		NA	
<LOD	675	35379.2	1600	1629.6	980	<LOD	600	NA		NA		NA	
<LOD	675	26982.4	1500	1979.2	980	<LOD	660	NA		NA		NA	
<LOD	990	27289.6	2299.2	<LOD	2100	<LOD	1065	NA		NA		NA	
<LOD	495	17792	1000	<LOD	1035	<LOD	435	NA		NA		NA	
<LOD	555	27494.4	1200	1580	780	<LOD	495	NA		NA		NA	
<LOD	960	48076.8	2200	<LOD	1800	<LOD	765	NA		NA		NA	
<LOD	900	38579.2	2099.2	<LOD	1800	<LOD	780	NA		NA		NA	
<LOD	510	23590.4	1100	<LOD	1050	<LOD	435	NA		NA		NA	
<LOD	720	28876.8	1600	<LOD	1500	<LOD	690	NA		NA		NA	
<LOD	660	19993.6	1300	<LOD	1350	<LOD	615	NA		NA		NA	
<LOD	690	35993.6	1500	<LOD	1424.4	<LOD	615	NA		NA		NA	
<LOD	690	35993.6	1500	<LOD	1424.4	<LOD	615	NA		NA		NA	
NA		NA		NA		NA		<LOD	165	<LOD	39.15	118.1	45.1
<LOD	750	38579.2	1699.2	<LOD	1500	<LOD	645	NA		NA		NA	
<LOD	675	26982.4	1500	<LOD	1440	<LOD	600	NA		NA		NA	
<LOD	750	36684.8	1699.2	<LOD	1500	<LOD	645	NA		NA		NA	
<LOD	885	34995.2	2000	<LOD	1800	<LOD	855	NA		NA		NA	
<LOD	3448.8	27084.8	7398.4	<LOD	8246.4	<LOD	3300	NA		NA		NA	
<LOD	840	35481.6	1899.2	<LOD	1650	<LOD	720	NA		NA		NA	
<LOD	615	23488	1300	1689.6	889.6	<LOD	555	NA		NA		NA	
<LOD	750	32281.6	1699.2	<LOD	1650	<LOD	630	NA		NA		NA	
<LOD	570	27392	1300	<LOD	1215	<LOD	525	NA		NA		NA	
<LOD	750	36377.6	1600	2428.8	1100	<LOD	675	NA		NA		NA	
<LOD	84.9	<LOD	165	<LOD	165	<LOD	165	NA		NA		NA	
<LOD	525	26291.2	1100	<LOD	1020	<LOD	435	NA		NA		NA	
<LOD	480	20992	1000	<LOD	960	<LOD	390	NA		NA		NA	
<LOD	645	32179.2	1500	10195.2	1300	<LOD	870	NA		NA		NA	
NA		NA		NA		NA		<LOD	150	62.7	33.7	720	99.2

Cs	Cs Error	Te	Te Error	Sb	Sb Error	Sn	Sn Error	Cd	Cd Error	Ag	Ag Error	Pd	Pd Error
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
<LOD	72	<LOD	86.55	136.5	60.8	2068.8	210	510.4	93	395.2	170	<LOD	46.95
<LOD	64.65	<LOD	79.65	104.5	53.4	1868.8	180	496.8	85.7	573.2	170	<LOD	38.7
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
<LOD	38.7	<LOD	66.15	<LOD	39.3	<LOD	115.05	<LOD	30	<LOD	195	<LOD	33.45
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
<LOD	77.4	<LOD	97.35	<LOD	61.35	<LOD	165	<LOD	44.25	<LOD	285	<LOD	45
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
<LOD	68.25	<LOD	102.3	<LOD	57.45	<LOD	148.2	<LOD	46.05	<LOD	255	<LOD	41.7
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	

NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
<LOD	46.95	<LOD	76.65	<LOD	36.15	<LOD	126.6	<LOD	40.5	<LOD	210	<LOD	35.4
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
NA		NA		NA		NA		NA		NA		NA	
<LOD	68.7	<LOD	79.8	98.2	54.4	1429.6	160	536.8	90.6	425.2	170	<LOD	49.05

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4

61 Forsyth Street
Atlanta, Georgia 30303-3104

August 8, 2002

4WD-OTS

MEMORANDUM

SUBJECT: Arsenic Cleanup Levels for Soil

FROM: Ted W. Simon, PhD, DABT
Toxicologist
Office of Technical Services

TO: Dann Spariosu
RPM, FFB

CC: Elmer W. Akin,
Chief, OTS

Per your verbal request, this memo will serve to state the policy of Region 4 Office of Technical Services regarding arsenic cleanup levels or remedial goal options in soil.

Arsenic is a naturally occurring mineral that is considered by EPA to be both a systemic toxicant (noncarcinogen) and a human carcinogen. There is considerable uncertainty about the carcinogenic potency of arsenic at low dose levels. Therefore, Region 4 OTS recommends that regulation of arsenic in soil be based on its systemic toxicity rather than its carcinogenicity. Therefore, the most appropriate arsenic PRG for residential soil is 20 mg/kg based on the noncancer endpoint. As an additional precaution, OTS recommends that soil cleanup levels fall within the cancer risk range of 1E-04 to 1E-06. This is the case for residential exposure - the 1E-4 cancer risk level is 43 mg/kg.

However, for the industrial scenario, the Region 9 PRG for arsenic (noncancer) is 440 mg/kg, above a 1E-4 risk level. The PRG for arsenic as a carcinogen at a 1E-04 risk level for an industrial worker is 270 mg/kg. Hence, OTS would recommend the value of 270 mg/kg as an appropriate cleanup level for arsenic in surface soil in an industrial exposure scenario.

Please let me know if you need further help.

T.W. Simon/tws:4WD-OTS:28642/08/31/05/A:\DISK14\AUG02\AS_PRG.WPD

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG ca* (where: nc PRG < 100X ca PRG)
ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide) DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES												CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin abs. soils	CAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
8.7E-03	i	4.0E-03	i	8.7E-03	r	4.0E-03	r		0.1	30560-19-1	Acephate	5.6E+01	ca**	2.0E+02	ca*	7.7E-01	ca*	7.7E+00	ca*		
				7.7E-03	i	2.6E-03	i	y		75-07-0	Acetaldehyde	1.1E+01	ca**	2.3E+01	ca**	8.7E-01	ca*	1.7E+00	ca		
		2.0E-02	i			2.0E-02	r		0.1	34256-82-1	Acetochlor	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		9.0E-01	i			9.0E-01	r	y		67-64-1	**Acetone**	1.4E+04	nc	5.4E+04	nc	3.3E+03	nc	5.5E+03	nc	1.6E+01	8.0E-01
		8.0E-04	h			8.0E-04	r		0.1	75-86-5	Acetone cyanohydrin	4.9E+01	nc	4.9E+02	nc	2.9E+00	nc	2.9E+01	nc		
		1.7E-02	r			1.7E-02	i	y		75-05-8	Acetonitrile	4.2E+02	nc	1.8E+03	nc	6.2E+01	nc	1.0E+02	nc		
		5.0E-04	i			5.7E-06	i	y		107-02-8	**Acrolein**	1.0E-01	nc	3.4E-01	nc	2.1E-02	nc	4.2E-02	nc		
4.5E+00	i	2.0E-04	i	4.5E+00	i	2.0E-04	r		0.1	79-06-1	Acrylamide	1.1E-01	ca	3.8E-01	ca	1.5E-03	ca	1.5E-02	ca		
		5.0E-01	i			2.9E-04	i		0.1	79-10-7	Acrylic acid	2.9E+04	nc	1.0E+05	max	1.0E+00	nc	1.8E+04	nc		
5.4E-01	i	1.0E-03	h	2.4E-01	i	5.7E-04	i	y		107-13-1	Acrylonitrile	2.1E-01	ca*	4.9E-01	ca*	2.8E-02	ca*	3.9E-02	ca*		
1.0E+00	r			1.0E+00	c			y			**"CAL-Modified PRG"**	5.5E-02	ca	1.2E-01	ca	6.7E-03	ca	1.1E-02	ca		
8.1E-02	h	1.0E-02	i	8.0E-02	r	1.0E-02	r		0.1	15972-60-8	Alachlor	6.0E+00	ca	2.1E+01	ca	8.4E-02	ca	8.4E-01	ca		
		1.5E-01	i			1.5E-01	r		0.1	1596-84-5	Alar	9.2E+03	nc	9.2E+04	nc	5.5E+02	nc	5.5E+03	nc		
		1.0E-03	i			1.0E-03	r		0.1	116-06-3	Aldicarb	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc		
		1.0E-03	i			1.0E-03	r		0.1	1646-88-4	Aldicarb sulfone	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc		
1.7E+01	i	3.0E-05	i	1.7E+01	i	3.0E-05	r		0.1	309-00-2	Aldrin	2.9E-02	ca*	1.0E-01	ca	3.9E-04	ca	4.0E-03	ca	5.0E-01	2.0E-02
		2.5E-01	i			2.5E-01	r		0.1	74223-64-6	Ally	1.5E+04	nc	1.0E+05	max	9.1E+02	nc	9.1E+03	nc		
		5.0E-03	i			5.0E-03	r		0.1	107-18-6	Allyl alcohol	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
		2.9E-04	r			2.9E-04	i		0.1	107-05-1	**Allyl chloride**	1.7E+01	nc	1.8E+02	nc	1.0E+00	nc	1.0E+01	nc		
		1.0E+00	p			1.4E-03	p			7429-90-5	Aluminum	7.6E+04	nc	1.0E+05	max	5.1E+00	nc	3.6E+04	nc		
		4.0E-04	i							20859-73-8	Aluminum phosphide	3.1E+01	nc	4.1E+02	nc			1.5E+01	nc		
		3.0E-04	i			3.0E-04	r		0.1	67485-29-4	Amdro	1.8E+01	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc		
		9.0E-03	i			9.0E-03	r		0.1	834-12-8	Ametryn	5.5E+02	nc	5.5E+03	nc	3.3E+01	nc	3.3E+02	nc		
		2.0E-04	n			2.0E-04	r		0.1	1321-12-6	**Aminodinitrotoluene**	1.2E+01	nc	1.2E+02	nc	7.3E-01	nc	7.3E+00	nc		
		7.0E-02	h			7.0E-02	r		0.1	591-27-5	m-Aminophenol	4.3E+03	nc	4.3E+04	nc	2.6E+02	nc	2.6E+03	nc		
		2.0E-05	h			2.0E-05	r		0.1	504-24-5	4-Aminopyridine	1.2E+00	nc	1.2E+01	nc	7.3E-02	nc	7.3E-01	nc		
		2.5E-03	i			2.5E-03	r		0.1	33089-61-1	Amitraz	1.5E+02	nc	1.5E+03	nc	9.1E+00	nc	9.1E+01	nc		
						2.9E-02	i			7664-41-7	Ammonia					1.0E+02	nc				
		2.0E-01	i						0.1	7773-06-0	Ammonium sulfamate	1.2E+04	nc	1.0E+05	max			7.3E+03	nc		
5.7E-03	i	7.0E-03	p	5.7E-03	r	2.9E-04	i		0.1	62-53-3	Aniline	8.5E+01	ca**	3.0E+02	ca*	1.0E+00	nc	1.2E+01	ca*		
		4.0E-04	i							7440-36-0	Antimony and compounds	3.1E+01	nc	4.1E+02	nc			1.5E+01	nc	5.0E+00	3.0E-01
		1.3E-02	i			1.3E-02	r		0.1	74115-24-5	Apollo	7.9E+02	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc		
2.5E-02	i	5.0E-02	h	2.5E-02	i	5.0E-02	r		0.1	140-57-8	Aramite	1.9E+01	ca	6.9E+01	ca	2.7E-01	ca	2.7E+00	ca		
1.5E+00	i	3.0E-04	i	1.5E+01	i				0.03	7440-38-2	Arsenic	3.9E-01	ca*	1.6E+00	ca	4.5E-04	ca	4.5E-02	ca	2.9E+01	1.0E+00
9.5E+00	c			1.2E+01	c				0.03		**"CAL-Modified PRG"**	6.2E-02	ca	2.5E-01	ca	5.6E-04	ca	7.1E-03	ca		
						1.4E-05	i			7784-42-1	Arsine (see arsenic for cancer endpoint)					5.2E-02	nc				
		9.0E-03	i			9.0E-03	r		0.1	76578-14-8	Assure	5.5E+02	nc	5.5E+03	nc	3.3E+01	nc	3.3E+02	nc		
		5.0E-02	i			5.0E-02	r		0.1	3337-71-1	Asulam	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
2.2E-01	h	3.5E-02	i	2.2E-01	r	3.5E-02	r		0.1	1912-24-9	Atrazine	2.2E+00	ca	7.8E+00	ca	3.1E-02	ca	3.0E-01	ca		
		4.0E-04	i			4.0E-04	r		0.1	71751-41-2	Avermectin B1	2.4E+01	nc	2.5E+02	nc	1.5E+00	nc	1.5E+01	nc		
1.1E-01	i			1.1E-01	i				0.1	103-33-3	Azobenzene	4.4E+00	ca	1.6E+01	ca	6.2E-02	ca	6.1E-01	ca		
		7.0E-02	i			1.4E-04	h			7440-39-3	Barium and compounds	5.4E+03	nc	6.7E+04	nc	5.2E-01	nc	2.6E+03	nc	1.6E+03	8.2E+01

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TOXICITY VALUES									CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)	V O C	skin aba soils	CAS No.	Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
		4.0E-03	i			4.0E-03	r	0.1	114-26-1	Baygon	2.4E+02	nc	2.5E+03	nc	1.5E+01	nc	1.5E+02	nc		
		3.0E-02	i			3.0E-02	r	0.1	43121-43-3	Bayleton	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc		
		2.5E-02	i			2.5E-02	r	0.1	68359-37-5	Baythroid	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc		
		3.0E-01	i			3.0E-01	r	0.1	1861-40-1	Benefin	1.8E+04	nc	1.0E+05	max	1.1E+03	nc	1.1E+04	nc		
		5.0E-02	i			5.0E-02	r	0.1	17804-35-2	Benomyl	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
		3.0E-02	i			3.0E-02	r	0.1	25057-89-0	Bentazon	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc		
		1.0E-01	i			1.0E-01	r	0.1	100-52-7	Benzaldehyde	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.6E+03	nc		
5.5E-02	i	4.0E-03	i	2.7E-02	i	8.6E-03	i	y	71-43-2	**Benzene**	6.4E-01	ca*	1.4E+00	ca*	2.5E-01	ca	3.5E-01	ca	3.0E-02	2.0E-03
2.3E+02	i	3.0E-03	i	2.3E+02	i	3.0E-03	r	0.1	92-87-5	Benzidine	2.1E-03	ca	7.5E-03	ca	2.9E-05	ca	2.9E-04	ca		
		4.0E+00	i			4.0E+00	r	0.1	65-85-0	Benzoic acid	1.0E+05	max	1.0E+05	max	1.5E+04	nc	1.5E+05	nc	4.0E+02	2.0E+01
1.3E+01	i			1.3E+01	r			0.1	98-07-7	Benzotrichloride	3.7E-02	ca	1.3E-01	ca	5.2E-04	ca	5.2E-03	ca		
		3.0E-01	h			3.0E-01	r	0.1	100-51-6	Benzyl alcohol	1.8E+04	nc	1.0E+05	max	1.1E+03	nc	1.1E+04	nc		
1.7E-01	i	2.9E-03	r	1.7E-01	r	2.9E-03	n	y	100-44-7	Benzyl chloride	8.9E-01	ca*	2.2E+00	ca	4.0E-02	ca	6.6E-02	ca		
		2.0E-03	i	8.4E+00	i	5.7E-06	i		7440-41-7	Beryllium and compounds	1.5E+02	nc	1.9E+03	ca**	8.0E-04	ca*	7.3E+01	nc	6.3E+01	3.0E+00
		1.0E-04	i			1.0E-04	r	0.1	141-66-2	Bidrin	6.1E+00	nc	6.2E+01	nc	3.7E-01	nc	3.6E+00	nc		
		1.5E-02	i			1.5E-02	r	0.1	82657-04-3	Biphenthrin (Talstar)	9.2E+02	nc	9.2E+03	nc	5.5E+01	nc	5.5E+02	nc		
		5.0E-02	i			5.0E-02	r	y	92-52-4	**1,1-Biphenyl**	3.0E+03	nc	2.3E+04	nc	1.8E+02	nc	3.0E+02	nc		
1.1E+00	i			1.1E+00	i			y	111-44-4	Bis(2-chloroethyl)ether	2.2E-01	ca	5.8E-01	ca	6.1E-03	ca	1.0E-02	ca	4.0E-04	2.0E-05
7.0E-02	x	4.0E-02	i	3.5E-02	x	4.0E-02	r	y	108-60-1	Bis(2-chloroisopropyl)ether	2.9E+00	ca	7.4E+00	ca	1.9E-01	ca	2.7E-01	ca		
2.2E+02	i			2.2E+02	i			y	542-88-1	Bis(chloromethyl)ether	1.9E-04	ca	4.3E-04	ca	3.1E-05	ca	5.2E-05	ca		
7.0E-02	x	4.0E-02	i	3.5E-02	x	4.0E-02	r	y	108-60-1	Bis(2-chloro-1-methylethyl)ether	2.9E+00	ca	7.4E+00	ca	1.9E-01	ca	2.7E-01	ca		
1.4E-02	i	2.0E-02	i	1.4E-02	r	2.0E-02	r	0.1	117-81-7	Bis(2-ethylhexyl)phthalate (DEHP)	3.5E+01	ca*	1.2E+02	ca	4.8E-01	ca	4.8E+00	ca		
		5.0E-02	i			5.0E-02	r	0.1	80-05-7	Bisphenol A	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
		2.00E-01	i			5.7E-03	h		7440-42-8	Boron	1.6E+04	nc	1.0E+05	max	2.1E+01	nc	7.3E+03	nc		
						2.0E-04	h		7637-07-2	Boron trifluoride					7.3E-01	nc				
7.0E-01	i	4.0E-03	i	7.0E-01	r	4.0E-03	r	0.1	15541-45-4	**Bromate**	6.9E-01	ca	2.5E+00	ca	9.6E-03	ca	9.6E-02	ca		
		2.0E-02	p			2.9E-03	p	y	108-86-1	Bromobenzene	2.8E+01	nc	9.2E+01	nc	1.0E+01	nc	2.0E+01	nc		
6.2E-02	i	2.0E-02	i	6.2E-02	r	2.0E-02	r	y	75-27-4	Bromodichloromethane	8.2E-01	ca	1.8E+00	ca	1.1E-01	ca	1.8E-01	ca	6.0E-01	3.0E-02
7.9E-03	i	2.0E-02	i	3.9E-03	i	2.0E-02	r	0.1	75-25-2	Bromoform (tribromomethane)	6.2E+01	ca*	2.2E+02	ca*	1.7E+00	ca*	8.5E+00	ca*	8.0E-01	4.0E-02
		1.4E-03	i			1.4E-03	i	y	74-83-9	Bromomethane (Methyl bromide)	3.9E+00	nc	1.3E+01	nc	5.2E+00	nc	8.7E+00	nc	2.0E-01	1.0E-02
		5.0E-03	h			5.0E-03	r	0.1	2104-96-3	Bromophos	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
		2.0E-02	i			2.0E-02	r	0.1	1689-84-5	Bromoxynil	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		2.0E-02	i			2.0E-02	r	0.1	1689-99-2	Bromoxynil octanoate	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
1.1E-01	r	5.7E-04	r	1.1E-01	i	5.7E-04	i	y	106-99-0	**1,3-Butadiene**	5.8E-02	ca*	1.2E-01	ca*	6.1E-02	ca*	1.0E-01	ca*		
6.0E-01	r	5.7E-03	r	6.0E-01	c	5.7E-03	c	y	106-99-0	**"CAL-Modified PRG"**	1.1E-02	ca	2.3E-02	ca	1.1E-02	ca	1.9E-02	ca		
		1.0E-01	i			2.8E-03	n	0.1	71-36-3	1-Butanol	6.1E+03	nc	6.1E+04	nc	9.5E+00	nc	3.6E+03	nc	1.7E+01	9.0E-01
		5.0E-02	i			5.0E-02	r	0.1	2008-41-5	Butylate	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
		4.0E-02	n			4.0E-02	r	y	104-51-8	n-Butylbenzene	2.4E+02	sat	2.4E+02	sat	1.5E+02	nc	2.4E+02	nc		
		4.0E-02	n			4.0E-02	r	y	135-9-88	sec-Butylbenzene	2.2E+02	sat	2.2E+02	sat	1.5E+02	nc	2.4E+02	nc		
		4.0E-02	n			4.0E-02	r	y	98-06-6	tert-Butylbenzene	3.9E+02	sat	3.9E+02	sat	1.5E+02	nc	2.4E+02	nc		
		2.0E-01	i			2.0E-01	r	0.1	85-68-7	Butyl benzyl phthalate	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc	9.3E+02	8.1E+02
		1.0E+00	i			1.0E+00	r	0.1	85-70-1	Butylphthalyl butylglycolate	6.1E+04	nc	1.0E+05	max	3.7E+03	nc	3.6E+04	nc		

Key . SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide) DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES											CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin abs soils	CAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
		5.0E-04	x	6.3E+00	x				0.001	7440-43-9	Cadmium and compounds	3.7E+01	nc	4.5E+02	nc	1.1E-03	ca	1.8E+01	nc	8.0E+00	4.0E-01
		5.0E-01	i			5.0E-01	r		0.1	105-60-2	Caprolactam	3.1E+04	nc	1.0E+05	max	1.8E+03	nc	1.8E+04	nc		
8.6E-03	h	2.0E-03	i	8.6E-03	r	2.0E-03	r		0.1	2425-06-1	Captafol	5.7E+01	ca**	2.0E+02	ca**	7.8E-01	ca**	7.8E+00	ca**		
3.5E-03	h	1.3E-01	i	3.5E-03	r	1.3E-01	r		0.1	133-06-2	Captan	1.4E+02	ca*	4.9E+02	ca	1.9E+00	ca	1.9E+01	ca		
		1.0E-01	i			1.1E-01	r		0.1	63-25-2	Carbaryl	6.1E+03	nc	6.2E+04	nc	4.0E+02	nc	3.6E+03	nc		
2.0E-02	h			2.0E-02	r				0.1	86-74-8	Carbazole	2.4E+01	ca	8.6E+01	ca	3.4E-01	ca	3.4E+00	ca	6.0E-01	3.0E-02
		5.0E-03	i			5.0E-03	r		0.1	1563-66-2	Carbofuran	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
		1.0E-01	i			2.0E-01	i	y		75-15-0	Carbon disulfide	3.6E+02	nc	7.2E+02	sat	7.3E+02	nc	1.0E+03	nc	3.2E+01	2.0E+00
1.3E-01	i	7.0E-04	i	5.3E-02	i	7.0E-04	r	y		56-23-5	Carbon tetrachloride	2.5E-01	ca**	5.5E-01	ca*	1.3E-01	ca*	1.7E-01	ca*	7.0E-02	3.0E-03
		1.0E-02	i			1.0E-02	r		0.1	55285-14-8	Carbosulfan	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
		1.0E-01	i			1.0E-01	r		0.1	5234-68-4	Carboxin	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.6E+03	nc		
		1.5E-02	i			1.5E-02	r		0.1	133-90-4	Chloramben	9.2E+02	nc	9.2E+03	nc	5.5E+01	nc	5.5E+02	nc		
4.0E-01	h			4.0E-01	r				0.1	118-75-2	Chloranil	1.2E+00	ca	4.3E+00	ca	1.7E-02	ca	1.7E-01	ca		
3.5E-01	i	5.0E-04	i	3.5E-01	i	2.0E-04	i		0.04	12789-03-6	Chlordane (technical)	1.6E+00	ca*	6.5E+00	ca*	1.9E-02	ca*	1.9E-01	ca*	1.0E+01	5.0E-01
		2.0E-02	i			2.0E-02	r		0.1	90982-32-4	Chlorimuron-ethyl	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		1.0E-01	i			5.7E-05	n			7782-50-5	Chlorine					2.1E-01	nc				
		3.0E-02	i			5.7E-05	i			10049-04-4	Chlorine dioxide					2.1E-01	nc				
		2.0E-03	h			2.0E-03	r		0.1	79-11-8	Chloroacetic acid	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
		8.6E-06	r			8.6E-06	i	y		532-27-4	2-Chloroacetophenone	3.3E-02	nc	1.1E-01	nc	3.1E-02	nc	5.2E-02	nc		
		4.0E-03	i			4.0E-03	r		0.1	106-47-8	4-Chloroaniline	2.4E+02	nc	2.5E+03	nc	1.5E+01	nc	1.5E+02	nc	7.0E-01	3.0E-02
		2.0E-02	i			1.7E-02	n	y		108-90-7	Chlorobenzene	1.5E+02	nc	5.3E+02	nc	6.2E+01	nc	1.1E+02	nc	1.0E+00	7.0E-02
2.7E-01	h	2.0E-02	i	2.7E-01	h	2.0E-02	r		0.1	510-15-6	Chlorobenzilate	1.8E+00	ca	6.4E+00	ca	2.5E-02	ca	2.5E-01	ca		
		2.0E-01	h			2.0E-01	r		0.1	74-11-3	p-Chlorobenzoic acid	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc		
		2.0E-02	h			2.0E-02	r		0.1	98-56-6	4-Chlorobenzotrifluoride	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		2.0E-02	h			2.0E-03	h	y		126-99-8	2-Chloro-1,3-butadiene	3.6E+00	nc	1.2E+01	nc	7.3E+00	nc	1.4E+01	nc		
		4.0E-01	h			4.0E-01	r	y		109-69-3	1-Chlorobutane	4.8E+02	sat	4.8E+02	sat	1.5E+03	nc	2.4E+03	nc		
		1.4E+01	r			1.4E+01	i	y		75-68-3	1-Chloro-1,1-difluoroethane (HCFC-142b)	3.4E+02	sat	3.4E+02	sat	5.2E+04	nc	8.7E+04	nc		
		1.4E+01	r			1.4E+01	i	y		75-45-6	Chlorodifluoromethane	3.4E+02	sat	3.4E+02	sat	5.1E+04	nc	8.5E+04	nc		
2.9E-03	n	4.0E-01	n	2.9E-03	r	2.9E+00	i	y		75-00-3	Chloroethane	3.0E+00	ca	6.5E+00	ca	2.3E+00	ca	4.6E+00	ca		
		1.0E-02	i	8.1E-02	i	1.4E-02	n	y		67-66-3	**Chloroform**	2.2E-01	ca	4.7E-01	ca	8.3E-02	ca	1.7E-01	ca	6.0E-01	3.0E-02
3.1E-02	c			1.9E-02	c			y			"CAL-Modified PRG"	9.4E-01	ca	2.0E+00	ca	3.5E-01	ca	5.3E-01	ca		
		2.8E-02	r			2.6E-02	i	y		74-87-3	**Chloromethane (methyl chloride)**	4.7E+01	nc	1.6E+02	nc	9.5E+01	nc	1.6E+02	nc		
5.8E-01	h			5.8E-01	r				0.1	95-69-2	4-Chloro-2-methylaniline	8.4E-01	ca	3.0E+00	ca	1.2E-02	ca	1.2E-01	ca		
4.6E-01	h			4.6E-01	r				0.1	3165-93-3	4-Chloro-2-methylaniline hydrochloride	1.1E+00	ca	3.7E+00	ca	1.5E-02	ca	1.5E-01	ca		
		8.0E-02	i			8.0E-02	r	y		91-58-7	beta-Chloronaphthalene	4.9E+03	nc	2.3E+04	nc	2.9E+02	nc	4.9E+02	nc		
9.7E-03	p	1.0E-03	p	9.7E-03	r	2.0E-05	p	y		88-73-3	o-Chloronitrobenzene	1.4E+00	nc**	4.5E+00	nc**	7.3E-02	nc**	1.5E-01	nc**		
6.7E-03	p	1.0E-03	p	6.7E-03	r	1.7E-04	p	y		100-00-5	p-Chloronitrobenzene	1.0E+01	nc**	3.7E+01	nc**	6.2E-01	nc**	1.2E+00	nc**		
		5.0E-03	i			5.0E-03	r	y		95-57-8	2-Chlorophenol	6.3E+01	nc	2.4E+02	nc	1.8E+01	nc	3.0E+01	nc	4.0E+00	2.0E-01
		2.9E-02	r			2.9E-02	h	y		75-29-6	2-Chloropropane	1.7E+02	nc	5.9E+02	nc	1.0E+02	nc	1.7E+02	nc		
1.1E-02	h	1.5E-02	i	1.1E-02	r	1.5E-02	r		0.1	1897-45-6	Chlorothalonil	4.4E+01	ca*	1.6E+02	ca*	6.1E-01	ca*	6.1E+00	ca*		
		2.0E-02	i			2.0E-02	r	y		95-49-8	o-Chlorotoluene	1.6E+02	nc	5.6E+02	nc	7.3E+01	nc	1.2E+02	nc		
		2.0E-01	i			2.0E-01	r		0.1	101-21-3	Chlorpropham	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc		

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TOXICITY VALUES									CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin abs soils	CAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
		3.0E-03	i			3.0E-03	r		0.1	2921-88-2	Chlorpyrifos	1.8E+02	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc		
		1.0E-02	h			1.0E-02	r		0.1	5598-13-0	Chlorpyrifos-methyl	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
		5.0E-02	i			5.0E-02	r		0.1	64902-72-3	Chlorsulfuron	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
		8.0E-04	h			8.0E-04	r		0.1	60238-56-4	Chlorthiophos	4.9E+01	nc	4.9E+02	nc	2.9E+00	nc	2.9E+01	nc		
				4.2E+01	i						Total Chromium (1:6 ratio Cr VI:Cr III)+++	2.1E+02	ca	4.5E+02	ca	1.6E-04	ca			3.8E+01	2.0E+00
		1.5E+00	i							16065-83-1	Chromium III	1.0E+05	max	1.0E+05	max			5.5E+04	nc		
		3.0E-03	i	2.9E+02	i	2.2E-06	i			18540-29-9	Chromium VI+++	3.0E+01	ca**	6.4E+01	ca	2.3E-05	ca	1.1E+02	nc	3.8E+01	2.0E+00
		2.0E-02	p	9.8E+00	p	5.7E-06	p			7440-48-4	Cobalt	9.0E+02	ca**	1.9E+03	ca*	6.9E-04	ca*	7.3E+02	nc		
				2.2E+00	i					8007-45-2	Coke Oven Emissions					3.1E-03	ca				
		4.0E-02	h							7440-50-8	Copper and compounds	3.1E+03	nc	4.1E+04	nc			1.5E+03	nc		
1.9E+00	h			1.9E+00	r			y		123-73-9	Crotonaldehyde	5.3E-03	ca	1.1E-02	ca	3.5E-03	ca	5.9E-03	ca		
		1.0E-01	i			1.1E-01	i	y		98-82-8	Cumene (isopropylbenzene)	5.7E+02	nc	2.0E+03	nc	4.0E+02	nc	6.6E+02	nc		
8.4E-01	h	2.0E-03	h	8.4E-01	r	2.0E-03	r		0.1	21725-46-2	Cyanazine	5.8E-01	ca	2.1E+00	ca	8.0E-03	ca	8.0E-02	ca		
		2.0E-02	i						0.1	57-12-5	Cyanide (free)	1.2E+03	nc	1.2E+04	nc			7.3E+02	nc		
		2.0E-02	i			8.6E-04	i	y		74-90-8	Cyanide (hydrogen)	1.1E+01	nc	3.5E+01	nc	3.1E+00	nc	6.2E+00	nc		
		4.0E-02	i			4.0E-02	r	y		460-19-5	Cyanogen	1.3E+02	nc	4.3E+02	nc	1.5E+02	nc	2.4E+02	nc		
		9.0E-02	i			9.0E-02	r	y		506-68-3	Cyanogen bromide	2.9E+02	nc	9.7E+02	nc	3.3E+02	nc	5.5E+02	nc		
		5.0E-02	i			5.0E-02	r	y		506-77-4	Cyanogen chloride	1.6E+02	nc	5.4E+02	nc	1.8E+02	nc	3.0E+02	nc		
		1.7E+00	r			1.7E+00	i	y		110-82-7	**Cyclohexane**	1.4E+02	sat	1.4E+02	sat	6.2E+03	nc	1.0E+04	nc		
		5.0E+00	i			5.0E+00	r		0.1	108-94-1	Cyclohexanone	1.0E+05	max	1.0E+05	max	1.8E+04	nc	1.8E+05	nc		
		2.0E-01	i			2.0E-01	r		0.1	108-91-8	Cyclohexylamine	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc		
		5.0E-03	i			5.0E-03	r		0.1	68085-85-8	Cyhalothrin/Karate	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
		1.0E-02	i			1.0E-02	r		0.1	52315-07-8	Cypermethrin	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
		7.5E-03	i			7.5E-03	r		0.1	66215-27-8	Cyromazine	4.6E+02	nc	4.6E+03	nc	2.7E+01	nc	2.7E+02	nc		
		1.0E-02	i			1.0E-02	r		0.1	1861-32-1	Dacthal	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
		3.0E-02	i			3.0E-02	r		0.1	75-99-0	Dalapon	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc		
		2.5E-02	i			2.5E-02	r		0.1	39515-41-8	Danitol	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc		
2.4E-01	i			2.4E-01	r				0.03	72-54-8	DDD	2.4E+00	ca	1.0E+01	ca	2.8E-02	ca	2.8E-01	ca	1.6E+01	8.0E-01
3.4E-01	i			3.4E-01	r				0.03	72-55-9	DDE	1.7E+00	ca	7.0E+00	ca	2.0E-02	ca	2.0E-01	ca	5.4E+01	3.0E+00
3.4E-01	i	5.0E-04	i	3.4E-01	i	5.0E-04	r		0.03	50-29-3	DDT	1.7E+00	ca*	7.0E+00	ca*	2.0E-02	ca*	2.0E-01	ca*	3.2E+01	2.0E+00
		1.0E-02	i			1.0E-02	r		0.1	1163-19-5	Decabromodiphenyl ether	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
		4.0E-05	i			4.0E-05	r		0.1	8065-48-3	Demeton	2.4E+00	nc	2.5E+01	nc	1.5E-01	nc	1.5E+00	nc		
6.1E-02	h			6.1E-02	r				0.1	2303-16-4	Diallate	8.0E+00	ca	2.8E+01	ca	1.1E-01	ca	1.1E+00	ca		
		9.0E-04	h			9.0E-04	r		0.1	333-41-5	Diazinon	5.5E+01	nc	5.5E+02	nc	3.3E+00	nc	3.3E+01	nc		
		2.0E-03	n			2.0E-03	r	y		132-64-9	**Dibenzofuran**	1.5E+02	nc	1.6E+03	nc	7.3E+00	nc	1.2E+01	nc		
		1.0E-02	i			1.0E-02	r		0.1	106-37-6	1,4-Dibromobenzene	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
8.4E-02	i	2.0E-02	i	8.4E-02	r	2.0E-02	r	y		124-48-1	Dibromochloromethane	1.1E+00	ca	2.6E+00	ca	8.0E-02	ca	1.3E-01	ca	4.0E-01	2.0E-02
1.4E+00	h	5.7E-05	r	2.4E-03	x	5.7E-05	i	y		96-12-8	**1,2-Dibromo-3-chloropropane (DBCP)**	4.6E-01	ca**	2.0E+00	ca**	2.1E-01	nc	4.8E-02	ca**		
7.0E+00	c			7.0E+00	c			y		96-12-8	**"CAL-Modified PRG"**	3.0E-02	ca	7.6E-02	ca	9.6E-04	ca	1.6E-03	ca		
2.0E+00	i	9.0E-03	i	2.0E+00	i	2.6E-03	i	y		106-93-4	**1,2-Dibromoethane (EDB)**	3.2E-02	ca	7.3E-02	ca	3.4E-03	ca	5.6E-03	ca		
		1.0E-01	i			1.0E-01	r		0.1	84-74-2	Dibutyl phthalate	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.6E+03	nc	2.3E+03	2.7E+02
		3.0E-02	i			3.0E-02	r		0.1	1918-00-9	Dicamba	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc		

Key : SFo,I=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG ca* (where nc PRG < 100X ca PRG)
ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide) DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES										CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin abs. soils	CAS No.	Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
		9.0E-02	i			5.7E-02	h	y		95-50-1	**1,2-Dichlorobenzene**	6.0E+02	sat	6.0E+02	sat	2.1E+02	nc	3.7E+02	nc	1.7E+01	9.0E-01
		3.0E-02	n			3.0E-02	r	y		541-73-1	**1,3-Dichlorobenzene**	5.3E+02	nc	6.0E+02	sat	1.1E+02	nc	1.8E+02	nc		
2.4E-02	h	3.0E-02	n	2.2E-02	n	2.3E-01	i	y		106-46-7	1,4-Dichlorobenzene	3.4E+00	ca	7.9E+00	ca	3.1E-01	ca	5.0E-01	ca	2.0E+00	1.0E-01
4.5E-01	i			4.5E-01	r				0.1	91-94-1	3,3-Dichlorobenzidine	1.1E+00	ca	3.8E+00	ca	1.5E-02	ca	1.5E-01	ca	7.0E-03	3.0E-04
		3.0E-02	n			3.0E-02	r		0.1	90-98-2	4,4'-Dichlorobenzophenone	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc		
9.3E+00	r			9.3E+00	h			y		764-41-0	1,4-Dichloro-2-butene	7.9E-03	ca	1.8E-02	ca	7.2E-04	ca	1.2E-03	ca		
		2.0E-01	i			5.7E-02	h	y		75-71-8	Dichlorodifluoromethane	9.4E+01	nc	3.1E+02	nc	2.1E+02	nc	3.9E+02	nc		
		1.0E-01	h			1.4E-01	h	y		75-34-3	1,1-Dichloroethane	5.1E+02	nc	1.7E+03	nc	5.2E+02	nc	8.1E+02	nc	2.3E+01	1.0E+00
5.7E-03	c			5.7E-03	c			y			"CAL-Modified PRG"	2.8E+00	ca	6.0E+00	ca	1.2E+00	ca	2.0E+00	ca		
9.1E-02	i	2.0E-02	n	9.1E-02	i	1.4E-03	n	y		107-06-2	1,2-Dichloroethane (EDC)	2.8E-01	ca*	6.0E-01	ca*	7.4E-02	ca*	1.2E-01	ca*	2.0E-02	1.0E-03
		5.0E-02	i			5.7E-02	i	y		75-35-4	1,1-Dichloroethylene	1.2E+02	nc	4.1E+02	nc	2.1E+02	nc	3.4E+02	nc	6.0E-02	3.0E-03
		1.0E-02	p			1.0E-02	r	y		156-59-2	1,2-Dichloroethylene (cis)	4.3E+01	nc	1.5E+02	nc	3.7E+01	nc	6.1E+01	nc	4.0E-01	2.0E-02
		2.0E-02	i			2.0E-02	r	y		156-60-5	1,2-Dichloroethylene (trans)	6.9E+01	nc	2.3E+02	nc	7.3E+01	nc	1.2E+02	nc	7.0E-01	3.0E-02
		3.0E-03	i			3.0E-03	r		0.1	120-83-2	2,4-Dichlorophenol	1.8E+02	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc	1.0E+00	5.0E-02
		8.0E-03	i			8.0E-03	r		0.1	94-82-6	4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB)	4.9E+02	nc	4.9E+03	nc	2.9E+01	nc	2.9E+02	nc		
		1.0E-02	i			1.0E-02	r		0.05	94-75-7	2,4-Dichlorophenoxyacetic Acid (2,4-D)	6.9E+02	nc	7.7E+03	nc	3.7E+01	nc	3.6E+02	nc		
6.8E-02	h	1.1E-03	r	6.8E-02	r	1.1E-03	i	y		78-87-5	1,2-Dichloropropane	3.4E-01	ca*	7.4E-01	ca*	9.9E-02	ca*	1.6E-01	ca*	3.0E-02	1.0E-03
		2.0E-02	p			2.0E-02	r	y		142-28-9	**1,3-Dichloropropane**	1.0E+02	nc	3.6E+02	nc	7.3E+01	nc	1.2E+02	nc		
1.0E-01	i	3.0E-02	i	1.4E-02	i	5.7E-03	i	y		542-75-6	1,3-Dichloropropene	7.8E-01	ca	1.8E+00	ca	4.8E-01	ca	4.0E-01	ca	4.0E-03	2.0E-04
		3.0E-03	i			3.0E-03	r		0.1	616-23-9	2,3-Dichloropropanol	1.8E+02	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc		
2.9E-01	i	5.0E-04	i	2.9E-01	r	1.4E-04	i		0.1	62-73-7	Dichlorvos	1.7E+00	ca*	5.9E+00	ca*	2.3E-02	ca*	2.3E-01	ca*		
4.4E-01	x			4.4E-01	r				0.1	115-32-2	Dicofol	1.1E+00	ca	3.9E+00	ca	1.5E-02	ca	1.5E-01	ca		
		3.0E-02	h			5.7E-05	x	y		77-73-6	Dicyclopentadiene	5.4E-01	nc	1.8E+00	nc	2.1E-01	nc	4.2E-01	nc		
1.6E+01	i	5.0E-05	i	1.6E+01	i	5.0E-05	r		0.1	60-57-1	Dieldrin	3.0E-02	ca	1.1E-01	ca	4.2E-04	ca	4.2E-03	ca	4.0E-03	2.0E-04
		1.0E-02	p			5.7E-03	p		0.1	112-34-5	Diethylene glycol, monobutyl ether	6.1E+02	nc	6.2E+03	nc	2.1E+01	nc	3.6E+02	nc		
		6.0E-02	p			8.6E-04	p		0.1	111-90-0	Diethylene glycol, monoethyl ether	3.7E+03	nc	3.7E+04	nc	3.1E+00	nc	2.2E+03	nc		
		4.0E-04	p			4.0E-04	r		0.1	617-84-5	Diethylformamide	2.4E+01	nc	2.5E+02	nc	1.5E+00	nc	1.5E+01	nc		
1.2E-03	i	6.0E-01	i	1.2E-03	r	6.0E-01	r		0.1	103-23-1	Di(2-ethylhexyl)adipate	4.1E+02	ca	1.4E+03	ca	5.6E+00	ca	5.6E+01	ca		
		8.0E-01	i			8.0E-01	r		0.1	84-68-2	Diethyl phthalate	4.9E+04	nc	1.0E+05	max	2.9E+03	nc	2.9E+04	nc		
4.7E+03	h			4.7E+03	r				0.1	56-53-1	Diethylstilbestrol	1.0E-04	ca	3.7E-04	ca	1.4E-06	ca	1.4E-05	ca		
		8.0E-02	i			8.0E-02	r		0.1	43222-48-6	Difenzoquat (Avenge)	4.9E+03	nc	4.9E+04	nc	2.9E+02	nc	2.9E+03	nc		
		2.0E-02	i			2.0E-02	r		0.1	35367-38-5	Diflubenzuron	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		1.1E+01	r			1.1E+01	i	y		75-37-6	1,1-Difluoroethane					4.2E+04	nc	6.9E+04	nc		
		2.0E-02	n			2.0E-02	r		0.1	28553-12-0	Diisononyl phthalate	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
						1.1E-01	p			108-20-3	**Diisopropyl ether**					4.0E+02	nc				
		8.0E-02	i			8.0E-02	r		0.1	1445-75-6	Diisopropyl methylphosphonate	4.9E+03	nc	4.9E+04	nc	2.9E+02	nc	2.9E+03	nc		
		2.0E-02	i			2.0E-02	r		0.1	55290-64-7	Dimethipin	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		2.0E-04	i			2.0E-04	r		0.1	60-51-5	Dimethoate	1.2E+01	nc	1.2E+02	nc	7.3E-01	nc	7.3E+00	nc		
1.4E-02	h			1.4E-02	r				0.1	119-90-4	3,3'-Dimethoxybenzidine	3.5E+01	ca	1.2E+02	ca	4.8E-01	ca	4.8E+00	ca		
		5.7E-06	r			5.7E-06	x	y		124-40-3	Dimethylamine	6.7E-02	nc	2.5E-01	nc	2.1E-02	nc	3.5E-02	nc		
		2.0E-03	i			2.0E-03	r		0.1	121-69-7	N-N-Dimethylaniline	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
7.5E-01	h			7.5E-01	r				0.1	95-68-1	2,4-Dimethylaniline	6.5E-01	ca	2.3E+00	ca	9.0E-03	ca	9.0E-02	ca		

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ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide) DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES								CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)		SFi 1/(mg/kg-d)	RfDi (mg/kg-d)		V O C	skin abs. soils	CAS No.	Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
5.8E-01	h		5.8E-01	r			0.1	21436-96-4	2,4-Dimethylaniline hydrochloride	8.4E-01	ca	3.0E+00	ca	1.2E-02	ca	1.2E-01	ca	
2.3E+00	p		2.3E+00	r			0.1	119-93-7	**3,3'-Dimethylbenzidine**	2.1E-01	ca	7.5E-01	ca	2.9E-03	ca	2.9E-02	ca	
	1.0E-01	h		8.6E-03	i		0.1	68-12-2	N,N-Dimethylformamide	6.1E+03	nc	6.2E+04	nc	3.1E+01	nc	3.6E+03	nc	
	1.0E-03	n		1.0E-03	r		0.1	122-09-8	Dimethylphenethylamine	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc	
	2.0E-02	i		2.0E-02	r		0.1	105-67-9	2,4-Dimethylphenol	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc	9.0E+00 4.0E-01
	6.0E-04	i		6.0E-04	r		0.1	576-26-1	2,6-Dimethylphenol	3.7E+01	nc	3.7E+02	nc	2.2E+00	nc	2.2E+01	nc	
	1.0E-03	i		1.0E-03	r		0.1	95-65-8	3,4-Dimethylphenol	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc	
	1.0E+01	h		1.0E+01	r		0.1	131-11-3	Dimethyl phthalate	1.0E+05	max	1.0E+05	max	3.7E+04	nc	3.6E+05	nc	
	1.0E-01	i		1.0E-01	r		0.1	120-61-6	Dimethyl terephthalate	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.6E+03	nc	
	1.0E-04	p		1.0E-04	r		0.1	534-52-1	**4,6-Dinitro-o-cresol**	6.1E+00	nc	6.2E+01	nc	3.7E-01	nc	3.6E+00	nc	
	2.0E-03	i		2.0E-03	r		0.1	131-89-5	4,6-Dinitro-o-cyclohexyl phenol	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc	
	1.0E-04	p		1.0E-04	r		0.1	528-29-0	1,2-Dinitrobenzene	6.1E+00	nc	6.2E+01	nc	3.7E-01	nc	3.6E+00	nc	
	1.0E-04	i		1.0E-04	r		0.1	99-65-0	1,3-Dinitrobenzene	6.1E+00	nc	6.2E+01	nc	3.7E-01	nc	3.6E+00	nc	
	1.0E-04	p		1.0E-04	r		0.1	100-25-4	1,4-Dinitrobenzene	6.1E+00	nc	6.2E+01	nc	3.7E-01	nc	3.6E+00	nc	
	2.0E-03	i		2.0E-03	r		0.1	51-28-5	2,4-Dinitrophenol	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc	3.0E-01 1.0E-02
6.8E-01	i		6.8E-01	r			0.1	25321-14-6	Dinitrotoluene mixture	7.2E-01	ca	2.5E+00	ca	9.9E-03	ca	9.9E-02	ca	8.0E-04 4.0E-05
	2.0E-03	i		2.0E-03	r		0.1	121-14-2	2,4-Dinitrotoluene (also see Dinitrotoluene mixture)	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc	8.0E-04 4.0E-05
	1.0E-03	h		1.0E-03	r		0.1	606-20-2	2,6-Dinitrotoluene (also see Dinitrotoluene mixture)	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc	7.0E-04 3.0E-05
	1.0E-03	i		1.0E-03	r		0.1	88-85-7	Dinoseb	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc	
	4.0E-02	p		4.0E-02	r		0.1	117-84-0	di-n-Octyl phthalate	2.4E+03	nc	2.5E+04	nc	1.5E+02	nc	1.5E+03	nc	1.0E+04 1.0E+04
1.1E-02	i		1.1E-02	r			0.1	123-91-1	1,4-Dioxane	4.4E+01	ca	1.6E+02	ca	6.1E-01	ca	6.1E+00	ca	
1.5E+05	h		1.5E+05	h			0.03	1746-01-6	Dioxin (2,3,7,8-TCDD)+++	3.9E-06	ca	1.6E-05	ca	4.5E-08	ca	4.5E-07	ca	
	3.0E-02	i		3.0E-02	r		0.1	957-51-7	Diphenamid	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc	
	2.5E-02	i		2.5E-02	r		0.1	122-39-4	Diphenylamine	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc	
	3.0E-04	p		3.0E-04	r		0.1	74-31-7	N,N-Diphenyl-1,4 benzenediamine (DPPD)	1.8E+01	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc	
8.0E-01	i		8.0E-01	i			0.1	122-66-7	1,2-Diphenylhydrazine	6.1E-01	ca	2.2E+00	ca	8.4E-03	ca	8.4E-02	ca	
	3.0E-03	p		3.0E-03	r		0.1	127-63-9	Diphenyl sulfone	1.8E+02	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc	
	2.2E-03	i		2.2E-03	r		0.1	85-00-7	Diquat	1.3E+02	nc	1.4E+03	nc	8.0E+00	nc	8.0E+01	nc	
8.6E+00	h		8.6E+00	r			0.1	1937-37-7	Direct black 38	5.7E-02	ca	2.0E-01	ca	7.8E-04	ca	7.8E-03	ca	
8.1E+00	h		8.1E+00	r			0.1	2602-46-2	Direct blue 6	6.0E-02	ca	2.1E-01	ca	8.3E-04	ca	8.3E-03	ca	
9.3E+00	h		9.3E+00	r			0.1	16071-86-6	Direct brown 95	5.2E-02	ca	1.9E-01	ca	7.2E-04	ca	7.2E-03	ca	
	4.0E-05	i		4.0E-05	r		0.1	298-04-4	Disulfoton	2.4E+00	nc	2.5E+01	nc	1.5E-01	nc	1.5E+00	nc	
	1.0E-02	i		1.0E-02	r		0.1	505-29-3	1,4-Dithiane	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc	
	2.0E-03	i		2.0E-03	r		0.1	330-54-1	Diuron	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc	
	4.0E-03	i		4.0E-03	r		0.1	2439-10-3	Dodine	2.4E+02	nc	2.5E+03	nc	1.5E+01	nc	1.5E+02	nc	
	1.0E-01	n						7429-91-6	Dysprosium	7.8E+03	nc	1.0E+05	max			3.6E+03	nc	
	6.0E-03	i		6.0E-03	r		0.1	115-29-7	Endosulfan	3.7E+02	nc	3.7E+03	nc	2.2E+01	nc	2.2E+02	nc	1.8E+01 9.0E-01
	2.0E-02	i		2.0E-02	r		0.1	145-73-3	Endothall	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc	
	3.0E-04	i		3.0E-04	r		0.1	72-20-8	Endrin	1.8E+01	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc	1.0E+00 5.0E-02
9.9E-03	i 2.0E-03	h	4.2E-03	h 2.9E-04	i	y		106-89-8	Epichlorohydrin	7.6E+00	nc	2.6E+01	nc	1.0E+00	nc	2.0E+00	nc	

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TOXICITY VALUES									CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin abs. soils	CAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
8.00E-02	r			8.00E-02	c			y			**"CAL-Modified PRG"**	1.3E+00	nc	2.9E+00	nc	8.4E-02	nc	1.4E-01	nc		
		5.7E-03	r			5.7E-03	i		0.1	106-88-7	1,2-Epoxybutane	3.5E+02	nc	3.5E+03	nc	2.1E+01	nc	2.1E+02	nc		
		2.5E-02	i			2.5E-02	r		0.1	759-94-4	EPTC (S-Ethyl dipropylthiocarbamate)	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc		
		5.0E-03	i			5.0E-03	r		0.1	16672-87-0	Ethephon (2-chloroethyl phosphonic acid)	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
		5.0E-04	i			5.0E-04	r		0.1	563-12-2	Ethion	3.1E+01	nc	3.1E+02	nc	1.8E+00	nc	1.8E+01	nc		
		4.0E-01	h			5.7E-02	i		0.1	110-80-5	2-Ethoxyethanol	2.4E+04	nc	1.0E+05	max	2.1E+02	nc	1.5E+04	nc		
		3.0E-01	h			3.0E-01	r		0.1	111-15-9	2-Ethoxyethanol acetate	1.8E+04	nc	1.0E+05	max	1.1E+03	nc	1.1E+04	nc		
		9.0E-01	i			9.0E-01	r	y		141-78-6	Ethyl acetate	1.9E+04	nc	3.7E+04	sat	3.3E+03	nc	5.5E+03	nc		
4.8E-02	h			4.8E-02	r			y		140-88-5	Ethyl acrylate	2.1E-01	ca	4.5E-01	ca	1.4E-01	ca	2.3E-01	ca		
		1.0E-01	i			2.9E-01	i	y		100-41-4	**Ethylbenzene**	4.0E+02	sat	4.0E+02	sat	1.1E+03	nc	1.3E+03	nc	1.3E+01	7.0E-01
2.9E-03	n	4.0E-01	n	2.9E-03	r	2.9E+00	i	y		75-00-3	Ethyl chloride	3.0E+00	ca	6.5E+00	ca	2.3E+00	ca	4.6E+00	ca		
		3.0E-01	h			3.0E-01	r		0.1	109-78-4	Ethylene cyanohydrin	1.8E+04	nc	1.0E+05	max	1.1E+03	nc	1.1E+04	nc		
		9.0E-02	p			9.0E-02	r		0.1	107-15-3	**Ethylene diamine**	5.5E+03	nc	5.5E+04	nc	3.3E+02	nc	3.3E+03	nc		
		2.0E+00	i			2.0E+00	r		0.1	107-21-1	Ethylene glycol	1.0E+05	max	1.0E+05	max	7.3E+03	nc	7.3E+04	nc		
		5.0E-01	i			3.7E+00	i		0.1	111-76-2	Ethylene glycol, monobutyl ether	3.1E+04	nc	1.0E+05	max	1.4E+04	nc	1.8E+04	nc		
1.0E+00	h			3.5E-01	h			y		75-21-8	Ethylene oxide	1.4E-01	ca	3.4E-01	ca	1.9E-02	ca	2.4E-02	ca		
1.1E-01	h	8.0E-05	i	1.1E-01	r	8.0E-05	r		0.1	96-45-7	Ethylene thiourea (ETU)	4.4E+00	ca**	1.6E+01	ca**	6.1E-02	ca**	6.1E-01	ca**		
		2.0E-01	i			2.0E-01	r	y		60-29-7	Ethyl ether	1.8E+03	sat	1.8E+03	sat	7.3E+02	nc	1.2E+03	nc		
		9.0E-02	h			9.0E-02	r	y		97-63-2	Ethyl methacrylate	1.4E+02	sat	1.4E+02	sat	3.3E+02	nc	5.5E+02	nc		
		1.0E-05	i			1.0E-05	r		0.1	2104-64-5	Ethyl p-nitrophenyl phenylphosphorothioate	6.1E-01	nc	6.2E+00	nc	3.7E-02	nc	3.6E-01	nc		
		3.0E+00	i			3.0E+00	r		0.1	84-72-0	Ethylphthalyl ethyl glycolate	1.0E+05	max	1.0E+05	max	1.1E+04	nc	1.1E+05	nc		
		8.0E-03	i			8.0E-03	r		0.1	101200-48-0	Express	4.9E+02	nc	4.9E+03	nc	2.9E+01	nc	2.9E+02	nc		
		2.5E-04	i			2.5E-04	r		0.1	22224-92-6	Fenamiphos	1.5E+01	nc	1.5E+02	nc	9.1E-01	nc	9.1E+00	nc		
		1.3E-02	i			1.3E-02	r		0.1	2164-17-2	Fluometuron	7.9E+02	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc		
		6.0E-02	i						0.1	16984-48-8	Fluorine (soluble fluoride)	3.7E+03	nc	3.7E+04	nc			2.2E+03	nc		
		8.0E-02	i			8.0E-02	r		0.1	59756-60-4	Fluoridone	4.9E+03	nc	4.9E+04	nc	2.9E+02	nc	2.9E+03	nc		
		2.0E-02	i			2.0E-02	r		0.1	56425-91-3	Flurprimidol	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		6.0E-02	i			6.0E-02	r		0.1	85332-96-5	Flutolanil	3.7E+03	nc	3.7E+04	nc	2.2E+02	nc	2.2E+03	nc		
		1.0E-02	i			1.0E-02	r		0.1	69409-94-5	Fluvalinate	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
3.5E-03	i	1.0E-01	i	3.5E-03	r	1.0E-01	r		0.1	133-07-3	Folpet	1.4E+02	ca*	4.9E+02	ca	1.9E+00	ca	1.9E+01	ca		
1.9E-01	i			1.9E-01	r				0.1	72178-02-0	Fomesafen	2.6E+00	ca	9.1E+00	ca	3.5E-02	ca	3.5E-01	ca		
		2.0E-03	i			2.0E-03	r		0.1	944-22-9	Fonofos	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
		1.5E-01	i	4.6E-02	i				0.1	50-00-0	Formaldehyde	9.2E+03	nc	1.0E+05	nc	1.5E-01	ca	5.5E+03	nc		
		2.0E+00	h			8.6E-04	p		0.1	64-18-6	**Formic Acid**	1.0E+05	max	1.0E+05	max	3.1E+00	nc	7.3E+04	nc		
		3.0E+00	i			3.0E+00	r		0.1	39148-24-8	Fosetyl-al	1.0E+05	max	1.0E+05	max	1.1E+04	nc	1.1E+05	nc		
		3.0E+01	i			8.6E+00	h	y		76-13-1	Freon 113	5.6E+03	sat	5.6E+03	sat	3.1E+04	nc	5.9E+04	nc		
		1.0E-03	i			1.0E-03	r	y		110-00-9	Furan	2.5E+00	nc	8.5E+00	nc	3.7E+00	nc	6.1E+00	nc		
3.8E+00	h			3.8E+00	r				0.1	67-45-8	Furazolidone	1.3E-01	ca	4.5E-01	ca	1.8E-03	ca	1.8E-02	ca		
		3.0E-03	i			1.4E-02	h		0.1	98-01-1	Furfural	1.8E+02	nc	1.8E+03	nc	5.2E+01	nc	1.1E+02	nc		
5.0E+01	h			5.0E+01	r				0.1	531-82-8	Furium	9.7E-03	ca	3.4E-02	ca	1.3E-04	ca	1.3E-03	ca		
3.0E-02	i			3.0E-02	r				0.1	60568-05-0	Furmecyclox	1.6E+01	ca	5.7E+01	ca	2.2E-01	ca	2.2E+00	ca		
		4.0E-04	i			4.0E-04	r		0.1	77182-82-2	Glufosinate-ammonium	2.4E+01	nc	2.5E+02	nc	1.5E+00	nc	1.5E+01	nc		

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TOXICITY VALUES									CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin abs. soils	CAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
		4.0E-04	i			2.9E-04	h		0.1	765-34-4	Glycidaldehyde	2.4E+01	nc	2.5E+02	nc	1.0E+00	nc	1.5E+01	nc		
		1.0E-01	i			1.0E-01	r		0.1	1071-83-6	Glyphosate	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.6E+03	nc		
		5.0E-05	i			5.0E-05	r		0.1	69806-40-2	Haloxyfop-methyl	3.1E+00	nc	3.1E+01	nc	1.8E-01	nc	1.8E+00	nc		
		1.3E-02	i			1.3E-02	r		0.1	79277-27-3	Harmony	7.9E+02	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc		
4.5E+00	i	5.0E-04	i	4.6E+00	i	5.0E-04	r		0.1	76-44-8	Heptachlor	1.1E-01	ca	3.8E-01	ca	1.5E-03	ca	1.5E-02	ca	2.3E+01	1.0E+00
9.1E+00	i	1.3E-05	i	9.1E+00	i	1.3E-05	r		0.1	1024-57-3	Heptachlor epoxide	5.3E-02	ca*	1.9E-01	ca*	7.4E-04	ca*	7.4E-03	ca*	7.0E-01	3.0E-02
		2.0E-03	i			2.0E-03	r		0.1	87-82-1	Hexabromobenzene	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
1.6E+00	i	8.0E-04	i	1.6E+00	i	8.0E-04	r		0.1	118-74-1	Hexachlorobenzene	3.0E-01	ca	1.1E+00	ca	4.2E-03	ca	4.2E-02	ca	2.0E+00	1.0E-01
7.8E-02	i	3.0E-04	n	7.8E-02	i	3.0E-04	r		0.1	87-68-3	Hexachlorobutadiene	6.2E+00	ca**	2.2E+01	ca**	8.6E-02	ca*	8.6E-01	ca*	2.0E+00	1.0E-01
6.3E+00	i	5.0E-04	n	6.3E+00	i	5.0E-04	r		0.04	319-84-6	HCH (alpha)	9.0E-02	ca	3.6E-01	ca	1.1E-03	ca	1.1E-02	ca	5.0E-04	3.0E-05
1.8E+00	i	2.0E-04	n	1.8E+00	i	2.0E-04	r		0.04	319-85-7	HCH (beta)	3.2E-01	ca	1.3E+00	ca	3.7E-03	ca	3.7E-02	ca	3.0E-03	1.0E-04
1.3E+00	h	3.0E-04	i	1.3E+00	r	3.0E-04	r		0.04	58-89-9	HCH (gamma) Lindane	4.4E-01	ca*	1.7E+00	ca	5.2E-03	ca	5.2E-02	ca	9.0E-03	5.0E-04
1.8E+00	i			1.8E+00	i				0.04	608-73-1	HCH-technical	3.2E-01	ca	1.3E+00	ca	3.8E-03	ca	3.7E-02	ca	3.0E-03	1.0E-04
		6.0E-03	i			5.7E-05	i		0.1	77-47-4	Hexachlorocyclopentadiene	3.7E+02	nc	3.7E+03	nc	2.1E-01	nc	2.2E+02	nc	4.0E+02	2.0E+01
1.4E-02	i	1.0E-03	i	1.4E-02	i	1.0E-03	r		0.1	67-72-1	Hexachloroethane	3.5E+01	ca**	1.2E+02	ca**	4.8E-01	ca**	4.8E+00	ca**	5.0E-01	2.0E-02
		3.0E-04	i			3.0E-04	r		0.1	70-30-4	Hexachlorophene	1.8E+01	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc		
1.1E-01	i	3.0E-03	i	1.1E-01	r	3.0E-03	r		0.1	121-82-4	Hexahydro-1,3,5-trinitro-1,3,5-triazine	4.4E+00	ca*	1.6E+01	ca	6.1E-02	ca	6.1E-01	ca		
		2.9E-06	r			2.9E-06	i		0.1	822-06-0	1,6-Hexamethylene diisocyanate	1.7E-01	nc	1.8E+00	nc	1.0E-02	nc	1.0E-01	nc		
		1.1E+01	p			5.7E-02	i	y		110-54-3	**n-Hexane**	1.1E+02	sat	1.1E+02	sat	2.1E+02	nc	4.2E+02	nc		
		3.3E-02	i			3.3E-02	r		0.1	51235-04-2	Hexazinone	2.0E+03	nc	2.0E+04	nc	1.2E+02	nc	1.2E+03	nc		
		5.0E-02	i			5.0E-02	r		0.1	2691-41-0	HMX	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
3.0E+00	i			1.7E+01	i				0.1	302-01-2	Hydrazine, hydrazine sulfate	1.6E-01	ca	5.7E-01	ca	3.9E-04	ca	2.2E-02	ca		
3.0E+00	n			1.7E+01	n				0.1	60-34-4	Hydrazine, monomethyl	1.6E-01	ca	5.7E-01	ca	4.0E-04	ca	2.2E-02	ca		
3.0E+00	n			1.7E+01	n				0.1	57-14-7	Hydrazine, dimethyl	1.6E-01	ca	5.7E-01	ca	4.0E-04	ca	2.2E-02	ca		
						5.7E-03	i			7647-01-0	Hydrogen chloride					2.1E+01	nc				
		2.0E-02	i			8.6E-04	i	y		74-90-8	Hydrogen cyanide	1.1E+01	nc	3.5E+01	nc	3.1E+00	nc	6.2E+00	nc		
		3.0E-03	i			2.9E-04	i			7783-06-4	Hydrogen sulfide					1.0E+00	nc	1.1E+02	nc		
5.6E-02	p	4.0E-02	p	5.6E-02	r	4.0E-02	r		0.1	123-31-9	**p-Hydroquinone**	8.7E+00	ca	3.1E+01	ca	1.2E-01	ca	1.2E+00	ca		
		1.3E-02	i			1.3E-02	r		0.1	35554-44-0	Imazalil	7.9E+02	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc		
		2.5E-01	i			2.5E-01	r		0.1	81335-37-7	Imazaquin	1.5E+04	nc	1.0E+05	max	9.1E+02	nc	9.1E+03	nc		
		4.0E-02	i			4.0E-02	r		0.1	36734-19-7	Iprodione	2.4E+03	nc	2.5E+04	nc	1.5E+02	nc	1.5E+03	nc		
		3.0E-01	n							7439-89-6	Iron	2.3E+04	nc	1.0E+05	max			1.1E+04	nc		
		3.0E-01	i			3.0E-01	r	y		78-83-1	Isobutanol	1.3E+04	nc	4.0E+04	sat	1.1E+03	nc	1.8E+03	nc		
9.5E-04	i	2.0E-01	i	9.5E-04	r	2.0E-01	r		0.1	78-59-1	Isophorone	5.1E+02	ca*	5.1E+02	ca*	7.1E+00	ca	7.1E+01	ca	5.0E-01	3.0E-02
		1.5E-02	i			1.5E-02	r		0.1	33820-53-0	Isopropalin	9.2E+02	nc	9.2E+03	nc	5.5E+01	nc	5.5E+02	nc		
		1.0E-01	i			1.1E-01	r		0.1	1832-54-8	Isopropyl methyl phosphonic acid	6.1E+03	nc	6.2E+04	nc	4.0E+02	nc	3.6E+03	nc		
		5.0E-02	i			5.0E-02	r		0.1	82558-50-7	Isoxaben	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
8.0E+00	p	2.0E-04	p	8.0E+00	r	2.0E-04	r		0.1	143-50-0	Kepone	6.1E-02	ca	2.2E-01	ca	8.4E-04	ca	8.4E-03	ca		
		2.0E-03	i			2.0E-03	r		0.1	77501-63-4	Lactofen	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
www.epa.gov/superfund/programs/lead/leadbk.htm										7439-92-1	**Lead+++**	4.0E+02	nc	8.0E+02	nc						
www.dtsc.ca.gov/ScienceTechnology/ledspred.html											"CAL-Modified PRG"+++	1.5E+02	nc								
		1.0E-07	i						0.1	78-00-2	Lead (tetraethyl)	6.1E-03	nc	6.2E-02	nc			3.6E-03	nc		

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TOXICITY VALUES										CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin abs. soils	CAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
		2.0E-03	i			2.0E-03	r		0.1	330-55-2	Linuron	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
		2.0E-02	x							7439-93-2	Lithium	1.6E+03	nc	2.0E+04	nc			7.3E+02	nc		
		2.0E-01	i			2.0E-01	r		0.1	83055-99-6	Londax	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc		
		2.0E-02	i			2.0E-02	r		0.1	121-75-5	Malathion	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		1.0E-01	i			1.0E-01	r		0.1	108-31-6	Maleic anhydride	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.6E+03	nc		
		5.0E-01	i			5.0E-01	r	y		123-33-1	Maleic hydrazide	1.7E+03	nc	2.4E+03	sat	1.8E+03	nc	3.0E+03	nc		
		1.0E-04	p			1.0E-04	r		0.1	109-77-3	**Malononitrile**	6.1E+00	nc	6.2E+01	nc	3.7E-01	nc	3.6E+00	nc		
		3.0E-02	h			3.0E-02	r		0.1	8018-01-7	Mancozeb	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc		
6.0E-02	o	5.0E-03	i	6.0E-02	r	5.0E-03	r		0.1	12427-38-2	Maneb	8.1E+00	ca*	2.9E+01	ca	1.1E-01	ca	1.1E+00	ca		
		2.4E-02	i			1.4E-05	i			7439-96-5	Manganese and compounds+++	1.8E+03	nc	1.9E+04	nc	5.1E-02	nc	8.8E+02	nc		
		9.0E-05	h			9.0E-05	r		0.1	950-10-7	Mephosfolan	5.5E+00	nc	5.5E+01	nc	3.3E-01	nc	3.3E+00	nc		
		3.0E-02	i			3.0E-02	r		0.1	24307-26-4	Mepiquat chloride	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc		
2.9E-02	n	1.0E-01	n	2.9E-02	r	1.0E-01	r		0.1	149-30-4	2-Mercaptobenzothiazole	1.7E+01	ca	5.9E+01	ca	2.3E-01	ca	2.3E+00	ca		
		3.0E-04	i							7487-94-7	Mercury and compounds	2.3E+01	nc	3.1E+02	nc			1.1E+01	nc		
						8.6E-05	i			7439-97-6	Mercury (elemental)					3.1E-01	nc				
		1.0E-04	i						0.1	22967-92-6	Mercury (methyl)	6.1E+00	nc	6.2E+01	nc			3.6E+00	nc		
		3.0E-05	i			3.0E-05	r		0.1	150-50-5	Merphos	1.8E+00	nc	1.8E+01	nc	1.1E-01	nc	1.1E+00	nc		
		3.0E-05	i			3.0E-05	r		0.1	78-48-8	Merphos oxide	1.8E+00	nc	1.8E+01	nc	1.1E-01	nc	1.1E+00	nc		
		6.0E-02	i			6.0E-02	r		0.1	57837-19-1	Metalaxyl	3.7E+03	nc	3.7E+04	nc	2.2E+02	nc	2.2E+03	nc		
		1.0E-04	i			2.0E-04	h	y		126-98-7	Methacrylonitrile	2.1E+00	nc	8.4E+00	nc	7.3E-01	nc	1.0E+00	nc		
		5.0E-05	i			5.0E-05	r		0.1	10265-92-6	Methamidophos	3.1E+00	nc	3.1E+01	nc	1.8E-01	nc	1.8E+00	nc		
		5.0E-01	i			5.0E-01	r		0.1	67-56-1	Methanol	3.1E+04	nc	1.0E+05	max	1.8E+03	nc	1.8E+04	nc		
		1.0E-03	i			1.0E-03	r		0.1	950-37-8	Methidathion	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc		
		2.5E-02	i			2.5E-02	r	y		16752-77-5	Methomyl	4.4E+01	nc	1.5E+02	nc	9.1E+01	nc	1.5E+02	nc		
		5.0E-03	i			5.0E-03	r		0.1	72-43-5	Methoxychlor	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc	1.6E+02	8.0E+00
		1.0E-03	h			5.7E-03	i		0.1	109-86-4	2-Methoxyethanol	6.1E+01	nc	6.2E+02	nc	2.1E+01	nc	3.6E+01	nc		
		2.0E-03	h			2.0E-03	r		0.1	110-49-6	2-Methoxyethanol acetate	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
4.6E-02	h			4.6E-02	r				0.1	99-59-2	2-Methoxy-5-nitroaniline	1.1E+01	ca	3.7E+01	ca	1.5E-01	ca	1.5E+00	ca		
		1.0E+00	h			1.0E+00	r	y		79-20-9	Methyl acetate	2.2E+04	nc	9.2E+04	nc	3.7E+03	nc	6.1E+03	nc		
		3.0E-02	h			3.0E-02	r	y		96-33-3	Methyl acrylate	7.0E+01	nc	2.3E+02	nc	1.1E+02	nc	1.8E+02	nc		
2.4E-01	h			2.4E-01	r				0.1	95-53-4	2-Methylaniline (o-toluidine)	2.0E+00	ca	7.2E+00	ca	2.8E-02	ca	2.8E-01	ca		
1.8E-01	h			1.8E-01	r				0.1	636-21-5	2-Methylaniline hydrochloride	2.7E+00	ca	9.6E+00	ca	3.7E-02	ca	3.7E-01	ca		
		5.0E-04	i			5.0E-04	r		0.1	94-74-6	2-Methyl-4-chlorophenoxyacetic acid	3.1E+01	nc	3.1E+02	nc	1.8E+00	nc	1.8E+01	nc		
		1.0E-02	i			1.0E-02	r		0.1	94-81-5	4-(2-Methyl-4-chlorophenoxy) butyric acid	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
		1.0E-03	i			1.0E-03	r		0.1	93-65-2	2-(2-Methyl-4-chlorophenoxy) propionic acid	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc		
		1.0E-03	i			1.0E-03	r		0.1	16484-77-8	2-(2-Methyl-1,4-chlorophenoxy) propionic acid	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc		
		8.6E-01	r			8.6E-01	h	y		108-87-2	Methylcyclohexane	2.6E+03	nc	8.7E+03	nc	3.1E+03	nc	5.2E+03	nc		
2.5E-01	h			2.5E-01	r				0.1	101-77-9	4,4'-Methylenebisbenzeneamine	1.9E+00	ca	6.9E+00	ca	2.7E-02	ca	2.7E-01	ca		
1.3E-01	h	7.0E-04	h	1.3E-01	h	7.0E-04	r		0.1	101-14-4	4,4'-Methylene bis(2-chloroaniline)	3.7E+00	ca*	1.3E+01	ca*	5.2E-02	ca*	5.2E-01	ca*		
4.6E-02	i			4.6E-02	r				0.1	101-61-1	4,4'-Methylene bis(N,N'-dimethyl)aniline	1.1E+01	ca	3.7E+01	ca	1.5E-01	ca	1.5E+00	ca		
		1.0E-02	h			1.0E-02	r	y		74-95-3	Methylene bromide	6.7E+01	nc	2.3E+02	nc	3.7E+01	nc	6.1E+01	nc		
7.5E-03	i	6.0E-02	i	1.6E-03	i	8.6E-01	h	y		75-09-2	Methylene chloride	9.1E+00	ca	2.1E+01	ca	4.1E+00	ca	4.3E+00	ca	2.0E-02	1.0E-03

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TOXICITY VALUES									CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)	V O C	skin abs soils	CAS No.	Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
		1.7E-04	r			1.7E-04	i	0.1	101-68-8	4,4'-Methylene diphenyl diisocyanate	1.0E+01	nc	1.0E+02	nc	6.2E-01	nc	6.2E+00	nc		
		6.0E-01	i			1.4E+00	i y		78-93-3	**Methyl ethyl ketone (2-Butanone)**	2.2E+04	nc	1.1E+05	nc	5.1E+03	nc	7.0E+03	nc		
		8.0E-02	h			8.6E-01	i y		108-10-1	**Methyl isobutyl ketone**	5.3E+03	nc	4.7E+04	nc	3.1E+03	nc	2.0E+03	nc		
		5.7E-04	r			5.7E-04	n	0.1	74-93-1	Methyl Mercaptan	3.5E+01	nc	3.5E+02	nc	2.1E+00	nc	2.1E+01	nc		
		1.4E+00	i			2.0E-01	i y		80-62-6	Methyl methacrylate	2.2E+03	nc	2.7E+03	sat	7.3E+02	nc	1.4E+03	nc		
3.3E-02	h			3.3E-02	r			0.1	99-55-8	2-Methyl-5-nitroaniline	1.5E+01	ca	5.2E+01	ca	2.0E-01	ca	2.0E+00	ca		
		2.5E-04	i			2.5E-04	r	0.1	298-00-0	Methyl parathion	1.5E+01	nc	1.5E+02	nc	9.1E-01	nc	9.1E+00	nc		
		5.0E-02	i			5.0E-02	r	0.1	95-48-7	2-Methylphenol	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc	1.5E+01	8.0E-01
		5.0E-02	i			5.0E-02	r	0.1	108-39-4	3-Methylphenol	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
		5.0E-03	h			5.0E-03	r	0.1	106-44-5	4-Methylphenol	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
		2.0E-02	p			2.0E-02	r	0.1	993-13-5	Methyl phosphonic acid	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		6.0E-03	h			1.1E-02	h y		25013-15-4	Methyl styrene (mixture)	1.3E+02	nc	5.4E+02	nc	4.2E+01	nc	6.0E+01	nc		
		7.0E-02	h			7.0E-02	r y		98-83-9	Methyl styrene (alpha)	6.8E+02	sat	6.8E+02	sat	2.6E+02	nc	4.3E+02	nc		
1.8E-03	c	8.6E-01	r	9.1E-04	c	8.6E-01	i y		1634-04-4	**Methyl tertbutyl ether (MTBE)**	3.2E+01	ca	7.0E+01	ca	7.4E+00	ca	1.1E+01	ca		
		1.5E-01	i			1.5E-01	r	0.1	51218-45-2	Metolaclor (Dual)	9.2E+03	nc	9.2E+04	nc	5.5E+02	nc	5.5E+03	nc		
		2.5E-02	i			2.5E-02	r	0.1	21087-64-9	Metribuzin	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc		
1.8E+00	x	2.0E-04	i	1.8E+00	r	2.0E-04	r	0.1	2385-85-5	Mirex	2.7E-01	ca*	9.6E-01	ca	3.7E-03	ca	3.7E-02	ca		
		2.0E-03	i			2.0E-03	r	0.1	2212-67-1	Molinate	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
		5.0E-03	i						7439-98-7	Molybdenum	3.9E+02	nc	5.1E+03	nc			1.8E+02	nc		
		1.0E-01	i			1.0E-01	r	0.1	10599-90-3	Monochloramine	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.6E+03	nc		
		2.0E-03	i			2.0E-03	r	0.1	300-76-5	Naled	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
		1.0E-01	i			1.0E-01	r	0.1	15299-99-7	Napropamide	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.6E+03	nc		
		2.0E-02	i						7440-02-0	Nickel (soluble salts)	1.6E+03	nc	2.0E+04	nc			7.3E+02	nc	1.3E+02	7.0E+00
				8.4E-01	i					Nickel refinery dust					8.0E-03	ca				
				1.7E+00	i				12035-72-2	Nickel subsulfide			1.1E+04	ca	4.0E-03	ca				
Tap Water PRG Based on Infant NOAEL (see IRIS)									14797-55-8	Nitrate+++							1.0E+04	nc		
Tap Water PRG Based on Infant NOAEL (see IRIS)									14797-65-0	Nitrite+++							1.0E+03	nc		
		3.0E-03	p			3.0E-05	p	0.1	88-74-4	**2-Nitroaniline**	1.8E+02	nc	1.8E+03	nc	1.1E-01	nc	1.1E+02	nc		
2.1E-02	p	3.0E-04	p	2.1E-02	r	3.0E-04	p	0.1	99-09-2	**3-Nitroaniline**	1.8E+01	nc	8.2E+01	ca**	3.2E-01	ca**	3.2E+00	ca**		
2.1E-02	p	3.0E-03	p	2.1E-02	r	1.0E-03	p	0.1	100-01-6	**4-Nitroaniline**	2.3E+01	ca**	8.2E+01	ca*	3.2E-01	ca*	3.2E+00	ca*		
		5.0E-04	i			5.7E-04	h y		98-95-3	Nitrobenzene	2.0E+01	nc	1.0E+02	nc	2.1E+00	nc	3.4E+00	nc	1.0E-01	7.0E-03
		7.0E-02	h			7.0E-02	r	0.1	67-20-9	Nitrofurantoin	4.3E+03	nc	4.3E+04	nc	2.6E+02	nc	2.6E+03	nc		
1.5E+00	h			1.5E+00	r			0.1	59-87-0	Nitrofurazone	3.2E-01	ca	1.1E+00	ca	4.5E-03	ca	4.5E-02	ca		
1.4E-02	n			1.4E-02	r			0.1	55-63-0	Nitroglycerin	3.5E+01	ca	1.2E+02	ca	4.8E-01	ca	4.8E+00	ca		
		1.0E-01	i			1.0E-01	r	0.1	556-88-7	Nitroguanidine	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.6E+03	nc		
9.4E+00	r	5.7E-03	r	9.4E+00	h	5.7E-03	i y		79-46-9	2-Nitropropane					7.2E-04	ca	1.2E-03	ca		
5.4E+00	i			5.6E+00	i		y		924-16-3	N-Nitrosodi-n-butylamine	2.4E-02	ca	5.8E-02	ca	1.2E-03	ca	2.0E-03	ca		
2.8E+00	i			2.8E+00	r			0.1	1116-54-7	N-Nitrosodiethanolamine	1.7E-01	ca	6.2E-01	ca	2.4E-03	ca	2.4E-02	ca		
1.5E+02	i			1.5E+02	i			0.1	55-18-5	N-Nitrosodiethylamine	3.2E-03	ca	1.1E-02	ca	4.5E-05	ca	4.5E-04	ca		
5.1E+01	i	8.0E-06	p	4.9E+01	i	8.0E-06	r	0.1	62-75-9	**N-Nitrosodimethylamine**	9.5E-03	ca*	3.4E-02	ca	1.4E-04	ca	1.3E-03	ca		
4.9E-03	i	2.0E-02	p	4.9E-03	r	2.0E-02	r	0.1	86-30-6	**N-Nitrosodiphenylamine**	9.9E+01	ca*	3.5E+02	ca*	1.4E+00	ca*	1.4E+01	ca*	1.0E+00	6.0E-02
7.0E+00	i			7.0E+00	r			0.1	621-64-7	N-Nitroso di-n-propylamine	6.9E-02	ca	2.5E-01	ca	9.6E-04	ca	9.6E-03	ca	5.0E-05	2.0E-06

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SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin abs soils	CAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
2.2E+01	i			2.2E+01	r				0.1	10595-95-6	N-Nitroso-N-methylethylamine	2.2E-02	ca	7.8E-02	ca	3.1E-04	ca	3.1E-03	ca		
2.1E+00	i			2.1E+00	i				0.1	930-55-2	N-Nitrosopyrrolidine	2.3E-01	ca	8.2E-01	ca	3.1E-03	ca	3.2E-02	ca		
		2.0E-02	p			2.0E-02	r	y		99-08-1	**m-Nitrotoluene**	7.3E+02	nc	1.0E+03	sat	7.3E+01	nc	1.2E+02	nc		
2.3E-01	p	1.0E-02	h	2.3E-01	r	1.0E-02	r	y		88-72-2	**o-Nitrotoluene**	8.8E-01	ca	2.2E+00	ca	2.9E-02	ca	4.9E-02	ca		
1.7E-02	p	1.0E-02	p	1.7E-02	r	1.0E-02	r	y		99-99-0	**p-Nitrotoluene**	1.2E+01	ca*	3.0E+01	ca*	4.0E-01	ca*	6.6E-01	ca*		
		4.0E-02	i			4.0E-02	r		0.1	27314-13-2	Norflurazon	2.4E+03	nc	2.5E+04	nc	1.5E+02	nc	1.5E+03	nc		
		7.0E-04	i			7.0E-04	r		0.1	85509-19-9	NuStar	4.3E+01	nc	4.3E+02	nc	2.6E+00	nc	2.6E+01	nc		
		3.0E-03	i			3.0E-03	r		0.1	32536-52-0	Octabromodiphenyl ether	1.8E+02	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc		
		2.0E-03	h			2.0E-03	r		0.1	152-16-9	Octamethylpyrophosphoramide	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
		5.0E-02	i			5.0E-02	r		0.1	19044-88-3	Oryzalin	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
		5.0E-03	i			5.0E-03	r		0.1	19666-30-9	Oxadiazon	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
		2.5E-02	i			2.5E-02	r		0.1	23135-22-0	Oxamyl	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc		
		3.0E-03	i			3.0E-03	r		0.1	42874-03-3	Oxyfluorfen	1.8E+02	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc		
		1.3E-02	i			1.3E-02	r		0.1	76738-62-0	Paclobutrazol	7.9E+02	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc		
		4.5E-03	i			4.5E-03	r		0.1	4685-14-7	Paraquat	2.7E+02	nc	2.8E+03	nc	1.6E+01	nc	1.6E+02	nc		
		6.0E-03	h			6.0E-03	r		0.1	56-38-2	Parathion	3.7E+02	nc	3.7E+03	nc	2.2E+01	nc	2.2E+02	nc		
		5.0E-02	h			5.0E-02	r		0.1	1114-71-2	Pebulate	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
		4.0E-02	i			4.0E-02	r		0.1	40487-42-1	Pendimethalin	2.4E+03	nc	2.5E+04	nc	1.5E+02	nc	1.5E+03	nc		
2.3E-02	h			2.3E-02	r				0.1	87-84-3	Pentabromo-6-chloro cyclohexane	2.1E+01	ca	7.5E+01	ca	2.9E-01	ca	2.9E+00	ca		
		2.0E-03	i			2.0E-03	r		0.1	32534-81-9	Pentabromodiphenyl ether	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
		8.0E-04	i			8.0E-04	r		0.1	608-93-5	Pentachlorobenzene	4.9E+01	nc	4.9E+02	nc	2.9E+00	nc	2.9E+01	nc		
2.6E-01	h	3.0E-03	i	2.6E-01	r	3.0E-03	r		0.1	82-68-8	Pentachloronitrobenzene	1.9E+00	ca*	6.6E+00	ca	2.6E-02	ca	2.6E-01	ca		
1.2E-01	i	3.0E-02	i	1.2E-01	r	3.0E-02	r		0.25	87-86-5	Pentachlorophenol	3.0E+00	ca	9.0E+00	ca	5.6E-02	ca	5.6E-01	ca	3.0E-02	1.0E-03
		1.0E-04	n							7601-90-3	Perchlorate	7.8E+00	ca/nc	1.0E+02	ca/nc			3.6E+00	ca/nc		
		5.0E-02	i			5.0E-02	r		0.1	52645-53-1	Permethrin	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
		2.5E-01	i			2.5E-01	r		0.1	13684-63-4	Phenmedipham	1.5E+04	nc	1.0E+05	max	9.1E+02	nc	9.1E+03	nc		
		3.0E-01	i			3.0E-01	r		0.1	108-95-2	**Phenol**	1.8E+04	nc	1.0E+05	max	1.1E+03	nc	1.1E+04	nc	1.0E+02	5.0E+00
		2.0E-03	n			2.0E-03	r		0.1	92-84-2	Phenothiazine	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc		
		6.0E-03	i			6.0E-03	r		0.1	108-45-2	m-Phenylenediamine	3.7E+02	nc	3.7E+03	nc	2.2E+01	nc	2.2E+02	nc		
4.7E-02	h			4.7E-02	r				0.1	95-54-5	**o-Phenylenediamine**	1.0E+01	ca	3.7E+01	ca	1.4E-01	ca	1.4E+00	ca		
		1.9E-01	h			1.9E-01	r		0.1	108-50-3	p-Phenylenediamine	1.2E+04	nc	1.0E+05	max	6.9E+02	nc	6.9E+03	nc		
		8.0E-05	i			8.0E-05	r		0.1	62-38-4	Phenylmercuric acetate	4.9E+00	nc	4.9E+01	nc	2.9E-01	nc	2.9E+00	nc		
1.9E-03	h			1.9E-03	r				0.1	90-43-7	2-Phenylphenol	2.5E+02	ca	8.9E+02	ca	3.5E+00	ca	3.5E+01	ca		
		2.0E-04	h			2.0E-04	r		0.1	298-02-2	Phorate	1.2E+01	nc	1.2E+02	nc	7.3E-01	nc	7.3E+00	nc		
		2.0E-02	i			2.0E-02	r		0.1	732-11-6	Phosmet	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		3.0E-04	i			8.6E-05	i		0.1	7803-51-2	Phosphine	1.8E+01	nc	1.8E+02	nc	3.1E-01	nc	1.1E+01	nc		
						2.9E-03	i			7664-38-2	Phosphoric acid					1.0E+01	nc				
		2.0E-05	i							7723-14-0	Phosphorus (white)	1.6E+00	nc	2.0E+01	nc			7.3E-01	nc		
		1.0E+00	h			1.0E+00	r		0.1	100-21-0	p-Phthalic acid	6.1E+04	nc	1.0E+05	max	3.7E+03	nc	3.6E+04	nc		
		2.0E+00	i			3.4E-02	h		0.1	85-44-9	Phthalic anhydride	1.0E+05	max	1.0E+05	max	1.2E+02	nc	7.3E+04	nc		
		7.0E-02	i			7.0E-02	r		0.1	1918-02-1	Picloram	4.3E+03	nc	4.3E+04	nc	2.6E+02	nc	2.6E+03	nc		
		1.0E-02	i			1.0E-02	r		0.1	29232-93-7	Pirimiphos-methyl	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		

Key . SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG ca* (where: nc PRG < 100X ca PRG) ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide) DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES									CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)	V O C	skin abs soils	CAS No.	Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
8.9E+00	h	7.0E-06	h	8.9E+00	r	7.0E-06	r	0.1		Polybrominated biphenyls	5.5E-02	ca**	1.9E-01	ca*	7.6E-04	ca*	7.6E-03	ca*	
										Polychlorinated biphenyls (PCBs, see IRIS)									
7.0E-02	i	7.0E-05	i	7.0E-02	i	7.0E-05	r	0.14	12674-11-2	PCBs (unspeciated mixture, low risk, e.g. Aroclor 1016)	3.9E+00	nc	2.1E+01	ca**	9.6E-02	ca**	9.6E-01	ca**	
2.0E+00	i	2.0E-05	i	2.0E+00	i	2.0E-05	r	0.14	11097-69-1	PCBs (unspeciated mixture, high risk, e.g. Aroclor 1254)	2.2E-01	ca**	7.4E-01	ca*	3.4E-03	ca*	3.4E-02	ca*	
4.5E+00	n			4.5E+00	r			0.1	61788-33-8	Polychlorinated terphenyls	1.1E-01	ca	3.8E-01	ca	1.5E-03	ca	1.5E-02	ca	
										Polynuclear aromatic hydrocarbons (PAHs)									
		6.0E-02	i			6.0E-02	r	y	83-32-9	Acenaphthene	3.7E+03	nc	2.9E+04	nc	2.2E+02	nc	3.7E+02	nc	5.7E+02 2.9E+01
		3.0E-01	i			3.0E-01	r	y	120-12-7	Anthracene	2.2E+04	nc	1.0E+05	max	1.1E+03	nc	1.8E+03	nc	1.2E+04 5.9E+02
7.3E-01	n			7.3E-01	r			0.13	56-55-3	Benz[a]anthracene	6.2E-01	ca	2.1E+00	ca	9.2E-03	ca	9.2E-02	ca	2.0E+00 8.0E-02
7.3E-01	n			7.3E-01	r			0.13	205-99-2	Benzo[b]fluoranthene	6.2E-01	ca	2.1E+00	ca	9.2E-03	ca	9.2E-02	ca	5.0E+00 2.0E-01
7.3E-02	n			7.3E-02	r			0.13	207-08-9	Benzo[k]fluoranthene	6.2E+00	ca	2.1E+01	ca	9.2E-02	ca	9.2E-01	ca	4.9E+01 2.0E+00
1.2E+00	c			3.9E-01	c			0.13	207-08-9	"CAL-Modified PRG"	3.8E-01	ca	1.3E+00	ca	1.7E-02	ca	5.6E-02	ca	
7.3E+00	i			7.3E+00	r			0.13	50-32-8	Benzo[a]pyrene	6.2E-02	ca	2.1E-01	ca	9.2E-04	ca	9.2E-03	ca	8.0E+00 4.0E-01
7.3E-03	n			7.3E-03	r			0.13	218-01-9	Chrysene	6.2E+01	ca	2.1E+02	ca	9.2E-01	ca	9.2E+00	ca	1.6E+02 8.0E+00
1.2E-01	c			3.9E-02	c			0.13		"CAL-Modified PRG"	3.8E+00	ca	1.3E+01	ca	1.7E-01	ca	5.6E-01	ca	
7.3E+00	n			7.3E+00	r			0.13	53-70-3	Dibenz[ah]anthracene	6.2E-02	ca	2.1E-01	ca	9.2E-04	ca	9.2E-03	ca	2.0E+00 8.0E-02
		4.0E-02	i			4.0E-02	r	0.13	206-44-0	Fluoranthene	2.3E+03	nc	2.2E+04	nc	1.5E+02	nc	1.5E+03	nc	4.3E+03 2.1E+02
		4.0E-02	i			4.0E-02	r	y	86-73-7	Fluorene	2.7E+03	nc	2.6E+04	nc	1.5E+02	nc	2.4E+02	nc	5.6E+02 2.8E+01
7.3E-01	n			7.3E-01	r			0.13	193-39-5	Indeno[1,2,3-cd]pyrene	6.2E-01	ca	2.1E+00	ca	9.2E-03	ca	9.2E-02	ca	1.4E+01 7.0E-01
		2.0E-02	i			8.6E-04	r	y	91-20-3	Naphthalene	5.6E+01	nc	1.9E+02	nc	3.1E+00	nc	6.2E+00	nc	8.4E+01 4.0E+00
1.2E-01	r			1.2E-01	c					**"CAL-Modified PRG"**	1.7E+00	ca	4.2E+00	ca	5.6E-02	ca	9.3E-02	ca	
		3.0E-02	i			3.0E-02	r	y	129-00-0	Pyrene	2.3E+03	nc	2.9E+04	nc	1.1E+02	nc	1.8E+02	nc	4.2E+03 2.1E+02
1.5E-01	i	9.0E-03	i	1.5E-01	r	9.0E-03	r	0.1	67747-09-5	Prochloraz	3.2E+00	ca	1.1E+01	ca	4.5E-02	ca	4.5E-01	ca	
		6.0E-03	h			6.0E-03	r	0.1	26399-36-0	Profluralin	3.7E+02	nc	3.7E+03	nc	2.2E+01	nc	2.2E+02	nc	
		1.5E-02	i			1.5E-02	r	0.1	1610-18-0	Prometon	9.2E+02	nc	9.2E+03	nc	5.5E+01	nc	5.5E+02	nc	
		4.0E-03	i			4.0E-03	r	0.1	7287-19-6	Prometryn	2.4E+02	nc	2.5E+03	nc	1.5E+01	nc	1.5E+02	nc	
		7.5E-02	i			7.5E-02	r	0.1	23950-58-5	Pronamide	4.6E+03	nc	4.6E+04	nc	2.7E+02	nc	2.7E+03	nc	
		1.3E-02	i			1.3E-02	r	0.1	1918-16-7	Propachlor	7.9E+02	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc	
		5.0E-03	i			5.0E-03	r	0.1	709-98-8	Propanil	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc	
		2.0E-02	i			2.0E-02	r	0.1	2312-35-8	Propargite	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc	
		2.0E-03	i			2.0E-03	r	0.1	107-19-7	Propargyl alcohol	1.2E+02	nc	1.2E+03	nc	7.3E+00	nc	7.3E+01	nc	
		2.0E-02	i			2.0E-02	r	0.1	139-40-2	Propazine	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc	
		2.0E-02	i			2.0E-02	r	0.1	122-42-9	Propham	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc	
		1.3E-02	i			1.3E-02	r	0.1	60207-90-1	Propiconazole	7.9E+02	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc	
									98-82-8	Isopropylbenzene (see Cumene)									
		4.0E-02	n			4.0E-02	r	y	103-65-1	n-Propylbenzene	2.4E+02	sat	2.4E+02	sat	1.5E+02	nc	2.4E+02	nc	
		5.0E-01	p			8.6E-04	p	0.1	57-55-6	Propylene glycol	3.0E+04	nc	1.0E+05	max	3.1E+00	nc	1.8E+04	nc	
		7.0E-01	h			7.0E-01	r	0.1	52125-53-8	Propylene glycol, monoethyl ether	4.3E+04	nc	1.0E+05	max	2.6E+03	nc	2.6E+04	nc	
		7.0E-01	h			5.7E-01	i	0.1	107-98-2	Propylene glycol, monomethyl ether	4.3E+04	nc	1.0E+05	max	2.1E+03	nc	2.6E+04	nc	
2.4E-01	i	8.6E-03	r	1.3E-02	i	8.6E-03	i	y	75-56-9	Propylene oxide	1.9E+00	ca*	6.6E+00	ca*	5.2E-01	ca*	2.2E-01	ca	
		2.5E-01	i			2.5E-01	r	0.1	81335-77-5	Pursuit	1.5E+04	nc	1.0E+05	max	9.1E+02	nc	9.1E+03	nc	
		2.5E-02	i			2.5E-02	r	0.1	51630-58-1	Pydrin	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc	

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TOXICITY VALUES										CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin abs soils	CAS No.	Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
		1 0E-03	i			1 0E-03	r		0 1	110-86-1	Pyridine	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc		
		5 0E-04	i			5 0E-04	r		0.1	13593-03-8	Quinalphos	3.1E+01	nc	3.1E+02	nc	1.8E+00	nc	1.8E+01	nc		
3.0E+00	i			3 0E+00	r				0.1	91-22-5	Quinoline	1.6E-01	ca	5.7E-01	ca	2.2E-03	ca	2.2E-02	ca		
1 1E-01	i	3.0E-03	i	1 1E-01	r	3.0E-03	r		0.1	121-82-4	RDX (Cyclonite)	4.4E+00	ca*	1.6E+01	ca	6.1E-02	ca	6.1E-01	ca		
		3.0E-02	i			3.0E-02	r		0.1	10453-86-8	Resmethrin	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc		
		5.0E-02	h			5.0E-02	r		0 1	299-84-3	Ronnel	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		
		4 0E-03	i			4.0E-03	r		0 1	83-79-4	Rotenone	2.4E+02	nc	2.5E+03	nc	1.5E+01	nc	1.5E+02	nc		
		2 5E-02	i			2.5E-02	r		0 1	78587-05-0	Savey	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc		
		5.0E-03	i						0 1	7783-00-8	Selenious Acid	3.1E+02	nc	3.1E+03	nc			1.8E+02	nc		
		5.0E-03	i							7782-49-2	Selenium	3.9E+02	nc	5.1E+03	nc			1.8E+02	nc	5.0E+00	3.0E-01
		5.0E-03	h						0.1	630-10-4	Selenourea	3.1E+02	nc	3.1E+03	nc			1.8E+02	nc		
		9.0E-02	i			9.0E-02	r		0.1	74051-80-2	Sethoxydim	5.5E+03	nc	5.5E+04	nc	3.3E+02	nc	3.3E+03	nc		
		5 0E-03	i							7440-22-4	Silver and compounds	3.9E+02	nc	5.1E+03	nc			1.8E+02	nc	3.4E+01	2.0E+00
1.2E-01	h	5 0E-03	i	1.2E-01	r	5.00E-03	r		0 1	122-34-9	Simazine	4.1E+00	ca*	1.4E+01	ca	5.6E-02	ca	5.6E-01	ca		
		4 0E-03	i							26628-22-8	Sodium azide										
2.7E-01	h	3.0E-02	i	2 7E-01	r	3 0E-02	r		0.1	148-18-5	Sodium diethyldithiocarbamate	1.8E+00	ca	6.4E+00	ca	2.5E-02	ca	2.5E-01	ca		
		2.0E-05	i			2.0E-05	r		0.1	62-74-8	Sodium fluoroacetate	1.2E+00	nc	1.2E+01	nc	7.3E-02	nc	7.3E-01	nc		
		1 0E-03	h			1.0E-03	r		0.1	13718-26-8	Sodium metavanadate	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc		
		6 0E-01	i							7440-24-6	Strontium, stable	4.7E+04	nc	1.0E+05	max			2.2E+04	nc		
		3 0E-04	i			3 0E-04	r		0 1	57-24-9	Strychnine	1.8E+01	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc		
		2 0E-01	i			2.9E-01	i	y		100-42-5	Styrene	1.7E+03	sat	1.7E+03	sat	1 1E+03	nc	1.6E+03	nc	4.0E+00	2.0E-01
		5.0E-03	p			5 0E-03	r			80-07-9	**1,1'-Sulfonylbis (4-chlorobenzene)**	3.9E+02	nc	5.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
		2 5E-02	i			2 5E-02	r		0 1	88871-89-0	Systhane	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc		
1 5E+05	h			1 5E+05	h				0 03	1746-01-6	2,3,7,8-TCDD (dioxin)	3.9E-06	ca	1.6E-05	ca	4.5E-08	ca	4.5E-07	ca		
		7 0E-02	i			7 0E-02	r		0 1	34014-18-1	Tebuthiuron	4.3E+03	nc	4.3E+04	nc	2.6E+02	nc	2.6E+03	nc		
		2.0E-02	h			2.0E-02	r		0 1	3383-96-8	Temephos	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
		1.3E-02	i			1.3E-02	r		0.1	5902-51-2	Terbacil	7.9E+02	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc		
		2 5E-05	h			2.5E-05	r		0.1	13071-79-9	Terbufos	1.5E+00	nc	1.5E+01	nc	9.1E-02	nc	9.1E-01	nc		
		1 0E-03	i			1 0E-03	r		0 1	886-50-0	Terbutryn	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc		
		3 0E-04	i			3.0E-04	r		0 1	95-94-3	1,2,4,5-Tetrachlorobenzene	1.8E+01	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc		
2 6E-02	i	3.0E-02	i	2.6E-02	i	3 0E-02	r	y		630-20-6	1,1,1,2-Tetrachloroethane	3.2E+00	ca	7.3E+00	ca	2.6E-01	ca	4.3E-01	ca		
2.0E-01	i	6.0E-02	p	2.0E-01	i	6.0E-02	r	y		79-34-5	1,1,2,2-Tetrachloroethane	4.1E-01	ca	9.3E-01	ca	3.3E-02	ca	5.5E-02	ca	3.0E-03	2.0E-04
5 4E-01	c	1.0E-02	i	2 1E-02	c	1.0E-02	c	y		127-18-4	**Tetrachloroethylene (PCE)**	4.8E-01	ca*	1.3E+00	ca	3.2E-01	ca	1.0E-01	ca	6.0E-02	3.0E-03
		3 0E-02	i			3 0E-02	r		0.1	58-90-2	2,3,4,6-Tetrachlorophenol	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc		
2 0E+01	h			2 0E+01	r				0 1	5216-25-1	p,a,a,a-Tetrachlorotoluene	2.4E-02	ca	8.6E-02	ca	3.4E-04	ca	3.4E-03	ca		
2 4E-02	h	3.0E-02	i	2.4E-02	r	3 0E-02	r		0.1	961-11-5	Tetrachlorovinphos	2.0E+01	ca*	7.2E+01	ca	2.8E-01	ca	2.8E+00	ca		
		5 0E-04	i			5.0E-04	r		0.1	3689-24-5	Tetraethyldithiopyrophosphate	3.1E+01	nc	3.1E+02	nc	1.8E+00	nc	1.8E+01	nc		
7 6E-03	n	2.1E-01	n	6.8E-03	n	8.6E-02	n	y		109-99-9	Tetrahydrofuran	9.4E+00	ca	2.1E+01	ca	9.9E-01	ca	1.6E+00	ca		
		6.8E-05	i							7440-28-0	Thallium and compounds+++	5.2E+00	nc	6.7E+01	nc			2.4E+00	nc		
		1.0E-02	i			1.0E-02	r		0 1	28249-77-6	Thiobencarb	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
		5 0E-02	n			5.0E-02	r		0.1	N/A	Thiocyanate	3.1E+03	nc	1.0E+05	max	1.8E+02	nc	1.8E+03	nc		
		3.0E-04	h			3 0E-04	r		0.1	39196-18-4	Thiofanox	1.8E+01	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc		

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG ca* (where nc PRG < 100X ca PRG)
ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide) DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES									CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)	RfDo (mg/kg-d)		SFi 1/(mg/kg-d)	RfDi (mg/kg-d)		V O C	skin abs. soils	CAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
	8.0E-02	i		8.0E-02	r		0.1	23564-05-8	Thiophanate-methyl	4.9E+03	nc	4.9E+04	nc	2.9E+02	nc	2.9E+03	nc		
	5.0E-03	i		5.0E-03	r		0.1	137-26-8	Thiram	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
	6.0E-01	h						7440-31-5	Tin (inorganic, also see tributyltin oxide)	4.7E+04	nc	1.0E+05	max			2.2E+04	nc		
	4.0E+00	n		8.6E-03	n			7440-32-6	Titanium	1.0E+05	max	1.0E+05	max	3.1E+01	nc	1.5E+05	nc		
	2.0E-01	i		1.1E-01	i	y		108-88-3	Toluene	5.2E+02	sat	5.2E+02	sat	4.0E+02	nc	7.2E+02	nc	1.2E+01	6.0E-01
3.2E+00	h		3.2E+00	r			0.1	95-80-7	Toluene-2,4-diamine	1.5E-01	ca	5.4E-01	ca	2.1E-03	ca	2.1E-02	ca		
	6.0E-01	h		6.0E-01	r		0.1	95-70-5	Toluene-2,5-diamine	3.7E+04	nc	1.0E+05	max	2.2E+03	nc	2.2E+04	nc		
	2.0E-01	h		2.0E-01	r		0.1	823-40-5	Toluene-2,6-diamine	1.2E+04	nc	1.0E+05	max	7.3E+02	nc	7.3E+03	nc		
1.9E-01	i		1.9E-01	r			0.1	106-49-0	p-Toluidine	2.6E+00	ca	9.1E+00	ca	3.5E-02	ca	3.5E-01	ca		
1.1E+00	i		1.1E+00	i			0.1	8001-35-2	Toxaphene	4.4E-01	ca	1.6E+00	ca	6.0E-03	ca	6.1E-02	ca	3.1E+01	2.0E+00
	7.5E-03	i		7.5E-03	r		0.1	66841-25-6	Tralomethrin	4.6E+02	nc	4.6E+03	nc	2.7E+01	nc	2.7E+02	nc		
	1.3E-02	i		1.3E-02	r		0.1	2303-17-5	Triallate	7.9E+02	nc	8.0E+03	nc	4.7E+01	nc	4.7E+02	nc		
	1.0E-02	i		1.0E-02	r		0.1	82097-50-5	Triasulfuron	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
	5.0E-03	i		5.0E-03	r		0.1	615-54-3	1,2,4-Tribromobenzene	3.1E+02	nc	3.1E+03	nc	1.8E+01	nc	1.8E+02	nc		
9.2E-03	p	2.0E-01	p	9.2E-03	r		0.1	126-73-8	**Tributyl phosphate**	5.3E+01	ca	1.9E+02	ca	7.3E-01	ca	7.3E+00	ca		
	3.0E-04	i					0.1	56-35-9	Tributyltin oxide (TBTO)	1.8E+01	nc	1.8E+02	nc			1.1E+01	nc		
3.4E-02	h		3.4E-02	r			0.1	634-93-5	2,4,6-Trichloroaniline	1.4E+01	ca	5.1E+01	ca	2.0E-01	ca	2.0E+00	ca		
2.9E-02	h		2.9E-02	r			0.1	33663-50-2	2,4,6-Trichloroaniline hydrochloride	1.7E+01	ca	5.9E+01	ca	2.3E-01	ca	2.3E+00	ca		
	1.0E-02	i		1.0E-03	p	y		120-82-1	**1,2,4-Trichlorobenzene**	6.2E+01	nc	2.2E+02	nc	3.7E+00	nc	7.2E+00	nc	5.0E+00	3.0E-01
	2.8E-01	n		6.3E-01	p	y		71-55-6	1,1,1-Trichloroethane	1.2E+03	sat	1.2E+03	sat	2.3E+03	nc	3.2E+03	nc	2.0E+00	1.0E-01
5.7E-02	i	4.0E-03	i	5.6E-02	i		4.0E-03	r	y	79-00-5	1,1,2-Trichloroethane	7.3E-01	ca*	1.6E+00	ca*	1.2E-01	ca	2.0E-01	ca	2.0E-02	9.0E-04
4.0E-01	n	3.0E-04	n	4.0E-01	n		1.0E-02	n	y	79-01-6	Trichloroethylene (TCE)	5.3E-02	ca	1.1E-01	ca	1.7E-02	ca	2.8E-02	ca	6.0E-02	3.0E-03
1.3E-02	c		7.0E-03	c			1.7E-01	c	y	79-01-6	**"CAL-Modified PRG"**	2.9E+00	ca	6.5E+00	ca	9.6E-01	ca	1.4E+00	ca		
	3.0E-01	i		2.0E-01	h		y	75-69-4	Trichlorofluoromethane	3.9E+02	nc	2.0E+03	sat	7.3E+02	nc	1.3E+03	nc		
	1.0E-01	i		1.0E-01	r		0.1	95-95-4	2,4,5-Trichlorophenol	6.1E+03	nc	6.2E+04	nc	3.7E+02	nc	3.6E+03	nc	2.7E+02	1.4E+01
1.1E-02	i	1.0E-04	n	1.1E-02	i		1.0E-04	r	0.1	88-06-2	2,4,6-Trichlorophenol	6.1E+00	nc**	6.2E+01	nc**	3.7E-01	nc**	3.6E+00	nc**	2.0E-01	8.0E-03
7.0E-02	c		7.0E-02	c				0.1	88-06-2	"CAL-Modified PRG"	6.9E+00	ca	2.5E+01	ca	9.6E-02	ca	9.6E-01	ca		
	1.0E-02	i		1.0E-02	r		0.1	93-76-5	2,4,5-Trichlorophenoxyacetic Acid	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
	8.0E-03	i		8.0E-03	r		0.1	93-72-1	2-(2,4,5-Trichlorophenoxy) propionic acid	4.9E+02	nc	4.9E+03	nc	2.9E+01	nc	2.9E+02	nc		
	5.0E-03	i		5.0E-03	r	y		598-77-6	**1,1,2-Trichloropropane**	7.1E+01	nc	2.7E+02	nc	1.8E+01	nc	3.0E+01	nc		
2.0E+00	n	6.0E-03	i	2.0E+00	r		1.4E-03	n	y	96-18-4	**1,2,3-Trichloropropane**	3.4E-02	ca	7.6E-02	ca	3.4E-03	ca	5.6E-03	ca		
	1.0E-02	p		3.0E-04	p	y		96-19-5	**1,2,3-Trichloropropene**	5.2E+00	nc	1.7E+01	nc	1.1E+00	nc	2.2E+00	nc		
	3.0E-03	i		3.0E-03	r		0.1	58138-08-2	Tridiphane	1.8E+02	nc	1.8E+03	nc	1.1E+01	nc	1.1E+02	nc		
	2.0E-03	r		2.0E-03	i	y		121-44-8	Triethylamine	2.3E+01	nc	8.6E+01	nc	7.3E+00	nc	1.2E+01	nc		
7.7E-03	i	7.5E-03	i	7.7E-03	r		7.5E-03	r	0.1	1582-09-8	Trifluralin	6.3E+01	ca**	2.2E+02	ca*	8.7E-01	ca*	8.7E+00	ca*		
	1.4E-04	r		1.4E-04	n		0.1	552-30-7	Trimellitic Anhydride (TMAN)	8.6E+00	nc	8.6E+01	nc	5.1E-01	nc	5.1E+00			
	5.0E-02	p		1.7E-03	p	y		95-63-6	1,2,4-Trimethylbenzene	5.2E+01	nc	1.7E+02	nc	6.2E+00	nc	1.2E+01	nc		
	5.0E-02	p		1.7E-03	p	y		108-67-8	1,3,5-Trimethylbenzene	2.1E+01	nc	7.0E+01	nc	6.2E+00	nc	1.2E+01	nc		
3.7E-02	h		3.7E-02	r			0.1	512-56-1	Trimethyl phosphate	1.3E+01	ca	4.7E+01	ca	1.8E-01	ca	1.8E+00	ca		
	3.0E-02	i		3.0E-02	r		0.1	99-35-4	1,3,5-Trinitrobenzene	1.8E+03	nc	1.8E+04	nc	1.1E+02	nc	1.1E+03	nc		
	1.0E-02	h		1.0E-02	r		0.1	479-45-8	Trinitrophenylmethylnitramine	6.1E+02	nc	6.2E+03	nc	3.7E+01	nc	3.6E+02	nc		
3.0E-02	i	5.0E-04	i	3.0E-02	r		5.0E-04	r	0.1	118-96-7	2,4,6-Trinitrotoluene	1.6E+01	ca**	5.7E+01	ca**	2.2E-01	ca**	2.2E+00	ca**		

Key : SFo,i=Cancer Slope Factor oral, inhalation RfDo,i=Reference Dose oral, inhalation i=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation ca=Cancer PRG nc= Noncancer PRG ca* (where: nc PRG < 100X ca PRG)
ca** (where nc PRG < 10X ca PRG) +++=Non-Standard Method Applied (See User's Guide) sat=Soil Saturation (See User's Guide) max=Ceiling limit (See User's Guide) DAF=Dilution Attenuation Factor (See User's Guide) CAS=Chemical Abstract Services

TOXICITY VALUES										CONTAMINANT	PRELIMINARY REMEDIATION GOALS (PRGs) "Direct Contact Exposure Pathways"								SOIL SCREENING LEVELS "Migration to Ground Water"	
SFo 1/(mg/kg-d)		RfDo (mg/kg-d)		SFi 1/(mg/kg-d)		RfDi (mg/kg-d)		V O C	skin aba soils	CAS No.		Residential Soil (mg/kg)		Industrial Soil (mg/kg)		Ambient Air (ug/m^3)		Tap Water (ug/l)		DAF 20 (mg/kg)	DAF 1 (mg/kg)
		2.0E-02	p			2.0E-02	r		0.1	791-28-6	**Triphenylphosphine oxide**	1.2E+03	nc	1.2E+04	nc	7.3E+01	nc	7.3E+02	nc		
1.4E-02	p	3.1E-01	p	1.4E-02	r	3.1E-01	r		0.1	115-96-8	**Tris(2-chloroethyl) phosphate**	3.5E+01	ca	1.2E+02	ca	4.8E-01	ca	4.8E+00	ca		
3.2E-03	p	1.0E-01	p	3.2E-03	r	1.0E-01	r		0.1	78-42-2	**Tris(2-ethylhexyl) phosphate**	1.5E+02	ca*	5.4E+02	ca	2.1E+00	ca	2.1E+01	ca		
		2.0E-04	n							7440-61-1	Uranium (chemical toxicity only)	1.6E+01	nc	2.0E+02	nc			7.3E+00	nc		
		1.0E-03	n							7440-62-2	Vanadium and compounds	7.8E+01	nc	1.0E+03	nc			3.6E+01	nc	6.0E+03	3.0E+02
		1.0E-03	i			1.0E-03	r		0.1	1929-77-7	Vernam	6.1E+01	nc	6.2E+02	nc	3.7E+00	nc	3.6E+01	nc		
		2.5E-02	i			2.5E-02	r		0.1	50471-44-8	Vinclozolin	1.5E+03	nc	1.5E+04	nc	9.1E+01	nc	9.1E+02	nc		
		1.0E+00	h			5.7E-02	i	y		108-05-4	Vinyl acetate	4.3E+02	nc	1.4E+03	nc	2.1E+02	nc	4.1E+02	nc	1.7E+02	8.0E+00
1.1E-01	r	8.6E-04	r	1.1E-01	h	8.6E-04	i	y		593-60-2	Vinyl bromide (bromoethene)	1.9E-01	ca*	4.2E-01	ca*	6.1E-02	ca*	1.0E-01	ca*		
1.5E+00	i	3.0E-03	i	3.1E-02	i	2.9E-02	i	y		75-01-4	Vinyl chloride (child/adult)+++	7.9E-02	ca			1.1E-01	ca	2.0E-02	ca	1.0E-02	7.0E-04
7.5E-01	i	3.0E-03	i	1.6E-02	i	2.9E-02	i	y		75-01-4	Vinyl chloride (adult)			7.5E-01	ca						
		3.0E-04	i			3.0E-04	r		0.1	81-81-2	Warfarin	1.8E+01	nc	1.8E+02	nc	1.1E+00	nc	1.1E+01	nc		
		2.0E-01	i			2.9E-02	i	y	0.1	1330-20-7	**Xylenes**	2.7E+02	nc	4.2E+02	sat	1.1E+02	nc	2.1E+02	nc	2.1E+02	1.0E+01
		3.0E-01	i							7440-66-6	Zinc	2.3E+04	nc	1.0E+05	max			1.1E+04	nc	1.2E+04	6.2E+02
		3.0E-04	i							1314-84-7	Zinc phosphide	2.3E+01	nc	3.1E+02	nc			1.1E+01	nc		
		5.0E-02	i			5.0E-02	r		0.1	12122-67-7	Zineb	3.1E+03	nc	3.1E+04	nc	1.8E+02	nc	1.8E+03	nc		

Profiles of General Demographic Characteristics 2000

Issued May 2001

2000 Census of Population and Housing

Alabama

U.S. Department of Commerce
Donald L. Evans,
Secretary

Economics
and Statistics
Administration
J. Lee Price,
Acting Under Secretary for
Economic Affairs

U.S. CENSUS BUREAU
William G. Barron, Jr.,
Acting Director

Table DP-1. Profile of General Demographic Characteristics: 2000

Geographic Area: Tarrant city, Alabama

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent
Total population	**7,022**	**100.0**
SEX AND AGE		
Male	3,296	46.9
Female	3,726	53.1
Under 5 years	435	6.2
5 to 9 years	484	6.9
10 to 14 years	498	7.1
15 to 19 years	461	6.6
20 to 24 years	413	5.9
25 to 34 years	872	12.4
35 to 44 years	1,104	15.7
45 to 54 years	892	12.7
55 to 59 years	346	4.9
60 to 64 years	299	4.3
65 to 74 years	621	8.8
75 to 84 years	461	6.6
85 years and over	136	1.9
Median age (years)	38.1	(X)
18 years and over	5,313	75.7
Male	2,450	34.9
Female	2,863	40.8
21 years and over	5,048	71.9
62 years and over	1,390	19.8
65 years and over	1,218	17.3
Male	445	6.3
Female	773	11.0
RACE		
One race	6,968	99.2
White	5,557	79.1
Black or African American	1,315	18.7
American Indian and Alaska Native	26	0.4
Asian	10	0.1
Asian Indian	3	-
Chinese	1	-
Filipino	-	-
Japanese	-	-
Korean	1	-
Vietnamese	-	-
Other Asian [1]	5	0.1
Native Hawaiian and Other Pacific Islander	1	-
Native Hawaiian	1	-
Guamanian or Chamorro	-	-
Samoan	-	-
Other Pacific Islander [2]	-	-
Some other race	59	0.8
Two or more races	54	0.8
Race alone or in combination with one or more other races: [3]		
White	5,601	79.8
Black or African American	1,333	19.0
American Indian and Alaska Native	49	0.7
Asian	21	0.3
Native Hawaiian and Other Pacific Islander	6	0.1
Some other race	71	1.0

Subject	Number	Percent
HISPANIC OR LATINO AND RACE		
Total population	**7,022**	**100.0**
Hispanic or Latino (of any race)	120	1.7
Mexican	84	1.2
Puerto Rican	5	0.1
Cuban	1	-
Other Hispanic or Latino	30	0.4
Not Hispanic or Latino	6,902	98.3
White alone	5,510	78.5
RELATIONSHIP		
Total population	**7,022**	**100.0**
In households	7,019	100.0
Householder	2,896	41.2
Spouse	1,319	18.8
Child	2,050	29.2
Own child under 18 years	1,461	20.8
Other relatives	490	7.0
Under 18 years	220	3.1
Nonrelatives	264	3.8
Unmarried partner	122	1.7
In group quarters	3	-
Institutionalized population	3	-
Noninstitutionalized population	-	-
HOUSEHOLD BY TYPE		
Total households	**2,896**	**100.0**
Family households (families)	1,924	66.4
With own children under 18 years	821	28.3
Married-couple family	1,319	45.5
With own children under 18 years	542	18.7
Female householder, no husband present	492	17.0
With own children under 18 years	232	8.0
Nonfamily households	972	33.6
Householder living alone	860	29.7
Householder 65 years and over	439	15.2
Households with individuals under 18 years	943	32.6
Households with individuals 65 years and over	945	32.6
Average household size	2.42	(X)
Average family size	3.01	(X)
HOUSING OCCUPANCY		
Total housing units	**3,277**	**100.0**
Occupied housing units	2,896	88.4
Vacant housing units	381	11.6
For seasonal, recreational, or occasional use	7	0.2
Homeowner vacancy rate (percent)	2.2	(X)
Rental vacancy rate (percent)	10.6	(X)
HOUSING TENURE		
Occupied housing units	**2,896**	**100.0**
Owner-occupied housing units	1,975	68.2
Renter-occupied housing units	921	31.8
Average household size of owner-occupied units	2.45	(X)
Average household size of renter-occupied units	2.37	(X)

- Represents zero or rounds to zero. (X) Not applicable.

[1] Other Asian alone, or two or more Asian categories.

[2] Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.

[3] In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.